AUGUST 13, 2020

CALL AND NOTICE OF A REGULAR MEETING
OF THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

NOTICE is hereby given that a regular meeting of the Burbank-Glendale-Pasadena Airport Authority will be held on Monday, August 17, 2020, at 9:00 a.m., in the Airport Skyroom of Hollywood Burbank Airport, 2627 N. Hollywood Way, Burbank, California 91505.

Pursuant to Governor Newsom's Executive Order N-29-20, members of the Commission or staff may participate in this meeting via teleconference. In the interest of maintaining appropriate social distancing, members of the public may observe and participate in the meeting telephonically through the following number:

Dial In: (978) 990-5000

Access Code: 880737#

Terri Williams, Board Secretary
Burbank-Glendale-Pasadena Airport Authority

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

Regular Meeting of Monday, August 17, 2020

9:00 A.M.

The public comment period is the opportunity for members of the public to address the Commission on agenda items and on airport-related non-agenda matters that are within the Commission's subject matter jurisdiction. At the discretion of the presiding officer, public comment on an agenda item may be presented when that item is reached.

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Members of the public are requested to observe the following decorum when attending or participating in meetings of the Commission:

- ***Turn off cellular telephones and pagers.***
- ***Refrain from disorderly or boisterous conduct, including loud, threatening, profane, or abusive language, clapping, whistling, stamping, or other acts that disrupt or otherwise render unfeasible the orderly conduct of the meeting.***
- ***If you desire to address the Commission during the public comment period, fill out a speaker request card and present it to the Board Secretary.***
- ***Confine remarks to agenda items or to airport-related non-agenda matters that are within the Commission's subject matter jurisdiction.***
- ***Limit comments to five minutes or to such other period of time as may be specified by the presiding officer.***

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The following activities are prohibited:

- ***Allocation of speaker time to another person.***
- ***Video presentations requiring use of Authority equipment.***

▼▼▼

Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the Authority to the Commission less than 72 hours prior to that meeting are available for public inspection at Hollywood Burbank Airport (2627 N. Hollywood Way, Burbank) in the administrative office during normal business hours.

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In accordance with the Americans with Disabilities Act of 1990, if you require a disability-related modification or accommodation to attend or participate in this meeting, including auxiliary aids or services, please call the Board Secretary at (818) 840-8840 at least 48 hours prior to the meeting.

AGENDA

Monday, August 17, 2020

1. ROLL CALL

2. PLEDGE OF ALLEGIANCE

3. APPROVAL OF AGENDA

4. PUBLIC COMMENT

5. CONSENT CALENDAR

   a. Committee Minutes
      (For Note and File)

      1) Finance and Administration Committee

         (i) June 15, 2020 ***[See page 1]***

      2) Legal Government and Environmental Affairs Committee

         (i) June 15, 2020 ***[See page 3]***

   b. Commission Minutes
      (For Approval)

      1) July 20, 2020 ***[See page 5]***

   c. Treasurer's Report

      1) May 2020 ***[See page 12]***

   d. Terminal Space Lease – HG Burbank JV dba
      Hudson Group Retail, LLC ***[See page 35]***

   e. Airport Access and Facilities Use Agreement
      Class II & III Operations ***[See page 37]***

6. ITEMS FOR COMMISSION ACTION

   a. Appointment of Committee Assignments ***[No staff report]***

7. ITEMS FOR COMMISSION APPROVAL

   a. Eighth Amendment to Development Ground Lease
      Mercury Air Center-Burbank, Inc., dba Atlantic Aviation ***[See page 39]***

   b. Eleventh Amendment to Lease and Concession Agreement
      MCS Burbank, LLC ***[See page 41]***

c. Professional Services Agreement – Marketing and Brand Support Services *[See page 45]*

d. Professional Services Agreement – Geosyntec Consultants, Inc. *[See page 47]*

e. Access and License Agreement – Lockheed Martin Corporation *[See page 50]*

f. TBI Airport Management – Human Resources Compliance Audit Request for Proposals *[See page 61]*

g. Response to Southern San Fernando Valley Airplane Noise Task Force Recommendations *[See page 79]*

h. Comment Letter for California High-Speed Rail Authority Burbank to Los Angeles Project Section Draft Environmental Impact Report/Environmental Impact Statement *[See page 82]*

8. ITEMS FOR COMMISSION DISCUSSION

a. Financial Performance Update: Recommendation to Continue Concessionaire Relief Support *[No staff report]*

9. ITEMS FOR COMMISSION INFORMATION

a. Presentation by CHSR Authority *[No staff report]*

b. June 2020 Parking Revenue Statistics *[No staff report]*

c. June 2020 Transportation Network Companies *[No staff report]*

d. June 2020 Passenger and Cargo Ground Statistics *[See page 83]*

10. CLOSED SESSION

a. THREAT TO PUBLIC SERVICES OR FACILITIES
(California Government Code Section 54957(a))
Consultation with Director, Public Safety

11. COMMISSIONER COMMENTS
(Other updates and information items, if any)

12. ADJOURNMENT

COMMISSION NEWSLETTER

Monday, August 17, 2020

[Regarding agenda items]

5. CONSENT CALENDAR

(Consent Calendar items may be enacted by one motion. There will be no separate discussion on these items unless a Commissioner so requests, in which event the item will be removed from the Consent Calendar and considered in its normal sequence on the agenda.)

a. COMMITTEE MINUTES. Approved minutes of the Finance and Administration Committee special meeting of June 15, 2020; and the Legal, Government and Environmental Affairs Committee special meeting of June 15, 2020, are included in the agenda packet for information purposes.

b. COMMISSION MINUTES. Draft minutes of the July 20, 2020 Commission meeting are attached for the Commission's review and approval.

c. TREASURER'S REPORT. The Treasurer's Report for May 2020 is included in the agenda packet. At its July 20, 2020, meeting, the Finance and Administration Committee voted unanimously (3–0) to recommend that the Commission note and file this report.

d. TERMINAL SPACE LEASE – HG BURBANK JV dba HUDSON GROUP RETAIL, LLC. A staff report is included in the agenda packet. At its July 20, 2020 meeting, the Finance and Administration Committee unanimously voted (3–0) to recommend that the Commission approve a Terminal Space Lease with HG Burbank JV dba Hudson Group Retail, LLC, retroactive to July 1, 2020, for space to accommodate the installation of kiosks to provide retail sales of personal protective equipment in the public areas of Terminal A and Terminal B at the Airport.

e. AIRPORT ACCESS AND FACILITIES USE AGREEMENT – CLASS II AND CLASS III OPERATIONS. A staff report is included in the agenda packet. At its July 20, 2020 meeting, the Finance and Administration Committee unanimously voted (3–0) to recommend that the Commission approve a revised Airport Access and Facilities Use Agreement templates for Class II (Hotel/Motel Vehicle) Operators and Class III (Off-Airport Parking Lot Vehicle) Operators.

6. ITEMS FOR COMMISSION ACTION

a. APPOINTMENT OF COMMITTEE ASSIGNMENTS. No staff report is attached. This item is included in the agenda to provide the Commission President the opportunity to make any standing or ad hoc committee appointments that he may wish to make. A copy of the current assignments is attached.

7. ITEMS FOR COMMISSION APPROVAL

a. EIGHTH AMENDMENT TO DEVELOPMENT GROUND LEASE – MERCURY AIR CENTER-BURBANK, INC., dba ATLANTIC AVIATION. A staff report is included in the agenda packet. At its meeting on July 20, 2020, the Finance and Administration Committee voted unanimously (3–0) to recommend that the Commission approve a proposed Eighth Amendment to the Development Ground Lease with Mercury Air Center-Burbank, Inc. (dba Atlantic Aviation), to extend the Lease for ten-years to April 30, 2035.

b. ELEVENTH AMENDMENT TO LEASE AND CONCESSION AGREEMENT – MCS BURBANK, LLC. A staff report is included in the agenda packet. At its meeting on July 20, 2020, the Finance and Administration Committee voted unanimously (3–0) to recommend that the Commission approve a proposed Eleventh Amendment to the Lease and Concession Agreement with MCS Burbank LLC. The proposed Amendment revises the expiration of the Agreement from June 30, 2023 to June 30, 2025.

c. PROFESSIONAL SERVICES AGREEMENT – MARKETING AND BRAND SUPPORT SERVICES. A staff report is included in the agenda packet. Subject to the recommendation of the Operations and Development Committee at its meeting immediately preceding the Commission meeting, Staff seeks Commission approval to award a Professional Services Agreement to Anyone Collective, LLC, to provide marketing and brand support services for the Authority's FY 2021 marketing program. The total expenditure under the proposed Agreement will not exceed $60,000 and all services will be completed within FY 2021.

d. PROFESSIONAL SERVICES AGREEMENT – GEOSYNTEC CONSULTANTS, INC. A staff report is included in the agenda packet. At its meeting on July 20, 2020, the Legal, Government & Environmental Affairs Committee voted unanimously (3-0) to approve a proposed Professional Services Agreement with Geosyntec Consultants, Inc., in the amount of $152,000 with an additional $15,200 for project contingency for implementation of the second phase of a State mandated work plan to determine the presence and extent in groundwater of a class of chemical substances commonly known as per- and polyfluoroalkyl substances.

e. ACCESS AND LICENSE AGREEMENT – LOCKHEED MARTIN CORPORATION. A staff report is included in the agenda packet. Staff seeks the Commission's approval of a proposed Access and License Agreement ("Access Agreement") with Lockheed Martin Corporation ("LMCO") in the amount of $7,500. The Access Agreement will allow the Authority (through Geosyntec Consultants, Inc.) to temporarily access six (6) LMCO monitoring wells for implementation of the second phase of a State mandated work plan to determine the presence and extent in groundwater of a class of chemical substances commonly known as per- and polyfluoroalkyl substances.

f. TBI AIRPORT MANAGEMENT - HUMAN RESOURCES COMPLIANCE AUDIT REQUEST FOR PROPOSALS. A staff report is included in the agenda packet. At its meeting of July 20, 2020, the Legal, Government, and Environmental Affairs Committee voted unanimously (3–0) to recommend to the Commission that the Authority participate in a request for proposals, that TBI Airport Management, Inc. ("TBI") is issuing for a human resources compliance audit. TBI will evaluate

proposals with input from the Authority General Counsel and will select and contract with its preferred respondent. The consultant's audit findings will be issued to TBI and the Authority in a confidential legal opinion, and TBI requests that the Authority pay 35% of the consultant's fee up to a maximum of $35,000.

g. RESPONSE TO SOUTHERN SAN FERNANDO VALLEY AIRPLANE NOISE TASK FORCE RECOMMENDATIONS. A staff report is included in the agenda packet. The Southern San Fernando Valley Airplane Noise Task Force recently finalized a series of recommendations to help address community concerns regarding noise generated by aircraft departures from Hollywood Burbank Airport and Van Nuys Airport. Five of the Task Force's sixteen recommendations are specific to the Authority. Staff and legal counsel have drafted a response letter for the Commission's consideration. Staff recommends that the Commission authorize the Executive Director to send the letter to the Task Force.

h. COMMENT LETTER FOR CALIFORNIA HIGH-SPEED RAIL AUTHORITY – BURBANK TO LOS ANGELES PROJECT SECTION DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT. A staff report is included in the agenda packet. Staff seeks authorization from the Commission for the Authority General Counsel's office to send the California High-Speed Rail Authority (CHSRA) the attached comment letter on the Draft Environmental Impact Report/Environmental Impact Statement for the Burbank to Los Angeles Project Section.

8. ITEMS FOR COMMISSION DISCUSSION

a. FINANCIAL PERFORMANCE UPDATE: RECOMMENDATION TO CONTINUE CONCESSIONAIRE RELIEF SUPPORT. No staff report attached. Staff will update the Commission on the Airport's financial performance with a recommendation to continue relief support for in-terminal concessionaires and on-airport rental car companies.

9. ITEMS FOR COMMISSION INFORMATION

a. PRESENTATION BY CHSR AUTHORITY. The California High Speed Rail Authority will provide an update on the status and schedule of their program. The presentation is included in the agenda packet.

b. JUNE 2020 PARKING REVENUE STATISTICS. No staff report attached. Staff will present parking revenue data for the month of June 2020.

c. JUNE 2020 TRANSPORTATION NETWORK COMPANIES. No staff report attached. Staff will update the Commission on TNC activity for the month of June 2020.

d. JUNE 2020 PASSENGER AND CARGO GROUND STATISTICS. A staff report is included in the agenda packet. The June passenger count of 94,891 was down 82% compared to last year's 520,215 passengers. Air carrier aircraft operations decreased 63%, while cargo volume in June was up 22%, at 10.5 million pounds.

MINUTES OF THE SPECIAL MEETING OF THE FINANCE AND ADMINISTRATION COMMITTEE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

MONDAY, JUNE 15, 2020

A special meeting of the Finance and Administration Committee was called to order this date in the Burbank Room of Hollywood Burbank Airport, 2627 N. Hollywood Way, Burbank, California, at 9:00 a.m., by Commissioner Selvidge.

ROLL CALL

Present:	Commissioners Selvidge (via teleconference), Adams, Najarian (via teleconference)
Absent:	None
Also Present:	Staff: John Hatanaka, Senior Deputy Executive Director; Kathy David, Deputy Executive Director, Finance and Administration; David Kwon, Director, Financial Services
1. Approval of Agenda	Agenda was approved as presented.
Motion	Commissioner Adams moved approval of the agenda, seconded by Commissioner Najarian.
Motion Approved	There being no objection, a voice vote was taken to accommodate the Commissioners participating via teleconference. The motion was approved (3–0).
2. Public Comment	There were no public comments.
3. Approval of Minutes	
a. June 1, 2020 **b. May 26, 2020**	Draft minutes for the June 1, 2020, regular meeting and the May 26, 2020 special meeting of the Finance and Administration Committee meeting were presented for approval.
Motion	Commissioner Adams moved approval of the minutes, seconded by Commissioner Najarian.
Motion Approved	There being no objection, a voice vote was taken to accommodate the Commissioners participating via teleconference. The motion was approved (3–0).

4. Treasurer's Report

a. April 2020	A copy of the April 2020 Treasurer's Report was included in the agenda packet for the Committee's review.
Motion	Commissioner Adams moved approval, seconded by Commissioner Najarian.
Motion Approved	There being no objection, a voice vote was taken to accommodate the Commissioners participating via teleconference. The motion was approved (3–0) that it be forwarded to the Commission for note and file.

5. Item for Discussion

a. Fiscal Year ("FY 2021") Budget Status Report	Working with Commissioner Selvidge, staff discussed with the Committee a proposed report to be presented to the Commission regarding the status of the FY 2021 budget during the year.

6. Item for Information

a. Committee Pending Items	Staff informed the Committee of future pending items that will come to the Committee for review.
7. Other Contracts and Leases	There were no other contracts and leases.
8. Adjournment	There being no further business to discuss, the meeting was adjourned at 9:48 a.m.

MINUTES OF THE SPECIAL MEETING OF THE LEGAL, GOVERNMENT AND ENVIRONMENTAL AFFAIRS COMMITTEE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

MONDAY, JUNE 15, 2020

A special meeting of the Legal, Government and Environmental Affairs Committee was called to order on this date in the Airport Skyroom, 2627 N. Hollywood Way, Burbank, California, at 9:00 a.m., by Chairman Wiggins.

ROLL CALL

Present: Commissioners Wiggins, Madison (via teleconference) and Agajanian (via teleconference)

Absent: None

Also Present: Staff: Frank Miller, Executive Director; John Hatanaka, Senior Deputy Executive Director (arrived at 9:50 a.m.); Patrick Lammerding, Deputy Executive Director, Planning and Development (arrived at 9:40 a.m.)

Airport Authority Counsel: Terence R. Boga and Thomas Jimbo (via teleconference) of Richards, Watson and Gershon

TBI Corporate General Counsel, Stephanie Griffin (via Teleconference)

TBI Chief Financial Officer, Keith Robinson (via Teleconference)

1. Approval of Agenda — The agenda was approved as presented.

2. Public Comment — There were no public speakers.

3. Approval of Minutes

a. May 18, 2020 — Commissioner Agajanian (via teleconference) moved approval of the minutes of the May 18, 2020 meeting, seconded by Commissioner Madison (via teleconference). There being no objection, the motion was approved (3-0).

4. Items for Discussion

a. TBI Airport Management Inc. Presentation

Corporate General Counsel Stephanie Griffin, with Chief Financial Officer Keith Robinson of TBI Airport Management, Inc. presented and discussed with the Committee a draft Request for Proposal for Human Resources Auditing Services.

Following the discussion, the Committee along with Airport Authority Counsel, agreed to continue the discussion at the next Committee meeting scheduled for July 20, 2020.

5. Closed Session

Please note Closed Session items were taken in the following order; 5.c.,5. b, and 5. a.

The meeting recessed to closed session at 9:40 a.m. to consider the items listed on the closed session agenda and to confer with legal counsel regarding existing and potential litigation.

a. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Significant Exposure to Litigation (California Government Code Section 54956.9(d)(2)):
1 potential case. Facts and Circumstances: COVID-19 pandemic.

b. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Significant Exposure to Litigation (California Government Code Section 54956.9(d)(2)):
1 potential case. Facts and Circumstances: Environmental Protection Agency (EPA) Claim

c. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Initiation of Litigation (California Government Code Section 54956.9(d)(4)):
1 potential case

The meeting reconvened to open session at 10:15 a.m. with the same Commissioners present. Chairman Wiggins announced that there was no reportable action taken in closed session.

6. Items for Information

a. Committee Pending Items

Staff informed the Committee of future pending items that will come to the Committee for review.

7. Adjournment

There being no further business, the meeting was adjourned at 10:17 a.m.

MINUTES OF THE REGULAR MEETING OF THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

MONDAY, JULY 20, 2020

A regular meeting of the Burbank-Glendale-Pasadena Airport Authority was called to order this date in the Airport Skyroom, 2627 N. Hollywood Way, Burbank, California, at 9:00 a.m., by President Adams.

1. ROLL CALL

Present: Commissioners Brown, Agajanian (via teleconference), Najarian (via teleconference), Tornek (via teleconference), Adams, Devine (via teleconference), Madison (arrived 9:10 a.m., via teleconference), Wiggins and Selvidge

Absent: None

Also Present: Staff: Frank Miller, Executive Director; John Hatanaka, Senior Deputy Executive Director; Tom Janowitz, Sr. Manager, Ground Access; Scott Kimball, Director, Contracts, Properties, Procurement and SMS

2. PLEDGE OF ALLEGIANCE President Adams led the assembly in the recitation of the Pledge of Allegiance to the Flag.

3. APPROVAL OF AGENDA The agenda was approved as presented.

MOTION Commissioner Selvidge moved approval of the agenda; seconded by Commissioner Wiggins.

There being no objection, a voice vote was taken to accommodate those participating via teleconference. The motion was approved (8–0, 1 absent).

MOTION APPROVED

AYES: Commissioners Brown, Agajanian (via teleconference), Najarian (via tele-conference, Tornek (via teleconference), Adams, Devine (via teleconference) Wiggins, and Selvidge

NOES: NONE

ABSENT: Commissioners Madison

4. PUBLIC COMMENTS

There were no public comments.

5. CONSENT CALENDAR

a. Committee Minutes (For Note and File)

1) Finance and Administration Committee

(i) June 1, 2020

(ii) May 26, 2020

Approved minutes of the Finance and Administration Committee meetings for June 1, 2020, and May 26, 2020, were included in the agenda packet for information purposes.

2) Legal, Government and Environmental Affairs Committee

(i) May 18, 2020

Approved minutes of the Legal, Government and Environmental Affairs Committee meeting for May 18, 2020, were included in the agenda packet for information purposes.

b. Commission Minutes (For Approval)

1) June 1, 2020

Minutes of the June 1, 2020, Commission meeting were included in the agenda packet for review and approval.

c. Treasurer's Report

1) April 2020

At its meeting on June 15, the Finance and Administration Committee reviewed the April 2020 Treasurer's report and voted (3–0) to accept the report and recommend it to the Commission for note and file.

d. Ratification of Parkwood Landscape Maintenance, Inc. Service Agreement Amendment

Staff sought from the Commission its ratification of the Executive Director's execution an amendment to the Landscape Maintenance Services Agreement with Parkwood Landscape Maintenance, Inc. ("Parkwood") for a COVID-19 reduced service plan.

In view of the effects COVID-19 has had on revenue producing activity levels at the Airport, Staff requested Parkwood to provide a cost savings proposal reducing the minimum required personnel from four (4) full-time landscape technicians to three (3). This would save the Authority $3,223 per month.

from four (4) full-time landscape technicians to three (3). This would save the Authority $3,223 per month.

Due to exigent circumstances, the Executive Director executed an amendment to the Agreement in June 2020 so that the reduced service plan could go into effect on July 1, 2020.

MOTION

Commissioner Tornek moved approval of the Consent Calendar; seconded by Commissioner Wiggins.

MOTION APPROVED

There being no objection, a voice vote was taken to accommodate those participating via teleconference. The motion was approved (7-0, 1 absent, 1 abstention).

AYES: Commissioners Brown, Agajanian (via teleconference), Najarian (via teleconference), Tornek (via teleconference), Adams, Wiggins and Selvidge.

NOES: NONE

ABSTAINED: Commissioner Devine

ABSENT: Commissioners Madison

6. ITEMS FOR COMMISSION ACTION

a. Election of Officers

The joint powers agreement requires the Commission to elect or re-elect a President, a Vice President and a Secretary at the first meeting of July every year. Although not required to do so, the Commission traditionally also has chosen an Assistant Secretary, Treasurer and Auditor at the first July meeting. Staff recommended that the Commission elect or re-elect all of its officers, including an Assistant Secretary, Treasurer and Auditor.

Commissioner Wiggins nominated Commissioner Selvidge as President, Commissioner Devine as Vice President and Commissioner Brown as Secretary.

MOTION

Commissioner Adams moved approval of the motion; seconded by Commissioner Brown.

MOTION APPROVED

There being no objection, a voice vote was taken to accommodate those participating via teleconference.

The motion was approved (8-0, 1 absent).

AYES: Commissioners Brown, Agajanian (via teleconference), Najarian (via teleconference), Tornek (via teleconference), Adams, Devine (via teleconference), Wiggins and Selvidge

NOES: NONE

ABSENT: Commissioner Madison

NOTE: At this point, newly elected President Selvidge presided over the meeting and opened nominations for the positions of Auditor and Treasurer.

MOTION

Commissioner Tornek nominated Commissioner Agajanian as Treasurer and Commissioner Wiggins as Auditor; seconded by Commissioner Devine.

MOTION APPROVED

There being no objection, a voice vote was taken to accommodate those participating via teleconference. The motion was approved (9-0).

AYES: Commissioners Brown, Agajanian (via teleconference), Najarian (via teleconference), Tornek (via teleconference), Adams, Devine (via teleconference), Madison (via teleconference), Wiggins and Selvidge

NOES: NONE

ABSENT: NONE

b. Appointment of Committees

President Selvidge announced that the Committee assignments would be determined at the next regularly scheduled Commission meeting, thereby giving the Commissioners time to decide if they wished to remain on their current Committee or make another selection.

NOTE: Due to technical difficulties, the meeting was briefly delayed to accommodate the inclusion of Commissioner Madison via teleconference. The motion below pertains to Item 6.a.

MOTION

Commissioner Tornek nominated Executive Director Frank Miller for the position of Assistant Secretary. Commissioner Devine moved approval of the motion; seconded by Commissioner Wiggins.

MOTION APPROVED

There being no objection, a voice vote was taken to accommodate those participating via teleconference.

The motion was approved (9-0).

AYES: Commissioners Brown, Agajanian (via teleconference), Najarian (via teleconference), Tornek (via teleconference), Adams, Devine (via teleconference), Madison (via teleconference), Wiggins and Selvidge

NOES: NONE

ABSENT: NONE

7. ITEMS FOR COMMISSION INFORMATION

a. May 2020 Parking Revenue Statistics

Staff presented an update on the May 2020 parking revenue.

b. May 2020 Transportation Network Companies

Staff presented an update on the May 2020 Transportation Network Companies' activities.

c. May 2020 Passenger and Cargo Ground Statistics

Staff presented an update on the May 2020 Passenger and Cargo Ground statistics.

d. Collective Bargaining Agreement Between TBI Airport Management, Inc. and IAFF Local 1-61

Staff presented to the Commission for information purposes the results of a Collective Bargaining Agreement between TBI Airport Management, Inc. and IAFF Local 1-61, the firefighters at the Airport. The new 3-year Agreement was effective July 1, 2020–June 30, 2023. The new agreement provides for a 3% increase for each year of the agreement and was ratified by the Union on June 27, 2020. This covers 18 employees of the Fire Department.

At this time, President Selvidge recognized Commissioner Adams for his services as president of the Commission for FY 2019-2020 and presented him with a plaque.

8. ITEMS FOR COMMISSION DISCUSSION

a. Update: COVID-19 Impact Report

Staff presented various steps taken at the Airport to ensure the safety and well-being of the traveling public during the COVID-19 pandemic, such as implementing California Face Covering Requirements, the installation of PPE vending machines in Terminal A and Terminal B, and the distribution of free face coverings to all Airport employees and passengers who may need them. Staff also continued to update the Commission on how COVID-19 has impacted the airlines' daily flight

schedules, cargo operations, and concessions serving the Airport.

b. Community Noise Concerns

Staff updated the Commission on the status of activities of the Joint Task Force established by Hollywood Burbank Airport and Los Angeles World Airports ("LAWA") to work with the Federal Aviation Administration in addressing community noise concerns.

The seventh meeting was held virtually over two evenings, May 6th and 7th, 2020. Final comments were made by community groups, Federal representatives and the public. The meeting was recessed until a later date.

Agenda and videos of the Task Force meetings have been posted to both the LAWA and Hollywood Burbank Airport websites.

At this time, Commissioner Tornek announced that he will be resigning from his position as Commissioner on the Airport Board of Commissioners in order to focus more intensely on his duties as Mayor of the City of Pasadena, and that this would be his last meeting.

9. CLOSED SESSION

The meeting adjourned to close session at 9:56 a.m.

a. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION Significant Exposure to Litigation (California Government Code Section 54956.9(d)(2)): 1 potential case. Facts and Circumstances: FAA Southern California Metroplex Project

Meeting Reconvened to Open Session

The meeting reconvened to open session at 10:32 a.m., with all 4 Commissioners present and 5 connected via teleconference.

Closed Session Report

No reportable action taken on the presented item.

10. COMMISSIONER COMMENTS

There being no further business, the meeting was adjourned at 10:33 a.m.

11. ADJOURNMENT

MOTION

Commissioner Wiggins moved approval of the motion; seconded by Commissioner Devine.

MOTION APPROVED

There being no objection, a voice vote was taken to accommodate those participating via teleconference. The motion was approved (9–0).

AYES: Commissioners Brown, Agajanian (via teleconference), Najarian (via teleconference), Tornek (via teleconference), Devine (via teleconference), Madison (via teleconference) Adams, Wiggins and Selvidge

NOES: NONE

ABSENT: NONE

Ross Selvidge, President	Don Brown, Secretary
Date	Date

August 17, 2020

Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, CA 91505

Dear Commissioners:

The attached report, covering the month of May 2020, fulfills the legal requirements of the California Code and our Investment Policy. Based on projected income and expenses, as well as investment liquidity, there will be sufficient funds available to meet the needs of the Airport Authority for the six month period following the date of the attached report.

Sincerely,

[To be signed]

Paula Devine
Treasurer

Attachments

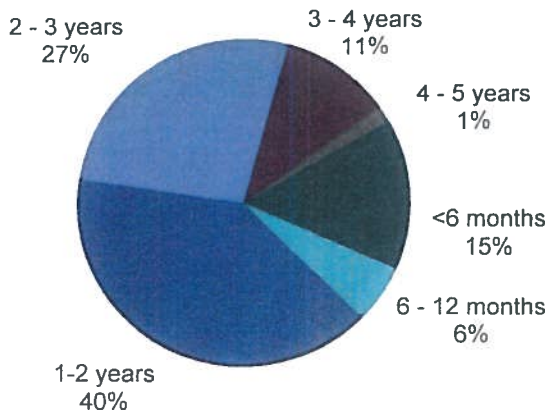
2627 N. Hollywood Way • Burbank, California 91505 • (818) 840-8840 • Fax: (818) 848-1173

COLUMBIA THREADNEEDLE INVESTMENTS

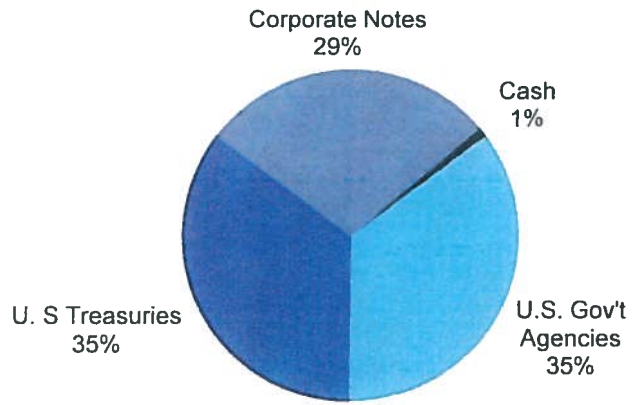
Operating Portfolio Investment Guidelines Conformance
as of May 31, 2020

	Legal Max Maturity	Actual Max Maturity	Policy Maximum	Policy Actual
U.S. Gov Agencies	5 Years	3.28 Years	70%	35%
Corporate Notes	5 Years	4.75 Years	30%	29%
LAIF	N/A	N/A	$20 mil	N/A
Bankers Acceptances	6 Months	N/A	15%	N/A
Negotiable Certificates of Deposit	5 Years	N/A	15%	N/A
Non-Negotiable Certificates of Deposit	5 Years	N/A	15%	N/A
Commercial Paper	270 Days	N/A	15%	N/A
Repurchase Agreements	1 Year	N/A	10%	N/A
Money Market Fund	N/A	N/A	15%	1%
U.S. Gov Securities (Treasuries)	5 Years	3.50 Years	No Limit	35%

Maturity Distribution



Sector Allocation



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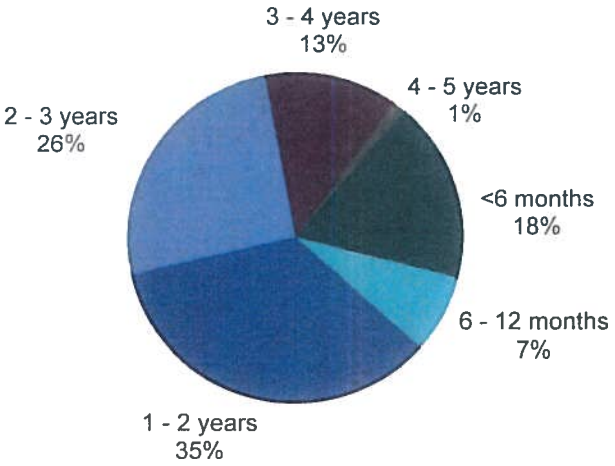
COLUMBIA THREADNEEDLE INVESTMENTS

PFC Portfolio Investment Guidelines Conformance

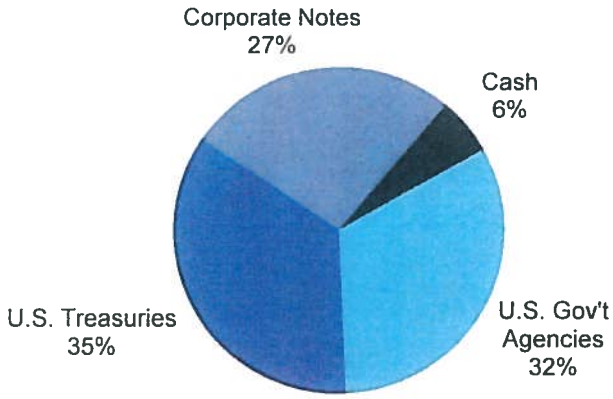
as of May 31, 2020

	Legal Max Maturity	Actual Max Maturity	Policy Maximum	Policy Actual
U.S. Gov Agencies	5 Years	3.28 Years	70%	32%
Corporate Notes	5 Years	4.34 Years	30%	27%
LAIF	N/A	N/A	$20 mil	N/A
Bankers Acceptances	6 Months	N/A	15%	N/A
Negotiable Certificates of Deposit	5 Years	N/A	15%	N/A
Non-Negotiable Certificates of Deposit	5 Years	N/A	15%	N/A
Commercial Paper	270 Days	N/A	15%	N/A
Repurchase Agreements	1 Year	N/A	10%	N/A
Money Market Fund	N/A	N/A	15%	6%
U.S. Gov Securities (Treasuries)	5 Years	3.50 Years	No Limit	35%

Maturity Distribution



Sector Allocation



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Burbank-Glendale-Pasadena Airport Authority - Operating Account
Statement of Investments
As of 05/31/20

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Eff. Mat. Date	Par Value	Purchase Cost	Market Value	Unrealized Gain/Loss	YTM	Days to Eff. Mat.	% Mkt Value
05/31/20	Columbia Treasury Reserves	097101307	0.000	05/31/20	05/31/20	$ 1,972,668	$ 1,972,668	$ 1,972,668	$ -	0.00%	0	0.86%
04/24/18	Wells Fargo & Company	949746RT0	3.240	03/04/21	06/04/20	1,300,000	1,330,534	1,307,043	(23,491)	1.01%	4	0.57%
04/28/16	American Express Credit Corp	0258M0DY2	3.169	09/14/20	06/14/20	1,000,000	1,007,630	1,001,623	(6,007)	0.93%	14	0.43%
06/24/19	Prudential Financial Inc	74432QBM6	5.375	06/21/20	06/21/20	870,000	896,109	872,168	(23,941)	1.27%	21	0.38%
03/22/18	FFCB	3133EHZK2	1.708	09/25/20	06/25/20	5,000,000	5,002,955	5,000,840	(2,115)	0.13%	25	2.17%
04/24/18	US Bank NA	90331HNQ2	2.256	04/26/21	07/26/20	1,175,000	1,175,000	1,175,083	83	0.78%	56	0.51%
01/16/19	Commonwealth Edison Company	202795HV5	4.000	08/01/20	08/01/20	680,000	688,833	681,485	(7,348)	2.69%	62	0.30%
06/24/19	Manufacturers & Traders Trust Co	55279HAN0	2.050	08/17/20	08/17/20	1,000,000	998,870	1,001,785	2,915	1.22%	78	0.43%
05/04/17	State Street Corporation	857477AS2	2.550	08/18/20	08/18/20	1,200,000	1,223,507	1,205,587	(17,920)	0.42%	79	0.52%
06/13/18	FHLB	3130ACE26	1.375	09/28/20	09/28/20	3,250,000	3,160,134	3,262,557	102,423	0.34%	120	1.42%
04/21/16	Travelers Cos Inc	89417EAG4	3.900	11/01/20	11/01/20	900,000	984,933	912,061	(72,872)	0.71%	154	0.40%
02/21/17	Ace InA Holdings Inc	00440EAT4	2.300	11/03/20	11/03/20	1,000,000	1,000,960	1,005,960	5,000	0.90%	156	0.44%
04/02/18	Coca-Cola Company (The)	191216AR1	3.150	11/15/20	11/15/20	1,300,000	1,315,548	1,316,332	784	0.42%	168	0.57%
03/08/16	Public Service Company of Colorado	744448CD1	3.200	11/15/20	11/15/20	1,080,000	1,135,784	1,082,084	(53,700)	2.77%	168	0.47%
11/01/17	Treasury Note	912828PC8	2.625	11/15/20	11/15/20	8,000,000	8,211,250	8,089,062	(122,188)	0.21%	168	3.51%
06/25/18	Chevron Corp	166764AY6	2.419	11/17/20	11/17/20	1,050,000	1,039,037	1,058,136	19,099	0.75%	170	0.46%
01/12/18	FHLMC Reference Bond	3137EAEK1	1.875	11/17/20	11/17/20	4,000,000	3,968,800	4,031,832	63,032	0.17%	170	1.75%
03/06/18	Exxon Mobil Corp	30231GAV4	2.222	03/01/21	03/01/21	1,050,000	1,035,930	1,062,749	26,819	0.62%	274	0.46%
11/10/17	Praxair Inc	74005PAY0	4.050	03/15/21	03/15/21	404,000	429,143	415,330	(13,813)	0.51%	288	0.18%
01/25/18	Bank of New York Mellon Corp	06406FAA1	2.500	04/15/21	04/15/21	1,225,000	1,216,443	1,244,179	27,736	0.71%	319	0.54%
12/05/16	PNC Bank NA	6935REW4	2.150	04/29/21	04/29/21	1,450,000	1,436,649	1,470,009	33,360	0.64%	333	0.64%
06/13/18	FNMA	3135G0K69	1.250	05/06/21	05/06/21	3,000,000	2,883,300	3,029,480	146,180	0.20%	340	1.31%
12/21/18	General Dynamics Corporation	369550BE7	3.000	05/11/21	05/11/21	1,300,000	1,305,578	1,331,518	25,940	0.44%	345	0.58%
03/01/18	Fifth Third Bank	31677QBG3	2.250	06/14/21	06/14/21	1,000,000	977,850	1,015,223	37,373	0.78%	379	0.44%
06/20/18	WalMart Inc	931142EJ8	3.125	06/23/21	06/23/21	1,300,000	1,299,935	1,336,941	37,006	0.45%	388	0.58%
05/31/18	Treasury Note	912828WR7	2.125	06/30/21	06/30/21	12,500,000	12,338,867	12,759,766	420,899	0.21%	395	5.53%
10/05/17	Florida Power Corporation	341099CP2	3.100	08/15/21	08/15/21	705,000	728,709	721,704	(7,005)	1.12%	441	0.31%
05/31/19	FNMA Benchmark Note	3135G0N82	1.250	08/17/21	08/17/21	300,000	295,398	303,894	8,496	0.18%	443	0.13%
08/07/18	3M Company	88579YAU5	1.625	09/19/21	09/19/21	1,000,000	960,330	1,015,171	54,841	0.46%	476	0.44%
08/31/18	Treasury Note	912828T34	1.125	09/30/21	09/30/21	2,300,000	2,200,367	2,328,840	128,473	0.19%	487	1.01%
12/23/16	Federal Home Loan Banks	3130AABG2	1.875	11/29/21	11/29/21	15,000,000	14,742,129	15,378,376	636,247	0.19%	547	6.67%
01/23/17	Pfizer Inc	717081DZ3	2.200	12/15/21	12/15/21	1,500,000	1,498,845	1,545,744	46,899	0.22%	563	0.67%
04/15/19	FNMA Benchmark Note	3135G0S38	2.000	01/05/22	01/05/22	3,800,000	3,812,172	3,908,096	95,924	0.22%	584	1.70%
06/23/17	FHLMC	3137EADB2	2.375	01/13/22	01/13/22	8,125,000	8,173,493	8,410,267	236,774	0.21%	592	3.65%
01/23/17	Comcast Corporation	20030NBV2	1.625	01/15/22	01/15/22	1,500,000	1,437,900	1,530,559	92,659	0.37%	594	0.66%
06/26/19	Target Corporation	87612EAZ9	2.900	01/15/22	01/15/22	1,300,000	1,329,214	1,355,715	26,501	0.26%	594	0.59%
08/15/18	Berkshire Hathaway Finance Corp	084670BF4	3.400	01/31/22	01/31/22	1,500,000	1,521,795	1,574,691	52,896	0.24%	610	0.68%
02/03/17	Treasury Note	912828H86	1.500	01/31/22	01/31/22	2,450,000	2,386,645	2,503,785	117,140	0.19%	610	1.09%

Burbank-Glendale-Pasadena Airport Authority - Operating Account
Statement of Investments
As of 05/31/20

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Eff. Mat. Date	Par Value	Purchase Cost	Market Value	Unrealized Gain/Loss	YTM	Days to Eff. Mat.	% Mkt Value
08/06/18	PacifiCorp	695114CP1	2.950	02/01/22	02/01/22	1,000,000	991,823	1,033,638	41,815	0.92%	611	0.45%
11/05/18	Microsoft Corporation	594918BA1	2.375	02/12/22	02/12/22	1,225,000	1,199,000	1,267,937	68,937	0.31%	622	0.55%
02/21/17	Walt Disney Co	25468PCT1	2.550	02/15/22	02/15/22	1,300,000	1,309,135	1,339,825	30,690	0.74%	625	0.58%
09/28/17	FHLB	313378CR0	2.250	03/11/22	03/11/22	4,000,000	4,059,140	4,142,988	83,848	0.24%	649	1.80%
04/09/19	Medtronic Inc	585055BR6	3.150	03/15/22	03/15/22	1,250,000	1,267,863	1,309,422	41,559	0.49%	653	0.57%
04/17/17	BB&T Corp	05531FAX1	2.750	04/01/22	04/01/22	1,250,000	1,263,379	1,293,325	29,946	0.85%	670	0.56%
05/18/17	Federal National Mortgage Association	3135G0T45	1.875	04/05/22	04/05/22	8,300,000	8,166,654	8,556,401	389,747	0.20%	674	3.71%
01/31/19	Treasury Note	912828X47	1.875	04/30/22	04/30/22	9,475,000	9,301,015	9,782,567	481,552	0.18%	699	4.24%
05/06/19	Apple Inc	037833CQ1	2.300	05/11/22	05/11/22	1,250,000	1,241,250	1,295,284	54,034	0.43%	710	0.56%
01/15/19	Oracle Corporation	68389XBB0	2.500	05/15/22	05/15/22	1,265,000	1,243,561	1,309,080	65,519	0.71%	714	0.57%
10/03/17	Home Depot Inc	437076BG6	2.625	06/01/22	06/01/22	1,200,000	1,214,701	1,251,255	36,554	0.48%	731	0.54%
09/25/17	Caterpillar Financial Services	14913QAA7	2.400	06/06/22	06/06/22	1,250,000	1,243,941	1,292,599	48,658	0.70%	736	0.56%
02/15/19	Cisco Systems Inc	17275RAV4	3.000	06/15/22	06/15/22	1,200,000	1,210,416	1,263,314	52,898	0.41%	745	0.55%
08/01/17	Treasury Note	912828XQ8	2.000	07/31/22	07/31/22	9,850,000	9,706,887	10,239,383	532,496	0.18%	791	4.44%
11/01/19	Procter & Gamble Company	742718EU9	2.150	08/11/22	08/11/22	1,275,000	1,290,912	1,326,701	35,789	0.30%	802	0.58%
02/15/19	Burlington Northern Santa Fe LLC	12189LAL5	3.050	09/01/22	09/01/22	1,200,000	1,211,382	1,262,625	51,243	0.71%	823	0.55%
01/09/19	John Deere Capital Corp	24422ETV1	2.150	09/08/22	09/08/22	1,250,000	1,200,988	1,293,883	92,895	0.59%	830	0.56%
05/18/18	Merck & Co Inc	589331AT4	2.400	09/15/22	09/15/22	1,500,000	1,448,385	1,560,484	112,099	0.63%	837	0.68%
09/25/17	National Rural Utilities Coop	63743HEQ1	2.300	09/15/22	09/15/22	1,000,000	995,980	1,033,588	37,608	0.82%	837	0.45%
10/03/17	Treasury Note	9128282W9	1.875	09/30/22	09/30/22	9,125,000	9,098,667	9,485,010	386,343	0.18%	852	4.11%
09/12/19	FNMA	3135G0T78	2.000	10/05/22	10/05/22	4,500,000	4,543,965	4,685,830	141,865	0.24%	857	2.03%
07/25/18	Bank of America Corp	06051GEU9	3.300	01/11/23	01/11/23	1,675,000	1,655,367	1,772,248	116,881	1.04%	955	0.77%
09/26/19	Federal National Mortgage Association	3135G0T94	2.375	01/19/23	01/19/23	4,800,000	4,919,052	5,069,350	150,298	0.24%	963	2.20%
03/20/19	JP Morgan Chase & CO	46625HJH4	3.200	01/25/23	01/25/23	1,825,000	1,843,112	1,931,778	88,666	0.96%	969	0.84%
10/31/19	Treasury Note	9128283U2	2.375	01/31/23	01/31/23	4,200,000	4,309,594	4,444,781	135,187	0.19%	975	1.93%
02/14/19	IBM Corp	44932HAH6	3.000	02/06/23	02/06/23	1,225,000	1,222,811	1,300,568	77,757	0.68%	981	0.56%
03/18/19	Unitedhealth Group Inc	91324PBZ4	2.750	02/15/23	02/15/23	1,365,000	1,371,071	1,439,216	68,145	0.72%	990	0.62%
10/02/19	Pepsico Inc	713448CG1	2.750	03/01/23	03/01/23	1,300,000	1,344,486	1,376,446	31,960	0.60%	1004	0.60%
12/03/19	Treasury Note	9128284L1	2.750	04/30/23	04/30/23	6,850,000	7,104,980	7,357,863	252,883	0.20%	1064	3.19%
06/06/19	Public Service Electric And Gas	74456QBC9	2.375	05/15/23	05/15/23	1,125,000	1,125,878	1,179,959	54,081	0.71%	1079	0.51%
02/04/19	Simon Property Group LP	828807DD6	2.750	06/01/23	06/01/23	1,250,000	1,234,086	1,255,824	21,738	2.59%	1096	0.54%
05/05/20	Federal Home Loan Mortgage Corp	3137EAEN5	2.750	06/19/23	06/19/23	6,250,000	6,718,056	6,719,444	1,388	0.28%	1114	2.91%
01/21/20	FNMA	3135G0U43	2.875	09/12/23	09/12/23	4,650,000	4,862,583	5,043,820	181,237	0.28%	1199	2.19%
07/31/19	Treasury Note	9128285D8	2.875	09/30/23	09/30/23	6,775,000	7,065,869	7,373,635	307,766	0.22%	1217	3.20%
03/16/20	Treasury Note	9128285P1	2.875	11/30/23	11/30/23	2,500,000	2,716,308	2,730,859	14,551	0.23%	1278	1.18%
03/20/19	Citibank NA	17325FAS7	3.650	01/23/24	01/23/24	1,750,000	1,806,514	1,910,344	103,830	1.08%	1332	0.83%
10/31/19	Honeywell International Inc	438516BW5	2.300	08/15/24	08/15/24	1,250,000	1,275,020	1,329,536	54,516	0.76%	1537	0.58%
05/12/20	Intel Corp	458140BP4	3.400	03/25/25	03/25/25	1,000,000	1,106,179	1,123,186	17,007	0.79%	1759	0.49%

Burbank-Glendale-Pasadena Airport Authority - Operating Account
Statement of Investments
As of 05/31/20

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Eff. Mat. Date	Par Value	Purchase Cost	Market Value	Unrealized Gain/Loss	YTM	Days to Eff. Mat.	% Mkt Value
05/05/20	Florida Power & Light Company	341081FZ5	2.850	04/01/25	04/01/25	1,000,000	1,086,929	1,089,500	2,571	0.95%	1766	0.47%
		Subtotal				**$211,941,668**	**$213,100,183**	**$219,691,839**	**$ 6,591,656**	**0.37%**	**667**	**95.29%**
	Local Agency Investment Fund (LAIF)					10,780,370	10,780,370	10,861,018	80,648	1.36%	191	4.71%
		Subtotal				**$222,722,038**	**$223,880,553**	**$230,552,857**	**$ 6,672,304**	**0.41%**	**645**	**100.00%**
	Operating Bank Balance						3,199,946					
		TOTAL					**$227,080,499**					

Burbank-Glendale-Pasadena Airport Authority - Operating Account
Statement of Purchases - Maturities - Sales
As of 05/31/20

PURCHASES

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Par Value	Purchase Price	Purchase Cost	Prepaid Interest
05/05/20	Citibank NA	17325FAS7	3.650	01/23/24	250,000.00	107.97200	$ 269,930.00	$ (2,636.11)
05/05/20	Federal Home Loan Mortgage Corp	3137EAEN5	2.750	06/19/23	6,250,000.00	107.48890	6,718,056.25	(65,407.99)
05/05/20	Florida Power & Light Company	341081FZ5	2.850	04/01/25	1,000,000.00	108.69300	1,086,930.00	(3,166.67)
05/12/20	Intel Corp	458140BP4	3.400	03/25/25	1,000,000.00	110.61800	1,106,180.00	(4,627.78)
							-	
							-	
							-	
							-	
							-	
							-	
							-	
TOTAL PURCHASES					$ 8,500,000.00		$ 9,181,096.25	$ (75,838.55)

MATURITIES

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Par Value	Purchase Price	Purchase Cost	Gain / (Loss)
07/25/18	FHLMC Reference Notes	3137EADR7	1.375	05/01/20	$ 6,375,000.00	98.92113	$ 6,306,222.00	$ 68,778.00
05/11/17	Intel Corp	458140AZ3	1.850	05/11/20	1,000,000.00	99.96200	999,620.00	380.00
07/03/18	QualComm Inc	747525AL7	2.449	05/20/20	500,000.00	100.50500	502,525.00	(2,525.00)
							-	-
							-	-
							-	-
TOTAL MATURITIES					$ 7,875,000.00		$ 7,808,367.00	$ 66,633.00

SALES / REDEMPTIONS

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Sale Date	Par Value	Sale Price	Sale Amount	Purchase Cost	Gain / (Loss)
								$ -		$ -
								-		-
								-		-
								-		-
TOTAL SALES						$ -		$ -	$ -	$ -

Burbank-Glendale-Pasadena Airport Authority - Operating Account
Earnings Report
05/01/20-05/31/20

Type of Investment		Coupon	Maturity Date	Previous Accrual	Realized Interest For Period	Interest Paid At Purc/Recv	Current Accrual	Interest Earned	Amrt/Accrt For Period	Adjusted Total Int. Earned
FIXED INCOME										
FHLMC Reference Notes	NOTE	1.375	05/01/20	43,828.13	43,828.13	-	-	-	-	-
Intel Corp	NOTE	1.850	05/11/20	8,736.11	9,250.00	-	-	513.89	-	513.89
QualComm Inc	NOTE	2.449	05/20/20	2,213.45	2,805.79	-	-	592.34	-	592.34
Prudential Financial Inc	NOTE	5.375	06/21/20	16,886.46	-	-	20,783.33	3,896.87	(2,206.37)	1,690.50
Commonwealth Edison Company	NOTE	4.000	08/01/20	6,800.00	-	-	9,066.67	2,266.67	(479.20)	1,787.47
Manufacturers & Traders Trust Co	NOTE	2.050	08/17/20	4,213.89	-	-	5,922.22	1,708.33	88.98	1,797.31
State Street Corporation	NOTE	2.550	08/18/20	6,205.00	-	-	8,755.00	2,550.00	(583.08)	1,966.92
American Express Credit Corp	NOTE	3.169	09/14/20	2,387.32	-	-	3,929.16	1,541.84	(165.74)	1,376.10
FFCB	NOTE	1.708	09/25/20	406.04	2,030.21	-	163.58	1,787.75	(99.89)	1,687.86
FHLB	NOTE	1.375	09/28/20	4,096.35	-	-	7,820.31	3,723.96	3,304.08	7,028.04
Travelers Cos Inc	NOTE	3.900	11/01/20	17,550.00	17,550.00	-	2,925.00	2,925.00	(1,581.68)	1,343.32
Ace InA Holdings Inc	NOTE	2.300	11/03/20	11,372.22	11,500.00	-	1,788.89	1,916.67	(22.12)	1,894.55
Coca-Cola Company (The)	NOTE	3.150	11/15/20	18,882.50	20,475.00	-	1,820.00	3,412.50	(495.71)	2,916.79
Public Service Company of Colorado	NOTE	3.200	11/15/20	15,936.00	17,280.00	-	1,535.99	2,879.99	(1,005.10)	1,874.89
Treasury Note	NOTE	2.625	11/15/20	96,923.08	105,000.00	-	9,701.09	17,778.01	(5,899.77)	11,878.24
Chevron Corp	NOTE	2.419	11/17/20	11,570.88	12,699.75	-	987.76	2,116.63	405.08	2,521.71
FHLMC Reference Bond	NOTE	1.875	11/17/20	34,166.67	37,500.00	-	2,916.67	6,250.00	916.75	7,166.75
Exxon Mobil Corp	NOTE	2.222	03/01/21	3,888.50	-	-	5,832.76	1,944.26	448.47	2,392.73
Wells Fargo & Company	NOTE	3.240	03/04/21	5,432.47	-	-	8,336.03	2,903.56	(1,065.58)	1,837.98
Praxair Inc	NOTE	4.050	03/15/21	2,090.70	-	-	3,454.20	1,363.50	(625.71)	737.79
Bank of New York Mellon Corp	NOTE	2.500	04/15/21	1,361.11	-	-	3,913.19	2,552.08	269.73	2,821.81
US Bank NA	NOTE	2.256	04/26/21	214.01	-	-	1,540.87	1,326.86	-	1,326.86
PNC Bank NA	NOTE	2.150	04/29/21	173.19	-	-	2,771.11	2,597.92	220.40	2,818.32
FNMA	NOTE	1.250	05/06/21	18,229.17	18,750.00	-	2,604.17	3,125.00	3,359.89	6,484.89
General Dynamics Corporation	NOTE	3.000	05/11/21	18,416.67	19,500.00	-	2,166.67	3,250.00	(332.51)	2,917.49
Fifth Third Bank	NOTE	2.250	06/14/21	8,562.50	-	-	10,437.50	1,875.00	578.33	2,453.33
WalMart Inc	NOTE	3.125	06/23/21	14,444.44	-	-	17,829.86	3,385.42	1.81	3,387.23
Treasury Note	NOTE	2.125	06/30/21	89,028.16	-	-	111,650.07	22,621.91	4,440.10	27,062.01
Florida Power Corporation	NOTE	3.100	08/15/21	4,613.83	-	-	6,435.08	1,821.25	(547.13)	1,274.12
FNMA Benchmark Note	NOTE	1.250	08/17/21	770.83	-	-	1,083.33	312.50	173.88	486.38
3M Company	NOTE	1.625	09/19/21	1,895.83	-	-	3,250.00	1,354.17	1,091.83	2,446.00
Treasury Note	NOTE	1.125	09/30/21	2,191.60	-	-	4,383.20	2,191.60	2,806.68	4,998.28
Federal Home Loan Banks	NOTE	1.875	11/29/21	118,750.01	140,625.00	-	1,562.51	23,437.50	5,398.50	28,836.00
Pfizer Inc	NOTE	2.200	12/15/21	12,466.67	-	-	15,216.67	2,750.00	19.66	2,769.66
FNMA Benchmark Note	NOTE	2.000	01/05/22	24,488.89	-	-	30,822.22	6,333.33	(415.73)	5,917.60
FHLMC	NOTE	2.375	01/13/22	57,784.60	-	-	74,218.75	16,434.15	(418.13)	16,016.02
Comcast Corporation	NOTE	1.625	01/15/22	7,177.08	-	-	9,208.33	2,031.25	1,057.32	3,088.57

Burbank-Glendale-Pasadena Airport Authority - Operating Account
Earnings Report
05/01/20-05/31/20

Type of Investment		Coupon	Maturity Date	Previous Accrual	Realized Interest For Period	Interest Paid At Purc/Recv	Current Accrual	Interest Earned	Amrt/Accrt For Period	Adjusted Total Int. Earned
Target Corporation	NOTE	2.900	01/15/22	11,100.56	-	-	14,242.23	3,141.67	(1,010.96)	2,130.71
Berkshire Hathaway Finance Corp	NOTE	3.400	01/31/22	12,891.67	-	-	17,141.67	4,250.00	(526.03)	3,723.97
Treasury Note	NOTE	1.500	01/31/22	9,187.50	-	-	12,317.30	3,129.80	1,216.68	4,346.48
PacifiCorp	NOTE	2.950	02/01/22	7,375.00	-	-	9,833.33	2,458.33	211.03	2,669.36
Microsoft Corporation	NOTE	2.375	02/12/22	6,384.47	-	-	8,808.94	2,424.47	689.34	3,113.81
Walt Disney Co	NOTE	2.550	02/15/22	6,998.33	-	-	9,760.83	2,762.50	(185.71)	2,576.79
FHLB	NOTE	2.250	03/11/22	12,500.00	-	-	20,000.00	7,500.00	(1,107.38)	6,392.62
Medtronic Inc	NOTE	3.150	03/15/22	5,031.25	-	-	8,312.50	3,281.25	(508.42)	2,772.83
BB&T Corp	NOTE	2.750	04/01/22	2,864.59	-	-	5,729.16	2,864.57	(307.91)	2,556.66
Federal National Mortgage Association	NOTE	1.875	04/05/22	11,239.58	-	-	24,208.33	12,968.75	3,245.57	16,214.32
Treasury Note	NOTE	1.875	04/30/22	482.76	-	-	15,448.37	14,965.61	4,595.06	19,560.67
Apple Inc	NOTE	2.300	05/11/22	13,576.39	14,375.00	-	1,597.22	2,395.83	249.28	2,645.11
Oracle Corporation	NOTE	2.500	05/15/22	14,582.64	15,812.50	-	1,405.56	2,635.42	552.24	3,187.66
Home Depot Inc	NOTE	2.625	06/01/22	13,125.01	-	-	15,750.00	2,624.99	(330.39)	2,294.60
Caterpillar Financial Services	NOTE	2.400	06/06/22	12,083.34	-	-	14,583.34	2,500.00	167.31	2,667.31
Cisco Systems Inc	NOTE	3.000	06/15/22	13,600.00	-	-	16,600.00	3,000.00	(261.49)	2,738.51
Treasury Note	NOTE	2.000	07/31/22	49,250.00	-	-	66,027.48	16,777.48	3,463.53	20,241.01
Procter & Gamble Company	NOTE	2.150	08/11/22	6,091.67	-	-	8,376.04	2,284.37	(479.28)	1,805.09
Burlington Northern Santa Fe LLC	NOTE	3.050	09/01/22	6,100.00	-	-	9,150.00	3,050.00	(347.90)	2,702.10
John Deere Capital Corp	NOTE	2.150	09/08/22	3,956.60	-	-	6,196.18	2,239.58	1,116.46	3,356.04
Merck & Co Inc	NOTE	2.400	09/15/22	4,600.00	-	-	7,600.00	3,000.00	1,127.79	4,127.79
National Rural Utilities Coop	NOTE	2.300	09/15/22	2,938.89	-	-	4,855.56	1,916.67	68.52	1,985.19
Treasury Note	NOTE	1.875	09/30/22	14,491.54	-	-	28,983.10	14,491.56	464.11	14,955.67
FNMA	NOTE	2.000	10/05/22	6,500.00	-	-	14,000.00	7,500.00	(1,196.87)	6,303.13
Bank of America Corp	NOTE	3.300	01/11/23	16,889.58	-	-	21,495.83	4,606.25	368.89	4,975.14
Federal National Mortgage Association	NOTE	2.375	01/19/23	32,300.00	-	-	41,800.00	9,500.00	(3,063.14)	6,436.86
JP Morgan Chase & CO	NOTE	3.200	01/25/23	15,573.33	-	-	20,440.00	4,866.67	(393.60)	4,473.07
Treasury Note	NOTE	2.375	01/31/23	24,937.50	-	-	33,432.69	8,495.19	(2,862.18)	5,633.01
IBM Corp	NOTE	3.000	02/06/23	8,677.08	-	-	11,739.58	3,062.50	24.10	3,086.60
Unitedhealth Group Inc	NOTE	2.750	02/15/23	7,924.59	-	-	11,052.70	3,128.11	(205.07)	2,923.04
Pepsico Inc	NOTE	2.750	03/01/23	5,958.33	-	-	8,937.50	2,979.17	(1,087.68)	1,891.49
Treasury Note	NOTE	2.750	04/30/23	511.89	-	-	16,380.43	15,868.54	(6,471.79)	9,396.75
Public Service Electric And Gas	NOTE	2.375	05/15/23	12,320.31	13,359.38	-	1,187.50	2,226.57	(19.86)	2,206.71
Simon Property Group LP	NOTE	2.750	06/01/23	14,322.91	-	-	17,187.50	2,864.59	311.51	3,176.10
Federal Home Loan Mortgage Corp	NOTE	2.750	06/19/23	-	-	65,407.99	77,343.75	11,935.76	(10,419.77)	1,515.99
FNMA	NOTE	2.875	09/12/23	18,196.35	-	-	29,336.98	11,140.63	(4,868.34)	6,272.29
Treasury Note	NOTE	2.875	09/30/23	16,497.87	-	-	32,995.73	16,497.86	(6,212.31)	10,285.55
Treasury Note	NOTE	2.875	11/30/23	30,046.11	35,937.50	-	196.38	6,087.77	(4,956.07)	1,131.70

Burbank-Glendale-Pasadena Airport Authority - Operating Account
Earnings Report
05/01/20-05/31/20

Type of Investment		Coupon	Maturity Date	Previous Accrual	Realized Interest For Period	Interest Paid At Purc/Recv	Current Accrual	Interest Earned	Amrt/Accrt For Period	Adjusted Total Int. Earned
Citibank NA	NOTE	3.650	01/23/24	14,904.17	-	2,636.11	22,711.11	5,170.83	(1,012.99)	4,157.84
Honeywell International Inc	NOTE	2.300	08/15/24	6,069.45	-	-	8,465.28	2,395.83	(452.34)	1,943.49
Intel Corp	NOTE	3.400	03/25/25	-	-	4,627.78	6,233.33	1,605.55	(1,048.84)	556.71
Florida Power & Light Company	NOTE	2.850	04/01/25	-	-	3,166.67	5,066.67	1,900.00	(1,203.18)	696.82
	Subtotal			**$ 1,166,235.62**	**$ 538,278.26**	**$ 75,838.55**	**$ 1,101,762.29**	**$ 397,966.38**	**$ (24,030.04)**	**$ 373,936.34**
CASH EQUIVALENTS										
Cash Interest (MISC)				-	252.03	-	-	252.03	-	252.03
	Subtotal			**$ -**	**$ 252.03**	**$ -**	**$ -**	**$ 252.03**	**$ -**	**$ 252.03**
LAIF										
Local Agency Investment Fund				19,291.20	-	-	33,217.64	13,926.44	-	13,926.44
	TOTAL			**$ 1,185,526.82**	**$ 538,530.29**	**$ 75,838.55**	**$ 1,134,979.93**	**$ 412,144.85**	**$ (24,030.04)**	**$ 388,114.81**

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Statement of Investments
As of 05/31/20

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Eff Mat. Date	Par Value	Purchase Cost	Market Value	Unrealized Gain/Loss	YTM	Days to Eff. Mat.	% Mkt Value
05/31/20	Columbia Treasury Reserves	097101307	0.000	05/31/20	05/31/20	$ 2,981,186	$ 2,981,186	$ 2,981,186	$ -	0.00%	0	5.67%
04/24/18	Wells Fargo & Company	949746RT0	4.076	03/04/21	06/04/20	350,000	357,655	351,896	(5,759)	1.01%	4	0.67%
06/24/19	Prudential Financial Inc.	74432QMB6	5.375	06/21/20	06/21/20	225,000	231,597	225,561	(6,036)	1.27%	21	0.43%
03/22/18	FFCB	3133EHZK2	2.315	09/25/20	06/25/20	350,000	350,207	350,059	(148)	0.13%	25	0.67%
01/16/19	Commonwealth Edison Company	202795HV5	4.000	08/01/20	08/01/20	235,000	238,217	235,513	(2,704)	2.69%	62	0.45%
10/02/17	Manufacturers & Traders Trust Co	55279HAN0	2.050	08/17/20	08/17/20	250,000	250,163	250,446	283	1.22%	78	0.48%
05/04/17	State Street Corporation	524144AS2	2.550	08/18/20	08/18/20	300,000	303,576	301,397	(2,179)	0.42%	79	0.57%
09/29/17	FHLB	3130ACE26	1.375	09/28/20	09/28/20	1,000,000	991,915	1,003,864	11,949	0.34%	120	1.91%
04/21/16	Travelers Cos Inc	89417EAG4	3.900	11/01/20	11/01/20	200,000	210,963	202,680	(8,283)	0.71%	154	0.39%
02/21/17	Ace InA Holdings Inc	00440EAT4	2.300	11/03/20	11/03/20	250,000	249,320	251,490	2,170	0.90%	156	0.48%
04/02/18	Coca-Cola (The)	191216AR1	3.150	11/15/20	11/15/20	200,000	202,392	202,513	121	0.42%	168	0.39%
03/08/16	Public Service Company of Colorado	744448CD1	3.200	11/15/20	11/15/20	215,000	221,382	215,415	(5,967)	2.77%	168	0.41%
10/27/17	Treasury Note	912828PC8	2.625	11/15/20	11/15/20	1,525,000	1,564,256	1,541,978	(22,278)	0.21%	168	2.93%
06/25/18	Chevron Corp	166764AE0	2.419	11/17/20	11/17/20	250,000	248,295	251,937	3,642	0.75%	170	0.48%
03/01/18	FHLMC Reference Bond	3137EAEK1	1.875	11/17/20	11/17/20	1,350,000	1,330,451	1,360,743	30,292	0.17%	170	2.59%
03/06/18	Exxon Mobil Corp	30231GAV4	2.222	03/01/21	03/01/21	250,000	247,308	253,036	5,728	0.62%	274	0.48%
11/10/17	Praxair	74005PAY0	4.050	03/15/21	03/15/21	131,000	136,341	134,674	(1,667)	0.51%	288	0.26%
01/25/18	Bank of New York Mellon Corp	06406FAA1	2.500	04/15/21	04/15/21	300,000	299,256	304,697	5,441	0.71%	319	0.58%
01/24/18	Treasury Note	912828Q78	1.375	04/30/21	04/30/21	1,200,000	1,163,789	1,212,891	49,102	0.21%	334	2.31%
05/31/18	FNMA	3135G0K69	1.250	05/06/21	05/06/21	925,000	891,013	934,090	43,077	0.20%	340	1.78%
05/08/18	General Dynamics Corporation	369550BE7	3.000	05/11/21	05/11/21	300,000	300,494	307,273	6,779	0.44%	345	0.58%
06/20/18	WalMart Inc	931142EJ8	3.125	06/23/21	06/23/21	300,000	301,350	308,525	7,175	0.45%	388	0.59%
03/01/18	Fifth Third Bank	31677QBG3	2.250	06/14/21	06/14/21	200,000	195,570	203,045	7,475	0.78%	379	0.39%
12/23/16	Treasury Note	912828WR7	2.125	06/30/21	06/30/21	1,500,000	1,488,668	1,531,172	42,504	0.21%	395	2.91%
10/02/17	Florida Power Corporation	341099CP2	3.100	08/15/21	08/15/21	250,000	256,744	255,923	(821)	1.12%	441	0.49%
05/31/19	FNMA Benchmark Note	3135G0N82	1.250	08/17/21	08/17/21	130,000	128,006	131,687	3,681	0.18%	443	0.25%
08/07/18	3M Company	88579YAU5	1.625	09/19/21	09/19/21	275,000	266,930	279,172	12,242	0.46%	476	0.53%
07/05/18	Treasury Note	912828T34	1.125	09/30/21	09/30/21	1,590,000	1,517,091	1,609,937	92,846	0.19%	487	3.06%
12/23/16	Federal Home Loan Banks	3130AABG2	1.875	11/29/21	11/29/21	1,525,000	1,497,278	1,563,468	66,190	0.19%	547	2.97%
01/23/17	Pfizer Inc	717081DZ3	2.200	12/15/21	12/15/21	360,000	359,305	370,979	11,674	0.22%	563	0.71%
03/27/19	FNMA Benchmark Note	3135G0S38	2.000	01/05/22	01/05/22	1,150,000	1,152,401	1,182,713	30,312	0.22%	584	2.25%
09/25/18	FHLMC	3137EADB2	2.375	01/13/22	01/13/22	1,775,000	1,757,610	1,837,320	79,710	0.21%	592	3.49%
01/23/17	Comcast Corporation	20030NBV2	1.625	01/15/22	01/15/22	350,000	337,629	357,130	19,501	0.37%	594	0.68%
06/26/19	Target Corporation	87612EAZ9	2.900	01/15/22	01/15/22	300,000	306,848	312,857	6,009	0.26%	594	0.59%
08/15/18	Berkshire Hathaway Finance Corp	084670BF4	3.400	01/31/22	01/31/22	360,000	366,983	377,926	10,943	0.24%	610	0.72%
02/03/17	Treasury Note	912828H86	1.500	01/31/22	01/31/22	1,450,000	1,400,944	1,481,832	80,888	0.19%	610	2.82%
08/06/18	PacifiCorp	695114CP1	2.950	02/01/22	02/01/22	250,000	249,340	258,410	9,070	0.92%	611	0.49%

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Statement of Investments
As of 05/31/20

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Eff Mat. Date	Par Value	Purchase Cost	Market Value	Unrealized Gain/Loss	YTM	Days to Eff. Mat.	% Mkt Value
11/05/18	Microsoft Corporation	594918BA1	2.375	02/12/22	02/12/22	300,000	295,021	310,515	15,494	0.31%	622	0.59%
02/21/17	Walt Disney Co	25468PCT1	2.550	02/15/22	02/15/22	300,000	300,881	309,190	8,309	0.74%	625	0.59%
07/09/19	FHLB	313378CR0	2.250	03/11/22	03/11/22	1,175,000	1,190,245	1,217,003	26,758	0.24%	649	2.31%
04/16/19	Medtronic Inc	585055BR6	3.150	03/15/22	03/15/22	300,000	304,905	314,261	9,356	0.49%	653	0.60%
05/31/19	US Bancorp	91159HHC7	3.000	03/15/22	03/15/22	290,000	294,840	302,481	7,641	0.59%	653	0.58%
01/11/19	BB&T Corp	05531FAX1	2.750	04/01/22	04/01/22	300,000	298,290	310,398	12,108	0.85%	670	0.59%
03/01/18	Federal National Mortgage Assoc	3135G0T45	1.875	04/05/22	04/05/22	1,050,000	1,033,101	1,082,436	49,335	0.20%	674	2.06%
01/31/19	Treasury Note	912828X47	1.875	04/30/22	04/30/22	1,550,000	1,530,471	1,600,314	69,843	0.18%	699	3.04%
05/31/19	Apple Inc	037833CQ1	2.300	05/11/22	05/11/22	300,000	300,762	310,868	10,106	0.43%	710	0.59%
01/15/19	Oracle Corporation	68389XBB0	2.500	05/15/22	05/15/22	300,000	296,412	310,454	14,042	0.71%	714	0.59%
10/03/17	Home Depot Inc	437076BG6	2.625	06/01/22	06/01/22	300,000	303,523	312,814	9,291	0.48%	731	0.59%
11/08/18	Caterpillar Financial Services	14913QAA7	2.400	06/06/22	06/06/22	300,000	292,337	310,224	17,887	0.70%	736	0.59%
02/15/19	Cisco Systems Inc	17275RAV4	3.000	06/15/22	06/15/22	300,000	303,772	315,828	12,056	0.41%	745	0.60%
12/31/18	Treasury Note	912828XQ8	2.000	07/31/22	07/31/22	1,425,000	1,405,583	1,481,332	75,749	0.18%	791	2.82%
11/01/19	Procter & Gamble Company	742718EU9	2.150	08/11/22	08/11/22	300,000	303,998	312,165	8,167	0.30%	802	0.59%
02/15/19	Burlington Northern Santa Fe LLC	12189LAL5	3.050	09/01/22	09/01/22	275,000	277,996	289,352	11,356	0.71%	823	0.55%
01/09/19	John Deere Capital Corp	24422ETV1	2.150	09/08/22	09/08/22	300,000	290,735	310,532	19,797	0.59%	830	0.59%
05/18/18	Merck & Co Inc	589331AT4	2.400	09/15/22	09/15/22	350,000	343,117	364,113	20,996	0.63%	837	0.69%
01/11/19	Treasury Note	9128282W9	1.875	09/30/22	09/30/22	1,225,000	1,201,813	1,273,330	71,517	0.18%	852	2.42%
09/12/19	FNMA	3135G0T78	2.000	10/05/22	10/05/22	1,000,000	1,009,770	1,041,296	31,526	0.24%	857	1.98%
04/25/18	Bank of America Corp	06051GEU9	3.300	01/11/23	01/11/23	400,000	399,124	423,223	24,099	1.04%	955	0.80%
09/26/19	Federal National Mortgage Assoc	3135G0T94	2.375	01/19/23	01/19/23	1,750,000	1,791,413	1,848,201	56,788	0.24%	963	3.51%
03/20/19	JP Morgan Chase & CO	46625HJH4	3.200	01/25/23	01/25/23	425,000	430,662	449,866	19,204	0.96%	969	0.86%
08/22/19	Treasury Note	9128283U2	2.375	01/31/23	01/31/23	1,675,000	1,718,542	1,772,621	54,079	0.19%	975	3.37%
02/14/19	IBM Corp	44932HAH6	3.000	02/06/23	02/06/23	325,000	326,680	345,049	18,369	0.68%	981	0.66%
03/18/19	Unitedhealth Group Inc	91324PBZ4	2.750	02/15/23	02/15/23	325,000	326,091	342,671	16,580	0.72%	990	0.65%
10/02/19	Pepsico Inc.	713448CG1	2.750	03/01/23	03/01/23	300,000	310,179	317,641	7,462	0.60%	1004	0.60%
11/19/19	Treasury Note	9128284L1	2.750	04/30/23	04/30/23	1,900,000	1,969,048	2,040,867	71,819	0.20%	1064	3.88%
06/06/19	Public Service Electric And Gas	74456QBC9	2.375	05/15/23	05/15/23	275,000	275,974	288,434	12,460	0.71%	1079	0.55%
02/04/19	Simon Property Group LP	828807DD6	2.750	06/01/23	06/01/23	300,000	298,332	301,398	3,066	2.59%	1096	0.57%
02/19/20	FHLMC	3137EAEN5	2.750	06/19/23	06/19/23	1,875,000	1,984,695	2,015,833	31,138	0.28%	1114	3.83%
01/21/20	FNMA	3135G0U43	2.875	09/12/23	09/12/23	1,400,000	1,464,188	1,518,569	54,381	0.28%	1199	2.89%
07/31/19	Treasury Note	9128285D8	2.875	09/30/23	09/30/23	1,875,000	1,959,889	2,040,674	80,785	0.22%	1217	3.88%
02/19/20	Treasury Note	9128285P1	2.875	11/30/23	11/30/23	800,000	856,140	873,875	17,735	0.23%	1278	1.66%
03/20/19	Citibank NA	17325FAS7	3.650	01/23/24	01/23/24	300,000	307,316	327,488	20,172	1.08%	1332	0.62%
10/31/19	Honeywell International Inc	438516BW5	2.300	08/15/24	08/15/24	300,000	305,382	319,089	13,707	0.76%	1537	0.61%
02/12/20	PNC Funding Corp	69353REF1	3.300	10/30/24	10/30/24	325,000	345,448	354,442	8,994	1.19%	1613	0.67%

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Statement of Investments
As of 05/31/20

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Eff Mat. Date	Par Value	Purchase Cost	Market Value	Unrealized Gain/Loss	YTM	Days to Eff. Mat.	% Mkt Value
		Subtotal				$ 50,742,186	$ 50,999,148	$ 52,594,282	$ 1,595,134	0.35%	658	100.00%
	PFC Bank Balance						1,337,697					
		TOTAL					$ 52,336,845					

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Statement of Purchases - Maturities - Sales
As of 05/31/20

PURCHASES

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Par Value	Purchase Price	Purchase Cost	Prepaid Interest
							$ -	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
							-	
TOTAL PURCHASES					$ -		$ -	$ -

MATURITIES

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Par Value	Purchase Price	Purchase Cost	Gain / (Loss)
10/25/16	FHLMC Reference Notes	3137EADR7	1.375	05/01/20	$ 1,350,000.00	99.18650	$ 1,339,017.75	$ 10,982.25
05/11/17	Intel Corp	458140AZ3	1.850	05/11/20	250,000.00	99.64580	249,114.50	885.50
07/03/18	Qualcomm Inc	747525AL7	3.195	05/20/20	90,000.00	100.50500	90,454.50	(454.50)
							-	-
							-	-
TOTAL MATURITIES					$ 1,690,000.00		$ 1,678,586.75	$ 11,413.25

SALES / REDEMPTIONS / DELIVERS

Purchase Date	Type of Investment	CUSIP	Coupon	Maturity Date	Sale Date	Par Value	Sale Price	Sale Amount	Purchase Cost	Gain / (Loss)
								$ -		$ -
								-		-
						$ -		$ -	$ -	$ -

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Earnings Report
05/01/20-05/31/20

Type of Investment	Type	Coupon	Maturity Date	Previous Accrual	Realized Interest For Period	Interest Paid At Purc/Recv	Current Accrual	Interest Earned	Amrt/Accrt For Period	Adjusted Total Int. Earned
FIXED INCOME										
FHLMC Reference Notes	NOTE	1.375	05/01/20	9,281.25	9,281.25	-	-	-	-	-
Intel Corp	NOTE	1.850	05/11/20	2,184.04	2,312.50	-	-	128.46	-	128.46
Qualcomm Inc	NOTE	3.195	05/20/20	398.42	505.04	-	-	106.62	-	106.62
Prudential Financial Inc.	NOTE	5.375	06/21/20	4,367.19	-	-	5,375.00	1,007.81	(580.59)	427.22
Commonwealth Edison Company	NOTE	4.000	08/01/20	2,350.00	-	-	3,133.33	783.33	(210.63)	572.70
Manufacturers & Traders Trust Co	NOTE	2.050	08/17/20	1,053.47	-	-	1,480.56	427.09	(4.85)	422.24
State Street Corporation	NOTE	2.550	08/18/20	1,551.25	-	-	2,188.75	637.50	(115.39)	522.11
FFCB	NOTE	2.315	09/25/20	28.42	142.11	-	11.45	125.14	(6.99)	118.15
FHLB	NOTE	1.375	09/28/20	1,260.42	-	-	2,406.25	1,145.83	224.79	1,370.62
Travelers Cos Inc	NOTE	3.900	11/01/20	3,900.00	3,900.00	-	650.00	650.00	(246.60)	403.40
Ace InA Holdings Inc	NOTE	2.300	11/03/20	2,843.05	2,875.00	-	447.21	479.16	26.73	505.89
Coca-Cola (The)	NOTE	3.150	11/15/20	2,905.00	3,150.00	-	280.00	525.00	(76.27)	448.73
Public Service Company of Colorado	NOTE	3.200	11/15/20	3,172.44	3,440.00	-	305.78	573.34	(124.24)	449.10
Treasury Note	NOTE	2.625	11/15/20	18,475.96	20,015.63	-	1,849.27	3,388.94	(1,094.45)	2,294.49
Chevron Corp	NOTE	2.419	11/17/20	2,754.97	3,023.75	-	235.19	503.97	34.76	538.73
FHLMC Reference Bond	NOTE	1.875	11/17/20	11,531.25	12,656.25	-	984.38	2,109.38	601.52	2,710.90
Exxon Mobil Corp	NOTE	2.222	03/01/21	925.84	-	-	1,388.75	462.91	78.62	541.53
Wells Fargo & Company	NOTE	4.076	03/04/21	1,462.58	-	-	2,244.31	781.73	(300.74)	480.99
Praxair	NOTE	4.050	03/15/21	677.93	-	-	1,120.05	442.12	(145.65)	296.47
Bank of New York Mellon Corp	NOTE	2.500	04/15/21	333.34	-	-	958.33	624.99	3.31	628.30
Treasury Note	NOTE	1.375	04/30/21	44.84	-	-	1,434.78	1,389.94	1,003.46	2,393.40
FNMA	NOTE	1.250	05/06/21	5,620.66	5,781.25	-	802.95	963.54	978.43	1,941.97
General Dynamics Corporation	NOTE	3.000	05/11/21	4,250.00	4,500.00	-	500.00	750.00	(37.96)	712.04
Fifth Third Bank	NOTE	2.250	06/14/21	1,712.50	-	-	2,087.50	375.00	115.66	490.66
WalMart Inc	NOTE	3.125	06/23/21	3,333.34	-	-	4,114.58	781.24	(65.69)	715.55
Treasury Note	NOTE	2.125	06/30/21	10,683.38	-	-	13,398.00	2,714.62	325.74	3,040.36
Florida Power Corporation	NOTE	3.100	08/15/21	1,636.11	-	-	2,281.95	645.84	(212.82)	433.02
FNMA Benchmark Note	NOTE	1.250	08/17/21	334.03	-	-	469.44	135.41	75.35	210.76
3M Company	NOTE	1.625	09/19/21	521.35	-	-	893.75	372.40	235.71	608.11
Treasury Note	NOTE	1.125	09/30/21	1,515.06	-	-	3,030.12	1,515.06	1,995.86	3,510.92
Federal Home Loan Banks	NOTE	1.875	11/29/21	12,072.91	14,296.88	-	158.86	2,382.83	591.23	2,974.06
Pfizer Inc	NOTE	2.200	12/15/21	2,992.01	-	-	3,652.00	659.99	5.17	665.16
FNMA Benchmark Note	NOTE	2.000	01/05/22	7,411.12	-	-	9,327.77	1,916.65	(85.77)	1,830.88
FHLMC	NOTE	2.375	01/13/22	12,623.72	-	-	16,213.95	3,590.23	461.17	4,051.40
Comcast Corporation	NOTE	1.625	01/15/22	1,674.66	-	-	2,148.60	473.94	245.64	719.58
Target Corporation	NOTE	2.900	01/15/22	2,561.66	-	-	3,286.67	725.01	(233.88)	491.13

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Earnings Report
05/01/20-05/31/20

Type of Investment	Type	Coupon	Maturity Date	Previous Accrual	Realized Interest For Period	Interest Paid At Purc/Recv	Current Accrual	Interest Earned	Amrt/Accrt For Period	Adjusted Total Int. Earned
Berkshire Hathaway Finance Corp	NOTE	3.400	01/31/22	3,094.00	-	-	4,114.00	1,020.00	(212.02)	807.98
Treasury Note	NOTE	1.500	01/31/22	5,437.50	-	-	7,289.84	1,852.34	1,069.78	2,922.12
PacifiCorp	NOTE	2.950	02/01/22	1,843.76	-	-	2,458.34	614.58	7.92	622.50
Microsoft Corporation	NOTE	2.375	02/12/22	1,563.55	-	-	2,157.29	593.74	123.75	717.49
Walt Disney Co	NOTE	2.550	02/15/22	1,615.01	-	-	2,252.51	637.50	(24.43)	613.07
FHLB	NOTE	2.250	03/11/22	3,671.88	-	-	5,875.00	2,203.12	(506.58)	1,696.54
Medtronic Inc	NOTE	3.150	03/15/22	1,207.50	-	-	1,995.00	787.50	(150.03)	637.47
US Bancorp	NOTE	3.000	03/15/22	1,111.67	-	-	1,836.67	725.00	(157.57)	567.43
BB&T Corp	NOTE	2.750	04/01/22	687.49	-	-	1,375.00	687.51	34.59	722.10
Federal National Mortgage Assoc	NOTE	1.875	04/05/22	1,421.87	-	-	3,062.49	1,640.62	349.68	1,990.30
Treasury Note	NOTE	1.875	04/30/22	78.97	-	-	2,527.17	2,448.20	507.56	2,955.76
Apple Inc	NOTE	2.300	05/11/22	3,258.34	3,450.00	-	383.33	574.99	(25.16)	549.83
Oracle Corporation	NOTE	2.500	05/15/22	3,458.34	3,750.00	-	333.33	624.99	86.22	711.21
Home Depot Inc	NOTE	2.625	06/01/22	3,281.27	-	-	3,937.50	656.23	(84.33)	571.90
Caterpillar Financial Services	NOTE	2.400	06/06/22	2,899.99	-	-	3,499.99	600.00	175.89	775.89
Cisco Systems Inc	NOTE	3.000	06/15/22	3,400.00	-	-	4,150.00	750.00	(107.47)	642.53
Treasury Note	NOTE	2.000	07/31/22	7,125.00	-	-	9,552.19	2,427.19	461.97	2,889.16
Procter & Gamble Company	NOTE	2.150	08/11/22	1,433.33	-	-	1,970.83	537.50	(125.06)	412.44
Burlington Northern Santa Fe LLC	NOTE	3.050	09/01/22	1,397.92	-	-	2,096.88	698.96	(90.11)	608.85
John Deere Capital Corp	NOTE	2.150	09/08/22	949.58	-	-	1,487.08	537.50	209.45	746.95
Merck & Co Inc	NOTE	2.400	09/15/22	1,073.34	-	-	1,773.34	700.00	129.25	829.25
Treasury Note	NOTE	1.875	09/30/22	1,945.44	-	-	3,890.88	1,945.44	529.97	2,475.41
FNMA	NOTE	2.000	10/05/22	1,444.44	-	-	3,111.11	1,666.67	(265.97)	1,400.70
Bank of America Corp	NOTE	3.300	01/11/23	4,033.33	-	-	5,133.33	1,100.00	(7.08)	1,092.92
Federal National Mortgage Assoc	NOTE	2.375	01/19/23	11,776.05	-	-	15,239.58	3,463.53	(1,066.95)	2,396.58
JP Morgan Chase & CO	NOTE	3.200	01/25/23	3,626.66	-	-	4,760.00	1,133.34	(130.81)	1,002.53
Treasury Note	NOTE	2.375	01/31/23	9,945.31	-	-	13,333.28	3,387.97	(1,131.54)	2,256.43
IBM Corp	NOTE	3.000	02/06/23	2,302.08	-	-	3,114.58	812.50	(51.23)	761.27
Unitedhealth Group Inc	NOTE	2.750	02/15/23	1,886.81	-	-	2,631.59	744.78	(34.48)	710.30
Pepsico Inc.	NOTE	2.750	03/01/23	1,375.00	-	-	2,062.51	687.51	(249.17)	438.34
Treasury Note	NOTE	2.750	04/30/23	141.98	-	-	4,543.48	4,401.50	(1,746.42)	2,655.08
Public Service Electric And Gas	NOTE	2.375	05/15/23	3,011.63	3,265.63	-	290.28	544.28	(24.09)	520.19
Simon Property Group LP	NOTE	2.750	06/01/23	3,437.50	-	-	4,125.00	687.50	24.91	712.41
FHLMC	NOTE	2.750	06/19/23	18,906.25	-	-	23,203.13	4,296.88	(2,796.52)	1,500.36
FNMA	NOTE	2.875	09/12/23	5,478.47	-	-	8,832.64	3,354.17	(1,469.98)	1,884.19
Treasury Note	NOTE	2.875	09/30/23	4,565.84	-	-	9,131.65	4,565.81	(1,818.51)	2,747.30
Treasury Note	NOTE	2.875	11/30/23	9,614.76	11,500.00	-	62.84	1,948.08	(1,276.99)	671.09

Burbank-Glendale-Pasadena Airport Authority - PFC Account
Earnings Report
05/01/20-05/31/20

Type of Investment	Type	Coupon	Maturity Date	Previous Accrual	Realized Interest For Period	Interest Paid At Purc/Recv	Current Accrual	Interest Earned	Amrt/Accrt For Period	Adjusted Total Int. Earned
Citibank NA	NOTE	3.650	01/23/24	2,980.83	-	-	3,893.33	912.50	(128.89)	783.61
Honeywell International Inc	NOTE	2.300	08/15/24	1,456.67	-	-	2,031.66	574.99	(96.98)	478.01
PNC Funding Corp	NOTE	3.300	10/30/24	29.79	-	-	923.54	893.75	(368.23)	525.52
	Subtotal			**$ 278,413.32**	**$ 107,845.29**	**$ -**	**$ 263,301.72**	**$ 92,733.69**	**$ (6,975.03)**	**$ 85,758.66**
CASH EQUIVALENTS										
Cash Interest				-	109.35	-	-	109.35	-	109.35
	Subtotal			**$ -**	**$ 109.35**	**$ -**	**$ -**	**$ 109.35**	**$ -**	**$ 109.35**
	TOTAL			**$ 278,413.32**	**$ 107,954.64**	**$ -**	**$ 263,301.72**	**$ 92,843.04**	**$ (6,975.03)**	**$ 85,868.01**

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS
MONTH AND ELEVEN MONTHS ENDED MAY 31, 2020 & 2019

	Monthly Performance					May 2020	Fiscal YTD Performance (July 2019 - May 2020)				
	A	B	C	D	E		F	G	H	I	J
	Actual $ May 2020	Budget May 2020	Actual $ Prior Year May 2019	Note	Variance Actual Vs. Budget		Fiscal YTD	Fiscal YTD Budget	Actual $ Prior Year Fiscal YTD	Note	Variance Actual Vs. Budget
						OPERATING ACTIVITY					
						CASH RECEIPTS FROM OPERATIONS					
1	$98,228	$406,250	$371,616	(2)	($308,022)	Landing/Fuel Fees	$4,205,390	$4,468,750	$4,191,054	(2)	($263,360)
2	217,408	1,841,130	1,954,789	(3)	(1,623,722)	Parking Fees	16,920,757	19,216,945	19,823,870	(3)	(2,296,188)
3	128,313	1,075,108	1,000,472	(4)	(946,795)	Rental Receipts - Terminal Building	11,279,737	11,826,188	12,239,964	(4)	(546,451)
4	1,007,772	1,057,392	1,239,042	(5)	(49,620)	Rental Receipts - Other Buildings	12,162,203	11,881,314	11,564,171	(5)	280,889
5	15,121	341,667	343,447	(6)	(326,546)	Ground Transportation	4,218,195	3,758,337	3,417,687	(6)	459,858
6	(17,029)	20,417	137,609	(7)	(37,446)	Other Receipts	644,735	224,587	1,103,860	(7)	420,148
7	534,363	260,167	516,367	(8)	274,196	Investment Receipts - Treasurer/Other Interest Earned	4,409,225	4,055,837	3,336,733	(8)	353,388
8	$1,984,176	$5,002,131	$5,563,342	(1)	($3,017,955)		$53,840,242	$55,431,958	$55,677,339	(1)	($1,591,716)
						CASH DISBURSEMENTS FROM OPERATIONS					
9	($93,735)	($136,310)	($107,373)	(10)	$42,575	Administrative Supplies & Costs	($1,104,079)	($1,311,410)	($1,050,739)	(10)	$207,331
10	(230,441)	(320,236)	(263,144)	(11)	89,795	Operating Supplies & Maintenance	(3,485,266)	(3,796,635)	(3,137,481)	(11)	311,369
11	(2,503,310)	(2,782,390)	(4,048,693)	(12)	279,080	Contractual Operating Costs	(25,983,282)	(27,375,404)	(24,845,897)	(12)	1,392,122
12	(371,121)	(251,650)	(264,900)	(13)	(119,471)	Contractual Professional Services	(5,221,756)	(5,122,153)	(4,040,471)	(13)	(99,603)
13	(380,710)	(405,485)	(376,211)	(14)	24,775	Wages & Benefits	(5,342,423)	(5,478,850)	(4,890,923)	(14)	136,427
14	(6,219)	(93,250)	(74,327)	(15)	87,031	Other Operating Costs	(995,796)	(1,264,749)	(936,686)	(15)	268,953
15	(380,688)	(380,688)	(380,292)		0	Bond Debt Service – 2015 Bonds	(4,187,567)	(4,187,567)	(4,183,212)		0
16	0	0	0	(16)	0	Parking Tax	(2,369,827)	(2,243,575)	(2,288,315)	(16)	(126,252)
17	($3,966,224)	($4,370,009)	($5,514,940)	(9)	$403,785		($48,689,996)	($50,780,343)	($45,373,724)	(9)	$2,090,347
						INCREASE (DECREASE) IN CASH FROM OPERATIONS					
18	($1,982,048)	$632,122	$48,402		($2,614,170)		$5,150,246	$4,651,615	$10,303,615		$498,631
						FACILITY IMPROVEMENT / NOISE MITIGATION TRANSACTIONS					
						CASH DISBURSEMENTS					
19	($158)	($40,000)	($152)	(17)	$39,842	Sound Insulation Program Costs	($1,738)	($440,000)	($4,142)	(17)	$438,262
20	(685,487)	(1,380,750)	(1,954,510)	(18)	695,263	Other Facility Improvement Program Project Costs	(10,559,805)	(13,979,250)	(13,539,612)	(18)	3,419,445
	($685,645)	($1,420,750)	($1,954,662)		$735,105		($10,561,543)	($14,419,250)	($13,543,754)		$3,857,707
						CASH RECEIPTS FROM FUNDING SOURCES					
21	$0	$32,236	$0	(17)	($32,236)	FAA Grants - Sound Insulation Program	$0	$354,596	$0	(17)	($354,596)
22	220,300	131,487	0	(19)	88,813	FAA Grants - Facility Improvement Program	2,839,799	4,911,727	4,611,297	(19)	(2,071,928)
23	0	0	0	(20)	0	Other Grants	60,706	0	93,336	(20)	60,706
24	0	834,392	1,286,840	(21)	(834,392)	Passenger Facility Charge Receipts/Reserves	166,612	5,102,942	3,409,561	(21)	(4,936,330)
25	0	0	92,490		0	Facility Development Fund (Authority Reserves)	0	0	994,977		0
26	$220,300	$998,115	$1,379,330		($777,815)		$3,067,117	$10,369,265	$9,109,171		($7,302,148)
27	($465,345)	($422,635)	($575,332)		($42,710)	**INCREASE (DECREASE) – FACILITY / NOISE MITIGATION TRANSACTIONS**	($7,494,426)	($4,049,985)	($4,434,583)		($3,444,441)
28	($2,447,393)	$209,487	($526,930)		($2,656,880)	**NET ACTIVITY VS. BUDGET**	($2,344,180)	$601,630	$5,869,032		($2,945,810)
29	$0	$0	($92,490)		$0	**LESS USE OF AUTHORITY RESERVES**	$0	$0	($994,977)		$0
30	**($2,447,393)**	**$209,487**	**($619,420)**		**($2,656,880)**	**NET INCREASE (DECREASE) IN CASH – TOTAL (see note below)**	**($2,344,180)**	**$601,630**	**$4,874,055**		**($2,945,810)**

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

NOTES TO SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS

MONTH AND ELEVEN MONTHS ENDED MAY 31, 2020 & 2019

General Comments

The Schedule of Cash Receipts and Disbursements ("Schedule") represents the cash basis activity for the month and fiscal year-to-date ("FYTD") compared to the allocation of the annual adopted budget.

The Schedule consists of two sections: Operating Activity and Facility Improvement/Noise Mitigation Transactions. Receipts are shown as positive amounts and disbursements as negative amounts. Favorable budget variances are shown as positive amounts and unfavorable variances as negative amounts. Because this Schedule is on a cash basis, cash timing differences may contribute to budget variances.

The Operating Activity receipts include charges for services (parking, landing fees and concessions), tenant rents, fuel flowage fees, other revenues and investment receipts. The Operating Activity disbursements include costs of services, materials, contracts, personnel and debt service.

Facility Improvement / Noise Mitigation Transactions represent the activity for the Authority's capital program, which consists of the Sound Insulation Program and Other Facility Improvement Program Projects.

The FY 2020 Capital Program expenditures are primarily funded by the following sources:
- FAA-approved Passenger Facility Charge ("PFC") program receipts/reserves;
- Grants;
- Operating Revenues;

The notes below provide additional information regarding the performance results detailed in the "Schedule of Cash Receipts and Disbursements."

A Supplemental Schedule of Cash Receipts and Disbursements reflecting the activities related to the Series 2012 Bond debt service and repayment to the Authority of the loans provided to the Rent-A-Car Companies ("RACs") for the Regional Intermodal Transportation Center / Consolidated Rental Car Facility is also presented.

Beginning the second half of March 2020, revenues reflected the sudden impact to the global travel industry due to the COVID-19 pandemic. As a result, cash receipts from operations reflect a negative actual to budgeted variance for the month of May 2020. This negative impact is expected to continue through at least the remainder fiscal year. In response to the drop in activity, the Authority immediately implemented expense reduction measures, a hiring freeze, and suspended all discretionary expenditures and capital projects to conserve cash. The Authority also granted economic relief to airline and tenant concessionaires by deferring or abating certain fees/rents to FY 2021. To make up for the anticipated reduction in revenues in the fourth quarter of the fiscal year, the Authority has reserved approximately $5 million of the $21.1 million in CARES Act Grant funds the Authority has received.

NOTE (1) – ***Cash Receipts from Operations***

Cash receipts from operations are under budget FYTD May. On an accrual basis, operating revenues are under budget FYTD May by $1,048,811. See notes 2 through 8 for additional information regarding operating receipts.

NOTE (2) – ***Landing/Fuel Fees***

Landing Fees are based on landed weight of the aircraft. Fuel fees are charged at a rate of $0.05 a gallon to non-signatory air carriers for fuel loaded at BUR. On an accrual basis, Landing Fees combined with Fuel Flowage Fees are under budget by $236,098 FYTD May.

NOTE (3) – ***Parking Fees***

Parking fee revenues performed under budget forecast. Accrual basis Parking Fees are $2,294,751. under budget FYTD May.

(Continued)

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

NOTES TO SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS

MONTH AND ELEVEN MONTHS ENDED MAY 31, 2020 & 2019

NOTE (4) – ***Rental Receipts - Terminal Building***

Terminal Building rental receipts are under the budget FYTD May due to the impact of COVID-19 pandemic. Accrual basis Terminal Building rents are under budget by $421,093. Passenger count decreased by 10.63% FYTD May.

NOTE (5) – ***Rental Receipts - Other Buildings***

Other Buildings rental receipts exceed the budget FYTD May due to the timing of receipts. Accrual basis Other Building receipts are $677,101 ahead of budget FYTD May.

NOTE (6) – ***Ground Transportation***

This category consists of off-airport access fees and TNC activity. Ground Transportation receipts exceed the budget FYTD May. Accrual basis Ground Transportation receipts are $111,445 ahead of budget FYTD May primarily due to to the robust TNC activity which occurred during the fiscal year prior to the negative impacts from the COVID-19 pandemic.

NOTE (7) – ***Other Receipts***

This category consists primarily of film location revenues. FYTD May Other Receipts include a rent deposit of $141,697 from Avalon Capital Group for the lease of Hangar 38. Accrual basis Other Receipts are $452,205 ahead of budget FYTD May.

NOTE (8) – ***Investment Receipts - Treasurer***

This line item represents cash received from the investment of funds. These receipts fluctuate in response to interest rate and portfolio balance changes, the timing of coupon payments and individual investment maturities. Accrual basis investment income are $662,380 ahead of budget FYTD May.

NOTE (9) – ***Cash Disbursements from Operations***

Overall operating disbursements are favorably under budget FYTD May. On an accrual basis operating disbursements are favorably within budget parameters. See additional information on operating disbursements in notes 10 through 16.

NOTE (10) – ***Administrative Supplies & Costs***

This line item includes office supplies, printing, postage and delivery, office equipment service and lease, recruiting, membership, uniform, Commission meeting, conference and training costs.

NOTE (11) – ***Operating Supplies & Maintenance***

This line item includes utilities, fuel, general repairs and maintenance, landscaping, supplies and telephone costs.

NOTE (12) – ***Contractual Operating Costs***

This line item includes various contractual operating costs such as ARFF services, janitorial services, systems and vehicle repair, parking operations and the TBI Airport Management contract costs.

(Continued)

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

NOTES TO SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS

MONTH AND ELEVEN MONTHS ENDED MAY 31, 2020 & 2019

NOTE (13) – ***Contractual Professional Services***

This line item is anticipated to be over budget for the fiscal year due to costs associated with the Noise Task Force meetings (including legal and technical support) and investigative work directed by the Regional Water Quality Control Board related to PFAS.

NOTE (14) – ***Wages and Benefits***

Wages and Benefits consist of payroll and fringe benefit costs for the Airport Police officers, and include the impact of the terms of the Memorandum of Understanding effective February 2020. Wages and Benefits include overtime for film location services which are recovered through the related film revenue.

NOTE (15) – ***Other Operating Costs***

This line item includes public relations/advertising, air service retention, license and permits and bad debt expense.

NOTE (16) – ***Parking Tax***

The 12% City of Burbank parking tax is paid quarterly for the prior three-month period. The next remittance, covering parking activity for the months of April, May and June 2020, is due in July.

NOTE (17) – ***Sound Insulation Program***

The Sound Insulation program is funded primarily through FAA Airport Improvement Program ("AIP") grants and and Passenger Facility Charge ("PFC") revenues. Staff is awaiting FAA's decision to award a noise discretionary grant, the receipt of which will facilitate the restart of the program.

NOTE (18) – ***Other Facility Improvement Program Projects***

Other Facility Improvement Program Projects costs are under budget FYTD May by $3,419,445 primarily due to the suspension of certain projects.

NOTE (19) – ***FAA Grants – Other Facility Improvement Program Projects***

FAA Grants are budgeted to partially fund the Taxiway A Rehabilitation Project and Hollyona Property Land Acquisition.

NOTE (20) – ***Other Grants***

Other grants represent federal grants, other than FAA AIP grants, and local grants that fund or partially fund the Ground Access Study.

NOTE (21) – ***Passenger Facility Charge Receipts/Reserves***

A number of capital projects are budgeted to be funded or partially funded by Passenger Facility Charges, including the Taxiway A Rehabilitation Project and Airfield Lighting System Rehabilitation Project.

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

SUPPLEMENT SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS

REGIONAL INTERMODAL TRANSPORTATION CENTER / CONSOLIDATED RENTAL CAR FACILITY PAYMENTS AND COLLECTIONS

MONTH AND ELEVEN MONTHS ENDED MAY 31, 2020 & 2019

	Monthly Performance					May 2020	Fiscal YTD Performance (July 2019 - May 2020)				
	A	B	C	D	E		F	G	H	I	J
	Actual $ May 2020	Budget May 2020	Actual $ Prior Year May 2019	Note	Variance Actual Vs. Budget		Actual $ Fiscal YTD	Fiscal YTD Budget	Actual $ Prior Year Fiscal YTD	Note	Variance Actual Vs. Budget
31	$90,331	$477,083	$550,389	(1)	($386,752)	Customer Facility Charge Receipts	$5,105,290	$5,247,913	$5,241,117	(1)	($142,623)
32	19,498	32,251	85,001	(2)	(12,753)	Facility Rent	640,446	354,761	935,802	(2)	285,685
33	(486,417)	(486,417)	(486,409)		0	Payments to Bond Trustee for 2012 Bond Debt Service	(5,350,587)	(5,350,587)	(5,350,499)		0
34	(13,855)	(22,917)	(33,972)	(3)	9,062	Loan Principal Repayments to the Authority	(370,690)	(252,087)	(374,008)	(3)	(118,603)
35	**($390,443)**	**$0**	**$115,009**	(4)	**($390,443)**		**$24,459**	**$0**	**$452,412**	(4)	**$24,459**

General Comments

Beginning in the second week in March, RAC activities were severely impacted due to the COVID-19 pandemic resulting in a decrease in CFC collections. The debt service on the 2012 Revenue Bonds and the repayment to the Authority of the loans to the Rent-A-Car Companies ("RACs") is payable from Customer Facility Charges ("CFCs") and Facility Rents. Under the terms of the Bond Indenture, as amended, all CFCs collected subsequent to July 1, 2014 are remitted to the Bond Trustee for the 2012 Bond debt service.

On July 1, 2014, the terms and conditions of the Non-Exclusive Concession and Lease Agreement with the respective Rent-A-Car Companies became effective, including the collection of Facility Rent.

Note (1) – ***Customer Facility Charge ("CFC") Receipts***

CFCs of $6 per day per transaction, up to a maximum of five days, are collected and applied to the 2012 Bond debt service. CFCs received FYTD May are under budget due to the impact of COVID-19 pandemic.

Note (2) – ***Facility Rent***

Facility Rent exceeds the budget FYTD May due to the timing of receipts.

Note (3) – ***Loan Principal Repayments to the Authority***

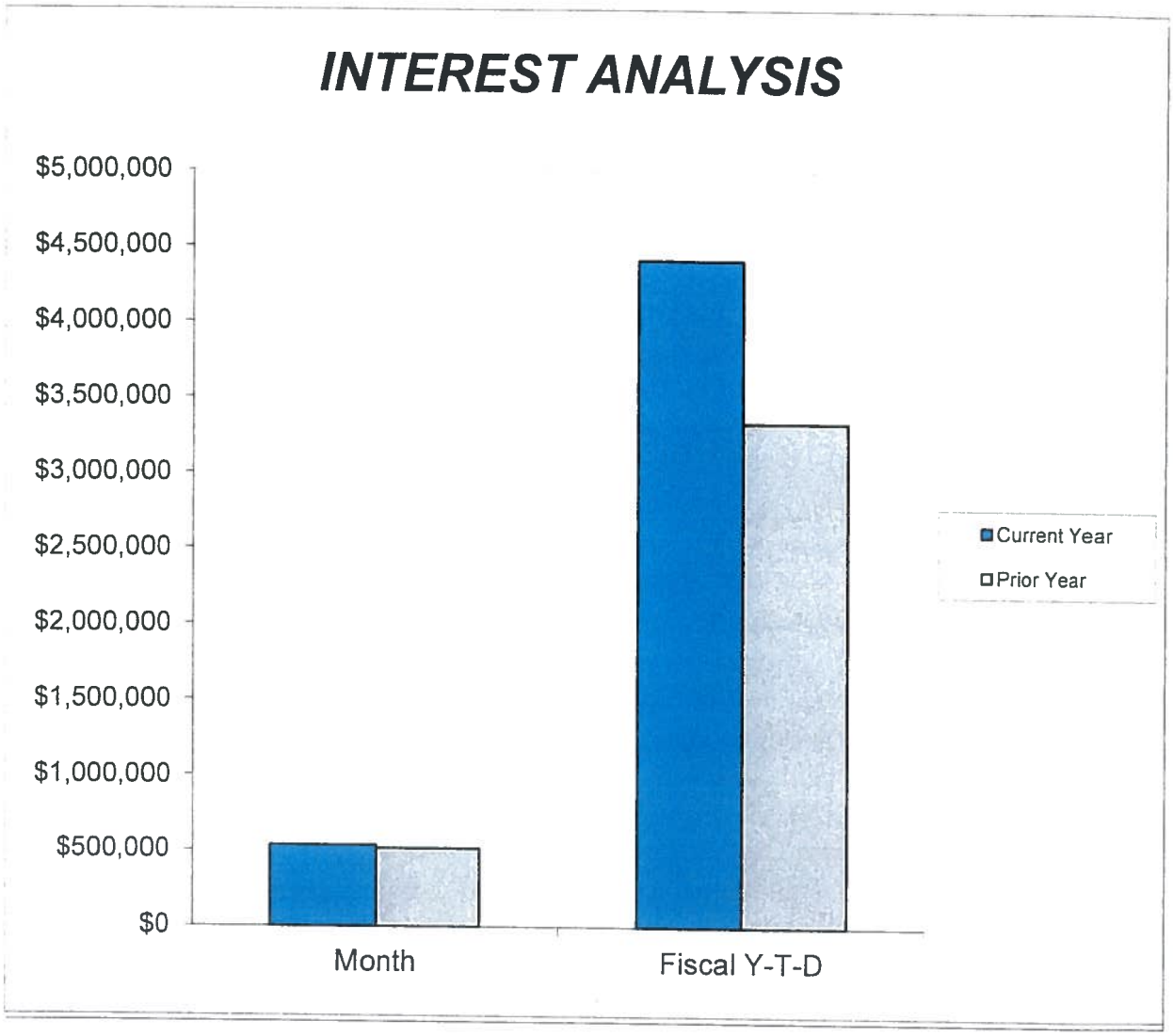
Repayments of the loan principal to the Authority from the Rent-A-Car Companies exceed the budget FYTD May due to timing of receipts. The principal portion of the payment will be deposited as reimbursement to the Authority's Facility Development Fund. The interest portion of the loan repayment is recorded as investment income.

Note (4) – ***Net RITC / ConRAC Facility Payments and Collections***

A positive amount in this line indicates that cash has been received above the required payment obligations. At fiscal year-end, upon conclusion of the required reconciliation, any excess surplus accumulated will be evaluated and applied toward the allowed uses under the terms and conditions of the Non-Exclusive Concession and Lease Agreement with the Rent-A-Car Companies.

In the event of a shortfall of receipts to meet the required payment obligations (i.e., CFC collections perform under budget projections), the Authority holds the right to adjust the Facility Rent paid by the rental car companies on a 30-day notice.

Burbank-Glendale-Pasadena Airport Authority



	May 2020	May 2019
Interest Receipts - - Month	$534,363	$516,367
Interest Receipts - - Fiscal Y-T-D	$4,409,225	$3,336,733
Month End Portfolio Balance	$227,080,499	$226,381,206
Yield to Maturity	0.41%	2.20%

STAFF REPORT PRESENTED TO THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY AUGUST 17, 2020

TERMINAL SPACE LEASE HG BURBANK JV DBA HUDSON GROUP RETAIL, LLC

SUMMARY

At its meeting on July 20, 2020, the Finance and Administration Committee ("Committee") voted unanimously (3–0) to recommend that the Commission approve a Terminal Space Lease ("Lease") with HG Burbank JV dba Hudson Group Retail, LLC ("Hudson"), retroactive to July 1, 2020, for space to accommodate the installation of kiosks to provide retail sales of personal protective equipment ("PPE") in the public areas of Terminal A and Terminal B at the Airport.

BACKGROUND

Various impacts from the COVID-19 pandemic have raised concerns of the traveling public over their health and well-being. In order to provide additional services to address some of these concerns, Staff worked with Hudson, the news and gift concessionaire at the Airport, to introduce kiosks within the public areas of the terminals for the sole purpose of providing retail access to PPE prior to passengers boarding their aircraft. These kiosks have the capacity to provide an inventory of PPE such as face masks, hand sanitizers, sanitizer wipes, and gloves as well as items such as thermometers and UV-C travel cases. The operation of the kiosk is a self-serve electronic payment system utilizing a touch screen operation and under the terms of the Lease, if warranted, Staff has the ability to direct Hudson to install additional kiosks.

In order to accommodate the increase in travel demand starting before and during the Independence Day Holiday weekend, Staff negotiated with Hudson for installation of the kiosk equipment prior to the holiday. Hudson was able to meet this request and as such, the proposed Lease for the Committee's consideration is retroactive to July 1, 2020.

DETAILS

Key components of the proposed Lease are:

Premises:	Designated areas in Terminal A and Terminal B
Purpose:	Retail sales of PPE
Term:	Initial one-year term with two one-year extension options
Termination:	At the Authority's discretion with a thirty-day prior written notice to Tenant
Rent:	Monthly rent will be set at the greater of $100 per month or 10% of the monthly gross revenue per kiosk

Other: The Executive Director has the ability to relocate, add or remove kiosks on an as-needed basis with thirty-day prior written notice.

REVENUE IMPACT

The proposed transaction will provide the Authority additional revenue by generating a minimum of $100 per month per machine.

RECOMMENDATION

At its meeting on July 20, 2020, the Committee voted unanimously (3–0) to recommend that the Commission approve the Lease with Hudson and authorize the President to execute same.

TERMINAL SPACE LEASE

BETWEEN

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

AND

HG BURBANK JV

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TERMINAL SPACE LEASE

THIS TERMINAL SPACE LEASE ("Lease") is dated _____, 2020 and is entered into by and between the BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY, a public entity formed under a joint exercise of powers agreement among the Cities of Burbank, Glendale and Pasadena, California, pursuant to the California Joint Exercise of Powers Act ("Landlord"), and HG BURBANK, JV, a California joint venture ("Tenant").

In consideration of the mutual covenants, conditions, and agreements contained herein, Landlord and Tenant hereby agree as follows:

1. LEASED PREMISES.

1.1 Location of Leased Premises. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, those certain premises more particularly described in Exhibit "A" attached hereto (individually, a "Space", but collectively, the "Leased Premises"), located in the terminal buildings described in Exhibit "A" ("Building"), situated within the Hollywood Burbank Airport ("Airport"), including the right in common with others, to the use of certain of the "common use facilities" of the Airport as set forth in Section 13, upon the terms and subject to the conditions set forth in this Lease.

1.2 Acceptance of the Leased Premises. Tenant hereby accepts the Leased Premises in their condition existing as of the date hereof, without representation or warranty, express or implied. Tenant hereby agrees that the Leased Premises are in a good and tenantable condition and acknowledges that Tenant has inspected the Leased Premises and available common use facilities of the Airport to its satisfaction and acknowledges that Landlord is not obligated to make any repairs or alterations to the Leased Premises or common use facilities.

The Leased Premises, and any other areas that may be used by Tenant under this Lease (herein, the "subject premises") have not been inspected by a Certified Access Specialist (CASp). A CASp can inspect the subject premises and determine whether they comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, a commercial property owner or lessor may not prohibit a lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties must mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the subject premises.

The Landlord and Tenant hereby agree that Landlord will not be obligated to obtain or pay for such an inspection report, and will not make or pay for any necessary repairs or alterations (all of which shall be the responsibility of the Tenant under this Lease).

1.3 Reservations to Landlord. Tenant further accepts the Leased Premises subject to any and all existing easements and encumbrances. Landlord reserves the right, without obligation, to install, lay, construct, maintain and repair utilities and appurtenances necessary or convenient

in connection therewith in, over, upon, through, across, under and along the Leased Premises or any part thereof, and to enter the Leased Premises for any and all such purposes. Landlord also reserves the right to grant franchises, licenses, easements, rights of way and permits in, over, upon, through, across, under and along any and all portions of the Leased Premises. No right reserved by Landlord in this Section shall be so exercised as to interfere unreasonably with Tenant's operations hereunder.

1.4 Landlord's Right of Access. Landlord shall have free access to the Leased Premises in all cases of emergency, and during all reasonable hours for the purposes of examining the same to ascertain if they are in good repair, inspecting any work in progress within the Leased Premises, the Building or elsewhere on the Airport, making repairs which Landlord may be required or permitted to make hereunder, and exhibiting the same to prospective purchasers or Tenants. Such entry shall be made in a manner which will not unreasonably interfere with Tenant's use of the Leased Premises, except in case of emergency. In the event that Tenant is not personally present to open and permit such entry, Landlord may enter by means of a master key or may enter forcibly and shall incur no liability to Tenant as a result of such entry, and this Lease shall not be affected thereby.

1.5 Relocation of Leased Premises. Landlord's Executive Director shall have the right, at any time and from time to time, to designate a new or different area or areas within the Airport for use by Tenant for the Leased Premises by delivering to Tenant written notice thereof ("Relocation Notice"). Upon any such designation, Tenant shall relocate its business and operation, or so much thereof as Landlord designates, to such new or different area or areas and Landlord shall pay the costs of said relocation. In the event that Tenant is dissatisfied with the new or different area or areas, Tenant, by delivering written notice to Landlord within thirty (30) calendar days following the date of the Relocation Notice, may terminate this Lease, effective thirty (30) calendar days after giving such written notice to Landlord.

1.6 Landlord Right to Change Kiosk/Products. The Executive Director of Landlord shall have the right to elect from time to time in his or her sole and absolute discretion, by written notice to Tenant, that Tenant promptly substitute (at Tenant's cost) a comparable Kiosk for any Kiosk installed by Tenant pursuant to Section 6.1 below.

2. TERM.

2.1 Commencement Date; Tenant's Right to Extend. The term of this Lease ("Term") shall commence at 12:01 a.m. on _____, 2020 ("Commencement Date") and shall continue until the date that is one calendar year thereafter or until earlier terminated as provided herein. Subject to written consent of the Executive Director of Landlord for each extension, Tenant shall have the right to extend the term of this Lease up to two (2) times for one (1) calendar year for each extension upon written notice to Landlord given at least thirty (30) days prior to expiration of the then-current term (but only if this Lease shall not have been previously terminated in accordance with its terms).

2.2 Termination. Landlord's Executive Director shall have the right to terminate this Lease upon thirty (30) days' prior written notice to Tenant.

2.3 Default. Landlord shall have the right to terminate this Lease immediately upon the occurrence of an Event of Default by Tenant as provided in Section 11.1.

3. RENT.

3.1 Rent. Tenant shall pay monthly rent ("Monthly Rent") to Landlord for each of the Spaces comprising the Leased Premises, without setoff or deduction, prorated for the partial calendar months at the beginning and end of the Term. Monthly Rent for each Space shall be separately calculated. Monthly Rent for the Leased Premises shall be the greater of: (A) for each ten percent (10%) of Gross Revenue (defined in Section 3.3.1 below) from the applicable Space for the applicable calendar month (or prorated portion thereof for a partial calendar month); or (B) One Hundred and No/100 Dollars ($100.00).

3.2 Rental Payments. The fixed minimum portion of the Monthly Rent shall be paid in advance on or before the first day of each calendar month, without demand, notice, offset or deduction, and any additional Monthly Rent shall be paid on or before the twentieth day of the following calendar month, together with the delivery of the monthly statement of Gross Revenue described in Section 3.4 below.

3.3 Gross Revenue. Tenant shall use its best efforts to maximize its Gross Revenue generated from sales of products and services in the Leased Premises.

3.3.1 Definition. The term "Gross Revenue", as used herein, shall mean and include the following:

3.3.1.1 The entire amount of the price charged, whether wholly or partly for cash or on credit or otherwise, for all products and/or services sold or rented at or from any part of a Space, or through the substantial use of the applicable Space, by Tenant or anyone acting on Tenant's behalf or under a sublease, license or concession from Tenant.

3.3.1.2 All gross receipts of Tenant or any other person from any operations in, at or from the applicable Space which are neither included in nor excluded from Gross Revenue by any other provision of this Agreement, but without any duplication.

3.3.1.3 The entire amount of the price charged for all orders obtained or received by personnel operating from, reporting to, or under the supervision of any employee or agent located at or operating out of the applicable Space, or which Tenant would, in the normal course of its operations, credit or attribute to its business in the applicable Space, whether or not such order is filled elsewhere.

3.3.1.4 All deposits not refunded to purchasers.

3.4 Gross Revenue Statements. During the first year of the Term, Tenant shall submit to Landlord, together with each payment of the Monthly Rent payable on or before the 20th day of each month pursuant to Section 3.2, a written statement, in such form and detail as is required by Landlord, signed and certified by Tenant to be true, correct and accurate, setting forth the amount of Tenant's Gross Revenue, separately stated for each Space, during the preceding month of the Term. Within twenty (20) days after the end of the Term, Tenant shall submit to Landlord

a written statement, in such form and detail as is required by Landlord, signed and certified by Tenant to be true, correct and accurate, setting forth the amount of Tenant's Gross Revenue during the last month of the Term, and concurrently with the delivery of such statement, Tenant shall pay the additional Monthly Rent due for the last month. In the event that Tenant fails to furnish any written statement of Gross Revenue as provided in this Section it shall be deemed a default of Tenant.

3.5 Maintenance of Books and Records; Landlord Right to Audit. For the purpose of ascertaining the amount of the payments of the Monthly Rent payable by Tenant to Landlord pursuant to Section 3.1, Tenant shall prepare and maintain, at all times during the term hereof for a period of not less than three (3) years following the expiration or earlier termination of this Agreement and in accordance with the current accounting requirements of Landlord, as such may be changed at any time and from time to time during the term hereof, full, complete and proper books, records and accounts of the business and operations conducted by Tenant in each Space (and such records shall be maintained separately for each Space). Tenant shall make all books, records and accounts relating to the business and operations conducted by Tenant on the Leased Premises available for inspection by Landlord and its designated representatives and Landlord and its designated representatives shall have the right to inspect the same at all reasonable times. At any time during the term hereof or within three (3) years following the termination of this Agreement, Landlord shall have the right, but not the obligation, to cause an audit to be conducted by an auditor selected by Landlord, including any employee or contractor of Landlord, of Tenant's books, records and accounts relating to the Leased Premises for the period covered by such written statement, including, without limitation, all federal, state, county or city reports and income and other tax returns, bank statements, operating manuals and procedures, sales receipts, active and inactive files, general ledgers, invoices, rental orders and check registers. Tenant shall cooperate with and shall provide all information requested by such auditor and shall make Tenant's employees available to cooperate with and provide all information requested by such auditor. Any deficiency disclosed by any such audit shall be paid by Tenant upon demand. The cost of any such audit shall be paid by Landlord; provided, however, in the event that any such audit shall disclose an additional liability for the Monthly Rent for any Space for any period in excess of two percent (2%) of the Monthly Rent paid by Tenant for such Space for such period, in addition to such deficiency, Tenant shall pay to Landlord upon demand the cost of such audit.

3.6 Controls.

3.6.1 Records. Tenant shall operate its business upon the Airport so that all Gross Revenue, whether occurring as a result of cash or credit transactions from any operations, are recorded separately for each Space at the time of the event on a register or other recording device with the following minimum controls:

3.6.1.1 Subtotal controls printed on the Gross Revenue journal showing the applicable date, which subtotals are not to be eradicated.

3.6.1.2 Daily total controls printed on the Gross Revenue journal showing the applicable date.

3.6.2 Daily Gross Revenue Report. Tenant shall maintain a daily Gross Revenue posting report for each Space showing the activity of each Kiosk on each business day, including total cash Gross Revenue, total credit Gross Revenue, grand total, overages and shortages. Reports are to be maintained at all times during the term hereof and for a minimum of three (3) years following the termination hereof and are to be reconciled to any periodic Gross Revenue report and the written statement for reporting Gross Revenue in computing the Monthly Rent.

3.6.3 Compliance. Landlord shall have the right, at any time and from time to time, to inspect and review all records required to be maintained by Tenant pursuant to this Section 3.6. Failure to comply with these requirements by Tenant shall be considered a default under Section 11.1.7 hereof.

3.7 Taxes.

3.7.1 Possessory Interest and Other Taxes. Tenant shall pay, as additional rent under this Lease, all "taxes" imposed by any authority having the direct or indirect power to tax and which are applicable to the Leased Premises during the term of this Lease. As used herein, the term "taxes" shall include any form of possessory interest tax, assessment (including public facilities maintenance district levy or assessment or any public transit or other benefit assessment district levy or assessment), license fee, commercial rental tax, any tax or excise on rents, levy, penalty or tax (other than net income, inheritance or estate taxes) imposed by any authority having the direct or indirect power to tax, including any federal, state, county or city, government, or any school, agricultural, lighting, drainage, or other improvement district thereof, as against any legal or equitable interest of Landlord in the Leased Premises or in the real property of which the Leased Premises are a part, as against Landlord's right to rent or other income therefrom, or as against Landlord's business of leasing the Leased Premises. In this regard, Tenant recognizes and understands that this Lease might be held to create a possessory interest subject to property taxation and that Tenant might be subject to the payment of property taxes levied on such interest.

3.7.2 Personal Property Tax. Tenant shall pay before delinquency any and all taxes and assessments on the furniture, fixtures, equipment and other personal property of Tenant located or used in the Leased Premises, whether assessed to Tenant or assessed to Landlord as part of the real property.

3.8 Utilities.

3.8.1 Payment. Tenant shall obtain and pay all costs, expenses for telephone utilities and services, other than gas, heat, light, power and air conditioning services payment of which shall be included in Monthly Rent, supplied to the Leased Premises, together with any taxes thereon and any connection fees, prior to when such charges are due, and Tenant shall indemnify, defend and hold harmless Landlord from and against any claims and liabilities therefor. In the event that any utilities or services are not separately metered to Tenant, Tenant shall pay to Landlord, as additional rent under this Lease, Tenant's proportionate share, determined by Landlord, of all charges jointly metered with other premises in the Building or elsewhere at the Airport within fifteen (15) calendar days following the delivery to Tenant of a statement with respect thereto.

3.8.2 No Obligation to Furnish. Notwithstanding any other provisions of this Lease, Tenant acknowledges that Landlord has no obligation to provide any utilities or services to the Leased Premises. Tenant shall bear all costs of installing all required electrical facilities (including new power outlets), and any such improvements shall require Landlord's prior written consent. Landlord shall not be liable to Tenant under any circumstances for damages or loss to Tenant's property, injury to persons or property, or consequential damages, however occurring, through, in connection with, or incidental to any such utilities or services not being provided or inadequately being provided or any permanent or temporary cessation or other interruption of any such utilities or services.

3.8.3 Compliance with Utility Supplier Rules. Tenant shall comply with all rules and regulations which Landlord, any governmental agencies or authorities, or any utility company may establish for the use, proper functioning and protection of any utilities or services.

3.9 Net Lease. Landlord shall receive all amounts payable by Tenant pursuant to this Section 3 or any other provision of this Lease, free and clear of any and all other impositions, taxes, liens, charges or expense of any nature whatsoever in connection with the ownership and operation of the Leased Premises. In addition to the amounts payable by Tenant pursuant to this Section 3, Tenant shall pay to the parties respectively entitled thereto all other impositions, operating charges, maintenance charges, construction costs, and any other charges, costs and expenses which arise or may be contemplated under any provision of this Lease during the term hereof, except only those amounts payable by Landlord as provided in Section 5.1.1. All of such charges, costs and expenses shall constitute additional rent, and upon the failure of Tenant to pay any of such costs, charges or expenses, Landlord shall have the same rights and remedies as otherwise provided in this Lease for the failure of Tenant to pay rent.

3.10 Interest on Past Due Payments. Any amount due from Tenant pursuant to this Section 3 or any other provision of this Lease which is not paid within five (5) days following the delivery by Landlord to Tenant of written notice thereof shall bear interest from the due date until paid at a rate equal to five percent (5%) in excess of the prevailing rate established by the Federal Reserve Bank at San Francisco on advances to member banks on the twenty-fifth (25th) day of the month preceding the Commencement Date (but not more than the maximum rate permissible by law); provided, however, that the payment of any interest pursuant to this Section shall not excuse or cure any Event of Default by Tenant with respect to its obligations to pay any amount due from Tenant pursuant to this Section 3 or any other provision of this Lease.

3.11 Financial Information. Within ten (10) calendar days following a written request by Landlord, Tenant shall furnish to Landlord copies of the most recent annual report of Tenant, together with all financial statements included therein.

3.12 Address for Payment. The payment of Monthly Rent and all other amounts due to Landlord hereunder shall be paid at the office of Landlord; Burbank-Glendale-Pasadena Airport Authority, 2627 Hollywood Way, Burbank, California 91505, ATTENTION: Controller, or at such other place as Landlord may designate from time to time in writing.

4. CONDUCT OF BUSINESS BY TENANT.

4.1 Principal Use of Airport. Tenant hereby acknowledges that the principal use of the Airport consists of the operation of a public airport and that all other businesses and operations which now are or hereafter permitted by Landlord, to be conducted on or at the Airport, including Tenant's use of the Leased Premises pursuant to this Lease, must be at all times compatible with such principal use, as Landlord, in its sole discretion, shall determine.

4.2 Authorized Use of Leased Premises: Stocking. Tenant shall use the Leased Premises solely for the installation, operation and maintenance of the Kiosks described in Exhibit "B" attached hereto (the "Kiosks") which are to be installed by Tenant at Tenant's cost in the areas of the Leased Premises designated on Exhibit "A" attached hereto (each a "Space"), provided that Tenant complies with all of Tenant's obligations under Section 6 with respect to the Kiosks and Landlord shall have approved of any construction, and any installation of utilities, in connection with the Kiosks pursuant to Section 6. The Kiosks shall be used solely for the sale of personal protective equipment ("PPE") in connection with the COVID/coronavirus pandemic. Tenant shall restock the Kiosks within seventy-two (72) hours.

4.3 Licenses, Permits: Compliance With Laws. Tenant, at Tenant's own cost and expense, shall obtain and maintain in effect at all times during the term hereof all licenses, permits, certificates, approvals and other authorizations required with respect to the Leased Premises, the Kiosks and the conduct of Tenant's business in the Leased Premises by any federal, state, county, city or other governmental authority or agency having jurisdiction over Tenant, Tenant's business and operations, the Leased Premises, the Kiosks, the Building or the other areas of the Airport, including, without limitation, all licenses, permits, certificates, approvals and other authorizations required by the FAA. Without limiting the generality of the foregoing, Tenant shall comply with all applicable federal, state, county and city statutes, regulations, rules, ordinances and all orders of any department, bureau or agency or any governmental authority having jurisdiction over Tenant, Tenant's business and operations and the occupancy, maintenance and use of the Leased Premises for the purpose demised hereunder including, without limitation, the provisions of Sections 23 and 24 and all rules and regulations promulgated by the FAA.

4.4 Restrictions on Use.

4.4.1 No Other Use. Tenant shall not use or permit the use of the Leased Premises for any purpose other than the purposes set forth in Section 4.2.

4.4.2 Manner of Use. Tenant shall not use or permit the use of the Leased Premises, the Kiosks, the Building or any other areas of the Airport in any manner that will (i) tend to create or permit any waste or nuisance, (ii) tend to disturb other tenants, occupants, licensees, concessionaires or other users or customers of the Building or any other areas of the Airport, (iii) invalidate or cause the cancellation of or be in conflict with any fire or other hazard insurance policies covering the Airport, or (iv) increase the premiums for any fire insurance policies covering the Airport or any property located therein, over the premiums for such policies in effect on the Commencement Date hereof. Tenant, at its expense, shall comply with all rules, orders, regulations, or requirements of the National Board of Fire Underwriters, or any other similar body.

4.4.3 Continuous Operation. Tenant shall continuously and uninterruptedly during the term of this Lease use the Leased Premises for the purpose described in Section 4.2, except to the extent reasonably required for purposes of constructing, installing, repairing or maintaining the Kiosks. Any cessation or interruption of Tenant's business upon the Leased Premises for a continuous period in excess of twenty (20) calendar days, unless permitted pursuant to the preceding sentence or caused by circumstances outside of the control of Tenant, shall constitute an Event of Default under Section 11.1. Tenant shall post a notice on or near the each Kiosk described in Section 4.2 which advises customers to call a specified telephone number in the event of any defects or problems in the operation of the Kiosks or for any information relating to the Kiosks.

4.4.4 Interference with Utilities, Police, Fire Fighting. Tenant shall not do or permit to be done anything which may interfere with the effectiveness or accessibility of the mechanical, gas, electrical, heating, ventilating, air conditioning, plumbing or sewer facilities or devices or portions thereof on or servicing the Leased Premises, the Building or elsewhere on the Airport, nor shall Tenant do or permit to be done anything which may interfere with free access or passage to the Leased Premises, the Building or the streets, roads, parking lots, curb areas, entryways, exits, sidewalks adjoining the Building, the common use facilities of the Airport or the public areas adjacent thereto. In addition, Tenant shall not hinder police, fire fighting or other emergency personnel in the discharge of their duties.

4.4.5 Interference with Fire Exits. Tenant shall not do or permit to be done anything which may interfere with the effectiveness or accessibility of fire exits, elevators or escalators in or adjacent to Leased Premises, the Building or elsewhere at the Airport, including lines, pipes, wires, conduits and equipment connected with or appurtenant thereto.

4.5 Non-Discrimination and Affirmative Action. Tenant shall comply with the provisions of Exhibit "C" attached hereto and by this reference made a part hereof regarding nondiscrimination, as the same may be amended by Landlord from time to time. In addition, Tenant shall undertake an affirmative action program as required by 14 Code of Federal Regulations Part 152, Subpart E, to insure that no person shall, on the ground of race, creed, color, national origin, or sex, be excluded from participating in any employment activities covered in 14 Code of Federal Regulations Part 152, Subpart E. Tenant agrees that no person shall be excluded on these grounds from participating in or receiving the services or benefits of any program or activity covered by said subpart. Tenant will require that its permitted subtenants, licensees or permittees will provide assurances to Tenant that they similarly will undertake affirmative action programs and that they will require assurances from their licensees or permittees, as required by 14 Code of Federal Regulations Part 152, Subpart E, to the same effect.

4.6 Compliance with FAA Grant Assurances and Airport Use. In connection with the ownership and use of the Airport by Landlord, Tenant hereby agrees as follows:

4.6.1 Development or Improvement of Landing Area. Landlord reserves the right to further develop or improve the landing area of the Airport as it sees fit, regardless of the desires or views of Tenant, and without interference or hindrance.

4.6.2 Maintenance of Landing Area and Public Facilities. Landlord reserves the right, but shall not be obligated to Tenant, to maintain and keep in repair all common use facilities and publicly owned facilities of the Airport, together with the right to direct and control all activities of Tenant in this regard.

4.6.3 Agreements with United States. This Lease shall be subordinate to the provisions and requirements of any existing or future agreement between Landlord and the United States, or any lawful requirement of the United States, relative to the development, operation, or maintenance of the Airport.

4.6.4 Reservation of Rights. There is hereby reserved to Landlord, its successors and assigns, for the use and benefit of the public, a right of flight for the passage of aircraft in the airspace above the surface of the Leased Premises and the other areas of the Airport. This public right of flight shall include the right to cause within said airspace any noise inherent in the operation of any aircraft used for navigation or flight through said airspace or landing at, taking off from or operating on the Airport.

4.6.5 Height Restrictions. Tenant shall not erect nor permit the erection of any structure or object, nor permit the growth of any tree, on the Leased Premises, the Building or elsewhere at the Airport in violation of federal height restrictions and obstruction criteria or any more restrictive height restrictions and obstruction criteria established from time to time by Landlord. In the event the aforesaid covenants are breached, Landlord reserves the right to enter upon the Leased Premises, the Building or other areas of the Airport to remove the offending structure or object and to cut the offending tree, all of which shall be at the expense of Tenant.

4.6.6 Interference with Aircraft. Tenant shall not make use of the Leased Premises or any other areas of the Airport in any manner which might interfere with the landing and taking off of aircraft from the Airport, or which might otherwise constitute a hazard. In the event the aforesaid covenant is breached, Landlord reserves the right to enter upon the Leased Premises or any other areas of the Airport and cause the abatement of such interference, at the expense of Tenant.

4.6.7 Rights of United States. This Lease and all the provisions hereof shall be subject to whatever right the United States Government now has, or in the future may have or acquire, affecting the control, operation, regulation and taking over of said Airport, or the exclusive or nonexclusive use of the Airport by the United States during the time of war or national emergency or otherwise.

4.6.8 Unauthorized Access. Tenant shall use reasonable precautions to prevent unauthorized persons from gaining access to restricted flight and aircraft operational areas, including, without limitation, the precautions established pursuant to Section 4.7.

4.7 Airport Security.

4.7.1 Compliance. Tenant shall cause its officers, contractors, agents, sponsors and employees to comply with all existing and future security regulations adopted by Landlord pursuant to Part 1520 and 1542, Title 49 of the Code of Federal Regulations, as it may be amended from time to time. With respect to Airport security, it is a material requirement of this Lease that

Tenant shall comply with all rules, regulations, written policies, and authorized directives from Landlord and/or the Transportation Security Administration ("TSA"). Violation by Tenant or any of its employees of any rule, regulation, or authorized directive from Landlord or TSA with respect to Airport security shall constitute a material breach of this Agreement. Any person who violates such rules may be subject to revocation of his/her access authorization. Tenant will fully reimburse Landlord for any fines or penalties levied against Landlord for security violations as a result of any actions on the part of the Tenant, its agents, contractors, suppliers, guests, customers, sponsors, or employees. Tenant will also fully reimburse Landlord for any attorney fees or related costs paid by Landlord as a result of any such violation.

4.7.2 Changes in Security Status. Tenant understands and acknowledges that all rules, regulations, written policies, and authorized directives from Landlord and/or the TSA under this Agreement is subject to changes in alert status as determined by the TSA, which is subject to change without notice. If the security status of the Airport changes at any time, Tenant shall take immediate steps to comply and assist its employees, agents, independent contractors, invitees, successors, and assigns in complying with security modifications that occur as a result of the changed status. At any time, Tenant may obtain current information from the Landlord's security department regarding the Airport's security status in relation to Tenant operations at the Airport.

4.7.3 Access Keys and Badges. Tenant shall return to Landlord all access keys or access badges issued to its officers, contractors, agents, sponsors and employees for any area of the Airport, once this Agreement expires or terminates or upon Landlord's demand. If Tenant fails to do so, Tenant shall be liable to reimburse Landlord for all of Landlord's costs for work required to prevent compromise of the Airport security system. Landlord may withhold funds in the amount of such costs from any amounts due and payable to Tenant.

4.7.4 Breach. Any breach or violation by Tenant of, or failure by Tenant to comply with, this Section 4.7 shall constitute a breach of and an Event of Default under Section 11.1.

5. MAINTENANCE AND REPAIRS.

5.1 Landlord's Obligations.

5.1.1 Landlord Obligations. During the term of this Lease, Landlord shall keep and maintain in good condition and repair, reasonable wear and tear excepted, according to the standards established by Landlord, as the same may be changed at any time and from time to time, (i) the foundations, roof and other structural components of the Building, including the structural portions of the exterior walls of the Leased Premises, and (ii) all sprinklers, plumbing, sewer, electrical, water, gas, drains, heating, ventilating and air conditioning machines, facilities and equipment serving the Leased Premises, but only to the extent such machines, facilities or equipment are located within the Airport and only to the point of connection or distribution to the Leased Premises, as determined by Landlord, and are not located within any easement in favor of a municipal or public utility supplier; provided, however, that Landlord shall have no obligation to repair any damage to any of the foregoing to the extent caused by the willful or negligent act or omission, including, without limitation, any overuse or abuse, of Tenant or the agents, employees,

or invitees of Tenant, which damage shall be repaired promptly by Tenant, at Tenant's sole cost and expense. Landlord shall have no obligation to commence any maintenance or repair required under this Section until thirty (30) calendar days after the receipt by Landlord of written notice of the need for such maintenance or repair. Landlord shall not be liable to Tenant for any injury to or interference with Tenant, Tenant's business and operations or use or occupancy of the Leased Premises arising out of, resulting from or relating to the performance of any maintenance or the making of any repairs, except to the extent arising out of, resulting from or relating to the active negligence or willful misconduct of Landlord.

5.1.2 Tenant Waiver. Except as provided in Section 5.1.1, Landlord shall have no obligation to maintain or make any repairs to the Leased Premises. Tenant hereby waives any and all rights provided in Section 1941 through Section 1942, inclusive, of the Civil Code of California and hereby waives, to the extent permissible, any rights under other statutes or laws now or hereafter in effect which are contrary to the obligations of Landlord under Section 5.1.1, or which place obligations upon Landlord in addition to those provided in Section 5.1.1. Landlord shall not be liable to Tenant by reason of any injury to or interference with Tenant's business arising from or connected with the need for or the making of any repairs, alterations, or improvements to the Leased Premises. To the extent that Tenant is prevented from using the Leased Premises for the purpose specified in Section 4.2 as a result of the damage or destruction to the Leased Premises caused by the breach of this Lease, active negligence or willful misconduct of Landlord, Tenant shall be entitled to an abatement of the Monthly Rent for the period during which Tenant is prevented from using the Leased Premises.

5.2 Tenant's Obligations.

5.2.1 Maintenance. Tenant shall repair, at Tenant's cost, any damage to carpeting and any damage to interior walls caused by or resulting from the installation or maintenance or relocation of any Kiosk. Except as expressly provided in Section 5.1.1 hereof, Tenant, at Tenant's sole expense, shall maintain the Leased Premises and Kiosks, in good order, condition, and repair and in a neat, attractive, sanitary condition, free from waste or debris according to standards established by Landlord (whether or not such part of the Leased Premises requiring repair, or the means of repairing the same, are reasonably or readily accessible to Tenant, and whether or not the need for such repairs occurs as a result of Tenant's use, any prior use, the elements or the age of such part of the Leased Premises) including, without limitation, all of the following: (i) all ceilings, floors, interior walls, non-structural components of exterior walls, store fronts, windows, doors, plate glass, showcases, skylights, entrances, and vestibules located within the Leased Premises, and (ii) trade fixtures, furniture and other personal property located in or used in the Leased Premises, including, without limitation, the Kiosks and any and all other Alterations (as defined in Section 6.2). Tenant shall make any and all repairs required pursuant to this Section as and when the same become necessary to maintain the Leased Premises and every part thereof in good order condition and repair, but in no event later than thirty (30) calendar days following the delivery to Tenant of the need for such repair, or immediately in the event of an emergency. All repairs to the Leased Premises made by Tenant as provided in this Lease shall be performed in accordance with all applicable statutes, regulations, rules and ordinances and all requirements and orders of any and all federal, state, county, city and other governmental authorities and agencies having jurisdiction with respect thereto and Tenant shall secure all licenses, permits, approvals and authorizations required with respect thereto.

5.2.2 Tenant Failure to Repair. In the event that Tenant fails to make any repair to the Leased Premises or Kiosks pursuant to Section 5.2.1 within thirty (30) calendar days following the delivery to Tenant of written notice of the requirement therefor, or immediately in the event of an emergency, Landlord shall have the right, but not the obligation, at Landlord's option, to enter upon the Leased Premises and put the same in good order, condition and repair, and in a neat, attractive and sanitary condition, free from waste and debris, and the cost thereof shall become due and payable, upon demand, by Tenant to Landlord as additional rent under this Lease.

6. KIOSKS, IMPROVEMENTS AND ALTERATIONS.

6.1 Kiosks. On or before July 1, 2020, Tenant shall install the Kiosks in the Leased Premises. The Kiosks shall be installed in accordance with and subject to all of the provisions of this Lease relating to Alterations, including, without limitation, the provisions of Section 6.2, 6.3, 6.4 and 6.5, and shall be bolted to the floor, bolted to the wall, or both, as elected by Tenant subject to the reasonable approval of Landlord.

6.2 Construction. Without in each instance obtaining the prior written approval of Landlord, which approval shall not be unreasonably withheld or delayed, Tenant shall not construct, install or make any modifications, alterations, improvements, or additions including, without limitation, the Kiosks (collectively, "Alterations"), in, on or to the Leased Premises. Landlord may impose, as a condition of such consent, such reasonable requirements as to the contractor, time, manner, method, design and construction in which the Alterations shall be done as Landlord determines. No such Alterations shall be undertaken until Tenant shall have procured and paid for all permits, licenses, approvals and authorizations required by all governmental authorities and agencies having jurisdiction thereof. Prior to the commencement of any Alterations, Tenant shall comply with the rules and guidelines established by Landlord for such work pursuant to Landlord's policy on tenant improvements attached hereto as Exhibit "D", as the same may be amended from time to time. All plans shall be subject to Landlord's approval (which approval shall not be unreasonably withheld or delayed) and, when required by the Airport Engineer, shall be prepared, stamped and signed by a California licensed architect or engineer. Engineers shall be licensed for the particular discipline required. No work required in connection with any Alterations shall commence prior to receiving written approval of Landlord. All work done in connection with any Alterations shall be done at Tenant's sole expense and with reasonable diligence, in a good and workmanlike manner, and in compliance with all applicable federal, state, county and city statutes, regulations, rules and ordinances and all orders of any and all governmental authorities having jurisdiction thereof. In order to expedite plan review and approval and to insure that the proposed Alterations will be compatible with the Airport uses, Tenant first shall submit to Landlord for approval a schematic or conceptual plan. Landlord shall have the right to inspect and reject any work not done in accordance with the plans and specifications, and Tenant shall immediately repair or remove such work in accordance with this Section. Within thirty (30) calendar days following Landlord's request, Tenant shall furnish to Landlord a set of "as built" plans and specifications.

6.3 Indemnity. Tenant hereby agrees to defend, indemnify and hold harmless Landlord from and against any and all responsibilities, liabilities, obligations, damages, injuries, claims, demands, losses, awards, judgments, costs or expenses, arising out of, resulting from or relating to

the Kiosks, or any and all Alterations constructed, installed or made by Tenant on, in or to the Leased Premises pursuant to this Section 6. Tenant hereby assigns to Landlord any and all warranties or guaranties of contractors and subcontractors furnishing labor, materials, equipment and services in connection with the Alterations, which assignment shall be effective during the term of this Lease.

6.4 Payment. Tenant shall pay, when due, all claims for labor, materials, equipment and services furnished or alleged to have been furnished to or for Tenant at or for use in the Leased Premises, the Kiosks, the Building or any other areas of the Airport, which claims are or may be secured by any lien against the Leased Premises or the other areas of the Airport or any interest therein. In the event any such lien is filed against the Leased Premises, the Building or any other areas of the Airport, it shall be discharged or bonded by Tenant, at Tenant's expense, within (10) calendar days after written notice thereof is delivered to Tenant. Landlord shall have the right to post such notices of nonresponsibility as are provided for in the mechanics' lien laws of California.

6.5 Landlord's Property. Subject to Section 12, the Kiosks and items in them shall remain Tenant's personal property and shall not become or be considered real property or a part of the Building or the Airport, regardless of whether or by what means they are or may become attached or affixed to the Building. Tenant shall reimburse Landlord upon demand for any and all taxes, charges, assessments and other government levies payable by Landlord upon, measured by or reasonably attributable to the cost or value of the Kiosks and Tenant shall be responsible for insuring the Kiosks pursuant to Section 7.1.1.2.

7. INSURANCE; INDEMNITY; WAIVERS.

7.1 Tenant Requirements.

7.1.1 General. Tenant, at all times during the term hereof and at Tenant's sole cost and expense, shall maintain in effect the policies of insurance with limits of liability as provided in this Section 7.1.1.

7.1.1.1 Commercial General Liability Insurance. A policy of commercial general liability insurance written on an occurrence basis covering the liability of Tenant and Landlord arising out of, resulting from or relating to death or injuries to persons or damage to or loss of property occurring on, in, under or about the Leased Premises in the minimum amount of Two Million Dollars ($2,000,000) per occurrence.

7.1.1.2 Fire Insurance. A policy or policies of hazard insurance insuring against loss or damage to or destruction of (i) Tenant's fixtures, Alterations, personal property and equipment (including the Kiosks) located in, on or at the Leased Premises in an amount not less than one hundred percent (100%) of their replacement value, and (ii) all plate glass in the Leased Premises, if any, on an "All Risk" basis.

7.1.1.3 Workers' Compensation Insurance. Workers' compensation insurance in accordance with applicable law and employers' liability coverage in the minimum amount of One Million Dollars ($1,000,000) covering Tenant's liability for its business and operations at the Leased Premises.

7.1.1.4 Motor Vehicle Liability. Motor vehicle liability insurance coverage, including hired and non-owned vehicle coverage, which provides public liability and property damage liability coverages of not less than Two Million Dollars ($2,000,000) per occurrence for bodily injury, including death, or property damage occurring as a result of the ownership, use or operation of motor vehicles in connection with Tenant's business and operations at the Leased Premises.

7.1.2 Adjustment of Insurance Coverage and Limits. Landlord may add to or change the types or coverages of insurance or the minimum limits of liability required to be maintained by Tenant pursuant to Section 7.1.1 by written notice to Tenant of such additions or changes. If Tenant elects not to maintain such additional or changed insurance or limits of liability, Tenant may terminate this Lease in its entirety by written notice of termination given to Landlord prior to the expiration of said thirty (30) calendar days. If Tenant does not terminate this Lease, Tenant shall obtain such additional or changed types of insurance or coverages or shall increase its insurance limits of liability as may be required by Landlord and failure to do so shall be an Event of Default under Section 11.1.5.

7.1.3 Policy Requirements. Each insurance policy required to be maintained by Tenant pursuant to Section 7.1.1 (i) shall be obtained from an insurance company authorized to conduct business in the State of California and having a rating of not less than A VIII in A.M. Best's Insurance Guide; (ii) except for workers' compensation, shall name Landlord as an additional named insured; and (iii) shall provide that Landlord be given at least thirty (30) calendar days' prior written notice of the termination, cancellation or amendment thereof. Concurrently with the execution and delivery of this Lease, Tenant shall furnish to Landlord a certificate or copy of each such insurance policy and prior to the expiration, cancellation or termination thereof, Tenant shall deliver to Landlord certificates or copies of any and all extensions renewals or replacements thereof.

7.1.4 No Limitation of Liability. Tenant acknowledges and agrees that the limits of liability provided in the insurance policies maintained by Tenant pursuant to Section 7.1.1 shall in no event be considered as limiting the liability of Tenant under this Lease.

7.2 Indemnification. Tenant shall defend, indemnify and hold harmless Landlord and its commissioners, officers, employees, agents and contractors, from and against any and all claims, demands, actions, suits, proceedings, damages, losses, liabilities, obligations, costs and expenses, including, without limitation, attorneys' fees, arising out of, resulting from or relating to the use or occupancy of the Leased Premises or operation of the Kiosks, except to the extent caused by the active negligence or willful misconduct of Landlord.

7.3 Exemption of Landlord from Liability. Tenant, on behalf of itself and its directors, officers, partners, employees, agents, representatives and contractors hereby waives all claims against Landlord with respect to this Lease, the Leased Premises, the Kiosk, the Building and the Airport, and Landlord shall not be liable, for any injury or death to persons or any damage or loss to any property in, on or about the Leased Premises, the Building or any other areas of Airport, arising out of, resulting from or relating to this Lease (including Tenant's use or occupancy of the Leased Premises), including, without limitation, any of the following: (i) latent or patent defects in the construction or condition of the Leased Premises, the Building or any other areas of the

Airport; (ii) Acts of God; (iii) fire, steam, electricity, gas, water, or rain which may leak or flow from or into any part of the Leased Premises, the Building or any other areas of the Airport; (iv) riot, civil commotion, aircraft, vehicles, smoke, vandalism, malicious mischief; (v) breakage, leakage, obstruction or other defects of the pipes, wires, appliances, plumbing, heating, ventilation and air conditioning equipment, or lighting fixtures of or serving the Leased Premises, the Building or any other areas of the Airport; (vi) the use or occupancy of the Leased Premises, whether said damage or injury results from conditions arising upon the Leased Premises, the Building or upon other areas of the Airport, or from other sources; or (vii) any damage or loss arising from any act or neglect of any other tenant, licensee, concessionaire or customer of the Airport.

8. ASSIGNMENT AND SUBLETTING.

Tenant shall not voluntarily or by operation of law assign, sublet, transfer or mortgage, hypothecate, grant a security interest in or otherwise encumber all or any part of Tenant's rights or interest in or to this Lease or the Leased Premises. Any attempted assignment, subletting, transfer, mortgage, hypothecation, grant of a security interest in or other encumbrance in violation of this Section shall be wholly void and of no force or effect. For the purposes of this Section, if Tenant is a corporation, any assignment, transfer, mortgage, hypothecation, grant of a security interest or other encumbrance or other event which results, or upon foreclosure would result, in the reduction of the interest of the present shareholders of record to less than a majority of any class of voting stock of Tenant, or if Tenant is a partnership, any assignment, transfer, mortgage, hypothecation, grant of a security interest or other encumbrance of a partnership interest or interests or other event which results, or upon foreclosure would result, in the reduction of the profit and loss participation of the present general partners to less than fifty-one percent (51%), or if Tenant is a corporation, partnership, trust or other entity, any change in the direct or indirect power to direct or cause the direction of the management and policies of such business or entity, shall be deemed to be a prohibited assignment, transfer, mortgage, hypothecation, grant of a security interest or other encumbrance under this Section.

9. EMINENT DOMAIN.

9.1 Entire or Substantial Taking. In the event that the entire Leased Premises, or so much thereof as to make the balance not reasonably adequate for the conduct of Tenant's business, shall be taken under the power of eminent domain, this Lease automatically shall terminate as of the date of the vesting of title in such condemning entity.

9.2 Awards. Any award for any taking of all or any part of the Leased Premises under the power of eminent domain shall be the property of Landlord, whether such award shall be made as compensation for diminution in value of the leasehold or for the taking of the fee. Nothing contained herein, however, shall be deemed to preclude Tenant from obtaining, or to give Landlord any interest in, any award to Tenant for loss of or damage to Tenant's trade fixtures and removable personal property or damages for cessation or interruption of Tenant's business, provided, however, that in determining the value of Tenant's business, all goodwill attributable to the location of the business shall belong to Landlord and Tenant's business shall be valued based solely upon its operating results.

9.3 Condemnation by Landlord. Nothing in this Lease shall impair, limit or otherwise affect the power of eminent domain of Landlord or the exercise of such power by Landlord.

10. SUBORDINATION.

10.1 Subordination. This Lease is subject and subordinate to all mortgages, deeds of trust, bond indentures, liens, encumbrances and other security interests now or hereafter affecting the Leased Premises, the Building or the Airport, and to all renewals, modifications, replacements, consolidations and extensions thereof. Tenant shall execute and deliver to Landlord or any other party requiring such subordination, within ten (10) calendar days following its receipt, any and all documents which may be required to effectuate such subordination. Tenant further agrees that this Lease shall be amended, altered or modified in accordance with the reasonable requirements of a mortgagee, beneficiary, bond trustee, secured party or other lien holder, so long as such amendment, alteration or modification does not cause Tenant material financial loss, and that Tenant's written consent to any such amendment, alteration or modification shall not be unreasonably withheld or delayed. Tenant shall give prompt written notice to each mortgagee, beneficiary, bond trustee, secured party or lien holder, of which Tenant has written notice, of any Event of Default of Landlord, and Tenant shall allow such mortgagee, beneficiary, bond trustee, secured party or lien holder a reasonable length of time (in any event, not less than thirty (30) calendar days from the date of such notice) in which to cure such Event of Default.

10.2 Attornment. In the event that any mortgage, deed of trust, bond indenture, security interest, lien or other encumbrance is foreclosed, Tenant, with and at the election of the purchaser or, if there is no purchaser, with and at the election of the holder of the fee title to the Leased Premises, agrees to enter into a new Lease covering the Leased Premises for the remainder of the term of this Lease, on the same provisions herein provided. Alternatively, upon such foreclosure, Tenant shall, upon written request, attorn to the purchaser and recognize the purchaser as Landlord under this Lease.

11. DEFAULTS AND REMEDIES.

11.1 Default by Tenant. Any of the following shall constitute an Event of Default by Tenant under this Lease:

11.1.1 Bankruptcy, Insolvency or Receivership. (i) The consent of Tenant to the appointment of a receiver, trustee or liquidator of all or a substantial portion of Tenant's assets; or (ii) the adjudication of Tenant as a bankrupt or insolvent; or (iii) the filing by Tenant of a voluntary petition in bankruptcy; or (iv) the admittance by Tenant in writing of Tenant's inability to pay its debts as they become due; or (v) the failure by Tenant to pay its debts as they become due; or (vi) the making by Tenant of a general assignment for the benefit of creditors; or (vii) the filing by Tenant of a petition or answer seeking reorganization or arrangement with creditors; or (viii) the taking by Tenant of advantage of any insolvency law; or (ix) the entrance of any order, judgment or decree upon an application of a creditor of Tenant by a court of competent jurisdiction approving a petition seeking appointment of a receiver, trustee or assignee of all or a substantial part of Tenant's assets, when such order, judgment or decree is not vacated within thirty (30) calendar days.

11.1.2 Assignment, Subletting or Encumbrance. An attempted assignment, transfer, mortgage, grant of a security interest in, hypothecation or other encumbrance by Tenant of Tenant's rights or interests in this Lease or in the Leased Premises in violation of Section 8.

11.1.3 Abandonment or Termination. The vacation or abandonment by Tenant of the Leased Premises in violation of Section 4.4.3, or the termination of Tenant's right to possession by operation of law or as herein set forth, in each case for more than ten (10) days after delivery of written notice from Landlord, except in conjunction with the exercise by Tenant of any express right of Tenant to terminate this Lease.

11.1.4 Nonpayment of Rent. The failure by Tenant to pay any installment of Monthly Rent, any additional rent, or any other sum due hereunder within ten (10) days after delivery of written notice from Landlord that same is due and payable.

11.1.5 Insurance. Failure to maintain the insurance required by Section 7.

11.1.6 Security Deposit. Failure to perform any obligations of Tenant under Section 17 within ten (10) days after delivery of written notice from Landlord.

11.1.7 Gross Revenue Records and Reports. Tenant's failure to comply with any of the provisions of Sections 3.3, 3.4 or 3.5 within ten (10) days after delivery of written notice from Landlord that same is due.

11.1.8 Security. Tenant violates any provision of Section 4.7.

11.1.9 Other. The breach of or failure to perform by Tenant of any representation, warranty, covenant or agreement under this Lease, other than those described in Sections 11.1.1 through 11.1.8, (i) after the delivery to Tenant of written notice thereof and Tenant's failure to cure such breach or failure within thirty (30) calendar days following the delivery of such written notice; provided, however, in the event that the nature of Tenant's obligation is such that more than thirty (30) calendar days are required for its performance, Tenant shall not be deemed to be an Event of Default if Tenant shall commence such performance within such thirty (30) calendar day period and thereafter diligently prosecutes the same to completion; or (ii) immediately in the event of An emergency.

11.2 Remedies. Upon the occurrence of any Event of Default under this Lease, Landlord, at its option and election, and without further demand or notice, in addition to all other rights and remedies of Landlord, shall have the right to declare this Lease, including the leasehold estate in the Leased Premises, ended and terminated (or to declare this Lease terminated as to the Space(s) with respect to which an Event of Default shall have occurred, if so elected by Landlord in its sole and absolute discretion), to re-enter the Leased Premises, to remove and eject all persons therefrom, to take possession thereof, and to enjoy the Leased Premises, together with all additions, Alterations and improvements thereto and Tenant shall be liable for the unpaid portion of any and all accrued Monthly Rent hereunder and the amount of any and all damages incurred by or on behalf of Landlord with respect to the Events of Default. In the event that Landlord may have reentered any Leased Premises after an Event of Default hereunder without having declared this Lease terminated, Landlord shall have the right at any time thereafter to elect to terminate this

Lease and all of the rights and remedies of Tenant in and to the Leased Premises as provided herein.

11.3 Personal Property. [Intentionally Omitted.]

11.4 Waiver. Tenant hereby waives all claims and demands against Landlord for damages or loss arising out of or in connection with any lawful re-entering and taking possession of the Leased Premises.

11.5 Waiver of Redemption. In the event of the lawful exercise by Landlord of any one or more of its rights and remedies under this Section 11, Tenant hereby expressly waives any and all rights of redemption or relief from forfeiture under California Code of Civil Procedure Section 1174 or 1179, or granted by or under any present or future laws, and further releases Landlord, from any and all claims, demands and liabilities by reason of such exercise by Landlord.

11.6 Cumulative Remedies. The various rights, options, elections, powers and remedies reserved to Landlord herein shall be cumulative, and, except as otherwise provided by statute, Landlord may pursue any or all such rights and remedies, whether at the same time or otherwise, and no single right shall be deemed to be exclusive of any of the other or of any right or priority allowed by law or in equity. No delay or omission of Landlord to exercise any right or remedy shall be construed as a waiver of any such right or remedy or waiver of any Event of Default by Tenant. In addition to the foregoing, Landlord may exercise any other remedy now or hereafter available to a landlord against a defaulting tenant under the laws of the State of California.

11.7 Termination of Landlord Liability. Landlord shall be under no obligation to observe or perform any covenant of this Lease on its part to be observed or performed for the benefit of Tenant, which accrues after the date of any Event of Default.

11.8 Default by Landlord. Landlord shall not be deemed to be in default in the performance of any obligation required to be performed by it hereunder unless and until it has failed to perform such obligation within thirty (30) calendar days following the delivery by Tenant to Landlord of written notice specifying the obligation Landlord has failed to perform; provided, however, in the event that the nature of Landlord's obligation is such that more than thirty (30) calendar days are required for its performance, Landlord shall not be deemed to be in default if it shall commence such performance within such thirty (30) calendar day period and thereafter diligently prosecutes the same to completion.

12. SURRENDER AT END OF TERM.

By the expiration of this Lease, and promptly upon any earlier termination of this Lease, Tenant shall quit and surrender the applicable Leased Premises to Landlord, broom clean and in good order and condition, ordinary wear and tear, casualty and damage by the elements excepted, and Tenant shall remove the Kiosks and their contents, and shall promptly repair any damages to the Leased Premises caused by such removal. If Tenant fails to do so, Landlord may do so, and may dispose of the same in any manner without liability to Tenant (and Tenant hereby waives any and all statutes or other law to the contrary), or Landlord may retain the same as Landlord's property without liability or obligation to Tenant (and Tenant hereby waives any and all statutes

or other law to the contrary). Tenant's obligation to perform this covenant shall survive the expiration or other termination of the term hereof.

13. COMMON USE FACILITIES.

13.1 Common Use Facilities. In conjunction with Tenant's use of the Leased Premises, and solely for the purposes hereinbefore set forth in this Lease, Tenant is hereby granted the nonexclusive right during the term of this Lease to enter upon or make customary and reasonable use of such areas of the Building and the other areas of the Airport as Landlord may from time to time designate as "common use facilities." Tenant's rights hereunder shall be in common with Landlord and with other persons authorized by Landlord from time to time to use such facilities and shall be in strict compliance with all laws, rules, directions and orders of Landlord applicable thereto. Within ten (10) days following the termination of this Lease, the applicable Kiosk(s) and any and all of Tenant's other trade fixtures, equipment and personal property shall be removed by Tenant, at its sole cost and expense, and the applicable Space shall be restored and repaired to the condition existing as of the Commencement Date, subject to reasonable wear and tear, casualty and damage by the elements.

13.2 Public Areas. During the term of this Lease, Tenant, and its officers, directors, employees, agents, representatives, customers, passengers, guests and invitees, shall be entitled to use all public areas located in the Building, and the other areas of the Airport, in common with Landlord and with other persons authorized by Landlord from time to time to use said facilities.

13.3 Restrictions on Use. Landlord reserves the right, in its sole discretion, to make changes at any time and from time to time in the size, shape, location, number and extent of all areas of the Airport, including all common use facilities and public areas, or any of them, and specifically further reserves the right to designate portions of the common use facilities and public areas for the use of certain tenants of the Airport.

13.4 Holdroom Space and Baggage Claim Space Excluded. As used herein, the terms "common use facilities" and "public areas" do not include any holdroom space or baggage claim space within the Airport. Tenant is not granted any rights under this Lease to use said holdroom space or baggage claim space, whether on a non-exclusive basis or otherwise.

13.5 Parking. Notwithstanding that Landlord may lease parking spaces to employees of Airport tenants, as such parking spaces may be available, it is expressly understood and agreed that Landlord is not responsible or obligated to provide Tenant or its officers, directors, its employees, agents, representatives, contractors, licensees, invitees or permittees, with any parking spaces within the Airport or otherwise, as an appurtenance to this Lease. Tenant shall be solely responsible for arranging any and all necessary parking incidental to this Lease.

14. SERVICES.

14.1 Fire and Security. Landlord is not obligated to Tenant to furnish any fire fighting services or security services to the Leased Premises. Tenant shall maintain its own security services for the Leased Premises and agrees that the maintenance by Landlord of either security or fire fighting services shall not constitute a waiver of this provision. Tenant acknowledges that the Leased Premises are within the municipal' service area of the City of Burbank.

14.2 Landlord Not Responsible. Landlord shall not be liable in damages or otherwise for any failure or interruption of any services, or of any utilities to the Leased Premises, and no such failure or interruption shall entitle Tenant to terminate this Lease or to an abatement of rent. Landlord shall not be liable to Tenant under any circumstances for damage or loss of Tenant's property, injury to person or property, or consequential damages, however occurring, through, in connection with, or incidental to failure to furnish any of the foregoing.

15. QUIET ENJOYMENT.

Upon paying the rent and other sums due hereunder and observing and performing all the provisions on Tenant's part to be observed and performed pursuant to this Lease, Tenant may peaceably and quietly enjoy the Leased Premises, subject to the provisions of this Lease and to any mortgages, deeds of trust, bond indentures, security interests, liens and other encumbrances secured by the Airport or its revenues.

16. ATTORNEYS' FEES AND COSTS.

In the event any action or proceeding is brought by either party against the other under this Lease, the prevailing party shall be entitled to recover its costs, and, for the fees of its attorneys in such action or proceeding, in such amount as the court may adjudge reasonable as attorneys' fees.

17. SECURITY DEPOSIT.

Concurrently with the execution of this Lease, Tenant shall deliver to Landlord the sum of $600.00. Upon an Event of Default on the part of Tenant with respect to any provision of this Lease, including, but not limited to, the provisions relating to the payment of rent or any other amount due hereunder, subject to any applicable notice and cure periods as provided in Section 11, Landlord may apply all or any part of said sums for the payment of any amount in default, to cure any Event of Default or to repair any damage to the Leased Premises caused by Tenant and to pay any and all damages to which Landlord is otherwise entitled as a result of such default. In the event that Landlord elects to apply any of the sums delivered by Tenant to Landlord pursuant to this Section, Tenant shall, within thirty (30) days after written demand therefor, deliver to Landlord a sum sufficient to restore the sums held by Landlord, and Tenant's failure to do so shall be an Event of Default. In the event Landlord applies any funds as provided in this Section, such action shall not constitute an election or waiver of any other rights or remedies which Landlord may have by virtue of Tenant's default. Landlord shall delivery any unapplied portion of such deposit(s) to Tenant within one hundred and twenty (120) days after the expiration or earlier termination of this Lease. TENANT HEREBY WAIVES THE PROVISIONS OF CALIFORNIA CIVIL CODE SECTION 1950.7 TO THE EXTENT INCONSISTENT WITH THE PROVISIONS OF THIS SECTION.

18. TRANSFER OF LANDLORD'S INTEREST.

In the event of any transfer of Landlord's interest in the Leased Premises, the transferor automatically shall be relieved of any and all obligations and liabilities accruing from and after the date of such transfer upon confirmation that the transferee agrees to accept all obligations and liabilities accruing under this Agreement from and after the date of such transfer.

19. LEASE INTERPRETATION.

19.1 Incorporation of Prior Agreements; Amendments. This Lease contains the entire agreement between the parties hereto, and no prior agreement or understanding shall be effective for any purpose all of which, if any, are hereby terminated or rescinded, except as to provisions which are expressly stated to survive termination and any indemnity or insurance obligation in favor of Landlord. Except as otherwise expressly provided herein, no provision of this Lease may be amended or added to, except by an agreement in writing signed by the parties hereto or their respective successors in interest. Tenant agrees that it shall not unreasonably refuse to execute any amendment of or supplement to this Lease which Landlord determines is necessary or advisable in order to comply with applicable laws, rules and resolutions of Landlord in effect from time to time.

19.2 No Representations by Landlord. Tenant acknowledges that neither Landlord nor any of Landlord's agents, representatives, employees or officers have made any representations or promises with respect to the Airport or the Leased Premises, except as herein expressly set forth. Tenant acknowledges that it has not executed this Lease in reliance upon any representations or promises of Landlord or Landlord's commissioners, officers, employees, agents or representatives, with respect to the Airport or the Leased Premises, except as herein expressly set forth.

19.3 Examination of Lease. Submission of this Lease for examination or signature by Tenant does not constitute a reservation of or option for lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

19.4 Relationship Between Parties. Nothing contained in this Lease shall be construed to create the relationship of principal and agent, partnership, joint venture or any other relationship between the parties hereto, other than the relationship of landlord and tenant.

20. WAIVERS.

The waiver by either party of any provision of this Lease shall not be deemed to be a waiver of any other provision hereof or of any subsequent breach of any other provision hereof or of any subsequent breach of the same or any other provision. Landlord's consent to any act by Tenant requiring Landlord's consent shall not be deemed to render unnecessary the obtaining of Landlord's consent to any subsequent act by Tenant, whether or not similar to the act so consented. The subsequent acceptance of any rent or any other amount due from Tenant hereunder by Landlord shall not be deemed to be a waiver of any preceding breach or Event of Default by Tenant of any provision of this Lease, other than the failure of Tenant to pay the particular amount so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such amount.

21. PERFORMANCE OF TENANT'S COVENANTS BY LANDLORD.

In the event that Tenant at any time fails to make any payment or perform any other act under this Lease, and such failure continues for at least ten (10) calendar days after written notice thereof from Landlord to Tenant (but no notice shall be required in an emergency), Landlord shall have the right, but not the obligation, immediately or at any time thereafter, without further notice or demand and without waiving or releasing Tenant from any obligation to Landlord, to make such

payment or perform such other act for the account of Tenant, to the extent Landlord may deem desirable. All sums so paid by Landlord and all expenses incurred in connection therewith, together with interest thereon at the annual rate specified in Section 3.9 shall be deemed additional rent hereunder and shall be payable to Landlord on demand. In the event such additional amounts remain unpaid, Landlord shall have the same rights and remedies as for the nonpayment of rent.

22. SUCCESSORS AND ASSIGNS.

The provisions contained in this Lease shall bind and inure to the benefit of Landlord, Tenant and, except as otherwise provided in this Lease, their respective successors and assigns.

23. RULES AND REGULATIONS.

Tenant shall comply with all uniform rules and regulations established by Landlord for use of the Airport, the Building or the Leased Premises, as the same may be amended from time to time by Landlord. Landlord shall provide Tenant with a copy of all such rules and regulations and any and all amendments thereto. Landlord shall not be responsible to Tenant for the nonperformance of any other tenant, occupant, licensee, concessionaire or other user of the Airport of any of said rules and regulations.

24. TOXIC MATERIALS.

24.1 Prohibited Without Consent. Tenant shall not cause or permit any Toxic Materials (as defined in Section 24.2) to be brought onto, stored, used or disposed of in, on or about the Leased Premises by Tenant, its agents, employees, contractors, licensees, subtenants or invitees, without the prior written consent of Landlord, which Landlord shall not unreasonably withhold or delay so long as Tenant demonstrates to Landlord's reasonable satisfaction that such Toxic Materials, and the quantities thereof, are necessary or useful to Tenant's business and will be stored, used and disposed of in a manner that complies with all Environmental Laws (as defined in Section 24.2).

24.2 Compliance with Environmental Laws. Tenant shall comply, at its sole cost, with all federal, state and local laws and governmental orders applicable to all Toxic Materials and to the lawful conduct of Tenant's business. The term "Toxic Materials" means any hazardous or toxic material, pollutants, effluents, contaminants, radioactive materials, flammables, explosives, pesticides, chemicals known to cause cancer or reproductive toxicity, emissions, wastes or any other chemicals, materials or substances, whose handling, storage, release, transportation or disposal is or becomes prohibited, limited or regulated by any federal, state, county, regional or local Landlord or, even if not so regulated, is or becomes known to pose a hazard or potential threat to the health and safety of any person or to the environment. The term "Environmental Laws" means any and all laws, rules, regulations, judgments, orders, permits, licenses, agreements, covenants, restrictions, requirements, policies or the like enacted now or hereafter by federal, state, regional or local governments, agencies or authorities relating to or governing in any way the environmental condition of soil, air, water, groundwater or the presence of Toxic Materials in or affecting all or any portion of the Leased Premises or any others areas of the Airport.

24.3 Indemnity. Tenant shall be solely responsible for and shall indemnify, hold harmless and defend Landlord, its commissioners, officers, employees and agents, and the Cities

of Burbank, Glendale and Pasadena, California, from and against any and all liabilities, claims, costs, penalties, fines, losses (including without limitation, (i) diminution in value of the Airport, the Leased Premises, the Building or any other areas of the Airport or any improvements thereon; (ii) damages for the loss or restriction on use of rentable or usable space or of any amenity of the Airport, the Leased Premises, the Building or any other areas of the Airport or any improvements thereon; (iii) damages arising from any adverse impact on marketing of space in the Airport, the Leased Premises, the Building or any other areas of the Airport or any improvements therein; and (iv) sums paid in settlement of claims), liabilities, losses, damages, injuries, causes of action, judgments, and expenses (including, without limitation, attorneys' fees, consultant fees and expert fees), which arise during or after the term of this Lease as a result of the receiving, handling, use, storage, accumulation, transportation, generation, spillage, migration, discharge, release or disposal of Toxic Materials in, on or about the Leased Premises, the Building or any other areas of the Airport by Tenant or its agents, employees, contractors, licensees, subtenants or invitees arising out of or relating to this Lease (including Tenant's use or occupancy of the Leased Premises). The foregoing indemnification by Tenant includes, without limitation, any and all costs incurred in connection with any investigation of site conditions and any cleanup, remediation, removal or restoration work necessary to bring the Leased Premises, the Building or any other areas of the Airport into compliance with the Environmental Laws or required by any federal, state or local governmental agency or political subdivision because of Toxic Materials present in the soil, subsoils, groundwater or elsewhere from, in, on, under or about the Leased Premises, the Building or any other areas of the Airport. The indemnification by Tenant under this Section shall survive the termination of this Lease.

24.4 Prohibited Substances. The following substances are strictly prohibited from being brought onto the Leased Premises, the Building or any other areas of the Airport in any quantities whatsoever: (i) arsines; (ii) dioxins, including dioxin precursors and intermediates; (iii) polychlorinated biphenyls; and (iv) anything contained in the California List of Extremely Hazardous Chemicals.

25. MISCELLANEOUS.

25.1 Offset Statement.

25.1.1 Delivery. Tenant shall from time to time, upon not less than fifteen (15) calendar days' prior written notice from Landlord, execute, acknowledge and deliver to Landlord a statement in writing:

25.1.1.1 Certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease, as so modified, is in full force and effect);

25.1.1.2 Setting forth the dates to which the rent and other charges, if any, are paid; and

25.1.1.3 Acknowledging that there are not, to Tenant's knowledge, any uncured defaults on the part of Landlord hereunder (or specifying such defaults if any are claimed).

25.1.2 Reliance. Any such statement may be relied upon by any encumbrancer of the Leased Premises or of all or any portion of the Airport. Tenant's failure to deliver such statement within such time shall be conclusive evidence upon Tenant that:

25.1.2.1 This Lease is in full force and effect, without modification except as may be represented by Landlord;

25.1.2.2 There are no uncured defaults in Landlord's performance; and

25.1.2.3 Not more than one month's installment of the Monthly Rent has been paid in advance.

25.2 Headings. The Section headings, paragraph captions and marginal headings contained in this Lease are for convenience only and shall have no effect in the construction or interpretation of any provision hereof.

25.3 Notices. Whenever notice is to be given under the terms of this Lease, it shall be personally delivered or be sent by registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

To Landlord:

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
2627 Hollywood Way
Burbank, CA 91505
Attn: Executive Director

To Tenant:

HG Burbank JV
One Meadowlands Plaza, Ninth Floor
East Rutherford, New Jersey 07073

With a copy to:

HG Burbank JV
One Meadowlands Plaza, Ninth Floor
East Rutherford, New Jersey 07073
Attn: General Counsel

In the event a different address is furnished by either party to the other party in writing, notices shall thereafter be sent or delivered to the new address. Any such notice shall be deemed given as of the date of personal delivery or forty-eight hours after it is mailed, except that a notice of a change in address shall be deemed given as of the date of receipt thereof. A notice given in any other manner shall be deemed given as of the date it is actually received by the party for whom intended. It is recognized that Landlord may employ a manager or operator of the Airport, as an

agent of Landlord, and any notices to Landlord hereunder shall be given to both Landlord and any such manager or operator.

25.4 Brokers. Tenant warrants that it has not had any dealings with any real estate broker or agent in connection with this Lease, and Tenant agrees to defend, indemnify and hold Landlord harmless from any claim for any compensation, commission or other charge by any finder or any other real estate broker or agent.

25.5 Recording. Tenant shall not record this Lease without the prior written consent of Landlord. In the event Landlord consents to recordation of this Lease or a memorandum thereof, any documentary transfer taxes shall be paid by Tenant.

25.6 Governing Law. This Lease be governed by- and construed pursuant to the law of the State of California.

25.7 Time of Essence. Time is of the essence of this Lease.

25.8 Signs. Tenant shall not, without the prior written consent of Landlord, install or affix any signs or advertisements on or to the exterior of the Leased Premises or the Airport.

IN WITNESS WHEREOF, this Lease has been executed by the undersigned as of the date first set forth above.

BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY

By: _____
Print Name: _____
Title: _____

HG BURBANK JV,
a Joint Venture

By: Stewart Manhattan Investments, Inc.,
a California corporation

By: _____
Simeon R. Stewart II,
Chief Executive Officer

By: Hudson Group (HG) Retail, LLC,
a Delaware limited liability company,

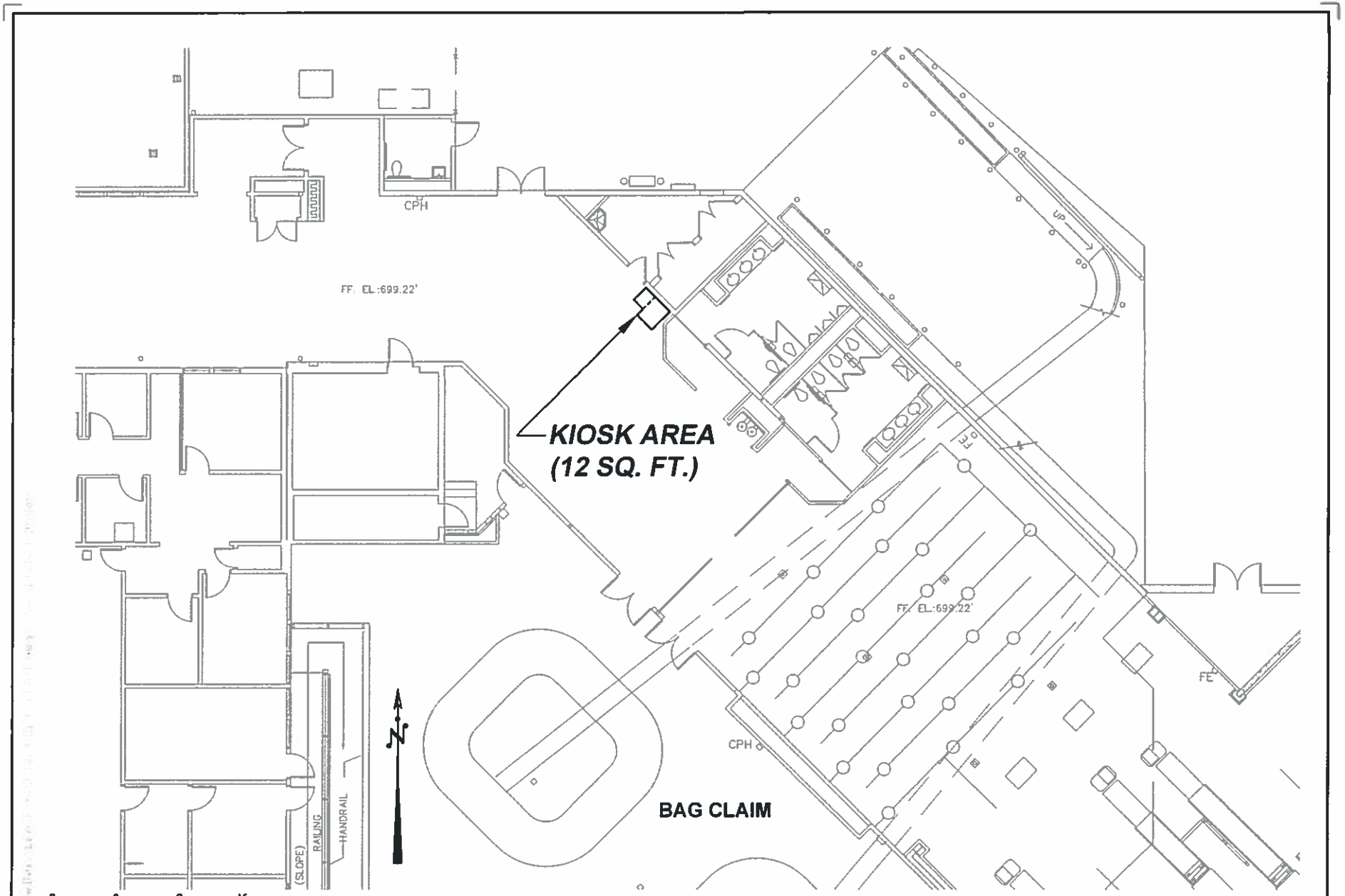
By: Michael R. Mullaney
Print Name: Michael R. Mullaney
Title: EVP, Corporate Strategy & Development

APPROVED AS TO FORM:
Hudson Group
BY Natalie Aronov
Natalie Aronov, Senior Counsel

EXHIBIT "A"

DESCRIPTIONS OF LEASED PREMISES

(Attached.)



HUDSON KIOSK TERMINAL A LEASE EXHIBIT

EXHIBIT A

△ DATE	DESCRIPTION	BY	△ DATE	DESCRIPTION	BY

BUR

AIRPORT AUTHORITY APPROVAL

PROJECT: HUDSON KIOSK

SHEET TITLE: TERMINAL A LOCATION EXHIBIT

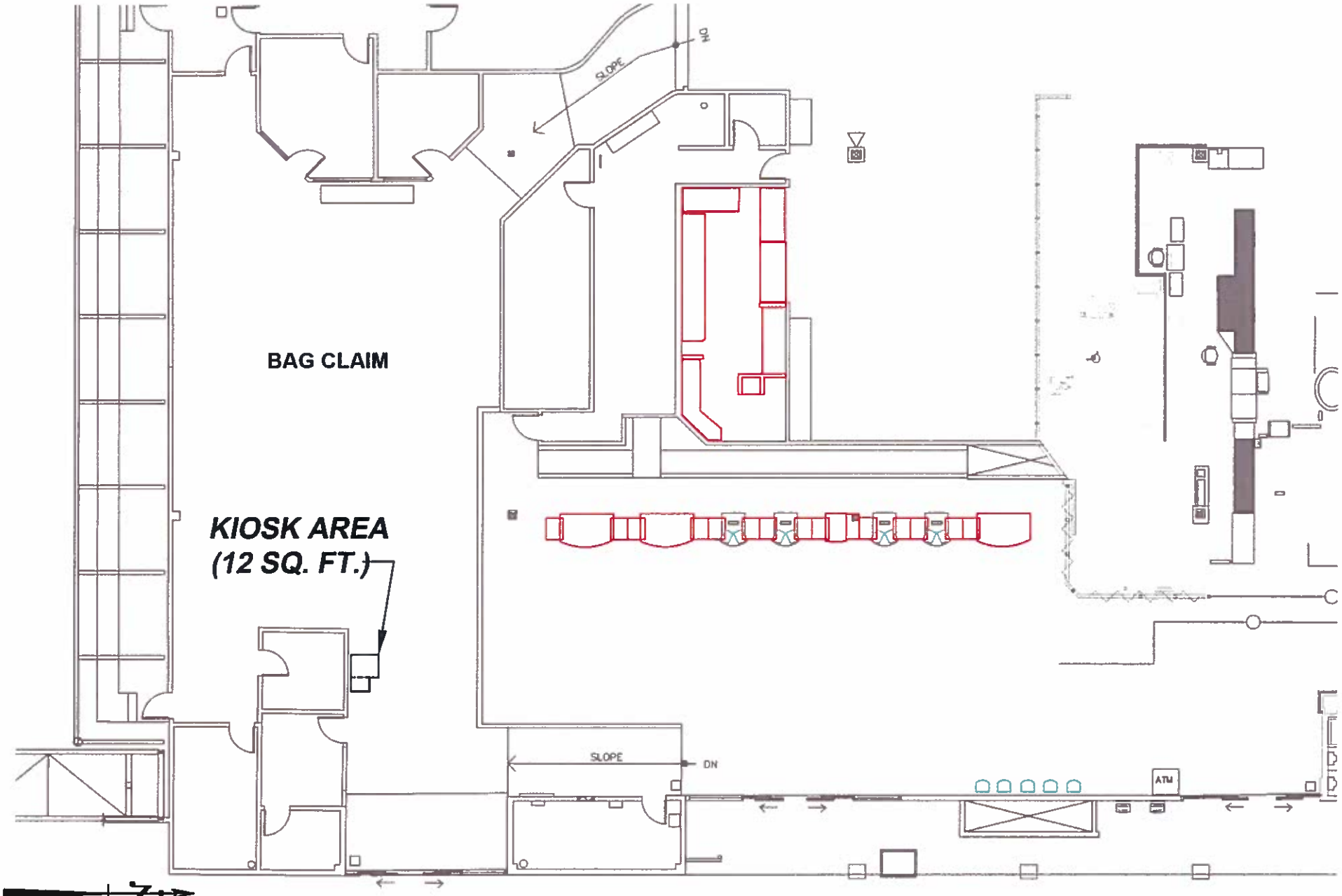
DATE: 06/20

DRAWN BY:

CHECKED BY:

SHEET No. 1 OF 1

REV.



HUDSON KIOSK TERMINAL B LEASE EXHIBIT

EXHIBIT A

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DATE	DESCRIPTION	BY	DATE	DESCRIPTION	BY

BUR

PROJECT: HUDSON KIOSK

SHEET TITLE: TERMINAL B LOCATION EXHIBIT

DATE: 06/20

SHEET No. 1 OF 1

REV.

EXHIBIT "B"

DESCRIPTIONS OF KIOSKS

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SIGNIFI Solutions Inc.

Spark Series

Companion with Control

AR AM Automated Retail Asset Management

- Add additional lockers or Companion units
- Signifi VISION ready. *"Cloud Based Platform"*
- 24" Full HD touchscreen

*: Indicates variable height leveling feet.

Spark Companion		Spark Touch
Dimensions	72.4" H, 31.5 W, 38.5 D - *Inch* 183.9" H, 80.0 W, 97.8 D - Cm	78.3" H, 19.6 W, 26.1 D - *Inch* 198.9" H, 49.8 W, 66.3 D - Cm
Weight	670 lbs - 303.90 Kg	350 lbs - 158.75 Kg
Electrical	110–240VAC, 150 W	110–240VAC, 150 W
Refrigeration	*Optional* : 4C to 12C / 39.2F to 53.6F	N/A
Capacity	5 Shelves (Max 50 SKUs)	4 Interior storage shelves
Computer	N/A	Intel® NUC PC
Touch Screen	N/A	24" Full HD touchscreen
Payment Options	N/A	EMV, Credit, Tap, Debit, Keypad, Barcode, HID, MSR
Camera	Product	Customer

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EXHIBIT "C"

FAA GRANT AGREEMENT ASSURANCES

A. Tenant, for itself, its representatives, successors in interest, and permitted assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that in the event facilities are constructed, maintained, or otherwise operated on the Leased Premises for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, Tenant shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said regulations may be amended.

B. Tenants for itself and its representatives, successors in interest and permitted assigns as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that

1. No person on the ground of race, color, or national origin shall be excluded from participation, denied the benefits of, or be otherwise subjected to discrimination in the use of the Leased Premises;

2. In the construction of any improvements on, over or under the Leased Premises, if allowed, and the furnishings of services thereon, no person on the ground of race, color, or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination; and

3. Tenant shall use the Leased Premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

C. In the event of breach of any of the above nondiscrimination covenants, Landlord shall have the right to terminate this Lease and to re-enter and to repossess the Leased Premises, and hold the Leased Premises as if this Lease had never been made. This provision does not become effective until the procedures of 49 Code of Federal Regulations Part 21 are followed and completed, including expiration of appeal rights.

D. Tenant shall furnish its accommodations and/or services on a fair, equal and not unjustly discriminatory basis to all users thereof and it shall charge fair, reasonable and not unjustly discriminatory prices for each unit or service; provided, that Tenant may make reasonable and nondiscriminatory discounts, rebates or other similar type of price reductions to volume purchasers.

E. Noncompliance with Provision D, above shall constitute a material breach hereof and in the event of such noncompliance Landlord shall have the right to terminate this Lease and the estate hereby created without liability therefor or, at the election of Landlord or the United States, either or both thereof shall have the right to judicially enforce Provisions A, B, C and D above.

F. Applicant agrees that it shall insert the above five provisions in any permitted sublease, license or agreement by which said Tenant grants a right or privilege to any person, firm or corporation to render accommodations and/or service to the public at the Leased Premises.

EXHIBIT "D"

TENANT IMPROVEMENTS POLICY

(Attached.)

REQUEST FOR APPROVAL
PROPOSED TENANT IMPROVEMENT

SUBMITTALS RECEIVED LESS THAN TEN BUSINESS DAYS PRIOR TO PROJECT START DATE WILL BE REJECTED.

---

1. INFORMATION

Tenant _____ Building # _____
Name of Contact _____ Phone # _____
Address _____ Email: _____
Describe Proposed Improvements * _____
_____
_____
Estimated cost of improvements _____
Estimated start date _____ Completion date _____

Attach sketches or drawings as required to clearly indicate the type, size, height and location of proposed improvements

2. PRE-CONSTRUCTION

Contractor _____ License # _____
Address _____
Contract Price _____ Phone # _____
Construction Commencement Date _____ End Date _____

****Applicant must submit required Certificate of Insurance, Material and Labor Bond two weeks prior to the start of construction****

Tenant Representative (Signed) _____ Date _____

3. INITIAL APPROVALS

Operations (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
Business & Properties (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
Engineering Department (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
Environmental & Noise (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
Fire Department (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
ICT Department (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
Maintenance Department (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____
Police & Security (Approver) _____ Date _____ Pre-Con Needed (Y/N)
Comments _____

4. FINAL APPROVAL

Airport Administration (Reviewed by) _____ Date _____

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INSTRUCTIONS FOR COMPLETING THIS FORM

The following procedures are to be followed by all Airport Tenants desiring to make improvements to their leasehold. Close adherence to the procedures and regulations outlined below will greatly aid in expediting the processing and approval of each Proposed Improvement.

1. Tenant shall complete Section 1 and 2 of this form and submit to: Burbank-Glendale-Pasadena Airport Authority, Business, Property and Administrative Services Department, 2627 Hollywood Way, Burbank, CA 91505.
2. Upon receipt of this Request Form, the Business, Property and Administrative Services Department will review the Proposed Improvement and, if the proposal is considered to be basically acceptable, it will then be forwarded to Airport Engineering for further review and evaluation. However, if the proposal is not considered to be basically acceptable, the Request Form will be returned to the Tenant accompanied by a written statement from the Authority as to why the request is being denied at this stage or if additional information is required.
3. In addition to the submission of the Tenant Improvement Form, Tenant shall also provide final plans and specifications for the Proposed Improvement. The plans and specifications shall conform to the following requirements: five (5) sets of plans and specifications shall be submitted by the Tenant with this form to Business, Property and Administrative Services Department for review by all applicable Airport Departments with final review and approval by Airport Administration.
4. The Business, Property and Administrative Services Department and Engineering Department will determine any Impact of the Proposed Improvement on the Airport Master Plan, Airport Facilities, Navigable Airspace Requirements of Federal Aviation Regulations Part 77, and/or if it conforms to the Airport Rules and Regulations.
5. Prior to the start of construction and after all insurance and bond requirements have been satisfied, an Indemnification & Defense Agreement has been submitted to the Authority, and Building permits and any other necessary permits are on file with the Authority, a pre-construction meeting must be held in the Authority Administrative offices. When all of these requirements have been satisfied, approval to begin construction will be granted on the Tenant Improvement Form and a copy returned to the Tenant. The form will indicate whether approval has been granted, and if not granted, the reason for denial.
6. All Tenants shall, within thirty (30) days after completion, submit to Business, Property and Administrative Services Department one set of "as built" plans. Also, an itemized summary of construction costs shall be forwarded to Business, Property and Administrative Services Department.
7. The itemized summary shall be signed by the contractor and notarized.

NOTES: a.) For smaller projects costing less than $5,000, the Authority may, at its discretion, waive any or all of the above requirements.
b.) Airport approval does not constitute a substitution of approval from any other governmental agency having jurisdiction.

PLANS AND SPECIFICATIONS

Plans shall be drawn to scale and dimensioned on standard size drawing sheets for future reference and file retention, and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that it conforms to the provisions of the governing codes, ordinances, rules and regulations. The minimum number of drawings normally acceptable with each set of plans submitted for final review and approval will generally consist of a plot plan, foundation plan, floor plan, elevations, framing section and details. Electrical, plumbing, heating and air conditioning plans and details shall be submitted when applicable. Foundation recommendations, including calculations and a soils investigation report shall be submitted when appropriate or requested by Airport Engineering. All design documents, including required calculations, shall be prepared, stamped, and signed by a licensed professional engineer or architect registered in the State of California. Engineers shall be licensed for the specific discipline required. Drawings/specifications and/or calculations prepared by contractors and/or fabricators will not be acceptable.

OTHER REQUIREMENTS
INSURANCE REQUIREMENT

Contractor shall take out and maintain during the period of the Contract the following insurance and amounts unless a larger amount is specified on the Approval Request Form:

Comprehensive General Liability:	$1,000,000 single limit for combined Bodily Injury and Property Damage for each occurrence. $1,000,000 for Personal Injury for each occurrence.
Comprehensive Automobile Liability:	$1,000,000 single limit for combined Bodily Injury and Property Damage for each occurrence.
Workers' Compensation:	California statutory requirements

Liability policies shall name the Burbank-Glendale-Pasadena Airport Authority as an Additional Insured. Certificates of Insurance on all policies shall be filed with Business, Property and Administrative Services Department. Each of said insurance policies shall contain a provision requiring the insurer to notify the Burbank-Glendale-Pasadena Airport Authority ten (10) days prior to the cancellation or material change in the Policy.

BOND REQUIREMENT

The Tenant shall require the contractor to obtain a material and labor bond equal to the contract price of the work. A copy of said bond shall be forwarded to Airport Engineering.

INDEMNIFICATION & DEFENSE AGREEMENT

The Tenant and its Contractor agree to and do hereby indemnify, defend and hold harmless the Burbank-Glendale-Pasadena Airport Authority, and its officers, agents, employees and contractors from all claims, demands, liabilities, losses, damages, costs and expenses, of any nature whatsoever, caused by or arising from, directly or indirectly, any act or omission (including, without limitation, negligent acts, negligent omissions, willful misconduct and any violation of the terms of that certain Lease or this Request form between Tenant and Authority in, on or near the Bob Hope Airport by Contractor, or its subcontractors, agents or employees (including without limitation work done by Contractor for Tenant on Tenant's leased premises).

PREVAILING WAGES

As part of Tenant's obligations under the terms of the Lease to comply with applicable law, Tenant acknowledges and agrees that if Tenant is provided improvement funds from the Burbank-Glendale-Pasadena Airport Authority, or a rent credit based on timely construction of improvements, then Tenant shall (and shall cause its contractors to) pay prevailing wages for such improvements and shall otherwise comply with California Labor Code Sections 1720 et seq. (including all recordkeeping and reporting requirements).

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STAFF REPORT PRESENTED TO THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY AUGUST 17, 2020

AIRPORT ACCESS AND FACILITIES USE AGREEMENT CLASS II & CLASS III OPERATIONS

SUMMARY

At its meeting on July 20, 2020, the Finance and Administration Committee ("Committee") voted unanimously (3–0) to recommend that the Commission approve revised Airport Access and Facilities Use Agreement ("Agreement") templates for Class II (Hotel/Motel Vehicle) Operators and Class III (Off-Airport Parking Lot Vehicle) Operators, copies attached.

BACKGROUND

In 2006, the Authority approved the current Agreement templates for Class II and Class III Operators. The Agreements set forth the terms, conditions, and fees to obtain a Commercial Access License and Airport Vehicle Permit Sticker for use of the roadways and facilities at the Airport.

In consideration for use of the Airport facilities, the current Agreement templates require Class II and Class III Operators to pay a trip fee of $1.50 for each entry onto the Airport property. In addition to the trip fee, Class III Operators are also assessed a percentage fee equal to ten percent of their monthly gross receipts from vehicle parking at their facilities by Airport patrons.

Originally, entries onto the Airport by Class II and Class III Operators were monitored by an Automated Vehicle Identifier system ("AVI"). However, the AVI system utilized dated transponder technology and it ceased being reliable in 2012. Staff determined that a replacement to this system would require an infrastructure and IT technology investment that would not be financially feasible for the limited level of activity to be monitored; these systems are designed for a much higher level of activity than that occurring at the Airport. A monthly rate was devised for each Class II and Class III Operator based upon their 12-month average of trip fees in the calendar year 2011. This fixed monthly rate is still being applied and is the subject of the proposed revised Agreement templates for Class II and Class III Operators.

The revised Agreement templates will resume the original trip fee under an honor system that is subject to audit by Staff.

DETAILS

Key components of the proposed Agreement templates are:

Premises: Airport Terminal – Curbside and designated pick-up island

Use: Allows Class II and Class III Operators to use the Airport's roadway and facility for the purpose of loading and unloading passengers and

convenience for the traveling public.

Term: Three-year term with an option to extend by one-year subject to approval by the Executive Director

Termination: Thirty-days prior written notice by Authority

Fees: Class II Operator - $1.50 Pick-up and Drop-off
Class III Operator - $1.50 Pick-up and Drop-off and 10% Gross Receipt

Additional term: The Authority may install an AVI system at its discretion.

REVENUE IMPACT

Depending on passenger volumes, the proposed Agreement may have a positive impact on the Authority's operating budget.

RECOMMENDATION

At its meeting on July 20, 2020, the Committee voted unanimously (3–0) to recommend that the Commission approve the proposed revised Agreement templates for Class II and Class III Operators and authorize the President to execute the same.

AIRPORT ACCESS AND FACILITIES USE AGREEMENT

CLASS II OPERATORS

BETWEEN

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

AND

_____

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EXHIBITS

Exhibit "A" - Commercial Access License
Exhibit "B" - Self Report Form
Exhibit "C" - FAA Grant Agreement Assurances---Non-Discrimination
Exhibit "D" - General Federal Provisions

AIRPORT ACCESS AND FACILITIES USE AGREEMENT

Class II Operators

THIS AIRPORT ACCESS AND FACILITIES USE AGREEMENT ("Agreement") is made and entered into as of the _____ day of _____, 202__ by and between **BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY**, a public entity formed under a joint exercise of powers agreement among the Cities of Burbank, Glendale, and Pasadena, California, pursuant to the California Joint Exercise of Powers Act, (hereinafter referred to as "Authority") and _____, a _____(hereinafter referred to as "Operator"), with reference to the following facts:

A. The Authority is the owner and operator of the Hollywood Burbank Airport ("Airport") and has the right and authority to authorize and control the conduct of commercial activities at the Airport and the means and methods of access to the Airport and its passenger terminal and other facilities.

B. Operator owns and operates a business that provides commercial facilities or services to persons arriving at or departing from the Airport ("Passengers"), which business derives substantial commercial benefit from the presence of the Airport and which business competes with similar facilities or services provided at the Airport by the Authority or others that are a material source of revenue to the Authority.

C. In order to conduct its business more efficiently and profitably, Operator wishes to obtain authorized access to the Airport and its passenger terminals for commercial purposes, including, as applicable, the right to use the Airport roads and facilities for shuttle bus transportation of Passengers and their baggage between the Airport and Operator's place of business, and/or the right to utilize designated areas designed for the loading and unloading of Passengers and their baggage.

D. Operator has completed and submitted to the Authority an "Application for Commercial Access License", a copy of which is attached hereto as Exhibit "A", and the provisions and requirements of which are incorporated herein by reference ("Application").

E. In furtherance of the policy of the State of California to promote commerce and tourism at publicly owned and operated airports, the Authority has considered the public safety and convenience, the quality of facilities or services to be provided by Operator, the need to conserve Airport space and avoid duplication of facilities and services serving the Airport, the impact on the existing facilities of the Airport as an essential commercial and tourist service center, the need to avoid destructive competition that may impair the quality of Airport services to the public or lead to uncertainty, disruption or instability in the rendering of such services, the need to generate revenues for the maintenance and operation of the Airport facilities and services and the need to replace established sources of revenue to the Authority that may be diminished as a result of the operation of Operator's business.

F. Based upon the considerations described above, the Authority is willing to grant to Operator a commercial operator's access and facilities use license ("Commercial Access License") that will provide Operator with authorized access to the Airport and its passenger terminals for commercial purposes, including, as applicable, the right to use the Airport roads and facilities for shuttle bus transportation of Passengers and their baggage between the Airport and Operator's place of business, and/or the right to utilize designated areas in the passenger terminal area designed for the loading and unloading of Passengers and their baggage, provided that Operator enters into this Agreement and pays to the Authority Trip Fees as provided herein.

G. In consideration of the issuance to Operator of the Commercial Access License, Operator is willing to enter into this Agreement and to accept and be bound by the terms and conditions set forth herein.

THEREFORE, the parties agree as follows:

1. Issuance of Commercial Access License. In reliance upon the Application, the Authority shall execute and deliver to Operator a Commercial Access License in the form of Exhibit A attached hereto.

2. Term; Termination.

2.1 Term. The term of this Agreement and the Commercial Access License shall commence on _____, 202___ ("Commencement Date") and, unless extended or sooner terminated in accordance herewith, shall expire _____ [three (3)] years after the Commencement Date ("Expiration Date").

2.2 Request to Extend. Subject to the prior written approval of the Authority as provided in this Section 2.2, Operator may request the Authority to extend the term of this Agreement and the Commercial Access License for successive periods of one (1) year each. In the event that Operator desires to extend the term of this Agreement and the Commercial Access License, Operator shall submit to the Authority a new Application (on the Authority's then current form) at least ninety (90) days prior to the Expiration Date of the then current term. Operator understands and agrees that the Authority: (i) is under no obligation to extend the term of this Agreement or the Commercial Access License, and the Authority may agree or decline to do so in its sole and absolute discretion, and (ii) at any time in its sole and absolute discretion, may elect to provide on an exclusive basis services of the type provided by Operator or may award exclusive rights or franchises to one or more providers of commercial facilities and/or services of the type provided by Operator.

2.3 Termination Upon Event of Default. The Authority shall have the right to terminate this Agreement and the Commercial Access License pursuant to Section 19.2 immediately upon the occurrence of an Event of Default.

2.4 Termination Without Cause. The Authority shall have the right to terminate this Agreement and the Commercial Access License at any time without cause upon the delivery to Operator of at least thirty (30) days' prior written notice thereof.

2.5 Consequences of Termination. Within ten (10) days following the Expiration Date or the date of the earlier termination of this Agreement, Operator shall return all AVI transponder tags (if applicable) and Airport Vehicle Permit Stickers to the Authority and Operator shall pay to the Authority any and all unpaid Trip Fees, Delinquent Amounts, Late Charges and other amounts incurred and/or otherwise payable by Operator to the Authority pursuant to this Agreement. Notwithstanding any other provisions of this Agreement, the provisions of this Section 2.5 and Sections 3, 4.2, 15, 16, 17, 18 and 19 shall survive the expiration or termination of this Agreement.

3. Trip Fees.

3.1 Amount. In consideration of the issuance by the Authority to Operator of the Commercial Access License, Operator shall pay to the Authority, without reduction or offset, trip fees ("Trip Fee") for each pick-up and drop-off onto the Airport (collectively, an "Entry") by each of Operator's Vehicles ("Vehicle") equal to $1.50 per Entry. The Entry of Vehicles shall be self-reported using the Airport Access and Facilities Monthly Self-Report Form attached hereto as Exhibit "B", and monitored and determined by the Authority approved Automatic Vehicle Identification System ("AVI System") if an AVI System shall have been installed.

3.2 Payment. Operator shall complete and return the Airport Access and Facilities Self-Report Form, along with payment, to the Authority on or before the twentieth (20th) of the month for the previous month's activity.

3.3 Modification. Operator acknowledges and agrees that the amount and/or method of calculating the Trip Fees may be revised by the Authority, at any time and from time to time (and may include use of an AVI System if installed by Authority), upon the delivery to Operator of at least thirty (30) days' prior written notice thereof.

3.4 Limitation on Claims of Overpayment. Operator shall have no more than one (1) calendar year after the date of the Monthly Report describing the applicable amount overpaid to make any claim for refund based on overpayment of such amount, and any claim for refund made within such one (1) calendar year must be in writing and accompanied by reasonable evidence of the overpayment and the amount that should have been paid (including copies of applicable books and records). Authority shall not be obligated to pay interest on any refunded overpayments. **Operator hereby irrevocably waives any and all other rights it may have to claim any refund of sums overpaid, including any statute of limitations applicable to recovery of overpayments that exceeds one (1) calendar year.**

3.5 Records; Audit Rights. Operator shall retain all reporting forms submitted to Authority and all of its records regarding trips and trip fees and other sums paid to Authority for at least three (3) years. Operator shall allow the Authority and its representatives to inspect, audit and copy such forms and records upon one (1) business day's prior written notice, and Operator shall make such forms and records available for such purpose to the Authority at the Authority's office. In the event that any audit of Operator's books and records conducted pursuant to this Section reveals the underpayment by Operator of the Trip Fees for any calendar month, in addition to Operator's obligations under Section 3.6 and all of the Authority's other rights and remedies, Operator shall pay to the Authority upon demand full amount of such Trip Fees underpaid by Operator and shall reimburse the Authority for the costs of such audit if such underpayment equals or exceeds two percent (2%) of the actual Trip Fees payable by Operator hereunder.

3.6 Late Charges. In the event that Operator fails to pay to the Authority any amounts payable pursuant to this Agreement ("Delinquent Amount"), in addition to the Authority's other rights and remedies, Operator shall be obligated to pay to the Authority the Delinquent Amount plus an additional charge equal to the greater of one and one-half percent (1.5%) of the Delinquent Amount or Ten Dollars ($10.00) ("Late Charge"). An additional Late Charge shall be added for each additional calendar month or portion thereof that the Delinquent Amount and Late Charge remain unpaid. Operator agrees the Authority will be damaged by Operator's failure to pay the full amount of the Trip Fees in accordance with this Section 3 on or before the due date hereof, but the amount of such damages would be extremely difficult and impractical to ascertain. Such costs include, but are not limited to, the cost of administrative processing of delinquency notices and payments and increased accounting costs. Operator agrees that the Late Charge represents a fair and reasonable estimate of the damages that the Authority will incur by reason of late payment. Acceptance by the Authority of all or any portion of any Delinquent Amount and/or Late Charge shall in no event constitute a waiver of Operator's default with respect to the Delinquent Amount or prevent the Authority from exercising any of the rights or remedies granted to it hereunder or by Law (as defined in Section 5).

3.7 Acknowledgment. Operator acknowledges and agrees that it uses and benefits from the entire Airport and all of its facilities and services and that the amount of Trip Fees payable by Operator hereunder reflects a fair approximation of the value of all of the benefits and privileges Operator enjoys from the existence and operation of the Airport and all of its facilities and services, including the pool of customers it generates for Operator.

4. Approved Other Business.

4.1 General. Operator shall have the right to transport customers of any other person or entity ("Approved Other Business") to and from the Airport; provided, however, that Operator shall not have the right to transport any customer of any Approved Other Business to or from the Airport unless and until Operator delivers or causes to be delivered to the Authority an Application for Commercial Access License completed and executed by the Approved Other Business and an Airport Access and Facilities Use Agreement for the classification applicable to the Approved Other Business ("Approved Other Business Agreement") executed by the Approved Other Business, together with any and all other

documents and information requested by the Authority with respect to the Approved Other Business, and the Authority shall have approved of the same in writing and issued a Commercial Access License ("Approved Other Business License") for the applicable classification to the Approved Other Business. Operator's right to transport customers of any Approved Other Business shall only apply during the term of the Approved Other Business Agreement and Approved Other Business License and shall terminate automatically upon the earlier of the expiration or termination of (i) this Agreement or the Commercial Access License, or (ii) the Approved Other Business Agreement or Approved Other Business License.

4.2 Other Fees. In the event that the Approved Other Business fails to pay to the Authority the percentage fees, Trip Fees, dwell time fees or any other fees charged by the Authority pursuant to the Approved Other Business Agreement, Operator shall pay to the Authority the amount thereof within ten (10) days following the delivery to Operator of written notice thereof.

4.3 Right to Terminate. In addition to any and all other rights and remedies of the Authority, the Authority shall have the right to terminate this Agreement and the Commercial Access License in the event that (i) Operator transports any customer of any Approved Other Business to or from the Airport without delivering to the Authority the documents and information required under Section 4.1 with respect to such Approved Other Business and the Authority shall have approved the same in writing and issued to the Approved Other Business the Approved Other Business License; or (ii) upon the occurrence of any Event of Default (as defined in the Approved Other Business Agreement) under the Approved Other Business Agreement.

5. Compliance with Laws and Rules. Operator shall conduct its business in compliance with all applicable federal, state and local statutes, regulations, rules and ordinances, and governmental orders, including all general orders, rules, regulations and requirements of the California Public Utilities Commission (PUC) (collectively, "Laws"), and the rules, regulations and orders of the Authority ("Rules and Regulations"), as the Rules and Regulations may be modified by the Authority at any time and from time to time, in the Authority's sole and absolute discretion. Operator acknowledges that the Authority shall be authorized pursuant to the Rules and Regulations to establish and assess monetary amounts for Operator's violation of such Rules and Regulations.

6. Permits and Licenses. Operator shall procure and maintain in effect at all times all rights, licenses, permits, approvals, consents, authorizations and registrations from governmental authorities and other third parties required for the conduct of its business at the Airport, and, upon the request of the Authority, shall provide evidence thereof to the Authority. Operator shall deliver to the Authority, prior to the issuance of the Commercial Access License, proof of Operator's current California PUC operator's license or certificate.

7. Operator's Vehicles. Operator agrees that the Vehicles shall stop at the Airport only while in the process of loading or unloading Operator's customers at the Designated Service Areas approved by the Authority and/or its representatives, except that Operator may wait for its customers at the then current area(s) ("Designated Waiting Areas"), if any, designated by the Authority and/or its representatives for use as a temporary waiting area for the Vehicles and the

vehicles of any other persons or entities having the same classification of Commercial Access License as Operator ("Other Operators"), upon the terms and subject to the conditions specified by the Authority and/or its representatives, in its sole and absolute discretion, including the maximum length of time permitted for each Vehicle to remain in the Designated Waiting Areas for such purposes. Operator further acknowledges and agrees that the Authority and/or its representatives, at any time and from time to time, may (i) upon at least thirty (30) days' prior written notice to Operator, terminate, reduce, modify, relocate or otherwise change any Designated Service Areas and Designated Waiting Areas; (ii) limit the length of time the Vehicles may remain at the Designated Service Areas and Designated Waiting Areas; (iii) limit the number of Vehicles permitted on the Airport at any one time; and (iv) vary such designations and limitations based on the time of day, the day of the week, the level of traffic congestion at the Airport, construction activity, emergencies and/or emergency response needs or other factors, all in the Authority and its representatives' sole and absolute discretion. In connection with each of the foregoing (i) through (iv), the Authority and/or its representatives may from time to time establish and modify uniform rules and regulations regarding the use of such Designated Service Areas and Designated Waiting Areas, which rules and regulations and its curb use policy shall be applied by the Authority and/or its representatives in a non-discriminatory manner; provided, however, that Operator acknowledges and agrees that the use of such Designated Service Areas and Designated Waiting Areas shall at all times be subject to the control of the Authority and/or its representatives in its sole and absolute discretion. In no event shall Operator leave unattended or cause to be left unattended any of the Vehicles on any areas of the Airport.

8. AVI System. If Authority installs an AVI System, Operator shall comply with all of the requirements and procedures established by the Authority with respect to the installation, maintenance and use of the AVI System. Without limiting the generality of the foregoing, if Authority installs an AVI System, Operator shall install or cause to be installed in each of the Vehicles an AVI System transponder tag in accordance with the Authority's specifications and instructions. Operator shall not modify, adjust, remove or otherwise tamper with the AVI System transponder tag after such installation, which modification, adjustment, removal or tampering shall be an Event of Default and shall be cause for the termination of the Commercial Access License and this Agreement. If Authority installs an AVI System, Operator shall purchase AVI System transponder tags from the Authority at the Authority's then current charge therefor.

9. Vehicles.

9.1 Initial Vehicle List. On or before the Commencement Date (as defined in Section 2.1), Operator shall provide a list of vehicles it desires to use and also cause its automobile insurance company to deliver to the Authority's Business and Properties Department a list of the make, model, color, year of manufacture, seating capacity, license number ("Vehicle List"). All Vehicles operating at the Airport shall be no older than eight (8) model years in age. Once approved by the Authority, each approved vehicle will receive and have placed on it an Airport Vehicle Permit Sticker. Each Airport Vehicle Permit Sticker is individually numbered and corresponds to the vehicle on the Vehicle List. Airport Vehicle Permit Stickers must be displayed on the approved vehicle in a designated location in order to conduct service on airport premises. Stickers must not be tampered with, removed or switched to another vehicle. Violation of this may result in the removal of vehicle(s) authorized access to the airport. Damaged or missing

stickers must be reported to the Authority immediately. Arrangements shall be made with the Authority's Business and Properties Dept to replace damaged or missing stickers. If Authority installs an AVI System, Operator shall provide a list of vehicle identification numbers and corresponding AVI System transponder tag identification numbers for each of the Vehicles applying for approval to operate at the Airport.

9.2 Maintenance. The Vehicles entering the Airport pursuant to this Agreement and the Commercial Access License shall be uniformly painted and visibly marked according to California PUC requirements, including Operator's name on the front, rear and sides of the Vehicles. Operator shall maintain all of the Vehicles in a good, clean, undamaged and safe operating condition in compliance with all of the provisions of the California Vehicle Code and the regulations promulgated thereunder, including, without limitation, the registration provisions thereof. Vehicles shall be subject to inspection by the Authority at all times, including prior to their operation and use on Airport property.

9.3 Changes in Vehicle List. In the event Operator would like to add additional vehicles to the Vehicle List, Operator shall submit a written request to the Authority's Business and Properties Department for approval. Upon approval by the Authority's Business and Properties Department, the added vehicle is subject to inspection, and if an AVI System has been installed then installation of AVI transponder tags, and/or issuance of an Authority Vehicle Sticker, prior to use on Authority roadways. Deletion of Vehicles from the Vehicle List shall be accomplished by Operator providing written notice to the Authority's Business and Properties Department, with the Vehicle identified by specifying the items noted in Section 9.1 of this Agreement. Said notice shall be accompanied by the return of the deleted Vehicle's AVI transponder tag/Vehicle Sticker. Operator shall be fully responsible for all Trip Fees related to a specific transponder tag or Airport Vehicle Permit Sticker until such transponder tag and Airport Vehicle Permit Sticker is returned to the Authority.

Special arrangements may be made on specific request to the Authority when Vehicles are transferred to other commercial Vehicle operators conducting business on Authority roads. Such special arrangements may only be made by written request from Operator to Authority, and the decision to accommodate such request shall rest in the sole and unfettered discretion of Authority.

10. Employees. Operator shall control the conduct, demeanor, and appearance of its officers, employees, agents, representatives and contractors to maintain a high level of customer service and shall require all of its employees to wear clean and neat appearing clothing and shall take all actions necessary to ensure their courteous, polite and inoffensive conduct and demeanor. Upon objection from the Authority concerning the conduct, demeanor, or appearance of any such person, Operator immediately shall take all steps necessary to correct or to remove the cause of the objection or complaint within a 24-hour period. The Authority's approval and removal rights under this Section 10 shall be limited to Operator's conduct under this Agreement and the Commercial Access License, and shall not constitute, or be construed to constitute, any right to terminate or cause the termination of or interference with any employment relationship between Operator and its employees; nor shall the exercise of said approval or removal rights be deemed to have in fact caused or contributed to the termination of or interference with any employment relationship between Operator and its employees. Operator shall cause all of its

Employees to comply with all of the provisions of this Agreement and the Commercial Access License, including, without limitation, all of the Rules and Regulations of the Authority relating to Airport traffic and the directions and instructions of Airport police and other Airport traffic enforcement personnel.

11. No Interference. Operator shall not do or permit to be done anything which interferes with the free access to the streets, roads, parking lots, curb areas, entryways, exits, sidewalks or any other areas of the Airport, or in any way hinders or impairs the operation of the Airport. In addition, Operator shall not hinder police, traffic enforcement, firefighting or other emergency personnel in the discharge of their duties.

12. Nuisance. Operator shall not use or permit the use of any area of the Airport in any manner that will: (i) tend to create or permit any waste or a nuisance at the Airport, (ii) tend to disturb the Authority, any Other Operators, or any tenants, concessionaires, licensees, users or customers of the Airport or the general public, or (iii) increase the premiums for or cause the cancellation or termination of any insurance policies covering the Airport.

13. No Advertisement or Solicitation. Operator agrees that no employee or agent of Operator shall solicit business in any manner whatsoever upon any areas of the Airport. Operator shall not place or permit the placement of any advertisements, telephones or other facilities or equipment, or starters, skycaps, porters, booth personnel, agents or other personnel, in or on the curbs, sidewalks, terminal buildings or any other areas of the Airport unless approved in writing by the Authority and/or its representatives.

14. Insurance.

14.1 General. Throughout the term of this Agreement and the Commercial Access License, Operator shall maintain the following insurance coverage:

14.1.1 Commercial General Liability. Commercial general liability insurance written on an occurrence basis in an amount not less than One Million Dollars ($1,000,000) for each occurrence and in the annual aggregate. Such coverage shall include premises/operations, broad form contractual, independent contractors, broad form property damage and personal injury.

14.1.2 Automobile Liability. Automobile liability insurance covering all owned, non-owned and hired vehicles written on an occurrence basis, Combined Single Limit Auto Liability or, in the alternative, Bodily Injury per Person, Bodily Injury per Accident and Property Damage per Accident, in an amount not less than the following:

Vehicle Capacity 1-7 Passengers	Combined Single Liability Limit of $1,000,000
Vehicle Capacity 8-15 Passengers	Combined Single Liability Limit of $2,000,000
Vehicle Capacity 16 or More Passengers	Combined Single Liability Limit of $5,000,000

14.1.3 Workers' Compensation. Workers' compensation insurance written in accordance with California statutory limits.

14.2 Self-Insured Retention Limitations. In no event shall the deductible or self-insured retention for any of the insurance policies described in Section 14.1 exceed Ten Thousand Dollars ($10,000).

14.3 Insurer Requirements. Each insurance policy required to be maintained by Operator pursuant to this Section 14 shall be obtained from an insurance company authorized to conduct business in California and having a rating of not less than A-X in A.M. Best's Insurance Guide or otherwise acceptable to the Authority.

14.4 Adjustment of Required Insurance. Operator acknowledges, understands and agrees that the types and amounts of insurance coverages required to be maintained by Operator pursuant to this Section 14 may become inadequate during the term of this Agreement, and Operator agrees that it shall add or modify such insurance or coverages and increase such minimum limits of liability by such amounts as may be required at any time and from time to time by the Authority.

14.5 Certificates of Insurance. Concurrently with the execution and delivery of this Agreement, Operator shall deliver to the Authority certificates of insurance evidencing that all insurance has been obtained and is being maintained by Operator as required in this Section 14, together with copies of endorsements (i) requiring the insurers to give to the Authority at least thirty (30) days' prior written notice sent by registered mail of any cancellation, non-renewal or reduction in coverage, and (ii) with respect to the commercial general liability and automobile liability insurance of Operator, naming (a) Operator and its officers, directors, employees, agents, representatives and contractors and any other persons and entities for whose acts or omissions Operator is responsible (collectively, "Operator Parties") as named insureds, and (b) the Authority, TBI (U.S.), Inc./TBI Airport Management, Inc., as manager of the Airport, and each of the Cities of Burbank, Glendale and Pasadena, California, and their respective commissioners, officials, officers, directors, employees, agents, representatives and contractors (collectively, "Authority Parties") as additional insureds (utilizing the 11/1985 Insurance Services Office form CG 20 10 Additional Insured endorsement or equivalent form approved in writing by the Authority). The failure of Operator to provide said certificates of insurance, together with said endorsements, or the subsequent receipt by the Authority of a notice of cancellation, non-renewal or reduction in coverage under the insurance policy(ies) by Operator's insurance company(ies), unless Operator replaces said coverage with comparable coverage with an insurer which meets the criteria of Section 14.3 within the thirty (30) day period set forth in (i) of this Section 14.5, shall constitute an Event of Default under Section 19.1.3. All insurance required to be maintained by Operator pursuant to this Section 14 shall be primary insurance without right of contribution of any other insurance carried by or on behalf of any Authority Party and all policies shall be endorsed to this effect.

14.6 No Limitation of Liability. Operator acknowledges and agrees that the limits of liability provided in the insurance policies required to be maintained by Operator pursuant to this Section 14 shall in no event be considered as limiting the liability of Operator under this Agreement.

14.7 Waivers of Subrogation Rights. All insurance policies required to be maintained by Operator pursuant to this Section 14, except workers' compensation insurance,

shall include, or be endorsed to provide, a waiver by the insurers of any rights of subrogation that the insurers may have at any time against any of the Authority Parties.

15. Indemnity. To the fullest extent permitted by law, Operator shall defend, indemnify and hold harmless the Authority Parties from and against, any and all demands, claims, actions, proceedings, causes of action, damages, awards, penalties, fines, assessments, forfeitures, judgments, losses, liabilities, obligations, costs and expenses, including, without limitation, attorneys' fees (collectively, "Claims"), arising out of, resulting from or relating to or purported to have arisen out of, resulted from or to be related to: (i) any act or omission of Operator or any other Operator Parties under or in connection with this Agreement and/or the Commercial Access License or otherwise in connection with the conduct or operation of Operator's ground transportation business at the Airport; (ii) any act or omission of Operator or any other Operator Party or any officer, director, employee, agent, representative or contractor of any Approved Other Business under or in connection with any Approved Other Business Agreement and/or Approved Other Business License or otherwise in connection with the conduct or operation of any Approved Other Business or Operator's rights under Section 4; or (iii) any act or omission of any Approved Other Operator (as defined in Section 20.2) or any of its officers, directors, employees, agents, representatives or contractors under or in connection with any Approved Other Operator Agreement and/or Approved Other Operator License (as such terms are defined in Section 20.2). Notwithstanding any other provision of this Section, each Authority Party seeking indemnification under this Section shall have the right to (x) approve of any legal counsel engaged by Operator or its insurance carrier to defend any Claim, (y) engage legal counsel of its own choice (a) in the event that said Authority Party determines that there is a conflict between the interests of Operator and/or its insurance carrier, on the one hand, and the interests of said Authority Party, on the other hand, with respect to any Claim; (b) in the event of any material disagreement as to the manner, method or handling of the defense of any Claim; and/or (c) otherwise to the extent said Authority Party determines is required to protect its interests with respect to any Claim, and the costs of such legal counsel described in (x) and (y) shall be paid for by Operator as part of its indemnity obligations under this Section.

16. Security Deposit

16.1 Amount of Payment. Concurrently with the execution and delivery of this Agreement, Operator shall pay to the Authority a security deposit in the amount of One Thousand Dollars ($1,000) ("Deposit") in cash to secure the performance of all of Operator's covenants, agreements, duties and obligations under this Agreement and the Commercial Access License. The Authority reserves the right, at any time and from time to time and in the Authority's sole and absolute discretion, to adjust the amount of the Deposit by delivering to Operator written notice thereof. Within ten (10) days following the delivery to Operator of written notice of any said adjustment, Operator shall deliver to the Authority the amount of the adjustment set forth in the Authority's written notice.

16.2 Application. The Deposit may be applied by the Authority against all Trip Fees, Delinquent Amounts, Late Charges and/or any other charges due from Operator and/or incurred by the Authority in connection with this Agreement, the Commercial Access License, any Approved Other Business Agreement, any Approved Other Business License, any Approved Other Operator Agreement, any Approved Other Operator License or otherwise in

connection with the conduct or operation of Operator's ground transportation business at the Airport or any Approved Other Business or Approved Other Operator. In the event that the Authority does apply the Deposit, or any portion thereof, against said amounts, Operator shall deposit sufficient sums to restore the Deposit to the then current amount within five (5) days following the delivery to Operator of written notice thereof. The Deposit shall not earn interest and need not be segregated from other funds of the Authority.

17. Representations and Warranties of Operator. Operator represents and warrants to the Authority, for its specific reliance thereon in executing this Agreement and issuing the Commercial Access License, that (i) all information contained in the Application is true, accurate and complete, (ii) this Agreement, the Commercial Access License and the consummation of the transactions contemplated hereby, have been duly authorized by Operator, (iii) no consents, approvals or authorizations of any other person or entity are required for the execution, delivery or performance of this Agreement or the Commercial Access License, and (iv) neither this Agreement nor the Commercial Access License violate or constitute a breach of any Law or any other agreement, contract, license, permit, instrument, judicial order or other document to which Operator is a party or to which it or its assets or properties are subject. Operator shall immediately notify the Authority in writing of any change in any of the information provided to the Authority in connection with this Agreement, the Commercial Access License or the Application, or if any of such information is or becomes false or misleading.

18. The Authority is Not Responsible. Operator acknowledges that, except as specifically set forth herein, neither the Authority nor any other Authority Party has made any representation, warranty, covenant or agreement regarding the Airport, including any representations or warranties relating to its condition or operations. Operator hereby releases the Authority from and waives any and all claims and liability for losses of, or damage to or loss of use of, Operator's property or injury to or death of Operator's employees, invitees or customers arising out of or in any way connected with the Operator's business or conduct under this Agreement, except for any such loss of or damage to property or injury to or death of Operator's employees, invitees or customers caused by the gross negligence or willful misconduct of the Authority, its officers, agents, or employees.

19. Default.

19.1 Events of Default. Each of the following constitutes an Event of Default:

19.1.1 Any failure of Operator to have any right, license, permit, approval, consent, authorization or registration necessary for the proper and lawful conduct of Operator's ground transportation business at the Airport pursuant to this Agreement or the Commercial Access License, which failure is not cured by Operator within five (5) days after written notice from the Authority.

19.1.2 Any representation or warranty made by Operator under or in connection with the Application or this Agreement shall prove at any time to have been incorrect, false or misleading.

19.1.3 Any violation of or failure to perform or comply with any of the covenants, agreements, obligations, conditions, provisions or restrictions contained in this Agreement or the Commercial Access License, including, without limitation, Operator's failure to pay to the Authority any Trip Fees, Late Charges or any other amounts payable hereunder on or before the due date thereof, which failure is not cured within five (5) days after written notice from the Authority.

19.1.4 Any Event of Default under any Approved Other Business Agreement, Approved Other Business License, Approved Other Operator Agreement or Approved Other Operator License.

19.1.5 The occurrence of any of the following: (i) Operator admits in writing its inability to pay its debts as they mature; (ii) Operator makes a general assignment for the benefit of creditors, or approves of, consents to or acquiesces in the appointment of a trustee, receiver or liquidator for itself or any portion of its assets; (iii) a trustee, receiver or liquidator is appointed for Operator, or for any substantial portion of its assets, without Operator's consent, and is not discharged within sixty (60) days after such appointment; (iv) any proceeding is commenced by Operator under any bankruptcy, reorganization, insolvency, readjustment of debt, arrangement, receivership or liquidation law or statute or the federal or any state government; or (v) any proceeding under any bankruptcy, reorganization, insolvency, readjustment of debt, arrangement, receivership or liquidation law or statute or the federal or any state government is instituted against Operator and remains undismissed for sixty (60) days, or Operator by any action or answer approves of, or consents to, any such proceeding or admits the material allegations respecting insolvency or its inability to meet its financial obligations or default in answering a petition filed in any such proceeding.

19.2 Remedies. Upon the occurrence of any Event of Default, in addition to any and all other rights and remedies of the Authority, whether at law or in equity, the Authority shall have the right to terminate this Agreement and the Commercial Access License.

20. No Assignment.

20.1 General. Except as provided in Section 19.2, Operator shall not in any manner, directly or indirectly, voluntarily or involuntarily or by operation of law or otherwise, assign, hypothecate, transfer or encumber this Agreement or the Commercial Access License, or any right hereunder or thereunder or delegate any duties or obligations under this Agreement or the Commercial Access License, directly or indirectly, voluntarily or involuntarily or by operation of law or otherwise.

20.2 Permitted Assignment. Notwithstanding the provisions of Section 19.1, Operator shall have the right to engage any other person or entity ("Approved Other Operator") holding a valid and effective Commercial Access License issued by the Authority ("Approved Other Operator License") and an Airport Access and Facilities Use Agreement with the Authority ("Approved Other Operator Agreement") to transport Operator's customers to and from the Airport so long as the Approved Other Operator License and Approved Other Operator Agreement are in effect, are not in default, and have not expired or been cancelled or terminated, provided that Operator first shall have delivered to the Authority written notice thereof and the

Authority shall have approved of the same in writing. In the event that Operator engages any Approved Other Operator to transport Operator's customers to and from the Airport pursuant to this Section, Operator's obligations to pay the Trip Fees to the Authority shall not be affected.

21. Non-Discrimination and Compliance with Federal Requirements. Operator shall comply with the provisions of Exhibit "C" attached hereto and by this reference made a part hereof regarding nondiscrimination, as the same may be amended by the Authority from time to time. In addition, Operator shall undertake an affirmative action program as required by 14 Code of Federal Regulations Part 152, Subpart E, to insure that no person shall, on the ground of race, creed, color, national origin, or sex, be excluded from participating in any employment activities covered in 14 Code of Federal Regulations Part 152, Subpart E. Operator agrees that no person shall be excluded on these grounds from participating in or receiving the services or benefits of any program or activity covered by said subpart.

22. Compliance with FAA Grant Assurances and Airport Use. Operator acknowledges and understands that the Authority is obligated to comply with the provisions of Exhibit "D" attached hereto and made a part hereof constituting Federal Aviation Administration ("FAA") grant assurances. Operator agrees that neither Operator nor any of the other Operator Parties shall do anything that will cause or contribute to the violation by the Authority of any of the provisions of Exhibit "D".

23. Miscellaneous.

23.1 Notices. All notices, requests, demands and other communications given, or required to be given under this Agreement and the Commercial Access License, shall be in writing, duly addressed to the parties as follows:

To Authority: Executive Director
BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY
2627 Hollywood Way
Burbank, CA 91505

To Operator: _____

Any notices properly addressed, sent by registered or certified mail, return receipt requested, shall be deemed to have been duly given and received seventy-two (72) hours after they are deposited in the United States mail, postage prepaid. Notices shall be deemed delivered and received at the time delivered if properly addressed and delivered to the addresses set forth in this Section during normal business hours or personally delivered to the person to whose attention they are addressed or sent by confirmed telecopy to a party's regular business telecopier during regular business hours. Notice sent by any other manner shall be effective upon actual receipt of the addressee. Any party may change its address for purposes of this Section by giving notice to the other party as provided in this Section.

23.2 Entire Agreement. This Agreement constitutes the entire agreement between the parties hereto pertaining to the subject matter hereof and supersedes all

prior and contemporaneous negotiations, understandings and agreements of the parties with respect to the subject matter hereof except for the Commercial Access License and as otherwise expressly provided herein, no supplement, modification or amendment of this Agreement, or discharge of any of the obligations hereunder, shall be binding unless executed in writing by the parties hereto.

23.3 Severability. If any portion of any provision of this Agreement, or any one or more such provisions, is hereafter declared invalid or unenforceable, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remainder of such provision or of any other provisions of this Agreement.

23.4 Governing Law. This Agreement shall be construed, interpreted and applied in accordance with the laws of the State of California and, to the extent applicable, the rules and regulations of the Federal Aviation Administration.

23.5 Remedies; Waiver. The rights and remedies set forth herein shall be cumulative and in addition to any other remedies which may be available under any other agreement between the parties or at law or in equity. The exercise of any remedy shall not be deemed to be an election of remedies. No waiver of any breach or default shall be construed as a continuing waiver of any provision or as a waiver of any other or subsequent breach of any provision contained in this Agreement, and no waiver shall be binding unless executed in writing by the party making the waiver.

23.6 Modification. Except as otherwise provided in this Agreement, no change or modification of the terms or provisions of this Agreement shall be deemed valid unless in writing and signed by both parties.

23.7 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument.

23.8 Headings. The headings of Sections of this Agreement have been inserted for convenience of reference only and shall not affect the interpretation of any of the provisions of this Agreement.

23.9 Attorneys' Fees. In the event of any action or proceeding to enforce or construe any of the provisions of this Agreement, the prevailing party in any such action or proceeding shall be awarded costs and reasonable attorneys' fees in the defense, prosecution or appeal thereof as a part of the judgment eventuating in such action.

23.10 Time. Time shall be of the essence in complying with the terms, conditions and provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

_____

By: _____
Authorized Signature

Name of signer: _____

Title of signer: _____

Date: _____

BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY

By: _____
Authorized Signature

Name of signer: _____

Title of signer: Executive Director

Date: _____

EXHIBIT "A"

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
COMMERCIAL ACCESS LICENSE

NO._____

Operator:_____

24 Hour Emergency Contact Number: _____

PSC No.: _____

TCP No.: _____

Classification:

___ Class I - Limousine, charter party carrier, passenger stage operator

__ Class II - Hotel/motel

___ Class III - Off airport parking

___ Class IV - Rental car business

___ Class V – Taxicab

___ Class VI – Other Operators

The Burbank-Glendale-Pasadena Airport Authority ("Authority") hereby grants to Operator this Commercial Access License ("Commercial Access License") pursuant to which Operator shall have a non-exclusive license and right of access to the Hollywood Burbank Airport ("Airport") and its passenger terminals for commercial purposes, including the right to use the Airport roads and facilities for shuttle bus transportation of Passengers and their baggage between the Airport and Operator's place of business, and/or the right to utilize designated areas in the passenger terminal area designed for the loading and unloading of Passengers and their baggage, but for no other purpose or use. This Commercial Access License is granted pursuant to vote of the Authority on _____, and is on the terms and subject to the conditions of the Application for Commercial Access License submitted by Operator to the Authority and the Airport Access and Facilities Use Agreement between the Authority and Operator on file with the Authority.

The term of this Commercial Access License shall commence on _____, 20__ and shall end on _____, 20___.

BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY

By: _____

Title: _____

EXHIBIT "B"

SELF REPORT FORM

(Attached.)

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
AIRPORT ACCESS AND FACILITIES MONTHLY SELF-REPORT FORM
(LOOP FEES)

COMPANY:	**NAME:**
REPORT PERIOD (MONTH):	**PHONE:**
AIRPORT: HOLLYWOOD BURBANK AIRPORT	**E-MAIL:**

LOOP FEE CALCULATION (Pick-up and Drop-off)

NUMBER OF TRANSACTIONS:	
RATE PER TRANSACTION:	**$1.50**
TOTAL:	**$0.00**
TOTAL AMOUNT DUE TO AUTHORITY:	**$0.00**

Please complete and return the signed report, along with applicable supporting documents and payment to the Airport Authority on or before the 20th of the month for the previous month's activity to:

Burbank-Glendale-Pasadena Airport Authority
2627 N. Hollywood Way
Burbank, CA 91505
Attn: Accounting/Finance Department

Additionally, please email the completed electronic version of the report to AR@bur.org

I certify that the information submitted in this report is true and correct.

NAME	**TITLE**
SIGNATURE	**DATE**

EXHIBIT "C"

FAA GRANT AGREEMENT ASSURANCES

NONDISCRIMINATION

A. Tenant, for itself, its representatives, successors in interest, and permitted assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that in the event facilities are constructed, maintained, or otherwise operated on the Leased Premises for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, Tenant shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said regulations may be amended.

B. Tenants for itself and its representatives, successors in interest and permitted assigns as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that:

1. No person on the ground of race, color, or national origin shall be excluded from participation, denied the benefits of, or be otherwise subjected to discrimination in the use of the Leased Premises;

2. In the construction of any Improvements on, over or under the Leased Premises, if allowed, and the furnishings of services thereon, no person on the ground of race, color, or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination; and

3. Tenant shall use the Leased Premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations§, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

C. In the event of breach of any of the above nondiscrimination covenants, Landlord shall have the right to terminate this Lease and to re-enter and to repossess the Leased Premises, and hold the Leased Premises as if this Lease had never been made. This provision does not become effective until the procedures of 49 Code of Federal Regulations Part 21 are followed and completed, including expiration of appeal rights.

D. Tenant shall furnish its accommodations and/or services on a fair, equal and not unjustly discriminatory basis to all users thereof and it shall charge fair, reasonable and not unjustly discriminatory prices for each unit or service; provided, that the Tenant may make

reasonable and nondiscriminatory discounts, rebates or other similar type of price reductions to volume purchasers.

E. Noncompliance with Provision D, above shall constitute a material breach hereof and in the event of such noncompliance Landlord shall have the right to terminate this Lease and the estate hereby created without liability therefor or, at the election of Landlord or the United States, either or both thereof shall have the right to judicially enforce Provisions A, B, C and D above.

F. Applicant agrees that it shall insert the above five provisions in any Permitted Lease, license or agreement by which said Tenant grants a right or privilege to any person, firm or corporation to render accommodations and/or service to the public at the Leased Premises.

EXHIBIT "D"
GENERAL FEDERAL PROVISIONS

1. CIVIL RIGHTS – GENERAL.

The Lessee agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. If the Lessee transfers its obligation to another, the transferee is obligated in the same manner as the Lessee.

This provision obligates the Lessee for the period during which the property is owned, used or possessed by the Lessee and the airport remains obligated to the Federal Aviation Administration. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

2. CIVIL RIGHTS – TITLE VI ASSURANCES.

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Lessee, for itself, its assignees, and successors in interest (hereinafter referred to as the "Lessee") agrees as follows:

A. **Compliance with Regulations:** The Lessee will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

B. **Non-discrimination:** The Lessee, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors. The Lessee will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

C. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the Lessee for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Lessee of the Lessee's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

D. **Information and Reports:** The Lessee will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Authority or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any

information required of a Lessee is in the exclusive possession of another who fails or refuses to furnish the information, the Lessee will so certify to the Authority or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

E. **Sanctions for Noncompliance:** In the event of a Lessee's noncompliance with the Non-discrimination provisions of this contract, the Authority will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

i. Cancelling, terminating, or suspending a contract, in whole or in part.

F. **Incorporation of Provisions:** The Lessee will include the provisions of paragraphs A through F in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Lessee will take action with respect to any subcontract or procurement as the Authority or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Lessee becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Lessee may request the Authority to enter into any litigation to protect the interests of the Authority. In addition, the Lessee may request the United States to enter into the litigation to protect the interests of the United States.

Transfer of Real Property Acquired or Improved Under the Airport Improvement Program:

A. The Lessee for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that:

i. In the event facilities are constructed, maintained, or otherwise operated on the property described in this lease for a purpose for which a Federal Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the Lessee will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Pertinent List of Nondiscrimination Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. In the event of breach of any of the above Nondiscrimination covenants, the Authority will have the right to terminate the lease and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the lease had never been made or issued.

Construction/Use/Access to Real Property Acquired Under the Airport Improvement Program:

A. The Lessee for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the Lessee will use the premises in compliance with all other requirements imposed by or pursuant to the List of discrimination Acts and Authorities.

B. In the event of breach of any of the above nondiscrimination covenants, the Authority will have the right to terminate the lease and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said lease had never been made or issued.

Title VI List of Pertinent Nondiscrimination Acts and Authorities:

During the performance of this contract, the Lessee, for itself, its assignees, and successors in interest (hereinafter referred to as the "Lessee") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

A. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);

B. 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);

C. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

D. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;

E. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);

F. Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

G. The Civil Rights Restoration Act of 1987, (PL 100-209), (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

H. Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;

I. The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

J. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

K. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

L. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

AIRPORT ACCESS AND FACILITIES USE AGREEMENT

CLASS III OPERATORS

BETWEEN

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

AND

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Exhibit "A" - Commercial Access License
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AIRPORT ACCESS AND FACILITIES USE AGREEMENT

Class III Operators

THIS AIRPORT ACCESS AND FACILITIES USE AGREEMENT ("Agreement") is made and entered into as of the _____ day of _____, 202____ by and between **BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY**, a public entity formed under a joint exercise of powers agreement among the Cities of Burbank, Glendale, and Pasadena, California, pursuant to the California Joint Exercise of Powers Act, (hereinafter referred to as "Authority") and _____, a _____(hereinafter referred to as "Operator"), with reference to the following facts:

A. The Authority is the owner and operator of the Hollywood Burbank Airport ("Airport") and has the right and authority to authorize and control the conduct of commercial activities at the Airport and the means and methods of access to the Airport and its passenger terminal and other facilities.

B. Operator owns and operates a business that provides commercial facilities or services to persons arriving at or departing from the Airport ("Passengers"), which business derives substantial commercial benefit from the presence of the Airport and which business competes with similar facilities or services provided at the Airport by the Authority or others that are a material source of revenue to the Authority.

C. In order to conduct its business more efficiently and profitably, Operator wishes to obtain authorized access to the Airport and its passenger terminals for commercial purposes, including, as applicable, the right to use the Airport roads and facilities for shuttle bus transportation of Passengers and their baggage between the Airport and Operator's place of business, and/or the right to utilize designated areas designed for the loading and unloading of Passengers and their baggage.

D. Operator has completed and submitted to the Authority an "Application for Commercial Access License", a copy of which is attached hereto as Exhibit "A", and the provisions and requirements of which are incorporated herein by reference ("Application").

E. In furtherance of the policy of the State of California to promote commerce and tourism at publicly owned and operated airports, the Authority has considered the public safety and convenience, the quality of facilities or services to be provided by Operator, the need to conserve Airport space and avoid duplication of facilities and services serving the Airport, the impact on the existing facilities of the Airport as an essential commercial and tourist service center, the need to avoid destructive competition that may impair the quality of Airport services to the public or lead to uncertainty, disruption or instability in the rendering of such services, the need to generate revenues for the maintenance and operation of the Airport facilities and services and the need to replace established sources of revenue to the Authority that may be diminished as a result of the operation of Operator's business.

F. Based upon the considerations described above, the Authority is willing to grant to Operator a commercial operator's access and facilities use license ("Commercial Access License") that will provide Operator with authorized access to the Airport and its passenger terminals for commercial purposes, including, as applicable, the right to use the Airport roads and facilities for shuttle bus transportation of Passengers and their baggage between the Airport and Operator's place of business, and/or the right to utilize designated areas in the passenger terminal area designed for the loading and unloading of Passengers and their baggage, provided that Operator enters into this Agreement and pays to the Authority Trip Fees as provided herein.

G. In consideration of the issuance to Operator of the Commercial Access License, Operator is willing to enter into this Agreement and to accept and be bound by the terms and conditions set forth herein.

THEREFORE, the parties agree as follows:

1. Issuance of Commercial Access License. In reliance upon the Application, the Authority shall execute and deliver to Operator a Commercial Access License in the form of Exhibit A attached hereto.

2. Term; Termination.

2.1 Term. The term of this Agreement and the Commercial Access License shall commence on _____, 202_____ ("Commencement Date") and, unless extended or sooner terminated in accordance herewith, shall expire _____ [three (3)] years after the Commencement Date ("Expiration Date").

2.2 Request to Extend. Subject to the prior written approval of the Authority as provided in this Section 2.2, Operator may request the Authority to extend the term of this Agreement and the Commercial Access License for successive periods of one (1) year each. In the event that Operator desires to extend the term of this Agreement and the Commercial Access License, Operator shall submit to the Authority a new Application (on the Authority's then current form) at least ninety (90) days prior to the Expiration Date of the then current term. Operator understands and agrees that the Authority: (i) is under no obligation to extend the term of this Agreement or the Commercial Access License, and the Authority may agree or decline to do so in its sole and absolute discretion, and (ii) at any time in its sole and absolute discretion, may elect to provide on an exclusive basis services of the type provided by Operator or may award exclusive rights or franchises to one or more providers of commercial facilities and/or services of the type provided by Operator.

2.3 Termination Upon Event of Default. The Authority shall have the right to terminate this Agreement and the Commercial Access License pursuant to Section 19.2 immediately upon the occurrence of an Event of Default.

2.4 Termination Without Cause. The Authority shall have the right to terminate this Agreement and the Commercial Access License at any time without cause upon the delivery to Operator of at least thirty (30) days' prior written notice thereof.

2.5 Consequences of Termination. Within ten (10) days following the Expiration Date or the date of the earlier termination of this Agreement, Operator shall return all AVI transponder tags (if applicable) and Airport Vehicle Permit Stickers to the Authority and Operator shall pay to the Authority any and all unpaid Trip Fees, Delinquent Amounts, Late Charges and other amounts incurred and/or otherwise payable by Operator to the Authority pursuant to this Agreement. Notwithstanding any other provisions of this Agreement, the provisions of this Section 2.5 and Sections 3, 4.2, 15, 16, 17, 18 and 19 shall survive the expiration or termination of this Agreement.

3. Trip Fees and Percentage Fee.

3.1 Trip Fee Amount. In consideration of the issuance by the Authority to Operator of the Commercial Access License, Operator shall pay to the Authority, without reduction or offset, trip fees ("Trip Fee") for each pick-up and drop-off onto the Airport (collectively, an "Entry") by each of Operator's Vehicles ("Vehicle") equal to $1.50 per Entry. The Entry of Vehicles shall be self-reported using the Airport Access and Facilities Monthly Self-Report Form attached hereto as Exhibit "B", and monitored and determined by the Authority approved Automatic Vehicle Identification System ("AVI System") if an AVI System shall have been installed.

3.2 Modification. Operator acknowledges and agrees that the amount and/or method of calculating the Trip Fees may be revised by the Authority, at any time and from time to time (and may include use of an AVI System if installed by Authority), upon the delivery to Operator of at least thirty (30) days' prior written notice thereof.

3.3 Percentage Fee. In consideration of the issuance by the Authority to Operator of the Commercial Access License, Operator shall also pay to the Authority, without reduction or offset, a fee ("Percentage Fee") equal to ten percent (10%) of the Gross Receipts (as defined in below) of Operator for each calendar month during the term of the Commercial Access License. The Percentage Fee shall also be self-reported using the Airport Access and Facilities Monthly Self-Report Form attached hereto as Exhibit "B".

"Gross Receipts," as used in this Agreement, shall mean for each calendar month during the term of this Agreement, including any extension of the term, all amounts of any nature or kind charged or received by Operator for the parking of automobiles or other motor vehicles at Operator's facility by Passengers and other persons using or visiting the Airport. Operator shall have the right to conduct its operations on a credit basis; provided, however, the risk of such operation shall be borne solely by Operator, and Operator shall report all income, both cash and

credit, in its Monthly Reports delivered to the Authority pursuant to Section 3.4 below. "Gross Receipts" shall not include (i) sales, use and excise taxes collected by Operator from parking customers and remitted to a taxing authority, including any parking tax levied by the City of Burbank, (ii) amounts received by Operator as insurance proceeds for damage, loss, conversion or abandonment of Operator's customers' automobiles or other property, (iii) amounts paid by Operator's customers for motor vehicle washing or detailing services, mechanical repairs or maintenance services, sales of merchandise or food or rentals or charges for use of land, buildings or rooms not utilized for the parking of motor vehicles, except to the extent that parking is included in the price of such services, rentals or charges, in which case an amount equal to Operator's normal hourly or daily charge for parking shall be allocated to parking and included as part of Gross Receipts. No deductions shall be allowed from Gross Receipts for the payment of income taxes, franchise taxes or taxes levied on lease activities, facilities, equipment or real or personal property of Operator. In the event that any calendar month during a term hereof is a partial calendar month, the Percentage Fee shall be based upon the actual Gross Receipts for such partial calendar month.

3.4 Monthly Report. Operator shall deliver to the Authority, along with the Airport Access and Facilities Monthly Self-Report Form, its backup documentation setting forth Operator's total Gross Receipts and the Percentage Fees for said calendar month in such form and containing such detail as the Authority may from time to time specify. Each Monthly Report shall be executed by an authorized official of Operator certifying that the information contained therein is true, accurate and complete.

3.5 Payment. Operator shall complete and return the Airport Access and Facilities Self-Report Form, along with payment, to the Authority on or before the twentieth (20th) of the month for the previous month's activity.

3.6 Limitation on Claims of Overpayment. Operator shall have no more than one (1) calendar year after the date of the Monthly Report describing the applicable amount overpaid to make any claim for refund based on overpayment of such amount, and any claim for refund made within such one (1) calendar year must be in writing and accompanied by reasonable evidence of the overpayment and the amount that should have been paid (including copies of applicable books and records). Authority shall not be obligated to pay interest on any refunded overpayments. **Operator hereby irrevocably waives any and all other rights it may have to claim any refund of sums overpaid, including any statute of limitations applicable to recovery of overpayments that exceeds one (1) calendar year.**

3.7 Records; Audit Rights. Operator shall retain all reporting forms submitted to Authority and all of its records regarding trips and trip fees and other sums paid to Authority for at least three (3) years. Operator shall allow the Authority and its representatives to inspect, audit and copy such forms and records upon one (1) business day's prior written notice, and Operator shall make such forms and records available for such purpose to the Authority at the Authority's office. In the event that any audit of Operator's books and records conducted pursuant to this Section reveals the underpayment by Operator of the Percentage Fees or the Trip Fees for any calendar month, in addition to any other obligations of Operator, and the Authority's other rights and remedies, Operator shall pay to the Authority upon demand full amount of such Percentage Fees or the Trip Fees underpaid by Operator and shall reimburse the Authority for the

costs of such audit if such underpayment equals or exceeds two percent (2%) of the actual Percentage Fees and Trip Fees payable by Operator hereunder.

3.8 Late Charges. In the event that Operator fails to pay to the Authority any amounts payable pursuant to this Agreement ("Delinquent Amount"), in addition to the Authority's other rights and remedies, Operator shall be obligated to pay to the Authority the Delinquent Amount plus an additional charge equal to the greater of one and one-half percent (1.5%) of the Delinquent Amount or Ten Dollars ($10.00) ("Late Charge"). An additional Late Charge shall be added for each additional calendar month or portion thereof that the Delinquent Amount and Late Charge remain unpaid. Operator agrees the Authority will be damaged by Operator's failure to pay the full amount of the Percentage Fees and/or Trip Fees in accordance with this Section 3 on or before the due date hereof, but the amount of such damages would be extremely difficult and impractical to ascertain. Such costs include, but are not limited to, the cost of administrative processing of delinquency notices and payments and increased accounting costs. Operator agrees that the Late Charge represents a fair and reasonable estimate of the damages that the Authority will incur by reason of late payment. Acceptance by the Authority of all or any portion of any Delinquent Amount and/or Late Charge shall in no event constitute a waiver of Operator's default with respect to the Delinquent Amount or prevent the Authority from exercising any of the rights or remedies granted to it hereunder or by Law (as defined in Section 5).

3.9 Acknowledgement. Operator acknowledges and agrees that it uses and benefits from the entire Airport and all of its facilities and services and that the amount of Percentage Fees and Trip Fees payable by Operator hereunder reflects a fair approximation of the value of all of the benefits and privileges Operator enjoys from the existence and operation of the Airport and all of its facilities and services, including the pool of customers it generates for Operator.

3.10 Approved Other Business; General. Operator shall have the right to transport customers of any other person or entity ("Approved Other Business") to and from the Airport; provided, however, that Operator shall not have the right to transport any customer of any Approved Other Business to or from the Airport unless and until Operator delivers or causes to be delivered to the Authority an Application for Commercial Access License completed and executed by the Approved Other Business and an Airport Access and Facilities Use Agreement for the classification applicable to the Approved Other Business ("Approved Other Business Agreement") executed by the Approved Other Business, together with any and all other documents and information requested by the Authority with respect to the Approved Other Business, and the Authority shall have approved of the same in writing and issued a Commercial Access License ("Approved Other Business License") for the applicable classification to the Approved Other Business. Operator's right to transport customers of any Approved Other Business shall only apply during the term of the Approved Other Business Agreement and Approved Other Business License and shall terminate automatically upon the earlier of the expiration or termination of (i) this Agreement or the Commercial Access License, or (ii) the Approved Other Business Agreement or Approved Other Business License.

3.11 Approved Other Business; Other Fees. In the event that the Approved Other Business fails to pay to the Authority the percentage fees, Trip Fees, dwell time fees or any other fees charged by the Authority pursuant to the Approved Other Business Agreement, Operator shall pay to the Authority the amount thereof within ten (10) days following the delivery to Operator of written notice thereof.

3.12 Right to Terminate. In addition to any and all other rights and remedies of the Authority, the Authority shall have the right to terminate this Agreement and the Commercial Access License in the event that (i) Operator transports any customer of any Approved Other Business to or from the Airport without delivering to the Authority the documents and information required under Section 3.7 above with respect to such Approved Other Business and the Authority shall have approved the same in writing and issued to the Approved Other Business the Approved Other Business License; or (ii) upon the occurrence of any Event of Default (as defined in the Approved Other Business Agreement) under the Approved Other Business Agreement.

4. Compliance with Laws and Rules. Operator shall conduct its business in compliance with all applicable federal, state and local statutes, regulations, rules and ordinances, and governmental orders, including all general orders, rules, regulations and requirements of the California Public Utilities Commission (PUC) (collectively, "Laws"), and the rules, regulations and orders of the Authority ("Rules and Regulations"), as the Rules and Regulations may be modified by the Authority at any time and from time to time, in the Authority's sole and absolute discretion. Operator acknowledges that the Authority shall be authorized pursuant to the Rules and Regulations to establish and assess monetary amounts for Operator's violation of such Rules and Regulations.

5. Permits and Licenses. Operator shall procure and maintain in effect at all times all rights, licenses, permits, approvals, consents, authorizations and registrations from governmental authorities and other third parties required for the conduct of its business at the Airport, and, upon the request of the Authority, shall provide evidence thereof to the Authority. Operator shall deliver to the Authority, prior to the issuance of the Commercial Access License, proof of Operator's current California PUC operator's license or certificate.

6. Operator's Vehicles. Operator agrees that the Vehicles shall stop at the Airport only while in the process of loading or unloading Operator's customers at the Designated Service Areas approved by the Authority and/or its representatives, except that Operator may wait for its customers at the then current area(s) ("Designated Waiting Areas"), if any, designated by the Authority and/or its representatives for use as a temporary waiting area for the Vehicles and the vehicles of any other persons or entities having the same classification of Commercial Access License as Operator ("Other Operators"), upon the terms and subject to the conditions specified by the Authority and/or its representatives, in its sole and absolute discretion, including the maximum length of time permitted for each Vehicle to remain in the Designated Waiting Areas for such purposes. Operator further acknowledges and agrees that the Authority and/or its representatives, at any time and from time to time, may (i) upon at least thirty (30) days' prior written notice to Operator, terminate, reduce, modify, relocate or otherwise change any Designated Service Areas and Designated Waiting Areas; (ii) limit the length of time the Vehicles may remain at the Designated Service Areas and Designated Waiting Areas; (iii) limit

the number of Vehicles permitted on the Airport at any one time; and (iv) vary such designations and limitations based on the time of day, the day of the week, the level of traffic congestion at the Airport, construction activity, emergencies and/or emergency response needs or other factors, all in the Authority and its representatives' sole and absolute discretion. In connection with each of the foregoing (i) through (iv), the Authority and/or its representatives may from time to time establish and modify uniform rules and regulations regarding the use of such Designated Service Areas and Designated Waiting Areas, which rules and regulations and its curb use policy shall be applied by the Authority and/or its representatives in a non-discriminatory manner; provided, however, that Operator acknowledges and agrees that the use of such Designated Service Areas and Designated Waiting Areas shall at all times be subject to the control of the Authority and/or its representatives in its sole and absolute discretion. In no event shall Operator leave unattended or cause to be left unattended any of the Vehicles on any areas of the Airport.

7. AVI System. If Authority installs an AVI System, Operator shall comply with all of the requirements and procedures established by the Authority with respect to the installation, maintenance and use of the AVI System. Without limiting the generality of the foregoing, if Authority installs an AVI System, Operator shall install or cause to be installed in each of the Vehicles an AVI System transponder tag in accordance with the Authority's specifications and instructions. Operator shall not modify, adjust, remove or otherwise tamper with the AVI System transponder tag after such installation, which modification, adjustment, removal or tampering shall be an Event of Default and shall be cause for the termination of the Commercial Access License and this Agreement. If Authority installs an AVI System, Operator shall purchase AVI System transponder tags from the Authority at the Authority's then current charge therefor.

8. Vehicles.

8.1 Initial Vehicle List. On or before the Commencement Date (as defined in Section 2.1), Operator shall provide a list of vehicles it desires to use and also cause its automobile insurance company to deliver to the Authority's Business and Properties Department a list of the make, model, color, year of manufacture, seating capacity, license number ("Vehicle List"). All Vehicles operating at the Airport shall be no older than eight (8) model years in age. Once approved by the Authority, each approved vehicle will receive and have placed on it an Airport Vehicle Permit Sticker. Each Airport Vehicle Permit Sticker is individually numbered and corresponds to the vehicle on the Vehicle List. Airport Vehicle Permit Stickers must be displayed on the approved vehicle in a designated location in order to conduct service on airport premises. Stickers must not be tampered with, removed or switched to another vehicle. Violation of this may result in the removal of vehicle(s) authorized access to the airport. Damaged or missing stickers must be reported to the Authority immediately. Arrangements shall be made with the Authority's Business and Properties Dept to replace damaged or missing stickers. If Authority installs an AVI System, Operator shall provide a list of vehicle identification numbers and corresponding AVI System transponder tag identification numbers for each of the Vehicles applying for approval to operate at the Airport.

8.2 Maintenance. The Vehicles entering the Airport pursuant to this Agreement and the Commercial Access License shall be uniformly painted and visibly marked according to California PUC requirements, including Operator's name on the front, rear and

sides of the Vehicles. Operator shall maintain all of the Vehicles in a good, clean, undamaged and safe operating condition in compliance with all of the provisions of the California Vehicle Code and the regulations promulgated thereunder, including, without limitation, the registration provisions thereof. Vehicles shall be subject to inspection by the Authority at all times, including prior to their operation and use on Airport property.

8.3 Changes in Vehicle List. In the event Operator would like to add additional vehicles to the Vehicle List, Operator shall submit a written request to the Authority's Business and Properties Department for approval. Upon approval by the Authority's Business and Properties Department, the added vehicle is subject to inspection, and if an AVI System has been installed then installation of AVI transponder tags, and/or issuance of an Authority Vehicle Sticker, prior to use on Authority roadways. Deletion of Vehicles from the Vehicle List shall be accomplished by Operator providing written notice to the Authority's Business and Properties Department, with the Vehicle identified by specifying the items noted in Section 9.1 of this Agreement. Said notice shall be accompanied by the return of the deleted Vehicle's AVI transponder tag/Vehicle Sticker. Operator shall be fully responsible for all Trip Fees related to a specific transponder tag or Airport Vehicle Permit Sticker until such transponder tag and Airport Vehicle Permit Sticker is returned to the Authority.

Special arrangements may be made on specific request to the Authority when Vehicles are transferred to other commercial Vehicle operators conducting business on Authority roads. Such special arrangements may only be made by written request from Operator to Authority, and the decision to accommodate such request shall rest in the sole and unfettered discretion of Authority.

9. Employees. Operator shall control the conduct, demeanor, and appearance of its officers, employees, agents, representatives and contractors to maintain a high level of customer service and shall require all of its employees to wear clean and neat appearing clothing and shall take all actions necessary to ensure their courteous, polite and inoffensive conduct and demeanor. Upon objection from the Authority concerning the conduct, demeanor, or appearance of any such person, Operator immediately shall take all steps necessary to correct or to remove the cause of the objection or complaint within a 24-hour period. The Authority's approval and removal rights under this Section 10 shall be limited to Operator's conduct under this Agreement and the Commercial Access License, and shall not constitute, or be construed to constitute, any right to terminate or cause the termination of or interference with any employment relationship between Operator and its employees; nor shall the exercise of said approval or removal rights be deemed to have in fact caused or contributed to the termination of or interference with any employment relationship between Operator and its employees. Operator shall cause all of its Employees to comply with all of the provisions of this Agreement and the Commercial Access License, including, without limitation, all of the Rules and Regulations of the Authority relating to Airport traffic and the directions and instructions of Airport police and other Airport traffic enforcement personnel.

10. No Interference. Operator shall not do or permit to be done anything which interferes with the free access to the streets, roads, parking lots, curb areas, entryways, exits, sidewalks or any other areas of the Airport, or in any way hinders or impairs the operation of the

Airport. In addition, Operator shall not hinder police, traffic enforcement, firefighting or other emergency personnel in the discharge of their duties.

11. Nuisance. Operator shall not use or permit the use of any area of the Airport in any manner that will: (i) tend to create or permit any waste or a nuisance at the Airport, (ii) tend to disturb the Authority, any Other Operators, or any tenants, concessionaires, licensees, users or customers of the Airport or the general public, or (iii) increase the premiums for or cause the cancellation or termination of any insurance policies covering the Airport.

12. No Advertisement or Solicitation. Operator agrees that no employee or agent of Operator shall solicit business in any manner whatsoever upon any areas of the Airport. Operator shall not place or permit the placement of any advertisements, telephones or other facilities or equipment, or starters, skycaps, porters, booth personnel, agents or other personnel, in or on the curbs, sidewalks, terminal buildings or any other areas of the Airport unless approved in writing by the Authority and/or its representatives.

13. Insurance.

13.1 General. Throughout the term of this Agreement and the Commercial Access License, Operator shall maintain the following insurance coverage:

13.1.1 Commercial General Liability. Commercial general liability insurance written on an occurrence basis in an amount not less than One Million Dollars ($1,000,000) for each occurrence and in the annual aggregate. Such coverage shall include premises/operations, broad form contractual, independent contractors, broad form property damage and personal injury.

13.1.2 Automobile Liability. Automobile liability insurance covering all owned, non-owned and hired vehicles written on an occurrence basis, Combined Single Limit Auto Liability or, in the alternative, Bodily Injury per Person, Bodily Injury per Accident and Property Damage per Accident, in an amount not less than the following:

Vehicle Capacity 1-7 Passengers	Combined Single Liability Limit of $1,000,000
Vehicle Capacity 8-15 Passengers	Combined Single Liability Limit of $2,000,000
Vehicle Capacity 16 or More Passengers	Combined Single Liability Limit of $5,000,000

13.1.3 Workers' Compensation. Workers' compensation insurance written in accordance with California statutory limits.

13.2 Self-Insured Retention Limitations. In no event shall the deductible or self-insured retention for any of the insurance policies described in Section 14.1 exceed Ten Thousand Dollars ($10,000).

13.3 Insurer Requirements. Each insurance policy required to be maintained by Operator pursuant to this Section 14 shall be obtained from an insurance company

authorized to conduct business in California and having a rating of not less than A-X in A.M. Best's Insurance Guide or otherwise acceptable to the Authority.

13.4 Adjustment of Required Insurance. Operator acknowledges, understands and agrees that the types and amounts of insurance coverages required to be maintained by Operator pursuant to this Section 14 may become inadequate during the term of this Agreement, and Operator agrees that it shall add or modify such insurance or coverages and increase such minimum limits of liability by such amounts as may be required at any time and from time to time by the Authority.

13.5 Certificates of Insurance. Concurrently with the execution and delivery of this Agreement, Operator shall deliver to the Authority certificates of insurance evidencing that all insurance has been obtained and is being maintained by Operator as required in this Section 14, together with copies of endorsements (i) requiring the insurers to give to the Authority at least thirty (30) days' prior written notice sent by registered mail of any cancellation, non-renewal or reduction in coverage, and (ii) with respect to the commercial general liability and automobile liability insurance of Operator, naming (a) Operator and its officers, directors, employees, agents, representatives and contractors and any other persons and entities for whose acts or omissions Operator is responsible (collectively, "Operator Parties") as named insureds, and (b) the Authority, TBI (U.S.), Inc./TBI Airport Management, Inc., as manager of the Airport, and each of the Cities of Burbank, Glendale and Pasadena, California, and their respective commissioners, officials, officers, directors, employees, agents, representatives and contractors (collectively, "Authority Parties") as additional insureds (utilizing the 11/1985 Insurance Services Office form CG 20 10 Additional Insured endorsement or equivalent form approved in writing by the Authority). The failure of Operator to provide said certificates of insurance, together with said endorsements, or the subsequent receipt by the Authority of a notice of cancellation, non-renewal or reduction in coverage under the insurance policy(ies) by Operator's insurance company(ies), unless Operator replaces said coverage with comparable coverage with an insurer which meets the criteria of Section 14.3 within the thirty (30) day period set forth in (i) of this Section 14.5, shall constitute an Event of Default under Section 19.1.3. All insurance required to be maintained by Operator pursuant to this Section 14 shall be primary insurance without right of contribution of any other insurance carried by or on behalf of any Authority Party and all policies shall be endorsed to this effect.

13.6 No Limitation of Liability. Operator acknowledges and agrees that the limits of liability provided in the insurance policies required to be maintained by Operator pursuant to this Section 14 shall in no event be considered as limiting the liability of Operator under this Agreement.

13.7 Waivers of Subrogation Rights. All insurance policies required to be maintained by Operator pursuant to this Section 14, except workers' compensation insurance, shall include, or be endorsed to provide, a waiver by the insurers of any rights of subrogation that the insurers may have at any time against any of the Authority Parties.

14. Indemnity. To the fullest extent permitted by law, Operator shall defend, indemnify and hold harmless the Authority Parties from and against, any and all demands, claims, actions, proceedings, causes of action, damages, awards, penalties, fines, assessments,

forfeitures, judgments, losses, liabilities, obligations, costs and expenses, including, without limitation, attorneys' fees (collectively, "Claims"), arising out of, resulting from or relating to or purported to have arisen out of, resulted from or to be related to: (i) any act or omission of Operator or any other Operator Parties under or in connection with this Agreement and/or the Commercial Access License or otherwise in connection with the conduct or operation of Operator's ground transportation business at the Airport; (ii) any act or omission of Operator or any other Operator Party or any officer, director, employee, agent, representative or contractor of any Approved Other Business under or in connection with any Approved Other Business Agreement and/or Approved Other Business License or otherwise in connection with the conduct or operation of any Approved Other Business or Operator's rights under Section 4; or (iii) any act or omission of any Approved Other Operator (as defined in Section 20.2) or any of its officers, directors, employees, agents, representatives or contractors under or in connection with any Approved Other Operator Agreement and/or Approved Other Operator License (as such terms are defined in Section 20.2). Notwithstanding any other provision of this Section, each Authority Party seeking indemnification under this Section shall have the right to (x) approve of any legal counsel engaged by Operator or its insurance carrier to defend any Claim, (y) engage legal counsel of its own choice (a) in the event that said Authority Party determines that there is a conflict between the interests of Operator and/or its insurance carrier, on the one hand, and the interests of said Authority Party, on the other hand, with respect to any Claim; (b) in the event of any material disagreement as to the manner, method or handling of the defense of any Claim; and/or (c) otherwise to the extent said Authority Party determines is required to protect its interests with respect to any Claim, and the costs of such legal counsel described in (x) and (y) shall be paid for by Operator as part of its indemnity obligations under this Section.

15. Security Deposit

15.1 Amount. Concurrently with the execution and delivery of this Agreement, Operator shall pay to the Authority a security deposit in the amount of Five Thousand Dollars ($5,000) ("Deposit") in cash, or deliver to Authority a letter of credit in such amount, in form and substance and from an issuer acceptable to Authority, to support/secure the performance of all of Operator's covenants, agreements, duties and obligations under this Agreement and the Commercial Access License. The Authority shall have the right, at any time and from time to time and in the Authority's sole and absolute discretion, to adjust the amount of the Deposit by delivering to Operator written notice thereof. Within ten (10) days following the delivery to Operator of written notice of any said adjustment, Operator shall deliver to the Authority the amount of the adjustment set forth in the Authority's written notice (in cash, or if the Deposit is in the form of a letter of credit, by delivering a replacement letter of credit or a letter of credit amendment). In the event that Authority draws against any portion of said security deposit pursuant to this Section, Operator shall, within five (5) days after written demand therefor, obtain and deliver to Authority cash (or if the Deposit consists of a letter of credit, a replacement letter of credit or letter of credit amendment) sufficient to restore said security deposit letter of credit to its original amount, and Operator's failure to do so shall be an event of default under this Agreement. In the event Authority draws against the Deposit, such action shall not constitute a waiver of any other rights or remedies which Authority may have by virtue of Operator's default.

15.2 Application. The Deposit may be applied by the Authority against all Trip Fees, Delinquent Amounts, Late Charges and/or any other charges due from Operator and/or incurred by the Authority in connection with this Agreement, the Commercial Access License, any Approved Other Business Agreement, any Approved Other Business License, any Approved Other Operator Agreement, any Approved Other Operator License or otherwise in connection with the conduct or operation of Operator's ground transportation business at the Airport or any Approved Other Business or Approved Other Operator. In the event that the Authority does apply the Deposit, or any portion thereof, against said amounts, Operator shall deposit sufficient sums to restore the Deposit to the then current amount within five (5) days following the delivery to Operator of written notice thereof. The Deposit shall not earn interest and need not be segregated from other funds of the Authority.

16. Representations and Warranties of Operator. Operator represents and warrants to the Authority, for its specific reliance thereon in executing this Agreement and issuing the Commercial Access License, that (i) all information contained in the Application is true, accurate and complete, (ii) this Agreement, the Commercial Access License and the consummation of the transactions contemplated hereby, have been duly authorized by Operator, (iii) no consents, approvals or authorizations of any other person or entity are required for the execution, delivery or performance of this Agreement or the Commercial Access License, and (iv) neither this Agreement nor the Commercial Access License violate or constitute a breach of any Law or any other agreement, contract, license, permit, instrument, judicial order or other document to which Operator is a party or to which it or its assets or properties are subject. Operator shall immediately notify the Authority in writing of any change in any of the information provided to the Authority in connection with this Agreement, the Commercial Access License or the Application, or if any of such information is or becomes false or misleading.

17. The Authority is Not Responsible. Operator acknowledges that, except as specifically set forth herein, neither the Authority nor any other Authority Party has made any representation, warranty, covenant or agreement regarding the Airport, including any representations or warranties relating to its condition or operations. Operator hereby releases the Authority from and waives any and all claims and liability for losses of, or damage to or loss of use of, Operator's property or injury to or death of Operator's employees, invitees or customers arising out of or in any way connected with the Operator's business or conduct under this Agreement, except for any such loss of or damage to property or injury to or death of Operator's employees, invitees or customers caused by the gross negligence or willful misconduct of the Authority, its officers, agents, or employees.

18. Default.

18.1 Events of Default. Each of the following constitutes an Event of Default:

18.1.1 Any failure of Operator to have any right, license, permit, approval, consent, authorization or registration necessary for the proper and lawful conduct of Operator's ground transportation business at the Airport pursuant to this Agreement or the Commercial Access License, which failure is not cured by Operator within five (5) days after written notice from the Authority.

18.1.2 Any representation or warranty made by Operator under or in connection with the Application or this Agreement shall prove at any time to have been incorrect, false or misleading.

18.1.3 Any violation of or failure to perform or comply with any of the covenants, agreements, obligations, conditions, provisions or restrictions contained in this Agreement or the Commercial Access License, including, without limitation, Operator's failure to pay to the Authority any Trip Fees, Late Charges or any other amounts payable hereunder on or before the due date thereof, which failure is not cured within five (5) days after written notice from the Authority.

18.1.4 Any Event of Default under any Approved Other Business Agreement, Approved Other Business License, Approved Other Operator Agreement or Approved Other Operator License.

18.1.5 The occurrence of any of the following: (i) Operator admits in writing its inability to pay its debts as they mature; (ii) Operator makes a general assignment for the benefit of creditors, or approves of, consents to or acquiesces in the appointment of a trustee, receiver or liquidator for itself or any portion of its assets; (iii) a trustee, receiver or liquidator is appointed for Operator, or for any substantial portion of its assets, without Operator's consent, and is not discharged within sixty (60) days after such appointment; (iv) any proceeding is commenced by Operator under any bankruptcy, reorganization, insolvency, readjustment of debt, arrangement, receivership or liquidation law or statute or the federal or any state government; or (v) any proceeding under any bankruptcy, reorganization, insolvency, readjustment of debt, arrangement, receivership or liquidation law or statute or the federal or any state government is instituted against Operator and remains undismissed for sixty (60) days, or Operator by any action or answer approves of, or consents to, any such proceeding or admits the material allegations respecting insolvency or its inability to meet its financial obligations or default in answering a petition filed in any such proceeding.

18.2 Remedies. Upon the occurrence of any Event of Default, in addition to any and all other rights and remedies of the Authority, whether at law or in equity, the Authority shall have the right to terminate this Agreement and the Commercial Access License.

19. No Assignment.

19.1 General. Except as provided in Section 19.2, Operator shall not in any manner, directly or indirectly, voluntarily or involuntarily or by operation of law or otherwise, assign, hypothecate, transfer or encumber this Agreement or the Commercial Access License, or any right hereunder or thereunder or delegate any duties or obligations under this Agreement or the Commercial Access License, directly or indirectly, voluntarily or involuntarily or by operation of law or otherwise.

19.2 Permitted Assignment. Notwithstanding the provisions of Section 19.1, Operator shall have the right to engage any other person or entity ("Approved Other Operator") holding a valid and effective Commercial Access License issued by the Authority ("Approved Other Operator License") and an Airport Access and Facilities Use Agreement with

the Authority ("Approved Other Operator Agreement") to transport Operator's customers to and from the Airport so long as the Approved Other Operator License and Approved Other Operator Agreement are in effect, are not in default, and have not expired or been cancelled or terminated, provided that Operator first shall have delivered to the Authority written notice thereof and the Authority shall have approved of the same in writing. In the event that Operator engages any Approved Other Operator to transport Operator's customers to and from the Airport pursuant to this Section, Operator's obligations to pay the Trip Fees to the Authority shall not be affected.

20. Non-Discrimination and Compliance with Federal Requirements. Operator shall comply with the provisions of Exhibit "C" attached hereto and by this reference made a part hereof regarding nondiscrimination, as the same may be amended by the Authority from time to time. In addition, Operator shall undertake an affirmative action program as required by 14 Code of Federal Regulations Part 152, Subpart E, to insure that no person shall, on the ground of race, creed, color, national origin, or sex, be excluded from participating in any employment activities covered in 14 Code of Federal Regulations Part 152, Subpart E. Operator agrees that no person shall be excluded on these grounds from participating in or receiving the services or benefits of any program or activity covered by said subpart.

21. Compliance with FAA Grant Assurances and Airport Use

. Operator acknowledges and understands that the Authority is obligated to comply with the provisions of Exhibit "D" attached hereto and made a part hereof constituting Federal Aviation Administration ("FAA") grant assurances. Operator agrees that neither Operator nor any of the other Operator Parties shall do anything that will cause or contribute to the violation by the Authority of any of the provisions of Exhibit "D".

22. Miscellaneous.

22.1 Notices. All notices, requests, demands and other communications given, or required to be given under this Agreement and the Commercial Access License, shall be in writing, duly addressed to the parties as follows:

To Authority: Executive Director
BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY
2627 Hollywood Way
Burbank, CA 91505

To Operator: _____

Any notices properly addressed, sent by registered or certified mail, return receipt requested, shall be deemed to have been duly given and received seventy-two (72) hours after they are deposited in the United States mail, postage prepaid. Notices shall be deemed delivered and received at the time delivered if properly addressed and delivered to the addresses set forth in this Section during normal business hours or personally delivered to the person to whose attention they are addressed or sent by confirmed telecopy to a party's regular business telecopier during regular business hours. Notice sent by any other manner shall be effective upon actual

receipt of the addressee. Any party may change its address for purposes of this Section by giving notice to the other party as provided in this Section.

22.2 Entire Agreement. This Agreement constitutes the entire agreement between the parties hereto pertaining to the subject matter hereof and supersedes all prior and contemporaneous negotiations, understandings and agreements of the parties with respect to the subject matter hereof except for the Commercial Access License and as otherwise expressly provided herein, no supplement, modification or amendment of this Agreement, or discharge of any of the obligations hereunder, shall be binding unless executed in writing by the parties hereto.

22.3 Severability. If any portion of any provision of this Agreement, or any one or more such provisions, is hereafter declared invalid or unenforceable, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remainder of such provision or of any other provisions of this Agreement.

22.4 Governing Law. This Agreement shall be construed, interpreted and applied in accordance with the laws of the State of California and, to the extent applicable, the rules and regulations of the Federal Aviation Administration.

22.5 Remedies; Waiver. The rights and remedies set forth herein shall be cumulative and in addition to any other remedies which may be available under any other agreement between the parties or at law or in equity. The exercise of any remedy shall not be deemed to be an election of remedies. No waiver of any breach or default shall be construed as a continuing waiver of any provision or as a waiver of any other or subsequent breach of any provision contained in this Agreement, and no waiver shall be binding unless executed in writing by the party making the waiver.

22.6 Modification. Except as otherwise provided in this Agreement, no change or modification of the terms or provisions of this Agreement shall be deemed valid unless in writing and signed by both parties.

22.7 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument.

22.8 Headings. The headings of Sections of this Agreement have been inserted for convenience of reference only and shall not affect the interpretation of any of the provisions of this Agreement.

22.9 Attorneys' Fees. In the event of any action or proceeding to enforce or construe any of the provisions of this Agreement, the prevailing party in any such action or proceeding shall be awarded costs and reasonable attorneys' fees in the defense, prosecution or appeal thereof as a part of the judgment eventuating in such action.

22.10 Time. Time shall be of the essence in complying with the terms, conditions and provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

_____

By: _____
Authorized Signature

Name of signer: _____

Title of signer: _____

Date: _____

BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY

By: _____
Authorized Signature

Name of signer: _____

Title of signer: Executive Director

Date: _____

EXHIBIT "A"

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
COMMERCIAL ACCESS LICENSE

NO._____

Operator:_____

24 Hour Emergency Contact Number: _____

PSC No.: _____

TCP No.: _____

Classification:

___ Class I - Limousine, charter party carrier, passenger stage operator

__ Class III - Hotel/motel

___ Class IIII - Off airport parking

___ Class IV - Rental car business

___ Class V – Taxicab

___ Class VI – Other Operators

The Burbank-Glendale-Pasadena Airport Authority ("Authority") hereby grants to Operator this Commercial Access License ("Commercial Access License") pursuant to which Operator shall have a non-exclusive license and right of access to the Hollywood Burbank Airport ("Airport") and its passenger terminals for commercial purposes, including the right to use the Airport roads and facilities for shuttle bus transportation of Passengers and their baggage between the Airport and Operator's place of business, and/or the right to utilize designated areas in the passenger terminal area designed for the loading and unloading of Passengers and their baggage, but for no other purpose or use. This Commercial Access License is granted pursuant to vote of the Authority on _____, and is on the terms and subject to the conditions of the Application for Commercial Access License submitted by Operator to the Authority and the Airport Access and Facilities Use Agreement between the Authority and Operator on file with the Authority.

The term of this Commercial Access License shall commence on _____, 20__ and shall end on _____, 20___.

BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY

By: _____

Title: _____

EXHIBIT "B"

SELF REPORT FORM

(Attached.)

BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
AIRPORT ACCESS AND FACILITIES MONTHLY SELF-REPORT FORM
(LOOP FEES & 10% GROSS RECEIPTS)

COMPANY:	NAME:
REPORT PERIOD (MONTH):	PHONE:
AIRPORT: HOLLYWOOD BURBANK AIRPORT	E-MAIL:

LOOP FEE CALCULATION (Pick-up & Drop-off)

NUMBER OF TRANSACTIONS:	
RATE PER TRANSACTION:	$1.50
TOTAL:	$0.00

GROSS RECEIPTS

TOTAL GROSS RECEIPTS FOR THE MONTH:	
AMOUNT DUE (10% OF GROSS RECEIPTS):	$0.00
TOTAL AMOUNT DUE TO AUTHORITY:	$0.00

Please complete and return the signed report, along with applicable supporting documents and payment to the Airport Authority on or before the 20th of the month for the previous month's activity to:

Burbank-Glendale-Pasadena Airport Authority
2627 N. Hollywood Way
Burbank, CA 91505
Attn: Accounting/Finance Department

Additionally, please email the completed electronic version of the report to AR@bur.org

I certify that the information submitted in this report is true and correct.

NAME	TITLE
SIGNATURE	DATE

EXHIBIT "C"

FAA GRANT AGREEMENT ASSURANCES

NONDISCRIMINATION

A. Tenant, for itself, its representatives, successors in interest, and permitted assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that in the event facilities are constructed, maintained, or otherwise operated on the Leased Premises for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, Tenant shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said regulations may be amended.

B. Tenants for itself and its representatives, successors in interest and permitted assigns as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that:

1. No person on the ground of race, color, or national origin shall be excluded from participation, denied the benefits of, or be otherwise subjected to discrimination in the use of the Leased Premises;

2. In the construction of any Improvements on, over or under the Leased Premises, if allowed, and the furnishings of services thereon, no person on the ground of race, color, or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination: and

3. Tenant shall use the Leased Premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations§, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

C. In the event of breach of any of the above nondiscrimination covenants, Landlord shall have the right to terminate this Lease and to re-enter and to repossess the Leased Premises, and hold the Leased Premises as if this Lease had never been made. This provision does not become effective until the procedures of 49 Code of Federal Regulations Part 21 are followed and completed, including expiration of appeal rights.

D. Tenant shall furnish its accommodations and/or services on a fair, equal and not unjustly discriminatory basis to all users thereof and it shall charge fair, reasonable and not unjustly discriminatory prices for each unit or service; provided, that the Tenant may make

reasonable and nondiscriminatory discounts, rebates or other similar type of price reductions to volume purchasers.

E. Noncompliance with Provision D, above shall constitute a material breach hereof and in the event of such noncompliance Landlord shall have the right to terminate this Lease and the estate hereby created without liability therefor or, at the election of Landlord or the United States, either or both thereof shall have the right to judicially enforce Provisions A, B, C and D above.

F. Applicant agrees that it shall insert the above five provisions in any Permitted Lease, license or agreement by which said Tenant grants a right or privilege to any person, firm or corporation to render accommodations and/or service to the public at the Leased Premises.

EXHIBIT "D"

GENERAL FEDERAL PROVISIONS

1. CIVIL RIGHTS – GENERAL.

The Lessee agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. If the Lessee transfers its obligation to another, the transferee is obligated in the same manner as the Lessee.

This provision obligates the Lessee for the period during which the property is owned, used or possessed by the Lessee and the airport remains obligated to the Federal Aviation Administration. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

2. CIVIL RIGHTS – TITLE VI ASSURANCES.

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Lessee, for itself, its assignees, and successors in interest (hereinafter referred to as the "Lessee") agrees as follows:

A. **Compliance with Regulations:** The Lessee will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

B. **Non-discrimination:** The Lessee, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors. The Lessee will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

C. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the Lessee for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Lessee of the Lessee's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

D. **Information and Reports:** The Lessee will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be

determined by the Authority or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a Lessee is in the exclusive possession of another who fails or refuses to furnish the information, the Lessee will so certify to the Authority or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

E. **Sanctions for Noncompliance:** In the event of a Lessee's noncompliance with the Non-discrimination provisions of this contract, the Authority will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

i. Cancelling, terminating, or suspending a contract, in whole or in part.

F. **Incorporation of Provisions:** The Lessee will include the provisions of paragraphs A through F in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Lessee will take action with respect to any subcontract or procurement as the Authority or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Lessee becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Lessee may request the Authority to enter into any litigation to protect the interests of the Authority. In addition, the Lessee may request the United States to enter into the litigation to protect the interests of the United States.

Transfer of Real Property Acquired or Improved Under the Airport Improvement Program:

A. The Lessee for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that:

i. In the event facilities are constructed, maintained, or otherwise operated on the property described in this lease for a purpose for which a Federal Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the Lessee will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Pertinent List of Nondiscrimination Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. In the event of breach of any of the above Nondiscrimination covenants, the Authority will have the right to terminate the lease and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the lease had never been made or issued.

Construction/Use/Access to Real Property Acquired Under the Airport Improvement Program:

A. The Lessee for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the Lessee will use the premises in compliance with all other requirements imposed by or pursuant to the List of discrimination Acts and Authorities.

B. In the event of breach of any of the above nondiscrimination covenants, the Authority will have the right to terminate the lease and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said lease had never been made or issued.

Title VI List of Pertinent Nondiscrimination Acts and Authorities:

During the performance of this contract, the Lessee, for itself, its assignees, and successors in interest (hereinafter referred to as the "Lessee") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

A. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);

B. 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);

C. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

D. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;

E. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);

F. Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

G. The Civil Rights Restoration Act of 1987, (PL 100-209), (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid

recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

H. Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;

I. The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

J. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

K. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

L. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
AUGUST 17, 2020

EIGHTH AMENDMENT TO DEVELOPMENT GROUND LEASE MERCURY AIR CENTER-BURBANK, INC. dba ATLANTIC AVIATION

SUMMARY

At its meeting on July 20, 2020, the Finance and Administration Committee ("Committee") voted unanimously (3–0) to recommend that the Commission approve a proposed Eighth Amendment to the Development Ground Lease ("Lease") with Mercury Air Center-Burbank, Inc. (dba Atlantic Aviation) ("Atlantic"), copy attached, to extend the Lease for ten-years to April 30, 2035.

BACKGROUND

On May 1, 1997 Atlantic entered into the Lease with the Authority for premises along Empire Avenue within existing Hangars 3, 6, 7, 7A and 7B, as well as premises along Sherman Way ("North Premises"). The Lease had a three-year base term and included a requirement that Atlantic construct new improvements and operate a Fixed Base Operation ("FBO") business providing fueling and other aircraft services to based and transient aircraft on the North Premises. Atlantic completed construction of an FBO Terminal and aircraft hangars on the North Premises, in the amount of $8,123,252, on July 5, 2000 and the term of the Lease was extended to April 30, 2025. Prior to the COVID-19 pandemic, Atlantic approached Staff expressing its desire to extend the term of their lease by ten years and ensuring their presence at the Airport. Atlantic continued to reiterate its desire to extend the lease, commit to an additional capital improvement while undertaking a major rehabilitation of its ramp even as the potential long-term impact of the pandemic began to come into focus. Staff concluded discussions resulting with the proposed Amendment for the Commission's consideration. Over the past 20 years, Atlantic has been a tenant in good standing and compliant with the terms of its agreements with the Authority.

DETAILS

The key components of the proposed Eighth Amendment are as follows:

Proposed Term Extension:	From April 30, 2025 to April 30, 2035
Current Rent:	$179,252 per month; $2,151,024 per year
Rent Adjustment:	120% of CPI, not to exceed 6% annually

Capital Improvement Requirement:	A minimum of $319,415 to be invested in approved capital improvements by Tenant to be completed within a 12-month period no later than August 1, 2021
Ground Service Equipment ("GSE") Emission Policy:	The Authority's GSE emission policy per the MOU between the Authority and the South Coast Air Quality Management District is contained in the proposed Amendment
Other:	Tenant responsible for expenses related to occupancy including maintenance, utilities, share of property insurance and applicable taxes

BUDGET IMPACT

Under the terms of the proposed Eighth Amendment, the Authority will receive rent of $179,252 per month or $2,151,024 per year subject to annual rent adjustment as defined in the Lease.

RECOMMENDATION

At its meeting on July 20, 2020, the Committee voted unanimously (3–0) to recommend that the Commission approve the proposed Eighth Amendment to the Lease with Atlantic and authorize the President to execute same.

EIGHTH AMENDMENT TO DEVELOPMENT GROUND LEASE

This EIGHTH AMENDMENT TO DEVELOPMENT GROUND LEASE (the "Eighth Amendment") is dated as of _____, 2020 and is entered into by and between the BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY, a public entity formed under a joint exercise of powers agreement among the Cities of Burbank, Glendale and Pasadena, California, pursuant to the California Joint Exercise of Powers Act ("Landlord") and MERCURY AIR CENTER-BURBANK, INC., a California corporation (dba "Atlantic Aviation") ("Tenant")

A. Landlord and Tenant entered into a Development Ground Lease dated May 1, 1997 and subsequently amended it (the "Lease"). Capitalized terms used but not defined in this Eighth Amendment shall have the meaning set forth in the Lease.

THEREFORE, the parties hereto agree as follows:

1. Conditional Extension of Term. Section 2.2 of the Lease is hereby deleted and is replaced with the following:

"2.2 Automatic Extension of Term Upon Substantial Completion of Approved New Improvements. The Expiration Date is currently April 30, 2025. If Tenant substantially completes Approved New Improvements consistent with Exhibit "E" at an aggregate cost equal to or in excess of $319,415.50 on the portion of the Leased Premises described on Exhibit "E" on or prior to August 1, 2021, then the term of the Lease shall be extended automatically to April 30, 2035. "Substantial completion" means the completion of construction and installation of Approved New Improvements (except for minor punch list items) for an aggregate construction cost equal to or in excess of the Minimum Approved New Improvement Cost in accordance with the approved plans and specifications, including any approved changes, and in compliance with the requirements of Section 6 of this Lease and shall be evidenced either by: (i) a temporary certificate of occupancy issued by the City of Burbank on or before August 1, 2021 or (ii) a written notice of substantial completion delivery by Tenant to Landlord on or before August 1, 2021 accompanied by a written verification of substantial completion by Landlord's Director of Engineering or by an architect or engineer designated by Landlord to review and verify substantial completion. If this Lease is terminated by Landlord under Section 2.3.1 (or is terminated as to as to a portion of the Leased Premises under 2.3.1 or 2.3.2.1), then Section 2.3.4 (Payment of Commercial Costs of Approved New Improvements) shall apply with respect to the Approved New Improvements described above to the extent they are on portions of the Leased Premises as to which this Lease is so terminated. If the term of the Lease is not extended as provided in this Section 2.2, then upon the Expiration Date: (i) this Lease and Tenant's right of possession shall terminate and the provisions of Section 13 shall apply, and (ii) subject to the rights of Approved Leasehold Mortgagees, if any shall then exist, Tenant hereby assigns, transfers and conveys to Landlord all of Tenant's right, title and interest in and to any and all architectural or engineering plans, drawings, and specifications, geotechnical

studies and plans, permits and entitlements relating to the construction of New Improvements or facilities on the Leased Premises, in whatever form, including, without limitation, paper, microfilm, microfiche, computer files or other electronic media. Tenant shall obtain from each architect, engineer or consultant engaged by Tenant to provide design or professional services relating to New Improvements or facilities a written acknowledgment and consent to this assignment, transfer and conveyance by Tenant to Landlord of plans, drawings, specifications or studies, as applicable."

2. Description and Location of New Improvements. Exhibit "E" to the Lease is hereby replaced with the new Exhibit "E" (General Description of New Improvements and Diagram Showing Location of New Improvements) attached hereto.

3. New Noise Abatement Rules. Exhibit "C" to the Lease is hereby replaced with the new Exhibit "C", attached and Section 4.3.3 of the Lease is hereby replaced with the following:

"4.3.3 Landlord Noise Abatement Rules. Tenant hereby acknowledges that Tenant has read and understands the Burbank-Glendale-Pasadena Airport Authority noise abatement rules as they presently exist, attached hereto as Exhibit "C". Tenant shall conduct its business and flight operations, if any, in compliance with the noise abatement rules, as the same may be amended by Landlord from time to time, including, without limitation, any voluntary or mandatory curfew imposed now or in the future by Landlord, consistent with federal law, on flight operations between specified nighttime and morning hours (the "Noise Abatement Rules"). Tenant shall also conduct its flight operation in accordance with any voluntary noise abatement procedures as may be promulgated by Landlord that are in compliance with federal law. Tenant shall incorporate the Noise Abatement Rules into all of its Permitted Subleases and shall enforce the Noise Abatement Rules against its permitted subtenants. Landlord shall give written notice to Tenant of any violation of the Noise Abatement Rules by Tenant or any subtenant which comes to Landlord's attention and, upon receipt of a written notice from Landlord of any violation of the Noise Abatement Rules by a subtenant, Tenant shall promptly provide a notice of default to the subtenant (with a copy to Landlord). If the subtenant again violates the Noise Abatement Rules within ninety (90) days after the initial notice from Landlord, or if a subtenant violates the Noise Abatement Rules four (4) times within any twelve (12) month period, upon being notified in writing by Landlord of the occurrence of such repeated violation(s), Tenant shall institute appropriate legal proceedings to terminate the subtenant's sublease and to evict the subtenant from the Leased Premises."

4. Air Quality Improvement Plan. The following is hereby added as a new Section 4.3.5 of the Lease:

"4.3.5 Air Quality Improvement Plan. In addition to complying with Section 4.3., Tenant shall also comply with the certain provisions of the Burbank Airport's Air Quality Improvement Plan:

4.3.5.1 Ground Support Equipment Emissions Policy. Airlines and other entities own and operate ground support equipment ("GSE") to support arriving, departing, and parked aircraft at the Airport. The Airport's GSE policy will ensure that the Airport achieves Airport-wide GSE emissions targets. The Airport will achieve an airport average composite emissions factor for its GSE fleet which is equal to or less than 1.66 horsepower-hour of nitrogen oxides (g/hp-h of NOx) by January 1, 2023, and 0.74 g/hp-h of NOx by January 1, 2031. Upon achieving the 2023 and 2031 emissions targets, Tenant shall be required to ensure its fleet average continues to meet the Airport emissions targets. Tenant's obligation to meet the 2031 target shall be contingent on the installation of adequate infrastructure to support zero-emission GSE, which is operationally feasible and commercially available. Tenant's "Burbank Airport GSE fleet" shall be comprised solely of GSE operated at the Airport. Emissions performance of GSE operating at the Airport cannot be averaged with emissions performance of GSE operating at other airports to demonstrate compliance with the the Airport GSE emissions targets.

4.3.5.2 Clean Construction Policy. Landlord has adopted a Clean Construction Policy, which may be found/accessed at http://hollywoodburbankairport.com/green-initiatives/. For all Airport capital improvement projects undertaken by Tenant ("CIPs"), Tenant will comply with, and will cause Tenant's CIP contractors to comply with, such Clean Construction Policy, and shall otherwise ensure its contractors follow clean construction practices to reduce emissions of NOx such as using low-emission vehicles and equipment, recycling construction and demolition debris, and minimizing non- essential trips through better schedule coordination.

4.3.5.3 Burbank Airport Employee Ride Share Policy. Landlord intends to join the Burbank Transportation Management Organization (BTMO), which will serve all Airport employees and all Airport tenant employers, including employers with less than 250 employees. Tenant is encouraged to also join and to actively participate in the BTMO as an individual member."

5. Default. A default by Tenant under Section 3 or Section 4 of this Eighth Amendment shall constitute a default by Tenant under the Lease.

6. Counterparts. This Eighth Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which taken together shall constitute one and the same document.

7. Authorization. Landlord and Tenant represent and warrant to each other that each has the full power and authority to enter into this Eighth Amendment and the persons signing on behalf of each are authorized to do so.

8. Conflict of Terms: Force and Effect. In the event of any conflict between the terms of this Eighth Amendment and the terms of the Lease, the terms of this Eighth Amendment shall control. Subject to the terms of this Eighth Amendment, the Lease is

hereby confirmed and ratified and shall continue in full force and effect as provided therein.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Eighth Amendment to be duly executed as of the day and year first written above.

"LANDLORD":

BURBANK-GLENDALE-PASADENA
AIRPORT AUTHORITY,
a Joint Powers Authority

By: _____
Print Name: _____
Title: _____

"TENANT":

MERCURY AIR CENTER-BURBANK, INC.,
a California corporation

By: _____
Print Name: Louis T. Pepper
Title: President and Chief Executive Officer

NEW EXHIBIT " C"

NEW NOISE ABATEMENT RULES

(Attached.)

NOISE RULES

The Airport Noise Rules were originally adopted in the 1980s and have been enforced as follows since the late 1980s. This restatement and clarification is not intended to modify the enforceability of the Noise Rules under federal law.

Rule 1

All subsonic transport category airplanes and all subsonic turbojet powered airplanes regardless of category operating at the Burbank-Glendale-Pasadena Airport shall be in compliance with all Federal Air Regulations respecting noise, as the same may be amended from time to time.

This Rule has been and shall continue to be enforced by requiring all aircraft to be FAA certified under Part 36 (provision governing aircraft noise levels).

Rule 2

Each air carrier jet operator shall implement appropriate FAA approved takeoff and arrival procedures consistent with the standard of Case 9A as contained in the Final Environmental Impact Statement approved by FAA on September 12, 1977.

This Rule has been and shall continue to be enforced by requiring that all aircraft meet the noise performance levels of certified Stage 3 aircraft.

Rule 3

All other jet operators shall use the National Business Aircraft Association's noise abatement procedures established January 1978.

This Rule has been and shall continue to be enforced by requiring that all general aviation turbojet aircraft (including Stage 2 hush-kitted aircraft that are certified as Stage 3) use the applicable NBAA noise abatement procedures as amended from time to time.

Rule 4

Each air carrier that operates, for any reason, after 10:00 p.m. or before 7:00 a.m. shall pay the full amount of any costs charged to or incurred by the Authority for maintaining the crash rescue service on duty.
This Rule has not been enforced since the mid-1980s due to grant assurances adopted by the federal government in the 1980s that prohibit such enforcement, and shall not be enforced going forward.

Rule 5

This Rule was repealed in 1986 and shall not be enforced going forward. (It specified departure runways for flights to the east and south.)

Rule 6

Each aircraft operator and maintenance and repair facility shall adhere to the Authority Engine Test Run-up Policy as contained in the Airport Operations Manual, as the same may be amended from time to time.

This Rule has been and shall continue to be enforced by requiring all operators to comply with the run-up policy in the Airport's Operations Manual as amended from time to time.

Rule 7

A. No air carrier shall: (1) inaugurate any operations; (2) implement any increase in operations; (3) substitute aircraft types producing higher noise levels for aircraft already in service (except on a temporary basis because of emergency maintenance, weather, payload, or other unanticipated conditions beyond the carrier's control); or (4) substitute aircraft which do not comply with the Stage 3 requirements of F.A.R. Part 36 for aircraft which meet those requirements (except on a temporary basis because of emergency maintenance, weather, payload, or other unanticipated conditions beyond the carrier's control) without having first obtained the written approval of the Commission, which approval shall not be granted except upon a determination by the Commission that such proposed operations or increase will not result in or contribute to an increase in the noise impact area of the Airport from all aircraft operations based on the annual CNEL of 70 for the period ending June 30, 1978.

B. As used herein, the term "operations" shall mean takeoffs and landings other than emergency procedures or takeoffs or landings resulting from the use of the Airport as weather alternate. The term "weighted operations" shall mean operations weighted on the basis of time of occurrence as provided in Section 5006 of the California Noise Standards, 21 Cal. Admin. Code Section 5000 et. seq. As used herein, noise levels are defined as sound exposure levels measured at, or calculated for, Airport noise monitor system positions.

C. Any air carrier desiring to: (1) inaugurate any operations; (2) implement any increase in operations or weighted operations; (3) substitute aircraft types producing higher noise levels for aircraft types already in service (except on a temporary basis because of emergency maintenance, weather, payload, or other unanticipated conditions beyond the carrier's control); or (4) substitute aircraft which do not comply with the Stage 3 requirements of F.A.R. Part 36 for aircraft which meet those requirements (except on a temporary basis because of emergency maintenance, weather, payload, or other unanticipated conditions beyond the carrier's control) pursuant to Part (A) hereof shall, not less than 30 days prior to the proposed effective date of such service apply in writing for permission to the Airport Operations Committee. Such application shall include information as to the nature of the proposed operations or increase, and the projected

effect thereof on the Airport's June 30, 1978 noise impact area and other material which the applicant air carrier wishes to bring to the attention of the Operations Committee. Upon review of the application and such other information as it deems appropriate, the Operations Committee shall recommend to the Commission that it grant or deny the permission requested, or any portion thereof. The Commission shall consider the recommendation of the Operations Committee, together with any other additional information which the applicant air carrier desires to present to it, and act thereon at its next regularly scheduled meeting.

D. The Commission may approve an application, in whole or in part, for a period not to exceed one year from the commencement of such approved operations or weighted operations. Any air carrier desiring to continue such operations or weighted operations beyond said period shall have the burden of demonstrating to the Commission prior to the expiration thereof that such increase did not result in or contribute to an increase in the Airport's June 30, 1978 noise impact area.

E. Any air carrier violating the provision of this Rule may, in the discretion of the Commission and in addition to any other remedies, including injunctive remedies available, be subject to civil penalties in the amount of One Thousand Dollars ($1,000) for each operation which has not been approved by the Commission pursuant to the provisions of this Rule.

This Rule has been and shall continue to be enforced by a public report by Airport Staff to the Commission of schedule changes and a report of the anticipated impact, if any, on the Airport's Noise Impact Area of those changes. No approval of the Authority has been or shall be needed by an air carrier for any changes as long as the Noise Impact Area incompatible land within the 70db CNEL contour of the Airport does not exceed the 403 acres existing in 1978. If the acreage of incompatible land within the Airport's 70db CNEL contour ever exceeds 403 acres, the Airport shall attempt to prevent the increase in operations. That effort may or may not be successful.

Rule 8

A. Between the hours of 10:00 p.m. and 7:00 a.m.:

1. No intersection takeoffs shall be permitted;

2. No maintenance engine run-ups shall be permitted, unless a delay of such maintenance engine run-up would cause an aircraft to arrive and/or depart after 10:00 p.m. in the succeeding 24 hour period; and

3. No flight training operations, including practice instrument approaches and touch-and-go operations, shall be permitted.

B. Any pilot in command or maintenance facility violating the provisions of these Rules may, in the discretion of the Commission, and in addition to other remedies (including injunctive remedies) available, be subject to civil penalties for each violation of this Rule as follows: (1) For the first violation, one thousand six hundred and three dollars ($1,603); (2) For subsequent violations, two thousand three hundred twenty-eight dollars ($2,328).

This Rule has been and shall continue to be enforced as written.

Rule 9

A. Except as provided in Parts (B) and (C) hereof, no aircraft may land at or take off from the Burbank-Glendale-Pasadena Airport between the hours of 10:00 p.m. and 7:00 a.m.

B. The following aircraft shall be permitted to land at and take off from the Burbank-Glendale-Pasadena Airport between the hours of 10:00 p.m. and 7:00 a.m.:

1. Public aircraft, military aircraft, aircraft owned or operated by the armed forces of the United States, and aircraft operated in support of military operations.

2. Aircraft operated by commercial air carriers whose schedules comply with Rule 7 of these Rules and Regulations.

3. Aircraft, other than those listed in FAA Advisory Circular 36-1B or 36-2C, whose total rated maximum brake or shaft horsepower is 200 or less.

4. Propeller-driven aircraft whose certificated takeoff weights are 12,500 pounds or less and whose measured or estimated flyover noise levels, as contained in FAA Advisory Circular 36-1H or 36-2C (as said Advisory Circulars may be revised, supplemented, or replaced from time to time), are equal to or less than 85.6 dBA.

5. Aircraft whose estimated sideline noise levels, as set forth in FAA Advisory Circular 36-3 (or in any revision, supplement, or replacement thereof listing sideline noise levels), are equal to or less than:

a. for aircraft whose noise levels have been determined at a sideline distance of 450 meters, 82.2 dBA;

b. for aircraft whose noise levels have been determined at a sideline distance 0.25 nautical miles, 82 dBA; and

c. for four-engine aircraft whose noise levels have been determined at a sideline distance of 0.35 nautical miles, 79.1 dBA.

6. Aircraft whose maximum noise levels, under normal operating conditions and procedures, have been determined by the Airport Authority, upon a showing by the aircraft manufacturer or operator, are equal to or less than either:

a. when measured or estimated at a sideline distance of 450 meters, 0.25 nautical miles, or 0.35 nautical miles pursuant to F.A.R. Part 36 Appendix C, 82.2 dBA, 82 dBA, or 79.1 dBA, as applicable respectively, or

b. when measured or estimated at a flyover altitude of 1,000 feet pursuant to F.A.R. Part 36 Appendix F, 85.6 dBA.

C. Aircraft other than those specified in Paragraph (B) shall be permitted to land at or take off from the Burbank-Glendale-Pasadena Airport between the hours of 10:00 p.m. and 7:00 a.m. only under the following circumstances:in the event such landing and/or takeoff results from the existence of a declared emergency;

1. in the event such landing and/or takeoff results from the use of the airport as a weather alternate; and

2. in the event such landing and/or takeoff results from a weather, mechanical, or air traffic control delay; provided however, that this exception shall not authorize any landing or takeoff between the hours of 11:00 p.m. and 7:00 a.m.

D. Upon the request of the Airport Authority, the aircraft operator or pilot in command shall document or demonstrate the precise emergency conditions resulting in a landing and/or takeoff between the hours of 10:00 p.m. and 7:00 a.m. or the precise weather, mechanical, or air traffic control conditions resulting in a landing and/or takeoff between the hours of 10:00 p.m. and 11:00 p.m.

E. Any aircraft operator or pilot in command violating the provisions of this Rule may, in the discretion of the Commission, and in addition to any other remedies (including injunctive remedies) available, be subject to civil penalties in the amount of four thousand six hundred sixty-one dollars ($4,661) for each unauthorized landing and each unauthorized takeoff.

This Rule has been and shall continue to be enforced consistent with the ongoing enforcement of Clarified Rule 7 with respect to aircraft other than public aircraft, military aircraft, aircraft owned or operated by the armed forces of the United States, and aircraft operated in support of military operations. In particular, this Rule has been and will be enforced by allowing Stage 3 certified aircraft to fly between 10 p.m. and 7:00 a.m. With respect to Stage 2 hush-kitted aircraft that are certified as Stage 3, such aircraft operating between 10 p.m. and 7:00 a.m. shall continue to have to demonstrate compliance with the Rule as written. Stage 2 aircraft not certified as Stage 3 are not permitted to fly at any time.

Rule 10

A. Except as provided in Parts (B) and (C) hereof, no aircraft operating pursuant to an Operating Certificate issued by the Federal Aviation Administration may land at or take off from the Burbank-Glendale-Pasadena Airport.

B. The following aircraft operated pursuant to an Operating Certificate issued by the Federal Aviation Administration shall, subject to all other applicable Rules and Regulations, be permitted to land at and take off from the Burbank-Glendale-Pasadena Airport:

1. Transport category large airplanes and turbojet powered airplanes certificated under F.A.R. Part 36 or ICAO Annex 16 whose certificated sideline noise levels are equal to or less than:

a. for aircraft whose certificated noise levels have been determined at a sideline distance of 0.25 nautical miles, 105.0 effective perceived noise decibels;

b. for aircraft whose certificated noise levels have been determined at a sideline distance of 450 meters, 105.1 effective perceived noise decibels; and

c. for four-engine aircraft whose certificated noise levels have been determined at a sideline distance of 0.35 nautical miles, 103.5 effective perceived noise decibels.

2. Aircraft whose average sound exposure levels (SEL) on takeoff from Runway 15, under normal operating conditions and procedures, as measured at Airport Monitoring Stations 1, 2, and 3, are equal to or less than 104.5 dB, determined as follows:

a. for aircraft types regularly operating at the Airport during the year ending June 30, 1981, the average level shall be determined from the energy average of the SEL values measured at Monitoring Stations 1, 2, and 3 during April, May, and June, 1981.

b. for aircraft types not regularly operating at the Airport during the year ending June 30, 1981, the aircraft operator shall submit estimates of the energy average SEL values expected at Monitoring Stations 1, 2, and 3, accompanied by noise level and takeoff performance calculations sufficient to show the basis for obtaining the estimates. Where the average combined noise level estimates fall within the range of 101.5 to 104.5 dB, the Airport shall have the option of allowing the aircraft to operate at the Airport for a demonstration period of 90 days. The noise levels measured at Stations 1, 2, and 3 during this 90-day demonstration period shall be the basis for determining whether or not the aircraft meets the noise limits under this Part. The permission granted under this Part (B) (3) (b) shall continue only for so long as the approved aircraft continues to be operated at an average combined noise level at or below 104.5 dB as set forth above.

C. Aircraft operated pursuant to an Operating Certificate issued by the Federal Aviation Administration, whose noise levels exceed the limits specified in Part (B) shall be permitted to land at and take off from the Burbank-Glendale-Pasadena Airport only under the following circumstances:

1. in the event such landing and takeoff results from the existence of a declared emergency;

2. in the event such landing and takeoff results from use of the Airport as a weather alternative; or

3. in the event such landing and takeoff occurs in connection with FAA certificated maintenance, repair and modification.

D. Upon request of the Airport Authority, the aircraft operator or pilot in command shall document or demonstrate the precise emergency conditions or FAA certificated maintenance, repair, or modification resulting in the landing and takeoff of an aircraft whose noise levels exceed those set forth in Part (B) above.

E. Any aircraft operator or pilot in command violating the provisions of this Rule may, in the discretion of the Commission, and in addition to any other remedies (including injunctive remedies) available, be subject to civil penalties in the amount of One Thousand Dollars ($1,000) for each unauthorized landing and takeoff.

This Rule has been and shall continue to be enforced as written as all modern commercial and general aviation aircraft in service meet these standards.

Rule 11

Subject to the provisions of Rule 7 of these Rules and Regulations:

A. No air carrier shall inaugurate or reinstitute scheduled turbojet operations at the Burbank-Glendale-Pasadena Airport ("the Airport"), except as provided in Part C below, unless all turbojet operations of that carrier are to be conducted solely with aircraft which comply with the noise level criteria of F.A.R. Part 36 Stage 3 (section C36.5 (a) (3) of Appendix C), as the same may be revised, supplemented, or replaced from time to time ("Stage 3 aircraft").

B. Each air carrier that has continuously provided scheduled passenger service at the Airport using non-Stage 3 aircraft since March 1, 1982, shall:

1. Utilize only Stage 3 aircraft in increases in its scheduled turbojet operations above the number of such operations in effect on June 30, 1982;

2. Conduct at least twenty-five percent (25%) of its scheduled turbojet operations with Stage 3 aircraft until March 31, 1986; and

3. From April 1, 1986, to March 31, 1987, conduct at least fifty percent (50%) of its scheduled turbojet operations with Stage 3 aircraft.

C. Air carriers seeking to inaugurate or reinstitute scheduled passenger operations at the Airport between the effective date of this Rule and March 31, 1987, will be permitted to make use of non-Stage 3 aircraft to the extent such aircraft may be used during that period by air carriers that have continuously utilized such aircraft at the Airport in scheduled passenger service since March 1, 1982, if the air carrier seeking to inaugurate or reinstitute scheduled passenger service demonstrates that the non-Stage 3 aircraft sought to be utilized will produce, at the average gross weight reasonably expected in operations at the Airport, an energy average Sound Exposure Level ("SEL") no greater than 98 decibels at Airport Monitoring Stations 1, 2, and 3 for departures on Runway 15 and no greater than 93 decibels at Station 9 for arrivals on Runway 8.

D. After March 31, 1987, each air carrier providing scheduled passenger service at the Airport shall conduct one hundred percent (100%) of its scheduled turbojet operations with Stage 3 aircraft.

E. Air carriers may substitute higher noise level aircraft in operations required to be flown with lower noise level aircraft only if the required lower noise level aircraft is removed from service on a temporary basis for unanticipated conditions beyond the carrier's control, but only for so long as is necessary to correct such unanticipated conditions.

F. Each scheduled air carrier shall demonstrate, in writing, its intention and ability to fulfill the requirements of this Rule not less than 30 days prior to the commencement (including reinstitution) of scheduled passenger service or any proposed increase in operations at the Airport. Each such air carrier shall also, upon request of the Authority, provide written documentation of the reasons for and duration of any substitution of aircraft pursuant to Part E hereof.

G. Each scheduled air carrier violating the provisions of this Rule may, in the discretion of the Commission, and in addition to the other remedies (including injunctive remedies)

C-7 available, be subject to civil penalties in the amount of Ten Thousand Dollars ($10,000) for each day on which operations are conducted in violation of the provisions of this Rule.

This Rule has been and shall continue to be enforced by requiring all air carriers to use aircraft that are certified Stage 3 or quieter at the Airport.

Rule 12

In the event one or more clauses, sections or provisions of these Rules shall be held to be unlawful, invalid or unenforceable, the remainder of such Rule (or Rules) shall not be affected thereby.

This Rule has been and shall continue to be enforced as written.

Noise Rules Enforcement

The following procedures shall govern the enforcement of the Noise Abatement Rules.

1. Alleged violations of the Noise Abatement Rules shall be investigated by the Noise & Environmental Department or such other airport staff member as the Executive Director may designate.

2. In each instance of a potential violation identified by the Noise & Environmental Department, the Noise & Environmental Department staff shall notify the owner or operator of the aircraft in question. In the case of potential violations of Rules 8 or 9, or in any other instance in which a violation, if confirmed, would result in the imposition of a monetary fine or operational restriction, such notice shall be in writing and shall be delivered by certified mail or other form of registered delivery. Such written notice shall specify the nature of the alleged violation, the time, date and location of its occurrence, the rule allegedly violated, and shall include a copy or description of these enforcement procedures.

3. The owner or operator shall have fifteen (15) business days from the date of such notice to: pay the proposed fine; contest in writing the finding of a violation; or request in writing an informal conference with the Director, Noise & Environmental Programs ("Director"). The Director shall, based upon information received in writing or through an informal conference, determine whether a violation has occurred and shall promptly give written notice of such determination to the owner or operator.

4. The owner or operator shall have ten (10) business days from the date of such notice of determination to appeal the determination of the Director to the Authority's Operations Committee. Such appeal shall be in writing, submitted to the Noise & Environmental Department, and shall set forth all information the owner or operator believes necessary to support such appeal. The Operations Committee shall have the discretion to request further information from the owner or operator, either in writing or in person, and may affirm, overrule or modify the determination of the Director. The Operations Committee shall give written notice of its decision to the owner or operator.

5. The owner or operator may, within ten (10) business days of the date of the notice of decision of the Operations Committee, appeal that decision to the full Airport Authority

Commission, by submitting a notice of appeal, together with such written information as it deems appropriate, to the Noise & Environmental Department. The Commission may request further information from the owner or operator, either in writing or in person, and may affirm, overrule or modify the decision of the Operations Committee. The Commission shall give written notice of its decision to the owner or operator.

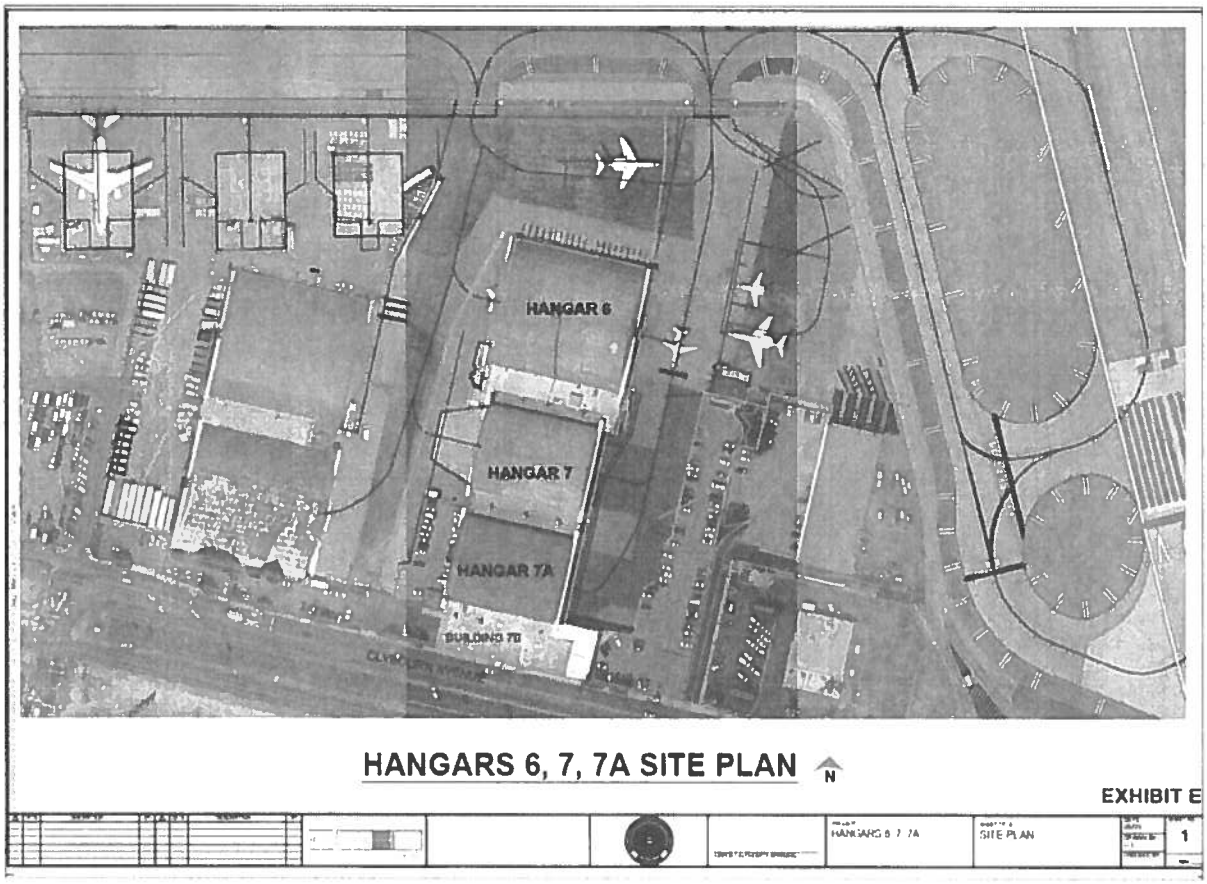
EXHIBIT "E"

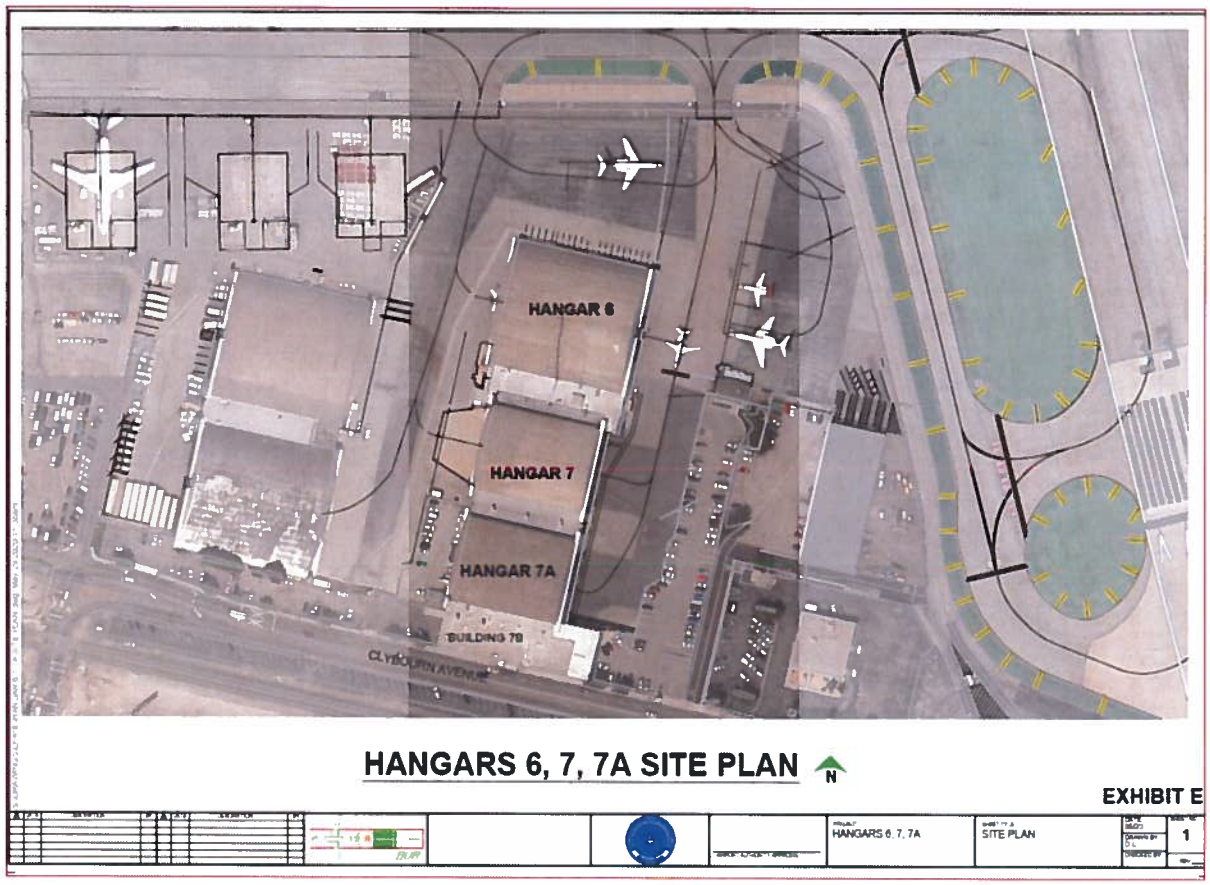
GENERAL DESCRIPTION OF NEW IMPROVEMENTS, AND DIAGRAM SHOWING GENERAL LOCATION OF NEW IMPROVEMENTS

Hangars 6, 7, 7A

Improvement	Material	Approx. Quantity
Removal of Existing Coating	N/A	73,550
Concrete Repair	Euclid Versaspeed PM	620 SF
Crack Repair	Eca QWIK/joint 200	4,450 LF
New Control Joint	Euco QWIK/joint 200	5,000 LF
Installation of Coating System	Tennant HPS System	15,000

General Location: See attached diagram.


HANGAR 6
HANGAR 7
HANGAR 7A
BUILDING 70
HANGARS 6, 7, 7A SITE PLAN
N
EXHIBIT E
HANGARS 6 7 7A
SITE PLAN
1



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STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
AUGUST 17, 2020

ELEVENTH AMENDMENT TO LEASE AND CONCESSION AGREEMENT MCS BURBANK LLC

SUMMARY

At its meeting on July 20, 2020, the Finance and Administration Committee ("Committee") voted unanimously (3–0) to recommend that the Commission approve a proposed Eleventh Amendment ("Amendment") to the Lease and Concession Agreement ("Agreement") with MCS Burbank LLC ("MCS"). The proposed Amendment, copy attached, revises the expiration of the Agreement from June 30, 2023 to June 30, 2025.

BACKGROUND

MCS is the exclusive food and beverage concessionaire at the Airport and has had a presence here since May 1992. On December 31, 2000, the Authority entered into a ten-year Agreement with MCS for the operation of a food and beverage concession. This Agreement was initially extended under the Second Amendment to June 30, 2013, with subsequent amendments extending the term to June 30, 2023. MCS currently leases over 15,000 square feet of terminal space in both Terminal A and B. This space is used for the food and beverage operations as well as support offices and storage.

Due to COVID 19 pandemic, the Replacement Passenger Terminal project has been, as of this staff report, delayed for an undetermined amount of time. The current terminal is expected to remain in operation beyond the 2023 current expiration date of the Agreement. To ensure the Authority has a viable food and beverage concession in operation in the current terminal until the Replacement Passenger Terminal is developed, Staff's recommendation is to extend the Agreement two additional years instead of attempting to release a Request for Proposal for a limited two-year term. The proposed additional two-year term will also provide MCS the opportunity to invest further improvements in the current operation.

MCS is a tenant in good standing whose performance has normally exceed the Minimum Annual Guarantee ("MAG") requirement.

DETAILS

Term:	Extension of expiration date by two years to June 30, 2025
Rent:	The greater of MAG or percentage of gross revenues (12% food and beverage 17% alcohol).
Annual Adjustment:	Adjusted annually by CPI, not to exceed 3%

Termination Clause:	Allows for the termination of the Lease in the event of an early completion of the Replacement Passenger Terminal

REVENUE IMPACT

The proposed Amendment seeks to extend the term with no changes to the terms of compensation.

RECOMMENDATION

At its meeting on July 20, 2020, the Committee voted unanimously to recommend that the Commission approve the proposed Eleventh Amendment to the Agreement with MCS and authorize the President to execute same.

ELEVENTH AMENDMENT TO
LEASE AND CONCESSION AGREEMENT

This Eleventh Amendment to the December 31, 2000 Lease and Concession Agreement ("Agreement") executed by the Burbank-Glendale-Pasadena Airport Authority ("Lessor"), a California joint powers agency, and MCS Burbank, LLC ("Concessionaire"), a Nevada limited liability company, is dated _____, 2020 for reference purposes.

RECITALS

A. The parties executed the Agreement to set forth their respective rights, privileges, and obligations with respect to Concessionaire's operation of a food and beverage sales concession at Hollywood Burbank Airport.

B. The parties have executed the following amendments to the Agreement (collectively, the "Prior Amendments"): an October 15, 2001 First Amendment; a September 2, 2003 Second Amendment; a November 5, 2012 Third Amendment; a May 19, 2014 Fourth Amendment; a February 2, 2015 Fifth Amendment; a September 6, 2016 Sixth Amendment; an October 2, 2017 Seventh Amendment; a March 19, 2018 Eighth Amendment; a November 15, 2019 Ninth Amendment; and an April 6, 2020 Tenth Amendment.

C. Capitalized terms used in this Eleventh Amendment shall have the meaning set forth in the Agreement as amended by the Prior Amendments.

D. The parties desire to extend the Term of the Agreement.

NOW, THEREFORE, the parties agree as follows:

1. Extension of Term. The Term of the Agreement is hereby extended to June 30, 2025.

2. Counterparts. This Eleventh Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which taken together shall constitute one and the same document.

3. Preservation of Agreement. Except as expressly modified by this Eleventh Amendment, all of the provisions of the Agreement (as amended by the Prior Amendments) shall remain unaltered and in full force and effect. In the event of a conflict between the provisions of this Eleventh Amendment and the provisions of the Agreement (as amended by the Prior Amendments), the provisions of this Eleventh Amendment shall control.

TO EFFECTUATE THIS ELEVENTH AMENDMENT, the parties have caused their duly authorized representatives to execute this Eleventh Amendment by signing below.

MCS Burbank, LLC

Jamara Mora
Manager

Manager

[Pursuant to California Corporations Code Section 17703.01(d), both signature lines must be executed unless the articles of incorporation state that the firm is managed by only one manager.]

Burbank-Glendale-Pasadena Airport Authority

_____
Ray Adams, President

Approved as to form:

_____
Richards, Watson & Gershon
A Professional Corporation

STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
AUGUST 17, 2020

PROFESSIONAL SERVICES AGREEMENT MARKETING AND BRAND SUPPORT SERVICES

SUMMARY

Subject to the recommendation of the Operations and Development Committee ("Committee") at its meeting immediately preceding the Commission meeting, Staff seeks Commission approval to award a Professional Services Agreement ("Agreement") to Anyone Collective, LLC, ("Anyone Collective") to provide marketing and brand support services for the Authority's FY 2021 marketing program. The total expenditure under the proposed Agreement, copy attached, will not exceed $60,000 and all services will be completed within FY 2021.

BACKGROUND

In addition to assisting Staff with air service development, Anyone Collective has been providing marketing and brand support services to the Authority since 2015. Since the development of the brand "Hollywood Burbank Airport" ("Airport"), Anyone Collective has worked closely with Staff to implement the Authority's branding and marketing strategy to gain market recognition of the Authority's brand name and stimulate passenger growth and preference utilization of the Airport.

In FY 2020, Anyone Collective was retained to continue its services to support the Authority in the development and implementation of a strategic marketing communications plan. The deliverables included creation of print and digital advertising campaigns; purchase, placement, and analytics evaluation of those ads; remake and maintenance of the Hollywood Burbank Airport website; collaboration with the Authority's ground transportation partners in the promotion of their products and services; design and production of Airport-wide signage and artwork as needed; and participation at air service development meetings with Staff at airline headquarters.

PROPOSAL DETAILS

The impacts of the COVID-19 pandemic, and the significant decrease it has caused to demand for air travel, airline operations and airport revenues, have required the development of a fiscal year budget focused on the essential services required to maintain a safe and secure level of airport operations. As such, the level of services Staff recommends for consideration from Anyone Collective is to meet the most basic and essential marketing communications needs of the Authority, which are:

Website management

The Hollywood Burbank Airport website has the largest outreach of all the Authority's communication outlets and provides up to date information pertinent to current and prospective passengers. Anyone Collective will continue to provide critical technical and content management. Also, as the Authority's online parking reservation system is based on this website, Anyone Collective will continue to coordinate with the system's subcontractor to

ensure the program is fully operational and accessible to customers.

Creative design and production services

Anyone Collective will continue to provide all departments with creative services (e.g. graphic design, artwork for signage) that align with the Airport brand for consistency in Airport image messaging.

Monitoring of social and digital media analytics

The Authority's social media accounts provide data that is invaluable to current operations and future marketing efforts. Anyone Collective will continue to collect data, and work with Staff to interpret, evaluate and apply the information.

Strategic planning for future outreach

Anyone Collective will collaborate with Staff in developing the Authority's marketing and advertising strategy as the Authority prepares for the recovery of airline and passenger activity.

BUDGET IMPACT

Appropriations for the proposed plan are included in adopted FY 2021 budget under Air Service Development.

RECOMMENDATION

Subject to the recommendation of the Committee at its meeting immediately preceding the Commission meeting, Staff seeks Commission approval for the award of an Agreement to Anyone Collective for the services described above for an amount not to exceed $60,000 and that the President be authorized to execute the same.

PROFESSIONAL SERVICES AGREEMENT

(Burbank-Glendale-Pasadena Airport Authority/Anyone Collective LLC)

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is dated August 17, 2020 for reference purposes and is executed by the Burbank-Glendale-Pasadena Airport Authority ("Authority"), a California joint powers agency, and Anyone Collective LLC ("Consultant"), a California Limited Liability company ("Consultant").

R E C I T A L S

A. The Authority owns and operates the Bob Hope Airport (commonly known as Hollywood Burbank Airport) ("Airport") and desires to retain Consultant as an independent contractor to provide the following professional services: FY 2021 marketing and brand support services.

B. Consultant represents that it is fully qualified to perform such work by virtue of the training and experience of its personnel.

NOW, THEREFORE, the parties agree as follows:

1. Definitions. In addition to the terms defined above, the following definitions shall apply for purposes of this Agreement:

A. "Commencement Date": July 1, 2020.

B. "Contract Administrator": Nerissa Sugars or a duly authorized designee.

C. "Contract Amount": $60,000.

D. "Executive Director": Frank R. Miller or a duly authorized designee.

E. "Expiration Date": June 30, 2021.

F. "Federal Requirements" the federal requirements set forth in the attached Exhibit C, which requirements are applicable to projects not funded by an Airport Improvement Program grant from the Federal Aviation Administration.

G. "Fee Schedule": the fee schedule set forth in the Proposal.

H. "Indemnitees": the Authority, TBI Airport Management, Inc., the Cities of Burbank, Glendale and Pasadena, and the respective officers, agents, employees and volunteers of each such entity.

I. "Insurance Requirements": the insurance requirements set forth in the attached Exhibit B.

J. "Proposal": Consultant's July 1, 2020 proposal attached as Exhibit A.

K. "Services": the tasks set forth in the Proposal.

2. Services.

A. Consultant shall perform the Services in a timely, regular basis in accordance with the Authority's rules for the Airport, the Federal Requirements, and applicable laws. Time is of the essence in the performance of this Agreement.

B. Consultant shall perform all work to the highest professional standards and in a manner reasonably satisfactory to the Authority. Consultant shall consult the Contract Administrator for any decisions that must be made by the Authority. Consultant shall promptly notify the Contract Administrator of any unsafe condition that Consultant discovers at the Airport.

C. In the event any claim is brought against the Authority relating to Consultant's performance of the Services, Consultant shall provide any reasonable assistance and cooperation that the Authority might require.

3. Term.

A. This Agreement shall have retroactive effect and be deemed to have commenced on the Commencement Date. This Agreement shall expire on the Expiration Date unless earlier terminated.

B. If Consultant breaches this Agreement and fails to cure such breach within seven days of written notice from the Contract Administrator, then the Authority may immediately terminate this Agreement for cause. Either party may terminate this Agreement for convenience upon 15 days prior written notice to the other party.

4. Compensation.

A. The Authority shall compensate Consultant for performance of the Services, and Consultant agrees to accept as full satisfaction for such work, payment according to the Fee Schedule. In no event shall the compensation payable to Consultant under this Agreement exceed the Contract Amount.

B. Consultant shall submit monthly invoices to the Authority for the Services. Each invoice shall itemize the work performed during the billing period and the amount due. Within 10 business days of receipt of each invoice, the Authority shall notify Consultant in writing of any disputed amounts on the invoice. Within 30 calendar days of receipt of each invoice, the Authority shall pay all undisputed amounts on the invoice. The Authority shall not withhold applicable taxes or other authorized deductions from the payments, and Consultant shall pay all required taxes on the payments.

5. Independent Contractor Status. Consultant is, and shall at all times remain as to the Authority, an independent contractor. Consultant shall have no power to incur any debt, obligation, or liability on behalf of the Authority or to act otherwise on behalf of the Authority as an agent. Neither the Authority nor any of its officers, employees, agents or volunteers shall have control over the conduct of Consultant except as set forth in this Agreement.

6. Work Product Ownership. All reports, documents, or other written material developed by Consultant in the performance of this Agreement shall be and remain the property of the Authority without limitation upon use or dissemination by the Authority.

7. Confidentiality. Consultant shall preserve the confidentiality of all nonpublic data, documents, discussion or other information that is developed or received by it in connection with this Agreement. Consultant shall not disclose such information without the prior written authorization of the Executive Director. Upon request, all Authority data shall be returned to the Authority at expiration or termination of this Agreement. Consultant's obligations under this section shall survive expiration or termination of this Agreement.

8. Conflict of Interest. Consultant shall not maintain or acquire any financial interest that may be affected by the Services. Consultant shall avoid the appearance of having any financial interest that would conflict in any manner with the Services.

9. Indemnification.

A. Consultant shall defend, hold harmless, and indemnify the Indemnitees from and against any actual, alleged, or threatened causes of action, claims, costs, damages, demands, expenses (including fees of accountants, attorneys, and other professionals), judgments, liens, losses, penalties, and proceedings of any nature whatsoever (collectively, "Liabilities") that arise out of the acts or omissions of Consultant or its subcontractors in connection with this Agreement.

B. Consultant's obligations under this section shall survive expiration or termination of this Agreement, and shall apply regardless of whether or not any insurance policies are determined to be applicable to the Liabilities.

C. Consultant's obligations under this section shall apply, without limitation, to Liabilities that partially involve active or passive negligence by the Authority. However, Consultant's obligations under this section shall not apply to Liabilities that arise from the sole negligence or willful misconduct of the Authority, as determined by final arbitration or court decision or by consensus of the parties.

10. Insurance. Without limiting Consultant's defense, hold harmless, and indemnification obligations under this Agreement, Consultant shall maintain policies of insurance as specified in the Insurance Requirements.

11. Suspension. The Contract Administrator may suspend all or any part of the Services for the Authority's convenience or for work stoppages beyond the control of the parties. Written notice of a suspension shall be given to Consultant.

12. Notices. Any notices, invoices, or other documents related to this Agreement shall be deemed received on: (a) the day of delivery, if delivered by hand during the receiving party's regular business hours or by e-mail before or during the receiving party's regular business hours; (b) the business day after delivery, if delivered by e-mail after the receiving party's regular business hours; or (c) on the second business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or to such other addresses as the parties may, from time to time, designate in writing.

Authority
Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, CA 91505
Attn: Nerissa Sugars
E-mail: NSugars@bur.org

Consultant
Anyone Collective
99 Pasadena Avenue, Suite One
South Pasadena, CA 91030
Attn: Michael Fiore
E-mail: michael@weareanyone.com

13. Assignability. Consultant shall not assign, transfer or subcontract any interest in this Agreement or the performance of any of its obligations without the Executive Director's prior written consent. This prohibition is not intended to preclude, and shall not be interpreted as precluding, Consultant from utilizing subcontractors identified in Consultant's proposal for the Services. Any attempt by Consultant to assign, transfer or subcontract any rights, duties or obligations in violation of this prohibition shall be void.

14. Litigation. In the event that either party shall commence legal action to enforce or interpret this Agreement, the prevailing party shall be entitled to recover its costs of suit including reasonable attorneys' fees. The venue for litigation shall be Los Angeles County, California. The interpretation of this Agreement shall not be resolved by any rules of construction providing for interpretation against the party who causes the uncertainty to exist or against the party who drafted the disputed language.

15. Exhibits. Exhibits A through C are incorporated into this Agreement by reference. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of Exhibits A or B, the provisions of this Agreement shall prevail. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of Exhibit C, the provisions of Exhibit C shall prevail.

16. Incorporation of Mandatory Language. Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

17. Entire Agreement. This Agreement (and the attached Exhibits) represents the entire and integrated contract between the parties regarding the Services. This Agreement supersedes all prior oral or written negotiations, representations and contracts related to the Services. This Agreement may not be amended, nor any provision or breach waived, except in a writing that is signed by the parties and that expressly refers to this Agreement.

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

Anyone Collective LLC

Manager

Manager

[Pursuant to California Corporations Code Section 17703.01(d), both signature lines must be executed unless the articles of incorporation state that the firm is managed by only one manager.]

Burbank-Glendale-Pasadena Airport Authority

Ross Selvidge, Ph.D., President

Approved as to form:

Richards, Watson & Gershon
A Professional Corporation

2445561

EXHIBIT A
Proposal

(attached)

ANYONE™

Hollywood Burbank Airport™

Marketing and Brand Support
Fiscal Year 2021

July 1, 2020

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ANYONE

To: Nerissa Sugars
From: Anyone™ Collective
Date: July 1, 2020
SUBJECT: Hollywood Burbank Airport – Marketing and Brand Support
PROPOSAL ID: 070220-MFa

Hello Nerissa,

Anyone Collective is pleased to present this proposal for continued marketing and brand support to Hollywood Burbank Airport from July 1, 2020 to June 30, 2021.

OVERVIEW

Anyone™ Collective LLC (hereafter, "ANYONE™") will provide Hollywood Burbank Airport (hereafter, "CLIENT"), with a Services package (hereafter, "SERVICES") to include website management, creative design and production services, monitoring of social and digital media analytics, and strategic planning.

Scope of Work

Website Management

The website includes the Airport's online reservation system.

Platform/CMS Maintenance

- Ongoing maintenance and updating all website plugins, themes, and technologies
- Cloud backup of website on a weekly basis
- Constant uptime monitoring to ensure site accessibility
- Ensuring that the site core is running on the latest security technologies, avoiding outdated software that can contain vulnerabilities
- XML sitemap monitoring to ensure crawlability and indexability by all major engines
- Meta description updates for consistent snippets in search engine results
- Optimization of page titles and copy headlines for SEO
- Regular malware monitoring and removal
- Deployment of Google Analytics across all pages for accurate usage and audience statistics
- Ensuring all SSL (secure sockets layer) certificates are up-to-date

Content Maintenance

- Adding, swapping, or editing new and existing photos and graphics for the website
- Adding, editing, or removing copy on the existing site including articles, reports, contact information, or service/amenity descriptions
- Expansion or deletion of links within website navigation panels

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ANYONE

Creative Design and Production Services

- Design airport branded artwork and provide production files for airport signage, promotional items, and other items as needed

Monitoring of Social and Digital Media Analytics

- Monitor, engage, and moderate social media activity to provide airport data on how current and potential passengers perceive the brand

- Identify areas for improvement and pinpoint which channels airport audiences are most active, and how airport can use the data to build brand awareness, push traffic to the website, or maintain airport's reputation and integrity

Strategic Planning

- Collaborate with airport staff in developing an effective marketing and advertising strategy to implement when airline activity and passenger traffic show signs of recovery from the impacts of the COVID-19 pandemic.

Proposed Budget

The proposed budget for the activities outlined above is not to exceed **$60,000.00**

Hours for creative/execution and administrative/production services are blended

Hours per month at blended rate of $275/hour	20 hours
Bonus hours per month	15 hours
Total hours per month	35 hours
Total for Marketing and Brand Support Hours, SOW for 12 months	**$60,000**

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ANYONE

Terms

I. Compensation for Services. For providing the Services as defined above, ANYONE™ shall receive compensation as defined below:

II. Term. This Agreement shall become effective upon the execution hereof by both parties.

III. Indemnification. Should cause for dispute arise, both parties agree to seek remedy through an impartial mediator selected by both parties.

IV. This Agreement may be terminated by either party upon thirty (30) days written notice without cause. In the event of termination not the fault of CONSULTANT, the CONSULTANT shall be compensated for services performed prior to termination, together with the reimbursable expenses then due and any additional expenses directly attributable to termination for which the CONSULTANT is not otherwise compensated, including, without limitation, CONSULTANT's standard hourly rate to complete a report on the work performed to date.

The provisions of paragraph V shall survive the termination and expiration of this Agreement.

V. No Assignment. Anyone™ may not assign its rights or delegate its duties under this Agreement or any interest herein without the prior written consent of CLIENT. Any such purported assignment or delegation shall be null and void. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties herein or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

VI. Representations and Warranties. Each party represents and warrants to the other party that it has the right to enter into and fully perform this Agreement according to its terms, including the assumption and performance of obligations, without obtaining the consent or approval of any person or entity.

VII. No Waiver. No waiver by one party of any failure by the other party to fulfill any term hereof shall be deemed a waiver of any preceding or succeeding breach, or of the failure to fulfill the same or any other term hereof.

VIII. Entire Agreement. This Agreement and the attached addendum constitutes the entire agreement of the parties relating to the subject matter addressed in this Agreement. This Agreement supersedes all prior communications, contracts, or agreements between the parties with respect to the subject matter addressed in this Agreement, whether oral or written.

IX. Sever-ability. If there is any conflict between any provision of this agreement and any present or future statute, law, ordinance, regulation or collective bargaining agreement, the latter shall prevail, provided that the provision hereof so affected shall be limited only to the extent necessary and no other provision shall be affected.

X. Notices. All notices required or desired to be given hereunder by either party shall be given by delivering or mailing the same to the other party at the address set forth in this

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paragraph, or at such other address as may be designated in writing by such party in a notice to the other party given as aforesaid. Notices shall be sufficiently given and notices for ANYONE™ shall be addressed to:

Anyone™ Collective LLC
99 Pasadena Avenue | Suite One
South Pasadena, CA 91030

With a courtesy copy to:
Dallas Innovation Law
Evridiki "Vicki" Dallas
2040 Main Street, 14th Floor
Irvine, CA 92614
p 949.922.6525
vdallas@dallasinnovationlaw.com

X. Choice of Law. This Agreement shall be governed by and construed in accordance with the laws of the state of California applicable to agreements entered into and to be wholly performed in that state. The parties submit and consent to the exclusive jurisdiction and venue of the courts (State and Federal) in the state of California, County of Los Angeles, in any legal proceeding brought to enforce (or otherwise relating to or arising out of) this Agreement.

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ANYONE™

IN WITNESS WHEREOF the parties hereto have executed and delivered this Agreement in two counterparts, and hereby declare that they have read and do understand each and every term, condition, and covenant contained in this agreement or in any document incorporated by reference.

Hollywood Burbank Airport	ANYONE™
Signature:_____	Signature:
Print Name: _____	Print Name: Michael Fiore
Date Signed: _____	Date Signed: 08/17/2020

As with all quotes, this is an estimation based on your requirements and our experience. Prices and times may fluctuate as content and functionality modifications are made. Anyone™ Collective will provide written proposals of additional work that is outside the scope of this agreement. Once proposals are approved we will begin the additional work. No additional work will be performed without written approval from Hollywood Burbank Airport.

Thank you for the opportunity. Please feel free to contact us if you have any questions or comments.

Team ANYONE™

Michael Fiore
michael@weareanyone.com
323.717.5136

Stephen Chavez
steve@weareanyone.com
949.241.3229

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EXHIBIT B
Insurance Requirements

1. Consultant shall obtain, provide, and maintain policies of insurance as specified below.

A. General Liability Insurance. Consultant shall maintain commercial general liability insurance in an amount not less than $1,000,000 per occurrence, $2,000,000 general aggregate, for bodily injury, personal injury, and property damage.

B. Automobile Liability Insurance. Consultant shall maintain automobile insurance covering bodily injury and property damage for all activities of Consultant arising out of or in connection with the Services, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

C. Professional Liability (Errors and Omissions) Insurance. Consultant shall maintain professional liability insurance that covers the Services in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the Commencement Date and Consultant shall maintain continuous coverage through a period of no less than three years after expiration or termination of this Agreement.

D. Workers' Compensation/Employer's Liability Insurance. Consultant shall maintain workers' compensation insurance (statutory limits) and employer's liability insurance with limits of at least $1,000,000.

2. The insurance policy or policies shall contain, or shall be endorsed to contain, the following provisions:

A. General liability policies shall provide or be endorsed to provide: (i) that the Indemnitees shall be additional insureds; and (ii) a waiver of subrogation in favor of additional insureds. This provision shall also apply to any excess/umbrella liability policies.

B. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

C. The coverage shall contain no special limitations on the scope of protection afforded to the Indemnitees.

D. For any claims related to this Agreement, Consultant's insurance coverage shall be primary insurance as respects the Indemnitees. Any insurance or self-insurance maintained by the Indemnitees shall be excess of Consultant's insurance and shall not contribute with it.

E. The limits of insurance may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of each Indemnitee before the Indemnitee's own insurance or self-insurance shall be called upon to protect it as a named insured.

F. Any failure to comply with reporting or other provisions of the policy, including breaches of warranties, shall not affect coverage provided to the Indemnitees.

G. Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

H. The policy shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, or reduced in coverage or in limits except after 30 calendar days (10 calendar days in the event of non-payment of premium) prior written notice by certified mail, return receipt requested, has been given to the Authority.

I. Insurance is to be placed with insurers authorized to conduct business in the State of California with a minimum current A.M. Best's rating of no less than A:X, unless waived by the Contract Administrator. An exception to this standard will be made for the State Compensation Insurance Fund when not specifically rated.

J. Any deductibles or self-insured retentions must be declared to and approved by the Contract Administrator. At the option of the Contract Administrator, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Indemnitees, or Consultant shall provide a financial guarantee satisfactory to the Contract Administrator guaranteeing payment of losses and related investigations, claim administration and defense expenses.

K. The workers' compensation insurer agrees to waive all rights of subrogation against the Authority for injuries to employees of Consultant resulting from work for the Authority or use of the Airport.

3. Requirements of specific coverage features or limits are not intended as a limitation on coverage, limits, or other requirements, or as a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for clarification purposes only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If Consultant maintains higher limits than the minimum specified above, the Authority requires and shall be entitled to coverage for the higher limits maintained by Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Authority.

4. Consultant shall furnish to the Authority an original certificate or certificates of insurance and amendatory endorsements showing that required policies are in effect in the required amounts and, as to the workers' compensation insurance, with the required waiver of

subrogation. The certificates and endorsements must be received and approved by the Contract Administrator prior to commencement of work. The Authority reserves the right to require complete, certified copies of all required insurance policies at any time.

5. Consultant shall ensure that its subcontractors provide the same minimum insurance coverage and endorsements required of Consultant. Consultant shall monitor and review all such coverage, and Consultant assumes all responsibility for ensuring that such coverage is provided. Upon request, Consultant shall submit all subcontractor agreements to the Authority for review.

6. In the event any policy of insurance does not comply with these requirements or is cancelled and not replaced, the Authority has the right but not the duty to obtain the insurance it deems necessary. Any premium paid by the Authority in such event shall be promptly reimbursed by Consultant or the Authority shall withhold from its payments to Consultant an amount sufficient to pay that premium.

7. The Authority reserves the right at any time to change the amounts and types of required insurance by giving Consultant 90 days notice of such change. If such change results in substantial additional cost to Consultant, then the parties shall renegotiate Consultant's compensation.

EXHIBIT C
Non-AIP Project Federal Requirements

1. General Civil Rights Provisions

Consultant agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision binds Consultant and subtier contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

2. Civil Rights – Title VI Assurance

During the performance of this contract, Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees as follows:

A. Compliance with Regulations: Consultant will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

B. Non-discrimination: Consultant, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Consultant will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

C. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by Consultant for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by Consultant of Consultant's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.

D. Information and Reports: Consultant will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Authority or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, Consultant will so certify to the Authority or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of Consultant's noncompliance with the Non-discrimination provisions of this contract, the Authority will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

1. Withholding payments to Consultant under the contract until Consultant complies; and/or

2. Cancelling, terminating, or suspending a contract, in whole or in part.

F. Incorporation of Provisions: Consultant will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. Consultant will take action with respect to any subcontract or procurement as the Authority or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if Consultant becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, Consultant may request the Authority to enter into any litigation to protect the interests of the Authority. In addition, Consultant may request the United States to enter into the litigation to protect the interests of the United States.

G. During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 U.SC . § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);

2. 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);

3. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.SC . § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

4. Section 504 of the Rehabilitation Act of 1973, (29 U.SC . § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;

5. The Age Discrimination Act of 1975, as amended, (42 U.SC . § 6101 et seq.), (prohibits discrimination on the basis of age);

6. Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

7. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

8. Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.SC . §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;

9. The Federal Aviation Administration's Non-discrimination statute (49 U.SC . § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

11. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

12. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.SC . 1681 et seq).

3. <u>Federal Fair Labor Standards Act</u>

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers. Consultant has full responsibility to monitor compliance to the referenced statute or regulation. Consultant must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

4. Occupational Safety and Health Act

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Consultant must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. Consultant retains full responsibility to monitor its compliance and its subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Consultant must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
AUGUST 17, 2020

PROFESSIONAL SERVICES AGREEMENT
GEOSYNTEC CONSULTANTS, INC.

SUMMARY

At its meeting on July 20, 2020, the Legal, Government & Environmental Affairs Committee ("Committee") voted unanimously (3-0) to recommend that the Commission approve proposed Professional Services Agreement ("PSA") with Geosyntec Consultants, Inc. ("Geosyntec") in the amount of $152,000 with an additional $15,200 for project contingency for implementation of the second phase of a State mandated work plan to determine the presence and extent in groundwater of a class of chemical substances commonly known as per- and polyfluoroalkyl substances ("PFAS").

BACKGROUND

In March 2019, the Authority received a State Water Resources Control Board ("State Water Board") Order ("Order") through the Los Angeles Regional Water Quality Control Board ("LARWQCB") to develop a work plan and to conduct soil and groundwater testing for the determination of the presence and extent of PFAS. This class of compounds is contained in many products, including a wide variety of consumer products such as non-stick cookware (Teflon) and carpet protective coatings. Specifically relating to airports, this class of substances is primarily found in the aqueous film-forming foam ("AFFF") product that is mandated by the Federal Aviation Administration for aircraft rescue and firefighting use.

As stated in the Order, the Hollywood Burbank Airport was "identified as a facility that has accepted, stored, or used materials that may contain "per- and polyfluoroalkyl substances". The Order continued, requiring that the Authority submit technical reports to investigate PFAS impacts to the site as specified further in the Order. To comply with this directive, the Authority entered into a PSA with Geosyntec in May 2019 for an initial amount not to exceed $29,000 to develop a work plan for the LARWQCB's review and approval.

The first work plan titled *Per- and Polyfluoroalkyl Substances Investigation Work Plan* (Work Plan 1) focused on an investigation of soils and was submitted by Geosyntec to the LARWQCB on 11 June 2019. Following LARWQCB's approval of Work Plan 1 and direction for additional investigation, Geosyntec was awarded a contract with an additional budget of $170,000 in Amendment No. 1 of the 2019 PSA. The scope under this budget ($170,000) included: 1) soil sampling (described in Work Plan 1 and additional investigation directed by the LARWQCB); 2) preparation and submittal of *Per- and Polyfluoroalkyl Substances Soils Investigation Report* (Report 1) describing the results of soil sampling; 3) preparation and submittal of *Per- and Polyfluoroalkyl Substances Groundwater Sampling Work Plan* (Work Plan 2); and 4) associated project management and communications activities.

Geosyntec submitted Work Plan 2 on November 27, 2019 (Exhibit A) that proposed sampling of six existing groundwater monitoring wells owned or operated by Lockheed Martin Corporation ("LMCO"). LMCO was consulted beforehand during preparation of Work

Plan 2 and had indicated a willingness to provide access to those wells. Because the LMCO well pumps contain Teflon materials, it will be necessary to make special one-time adjustments to remove the existing pumps and use special one-time pumps that will avoid the potential for cross-contamination during the PFAS sampling process.

After completion of the soil sampling, Geosyntec submitted its initial report on the soil sampling results (Exhibit B) on February 6, 2020.

The LARWQCB approved Work Plan 2 in a letter dated April 20, 2020 with conditions for additional investigation at the soil boring location to be designated as SB-5A located in the Fuel Supply Area, which has an above-ground storage tank containing AFFF (Exhibit C). The FAA has already reviewed and approved the prospective new drilling location in a Form 7640 process. (Exhibit D).

As the 2019 PSA with Geosyntec is now expired, Staff is seeking the Commission's recommendation on an award of a new PSA to cover implementation of Work Plan 2.

PROPOSAL

The Geosyntec proposal (Exhibit E) includes implementation of Work Plan 2, addressing additional investigation at SB-5 as directed by the LARWQCB in its conditional letter of approval, and added required scope of work as described below:

1. Collect and analyze groundwater samples from six selected existing monitoring wells owned by LMCO (via low flow sampling);
2. Collect and analyze an additional grab groundwater sample from a location adjacent to the previous soil sample location SB-5 via a temporary well or Hydropunch™ ;
3. To be able to understand the grab groundwater data and analyze soil samples at that location at every 10-foot interval starting from 60 feet below ground surface to the groundwater; and
4. Prepare and submit a report documenting the process and results of the investigation.

A summary of the principal elements of Geosyntec's proposal is as follows:

Task	Scope	Geosyntec Labor	Subcontractor and Other Direct Costs	Total
1	Preparation/Planning	$6,800	$600	$7,400
2	Implementation of Field Investigation	$24,500	$89,800	$114,300
3	Preparation of Report	$22,000	$900	$22,900
4	Project Management and Communication	$7,100	$300	$7,400

GEOSYNTEC PROPOSED BUDGET	$ 152,000
Contingency Budget* (10% of total)	$ 15,200
GEOSYNTEC TOTAL BUDGET	**$ 167,200**

FUNDING

The FY 2021 budget includes a $200,000 allocation for this second phase which is based upon the above estimate provided by Geosyntec for the potential cost of implementing this phase of work in response to the Order. Subject to the final costs to meet the conditions of the approved Work Plan, an additional funding authorization may be required.

RECOMMENDATION

At its meeting on July 20, 2020, the Committee voted unanimously (3-0) to recommend that the Commission approve proposed Professional Services Agreement ("PSA") with Geosyntec Consultants, Inc. in the amount of $152,000 with an additional $15,200 for project contingency for implementation of the second phase of a State mandated work plan to determine the presence and extent in groundwater of a class of chemical substances commonly known as per- and polyfluoroalkyl substances ("PFAS").

List of Exhibits:

Exhibit A: Per- and Polyfluoroalkyl Substances Groundwater Sampling Work Plan dated 27 November 2019

Exhibit B: Per- and Polyfluoroalkyl Substances Soils Investigation Report dated 6 February 2020

Exhibit C: LARWQCB Conditional Approval of Per- and Polyfluoroalkyl Substances Groundwater Sampling Work Plan dated April 20, 2020

Exhibit D: FAA Form 7640 approval

Exhibit E: Proposal for implementation work submitted by Geosyntec

Exhibit F: Proposed New Professional Services Agreement (executed by Geosyntec)

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* Contingency budget is for unexpected scope of work that includes, but not limited to, unforeseen field conditions, communication required beyond Task 4, multiple reviews of the draft report, responding to Regional Board's questions/concerns etc.

Geosyntec consultants

engineers | scientists | innovators

Hollywood Burbank Airport

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) GROUNDWATER SAMPLING WORK PLAN

HOLLYWOOD BURBANK AIRPORT

Prepared for

Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, California 91505

Prepared by

Geosyntec Consultants, Inc.
65 N. Raymond Avenue
Pasadena, California 91103

Project Number: WR2693

27 November, 2019

Geosyntec consultants

Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan

Hollywood Burbank Airport

Prepared for

Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, California 91505

Prepared by

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27 November, 2019

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ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
bgs	below ground surface
BOU	Burbank Operable Unit
COC	chain of custody
DDW	California Division of Drinking Water
DoD	Department of Defense
DO	Dissolved Oxygen
EC	Electrical Conductivity
ELAP	Environmental Laboratory Accreditation Program
ETFE	ethylene tetrafluoroethylene
Eurofins	Eurofins Lancaster Laboratory
FEP	Fluorinated ethylene propylene
ft	feet
Geosyntec	Geosyntec Consultants, Inc.
HASP	Health and Safety Plan
HDPE	high-density polyethylene
IDW	investigation derived waste
LARWQCB	Los Angeles Regional Water Quality Control Board
LCS/LCSD	Laboratory Control Sample/ Laboratory Control Sample Duplicate
LDPE	low-density polyethylene
LMCO	Lockheed Martin Corporation
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
ng/L	nanograms per liter
ORP	oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
PCTFE	polychlorotrifluoroethylene
PFAS	per- and polyfluoroalkyl substances
PG	Professional Geologist
PTFE	polytetrafluoroethylene

PVC	polyvinyl chloride
PVDF	polyvinylidene fluoride
QA/QC	quality assurance/quality control
QSM	Quality Systems Manual
RL	Reporting Limit
SFV	San Fernando Valley
SM	Standard Method
SWRCB	State Water Resources Control Board
the Airport	the Hollywood Burbank Airport
the Authority	Burbank-Glendale-Pasadena Airport Authority
the Site	the Hollywood Burbank Airport
TDS	total dissolved solids
TPH	total petroleum hydrocarbons
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
UV	ultraviolet
VOC	volatile organic compound

1. INTRODUCTION

1.1 Terms of Reference

By order dated 20 March 2019, the State Water Board, pursuant to Water Code section 13267, directed that all airport facilities and landfills in the State conduct investigations for the possible presence of Per-and Polyfluoroalkyl Substances (PFAS) at those facilities. As the State Water Board noted: "These sites have facilities or activities that could be a potential source of contamination of PFAS. This does not mean that PFAS has been produced, used or discharged at these sites."

Pursuant to that order and on behalf of the Burbank-Glendale-Pasadena Airport Authority (the Authority), Geosyntec Consultants, Inc. (Geosyntec) has prepared this *Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan* (GW Work Plan) for the Hollywood Burbank Airport[1] (the Airport or Site). Geosyntec previously submitted the *PFAS Investigation Work Plan* to the LARWQCB on 11 June 2019 (Geosyntec, 2019). In response to the *PFAS Investigation Work Plan (Work Plan)*, LARWQCB issued a work plan approval letter, dated 20 August 2019 (the Letter), requesting a separate groundwater sampling work plan be submitted for the Site (LARWQCB, 2019). This GW Work Plan is being submitted to the LARWQCB in response to the Letter.

1.2 Objectives

The objective of the groundwater sampling presented in this GW Work Plan is to evaluate the potential presence of PFAS in groundwater in existing monitoring wells on and in the vicinity of the Site.

1.3 Work Plan Organization

The remainder of this Work Plan is organized into the following sections:

- Section 2, *Background*, in which a brief summary of the Airport and environmental conditions, including geology and hydrogeology, is presented;
- Section 3, *Field Sampling and Analysis Plan*, in which the proposed sampling locations, the field sampling procedures, other field activities, laboratory analyses, and investigation-derived waste disposal methods are presented;
- Section 4, *Quality Assurance/Quality Control*, in which the quality assurance/quality control (QA/QC) procedures that will be used to evaluate the validity of the data are presented;
- Section 5, *Reporting and Schedule*, in which details of the report to be prepared after completion of the proposed investigation is presented; and

[1] Los Angeles Regional Water Quality Control Board (LARWQCB) correspondence refers to the Airport as "Bob Hope" based on the F.A.A.'s Airport Master Record's website. Although the Airport's legal name is the Bob Hope Airport, the Airport is now publicly referred to as the Hollywood Burbank Airport and will be referred to as such in this Work Plan. The Authority owns and operates the Hollywood Burbank Airport.

- Section 6, *References*.

2. BACKGROUND

2.1 Site Description

The Airport is located in the eastern part of the San Fernando Valley, west of the Verdugo Mountains and north of the Santa Monica Mountains on approximately 555 acres at the northwestern corner of the City of Burbank within a developed, urbanized region[2] (Figure 1). The Airport has been in use for commercial, general, and military aviation use since the 1930s. The Authority acquired the Airport in 1978; prior to that, the Airport was formerly owned and operated by Lockheed Martin Corporation or its various predecessors. (LMCO). LMCO also formerly operated industrial facilities to north, south, east, and west of the Airport.

The Airport has two runways: runway 8/26 runs east-west and is approximately 5,800 feet long; and runway 15/33, which intersects runway 8/26, runs north-south, and is approximately 6,900 feet long. There are two passenger terminals within a connected building with a total of 14 gates located south of runway 8/26 and east of runway 15/33. A general Site layout is shown in Figure 2.

The Site is generally fully developed and paved. Stormwater/surface water at the airport drains to the Lockheed Channel, which drains to the Burbank Western Channel, which then flows into the Los Angeles River (Reynolds, Smith & Hills [RS&H], 2016). Land use immediately surrounding the Airport is primarily industrial, with some commercial and low to high density residential areas generally to the southeast. The terrain of the Airport is relatively flat.

The Airport is located within both the North Hollywood Operable Unit and the Burbank Operable Unit (BOU) of the San Fernando Valley Superfund (SFV) Area 1 (Figure 2). The SFV Area 1 consists of an area of volatile organic compound (VOC)-contaminated groundwater encompassing approximately 13 square miles beneath the Cities of North Hollywood and Burbank. Treatment for the BOU consists of eight[3] extraction wells located southeast of the Airport connected to a groundwater extraction treatment system equipped with air strippers and granular activated carbon adsorbers (United States Environmental Protection Agency [USEPA], 2018). The extraction wells are shown in Figure 2.

2.2 Site Geology and Geography

The Airport is located in the San Fernando Valley, which is a Tertiary-Quaternary age sediment-filled basin within the Transverse Ranges geomorphic provinces of southern California (RS&H, 2016). The soils underlying the Airport consist of compacted fill underlain by younger Holocene and late Pleistocene alluvial fan deposits (Geosyntec, 2017), (RS&H, 2016). The alluvium extends to depths of more than 100 feet (ft) below ground surface (bgs) and consists of unconsolidated gravel, sand, and silt (RS&H, 2016). Surface elevations range from

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[2] A portion of the Airport property is located within the City of Los Angeles; see Figure 1.
[3] There are eight BOU extraction wells; however, only seven wells are shown in the figure, as the eighth well is greater than one mile from the Airport; the eighth BOU extraction well is located to the east of the BOU wells shown in the figure.

approximately 700 to 750 ft above mean sea level (amsl). The topography at the Airport generally slopes from the northwest down to the southeast.

2.3 Site Hydrogeology

The Airport is located within the San Fernando Valley Groundwater basin, which is comprised of water-bearing alluvium overlying bedrock. Groundwater flow at the Airport is towards the southeast. Offsite groundwater monitoring wells measured in 2019 indicated that measurable groundwater underlying the Airport ranges in depth from approximately 215 to 284 ft bgs (Tetra Tech, 2019).

As shown in Figure 2, there are operating extraction wells that are part of the BOU treatment system located downgradient of the Airport. The BOU extraction wells are active pumping wells and likely capture groundwater flowing beneath the Airport. A recent capture zone evaluation indicates the BOU extraction wells exert hydraulic containment of the VOC contamination that underlay the Airport (Tetra Tech, 2019).

3. FIELD SAMPLING AND ANALYSIS PLAN

The groundwater monitoring wells[4] to be sampled were selected from the available active monitoring well network. Criteria used to select the wells included a) the ability to collect groundwater samples from the first occurring groundwater unit (water table) within and in the close vicinity of the Airport, and b) with logistical challenges (e.g. access[5] issues) that the Authority currently believes can be resolved in a reasonable time frame and manner. But, if access cannot be obtained in sufficient time and at a reasonable cost, then the Authority reserves the right to supplement this GW Workplan with possible different well locations.

Based on these criteria, six wells have been selected to be sampled for PFAS. Three of the wells are located within the Airport property and three are located on private parking lots in the immediate vicinity of the Airport. Well construction information of wells selected for sampling are presented in Table 1 and locations of the wells are shown in Figure 2.

Groundwater samples will be collected in accordance with the sampling procedures described in this section.

3.1 Pre-Mobilization Activities

3.1.1 Health and Safety Plan

Geosyntec will update the Site-specific Health and Safety Plan (HASP) previously prepared in advance of the soil sampling effort described in the *PFAS Investigation Work Plan* (Geosyntec, 2019) in general accordance with the most current Occupational Safety and Health Administration (OSHA) regulations, including 29 Code of Federal Regulations § 1910.120, Hazardous Waste Operations and Emergency Response. The potential health and safety issues associated with the groundwater sampling effort described in this GW Work Plan will be evaluated and the existing HASP will be updated to reflect the potential hazards. Methods for mitigating hazards will also be provided. A copy of the HASP will be maintained at the Site during field activities. Prior to beginning of any field work, the HASP will be shared with the subcontractors and will be reviewed with the field crew. In addition, a tailgate safety meeting will be conducted each day of field work and will be signed by all field personnel.

3.1.2 Permitting and Notification

Permitting with agencies will not be required to sample the existing groundwater monitoring wells however, extensive planning and coordination with the Airport operations department as well as private property owners to gain access to the monitoring well locations will be performed. In addition, coordination with LMCO will be required to access and sample the wells. The LARWQCB will be notified prior to the commencement of field work.

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[4] The groundwater monitoring network and its details are described in the *Annual Groundwater Monitoring Report, Second Quarter 2019, Burbank Operable Unit* dated September 2019 (Tetra Tech, 2019).

[5] LMCO owns and controls access to sample the existing groundwater monitoring wells on and in the vicinity of the Airport. Access to some of these wells are also controlled by the various property owners' properties on which the wells are located within the BOU. In addition to the access agreements with some of the various property owners, extensive permitting may also need to be worked out in advance.

3.2 General PFAS Sampling Precautions

PFAS are potentially present in a variety of equipment, products, and materials that are commonly used in the field. Because laboratory analytical method detection limits are low (Table 2), conservative precautions are recommended to avoid sample cross-contamination and false positive results. The following precautions are consistent with recently published California State Water Quality Control Board PFAS Sampling Guidelines (California State Water Quality Control Board, 2019).

Precautions listed below will be taken during field investigations to avoid inadvertent sample contamination. These precautions will be discussed prior to the start of each field sampling day.

Items to be Avoided	Acceptable Items
Clothing and Personnel Care Products	
– New unwashed clothing – Clothing recently washed with fabric softener	– Well-laundered clothing with most recent washing not using fabric softener
– Clothing treated to be water-, stain- or dirt-resistant (including but not limited to Gore-Tex™, Scotchguard™, RUCO®) – Clothing chemically treated to provide insect resistance or ultraviolet (UV) protection – Use of cosmetics, moisturizers, hand creams and other products after previous shower (e.g., day of or night before field sampling)	– Waterproof clothing made of polyurethane, polyvinyl chloride (PVC), wax-coated fabrics, rubber, neoprene, or vinyl – See list of allowable sunscreen and insect repellants in California PFAS sampling guidelines[1]
– Coated Tyvek®	– Plain/non-coated Tyvek®
– Latex gloves	– Powderless nitrile gloves
– Boots containing Gore-Tex™ or other fluoropolymers	– Boots made with polyurethane or PVC OR covered with PFAS-free overboots[2]
Food and Drink	
– Packaged food or snack items (e.g., paper plates, foil, bags, and wrappers) in the sampling area or in the staging area while sampling	– Food and drink outside of the sampling area, in designated area – Hand washing and new gloves upon re-entering the sampling area
Field Equipment and Materials	
– Materials or equipment components containing fluoropolymers. Trademark examples include Teflon®, Hostaflon®, Kynar®, Neoflon®, Tefzel®, and Viton™. Fluorinated ethylene propylene (FEP), ethylene tetrafluoroethylene (ETFE), polytetrafluoroethylene (PTFE), polyvinylidene fluoride (PVDF) and polychlorotrifluoroethylene (PCTFE) are other examples	– Submersible pumps, bladder pumps, peristaltic pumps, and inertia pumps that do not have Teflon® components – Silicone and/or HDPE tubing – HDPE Hydrasleeve samplers, Nylon string, and stainless-steel weights – Water quality field meters – Water level probes – Stainless steel bailers, bacon bomb samplers – Telescoping pole – If in doubt about a product, collect and analyze an equipment blank sample
– In the sampling area, avoid using waterproof paper, field books, and forms; plastic clipboards, Post-it Notes®	– Standard/loose plain paper and sample container labels – Boring log sampling forms – Chain of Custody (COC) record

Items to be Avoided	Acceptable Items
– Binders, or spiral hard cover notebooks – Regular/thick-size Sharpie® or other felt-tip markers, felt pens and pens with water-resistant ink – Aluminum foil	– Masonite or aluminum clipboards – Ball-point pens – Pre-printed labels from the laboratory – Fine and Ultra-Fine point Sharpie® markers and Rite-in-the-rain® notebooks in staging area only
– Decon 90®	– Alconox®, Liquinox®, Luminox® or Citranox®
– Chemical (blue) ice packs	– Regular (wet) ice that is double-bagged and kept in the staging area and does not contact sample media
– None	– Thin HDPE sheeting, HDPE trash bags – Low-density polyethylene (LDPE)[3] not in direct contact with the sample (e.g., Ziploc® bags) – Paper towels – Hard shell coolers – Bubble wrap – Duct tape and packing tape
Sample Containers and Other Materials in Direct Contact with Sample	
– Glass sample containers, due to PFAS adherence to glass surfaces – Teflon® liners, caps or sample container lids – LDPE sample containers or liners, due to sorption of PFAS to LDPE materials	– HDPE or polypropylene containers with screw caps that do not contain Teflon® or other fluoropolymers

Notes:

1. Sunscreen or insect-repellant will not be applied in the exclusion zone. Allowable insect repellents include OFF Deep Woods, Sawyer Permethrin, Jason Natural Quit Bugging Me, Repel Lemon Eucalyptus Insect repellant, Herbal Armor, and California Baby Natural Bug Spray. Allowable sunscreens include Banana Boat Sport Performance Sunscreen Lotion Broad Spectrum SPF 30, Meijer Sunscreen Lotion Broad Spectrum SPF 30, Neutrogena Ultra-Sheer Dry-Touch Sunscreen Broad Spectrum SPF 30, Banana Boat for Men Triple Defense Continuous Spray Sunscreen SPF 30, Banana Boat Sport Performance Coolzone Broad Spectrum SPF 30, Banana Boat Sport Performance Sunscreen Lotion Broad Spectrum SPF 30, Banana Boat Sport Performance Sunscreen Stick SPF 50, Coppertone Sunscreen Lotion Ultra Guard Broad Spectrum SPF 50, Coppertone Sport High-Performance AccuSpray Sunscreen SPF 30, Coppertone Sunscreen Stick Kids SPF 55, L'Oréal Silky Sheer Face Lotion 50+, Meijer Clear Zinc Sunscreen Lotion Broad Spectrum SPF 15, 30 and 50, Meijer Wet Skin Kids Sunscreen Continuous Spray Broad Spectrum SPF 70, Neutrogena Beach Defense Water + Sun Barrier Lotion SPF 70, Neutrogena Beach Defense Water + Sun Barrier Spray Broad Spectrum SPF 30, and Neutrogena Pure & Free Baby Sunscreen Broad Spectrum SPF 60+.
2. If the HASP requires a specific type of boot (such as steel-toed), and PFAS-free boots cannot be purchased, PFAS-free over-boots must be worn. Over-boots must be put on, and hands washed after donning the over-boots before the beginning of sampling activities. Over-boots must only be removed in the staging area after the sampling activities are complete.
3. LDPE plastics are commonly identified by a recycling symbol with a number 4 inside it. HDPE plastics are commonly identified by a recycling symbol with a number 2 inside it.

Personnel involved with sample collection and handling will wear disposable powderless nitrile gloves while collecting and handling samples. A new pair of disposable powderless nitrile gloves will be worn during collection of each sample to minimize the potential for cross-contamination. Further, a new pair of powderless nitrile gloves will be donned prior to the following activities at each sample location:

- Decontamination of re-usable sampling equipment prior to each use;
- Prior to contact with sample bottles or water containers;
- Insertion of anything into the well (e.g., HDPE tubing, HydraSleeve bailer);
- Insertion of silicone tubing into the low-flow PFAS-free bladder or peristaltic pump;
- Completion of monitoring well purging, prior to sample collection;
- Handling of any QA/QC samples including field blanks and equipment blanks; and
- After the handling of any non-dedicated sampling equipment, contact with non-decontaminated surfaces, or when judged necessary by field personnel.

Visitors should be kept away from the sampling area unless the visitor can conform to the requirements above. The PFAS sampling precautions listed above will also be discussed during the field readiness review, and daily prior to sample collection.

3.3 Groundwater Sampling

Groundwater samples will be collected from the six selected existing groundwater monitoring wells (Table 1, Figure 2) in general accordance with the *Revised Final Focused Feasibility Sty Groundwater Monitoring Sampling and Analysis Plan* for BOU dated 29 March 2019 (Brown and Caldwell/SLR International, 2019). The wells will be sampled via the following procedures:

Prior to collecting samples, dedicated pumps and tubing installed in the wells (if any) will be removed and placed on plastic sheeting. The dedicated pumps installed in the well may have Teflon® or other components not compatible with PFAS sampling. If dedicated pumps are removed from the well, then, out of an abundance of caution, one well volume will be purged from each well prior to sampling to remove the standing water column.

Groundwater samples will be collected (for the list of analytes in compliance with Tables 1 and 2 of the Order) from the well using low-flow sampling techniques via a portable, non-dedicated pump equipped with disposable tubing and components compatible with PFAS sampling. Groundwater will be purged via low-flow pump until the field water quality parameters such pH, electrical conductivity (EC), temperature, oxidation-reduction potential (ORP), dissolved oxygen (DO), total dissolved solids (TDS) and turbidity levels of the purge water have stabilized to approximately within the following metrics:

- ±0.1 units for pH;
- ±3% for EC;
- ±10 mV for ORP;
- ±3% for temperature;
- ±10% for turbidity; and
- ±10% for DO

The groundwater level at each well will also be measured prior to and during the purging. Once steady-state conditions are reached during purging, groundwater samples will be collected in 250-ml HDPE bottles (2 bottles per sample) with unlined (no Teflon) polyethylene screw caps for PFAS and for general water chemistry parameters as described in Table 3. The dedicated pumps and tubing will be reinstalled in each well after samples are collected.

3.3.1 Groundwater Sample Handling

The groundwater samples will be designated using the monitoring well's ID (e.g., the groundwater sample collected from A-1-CW09 will be designated as A-1-CW09 and the groundwater collected from B-6-CW10 will be designated as B-6-CW10). The groundwater samples will be labeled with unique identifiers as described above, logged on COC forms, and placed in a sealed ice chest with ice for shipment to the laboratory. In addition to PFAS sampling precautions listed in Section 4.2, the following precautions will be taken for groundwater sample collection:

- Groundwater samples will not be field filtered.

- At the laboratory, turbid samples or those containing sediment will be centrifuged, or allowed to settle, prior to sub-sampling supernatant to begin sample processing. There will be no filtration by the lab. If filtration is needed, use glass fiber filters, not nylon or plastic, and rinse with methanol. Bottle labels will be completed using a ball-point pen after the caps have been placed back on each bottle.

3.3.2 Laboratory Analyses

Groundwater samples will be analyzed for the mandatory 23 PFAS analytes by a laboratory accredited by the California Environmental Laboratory Accreditation Program (ELAP) to perform the analytical method for PFAS compliant with Table B-15 of Department of Defense (DoD) Quality Systems Manual (QSM) Version 5.1 or later as indicated in the Order. Sample bottles and PFAS free water will be also provided by the laboratory.

In addition to the PFAS analytes, groundwater samples will also be analyzed for the following general water chemistry parameters by ELAP certified Eurofins Calscience of Garden Grove, California, as indicated in Table 4 of the Order:

- Total dissolved solids via Standard Method (SM) 2540C;
- Chloride, sulfate, and nitrate-nitrogen by United States Environmental Protection Agency (USEPA) 300;
- Carbonate and bicarbonate by SM2320B; and
- Calcium, magnesium, potassium and sodium by USEPA 6010B.

Details of the analytical program, including sample containers, are summarized in Table 3. RLs and MDLs for each PFAS analyte are presented in Table 2.

3.4 Decontamination

Before collecting groundwater samples, sampling devices will be decontaminated. Dedicated or disposable equipment will be rinsed with laboratory-certified, PFAS-free water. Mobile decontamination supplies will be provided so that equipment can be decontaminated in the field. Each piece of reusable sampling equipment that comes into contact with sampled media will be decontaminated before initiation of sampling operations and between each sample location. Decontamination solutions will be replenished between sampling locations as needed. Spent decontamination fluids will be contained, properly labeled and appropriately disposed of in accordance with Section 3.5.

Non-dedicated sampling equipment (e.g., water level probes, submersible pump) will be decontaminated by the "three-bucket-wash" method. The equipment will be first washed using a solution of Liquinox® made with potable water, followed by a first rinse using distilled water and a second rinse using laboratory-certified, PFAS-free water. The pump will be inserted in these buckets and will be allowed to run while recirculating the solution and rinse waters for approximately three minutes.

Water used for the final rinse during decontamination of sampling equipment will be laboratory-certified, PFAS-free water. To the extent practical, equipment parts that come in direct contact with samples will be rinsed with laboratory-certified, PFAS-free water.

3.5 Investigation-Derived Waste

The investigation-derived waste (IDW) generated during groundwater sampling and decontamination of the sampling equipment will be containerized (e.g., Department of Transportation approved 30-gallon or 55-gallon drums), sealed, properly labeled, and temporarily stored onsite. Following the completion of Site investigation activities, a composite soil sample and a wastewater sample will be collected and analyzed for VOCs by USEPA Method 8260B, Title 22 Metals by USEPA Method 6010B/7471A, and total petroleum hydrocarbons (TPH) by USEPA Method 8015M. Following receipt of the analytical results, the containerized IDW will be disposed, per applicable procedures and protocols.

In addition, the disposal contractor will be made aware of presence of PFAS (if established) and the results of the proposed PFAS investigation will be shared, which, in our experience, will likely be accepted in lieu of a separate IDW analysis for PFAS.

3.6 Deviations from Work Plan

Deviations from the methodologies in this Work Plan will be documented on daily field forms and included in the final report documenting the investigation and data.

4. QUALITY ASSURANCE/QUALITY CONTROL

QA/QC will be implemented during field activities as further described below.

4.1 Field Quality Control Samples

A summary of the field QA/QC[6] samples is presented in Table 4 and described in detail below.

4.1.1 Field Duplicates

Field duplicates are samples collected in the same manner and at the same time and location as a primary sample. They should be collected from locations of known or suspected contamination. Field duplicates are used to assess field and analytical precision and sample heterogeneity. Field duplicates are generally collected at a minimum rate of one field duplicate for every 10 primary samples and each field event. Therefore, for this proposed sampling event, one field duplicate will be collected. Field duplicates will be labeled with a unique sample identifier and not be indicated as a duplicate (i.e., submitted as "blind"). Field duplicates will be identified by the suffix "K" (e.g., a duplicate collected at A-1-CW09 would be labeled A-1-CW09K).

4.1.2 Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike and matrix spike duplicate (MS/MSD) samples are aliquots of environmental samples that are spiked with a known concentration of PFAS by the laboratory. MS/MSD

[6] The field QC samples will be only analyzed for PFAS compounds and not for general water chemistry parameters.

samples are used to assess interferences caused by the sample matrix. MS/MSD samples are to be collected in the same manner and at the same time and location as a primary sample. The number of required MS/MSD samples will be determined based on discussions with the laboratory. At least one MS/MSD sample will be collected for every 20 primary samples and every sample batch. MS/MSD samples should be labeled with the same sample name and time as the primary sample and denoted as MS/MSD samples on the COC and sample label.

4.1.3 Blanks

Blanks are samples prepared in the field using PFAS-free water or in the case of the temperature blank, supplied by the laboratory. The purpose of blank samples is to evaluate the potential for sampling conditions to affect the primary samples. Blanks should be shipped and handled in the same manner as environmental samples. Blanks should be labeled as such on sample bottles and on the COC.

Equipment Blanks: Equipment blanks are used to assess potential sources of field and laboratory contamination. Equipment blanks are prepared by pouring PFAS-free water over or through decontaminated reusable field sampling equipment and collecting the rinsate in a sample container. One equipment blank will be collected for each day of field work.

Field Blanks: Field blanks are used to assess ambient contamination within the field and laboratory. Field blanks will be prepared by filling a sample container with PFAS-free water in the field in the same manner as environmental samples. Field blanks are an effective way of assessing potential cross-contamination as a result of sample handling. One field blank will be collected each day.

Temperature Blanks: Temperature blanks are used to assess the temperature of samples during shipping. Temperature blanks will be provided by the laboratory or prepared by filling a sample container with water prior to shipment of the sample containers. The blank will be kept in the cooler during sampling and shipment to the laboratory. Once the cooler returns to the laboratory, the temperature of the blank will be measured to ensure that recommended sample storage criteria are met (typically less than 6 degrees Celsius).

4.2 Laboratory Quality Control Samples

The laboratory QA program consists of laboratory QC samples, documentation of laboratory QC practices, data validation, and laboratory audits. Laboratory QC samples may include laboratory control samples/laboratory control sample duplicates (LCS/LCSD), laboratory duplicates, MS/MSD samples, surrogate standards, internal standards, method blanks, and instrument blanks. MS/MSD samples and LCS/LCSD samples are analyzed after every batch of up to 20 samples and measure analytical accuracy. Surrogate standards are added to samples, blanks, MS/MSDs, and LCS/LCSDs to evaluate laboratory sample preparation, and analytical method matrix interferences. If QC checks are outside the acceptance criteria range, corrective actions will be taken based on procedures in the DoD QSM version 5.1 (or later) and the laboratory QA program. Laboratory qualifiers may be assigned as follows:

- J – estimated concentration.
- R – rejected value (unusable).

- U – not detected.
- UJ – sample detection limit is estimated.

The laboratory report will include sample and QA/QC sample results (e.g., method blanks, LCS, surrogates, and MS/MSDs).

5. REPORTING AND SCHEDULE

As discussed in Section 3, access to sample the selected wells will require extensive planning and coordination with the Airport operations department, LMCO, and the property owners of the parcels outside the Airport where some of the wells are located. Therefore, upon approval of the GW Work Plan by the LARWQCB, the Authority will begin the coordination process to conduct the groundwater sampling. A final report will then be prepared within 180 days of receiving LARWQCB approval of the GW Work Plan that will include, at a minimum:

- Documentation of sampling activities and necessary deviations from the Work Plan (if any);
- Summary of groundwater analytical results and comparison to reporting limits for PFAS;
- COC from sample submittal;
- Analytical laboratory reports;
- Sampling field logs;
- Site map showing sampling locations; and
- Conclusions.

A California-licensed Professional Geologist or Professional Engineer will sign and stamp the final report.

6. REFERENCES

Brown and Caldwell/SLR International. 2019. Revised Final Focused Feasibility Study Groundwater Monitoring Sampling and Analysis Plan Burbank Operable Unit, Burbank, California. 29 March.

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United States Environmental Protection Agency (USEPA). 2018. Five-Year Review Report for San Fernando Valley (Area 1) Superfund Site, North Hollywood and Burbank, Los Angeles County, California. 21 September.

TABLES

TABLE 1
GROUNDWATER MONITORING WELLS SELECTED FOR SAMPLING
Hollywood Burbank Airport

Well ID	Screen Interval (ft bgs)	Latest Measured Groundwater Depth April 2019 (ft btoc)	Dedicated Pump (yes/no)	Property Owner
A-1-CW03-R	245 - 285	225.73	Yes	VSP Parking
A-1-CW09	187 - 227	215.30	Yes	Fry's Electronics
B-6-CW10	203 - 253	242.05	Yes	Burbank Airport Authority
C-1-CW03	259 - 280	263.33	Yes	Wet Enterprises
C-1-CW06	232 - 252	244.36	No	Burbank Airport Authority
C-1-CW08	245 - 285	256.65	Yes	Burbank Airport Authority

Notes:
1. Information in this table courtesy of the *Annual Groundwater Monitoring Report, Second Quarter 2019, Burbank Operable Unit* dated September 2019 (Tetra Tech, 2019).
2. Wells with dedicated pumps will have the pumps removed prior to sampling and a temporary, portable low flow pump compatible with PFAS sampling will be installed in the well for this sampling effort.

TABLE 2
LABORATORY REPORTING LIMITS
Hollywood Burbank Airport

PFAS Chemical Name	Abbreviation	CAS No.	Groundwater (ng/L)	
			RL	MDL
Perfluorooctane sulfonic acid	PFOS	1763-23-1	2.0	0.4
Perfluoroundecanoic acid	PFUnDA	2058-94-8	2.0	0.4
N-Methyl perfluorooctane sulfonamidoacetic acid	NMeFOSAA	2355-31-9	3.0	1
Perfluoropentanoic acid	PFPeA	2706-90-3	6.0	2
Perfluoropentane sulfonoic acid	PFPeS	2706-91-4	2.0	0.4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2	2.0	1
N-Ethyl perfluorooctane sulfonamidoacetic acid	NEtFOSAA	2991-50-6	3.0	1
Perfluorohexanoic acid	PFHxA	307-24-4	2.0	0.4
Perfluorododecanoic acid	PFDoDA	307-55-1	2.0	0.5
Perfluorooctanoic acid	PFOA	335-67-1	1.0	0.3
Perfluorodecanoic acid	PFDA	335-76-2	2.0	0.9
Perfluorodecane sulfonic acid	PFDS	335-77-3	2.0	0.6
Perfluorohexane sulfonic acid	PFHxS	355-46-4	2.0	0.4
Perfluorobutanoic acid	PFBA	375-22-4	6.0	2
Perfluorobutane sulfonic acid	PFBS	375-73-5	1.0	0.3
Perfluoroheptanoic acid	PFHpA	375-85-9	1.0	0.4
Perfluoroheptane sulfonic acid	PFHpS	375-92-8	2.0	0.4
Perfluorononanoic acid	PFNA	375-95-1	2.0	0.4
Perfluorotetradecanoic acid	PFTeDA	376-06-7	1.0	0.3
8:2 Fluorotelomer sulfonic acid	8:2 FTS	39108-34-4	6.0	2
Perfluorotridecanoic acid	PFTrDA	72629-94-8	1.0	0.4
Perfluorooctanesulfonamide	PFOSAm	754-91-6	3.0	0.5
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4	3.0	1

Notes:
1. ng/L - nanogram per Liter.
2. RL - reporting limit.
3. MDL - method detection limit.
4. Laboratory RLs and MDLs are evaluated periodically and subject to change. The RL and MDL values presented in this table are current as of March 2019.

TABLE 3
ANALYTICAL SUMMARY
Hollywood Burbank Airport

Analyte	Method	Preservative	Container	Holding Time
PFAS Compounds	USEPA Method 537 Version 1.1 Modified	None	250 ml HDPE bottle	14 days
Total Dissolved Solids	SM 2540C	None	1 liter plastic	7 days
Chloride, Sulfate	USEPA 300	None	250 ml plastic	28 days
Nitrate-Nitrogen	USEPA 300	None	250 ml plastic	48 hours
Carbonate and Bicarbonate	SM2320B	None	250 ml plastic	14 days
Calcium, Magnesium, Potassium and Sodium	USEPA 6010B	Nitric Acid	250 ml plastic	180 days

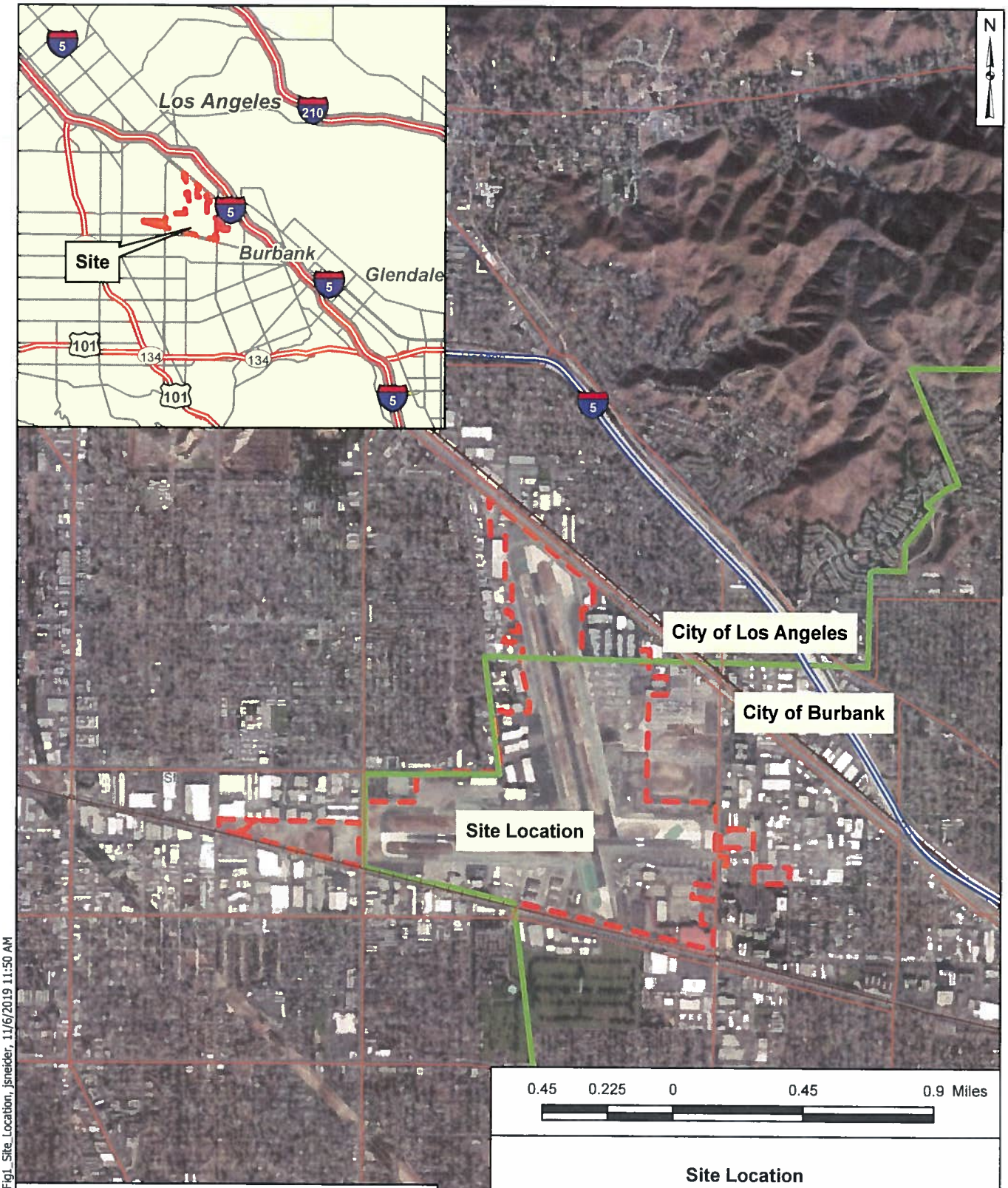
Notes:
ml - milliliter
SM - Standard Method
USEPA - United States Environmental Protection Agency

TABLE 4
FIELD QUALITY ASSURANCE/QUALITY CONTROL METRICS
Hollywood Burbank Airport

QA/QC Sample	Purpose	Typical Metric	Frequency
Field duplicate	Assess precision	30% relative percent difference (RPD)	One per 10 samples
Matrix spike/matrix spike duplicate	Assess accuracy, bias, precision	Laboratory statistically derived control limits (e.g., 70 to 130%); RPD ≤ 30%	One per laboratory batch (one per 20 samples)
Equipment blanks	Assess potential cross-contamination despite decontamination practices and field equipment selection	No analyte detection > ½ RL, 10% of sample result, or 10% of regulatory limit, whichever is greater	One per day
Field blanks	Assess potential contamination from field practices	No analyte detection > ½ RL, 10% of sample result, or 10% of regulatory limit, whichever is greater	One per day
Temperature blanks	Assess representativeness of sample due to temperature of storage conditions	Temperature < 6°C	One per cooler

Notes:
QA/QC - quality assurance/quality control
RPD - relative percent difference
RL - reporting limit
The field QC samples will be only analyzed for PFAS compounds and not for general water chemistry parameters.

FIGURES



Legend

City of Burbank/City of Los Angeles Boundary

Hollywood Burbank Airport Property Boundary

Note: Locations are approximate.

Site Location

Hollywood Burbank Airport
2627 N Hollywood Way
Burbank, CA

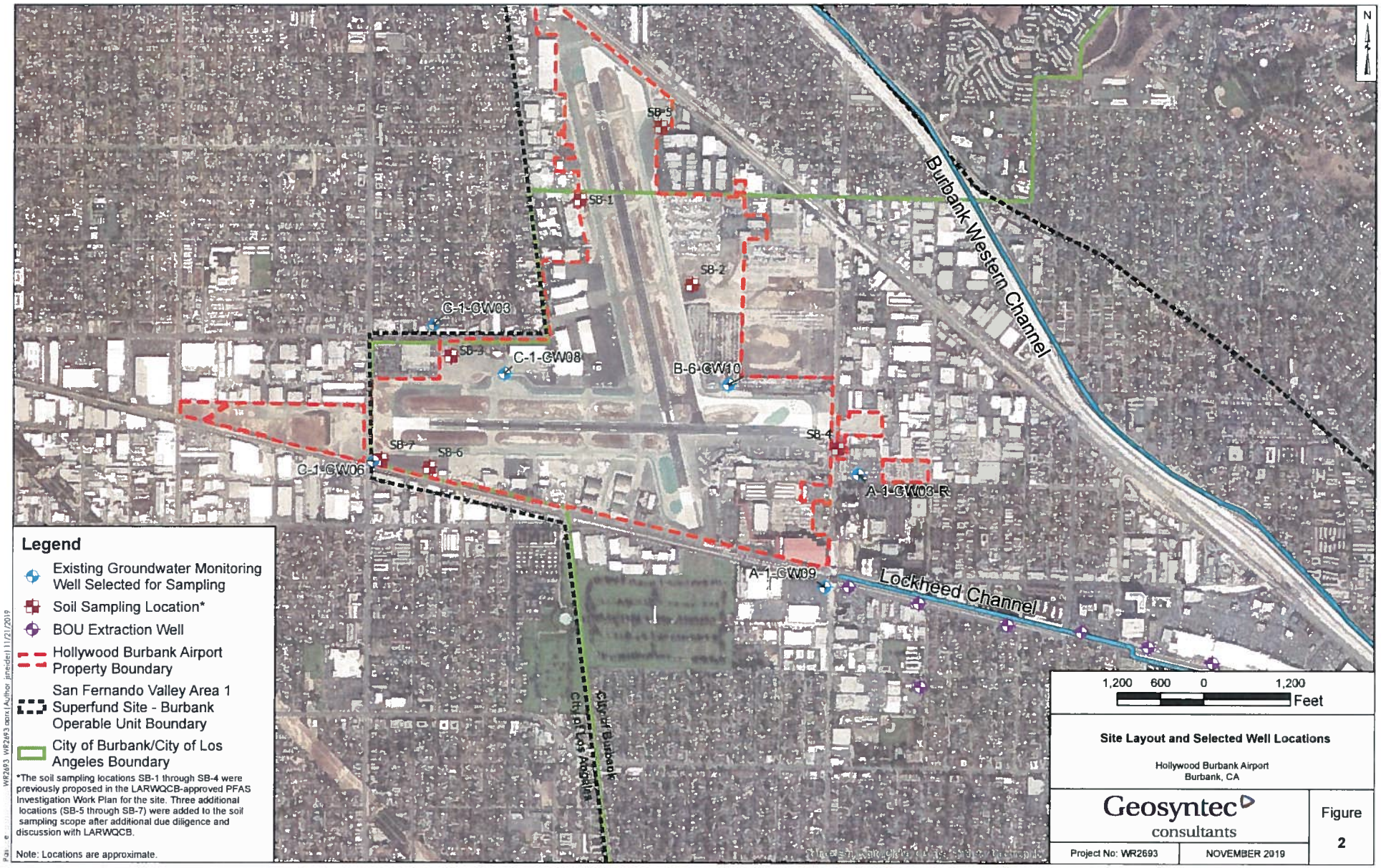
Geosyntec consultants

Project No: WR2693

NOVEMBER 2019

Figure 1

PAS P:\GIS\WR2693\WR2693.aprx, Fig1_Site_Location, jsneider, 11/6/2019 11:50 AM



Legend

- Existing Groundwater Monitoring Well Selected for Sampling
- Soil Sampling Location*
- BOU Extraction Well
- Hollywood Burbank Airport Property Boundary
- San Fernando Valley Area 1 Superfund Site - Burbank Operable Unit Boundary
- City of Burbank/City of Los Angeles Boundary

*The soil sampling locations SB-1 through SB-4 were previously proposed in the LARWQCB-approved PFAS Investigation Work Plan for the site. Three additional locations (SB-5 through SB-7) were added to the soil sampling scope after additional due diligence and discussion with LARWQCB.

Note: Locations are approximate.

Site Layout and Selected Well Locations

Hollywood Burbank Airport
Burbank, CA

Geosyntec consultants

Figure 2

Project No: WR2693 | NOVEMBER 2019

WR2693_WR2693.aprx (Author: jsneider) 11/21/2019

Prepared for

Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, California 91505

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) SOILS INVESTIGATION REPORT

Hollywood Burbank Airport

Prepared by

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engineers | scientists | innovators
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Project Number: WR2693

6 February 2020

Geosyntec consultants

Per- and Polyfluoroalkyl Substances (PFAS) Soils Investigation Report

Hollywood Burbank Airport
Burbank, California

Prepared by

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6 February 2020

Geosyntec
consultants

CERTIFICATION STATEMENT

I, Mark Hardyment, certify under penalty of law that this document and all attachments were prepared under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant civil penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

2-04-20

Mark Hardyment
Director, Transportation & Environmental Programs
Hollywood Burbank Airport

Date

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Appendix B: Boring Logs

Appendix C: Manifest

Appendix D: Laboratory Data

LIST OF ACRONYMS AND ABBREVIATIONS

AFD	Airport Fire Department
AFFF	aqueous film-forming foam
ARFF	Aircraft Rescue Firefighting
AST	aboveground storage tank
bgs	below ground surface
BOU	Burbank Operable Unit
COC	chain of custody
DoD	Department of Defense
ELAP	Environmental Laboratory Accreditation Program
Eurofins	Eurofins Lancaster Laboratory
FAA	Federal Aviation Administration
ft	feet
Geosyntec	Geosyntec Consultants, Inc.
GW Work Plan	*Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan*
HASP	Health and Safety Plan
HDPE	high-density polyethylene
IDW	investigation derived waste
LACDPH	Los Angeles County Department of Public Health
LARWQCB	Los Angeles Regional Water Quality Control Board
LCS	Laboratory Control Sample
Lockheed	Lockheed Martin Corporation
MS/MSD	Matrix Spike/Matrix Spike Duplicate
ng/g	nanograms per gram
NHOU	North Hollywood Operable Unit
PFAS	per- and polyfluoroalkyl substances
PG	Professional Geologist
QA/QC	quality assurance/quality control
QSM	Quality Systems Manual
RL	Reporting Limit

SFV	San Fernando Valley
SW 1455	Southwest Flight 1455
the Airport/the Property	the Hollywood Burbank Airport
the Authority	Burbank-Glendale-Pasadena Airport Authority
the Order	*Water Code Section 13267 Order WQ 2019-0005-DWQ for the Determination of the Presence of Per- and Polyfluoroalkyl Substances at Bob Hope, Airport ID BUR, Los Angeles County, T10000012771*
the Letter	*Approval of Per- and Polyfluoroalkyl Substances (PFAS) Investigation Work Plan*
the Report	this *Per- and Polyfluoroalkyl Substances (PFAS) Investigation Report*
the Work Plan	*Per- and Polyfluoroalkyl Substances Investigation Work Plan*
USCS	Unified Soil Classification System
VOC	volatile organic compound

1. INTRODUCTION

1.1 Terms of Reference

On behalf of the Burbank-Glendale-Pasadena Airport Authority (the Authority), Geosyntec Consultants, Inc. (Geosyntec) has prepared this *Per- and Polyfluoroalkyl Substances (PFAS) Soils Investigation Report* (Report) for the Hollywood Burbank Airport[1] (the Airport) to fulfill the requirements of *Water Code Section 13267 Order WQ 2019-0005-DWQ for the Determination of the Presence of Per- and Polyfluoroalkyl Substances at Bob Hope, Airport ID BUR, Los Angeles County, T10000012771* (the Order). The Order was issued by the State Water Resources Control Board and transmitted to the Authority by the Los Angeles Regional Water Quality Control Board (LARWQCB) and was dated 20 March 2019. The Order required (i) the preparation of a Work Plan to conduct a one-time preliminary site investigation to determine whether soil or groundwater is impacted by PFAS, and (ii) to provide a final sampling and analysis report (LARWQCB, 2019a).

In accordance with the Order, a *PFAS Investigation Work Plan* (Work Plan) was submitted to the LARWQCB on 11 June 2019 describing the proposed scope of a soil investigation program (Geosyntec, 2019). The LARWQCB conditionally approved the Work Plan in a letter dated 20 August 2019 (the Approval Letter) (LARWQCB, 2019b). The Approval Letter required performing the following additional scope:

- Collect soil samples near the 1,500-gallon aqueous film-forming foam (AFFF) above-ground storage tank (AST) located in the Fuel Farm area; and
- Analyze all samples collected (not to hold deeper samples pending analysis of shallower samples as proposed in the Work Plan) to the termination depth of 30 feet (ft) below ground surface (bgs).

Further due diligence work conducted by the Airport staff (after submittal of the Work Plan) revealed that there may be two former burn pit areas potentially used by former occupants of the Airport property to conduct training activities utilizing fire-suppression materials potentially including AFFF. Upon learning of these burn pit areas, and in discussion with the LARWQCB, the Authority decided to voluntarily conduct the following additional modifications to the Work Plan scope:

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[1] The Order refers to the Airport as "Bob Hope" based on the FAA's Airport Master Record's website. Although the Airport's legal name is the Bob Hope Airport, the Airport is now publicly referred to as the Hollywood Burbank Airport and will be referred to as such in this Work Plan. The Authority owns and operates the Hollywood Burbank Airport.

- Collect soil samples from the former burn pit areas; and
- Collect additional soil samples at depths of 40 ft bgs and 50 ft bgs at each location rather than the termination depth of 30 ft bgs originally proposed in the Work Plan.

The above mentioned four modifications were implemented in addition to the scope originally proposed in the Work Plan as further described in this Report. The Approval Letter also required the submission of a separate work plan to evaluate the potential presence of PFAS in groundwater in existing monitoring wells on and in the vicinity of the Airport. To fulfill this requirement, the *Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan* (GW Work Plan) was submitted to the LARWQCB on 27 November 2019 and is pending approval.

On behalf of Geosyntec, the soil investigation was managed by Jake Sneider and Julia Loper. The Report was prepared by Jake Sneider and Julia Loper and senior review was provided by Ravi Arulanantham and Andrew Barnes P.G., in accordance with Geosyntec's quality assurance policies.

1.2 Objectives

The purpose of this Report is to present the results of the PFAS soil investigation that was performed to evaluate the potential presence of PFAS in soil at locations where PFAS releases have had the potential to occur at the Airport. The Report and its attachments include:

- Scaled maps of the soil investigation locations;
- Data tables showing the analytical results;
- Boring logs describing subsurface materials encountered;
- Laboratory reports with chain-of custody (COC) documentation;
- Permits from Los Angeles County Department of Public Health (LACDPH); and
- Evaluation of the data, conclusions, and recommendations.

1.3 Report Organization

The remainder of this Report is organized into the following sections:

- Section 2, "*Airport Description and Background*," in which detailed information on Airport description, historical PFAS storage and use, geology, and hydrogeology are described;

- Section 3, "*Work Plan Implementation*," which describes the details of Work Plan implementation;
- Section 4, "*Results of Soil Investigation*," which describes the results of soil investigation and Quality Assurance/Quality Control (QA/QC) samples;
- Section 5, "*Conclusion and Recommendation*," and
- Section 6, "*References*."

2. AIRPORT DESCRIPTION AND BACKGROUND

2.1 Airport and Vicinity Description

The Airport is located in the eastern part of the San Fernando Valley, west of the Verdugo Mountains and north of the Santa Monica Mountains on approximately 555 acres at the northwestern corner of the City of Burbank within a developed, urbanized region[2] (Figure 1). The Airport has been in use for commercial, general, and military aviation services since the 1930s. The Authority acquired the initial Airport property in 1978; prior to that, the Airport was owned and operated by Lockheed Martin Corporation (Lockheed) or its predecessors in interest. Lockheed also formerly operated industrial facilities to north, south, east, and west of the Airport.

The Airport has two intersecting runways: runway 8/26 runs east-west and is approximately 5,800 feet long; and runway 15/33 runs north-south and is approximately 6,900 feet long. There is one passenger terminal building with two passenger terminals and a total of 14 gates located south of runway 8/26 and east of runway 15/33. A general Airport layout is shown in Figure 2.

The Airport is fully developed and mostly paved. The terrain of the Airport is relatively flat with surface grading directing stormwater/surface water to the Lockheed Channel, which drains to the Burbank Western Channel, which then flows into the Los Angeles River (RS&H, 2016). Land use immediately surrounding the Airport is primarily industrial, with some commercial and low to high density residential areas generally to the southeast.

The Airport is located within the North Hollywood Operable Unit (NHOU) and Burbank Operable Unit (BOU) of the San Fernando Valley Superfund (SFV) Area 1. The SFV Area 1 site consists of an area of volatile organic compound (VOC)-contaminated groundwater encompassing approximately 13 square miles beneath the Cities of North Hollywood and Burbank.

The prevalence of former and current industrial land uses in the areas surrounding the Airport suggest that offsite sources of PFAS may be present.

2.2 Airport Geology

The Airport is located in the San Fernando Valley, which is a Tertiary-Quaternary age sediment-filled basin within the Transverse Ranges geomorphic provinces of southern

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[2] A portion of the Airport property is located within the City of Los Angeles; see Figure 1.

California (RS&H, 2016). The soils underlying the Airport consist of compacted fill underlain by younger Holocene and late Pleistocene alluvial fan deposits (Geosyntec, 2017), (RS&H, 2016). The alluvium extends to depths of more than 100 feet (ft) below ground surface (bgs) and consists of unconsolidated gravel, sand, and silt (RS&H, 2016).

2.3 Airport Hydrogeology

The Airport is located within the San Fernando Valley Groundwater basin, which is comprised of water-bearing alluvium overlying bedrock. Groundwater flow at the Airport is towards the southeast. Offsite groundwater monitoring wells measured in 2017 indicated groundwater underlying the Airport ranges in depth from approximately 230 to 290 ft bgs (Tetra Tech, 2017).

There are operating extraction wells that are part of the BOU treatment system located downgradient of the Airport. The BOU extraction wells are active pumping wells and likely capture groundwater flowing beneath the Airport. A recent capture zone evaluation indicates the BOU extraction wells exert hydraulic containment of the VOC plumes originating from the BOU that underly the Airport (Tetra Tech, 2017).

2.4 Current State of California PFAS Regulations

There are no California-specific regulatory or guidance values for PFAS in soil. At present, PFAS regulations within the State of California are limited solely to regulation of drinking water supplies and drinking water systems.

2.5 Potential On-Property Sources of PFAS

Potential sources of PFAS were evaluated using information provided by the Authority regarding current and historical locations for AFFF storage, use, and possible release at the Airport.

The FAA mandates that federally regulated airports, such as the Hollywood Burbank Airport, maintain and have ready Aircraft Rescue and Firefighting (ARFF) and has published guidance on types of aircraft fire extinguishing agents, such as AFFF. Thus, AFFF has been used at airports as a fire-extinguishing agent to prevent, extinguish, or control fires of flammable and combustible liquids such as crude oil, gasoline, and fuel oils. AFFF generates foam that retains water, separates fuel from flame, and ultimately results in fast reduction and containment of fires. AFFF products are diluted prior to use. Currently, the Federal Aviation Administration (FAA) requires that all certified Part 139 airports including the Airport, use AFFF that meet military specifications (MIL-PRF-24385) which contains PFAS compounds (FAA, 2019). Potential sources of PFAS such

as AFFF storage, use, and probable releases at the Airport were evaluated in the Work Plan (also shown in Figure 3) and investigated as follows:

Soil Investigation Scope Area	Description of Past Potential Release	Soil Sample Investigation Location
Unpaved area near the T-Hangars	AFFF was reportedly released during refraction testing[3] and Airport Fire Department (AFD) training activities.	SB-1
Unpaved former B-6 property	AFFF was reportedly released during AFD training activities	SB-2
Unpaved dirt lot area north of the Delta Ramp	AFFF was reportedly released during AFD training activities	SB-3
Southwest Flight 1455 (SW 1455) incident area	A one-time release of AFFF was reported to prevent fires at the incident site (the sample location was selected based on historical photographs indicating an area where AFFF was released that was unpaved at the time of the incident).	SB-4
1,500-gallon AFFF AST located at the Fuel Farm area	AFFF may have potentially released from a AST during filling or testing operations, though no release is documented.	SB-5
Two former burn pit areas including the Former Civil Air Patrol Fire Pit and the Former Bunker Simulated Gasoline Fire Pit (added to sampling scope voluntarily).	Two former burn pit areas (identified and mapped using historical documents) may have been used by former occupants of the Airport property to conduct training activities utilizing fire-suppression materials potentially including AFFF. The sample locations were placed at the approximate center of each burn pit area.	SB-6 (Former Civil Air Patrol Fire Pit) SB-7 (Former Bunker Simulated Gasoline Fire Pit)

[3] Refraction testing of each ARFF truck operated by the AFD is conducted annually. During this testing, approximately 100 gallons of AFFF is released onto the land surface and tested with a refractometer to make sure the foam mixture coming from every appurtenance on each truck matches the required concentration specifications.

3. WORK PLAN IMPLEMENTATION

The soils investigation described in this section was performed between 9 December 2019 and 12 December 2019 in accordance with the PFAS sampling procedures and precautions described in the Work Plan.

3.1 Pre-Field Activities

A Property-specific health and safety plan (HASP) was prepared in general accordance with the most current Occupational Safety and Health Administration regulations, including 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response. The HASP was maintained at the Airport and implemented during the activities described herein. Prior to beginning the fieldwork each day, a tailgate safety meeting was conducted and signed by all field personnel. The entire field team (contractors as well as Geosyntec field staff) was made aware of precautions specific to PFAS sampling including 1) equipment/material that are acceptable/not acceptable for use in PFAS sampling; and 2) preventing cross-contamination during the implementation of the Work Plan.

A drilling permit was obtained from the LACDPH to conduct drilling activities (**Appendix A**). In addition, field work was performed after extensive planning and coordination with the Airport Airfield Operations and other airport management entities to gain access to boring locations and to conduct fieldwork safely.

Prior to the commencement of fieldwork, underground utility clearance was completed for each subsurface investigation location. A combination of electromagnetic induction and ground penetrating radar was employed to screen the borehole locations. Each boring location was further cleared by hand auger to 5 ft bgs.

3.2 Soil Investigation

After hand augering to a depth of 5 ft bgs, a direct-push drill rig was advanced at locations (SB-1 through SB-7) with a target depth of 50 ft bgs. Subsurface conditions resulted in drilling refusal at three locations. Final depths achieved were as follows:

- 50 ft bgs at SB-1, SB-4, and SB-7;
- 48 ft bgs at SB-2 and SB-3;
- 44 ft bgs at SB-5; and

- 36 ft bgs at SB-6[4].

Soil samples were collected for laboratory analysis at 1 ft bgs via hand auger, in 5-foot intervals from 5 ft bgs to 30 ft bgs, and in 10-foot intervals from 40 ft bgs to the target termination depth of 50 ft bgs. Soil samples were collected at the termination depth when refusal was encountered at depths shallower than 50 ft bgs. The soil samples were collected from a continuous core via acetate liners. Soil samples were placed in the high-density polyethylene (HDPE) containers provided by the laboratory and were capped immediately and labelled using a ball-point pen.

After samples were collected, the continuous core was logged in accordance with the Unified Soil Classification System (USCS) under the supervision of a California Professional Geologist (PG), see **Appendix B** for boring logs.

3.2.1 Sample Handling

Soil samples were labeled with a unique identifier based on the sample location, followed by a hyphen and the depth of sample in feet bgs (e.g., soil sample collected at SB-1 at a depth of 20 ft bgs was designated as SB-1-20). The samples were logged on laboratory COC forms and placed in a sealed ice chest with double-bagged ice for shipment to the laboratory.

3.2.2 Laboratory Analysis

Soil samples were analyzed for 23 PFAS analytes by Eurofins Lancaster Laboratory (Eurofins) in Lancaster, Pennsylvania, consistent with the Order. Sample bottles and PFAS-free water were provided by Eurofins. Eurofins is accredited by the California Environmental Laboratory Accreditation Program (ELAP) for drinking water PFAS analyses using Method 537.1 and non-drinking water PFAS analyses in compliance with Department of Defense (DOD) Table B-15 of Quality System Manual (QSM) Version 5.1 or later.

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[4] The initial borehole at SB-6 met with refusal at 28 ft bgs. Soil samples were collected upto a depth of 25 ft bgs from this borehole. An initial step-out boring was advanced approximately one-foot to the north of the original boring; this step-out boring also met with refusal at 27.5 ft bgs. No samples were collected from this borehole. A second additional step-out boring was advanced approximately 2.5 feet to the east of the original boring. This boring met with refusal at 36 ft bgs. Soil samples at 30 and 36 ft bgs were collected from this borehole.

3.3 Decontamination Procedures

Dedicated and disposable equipment was rinsed with laboratory-certified, PFAS-free water prior to collecting any soil samples.

Non-dedicated reusable sampling equipment (e.g., auger shoe, acetate liner blade) was decontaminated before initiation of sampling operations and between each sample location and interval via a "three-bucket-wash" method. The equipment was first washed using a solution of Liquinox® made with potable water, followed by a first rinse using distilled water and a second rinse with laboratory-certified, PFAS-free water.

Decontamination of larger equipment (e.g., drill rods) was conducted using potable water and a high-pressure washer and then rinsed using potable water.

3.4 Investigation-Derived Waste

Soil cuttings and decontamination water constitute investigation derived waste (IDW) generated during this soil investigation. The IDW were contained in Department of Transportation (DOT)-approved 55- gallon drums, properly labeled and stored at a pre-assigned drum storage area located on the former B-6 property. The IDW was characterized, profiled, and appropriately disposed of (manifest included in **Appendix C**).

3.5 Quality Assurance/ Quality Control (QA/QC) Samples

The following QA/QC samples were collected during this soil investigation.

3.5.1 Field Duplicates

Field duplicates are samples collected in the same manner and at the same time and location as the primary sample. Field duplicates are used to assess field and analytical precision and sample heterogeneity. One field duplicate was collected for every 10 primary samples, for a total of 8 duplicate samples

3.5.2 Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike and matrix spike duplicate (MS/MSD) samples are aliquots of environmental samples that are spiked with a known concentration of PFAS by the laboratory. MS/MSD samples are used to assess interferences caused by the sample matrix. MS/MSD samples were collected in the same manner and at the same time and location as a primary sample (i.e., additional sample mass). MS/MSD samples were collected such that the samples appear visually similar (e.g., color, grain size), to the

primary sample. At least one MS/MSD sample was collected for every 20 primary samples for a total of 4 MS/MSD samples.

3.5.3 Blanks

Three types of blank samples were collected during this soil investigation and each was shipped and handled in the same manner as primary environmental samples. The types of blank samples collected include the following:

Equipment Blanks: Equipment blanks are used to assess potential presence of field cross-contamination. Equipment blanks were prepared by pouring PFAS-free water over or through decontaminated reusable field sampling equipment (e.g. hand auger bucket) and collecting the rinsate in a sample container. One equipment blank was collected each day of sampling. A total of 4 equipment blanks were collected.

Field Blanks: Field blanks are used to assess ambient contamination within the field and laboratory. Field blanks were prepared by filling a sample container with PFAS-free water in the field in the same manner as environmental samples. Field blanks are an effective way of assessing potential cross-contamination as a result of sample handling. One field blank was collected each day of sampling for a total of 4 field blanks

Temperature Blanks: Temperature blanks are used to assess the temperature of samples during shipping. Temperature blanks were provided by the laboratory by filling a sample container with water prior to shipment of the sample containers. The blank was kept in the cooler during sampling and shipment to the laboratory. Once the cooler was returned to the laboratory, the temperature of the blank was measured to ensure that recommended sample storage criteria were met (typically less than 6 degrees Celsius).

3.6 Location Mapping

The locations of the soil borings were mapped in the field by measuring distances to nearby structures and/or features.

4. RESULTS OF SOIL INVESTIGATION

This section describes the results of soil investigation performed pursuant to the Work Plan and additional conditional and voluntary scopes described above. The laboratory reports are provided in **Appendix D** and are summarized in Table 1.

The validated results of soil investigation are presented in Table 1 and described below:

- At SB-1, ten of the 23 target analytes were detected in shallow soil samples with no detections in soil samples deeper than 10 ft bgs..
- At SB-2, five of the 23 target analytes were detected in shallow soil samples with no detections in soil samples deeper than 5 ft bgs.
- At SB-3, twelve of the 23 target analytes were detected in soil samples to the termination depth of 50 ft bgs. Fewer detections occurred as depth increased and the detections also indicate a general trend of decreasing concentration with depth.
- At SB-4, one of the 23 target analytes was detected in shallow soil samples with no detections in soil samples deeper than 15 ft bgs.
- At SB-5, thirteen of the 23 target analytes were detected in soil samples to the termination depth of 50 ft bgs. Fewer detections occurred as depth increased.
- At SB-6, four of the 23 target analytes were detected in shallow soil samples with no detections in soil samples deeper than 15 ft bgs.
- At SB-7, four of the 23 target analytes were detected in soil samples to a depth of 40 ft bgs. There were no detections above in soil samples deeper than 40 ft bgs. Fewer detections occurred as depth increased and the detections also indicate a general trend of decreasing concentration with depth.

4.1 QA/QC Samples

A QA/QC program was implemented that included testing of blank samples (equipment, field, and laboratory method blanks), field duplicates, and MS/MSD duplicates. PFAS were not detected in field QC samples (Equipment Blank, Field blank) above the RL, indicating unlikely potential for contamination in the field or en route to the laboratory. The QA/QC blank results are presented in Table 2 and the MS/MSD results are presented in Table 3.

4.2 Data Validation

The laboratory data were reviewed and validated by Geosyntec's in-house data validation specialists. The in-house data validation team qualified some of the laboratory reported

data based on technical and professional judgement due to one or more of the following conditions associated with the reported result:

- J – the result was considered as an estimated value due to one or more of the following:
    - MS/MSD recovery(ies) or relative percent difference (RPD) was outside laboratory specified criteria; or
    - Field duplicate RPD limits were exceeded
- J- – the result was considered as an estimated value with a low bias due to the following:
    - Isotope dilution analyte(s) outside acceptance limits with low recovery(ies)
- UJ – the results were not detected above the RL, however, the RL is considered an estimated value due to:
    - Laboratory control sample (LCS) recovery(ies) were outside acceptance limits;
    - Field duplicate RPD limits were exceeded; and/or
    - Isotope dilution analyte(s) outside acceptance limits with low recovery(ies)

Overall the data are acceptable for use in supporting data quality objectives. Data should be used within the limitations of the applied qualifications.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This Report presents the results of the soil investigation that was performed pursuant to the LARWQCB-approved Work Plan, the applicable conditions in the Letter, and the additions to the Work Plan described in Section 1.1. This soil investigation, testing results, and reporting fulfill the requirements of the Order.

PFAS were detected in some of the soil samples collected at the Airport, as shown in Table 1. The PFAS results are summarized as follows:

- PFAS was variably detected in surface and shallow soil samples, however, was not detected below 15 ft bgs at the following locations: the unpaved area near the T-Hangars (SB-1), the unpaved former B-6 property (SB-2), the SW 1455 incident area (SB-4), and the approximate center of the Former Civil Air Patrol Fire Pit (SB-6).
- PFAS concentrations decreased with depth and PFAS was not detected at the termination depth of 50 ft bgs at the approximate center of the Former Bunker Simulated Gasoline Fire Pit (SB-7). PFAS was not detected below a depth of 40 ft bgs.
- PFAS concentrations decreased with depth but were detected through the soil column down to the termination depth at the following locations: the unpaved dirt lot area north of the Delta Ramp (SB-3) and the 1,500-gallon AFFF AST at the Fuel Farm area (SB-5).

As previously discussed, there are no California-specific regulatory or guidance values for PFAS in soil. Additionally, the PFAS detections generally show a decreasing trend with depth, and groundwater in this area is relatively deep (approximately 230 to 290 ft bgs).

5.2 Recommendations

The nature and occurrence of PFAS chemicals in soils at potential PFAS source areas have been characterized in compliance with, and fulfillment of, the requirements of the Order. Additionally, it should be noted that the previously submitted GW Work Plan is pending LARWQCB approval. Upon approval for the previously submitted GW Work Plan , groundwater sampling will be conducted to evaluate the potential presence of PFAS in groundwater in existing monitoring wells on and in the vicinity of the Airport. Based on the findings and conclusions presented above and pending implementation of the GW Work Plan, Geosyntec recommends no additional investigations or sampling of soils at this time.

6. REFERENCES

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TABLES

TABLE 1
Soil PFAS Results
Hollywood Burbank Airport
Page 1 of 3

Location	Sample Date	Depth (ft bgs)	4:2 Fluorotelomersulfonic acid (FTS)	6:2 FTS	8:2 FTS	N-ethylperfluorooctanesulfonamido-acetic acid (NEtFOSAA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
SB-1	12/10/2019	1	ND<2.1	390	4.4	2.9 J-	ND<2.1	14	ND<0.62	ND<0.62	34	13	77	ND<0.62	17	6.4	ND<3.1	96
		5	ND<1.9	ND<1.9	ND<2.9	ND<1.9 UJ	ND<1.9	ND<1.9	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<2.9	ND<0.57
		10	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	0.95	0.82	9.9	ND<0.63	ND<0.63	ND<0.63	ND<3.2	13
		15	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		20	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<3.2	ND<0.64
		25	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<3.2	ND<0.64
		25 (Duplicate)	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61
		30	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		40	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		50	ND<2.4	ND<2.4	ND<3.6	ND<2.4	ND<2.4	ND<2.4	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<3.6	ND<0.72
SB-2	12	1	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	1.9	3.1	ND<0.64	ND<0.64	2.3	ND<0.64	ND<3.2	ND<0.64
		5	ND<2.0	ND<2.0	ND<3.1	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	1.2	ND<0.61	ND<0.61	ND<0.61	ND<3.1	1.3
		10	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		15	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		15 (Duplicate)	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61
		20	ND<2.0	ND<2.0	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<2.9	ND<0.59
		25	ND<2.0	ND<2.0	ND<3.1	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.1	ND<0.61
		25 (Duplicate)	ND<1.9	ND<1.9	ND<2.8	ND<1.9	ND<1.9	ND<1.9	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<2.8	ND<0.57
		30	ND<1.9	ND<1.9	ND<2.8	ND<1.9	ND<1.9	ND<1.9	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<2.8	ND<0.57
		40	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<3.1	ND<0.63
		48	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		1	ND<2.1	160	160	ND<2.1	ND<2.1	2.2 J	3.6	1.8	18 J	48 J	19	5	130	17 J	ND<3.2	15
		5	ND<2.0	240	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	4.6	3.4	2.6	ND<0.59	ND<0.59	7.1	ND<2.9	3.6
		5 (Duplicate)	ND<2.0	250	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	6.2	3.7	3.3	ND<0.61	ND<0.61	7.8	ND<3.0	4.7
		10	ND<2.0	250	ND<3.0	ND<2.0	ND<2.0	2.4	ND<0.60	ND<0.60	6.8	3.3	5.4	ND<0.60	ND<0.60	7.2	ND<3.0	7.3
		15	ND<1.9	100	ND<2.8	ND<1.9	ND<1.9	2.1	ND<0.57	ND<0.57	6.7	2	4.7	ND<0.57	ND<0.57	2.3	ND<2.8	6
		21	ND<2.0	88	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	4.1	4.3	2	ND<0.59	ND<0.59	1.9	ND<2.9	2.4
		25	ND<1.9	63	ND<2.8	ND<1.9	ND<1.9	ND<1.9	ND<0.56	ND<0.56	2.8	1.9	1.7	ND<0.56	ND<0.56	0.99	ND<2.8	1.8
		25 (Duplicate)	ND<2.0	77	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	3.8	2.5	2.1	ND<0.59	ND<0.59	1.2	ND<2.9	2.1
		30	ND<2.0	47	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	3.2	2.3	2.2	ND<0.59	ND<0.59	ND<0.59	ND<3.0	2.2
		40	ND<1.9	32	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.57	ND<0.57	2.1	ND<0.57	2.4	ND<0.57	ND<0.57	ND<0.57	ND<2.9	2.8
		48	ND<2.0	50	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	2.6	ND<0.60	4.5	ND<0.60	ND<0.60	ND<0.60	ND<3.0	4.1

TABLE 1
Soil PFAS Results
Hollywood Burbank Airport
Page 2 of 3

Location	Sample Date	Depth (ft bgs)	4:2 Fluorotelomersulfonic acid (FTS)	6:2 FTS	8:2 FTS	N-ethylperfluorooctanesulfonamido-acetic acid (NEtFOSAA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
SB-4	12/9/2019	1	ND<2.2	ND<2.2	ND<3.3	ND<2.2	ND<2.2	ND<2.2	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<3.3	ND<0.66
		5	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	1.7	ND<0.63	ND<3.1	ND<0.63
		10	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	0.69	ND<0.64	ND<3.2	ND<0.64
		15	ND<2.2	ND<2.2	ND<3.2	ND<2.2	ND<2.2	ND<2.2	ND<0.65	ND<0.65	ND<0.65	ND<0.65	ND<0.65	ND<0.65	0.79	ND<0.65	ND<3.2	ND<0.65
		20	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<3.1	ND<0.63
		25	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		30	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		40	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		50	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
SB-5	12/9/2019	1	ND<2.1	12	15	ND<2.1	ND<2.1	2.9	ND<0.63	ND<0.63	3.9	4.3	8	0.71	4.9	2.2	ND<3.1	15
		5	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	2.2	0.96	4.7	ND<0.61	0.75	ND<0.61	ND<3.0	5.9
		10	ND<2.0	ND<2.0	ND<3.0	ND<2.0	3	5.9	ND<0.59	ND<0.59	12	2.3	38	ND<0.59	ND<0.59	ND<0.59	3.9	35
		15	ND<2.1	15 J	ND<3.1	ND<2.1	4 J	8.2 J	ND<0.62	ND<0.62	5.9 J	2.1 J	25	ND<0.62	ND<0.62	ND<0.62	ND<3.1	38
		15 (Duplicate)	ND<1.9	26 J	ND<2.8	ND<1.9	2.5 J	5.3 J	ND<0.57	ND<0.57	11 J	4.7 J	24	ND<0.57	ND<0.57	1.3	ND<2.8	29
		20	ND<2.0	4.5	ND<3.0	ND<2.0	3.7	6.4	ND<0.61	ND<0.61	2	ND<0.61	14	ND<0.61	ND<0.61	ND<0.61	ND<3.0	23
		25	3	25	ND<2.9	ND<1.9	23	14	ND<0.58	ND<0.58	7.1	3.5	50	ND<0.58	ND<0.58	1.1	4.7	46
		30	ND<1.9	ND<1.9	ND<2.8	ND<1.9	6.6	7	ND<0.57	ND<0.57	1.9	ND<0.57	21	ND<0.57	ND<0.57	ND<0.57	ND<2.8	26
		40	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	3	ND<0.62	ND<0.62	1.4	ND<0.62	13	ND<0.62	ND<0.62	ND<0.62	ND<3.1	16
		44	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	4.7	ND<0.60	ND<0.60	ND<0.60	ND<3.0	6.7
SB-6		1	ND<2.2	ND<2.2	ND<3.3	ND<2.2	ND<2.2	ND<2.2	ND<0.67	ND<0.67	ND<0.67	3.3	ND<0.67	ND<0.67	ND<0.67	2.5	ND<3.3	ND<0.67
		5	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61
		10	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		15	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	1.5	ND<0.63	ND<0.63	ND<0.63	ND<3.1	0.75
		20	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		25	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<3.1	ND<0.62
		30	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		36	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61

TABLE 1
Soil PFAS Results
Hollywood Burbank Airport

Location	Sample Date	Depth (ft bgs)	4:2 fluorotelomersulfonic acid (FTS)	6:2 FTS	8:2 FTS	N-ethylperfluorooctanesulfonamido-acetic acid (NEtFOSAA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
SB-7	12/11/2019	1	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	1.3	ND<0.63	ND<0.63	7.3	ND<0.63	ND<3.1	0.67 J
		1 (Duplicate)	ND<2.0	ND<2.0	ND<3.1	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	1.2	ND<0.61	ND<0.61	7.1	ND<0.61	ND<3.1	ND<0.61 UJ
		5	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	15	ND<0.60	ND<0.60	ND<0.60	4.2	ND<3.0	0.78
		10	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		15	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	0.78 J	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		15 (Duplicate)	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59 UJ	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		20	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		25	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	0.95	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		30	ND<2.2	ND<2.2	ND<3.2	ND<2.2	ND<2.2	ND<2.2	ND<0.65	ND<0.65	ND<0.65	1.7	ND<0.65	ND<0.65	ND<0.65	ND<0.65	ND<3.2	ND<0.65
		40	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	1.7	ND<0.60	ND<0.60	1.4	0.63	ND<3.0	ND<0.60
		50	ND<2.2	ND<2.2	ND<3.3	ND<2.2	ND<2.2	ND<2.2	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<3.3	ND<0.66

Notes
1 Per- and Polyfluoroalkyl Substances (PFAS) were analyzed using modified USEPA Method 537
2 Non-Detects (ND) are reported as less than (<) the laboratory reporting limit (RL)
3 Units are in nanogram per gram (ng/g)
4 Results for PFAS compounds with detections are presented herein
5 ft bgs = feet below ground surface
6 The values reported herein are validated and appropriate qualifiers are applied as described below
J = result value is estimated because the matrix spike/matrix spike duplicate (MS/MSD) recovery was outside acceptance limits or the field duplicate relative percent difference (RPD) limit was exceeded
J- = the result is considered estimated with a low bias due to isotope dilution analyte(s) outside acceptance limits with low recovery(ies)
UJ = the non-detect result was considered estimated less than the RL due to laboratory control sample (LCS) recoveries outside acceptance limits; field duplicate RPD limits exceeded; and/or isotope dilution analyte(s) outside acceptance limits with low recovery(ies)

TABLE 2
QA/QC Blank Results
Hollywood Burbank Airport

Analyte	Equipment Blank (EB)				Field Blank (FB)			
	12/9/2019	12/10/2019	12/11/2019	12/12/2019	12/9/2019	12/10/2019	12/11/2019	12/12/2019
4:2 FTS	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
6:2 FTS	ND<4.3	ND<4.2	ND<4.2	ND<4.0	ND<4.1	ND<4.1	ND<4.1	ND<3.9
8:2 FTS	ND<2.6	ND<2.5	ND<2.5	ND<2.4	ND<2.4	ND<2.5	ND<2.4	ND<2.4
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND<2.6	ND<2.5	ND<2.5	ND<2.4	ND<2.4	ND<2.5	ND<2.4	ND<2.4
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorobutanesulfonic acid (PFBS)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorobutanoic acid (PFBA)	ND<4.3 UJ	ND<4.2 UJ	ND<4.2 UJ	ND<4.0 UJ	ND<4.1 UJ	ND<4.1 UJ	ND<4.1 UJ	ND<3.9 UJ
Perfluorodecanesulfonic acid (PFDS)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorodecanoic acid (PFDA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorododecanoic acid (PFDoA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluoroheptanesulfonic Acid (PFHpS)	ND<1.7 UJ	ND<1.7 UJ	ND<1.7 UJ	ND<1.6 UJ	ND<1.6 UJ	ND<1.6 UJ	ND<1.6 UJ	ND<1.6 UJ
Perfluoroheptanoic acid (PFHpA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorohexanesulfonic acid (PFHxS)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorohexanoic acid (PFHxA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorononanoic acid (PFNA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorooctanesulfonamide (FOSA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorooctanesulfonic acid (PFOS)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorooctanoic acid (PFOA)	ND<1.7 UJ	ND<1.7 UJ	ND<1.7 UJ	ND<1.6 UJ	ND<1.6 UJ	ND<1.6 UJ	ND<1.6 UJ	ND<1.6 UJ
Perfluoropentanesulfonic acid (PFPeS)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluoropentanoic acid (PFPeA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorotetradecanoic acid (PFTeA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluorotridecanoic acid (PFTriA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6
Perfluoroundecanoic acid (PFUnA)	ND<1.7	ND<1.7	ND<1.7	ND<1.6	ND<1.6	ND<1.6	ND<1.6	ND<1.6

Notes:

1. Per- and Polyfluoroalkyl Substances (PFAS) were analyzed using modified USEPA Method 537.
2. Non-Detects (ND) are reported as less than (<) the laboratory reporting limit (RL).
3. Units are in nanogram per liter (ng/L).
4. The values reported herein are validated and appropriate qualifiers are applied as described below:

UJ = the non-detect result was considered estimated less than the RL due to laboratory control sample (LCS) recoveries outside acceptance limits.

TABLE 3
QA/QC MS/MSD Results
Hollywood Burbank Airport
Page 1 of 1

Analyte	SB-1					SB-2					SB-3					SB-3					MS/MSD Limits	RPD Max
	30 ft bgs					10 ft bgs					1 ft bgs					10 ft bgs						
	12/10/2019					12/10/2019					12/11/2019					12/11/2019						
	MS	MS % Rec	MSD	MSD % Rec	RPD	MS	MS % Rec	MSD	MSD % Rec	RPD	MS	MS % Rec	MSD	MSD % Rec	RPD	MS	MS % Rec	MSD	MSD % Rec	RPD		
4:2 FTS	24	99	22	89	11	21	89	21	88	1	20	84	20	88	0	20	89	22	92	7	63-132	30
6:2 FTS	22	90	24	97	8	23	95	21	87	9	130 E	-152 (2)	190 E	88 (2)	38*	210 E	-181 (2)	130 E	-510 (2)	48*	51-156	30
8:2 FTS	25	100	25	98	2	22	92	22	89	3	200 E	147 (2)	210 E	196 (2)	5	16	70	21	88	28	61-142	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25	97	25	96	1	27	109	26	103	6	24	90	24	96	1	24	98	27	108	14	60-143	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	30	115	26	100	14	25	100	26	102	2	23	88	23	93	1	22	91	24	96	11	56-142	30
Perfluorobutanesulfonic acid (PFBS)	23	98	23	98	0	22	101	22	97	4	20	82	22	96	10	20	94	21	95	6	80-134	30
Perfluorobutanoic acid (PFBA)	24	91	24	92	2	23	91	23	91	0	22	77*	23	86	5	23	84	24	84	5	79-146	30
Perfluorodecanesulfonic acid (PFDS)	27	108	26	103	5	27	110	27	110	0	23	91	24	100	4	20	87	20	83	0	59-142	30
Perfluorodecanoic acid (PFDA)	25	96	26	98	1	25	99	25	98	2	27	88	30	105	10	22	92	25	100	13	79-136	30
Perfluorododecanoic acid (PFDoA)	26	98	26	99	2	25	101	24	95	6	24	93	24	98	0	22	89	24	96	12	76-142	30
Perfluoroheptanesulfonic Acid (PFHpS)	25	99	24	96	3	23	97	22	94	4	21	78	23	88	6	21	89	22	92	7	75-131	30
Perfluoroheptanoic acid (PFHpA)	28	105	27	103	2	27	108	28	110	2	39	80*	40	90	3	31	98	30	91	2	81-140	30
Perfluorohexanesulfonic acid (PFHxS)	24	96	24	94	2	23	99	23	98	1	46	-8*	61	54*	28	24	89	24	87	2	75-131	30
Perfluorohexanoic acid (PFHxA)	26	97	25	94	3	24	95	23	93	3	38	76	43	97	10	28	92	29	95	6	73-145	30
Perfluorononanoic acid (PFNA)	24	93	27	102	9	25	100	26	102	2	25	78	28	93	10	23	97	24	94	2	74-141	30
Perfluorooctanesulfonamide (FOSA)	24	90	25	96	7	22	87	24	96	11	22	83	21	85	3	21	89	21	84	0	66-128	30
Perfluorooctanesulfonic acid (PFOS)	24	93	24	94	1	23	96	22	92	4	110 E	-79 (2)	150 E	80 (2)	30	19	83	20	84	6	66-140	30
Perfluorooctanoic acid (PFOA)	25	94	26	97	3	24	95	23	92	3	38	79*	40	93	6	29	89	26	73*	11	80-140	30
Perfluoropentanesulfonic acid (PFPeS)	24	99	25	102	3	24	102	23	97	5	22	81	24	94	8	21	92	22	94	7	78-131	30
Perfluoropentanoic acid (PFPeA)	26	97	25	96	1	25	96	25	96	0	38	90	39	97	1	28	87	29	87	4	73-140	30
Perfluorotetradecanoic acid (PFTeA)	27	104	28	105	1	26	104	26	102	1	21	81	24	96	12	23	94	24	94	5	81-137	30
Perfluorotridecanoic acid (PFTriA)	26	100	25	96	4	24	97	24	96	1	25	94	24	99	1	23	96	27	106	14	75-147	30
Perfluoroundecanoic acid (PFUnA)	27	102	27	102	0	26	103	25	100	2	23	88	25	99	6	24	98	24	95	2	63-147	30

Notes:

(2) - The unspiked result was more than four times the spike added

*- Outside of specification

E - Concentration exceeds the calibration range

MS = matrix spike

MSD = matrix spike duplicate

RPD = relative percent difference

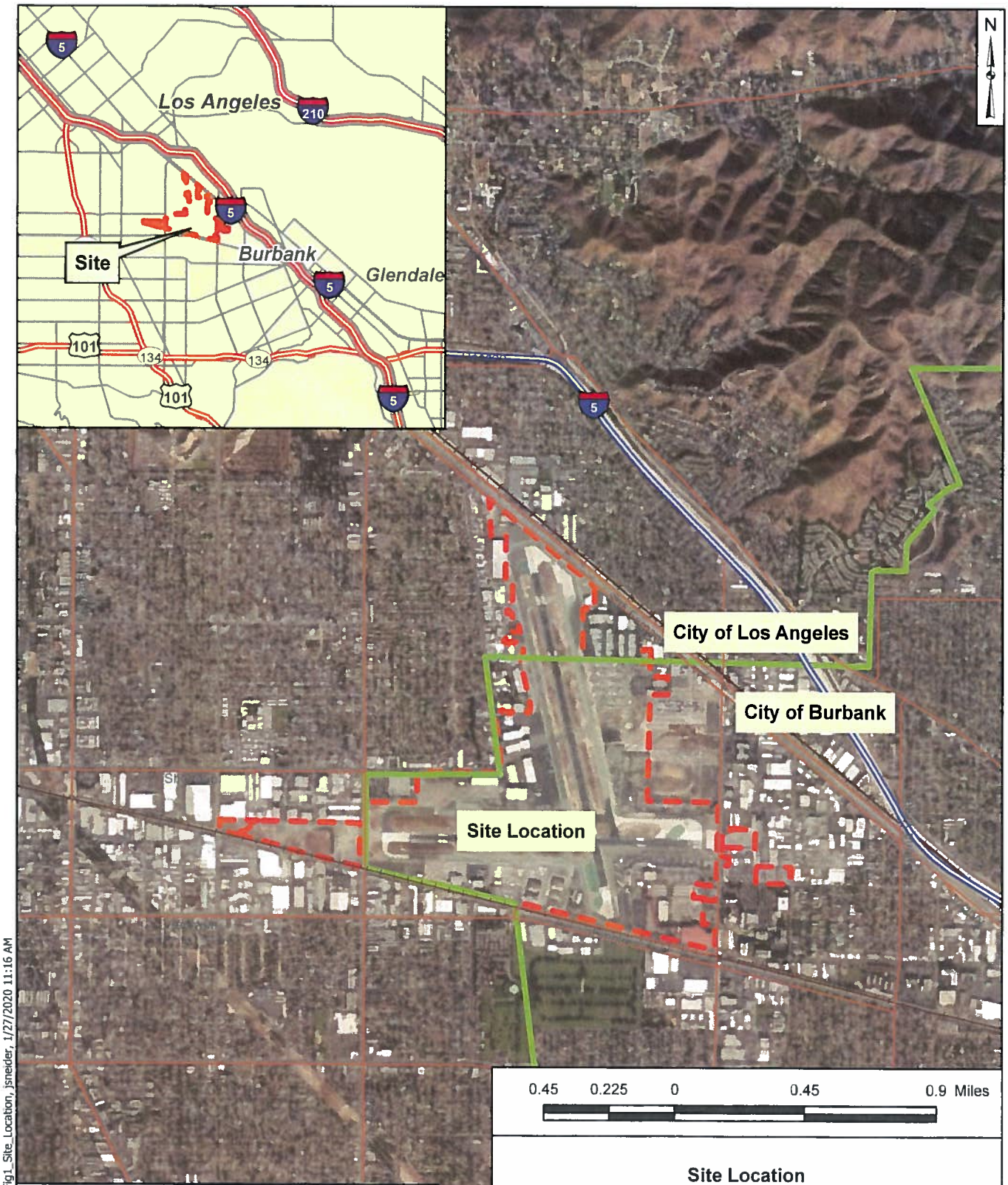
ft bgs = feet below ground surface

1 Per- and Polyfluoroalkyl Substances (PFAS) were analyzed using modified USEPA Method 537

2 Non-Detects (ND) are reported as less than (<) the laboratory reporting limit (RL)

3 Units are in nanogram per gram (ng/g)

FIGURES



Legend

City of Burbank/City of Los Angeles Boundary

Hollywood Burbank Airport Property Boundary

Note: Locations are approximate.

Site Location

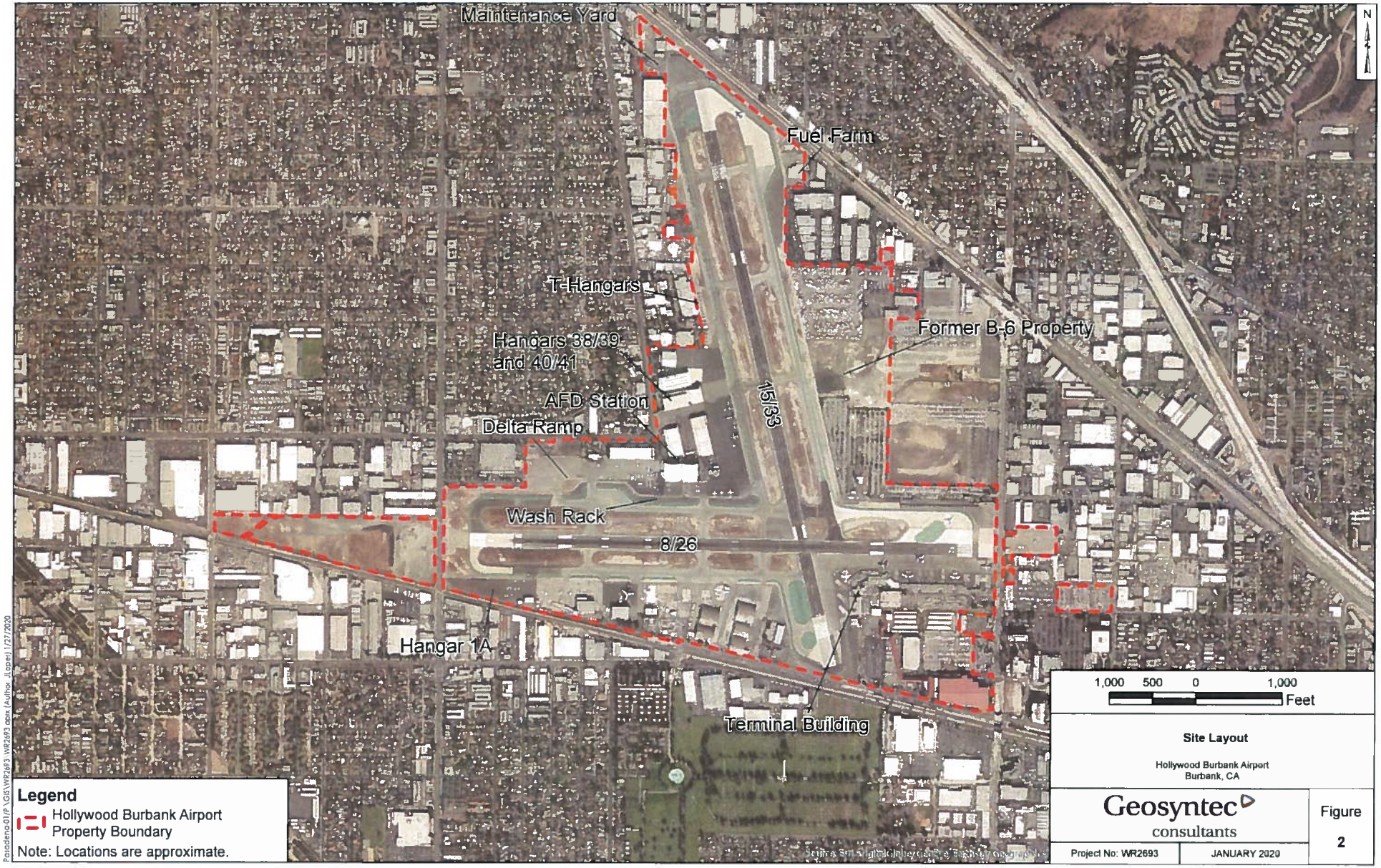
Hollywood Burbank Airport
2627 N Hollywood Way
Burbank, CA

Geosyntec consultants

Project No: WR2693 | JANUARY 2020

Figure 1

PAS P:\GIS\WR2693\WR2693.aprx, Fig1_Site_Location, jsneider, 1/27/2020 11:16 AM



Site Layout

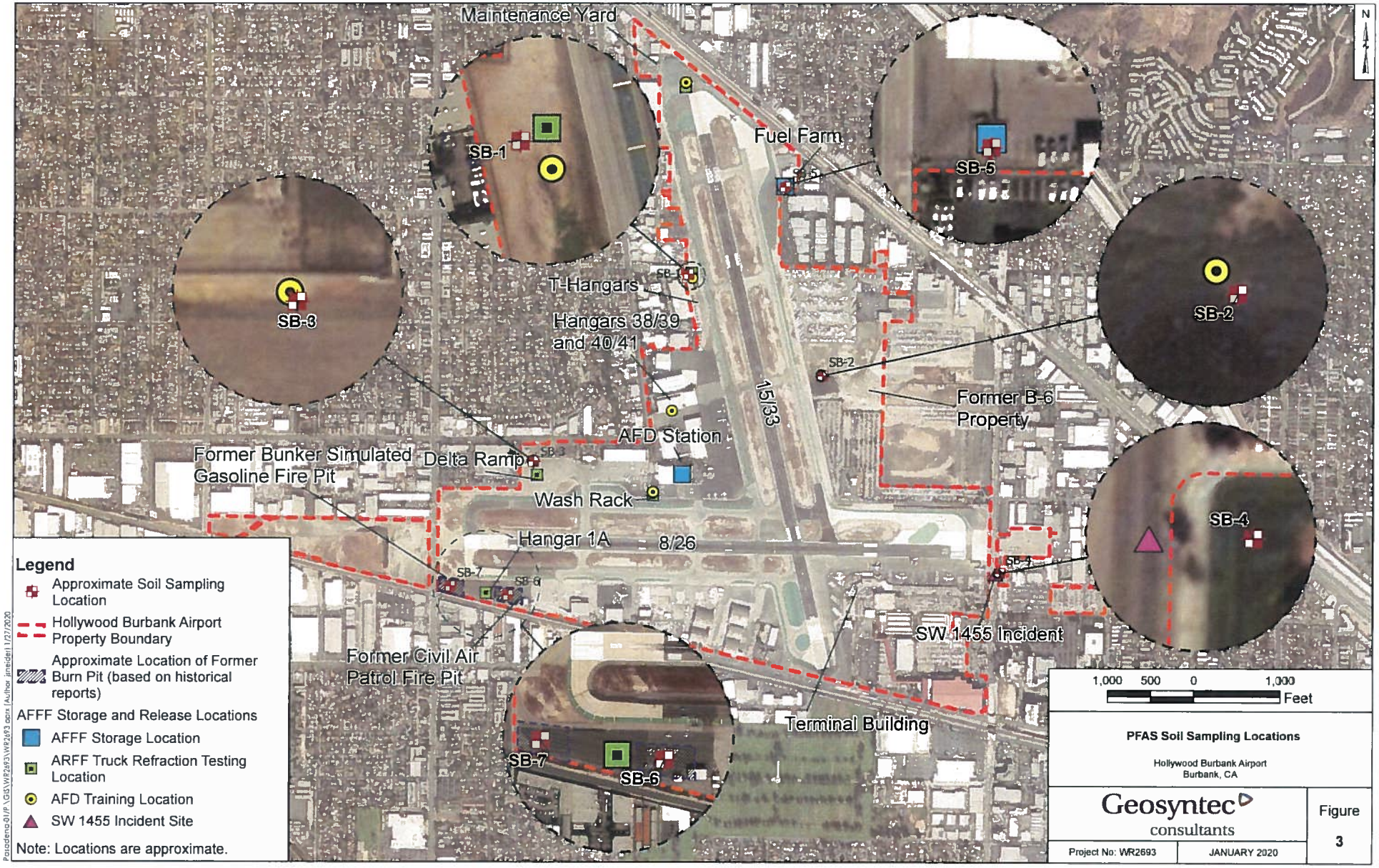
Hollywood Burbank Airport
Burbank, CA

Geosyntec consultants

Figure 2

Project No: WR2693 | JANUARY 2020

Pasadena-01/P:\GIS\WR2693\WR2693.aprx [Author: JLopez] 1/27/2020



PFAS Soil Sampling Locations

Hollywood Burbank Airport
Burbank, CA

Geosyntec consultants

Project No: WR2693 | JANUARY 2020

Figure 3

Pasadena-01/P:\GIS\WR2693\WR2693.aprx [Author: jineidel] 1/27/2020

APPENDIX A

LACDPH Permit

ENVIRONMENTAL HEALTH

Drinking Water Program

5050 Commerce Drive, Baldwin Park, CA 91706
Telephone: (626) 430-5420 • http://publichealth.lacounty.gov/eh/ep/dw/dw_main.htm

County of Los Angeles
Public Health

Work Plan Approval

WORK SITE ADDRESS	CITY	ZIP	EMAIL ADDRESS
2627 N Hollywood Way	Burbank	91505	jsneider@geosyntec.com

NOTICE:

- WORK PLAN APPROVALS ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- WORK PLAN APPROVALS ARE LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES NOT GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION APPROVALS, USE COVENANTS, ENCROACHMENT PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.

TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:

X	WORK PLAN APPROVED FOR: 7 Soil Borings/Exp. Holes SB-1 through SB-7	**PERMIT NUMBER:**	SR0206907	**DATE:**	12-4-2019

ADDITIONAL APPROVAL CONDITIONS:

- Work plan approval is issued for scope of work submitted to the Drinking Water Program. Any modifications to the scope of work will require additional work plan review.
- Ensure the boring/exploration hole is backfilled within 24 hours of boring construction.
- Ensure to backfill using a tremie pipe under pressure or equivalent equipment with approved cement grout, proceeding upward from the bottom of the boring/exploration hole.
- Ensure soil borings are sealed per California Well Standards 74-90
  - Cement grout mix ratio of 5-6 gallons of water per 94-pound bag of Portland cement.
  - Up to 6% of Bentonite may be added to the cement-based mix.
  - No hydrated Bentonite chips
- Borings/Exploration holes must comply with all applicable requirements published in the California Well Standards (Bulletins 74-81 and 74-90) and the Los Angeles County Code, Title 11.

APPROVED BY:

Belinda Larsen, REHS
21515 Vanowen St. Ste. 116
Canoga Park, Ca 91303
(818) 593-7308

5838

APPENDIX B

Boring Logs

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-1**		**SHEET 1 OF 3**
START DRILL DATE	Dec 10, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 10, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Clayey SAND (SC): dark yellowish-brown (10YR, 4/2); dry; fine to coarse sand, trace coarse gravel; (Tr,60,40)					SB-1-1					12:30	Hand auger to 5 ft bgs
5						SB-1-5					12:58	Begin drilling at 5 ft bgs
	At 7.5 ft bgs - dark gray (10YR, 4/1); moist											
10						SB-1-10					13:00	
	Sandy Lean CLAY (CL): very dark gray (10YR, 3/1); moist; fine to coarse sand; (0,40,60); medium plasticity											
	Clayey SAND (SC): dark gray (10YR, 4/1); moist; fine to coarse sand; (0,60,40)											
	Lean CLAY with SAND (CL): grayish-olive (10Y, 4/2); moist; fine to medium sand; (0,15,85); medium plasticity											
15	Well-graded SAND with CLAY (SW-SC): pale olive (10Y, 6/2); dry; mostly fine to coarse sand, trace coarse gravel; (Tr,90,10)					SB-1-15					13:03	
	Lean CLAY (CL): variegated medium bluish-gray (5B, 5/1) and yellow (2.5Y, 7/6); dry; few fine to medium sand; (0,10,90); medium plasticity											
	Well-graded SAND with CLAY (SW-SC): pale olive (10Y, 6/2); dry; mostly fine to coarse sand, trace coarse gravel; (Tr,10,90)											
	Clayey SAND (SC): dark gray (10YR, 4/1); moist; fine to coarse sand; (0,60,40)											
20												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'22"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'38"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-1**		**SHEET 2 OF 3**
START DRILL DATE	Dec 10, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 10, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Clayey SAND (SC): dark gray (10YR, 4/1); moist; fine to coarse sand; (0,60,40) (*continued*)					SB-1-20					13:08	
	At 22 ft bgs - cobble											
25	At 25 ft bgs - increasing sand content, few coarse gravel; (10,70,20)					SB-1-25					13:14	
	At 26.5 ft bgs - decreasing sand and gravel content; (5,60,35)											
30	Lean CLAY (CL): variegated medium bluish-gray (5B, 5/1) and yellow (2.5Y, 7/6); moist; few fine to medium sand; (0,10,90); medium plasticity					SB-1-30					13:28	
	Clayey SAND (SC): dark gray (10YR, 4/1); moist; fine to medium sand; (0,60,40)											
	At 33 ft bgs - increasing sand content; (0,70,30)											
35	At 35 ft bgs - decreasing sand content; (0,60,40)											
	Lean CLAY (CL): variegated medium bluish-gray (5B, 5/1) and yellow (2.5Y, 7/6) ; moist; few fine to medium sand; (0,10,90); medium plasticity											
40												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'22"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'38"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-1**		**SHEET 3 OF 3**
START DRILL DATE	Dec 10, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 10, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Clayey SAND (SC): dark gray (10YR, 4/1); moist; fine to medium sand; (0,60,40)					SB-1-40					13:25	
	Lean CLAY (CL): variegated medium bluish-gray (5B, 5/1) and yellow (2.5Y 7/6); moist; few fine to medium sand; (0,10,90); medium plasticity											
45	Clayey SAND (SC): olive gray (5Y, 3/2); moist; fine to coarse sand, few coarse gravel; (10,70,20)											
	Lean CLAY with SAND (CL): olive gray (5Y, 3/2); moist; little fine to coarse sand; (0,15,85); medium plasticity											
50	Lean CLAY (CL): variegated medium bluish-gray (5B, 5/1) and yellow (2.5Y, 7/6); moist; few fine to medium sand; (0,10,90); medium plasticity At 51.5 ft bgs - dark yellowish-orange (10YR, 6/6)					SB-1-50					13:59	
	Total Depth = 52 ft bgs			Groundwater not encountered during drilling								End drilling Borehole backfilled with cement-bentonite grout
55												
60												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'22"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'38"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-2**		**SHEET 1 OF 3**
START DRILL DATE	Dec 10, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 10, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Clayey SAND (SC): dark yellowish-brown (10YR, 4/2); moist; mostly fine to medium sand, trace coarse gravel; (Tr,60,40)					SB-2-1					08:06	Hand auger to 5 ft bgs
5	Well-graded SAND with GRAVEL (SW): moderate yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0)					SB-2-5					08:50	Begin drilling at 5 ft bgs
10	At 10.5 ft bgs - increasing coarse gravel content; (35,65,0) At 12 ft bgs - decreasing coarse gravel content; (20,80,0)					SB-2-10					08:53	
15	Well-graded SAND (SW): moderate yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, few coarse gravel; (10,90,0)					SB-2-15					08:56	
20	Well-graded SAND with GRAVEL (SW): moderate yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0) At 19 ft bgs - 1-inch black streak, 1 inch deep spanning the acetate liner											

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'11"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'20"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-2**		**SHEET 2 OF 3**
START DRILL DATE	Dec 10, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 10, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, little coarse gravel; (30,70,0) (*continued*)					SB-2-20					09:08	
25						SB-2-25					09:20	From 24-28 ft bgs: < 50% recovery
	At 26 ft bgs - decreasing coarse gravel content; (20,80,0)											
	Well-graded SAND with SILT (SW-SM): yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, few coarse gravel; (10,80,10)											
	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/4); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0)											
30						SB-2-30					09:33	
	At 33 ft bgs - yellowish-brown (10YR, 5/4)											
35	At 35 ft bgs - pale yellowish-brown (10YR, 6/4); cobble											
	Clayey SAND (SC/CL): yellowish-brown (10YR, 5/4); dry; fine to medium sand; (0,70,30)											
	Sandy CLAY (CL): dark yellowish-brown (10YR, 4/4); moist; fine to coarse sand; (0,30,70); medium plasticity											
40	Well-graded SAND with GRAVEL (SW):											

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'11"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'20"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-2**		**SHEET 3 OF 3**
START DRILL DATE	Dec 10, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 10, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	pale yellowish-brown (10YR, 6/2); dry; mostly fine to coarse sand, some coarse gravel; (40,60,0)					SB-2-40					09:47	
	Clayey SAND (SC): moderate yellowish-brown (10YR, 5/4); dry; fine to medium sand; (0,55,45)											
	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/2); dry; fine to coarse sand, some coarse gravel; (40,60,0)											
45												
	Total Depth = 48 ft bgs (met with refusal)			Groundwater not encountered during drilling		SB-2-48					10:08	End drilling Borehole backfilled with cement-bentonite grout
50												
55												
60												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'11"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'20"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants

65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-3**		**SHEET 1 OF 3**
START DRILL DATE	Dec 11, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 11, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Clayey SAND (SC/CL): dark yellowish-brown (10YR, 3/4); moist; mostly fine to coarse sand, few coarse gravel; (5,50,45)					SB-3-1					07:50	Hand auger to 5 ft bgs
5	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, some coarse gravel; (30,70,0)					SB-3-5					08:35	Begin drilling at 5 ft bgs
10						SB-3-10					08:38	
	At 12 ft bgs - dry											
15						SB-3-15					08:42	From 12-16 ft bgs: < 50% recovery
	No recovery											From 16-20 ft bgs: no recovery
20												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'02"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'59"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants

65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-3**		**SHEET 2 OF 3**
START DRILL DATE	Dec 11, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 11, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, some coarse gravel; (30,70,0)											
	Well-graded SAND (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel; (10,90,0)					SB-3-21					08:56	
	Clayey SAND (SC): yellowish-brown (10YR, 5/4); moist; fine to coarse sand; (0,60,40)											
25	Poorly-graded SAND with CLAY (SP-SM): pale yellowish-brown (10YR, 6/2); moist; mostly fine to medium sand, few fines; (0,90,10)					SB-3-25					09:01	
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, some coarse gravel; (30,70,0)											
30						SB-3-30					09:08	
35												
	Clayey SAND (SC): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel; (5,75,20)											
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, some coarse gravel; (30,70,0)											
40												

CONTRACTOR BC2 Environmental
EQUIPMENT Geoprobe 6600
DRILL MTHD Direct Push
DIAMETER 2-inch
LOGGER J. Loper

LATITUDE 34°12'02"
LONGITUDE 118°21'59"
COORDINATE SYSTEM:
REVIEWER G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-3**		**SHEET 3 OF 3**
START DRILL DATE	Dec 11, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 11, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, some coarse gravel; (30,70,0) (*continued*)					SB-3-40					09:21	
45												From 44-48 ft bgs: ~ 10% recovery
	Total Depth = 48 ft bgs (met with refusal)			Groundwater not encountered during drilling		SB-3-48					09:49	End drilling Borehole backfilled with cement-bentonite grout
50												
55												
60												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'02"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'59"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants

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Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-4**		**SHEET 1 OF 3**
START DRILL DATE	Dec 9, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 9, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with CLAY (SW-SC): dark yellowish-brown (10YR, 3/4); moist; mostly fine to coarse sand, few coarse gravel; (5,85,10)					SB-4-1					08:54	Hand auger to 5 ft bgs
5	Clayey SAND (SC): dusky yellowish-brown (10YR, 2/2); moist; fine to medium sand; (0,70,30)					SB-4-5					09:12	Begin drilling at 5 ft bgs
	Poorly-graded GRAVEL with SAND (GP): yellowish-brown (10YR, 5/4); moist; mostly coarse gravel; (70,30,0)											
10	Clayey SAND (SC): dusky yellowish-brown (10YR, 2/2); moist; fine to medium sand; (0,70,30)					SB-4-10					09:14	
15	Well-graded SAND (SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, few fines and coarse gravel; (10,85,5)					SB-4-15					09:16	
20												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'49"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°20'55"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
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Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-4**		**SHEET 2 OF 3**
START DRILL DATE	Dec 9, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 9, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/2); moist; mostly fine to coarse sand, little coarse gravel; (20,80,0)					SB-4-20					09:18	
25						SB-4-25					09:30	
	Clayey SAND (SC): dusky yellowish-brown (10YR, 2/2); moist; fine to medium sand; (0,70,30)											
30	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/2); moist; mostly fine to coarse sand, little coarse gravel; (20,80,0) At 30 ft bgs - dark yellowish-brown (10YR, 4/4)					SB-4-30					09:34	
	Clayey SAND (SC): dusky yellowish-brown (10YR, 2/2); moist; fine to medium sand; (0,70,30)											
35	Poorly-graded GRAVEL (GP): very pale brown (10YR, 8/2); dry; mostly coarse gravel, few medium to coarse sand; (90,10,0)											
	Well-graded SAND (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel; (10,90,0)											
40												

CONTRACTOR BC2 Environmental
EQUIPMENT Geoprobe 6600
DRILL MTHD Direct Push
DIAMETER 2-inch
LOGGER J. Loper
REVIEWER G. Wharton, P.G.

LATITUDE 34°11'49"
LONGITUDE 118°20'55"
COORDINATE SYSTEM:

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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65 N. Raymond Avenue
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Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-4**		**SHEET 3 OF 3**
START DRILL DATE	Dec 9, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 9, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, little coarse gravel; (20,80,0)					SB-4-40					09:46	
	Poorly-graded GRAVEL with SAND (GP): dark yellowish-brown (10YR, 4/4); dry; mostly coarse gravel, some fine to coarse sand; (55,45,0)											
	Well-graded SAND with GRAVEL (SW): moderate yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, little coarse gravel; (20,80,0)											1-inch streak of black sand at 43 ft bgs
45	Well-graded SAND (SW): pale yellowish-brown (10YR, 6/2); moist; mostly fine to coarse sand, few coarse gravel; (10,90,0) At 45 ft bgs - dark yellowish-brown (10YR, 4/4); dry											2.5-inch streak of black and white sand at 45 ft bgs
50	Poorly-graded GRAVEL with SAND (GP): pale yellowish-brown (10YR, 6/2); mostly coarse gravel, some fine to coarse sand; (60,40,0)					SB-4-50					10:12	
	Total Depth = 51 ft bgs			Groundwater not encountered during drilling								End drilling Borehole backfilled with cement-bentonite grout
55												
60												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'49"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°20'55"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants

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Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-5**		**SHEET 1 OF 3**
START DRILL DATE	Dec 9, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 9, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Clayey SAND (SC): dark yellowish-brown (10YR, 3/4); dry; mostly fine to coarse sand, few coarse gravel; (5,65,30)					SB-5-1					12:38	Hand auger to 5 ft bgs
5						SB-5-5					13:20	Begin drilling at 5 ft bgs
	Well-graded SAND (SW): yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, few coarse gravel; (10,90,0)											
	Well-graded SAND with GRAVEL (SW): light yellowish-brown (10YR, 6/4); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0)											
	Well-graded SAND (SW): pale yellowish-brown (10YR, 6/2); dry; mostly fine to coarse sand, few coarse gravel; (5,95,0)											
10						SB-5-10					13:26	
	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/2); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0)											
15						SB-5-15					13:30	
20												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'33"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'25"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants

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Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-5**		**SHEET 2 OF 3**
START DRILL DATE	Dec 9, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 9, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/2); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0) (*continued*)					SB-5-20					13:33	
	At 23.5 ft bgs - 1.5-inch light gray streak											
25	Clayey SAND (SC): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel; (5,75,20)					SB-5-25					13:44	
	Well-graded SAND with GRAVEL (SW): pale yellowish-brown (10YR, 6/2); dry; mostly fine to coarse sand, little coarse gravel; (30,70,0)											
	At 28.5 ft bgs - yellowish-brown (10YR, 5/4)											
30	At 30 ft bgs - pale yellowish-brown (10YR, 6/2); decreasing coarse gravel content; (20,80,0)					SB-5-30					13:51	
35												
	At 37 ft bgs - yellowish-brown (10YR, 5/4)											
40												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'33"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'25"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-5**		**SHEET 3 OF 3**
START DRILL DATE	Dec 9, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 9, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with GRAVEL (SW): yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, little coarse gravel; (20,80,0) (*continued*)					SB-5-40					14:08	
	Well-graded SAND (SW): yellowish-brown (10YR, 5/4); dry; mostly fine to coarse sand, few coarse gravel; (10,90,0)											
	Total Depth = 44 ft bgs (met with refusal)			Groundwater not encountered during drilling		SB-5-44					14:41	End drilling Borehole backfilled with cement-bentonite grout
45												
50												
55												
60												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°12'33"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°21'25"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-6**		**SHEET 1 OF 2**
START DRILL DATE	Dec 12, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 12, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); moist; fine to medium sand; (0,70,30)					SB-6-1					07:40	Hand auger to 5 ft bgs
5	Well-graded SAND (SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, few coarse gravel; (10,90,0)					SB-6-5					07:52	Begin drilling at 5 ft bgs
	Well-graded SAND with GRAVEL (SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, some coarse gravel, trace cobbles; (30,70,0)											
10						SB-6-10					07:57	
	Clayey SAND (SC): yellowish-brown (10YR, 5/4); moist; fine to coarse sand; (0,85,15)											
	At 14 ft bgs - increasing clay content; (0,75,25)											
15						SB-6-15					08:01	
	Well-graded SAND with GRAVEL (SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, little coarse gravel; (15,85,0)											
20												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'47"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°22'10"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface
2) Two step-out boreholes performed due to refusal at 28 ft bgs; SB-6A (refusal at 27.5 ft bgs) approximately 1-ft north of SB-6 and SB-6B (refusal at 36 ft bgs) approximately 2.5-ft east of SB-6

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-6**		**SHEET 2 OF 2**
START DRILL DATE	Dec 12, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 12, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Well-graded SAND with GRAVEL(SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, little coarse gravel; (15,85,0) (*continued*)					SB-6-20					08:20	
	Clayey SAND (SC): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel; (5,70,25)											
	Well-graded SAND with CLAY (SW-SC): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel, (5,85,10)											
25						SB-6-25					08:53	
	SB-6 refusal at 28 ft bgs and SB-6A refusal at 27.5 ft bgs; log continues at SB-6B											SB-6 refusal at 28 ft bgs: Step out boreholes SB-6A (1-ft north of SB-6) and SB-6B (2.5-ft east of SB-6)
	Well-graded SAND with GRAVEL (SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, some coarse gravel; (30,70,0)											
30						SB-6-30					10:12	
35						SB-6-36						
	Total Depth = SB-6: 28 ft bgs (met with refusal) SB-6A: 27.5 ft bgs (met with refusal) SB-6B: 36 ft bgs (met with refusal) Groundwater not encountered during drilling Boreholes backfilled with cement-bentonite grout			Groundwater not encountered during drilling							10:21	End drilling Boreholes backfilled with cement-bentonite grout
40												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'47"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°22'10"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface
2) Two step-out boreholes performed due to refusal at 28 ft bgs; SB-6A (refusal at 27.5 ft bgs) approximately 1-ft north of SB-6 and SB-6B (refusal at 36 ft bgs) approximately 2.5-ft east of SB-6

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-7**		**SHEET 1 OF 3**
START DRILL DATE	Dec 11, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 11, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); dry; fine to medium sand; (0,70,30)					SB-7-1					11:51	Hand auger to 5 ft bgs
5						SB-7-5					12:00	Begin drilling at 5 ft bgs
10	Well-graded SAND (SW): light yellowish-brown (10YR, 6/4); dry; mostly fine to coarse sand, few coarse gravel; (10,90,0)					SB-7-10					12:06	
15	Clayey SAND (SC): dark yellowish-brown (10YR, 4/2); moist; fine to medium sand; (0,70,30)					SB-7-15					12:11	
20	Well-graded SAND with GRAVEL (SW):light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, little coarse gravel; (25,75,0)											

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'47"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°22'03"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-7**		**SHEET 2 OF 3**
START DRILL DATE	Dec 11, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 11, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) USCS Name (3) Color (4) Moisture (5) Percent Grain Size (6) Plasticity (7) Density/Consistency (8) Structure (9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	Well-graded SAND with GRAVEL (SW) :light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, little coarse gravel; (25,75,0) (*continued*)					SB-7-20					12:14	
25	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); moist; fine to medium sand; (0,60,40)					SB-7-25					12:56	
	Poorly-graded SAND with CLAY (SP-SC): light yellowish-brown (10YR, 6/4); dry; fine to medium sand; (0,90,10)											
30	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); moist; fine to medium sand; (0,60,40)					SB-7-30					13:00	
	Well-graded SAND with GRAVEL (SW): light yellowish-brown (10YR, 6/4); dry; mostly fine to coarse sand, some coarse gravel, trace cobbles; (30,70,0)											
35	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); moist; mostly fine to coarse sand, few coarse gravel; (10,60,30)											
40												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'47"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°22'03"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
65 N. Raymond Avenue
Suite 200
Pasadena, CA 91101
Tel: (626) 449-0664

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING	**SB-7**		**SHEET 3 OF 3**
START DRILL DATE	Dec 11, 19	**ELEVATION DATA:**	
FINISH DRILL DATE	Dec 11, 19	**GROUND SURF. (Ft)**	
LOCATION	Hollywood Burbank Airport	**TOP OF CASING (Ft)**	
PROJECT	BUR PFAS Investigation	**DATUM**	
NUMBER	WR2693		

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem. 2) USCS Name 3) Color 4) Moisture 5) Percent Grain Size 6) Plasticity 7) Density/Consistency 8) Structure 9) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring
	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); moist; mostly fine to coarse sand, few coarse gravel; (10,60,30) (*continued*)					SB-7-40					13:58	
	Well-graded SAND with GRAVEL (SW): light yellowish-brown (10YR, 6/4); moist; mostly fine to coarse sand, little coarse gravel; (20,80,0)											
	Well-graded SAND (SW): yellowish-brown (10YR, 5/4); moist; mostly fine to coarse sand, few coarse gravel; (5,95,0)											
45												
	Clayey SAND (SC): dark yellowish-brown (10YR, 4/4); moist; fine to medium sand; (0,60,40)											
50	Total Depth = 50 ft bgs			Groundwater not encountered during drilling		SB-7-50					14:40	End drilling Borehole backfilled with cement-bentonite grout
55												
60												

CONTRACTOR	BC2 Environmental	**LATITUDE**	34°11'47"
EQUIPMENT	Geoprobe 6600	**LONGITUDE**	118°22'03"
DRILL MTHD	Direct Push	**COORDINATE SYSTEM:**	
DIAMETER	2-inch		
LOGGER	J. Loper	**REVIEWER**	G. Wharton, P.G.

NOTES:
1) ft bgs = feet below ground surface

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

APPENDIX C

Manifest

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	CAD980695647	1	888-423-6060	0120201058

5. Generator's Name and Mailing Address
Burbank -Glendale -Pasadena Airport Authority
2627 Hollywood Way
Burbank CA 91505
Generator's Phone: 818 729-2226
Att: Maggie Martinez
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
American Integrated Services, Inc.
U.S. EPA ID Number: CAR000148338

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

9. Waste Shipping Name and Description	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.
1. Non-Hazardous Waste Liquid (Decon Water)	1	DM	20	G
2. Non-Hazardous Waste Solid (Soil)	1	DM	500	P
3.				
4.				

13. Special Handling Instructions and Additional Information

Wear proper PPE while handling. Weights and volume are approximate.
Project # : 40048-1 Profile # : 9b1.) 114425 9b2.) 114424

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: ~~Julia Lopez~~ Kyle Porter
Signature: [signature]
Month 1 Day 29 Year 20

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Ben Burgos
Signature: [signature]
Month 1 Day 29 Year 2020
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

H141, H141

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Adriana Mo[illegible]
Signature: [signature]
Month 1 Day 29 Year 20

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #1

APPENDIX D

Laboratory Data

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 07, 2020 10:28

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2078478
PO Number: WR26393-02-02
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-5-5 Grab Soil	12/09/2019 13:20	1219430
SB-5-10 Grab Soil	12/09/2019 13:26	1219431
SB-5-15 Grab Soil	12/09/2019 13:30	1219432
SB-5-20 Grab Soil	12/09/2019 13:33	1219433
SB-5-25 Grab Soil	12/09/2019 13:44	1219434
SB-5-30 Grab Soil	12/09/2019 13:51	1219435
SB-5-40 Grab Soil	12/09/2019 14:08	1219436
SB-5-44 Grab Soil	12/09/2019 14:41	1219437
SB-5-15k Grab Soil	12/09/2019 13:30	1219438
SB-5-20 Grab Soil	12/09/2019 13:33	1219439
SB-4-1 Grab Soil	12/09/2019 08:54	1219440
SB-4-5 Grab Soil	12/09/2019 09:12	1219441
SB-4-10 Grab Soil	12/09/2019 09:14	1219442
SB-4-15 Grab Soil	12/09/2019 09:16	1219443
SB-4-20 Grab Soil	12/09/2019 09:18	1219444
SB-4-25 Grab Soil	12/09/2019 09:30	1219445
SB-4-30 Grab Soil	12/09/2019 09:34	1219446
SB-4-40 Grab Soil	12/09/2019 09:46	1219447
SB-4-50 Grab Soil	12/09/2019 10:12	1219448
SB-5-1 Grab Soil	12/09/2019 12:38	1219449
SB-EB-120919 Grab Water	12/09/2019 15:36	1219450
SB-FB-120919 Grab Water	12/09/2019 15:37	1219451

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: BUR PFAS Investigation/WR2693
ELLE Group #: 2078478

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.
Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

EPA 537 mod QSM 5.1 table B-15, LC/MS/MS Miscellaneous

Sample #s: 1219450, 1219451

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Batch #: 19350004 (Sample number(s): 1219450-1219451)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: Perfluorooctanoic acid, Perfluorobutanoic acid, Perfluoroheptanesulfonic acid

SM 2540 G-2011 %Moisture Calc, Wet Chemistry

Batch #: 19345820006B (Sample number(s): 1219440-1219449 BKG: 1219445)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Moisture

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Analysis Report

Sample Description: **SB-5-5 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:20

GeoSyntec Consultants
ELLE Sample #: SW 1219430
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	2.2	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.96	0.61	1
14478	Perfluorohexanoic acid	307-24-4	4.7	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	0.75	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	5.9	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:30	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:26

GeoSyntec Consultants
ELLE Sample #: SW 1219431
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	3.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	5.9	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	12	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.3	0.59	1
14478	Perfluorohexanoic acid	307-24-4	38	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	3.9	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	35	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:39	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:30

GeoSyntec Consultants
ELLE Sample #: SW 1219432
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	15	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	4.0	2.1	1
14478	Perfluorobutanoic acid	375-22-4	8.2	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	5.9	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.1	0.62	1
14478	Perfluorohexanoic acid	307-24-4	25	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	38	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:48	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: **SB-5-20 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:33

GeoSyntec Consultants
ELLE Sample #: SW 1219433
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	4.5	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	3.7	2.0	1
14478	Perfluorobutanoic acid	375-22-4	6.4	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	2.0	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	14	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	23	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:57	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:44

GeoSyntec Consultants
ELLE Sample #: SW 1219434
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	3.0	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	25	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	23	1.9	1
14478	Perfluorobutanoic acid	375-22-4	14	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	7.1	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.5	0.58	1
14478	Perfluorohexanoic acid	307-24-4	50	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	1.1	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	4.7	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	46	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:06	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:51

GeoSyntec Consultants
ELLE Sample #: SW 1219435
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 1.9	1.9	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 1.9	1.9	1
14478	Perfluorobutanesulfonic acid	375-73-5	6.6	1.9	1
14478	Perfluorobutanoic acid	375-22-4	7.0	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	1.9	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	21	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	26	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.9	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:15	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 14:08

GeoSyntec Consultants
ELLE Sample #: SW 1219436
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	3.0	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	1.4	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.62	0.62	1
14478	Perfluorohexanoic acid	307-24-4	13	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	16	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:34	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-44 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 14:41

GeoSyntec Consultants
ELLE Sample #: SW 1219437
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	4.7	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	6.7	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.7	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:43	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: **SB-5-15k Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:30

GeoSyntec Consultants
ELLE Sample #: SW 1219438
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	26	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	2.5	1.9	1
14478	Perfluorobutanoic acid	375-22-4	5.3	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	11	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	4.7	0.57	1
14478	Perfluorohexanoic acid	307-24-4	24	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	1.3	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	29	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:52	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:33

GeoSyntec Consultants
ELLE Sample #: SW 1219439
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	7.2	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	4.8	2.1	1
14478	Perfluorobutanoic acid	375-22-4	7.5	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	2.8	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.90	0.62	1
14478	Perfluorohexanoic acid	307-24-4	17	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	26	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.7	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:01	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 08:54

GeoSyntec Consultants
ELLE Sample #: SW 1219440
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.3	3.3	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.66	0.66	1
14478	Perfluorodecanoic acid	335-76-2	< 0.66	0.66	1
14478	Perfluorododecanoic acid	307-55-1	< 0.66	0.66	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.66	0.66	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.66	0.66	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.66	0.66	1
14478	Perfluorohexanoic acid	307-24-4	< 0.66	0.66	1
14478	Perfluorononanoic acid	375-95-1	< 0.66	0.66	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.66	0.66	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.66	0.66	1
14478	Perfluorooctanoic acid	335-67-1	< 0.66	0.66	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.3	3.3	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.66	0.66	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.66	0.66	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.66	0.66	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.66	0.66	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:10	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:12

GeoSyntec Consultants
ELLE Sample #: SW 1219441
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	1.7	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.63	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	11.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:19	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:14

GeoSyntec Consultants
ELLE Sample #: SW 1219442
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.64	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.64	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	0.69	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:28	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:16

GeoSyntec Consultants
ELLE Sample #: SW 1219443
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.65	0.65	1
14478	Perfluorodecanoic acid	335-76-2	< 0.65	0.65	1
14478	Perfluorododecanoic acid	307-55-1	< 0.65	0.65	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.65	0.65	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.65	0.65	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.65	0.65	1
14478	Perfluorohexanoic acid	307-24-4	< 0.65	0.65	1
14478	Perfluorononanoic acid	375-95-1	< 0.65	0.65	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.65	0.65	1
14478	Perfluorooctanesulfonic acid	1763-23-1	0.79	0.65	1
14478	Perfluorooctanoic acid	335-67-1	< 0.65	0.65	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.65	0.65	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.65	0.65	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.65	0.65	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.65	0.65	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:37	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:18

GeoSyntec Consultants
ELLE Sample #: SW 1219444
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.63	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:46	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:30

GeoSyntec Consultants
ELLE Sample #: SW 1219445
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 02:44	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:34

GeoSyntec Consultants
ELLE Sample #: SW 1219446
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 02:53	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:46

GeoSyntec Consultants
ELLE Sample #: SW 1219447
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:02	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-50 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 10:12

GeoSyntec Consultants
ELLE Sample #: SW 1219448
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:11	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 12:38

GeoSyntec Consultants
ELLE Sample #: SW 1219449
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	12	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	15	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	2.9	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	3.9	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	4.3	0.63	1
14478	Perfluorohexanoic acid	307-24-4	8.0	0.63	1
14478	Perfluorononanoic acid	375-95-1	0.71	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	4.9	0.63	1
14478	Perfluorooctanoic acid	335-67-1	2.2	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	15	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.3	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:20	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

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Sample Description: SB-EB-120919 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 15:36

GeoSyntec Consultants
ELLE Sample #: WW 1219450
ELLE Group #: 2078478
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.7	1.7	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.3	4.3	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.6	2.6	1
14434	NEtFOSAA	2991-50-6	< 2.6	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.7	1.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.7	1.7	1
14434	Perfluorobutanoic acid	375-22-4	< 4.3	4.3	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.7	1.7	1
14434	Perfluorodecanoic acid	335-76-2	< 1.7	1.7	1
14434	Perfluorododecanoic acid	307-55-1	< 1.7	1.7	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.7	1.7	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.7	1.7	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.7	1.7	1
14434	Perfluorohexanoic acid	307-24-4	< 1.7	1.7	1
14434	Perfluorononanoic acid	375-95-1	< 1.7	1.7	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.7	1.7	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.7	1.7	1
14434	Perfluorooctanoic acid	335-67-1	< 1.7	1.7	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.7	1.7	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.7	1.7	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.7	1.7	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.7	1.7	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.7	1.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 15:55	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-FB-120919 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 15:37

GeoSyntec Consultants
ELLE Sample #: WW 1219451
ELLE Group #: 2078478
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/l	ng/l	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.1	4.1	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.4	2.4	1
14434	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.1	4.1	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 16:04	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	LOQ ng/g
Batch number: 19350006	Sample number(s): 1219430-1219444	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19352006	Sample number(s): 1219445-1219449	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Method Blank (continued)

Analysis Name	Result	LOQ
	ng/g	ng/g
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1219450-1219451	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19350006	Sample number(s): 1219430-1219444								

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4:2-Fluorotelomersulfonic acid	23.36	19.61			84		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.81			88		51-156		
8:2-Fluorotelomersulfonic acid	23.94	19.63			82		61-142		
NEtFOSAA	25	24.59			98		60-143		
NMeFOSAA	25	23.98			96		56-142		
Perfluorobutanesulfonic acid	22.12	19.52			88		80-134		
Perfluorobutanoic acid	25	19.89			80		79-146		
Perfluorodecanesulfonic acid	24.08	22.31			93		59-142		
Perfluorodecanoic acid	25	20.82			83		79-136		
Perfluorododecanoic acid	25	20.73			83		76-142		
Perfluoroheptanesulfonic acid	23.78	19.93			84		75-131		
Perfluoroheptanoic acid	25	23.29			93		81-140		
Perfluorohexanesulfonic acid	23.64	19.54			83		75-131		
Perfluorohexanoic acid	25	20.6			82		73-145		
Perfluorononanoic acid	25	22.04			88		74-141		
Perfluorooctanesulfonamide	25	20.52			82		66-128		
Perfluorooctanesulfonic acid	23.9	18.67			78		66-140		
Perfluorooctanoic acid	25	21.38			86		80-140		
Perfluoropentanesulfonate	23.44	20.54			88		78-131		
Perfluoropentanoic acid	25	20.73			83		73-140		
Perfluorotetradecanoic acid	25	21.71			87		81-137		
Perfluorotridecanoic acid	25	21.48			86		75-147		
Perfluoroundecanoic acid	25	21.58			86		63-147		
Batch number: 19352006	Sample number(s): 1219445-1219449								
4:2-Fluorotelomersulfonic acid	23.36	21.33			91		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.19			85		51-156		
8:2-Fluorotelomersulfonic acid	23.94	21.71			91		61-142		
NEtFOSAA	25	26.61			106		60-143		
NMeFOSAA	25	26.17			105		56-142		
Perfluorobutanesulfonic acid	22.12	20.86			94		80-134		
Perfluorobutanoic acid	25	21.1			84		79-146		
Perfluorodecanesulfonic acid	24.08	24.13			100		59-142		
Perfluorodecanoic acid	25	23.25			93		79-136		
Perfluorododecanoic acid	25	23.75			95		76-142		
Perfluoroheptanesulfonic acid	23.78	21.61			91		75-131		
Perfluoroheptanoic acid	25	24.86			99		81-140		
Perfluorohexanesulfonic acid	23.64	21.24			90		75-131		
Perfluorohexanoic acid	25	22.04			88		73-145		
Perfluorononanoic acid	25	24.99			100		74-141		
Perfluorooctanesulfonamide	25	22.24			89		66-128		
Perfluorooctanesulfonic acid	23.9	20.81			87		66-140		
Perfluorooctanoic acid	25	21.99			88		80-140		
Perfluoropentanesulfonate	23.44	22.92			98		78-131		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluoropentanoic acid	25	23.16			93		73-140		
Perfluorotetradecanoic acid	25	23.51			94		81-137		
Perfluorotridecanoic acid	25	23.55			94		75-147		
Perfluoroundecanoic acid	25	24.74			99		63-147		
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19350004	Sample number(s): 1219450-1219451								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19345820006A	Sample number(s): 1219430-1219439								
Moisture	89.5	89.41			100		99-101		
Batch number: 19345820006B	Sample number(s): 1219440-1219449								
Moisture	89.5	89.41			100		99-101		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 19345820006A	Sample number(s): 1219430-1219439 BKG: 1219437			
Moisture	2.66	2.55	4	5
Batch number: 19345820006B	Sample number(s): 1219440-1219449 BKG: 1219445			
Moisture	2.97	2.45	19* (1)	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1219450	118	114	123	130	121	125
1219451	114	109	113	120	115	121
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117
LCSD	109	106	105	115	113	110
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219450	118	131	123	116	124	122
1219451	112	117	118	109	111	117
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1219450	128	135	134	131	128	123
1219451	116	114	117	120	119	102
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C8-PFOSA
1219450	107
1219451	111
Blank	105
LCS	100
LCSD	106
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1219430	96	96	93	100	99	99
1219431	97	90	93	93	90	96
1219432	74	71	70	71	67	69
1219433	97	95	95	101	95	101
1219434	87	86	85	85	84	91
1219435	96	97	91	94	92	96
1219436	91	94	87	93	89	95
1219437	94	92	91	94	89	96
1219438	86	82	81	87	83	86
1219439	88	86	84	87	85	92
1219440	80	80	79	77	71	76
1219441	88	86	88	83	80	85
1219442	86	86	82	79	84	90
1219443	83	82	78	81	78	78
1219444	89	87	83	84	88	90
Blank	89	90	86	96	85	91
LCS	92	94	89	96	88	95
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219430	96	111	102	94	99	94
1219431	96	106	93	98	98	98
1219432	69	80	70	76	78	74
1219433	99	113	99	92	97	91
1219434	86	101	87	87	87	87
1219435	93	100	96	95	95	88
1219436	90	101	88	87	90	86
1219437	91	106	93	93	90	94
1219438	82	96	84	83	84	78
1219439	87	100	94	89	92	88

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219440	73	91	76	80	80	81
1219441	81	98	86	87	88	81
1219442	83	96	83	85	86	85
1219443	81	86	80	79	81	75
1219444	84	103	87	89	91	85
Blank	87	99	94	93	93	86
LCS	90	99	92	92	90	87
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1219430	98	96	96	98	97	90
1219431	104	98	97	103	91	90
1219432	79	77	71	82	78	68
1219433	100	89	93	94	98	89
1219434	95	77	89	79	87	82
1219435	102	82	97	79	93	91
1219436	95	65	83	67	86	79
1219437	105	86	100	97	97	87
1219438	88	92	89	94	82	79
1219439	99	87	92	88	89	81
1219440	86	82	85	81	87	78
1219441	90	72	92	87	83	75
1219442	91	79	84	77	83	76
1219443	77	63	79	71	79	74
1219444	87	83	91	91	84	84
Blank	93	96	87	84	91	84
LCS	93	91	86	82	88	83
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1219430	94
1219431	97
1219432	78
1219433	99
1219434	87
1219435	96
1219436	90
1219437	102
1219438	87
1219439	89

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C8-PFOSA
1219440	54
1219441	88
1219442	89
1219443	81
1219444	89
Blank	92
LCS	80
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1219445	79	78	70	60	73	85
1219446	87	89	79	68	81	93
1219447	79	79	71	65	75	85
1219448	83	82	76	70	79	91
1219449	87	85	79	74	83	95
Blank	83	82	72	65	78	87
LCS	77	75	67	57	73	81
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219445	74	83	79	79	77	80
1219446	80	89	87	89	88	82
1219447	74	85	78	76	72	74
1219448	79	88	80	81	80	80
1219449	85	95	86	84	79	78
Blank	75	86	82	82	82	80
LCS	74	77	76	76	73	69
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1219445	87	86	81	86	76	75
1219446	88	83	89	86	79	75
1219447	85	76	74	72	74	64
1219448	81	88	81	87	86	75
1219449	87	76	74	76	74	76
Blank	83	89	79	87	76	68
LCS	76	78	72	76	71	66

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1219445	85
1219446	93
1219447	74
1219448	83
1219449	73
Blank	85
LCS	73
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2078478 Sample # 121943051 1/3

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☒	Sediment ☐	Ground ☐	Surface ☐	Potable ☐	NPDES ☐	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-5-5	12/4/19	1320	X		S							1	X	
SB-5-10		1326	X		S							1	X	
SB-5-15		1330	X		S							1	X	
SB-5-20		1333	X		S							1	X	
SB-5-25		1344	X		S							1	X	
SB-5-30		1351	X		S							1	X	
SB-5-40		1408	X		S							1	X	
SB-5-44		1441	X		S							1	X	
SB-5-15K		1330	X		S							1	X	
SB-5-20		1333	X		S							1	X	MS/MSD

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsnelder@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.5 °C

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7046 0713

Julia Loper

Environmental Analysis Request/Chain of Custody

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Accl. # 10195 Group # 2078478 Sample # 1219430-51

2/3

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Snelder	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: ☐ Sediment ☐ Ground ☐ Surface ☒ Soil ☐ Potable ☐ NPDES Water Other:

Analyses Requested / Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-4-1	12/9/19	0854	X		1	X	
SB-4-5		0912	X		1	X	
SB-4-10	0914	~~0916~~	X		1	X	
SB-4-15	0914	~~0918~~	X		1	X	
SB-4-20		0918	X		1	X	
SB-4-25		0930	X		1	X	
SB-4-30		0934	X		1	X	
SB-4-40		0946	X		1	X	
SB-4-50		1012	X		1	X	
SB-5-1		1238	X		1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsnelder@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	12/10/19	1016

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.5 °C

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Julia Loper

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2078478 Sample # 1219430-51 313

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: ☐ Sediment ☐ Soil ☐ Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Water ☐ Other:

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: ____ SCR #: ____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-EB-120919	12/9/19	1536								
SB-FB-120919	↓	1537								

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: ____

Relinquished by:	Date	Time	Received by:	Date	Time
				12/10/19	1016

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 3.5 °C

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7045 0713

Julia Loper

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2078478 Sample # 1219430-51 313

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: ☐ Sediment ☐ Soil ☐ Ground ☐ Potable ☐ Surface ☐ NPDES

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: ____ SCR #: ____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, B = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1-List) via EPA 537 mod QSM table B-15									Remarks
SB-EB-120919	12/9/19	1536				X		1	X									
SB-FB-120919	↓	1537				X		1	X									

JS 12/10/19

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: ____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt ____ °C

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7045 0713

Julia Loper

* Revised COC sent 12/10/19 by J. Sneider.

EMZ/25502 12/13/19

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Sample Administration Receipt Documentation Log

Doc Log ID: 269295

Group Number(s): 2078478

Client: GEOSYNTEC CONSULTANTS

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/10/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	California		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	3.5	IR	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 13, 2020 11:25

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2079058
PO Number: WR26393-02-02
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-FB-121019 Grab Water	12/10/2019 07:53	1221699
SB-2-1 Grab Soil	12/10/2019 08:06	1221700
SB-2-5 Grab Soil	12/10/2019 08:50	1221701
SB-2-10 Grab Soil	12/10/2019 08:53	1221702
SB-2-10MS Grab Soil	12/10/2019 08:53	1221703
SB-2-10MSD Grab Soil	12/10/2019 08:53	1221704
SB-2-15 Grab Soil	12/10/2019 08:56	1221705
SB-2-15K Grab Soil	12/10/2019 08:56	1221706
SB-2-20 Grab Soil	12/10/2019 09:08	1221707
SB-2-25 Grab Soil	12/10/2019 09:20	1221708
SB-2-25K Grab Soil	12/10/2019 09:20	1221709
SB-2-30 Grab Soil	12/10/2019 09:33	1221710
SB-2-40 Grab Soil	12/10/2019 09:47	1221711
SB-2-48 Grab Soil	12/10/2019 10:08	1221712
SB-EB-121019 Grab Water	12/10/2019 12:28	1221713
SB-1-1 Grab Soil	12/10/2019 12:30	1221714
SB-1-5 Grab Soil	12/10/2019 12:58	1221715
SB-1-10 Grab Soil	12/10/2019 13:00	1221716
SB-1-15 Grab Soil	12/10/2019 13:03	1221717
SB-1-20 Grab Soil	12/10/2019 13:08	1221718
SB-1-25 Grab Soil	12/10/2019 13:14	1221719
SB-1-25K Grab Soil	12/10/2019 13:14	1221720
SB-1-30 Grab Soil	12/10/2019 13:18	1221721
SB-1-30MS Grab Soil	12/10/2019 13:18	1221722
SB-1-30MSD Grab Soil	12/10/2019 13:18	1221723
SB-1-40 Grab Soil	12/10/2019 13:25	1221724
SB-1-50 Grab Soil	12/10/2019 13:59	1221725

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: SB-FB-121019 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 07:53

GeoSyntec Consultants
ELLE Sample #: WW 1221699
ELLE Group #: 2079058
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.1	4.1	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.5	2.5	1
14434	NEtFOSAA	2991-50-6	< 2.5	2.5	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.1	4.1	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:11	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-2-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:06

GeoSyntec Consultants
ELLE Sample #: SW 1221700
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	1.9	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.1	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	2.3	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	7.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:29	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:50

GeoSyntec Consultants
ELLE Sample #: SW 1221701
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	1.2	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	1.3	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:38	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221702
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:48	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-10MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221703
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	21	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	23	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	22	3.0	1
14478	NEtFOSAA	2991-50-6	27	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	25	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	22	2.0	1
14478	Perfluorobutanoic acid	375-22-4	23	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	27	0.60	1
14478	Perfluorodecanoic acid	335-76-2	25	0.60	1
14478	Perfluorododecanoic acid	307-55-1	25	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	23	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	27	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	23	0.60	1
14478	Perfluorohexanoic acid	307-24-4	24	0.60	1
14478	Perfluorononanoic acid	375-95-1	25	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	22	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	23	0.60	1
14478	Perfluorooctanoic acid	335-67-1	24	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	24	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	25	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	26	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	24	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	26	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	2.6	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:27	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-10MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221704
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	21	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	21	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	22	3.0	1
14478	NEtFOSAA	2991-50-6	26	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	26	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	22	2.0	1
14478	Perfluorobutanoic acid	375-22-4	23	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	27	0.60	1
14478	Perfluorodecanoic acid	335-76-2	25	0.60	1
14478	Perfluorododecanoic acid	307-55-1	24	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	22	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	28	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	23	0.60	1
14478	Perfluorohexanoic acid	307-24-4	23	0.60	1
14478	Perfluorononanoic acid	375-95-1	26	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	24	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	22	0.60	1
14478	Perfluorooctanoic acid	335-67-1	23	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	23	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	25	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	26	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	24	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	25	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	2.6	0.50	1
00121	Moisture Duplicate	n.a.	2.5	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:45	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1

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Analysis Report

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Sample Description: SB-2-10MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221704
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1221705
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 1.9	1.9	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 1.9	1.9	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.58	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.58	0.58	1
14478	Perfluorohexanoic acid	307-24-4	< 0.58	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	< 0.58	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.58	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.4	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:06	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-15K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1221706
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:15	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:08

GeoSyntec Consultants
ELLE Sample #: SW 1221707
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:24	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:20

GeoSyntec Consultants
ELLE Sample #: SW 1221708
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:33	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-25K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:20

GeoSyntec Consultants
ELLE Sample #: SW 1221709
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.57	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	< 0.57	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.57	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:42	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:33

GeoSyntec Consultants
ELLE Sample #: SW 1221710
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.57	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	< 0.57	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.57	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:51	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: **SB-2-40 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:47

GeoSyntec Consultants
ELLE Sample #: SW 1221711
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.63	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:00	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-48 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 10:08

GeoSyntec Consultants
ELLE Sample #: SW 1221712
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.2	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:09	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-EB-121019 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:28

GeoSyntec Consultants
ELLE Sample #: WW 1221713
ELLE Group #: 2079058
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.7	1.7	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.2	4.2	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.5	2.5	1
14434	NEtFOSAA	2991-50-6	< 2.5	2.5	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.7	1.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.7	1.7	1
14434	Perfluorobutanoic acid	375-22-4	< 4.2	4.2	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.7	1.7	1
14434	Perfluorodecanoic acid	335-76-2	< 1.7	1.7	1
14434	Perfluorododecanoic acid	307-55-1	< 1.7	1.7	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.7	1.7	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.7	1.7	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.7	1.7	1
14434	Perfluorohexanoic acid	307-24-4	< 1.7	1.7	1
14434	Perfluorononanoic acid	375-95-1	< 1.7	1.7	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.7	1.7	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.7	1.7	1
14434	Perfluorooctanoic acid	335-67-1	< 1.7	1.7	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.7	1.7	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.7	1.7	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.7	1.7	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.7	1.7	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.7	1.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:20	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-1-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:30

GeoSyntec Consultants
ELLE Sample #: SW 1221714
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	390	21	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	4.4	3.1	1
14478	NEtFOSAA	2991-50-6	2.9	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	14	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	34	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	13	0.62	1
14478	Perfluorohexanoic acid	307-24-4	77	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	17	0.62	1
14478	Perfluorooctanoic acid	335-67-1	6.4	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	96	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
	The recovery for extraction standards is outside of the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted within the method holding time and the recovery for extraction standards was again outside of the QC acceptance limits.				
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

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Analysis Report

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Sample Description: **SB-1-1 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:30

GeoSyntec Consultants
ELLE Sample #: SW 1221714
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:18	Devon M Whooley	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/22/2019 21:18	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

Sample Description: SB-1-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:58

GeoSyntec Consultants
ELLE Sample #: SW 1221715
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.57	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	< 0.57	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.57	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
	The recovery for extraction standards is outside of the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted within the method holding time and the recovery for extraction standards was again outside of the QC acceptance limits.				
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

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Analysis Report

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Sample Description: **SB-1-5 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:58

GeoSyntec Consultants
ELLE Sample #: SW 1221715
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:30	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:00

GeoSyntec Consultants
ELLE Sample #: SW 1221716
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	0.95	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.82	0.63	1
14478	Perfluorohexanoic acid	307-24-4	9.9	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	13	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:07	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:03

GeoSyntec Consultants
ELLE Sample #: SW 1221717
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:16	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:08

GeoSyntec Consultants
ELLE Sample #: SW 1221718
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.64	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.64	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.64	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:25	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:14

GeoSyntec Consultants
ELLE Sample #: SW 1221719
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.64	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.64	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.64	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.9	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:34	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-25K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:14

GeoSyntec Consultants
ELLE Sample #: SW 1221720
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.8	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:53	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221721
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.1	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:02	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-30MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221722
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	24	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	22	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	25	3.2	1
14478	NEtFOSAA	2991-50-6	25	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	30	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	23	2.1	1
14478	Perfluorobutanoic acid	375-22-4	24	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	27	0.63	1
14478	Perfluorodecanoic acid	335-76-2	25	0.63	1
14478	Perfluorododecanoic acid	307-55-1	26	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	25	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	28	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.63	1
14478	Perfluorohexanoic acid	307-24-4	26	0.63	1
14478	Perfluorononanoic acid	375-95-1	24	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	24	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	24	0.63	1
14478	Perfluorooctanoic acid	335-67-1	25	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	24	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	26	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	27	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	26	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	27	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	7.1	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:11	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-30MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221723
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/g	ng/g	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	22	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	24	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	25	3.2	1
14478	NEtFOSAA	2991-50-6	25	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	26	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	23	2.1	1
14478	Perfluorobutanoic acid	375-22-4	24	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	26	0.63	1
14478	Perfluorodecanoic acid	335-76-2	26	0.63	1
14478	Perfluorododecanoic acid	307-55-1	26	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	24	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	27	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.63	1
14478	Perfluorohexanoic acid	307-24-4	25	0.63	1
14478	Perfluorononanoic acid	375-95-1	27	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	25	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	24	0.63	1
14478	Perfluorooctanoic acid	335-67-1	26	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	25	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	25	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	28	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	25	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	27	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		%	%	
00118	Moisture	n.a.	7.1	0.50	1
00121	Moisture Duplicate	n.a.	7.6	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:20	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1

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Analysis Report

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Sample Description: **SB-1-30MSD Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221723
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:25

GeoSyntec Consultants
ELLE Sample #: SW 1221724
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:29	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-50 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:59

GeoSyntec Consultants
ELLE Sample #: SW 1221725
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.4	2.4	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.4	2.4	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.6	3.6	1
14478	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.4	2.4	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.4	2.4	1
14478	Perfluorobutanoic acid	375-22-4	< 2.4	2.4	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.72	0.72	1
14478	Perfluorodecanoic acid	335-76-2	< 0.72	0.72	1
14478	Perfluorododecanoic acid	307-55-1	< 0.72	0.72	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.72	0.72	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.72	0.72	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.72	0.72	1
14478	Perfluorohexanoic acid	307-24-4	< 0.72	0.72	1
14478	Perfluorononanoic acid	375-95-1	< 0.72	0.72	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.72	0.72	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.72	0.72	1
14478	Perfluorooctanoic acid	335-67-1	< 0.72	0.72	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.6	3.6	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.72	0.72	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.72	0.72	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.72	0.72	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.72	0.72	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	21.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:38	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820005A	12/16/2019 12:07	William C Schwebel	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	LOQ ng/g
Batch number: 19352006	Sample number(s): 1221700-1221712,1221714	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19352007	Sample number(s): 1221716-1221725	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Method Blank (continued)

Analysis Name	Result	LOQ
	ng/g	ng/g
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19365005	Sample number(s): 1221715	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1221699,1221713	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Method Blank (continued)

Analysis Name	Result ng/l	LOQ ng/l
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19352006	Sample number(s): 1221700-1221712,1221714								
4:2-Fluorotelomersulfonic acid	23.36	21.33			91		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.19			85		51-156		
8:2-Fluorotelomersulfonic acid	23.94	21.71			91		61-142		
NEtFOSAA	25	26.61			106		60-143		
NMeFOSAA	25	26.17			105		56-142		
Perfluorobutanesulfonic acid	22.12	20.86			94		80-134		
Perfluorobutanoic acid	25	21.1			84		79-146		
Perfluorodecanesulfonic acid	24.08	24.13			100		59-142		
Perfluorodecanoic acid	25	23.25			93		79-136		
Perfluorododecanoic acid	25	23.75			95		76-142		
Perfluoroheptanesulfonic acid	23.78	21.61			91		75-131		
Perfluoroheptanoic acid	25	24.86			99		81-140		
Perfluorohexanesulfonic acid	23.64	21.24			90		75-131		
Perfluorohexanoic acid	25	22.04			88		73-145		
Perfluorononanoic acid	25	24.99			100		74-141		
Perfluorooctanesulfonamide	25	22.24			89		66-128		
Perfluorooctanesulfonic acid	23.9	20.81			87		66-140		
Perfluorooctanoic acid	25	21.99			88		80-140		
Perfluoropentanesulfonate	23.44	22.92			98		78-131		
Perfluoropentanoic acid	25	23.16			93		73-140		
Perfluorotetradecanoic acid	25	23.51			94		81-137		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
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Group Number: 2079058

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorotridecanoic acid	25	23.55			94		75-147		
Perfluoroundecanoic acid	25	24.74			99		63-147		
Batch number: 19352007	Sample number(s): 1221716-1221725								
4:2-Fluorotelomersulfonic acid	23.36	22.09			95		63-132		
6:2-Fluorotelomersulfonic acid	23.7	21.57			91		51-156		
8:2-Fluorotelomersulfonic acid	23.94	24.31			102		61-142		
NEtFOSAA	25	25.86			103		60-143		
NMeFOSAA	25	29.06			116		56-142		
Perfluorobutanesulfonic acid	22.12	21.73			98		80-134		
Perfluorobutanoic acid	25	23.52			94		79-146		
Perfluorodecanesulfonic acid	24.08	25.24			105		59-142		
Perfluorodecanoic acid	25	26.83			107		79-136		
Perfluorododecanoic acid	25	24.99			100		76-142		
Perfluoroheptanesulfonic acid	23.78	23.45			99		75-131		
Perfluoroheptanoic acid	25	26.73			107		81-140		
Perfluorohexanesulfonic acid	23.64	23.43			99		75-131		
Perfluorohexanoic acid	25	24.41			98		73-145		
Perfluorononanoic acid	25	25.92			104		74-141		
Perfluorooctanesulfonamide	25	23.92			96		66-128		
Perfluorooctanesulfonic acid	23.9	22.51			94		66-140		
Perfluorooctanoic acid	25	25.15			101		80-140		
Perfluoropentanesulfonate	23.44	23.41			100		78-131		
Perfluoropentanoic acid	25	24.88			100		73-140		
Perfluorotetradecanoic acid	25	27.19			109		81-137		
Perfluorotridecanoic acid	25	24.99			100		75-147		
Perfluoroundecanoic acid	25	26.85			107		63-147		
Batch number: 19365005	Sample number(s): 1221715								
4:2-Fluorotelomersulfonic acid	23.36	19.21			82		63-132		
6:2-Fluorotelomersulfonic acid	23.7	19.65			83		51-156		
8:2-Fluorotelomersulfonic acid	23.94	17.66			74		61-142		
NEtFOSAA	25	23.4			94		60-143		
NMeFOSAA	25	19.59			78		56-142		
Perfluorobutanesulfonic acid	22.12	19.37			88		80-134		
Perfluorobutanoic acid	25	20.64			83		79-146		
Perfluorodecanesulfonic acid	24.08	20.02			83		59-142		
Perfluorodecanoic acid	25	21.88			88		79-136		
Perfluorododecanoic acid	25	20.21			81		76-142		
Perfluoroheptanesulfonic acid	23.78	20.72			87		75-131		
Perfluoroheptanoic acid	25	22.77			91		81-140		
Perfluorohexanesulfonic acid	23.64	20.75			88		75-131		
Perfluorohexanoic acid	25	22.12			88		73-145		
Perfluorononanoic acid	25	21.14			85		74-141		
Perfluorooctanesulfonamide	25	18.79			75		66-128		

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Quality Control Summary

Client Name: GeoSyntec Consultants
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LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorooctanesulfonic acid	23.9	19.05			80		66-140		
Perfluorooctanoic acid	25	20.85			83		80-140		
Perfluoropentanesulfonate	23.44	20.39			87		78-131		
Perfluoropentanoic acid	25	21.08			84		73-140		
Perfluorotetradecanoic acid	25	21.82			87		81-137		
Perfluorotridecanoic acid	25	22.01			88		75-147		
Perfluoroundecanoic acid	25	22.02			88		63-147		
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19350004	Sample number(s): 1221699,1221713								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19347820004A	Sample number(s): 1221700-1221710								
Moisture	89.5	89.43			100		99-101		
Moisture	89.5	89.43			100		99-101		
Moisture Duplicate	89.5	89.43			100		99-101		
Batch number: 19347820004B	Sample number(s): 1221711-1221712,1221714-1221724								
Moisture	89.5	89.43			100		99-101		
Moisture	89.5	89.43			100		99-101		
Moisture Duplicate	89.5	89.43			100		99-101		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

LCS/LCSD (continued)

Analysis Name	LCS Spike Added %	LCS Conc %	LCSD Spike Added %	LCSD Conc %	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19347820005A	Sample number(s): 1221725								
Moisture	89.5	89.44			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19352006	Sample number(s): 1221700-1221712,1221714 UNSPK: 1221702									
4:2-Fluorotelomersulfonic acid	< 1.9	22.9	20.43	22.9	20.25	89	88	63-132	1	30
6:2-Fluorotelomersulfonic acid	< 1.9	23.24	22	23.24	20.19	95	87	51-156	9	30
8:2-Fluorotelomersulfonic acid	< 2.9	23.47	21.62	23.47	20.95	92	89	61-142	3	30
NEtFOSAA	< 1.9	24.51	26.78	24.51	25.22	109	103	60-143	6	30
NMeFOSAA	< 1.9	24.51	24.54	24.51	24.97	100	102	56-142	2	30
Perfluorobutanesulfonic acid	< 1.9	21.69	21.84	21.69	21.03	101	97	80-134	4	30
Perfluorobutanoic acid	< 1.9	24.51	22.34	24.51	22.34	91	91	79-146	0	30
Perfluorodecanesulfonic acid	< 0.58	23.61	25.86	23.61	25.86	110	110	59-142	0	30
Perfluorodecanoic acid	< 0.58	24.51	24.28	24.51	23.9	99	98	79-136	2	30
Perfluorododecanoic acid	< 0.58	24.51	24.79	24.51	23.3	101	95	76-142	6	30
Perfluoroheptanesulfonic acid	< 0.58	23.31	22.73	23.31	21.89	97	94	75-131	4	30
Perfluoroheptanoic acid	< 0.58	24.51	26.51	24.51	27	108	110	81-140	2	30
Perfluorohexanesulfonic acid	< 0.58	23.18	22.84	23.18	22.6	99	98	75-131	1	30
Perfluorohexanoic acid	< 0.58	24.51	23.37	24.51	22.71	95	93	73-145	3	30
Perfluorononanoic acid	< 0.58	24.51	24.44	24.51	24.89	100	102	74-141	2	30
Perfluorooctanesulfonamide	< 0.58	24.51	21.23	24.51	23.65	87	96	66-128	11	30
Perfluorooctanesulfonic acid	< 0.58	23.43	22.48	23.43	21.51	96	92	66-140	4	30
Perfluorooctanoic acid	< 0.58	24.51	23.29	24.51	22.51	95	92	80-140	3	30
Perfluoropentanesulfonate	< 2.9	22.98	23.49	22.98	22.38	102	97	78-131	5	30
Perfluoropentanoic acid	0.481	24.51	23.98	24.51	24.08	96	96	73-140	0	30
Perfluorotetradecanoic acid	< 0.58	24.51	25.37	24.51	25.09	104	102	81-137	1	30
Perfluorotridecanoic acid	< 0.58	24.51	23.68	24.51	23.42	97	96	75-147	1	30
Perfluoroundecanoic acid	< 0.58	24.51	25.15	24.51	24.56	103	100	63-147	2	30
Batch number: 19352007	Sample number(s): 1221716-1221725 UNSPK: 1221721									
4:2-Fluorotelomersulfonic acid	< 1.8	22.9	22.6	22.9	20.34	99	89	63-132	11	30
6:2-Fluorotelomersulfonic acid	< 1.8	23.24	20.9	23.24	22.55	90	97	51-156	8	30
8:2-Fluorotelomersulfonic acid	< 2.8	23.47	23.35	23.47	22.98	100	98	61-142	2	30
NEtFOSAA	< 1.8	24.51	23.66	24.51	23.46	97	96	60-143	1	30
NMeFOSAA	< 1.8	24.51	28.1	24.51	24.41	115	100	56-142	14	30
Perfluorobutanesulfonic acid	< 1.8	21.69	21.25	21.69	21.3	98	98	80-134	0	30

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Quality Control Summary

Client Name: GeoSyntec Consultants
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Group Number: 2079058

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Perfluorobutanoic acid	< 1.8	24.51	22.26	24.51	22.6	91	92	79-146	2	30
Perfluorodecanesulfonic acid	< 0.55	23.61	25.54	23.61	24.32	108	103	59-142	5	30
Perfluorodecanoic acid	< 0.55	24.51	23.64	24.51	24	96	98	79-136	1	30
Perfluorododecanoic acid	< 0.55	24.51	23.91	24.51	24.29	98	99	76-142	2	30
Perfluoroheptanesulfonic acid	< 0.55	23.31	23	23.31	22.34	99	96	75-131	3	30
Perfluoroheptanoic acid	< 0.55	24.51	25.74	24.51	25.24	105	103	81-140	2	30
Perfluorohexanesulfonic acid	< 0.55	23.18	22.29	23.18	21.9	96	94	75-131	2	30
Perfluorohexanoic acid	< 0.55	24.51	23.69	24.51	22.96	97	94	73-145	3	30
Perfluorononanoic acid	< 0.55	24.51	22.72	24.51	24.96	93	102	74-141	9	30
Perfluorooctanesulfonamide	< 0.55	24.51	22.07	24.51	23.58	90	96	66-128	7	30
Perfluorooctanesulfonic acid	< 0.55	23.43	21.87	23.43	22.01	93	94	66-140	1	30
Perfluorooctanoic acid	< 0.55	24.51	23.04	24.51	23.79	94	97	80-140	3	30
Perfluoropentanesulfonate	< 2.8	22.98	22.7	22.98	23.34	99	102	78-131	3	30
Perfluoropentanoic acid	< 0.55	24.51	23.8	24.51	23.64	97	96	73-140	1	30
Perfluorotetradecanoic acid	< 0.55	24.51	25.38	24.51	25.64	104	105	81-137	1	30
Perfluorotridecanoic acid	< 0.55	24.51	24.39	24.51	23.43	100	96	75-147	4	30
Perfluoroundecanoic acid	< 0.55	24.51	24.93	24.51	24.93	102	102	63-147	0	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 19347820004A	Sample number(s): 1221700-1221710 BKG: 1221702			
Moisture	2.61	2.55	3	5
Moisture	2.61	2.55	3	5
Moisture Duplicate	2.61	2.55	3	5
Batch number: 19347820004B	Sample number(s): 1221711-1221712,1221714-1221724 BKG: 1221721			
Moisture	7.12	7.56	6*	5
Moisture	7.12	7.56	6*	5
Moisture Duplicate	7.12	7.56	6*	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221699	115	109	112	115	118	121
1221713	105	113	107	114	105	114
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117
LCSD	109	106	105	115	113	110
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221699	113	126	120	113	119	114
1221713	112	115	108	102	103	100
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221699	114	127	120	131	118	114
1221713	102	104	104	101	99	91
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221699	105
1221713	91
Blank	105
LCS	100
LCSD	106
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221700	80	78	73	63	73	84
1221701	76	74	69	57	70	83
1221702	79	79	72	58	72	82
1221703	84	83	75	70	83	90

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221704	75	71	67	58	70	79
1221705	78	77	70	59	75	83
1221706	79	80	71	61	73	87
1221707	75	74	68	59	70	80
1221708	76	73	67	55	72	84
1221709	74	75	67	55	70	80
1221710	82	80	72	65	76	88
1221711	74	71	65	54	70	81
1221712	77	78	67	59	73	85
1221714	70	63	69	62	68	83
Blank	83	82	72	65	78	87
LCS	77	75	67	57	73	81
MS	84	83	75	70	83	90
MSD	75	71	67	58	70	79
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221700	72	84	75	78	75	77
1221701	70	75	72	74	73	71
1221702	73	80	78	82	78	76
1221703	80	84	84	82	80	78
1221704	70	78	74	75	70	71
1221705	74	80	81	79	75	74
1221706	74	80	78	74	75	72
1221707	69	80	77	76	75	69
1221708	72	77	77	74	76	71
1221709	68	73	74	71	71	71
1221710	75	82	79	82	76	80
1221711	71	75	77	79	74	71
1221712	77	79	76	77	73	74
1221714	73	81	73	74	71	63
Blank	75	86	82	82	82	80
LCS	74	77	76	76	73	69
MS	80	84	84	82	80	78
MSD	70	78	74	75	70	71
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221700	83	60	75	65	75	66
1221701	78	56	72	59	68	64

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221702	78	58	72	62	73	63
1221703	81	61	81	62	80	73
1221704	73	64	75	67	74	68
1221705	72	62	71	68	73	66
1221706	70	63	75	65	66	67
1221707	71	65	75	69	71	68
1221708	83	66	71	71	74	66
1221709	78	69	70	63	72	62
1221710	82	76	81	78	74	64
1221711	74	53	68	59	66	61
1221712	82	73	78	73	74	69
1221714	73	46*	61	49*	61	59
Blank	83	89	79	87	76	68
LCS	76	78	72	76	71	66
MS	81	61	81	62	80	73
MSD	73	64	75	67	74	68
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221700	71
1221701	75
1221702	79
1221703	91
1221704	76
1221705	83
1221706	81
1221707	77
1221708	79
1221709	81
1221710	82
1221711	77
1221712	85
1221714	64
Blank	85
LCS	73
MS	91
MSD	76
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221716	94	90	82	69	89	105
1221717	92	84	81	68	85	96
1221718	78	77	78	66	77	95
1221719	81	78	74	58	79	94
1221720	92	89	83	68	87	98
1221721	96	92	85	71	93	100
1221722	88	86	79	66	88	98
1221723	84	83	75	69	85	98
1221724	91	88	81	71	93	98
1221725	96	92	84	75	92	105
Blank	103	99	90	77	103	113
LCS	89	86	81	67	89	98
MS	88	86	79	66	88	98
MSD	84	83	75	69	85	98
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221716	93	90	93	99	96	91
1221717	84	83	87	90	90	90
1221718	81	85	87	83	79	81
1221719	80	75	84	82	78	74
1221720	88	84	95	87	86	89
1221721	90	90	96	92	90	91
1221722	87	87	92	91	90	85
1221723	88	78	85	83	78	87
1221724	87	92	91	90	85	88
1221725	99	88	97	93	94	95
Blank	99	95	107	99	99	94
LCS	91	84	89	90	83	87
MS	87	87	92	91	90	85
MSD	88	78	85	83	78	87
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221716	84	91	85	87	89	79
1221717	79	83	88	92	89	81
1221718	82	67	83	80	82	75
1221719	65	62	75	65	75	71
1221720	79	72	89	75	85	77
1221721	86	82	96	84	89	85

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221722	74	67	83	72	85	81
1221723	78	83	87	84	88	77
1221724	83	86	93	89	86	79
1221725	91	88	91	86	87	85
Blank	90	110	100	100	96	87
LCS	83	101	94	104	94	84
MS	74	67	83	72	85	81
MSD	78	83	87	84	88	77
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221716	72
1221717	82
1221718	51
1221719	65
1221720	76
1221721	84
1221722	67
1221723	69
1221724	71
1221725	98
Blank	107
LCS	100
MS	67
MSD	69
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221715	60	55	60	53	59	63
Blank	87	85	81	77	85	87
LCS	79	73	75	66	74	75
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221715	63	68	60	60	59	60
Blank	86	94	91	85	84	87
LCS	78	83	75	78	80	80

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221715	58	25*	59	29*	58	59
Blank	93	91	88	92	94	90
LCS	85	86	75	75	82	81
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221715	50
Blank	85
LCS	79
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

11 3

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Environmental Analysis Request/Chain of Custody

Acct. # 10195 Group # 2079058 Sample # 1221644-725

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water (Ground / Potable / Surface / NPDES)	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-FB-121019	12/10/19	0753	X				X		2	X	
SB-2-1		0806	X		X				1	X	
SB-2-5		0850	X		X				1	X	
SB-2-10		0853	X		X				1	X	
SB-2-15		0856	X		X				1	X	
SB-2-15K		0856	X		X				1	X	
SB-2-10		0853	X		X				2	X	MS/MSD
SB-2-20		0908	X		X				1	X	
SB-2-25		0920	X		X				1	X	
SB-2-25K		0920	X		X				1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/10/19				
				12/11/19	1148

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 28 °C

2 3

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079059 Sample # 1221699-725

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Sediment	Matrix: Soil ☒	Matrix: Potable	Matrix: Ground	Matrix: Surface	Matrix: NPDES	Matrix: Water	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-2-30	12/10/19	0933	X			X							1	X	
SB-2-40		0947	X			X							1	X	
SB-2-48		1008	X			X							1	X	
SB-EB-121019		1228	X								X		2	X	
SB-1-1		1230	X			X							1	X	
SB-1-5		1258	X			X							1	X	
SB-1-10		1300	X			X							1	X	
SB-1-15		1303	X			X							1	X	
SB-1-20		1308	X			X							1	X	
SB-1-25		1314	X			X							1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/10/19				
				12/11/19	1048

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.8 °C

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7045 0713

313

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Environmental Analysis Request/Chain of Custody

Acct. # 10195 Group # 2079058 Sample # 1221699-725

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☒ Sediment	Matrix: Water ☐ Ground ☐ Surface ☐ Potable ☐ NPDES	Matrix: Other:	Total # of Containers	Analyses Requested: PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-1-25K	12/10/19	1314	X		X			1	X	
SB-1-30		1318	X		X			1	X	
SB-1-30		1318	X		X			2	X	MS/MSD
SB-1-40		1325	X		X			1	X	
SB-1-50		1359	X		X			1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/10/19				

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.8 °C

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7045 0713

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Sample Administration Receipt Documentation Log

Doc Log ID: 269508

Group Number(s): 2079058

Client: GEOSYNTEC CONSULTANTS

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/11/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	2.8	IR	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

APPENDIX D

Laboratory Data

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 07, 2020 10:28

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2078478
PO Number: WR26393-02-02
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-5-5 Grab Soil	12/09/2019 13:20	1219430
SB-5-10 Grab Soil	12/09/2019 13:26	1219431
SB-5-15 Grab Soil	12/09/2019 13:30	1219432
SB-5-20 Grab Soil	12/09/2019 13:33	1219433
SB-5-25 Grab Soil	12/09/2019 13:44	1219434
SB-5-30 Grab Soil	12/09/2019 13:51	1219435
SB-5-40 Grab Soil	12/09/2019 14:08	1219436
SB-5-44 Grab Soil	12/09/2019 14:41	1219437
SB-5-15k Grab Soil	12/09/2019 13:30	1219438
SB-5-20 Grab Soil	12/09/2019 13:33	1219439
SB-4-1 Grab Soil	12/09/2019 08:54	1219440
SB-4-5 Grab Soil	12/09/2019 09:12	1219441
SB-4-10 Grab Soil	12/09/2019 09:14	1219442
SB-4-15 Grab Soil	12/09/2019 09:16	1219443
SB-4-20 Grab Soil	12/09/2019 09:18	1219444
SB-4-25 Grab Soil	12/09/2019 09:30	1219445
SB-4-30 Grab Soil	12/09/2019 09:34	1219446
SB-4-40 Grab Soil	12/09/2019 09:46	1219447
SB-4-50 Grab Soil	12/09/2019 10:12	1219448
SB-5-1 Grab Soil	12/09/2019 12:38	1219449
SB-EB-120919 Grab Water	12/09/2019 15:36	1219450
SB-FB-120919 Grab Water	12/09/2019 15:37	1219451

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: BUR PFAS Investigation/WR2693
ELLE Group #: 2078478

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.
Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

EPA 537 mod QSM 5.1 table B-15, LC/MS/MS Miscellaneous

Sample #s: 1219450, 1219451

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Batch #: 19350004 (Sample number(s): 1219450-1219451)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: Perfluorooctanoic acid, Perfluorobutanoic acid, Perfluoroheptanesulfonic acid

SM 2540 G-2011 %Moisture Calc, Wet Chemistry

Batch #: 19345820006B (Sample number(s): 1219440-1219449 BKG: 1219445)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Moisture

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Analysis Report

Sample Description: **SB-5-5 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:20

GeoSyntec Consultants
ELLE Sample #: SW 1219430
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	2.2	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.96	0.61	1
14478	Perfluorohexanoic acid	307-24-4	4.7	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	0.75	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	5.9	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:30	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:26

GeoSyntec Consultants
ELLE Sample #: SW 1219431
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	3.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	5.9	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	12	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.3	0.59	1
14478	Perfluorohexanoic acid	307-24-4	38	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	3.9	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	35	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:39	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:30

GeoSyntec Consultants
ELLE Sample #: SW 1219432
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	15	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	4.0	2.1	1
14478	Perfluorobutanoic acid	375-22-4	8.2	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	5.9	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.1	0.62	1
14478	Perfluorohexanoic acid	307-24-4	25	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	38	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:48	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: **SB-5-20 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:33

GeoSyntec Consultants
ELLE Sample #: SW 1219433
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	4.5	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	3.7	2.0	1
14478	Perfluorobutanoic acid	375-22-4	6.4	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	2.0	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	14	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	23	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 01:57	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:44

GeoSyntec Consultants
ELLE Sample #: SW 1219434
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	3.0	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	25	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	23	1.9	1
14478	Perfluorobutanoic acid	375-22-4	14	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	7.1	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.5	0.58	1
14478	Perfluorohexanoic acid	307-24-4	50	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	1.1	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	4.7	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	46	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:06	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:51

GeoSyntec Consultants
ELLE Sample #: SW 1219435
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 1.9	1.9	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 1.9	1.9	1
14478	Perfluorobutanesulfonic acid	375-73-5	6.6	1.9	1
14478	Perfluorobutanoic acid	375-22-4	7.0	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	1.9	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	21	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	26	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.9	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:15	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 14:08

GeoSyntec Consultants
ELLE Sample #: SW 1219436
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	3.0	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	1.4	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.62	0.62	1
14478	Perfluorohexanoic acid	307-24-4	13	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	16	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:34	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-44 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 14:41

GeoSyntec Consultants
ELLE Sample #: SW 1219437
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	4.7	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	6.7	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.7	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:43	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: **SB-5-15k Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:30

GeoSyntec Consultants
ELLE Sample #: SW 1219438
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	26	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	2.5	1.9	1
14478	Perfluorobutanoic acid	375-22-4	5.3	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	11	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	4.7	0.57	1
14478	Perfluorohexanoic acid	307-24-4	24	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	1.3	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	29	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 02:52	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 13:33

GeoSyntec Consultants
ELLE Sample #: SW 1219439
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	7.2	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	4.8	2.1	1
14478	Perfluorobutanoic acid	375-22-4	7.5	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	2.8	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.90	0.62	1
14478	Perfluorohexanoic acid	307-24-4	17	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	26	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.7	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:01	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006A	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 08:54

GeoSyntec Consultants
ELLE Sample #: SW 1219440
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.3	3.3	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.66	0.66	1
14478	Perfluorodecanoic acid	335-76-2	< 0.66	0.66	1
14478	Perfluorododecanoic acid	307-55-1	< 0.66	0.66	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.66	0.66	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.66	0.66	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.66	0.66	1
14478	Perfluorohexanoic acid	307-24-4	< 0.66	0.66	1
14478	Perfluorononanoic acid	375-95-1	< 0.66	0.66	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.66	0.66	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.66	0.66	1
14478	Perfluorooctanoic acid	335-67-1	< 0.66	0.66	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.3	3.3	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.66	0.66	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.66	0.66	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.66	0.66	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.66	0.66	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:10	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:12

GeoSyntec Consultants
ELLE Sample #: SW 1219441
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	1.7	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.63	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	11.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:19	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:14

GeoSyntec Consultants
ELLE Sample #: SW 1219442
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.64	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.64	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	0.69	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:28	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:16

GeoSyntec Consultants
ELLE Sample #: SW 1219443
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.65	0.65	1
14478	Perfluorodecanoic acid	335-76-2	< 0.65	0.65	1
14478	Perfluorododecanoic acid	307-55-1	< 0.65	0.65	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.65	0.65	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.65	0.65	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.65	0.65	1
14478	Perfluorohexanoic acid	307-24-4	< 0.65	0.65	1
14478	Perfluorononanoic acid	375-95-1	< 0.65	0.65	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.65	0.65	1
14478	Perfluorooctanesulfonic acid	1763-23-1	0.79	0.65	1
14478	Perfluorooctanoic acid	335-67-1	< 0.65	0.65	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.65	0.65	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.65	0.65	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.65	0.65	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.65	0.65	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:37	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:18

GeoSyntec Consultants
ELLE Sample #: SW 1219444
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.63	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 03:46	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:30

GeoSyntec Consultants
ELLE Sample #: SW 1219445
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 02:44	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:34

GeoSyntec Consultants
ELLE Sample #: SW 1219446
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 02:53	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 09:46

GeoSyntec Consultants
ELLE Sample #: SW 1219447
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:02	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-4-50 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 10:12

GeoSyntec Consultants
ELLE Sample #: SW 1219448
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:11	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

Sample Description: SB-5-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 12:38

GeoSyntec Consultants
ELLE Sample #: SW 1219449
ELLE Group #: 2078478
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	12	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	15	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	2.9	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	3.9	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	4.3	0.63	1
14478	Perfluorohexanoic acid	307-24-4	8.0	0.63	1
14478	Perfluorononanoic acid	375-95-1	0.71	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	4.9	0.63	1
14478	Perfluorooctanoic acid	335-67-1	2.2	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	15	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.3	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:20	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19345820006B	12/12/2019 09:22	William C Schwebel	1

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Analysis Report

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Sample Description: SB-EB-120919 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 15:36

GeoSyntec Consultants
ELLE Sample #: WW 1219450
ELLE Group #: 2078478
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.7	1.7	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.3	4.3	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.6	2.6	1
14434	NEtFOSAA	2991-50-6	< 2.6	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.7	1.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.7	1.7	1
14434	Perfluorobutanoic acid	375-22-4	< 4.3	4.3	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.7	1.7	1
14434	Perfluorodecanoic acid	335-76-2	< 1.7	1.7	1
14434	Perfluorododecanoic acid	307-55-1	< 1.7	1.7	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.7	1.7	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.7	1.7	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.7	1.7	1
14434	Perfluorohexanoic acid	307-24-4	< 1.7	1.7	1
14434	Perfluorononanoic acid	375-95-1	< 1.7	1.7	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.7	1.7	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.7	1.7	1
14434	Perfluorooctanoic acid	335-67-1	< 1.7	1.7	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.7	1.7	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.7	1.7	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.7	1.7	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.7	1.7	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.7	1.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 15:55	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-FB-120919 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/10/2019 10:16
Collection Date/Time: 12/09/2019 15:37

GeoSyntec Consultants
ELLE Sample #: WW 1219451
ELLE Group #: 2078478
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/l	ng/l	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.1	4.1	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.4	2.4	1
14434	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.1	4.1	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 16:04	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	LOQ ng/g
Batch number: 19350006	Sample number(s): 1219430-1219444	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19352006	Sample number(s): 1219445-1219449	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Method Blank (continued)

Analysis Name	Result	LOQ
	ng/g	ng/g
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1219450-1219451	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19350006	Sample number(s): 1219430-1219444								

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4:2-Fluorotelomersulfonic acid	23.36	19.61			84		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.81			88		51-156		
8:2-Fluorotelomersulfonic acid	23.94	19.63			82		61-142		
NEtFOSAA	25	24.59			98		60-143		
NMeFOSAA	25	23.98			96		56-142		
Perfluorobutanesulfonic acid	22.12	19.52			88		80-134		
Perfluorobutanoic acid	25	19.89			80		79-146		
Perfluorodecanesulfonic acid	24.08	22.31			93		59-142		
Perfluorodecanoic acid	25	20.82			83		79-136		
Perfluorododecanoic acid	25	20.73			83		76-142		
Perfluoroheptanesulfonic acid	23.78	19.93			84		75-131		
Perfluoroheptanoic acid	25	23.29			93		81-140		
Perfluorohexanesulfonic acid	23.64	19.54			83		75-131		
Perfluorohexanoic acid	25	20.6			82		73-145		
Perfluorononanoic acid	25	22.04			88		74-141		
Perfluorooctanesulfonamide	25	20.52			82		66-128		
Perfluorooctanesulfonic acid	23.9	18.67			78		66-140		
Perfluorooctanoic acid	25	21.38			86		80-140		
Perfluoropentanesulfonate	23.44	20.54			88		78-131		
Perfluoropentanoic acid	25	20.73			83		73-140		
Perfluorotetradecanoic acid	25	21.71			87		81-137		
Perfluorotridecanoic acid	25	21.48			86		75-147		
Perfluoroundecanoic acid	25	21.58			86		63-147		
Batch number: 19352006	Sample number(s): 1219445-1219449								
4:2-Fluorotelomersulfonic acid	23.36	21.33			91		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.19			85		51-156		
8:2-Fluorotelomersulfonic acid	23.94	21.71			91		61-142		
NEtFOSAA	25	26.61			106		60-143		
NMeFOSAA	25	26.17			105		56-142		
Perfluorobutanesulfonic acid	22.12	20.86			94		80-134		
Perfluorobutanoic acid	25	21.1			84		79-146		
Perfluorodecanesulfonic acid	24.08	24.13			100		59-142		
Perfluorodecanoic acid	25	23.25			93		79-136		
Perfluorododecanoic acid	25	23.75			95		76-142		
Perfluoroheptanesulfonic acid	23.78	21.61			91		75-131		
Perfluoroheptanoic acid	25	24.86			99		81-140		
Perfluorohexanesulfonic acid	23.64	21.24			90		75-131		
Perfluorohexanoic acid	25	22.04			88		73-145		
Perfluorononanoic acid	25	24.99			100		74-141		
Perfluorooctanesulfonamide	25	22.24			89		66-128		
Perfluorooctanesulfonic acid	23.9	20.81			87		66-140		
Perfluorooctanoic acid	25	21.99			88		80-140		
Perfluoropentanesulfonate	23.44	22.92			98		78-131		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluoropentanoic acid	25	23.16			93		73-140		
Perfluorotetradecanoic acid	25	23.51			94		81-137		
Perfluorotridecanoic acid	25	23.55			94		75-147		
Perfluoroundecanoic acid	25	24.74			99		63-147		
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19350004	Sample number(s): 1219450-1219451								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19345820006A	Sample number(s): 1219430-1219439								
Moisture	89.5	89.41			100		99-101		
Batch number: 19345820006B	Sample number(s): 1219440-1219449								
Moisture	89.5	89.41			100		99-101		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 19345820006A	Sample number(s): 1219430-1219439 BKG: 1219437			
Moisture	2.66	2.55	4	5
Batch number: 19345820006B	Sample number(s): 1219440-1219449 BKG: 1219445			
Moisture	2.97	2.45	19* (1)	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1219450	118	114	123	130	121	125
1219451	114	109	113	120	115	121
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117
LCSD	109	106	105	115	113	110
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219450	118	131	123	116	124	122
1219451	112	117	118	109	111	117
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1219450	128	135	134	131	128	123
1219451	116	114	117	120	119	102
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C8-PFOSA
1219450	107
1219451	111
Blank	105
LCS	100
LCSD	106
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1219430	96	96	93	100	99	99
1219431	97	90	93	93	90	96
1219432	74	71	70	71	67	69
1219433	97	95	95	101	95	101
1219434	87	86	85	85	84	91
1219435	96	97	91	94	92	96
1219436	91	94	87	93	89	95
1219437	94	92	91	94	89	96
1219438	86	82	81	87	83	86
1219439	88	86	84	87	85	92
1219440	80	80	79	77	71	76
1219441	88	86	88	83	80	85
1219442	86	86	82	79	84	90
1219443	83	82	78	81	78	78
1219444	89	87	83	84	88	90
Blank	89	90	86	96	85	91
LCS	92	94	89	96	88	95
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219430	96	111	102	94	99	94
1219431	96	106	93	98	98	98
1219432	69	80	70	76	78	74
1219433	99	113	99	92	97	91
1219434	86	101	87	87	87	87
1219435	93	100	96	95	95	88
1219436	90	101	88	87	90	86
1219437	91	106	93	93	90	94
1219438	82	96	84	83	84	78
1219439	87	100	94	89	92	88

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219440	73	91	76	80	80	81
1219441	81	98	86	87	88	81
1219442	83	96	83	85	86	85
1219443	81	86	80	79	81	75
1219444	84	103	87	89	91	85
Blank	87	99	94	93	93	86
LCS	90	99	92	92	90	87
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1219430	98	96	96	98	97	90
1219431	104	98	97	103	91	90
1219432	79	77	71	82	78	68
1219433	100	89	93	94	98	89
1219434	95	77	89	79	87	82
1219435	102	82	97	79	93	91
1219436	95	65	83	67	86	79
1219437	105	86	100	97	97	87
1219438	88	92	89	94	82	79
1219439	99	87	92	88	89	81
1219440	86	82	85	81	87	78
1219441	90	72	92	87	83	75
1219442	91	79	84	77	83	76
1219443	77	63	79	71	79	74
1219444	87	83	91	91	84	84
Blank	93	96	87	84	91	84
LCS	93	91	86	82	88	83
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1219430	94
1219431	97
1219432	78
1219433	99
1219434	87
1219435	96
1219436	90
1219437	102
1219438	87
1219439	89

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C8-PFOSA
1219440	54
1219441	88
1219442	89
1219443	81
1219444	89
Blank	92
LCS	80
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1219445	79	78	70	60	73	85
1219446	87	89	79	68	81	93
1219447	79	79	71	65	75	85
1219448	83	82	76	70	79	91
1219449	87	85	79	74	83	95
Blank	83	82	72	65	78	87
LCS	77	75	67	57	73	81
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1219445	74	83	79	79	77	80
1219446	80	89	87	89	88	82
1219447	74	85	78	76	72	74
1219448	79	88	80	81	80	80
1219449	85	95	86	84	79	78
Blank	75	86	82	82	82	80
LCS	74	77	76	76	73	69
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1219445	87	86	81	86	76	75
1219446	88	83	89	86	79	75
1219447	85	76	74	72	74	64
1219448	81	88	81	87	86	75
1219449	87	76	74	76	74	76
Blank	83	89	79	87	76	68
LCS	76	78	72	76	71	66

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/07/2020 10:28

Group Number: 2078478

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1219445	85
1219446	93
1219447	74
1219448	83
1219449	73
Blank	85
LCS	73
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2078478 Sample # 121943051 1/3

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☒	Sediment ☐	Ground ☐	Surface ☐	Potable ☐	NPDES ☐	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-5-5	12/4/19	1320	X		S							1	X	
SB-5-10		1326	X		S							1	X	
SB-5-15		1330	X		S							1	X	
SB-5-20		1333	X		S							1	X	
SB-5-25		1344	X		S							1	X	
SB-5-30		1351	X		S							1	X	
SB-5-40		1408	X		S							1	X	
SB-5-44		1441	X		S							1	X	
SB-5-15K		1330	X		S							1	X	
SB-5-20		1333	X		S							1	X	MS/MSD

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsnelder@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.5 °C

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7046 0713

Julia Loper

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Accl. # 10195 Group # 2078478 Sample # 1219430-51

2/3

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Snelder	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: ☐ Sediment ☐ Ground ☐ Surface ☒ Soil ☐ Potable ☐ NPDES Water Other:

Analyses Requested / Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-4-1	12/9/19	0854	X		1	X	
SB-4-5		0912	X		1	X	
SB-4-10	0914	~~0916~~	X		1	X	
SB-4-15	0914	~~0918~~	X		1	X	
SB-4-20		0918	X		1	X	
SB-4-25		0930	X		1	X	
SB-4-30		0934	X		1	X	
SB-4-40		0946	X		1	X	
SB-4-50		1012	X		1	X	
SB-5-1		1238	X		1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsnelder@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	12/10/19	1016

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.5 °C

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7045 0713

Julia Loper

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 10195 Group # 2078478 Sample # 1219430-51 313

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: ☐ Sediment ☐ Soil ☐ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ Water ☐ Other:

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: ____ SCR #: ____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-EB-120919	12/9/19	1536								
SB-FB-120919	↓	1537								

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: ____

Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 3.5 °C

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7045 0713

Julia Loper

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2078478 Sample # 1219430-51 313

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: ☐ Sediment ☐ Soil ☐ Ground ☐ Potable ☐ Surface ☐ NPDES

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: ____ SCR #: ____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, B = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1-List) via EPA 537 mod QSM table B-15									Remarks
SB-EB-120919	12/9/19	1536				X		1	X									
SB-FB-120919	↓	1537				X		1	X									

JS 12/10/19

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: ____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt ____ °C

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7045 0713

Julia Loper

* Revised COC sent 12/10/19 by J. Sneider.

EMZ/25502 12/13/19

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Sample Administration Receipt Documentation Log

Doc Log ID: 269295

Group Number(s): 2078478

Client: GEOSYNTEC CONSULTANTS

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/10/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	California		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	3.5	IR	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 13, 2020 11:25

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2079058
PO Number: WR26393-02-02
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-FB-121019 Grab Water	12/10/2019 07:53	1221699
SB-2-1 Grab Soil	12/10/2019 08:06	1221700
SB-2-5 Grab Soil	12/10/2019 08:50	1221701
SB-2-10 Grab Soil	12/10/2019 08:53	1221702
SB-2-10MS Grab Soil	12/10/2019 08:53	1221703
SB-2-10MSD Grab Soil	12/10/2019 08:53	1221704
SB-2-15 Grab Soil	12/10/2019 08:56	1221705
SB-2-15K Grab Soil	12/10/2019 08:56	1221706
SB-2-20 Grab Soil	12/10/2019 09:08	1221707
SB-2-25 Grab Soil	12/10/2019 09:20	1221708
SB-2-25K Grab Soil	12/10/2019 09:20	1221709
SB-2-30 Grab Soil	12/10/2019 09:33	1221710
SB-2-40 Grab Soil	12/10/2019 09:47	1221711
SB-2-48 Grab Soil	12/10/2019 10:08	1221712
SB-EB-121019 Grab Water	12/10/2019 12:28	1221713
SB-1-1 Grab Soil	12/10/2019 12:30	1221714
SB-1-5 Grab Soil	12/10/2019 12:58	1221715
SB-1-10 Grab Soil	12/10/2019 13:00	1221716
SB-1-15 Grab Soil	12/10/2019 13:03	1221717
SB-1-20 Grab Soil	12/10/2019 13:08	1221718
SB-1-25 Grab Soil	12/10/2019 13:14	1221719
SB-1-25K Grab Soil	12/10/2019 13:14	1221720
SB-1-30 Grab Soil	12/10/2019 13:18	1221721
SB-1-30MS Grab Soil	12/10/2019 13:18	1221722
SB-1-30MSD Grab Soil	12/10/2019 13:18	1221723
SB-1-40 Grab Soil	12/10/2019 13:25	1221724
SB-1-50 Grab Soil	12/10/2019 13:59	1221725

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: SB-FB-121019 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 07:53

GeoSyntec Consultants
ELLE Sample #: WW 1221699
ELLE Group #: 2079058
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.1	4.1	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.5	2.5	1
14434	NEtFOSAA	2991-50-6	< 2.5	2.5	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.1	4.1	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:11	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-2-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:06

GeoSyntec Consultants
ELLE Sample #: SW 1221700
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	1.9	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.1	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	2.3	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	7.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:29	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:50

GeoSyntec Consultants
ELLE Sample #: SW 1221701
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	1.2	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	1.3	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:38	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221702
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 03:48	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-10MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221703
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	21	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	23	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	22	3.0	1
14478	NEtFOSAA	2991-50-6	27	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	25	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	22	2.0	1
14478	Perfluorobutanoic acid	375-22-4	23	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	27	0.60	1
14478	Perfluorodecanoic acid	335-76-2	25	0.60	1
14478	Perfluorododecanoic acid	307-55-1	25	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	23	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	27	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	23	0.60	1
14478	Perfluorohexanoic acid	307-24-4	24	0.60	1
14478	Perfluorononanoic acid	375-95-1	25	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	22	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	23	0.60	1
14478	Perfluorooctanoic acid	335-67-1	24	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	24	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	25	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	26	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	24	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	26	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	2.6	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:27	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-10MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221704
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	21	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	21	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	22	3.0	1
14478	NEtFOSAA	2991-50-6	26	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	26	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	22	2.0	1
14478	Perfluorobutanoic acid	375-22-4	23	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	27	0.60	1
14478	Perfluorodecanoic acid	335-76-2	25	0.60	1
14478	Perfluorododecanoic acid	307-55-1	24	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	22	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	28	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	23	0.60	1
14478	Perfluorohexanoic acid	307-24-4	23	0.60	1
14478	Perfluorononanoic acid	375-95-1	26	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	24	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	22	0.60	1
14478	Perfluorooctanoic acid	335-67-1	23	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	23	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	25	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	26	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	24	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	25	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	2.6	0.50	1
00121	Moisture Duplicate	n.a.	2.5	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:45	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1

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Analysis Report

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Sample Description: SB-2-10MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1221704
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1221705
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 1.9	1.9	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 1.9	1.9	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.58	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.58	0.58	1
14478	Perfluorohexanoic acid	307-24-4	< 0.58	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	< 0.58	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.58	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.4	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:06	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-15K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1221706
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:15	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:08

GeoSyntec Consultants
ELLE Sample #: SW 1221707
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:24	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:20

GeoSyntec Consultants
ELLE Sample #: SW 1221708
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:33	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-25K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:20

GeoSyntec Consultants
ELLE Sample #: SW 1221709
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.57	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	< 0.57	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.57	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:42	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:33

GeoSyntec Consultants
ELLE Sample #: SW 1221710
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.57	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	< 0.57	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.57	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 04:51	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004A	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: **SB-2-40 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 09:47

GeoSyntec Consultants
ELLE Sample #: SW 1221711
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.63	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:00	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-2-48 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 10:08

GeoSyntec Consultants
ELLE Sample #: SW 1221712
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.2	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:09	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-EB-121019 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:28

GeoSyntec Consultants
ELLE Sample #: WW 1221713
ELLE Group #: 2079058
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.7	1.7	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.2	4.2	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.5	2.5	1
14434	NEtFOSAA	2991-50-6	< 2.5	2.5	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.7	1.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.7	1.7	1
14434	Perfluorobutanoic acid	375-22-4	< 4.2	4.2	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.7	1.7	1
14434	Perfluorodecanoic acid	335-76-2	< 1.7	1.7	1
14434	Perfluorododecanoic acid	307-55-1	< 1.7	1.7	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.7	1.7	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.7	1.7	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.7	1.7	1
14434	Perfluorohexanoic acid	307-24-4	< 1.7	1.7	1
14434	Perfluorononanoic acid	375-95-1	< 1.7	1.7	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.7	1.7	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.7	1.7	1
14434	Perfluorooctanoic acid	335-67-1	< 1.7	1.7	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.7	1.7	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.7	1.7	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.7	1.7	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.7	1.7	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.7	1.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:20	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-1-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:30

GeoSyntec Consultants
ELLE Sample #: SW 1221714
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	390	21	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	4.4	3.1	1
14478	NEtFOSAA	2991-50-6	2.9	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	14	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	34	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	13	0.62	1
14478	Perfluorohexanoic acid	307-24-4	77	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	17	0.62	1
14478	Perfluorooctanoic acid	335-67-1	6.4	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	96	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
	The recovery for extraction standards is outside of the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted within the method holding time and the recovery for extraction standards was again outside of the QC acceptance limits.				
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

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Analysis Report

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Sample Description: **SB-1-1 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:30

GeoSyntec Consultants
ELLE Sample #: SW 1221714
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/21/2019 05:18	Devon M Whooley	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/22/2019 21:18	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352006	12/18/2019 08:30	Toby Barnhart	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

Sample Description: SB-1-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:58

GeoSyntec Consultants
ELLE Sample #: SW 1221715
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.57	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	< 0.57	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.57	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
	The recovery for extraction standards is outside of the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted within the method holding time and the recovery for extraction standards was again outside of the QC acceptance limits.				
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

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Analysis Report

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Sample Description: **SB-1-5 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 12:58

GeoSyntec Consultants
ELLE Sample #: SW 1221715
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:30	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:00

GeoSyntec Consultants
ELLE Sample #: SW 1221716
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	0.95	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.82	0.63	1
14478	Perfluorohexanoic acid	307-24-4	9.9	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	13	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:07	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:03

GeoSyntec Consultants
ELLE Sample #: SW 1221717
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:16	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:08

GeoSyntec Consultants
ELLE Sample #: SW 1221718
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.64	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.64	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.64	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:25	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:14

GeoSyntec Consultants
ELLE Sample #: SW 1221719
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	< 0.64	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.64	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.64	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.64	0.64	1
14478	Perfluorohexanoic acid	307-24-4	< 0.64	0.64	1
14478	Perfluorononanoic acid	375-95-1	< 0.64	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.64	0.64	1
14478	Perfluorooctanoic acid	335-67-1	< 0.64	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.64	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.9	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:34	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-25K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:14

GeoSyntec Consultants
ELLE Sample #: SW 1221720
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.8	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 18:53	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221721
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.1	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:02	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-30MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221722
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	24	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	22	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	25	3.2	1
14478	NEtFOSAA	2991-50-6	25	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	30	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	23	2.1	1
14478	Perfluorobutanoic acid	375-22-4	24	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	27	0.63	1
14478	Perfluorodecanoic acid	335-76-2	25	0.63	1
14478	Perfluorododecanoic acid	307-55-1	26	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	25	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	28	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.63	1
14478	Perfluorohexanoic acid	307-24-4	26	0.63	1
14478	Perfluorononanoic acid	375-95-1	24	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	24	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	24	0.63	1
14478	Perfluorooctanoic acid	335-67-1	25	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	24	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	26	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	27	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	26	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	27	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	7.1	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:11	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-30MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221723
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/g	ng/g	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	22	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	24	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	25	3.2	1
14478	NEtFOSAA	2991-50-6	25	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	26	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	23	2.1	1
14478	Perfluorobutanoic acid	375-22-4	24	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	26	0.63	1
14478	Perfluorodecanoic acid	335-76-2	26	0.63	1
14478	Perfluorododecanoic acid	307-55-1	26	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	24	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	27	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.63	1
14478	Perfluorohexanoic acid	307-24-4	25	0.63	1
14478	Perfluorononanoic acid	375-95-1	27	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	25	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	24	0.63	1
14478	Perfluorooctanoic acid	335-67-1	26	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	25	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	25	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	28	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	25	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	27	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		%	%	
00118	Moisture	n.a.	7.1	0.50	1
00121	Moisture Duplicate	n.a.	7.6	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:20	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1

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Analysis Report

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Sample Description: **SB-1-30MSD Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:18

GeoSyntec Consultants
ELLE Sample #: SW 1221723
ELLE Group #: 2079058
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:25

GeoSyntec Consultants
ELLE Sample #: SW 1221724
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:29	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820004B	12/16/2019 10:25	William C Schwebel	1

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Analysis Report

Sample Description: SB-1-50 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/11/2019 10:48
Collection Date/Time: 12/10/2019 13:59

GeoSyntec Consultants
ELLE Sample #: SW 1221725
ELLE Group #: 2079058
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.4	2.4	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.4	2.4	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.6	3.6	1
14478	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.4	2.4	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.4	2.4	1
14478	Perfluorobutanoic acid	375-22-4	< 2.4	2.4	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.72	0.72	1
14478	Perfluorodecanoic acid	335-76-2	< 0.72	0.72	1
14478	Perfluorododecanoic acid	307-55-1	< 0.72	0.72	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.72	0.72	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.72	0.72	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.72	0.72	1
14478	Perfluorohexanoic acid	307-24-4	< 0.72	0.72	1
14478	Perfluorononanoic acid	375-95-1	< 0.72	0.72	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.72	0.72	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.72	0.72	1
14478	Perfluorooctanoic acid	335-67-1	< 0.72	0.72	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.6	3.6	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.72	0.72	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.72	0.72	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.72	0.72	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.72	0.72	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	21.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:38	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19347820005A	12/16/2019 12:07	William C Schwebel	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	LOQ ng/g
Batch number: 19352006	Sample number(s): 1221700-1221712,1221714	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19352007	Sample number(s): 1221716-1221725	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Method Blank (continued)

Analysis Name	Result	LOQ
	ng/g	ng/g
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19365005	Sample number(s): 1221715	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1221699,1221713	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Method Blank (continued)

Analysis Name	Result ng/l	LOQ ng/l
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19352006	Sample number(s): 1221700-1221712,1221714								
4:2-Fluorotelomersulfonic acid	23.36	21.33			91		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.19			85		51-156		
8:2-Fluorotelomersulfonic acid	23.94	21.71			91		61-142		
NEtFOSAA	25	26.61			106		60-143		
NMeFOSAA	25	26.17			105		56-142		
Perfluorobutanesulfonic acid	22.12	20.86			94		80-134		
Perfluorobutanoic acid	25	21.1			84		79-146		
Perfluorodecanesulfonic acid	24.08	24.13			100		59-142		
Perfluorodecanoic acid	25	23.25			93		79-136		
Perfluorododecanoic acid	25	23.75			95		76-142		
Perfluoroheptanesulfonic acid	23.78	21.61			91		75-131		
Perfluoroheptanoic acid	25	24.86			99		81-140		
Perfluorohexanesulfonic acid	23.64	21.24			90		75-131		
Perfluorohexanoic acid	25	22.04			88		73-145		
Perfluorononanoic acid	25	24.99			100		74-141		
Perfluorooctanesulfonamide	25	22.24			89		66-128		
Perfluorooctanesulfonic acid	23.9	20.81			87		66-140		
Perfluorooctanoic acid	25	21.99			88		80-140		
Perfluoropentanesulfonate	23.44	22.92			98		78-131		
Perfluoropentanoic acid	25	23.16			93		73-140		
Perfluorotetradecanoic acid	25	23.51			94		81-137		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorotridecanoic acid	25	23.55			94		75-147		
Perfluoroundecanoic acid	25	24.74			99		63-147		
Batch number: 19352007	Sample number(s): 1221716-1221725								
4:2-Fluorotelomersulfonic acid	23.36	22.09			95		63-132		
6:2-Fluorotelomersulfonic acid	23.7	21.57			91		51-156		
8:2-Fluorotelomersulfonic acid	23.94	24.31			102		61-142		
NEtFOSAA	25	25.86			103		60-143		
NMeFOSAA	25	29.06			116		56-142		
Perfluorobutanesulfonic acid	22.12	21.73			98		80-134		
Perfluorobutanoic acid	25	23.52			94		79-146		
Perfluorodecanesulfonic acid	24.08	25.24			105		59-142		
Perfluorodecanoic acid	25	26.83			107		79-136		
Perfluorododecanoic acid	25	24.99			100		76-142		
Perfluoroheptanesulfonic acid	23.78	23.45			99		75-131		
Perfluoroheptanoic acid	25	26.73			107		81-140		
Perfluorohexanesulfonic acid	23.64	23.43			99		75-131		
Perfluorohexanoic acid	25	24.41			98		73-145		
Perfluorononanoic acid	25	25.92			104		74-141		
Perfluorooctanesulfonamide	25	23.92			96		66-128		
Perfluorooctanesulfonic acid	23.9	22.51			94		66-140		
Perfluorooctanoic acid	25	25.15			101		80-140		
Perfluoropentanesulfonate	23.44	23.41			100		78-131		
Perfluoropentanoic acid	25	24.88			100		73-140		
Perfluorotetradecanoic acid	25	27.19			109		81-137		
Perfluorotridecanoic acid	25	24.99			100		75-147		
Perfluoroundecanoic acid	25	26.85			107		63-147		
Batch number: 19365005	Sample number(s): 1221715								
4:2-Fluorotelomersulfonic acid	23.36	19.21			82		63-132		
6:2-Fluorotelomersulfonic acid	23.7	19.65			83		51-156		
8:2-Fluorotelomersulfonic acid	23.94	17.66			74		61-142		
NEtFOSAA	25	23.4			94		60-143		
NMeFOSAA	25	19.59			78		56-142		
Perfluorobutanesulfonic acid	22.12	19.37			88		80-134		
Perfluorobutanoic acid	25	20.64			83		79-146		
Perfluorodecanesulfonic acid	24.08	20.02			83		59-142		
Perfluorodecanoic acid	25	21.88			88		79-136		
Perfluorododecanoic acid	25	20.21			81		76-142		
Perfluoroheptanesulfonic acid	23.78	20.72			87		75-131		
Perfluoroheptanoic acid	25	22.77			91		81-140		
Perfluorohexanesulfonic acid	23.64	20.75			88		75-131		
Perfluorohexanoic acid	25	22.12			88		73-145		
Perfluorononanoic acid	25	21.14			85		74-141		
Perfluorooctanesulfonamide	25	18.79			75		66-128		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorooctanesulfonic acid	23.9	19.05			80		66-140		
Perfluorooctanoic acid	25	20.85			83		80-140		
Perfluoropentanesulfonate	23.44	20.39			87		78-131		
Perfluoropentanoic acid	25	21.08			84		73-140		
Perfluorotetradecanoic acid	25	21.82			87		81-137		
Perfluorotridecanoic acid	25	22.01			88		75-147		
Perfluoroundecanoic acid	25	22.02			88		63-147		
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19350004	Sample number(s): 1221699,1221713								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19347820004A	Sample number(s): 1221700-1221710								
Moisture	89.5	89.43			100		99-101		
Moisture	89.5	89.43			100		99-101		
Moisture Duplicate	89.5	89.43			100		99-101		
Batch number: 19347820004B	Sample number(s): 1221711-1221712,1221714-1221724								
Moisture	89.5	89.43			100		99-101		
Moisture	89.5	89.43			100		99-101		
Moisture Duplicate	89.5	89.43			100		99-101		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

LCS/LCSD (continued)

Analysis Name	LCS Spike Added %	LCS Conc %	LCSD Spike Added %	LCSD Conc %	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19347820005A	Sample number(s): 1221725								
Moisture	89.5	89.44			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19352006	Sample number(s): 1221700-1221712,1221714 UNSPK: 1221702									
4:2-Fluorotelomersulfonic acid	< 1.9	22.9	20.43	22.9	20.25	89	88	63-132	1	30
6:2-Fluorotelomersulfonic acid	< 1.9	23.24	22	23.24	20.19	95	87	51-156	9	30
8:2-Fluorotelomersulfonic acid	< 2.9	23.47	21.62	23.47	20.95	92	89	61-142	3	30
NEtFOSAA	< 1.9	24.51	26.78	24.51	25.22	109	103	60-143	6	30
NMeFOSAA	< 1.9	24.51	24.54	24.51	24.97	100	102	56-142	2	30
Perfluorobutanesulfonic acid	< 1.9	21.69	21.84	21.69	21.03	101	97	80-134	4	30
Perfluorobutanoic acid	< 1.9	24.51	22.34	24.51	22.34	91	91	79-146	0	30
Perfluorodecanesulfonic acid	< 0.58	23.61	25.86	23.61	25.86	110	110	59-142	0	30
Perfluorodecanoic acid	< 0.58	24.51	24.28	24.51	23.9	99	98	79-136	2	30
Perfluorododecanoic acid	< 0.58	24.51	24.79	24.51	23.3	101	95	76-142	6	30
Perfluoroheptanesulfonic acid	< 0.58	23.31	22.73	23.31	21.89	97	94	75-131	4	30
Perfluoroheptanoic acid	< 0.58	24.51	26.51	24.51	27	108	110	81-140	2	30
Perfluorohexanesulfonic acid	< 0.58	23.18	22.84	23.18	22.6	99	98	75-131	1	30
Perfluorohexanoic acid	< 0.58	24.51	23.37	24.51	22.71	95	93	73-145	3	30
Perfluorononanoic acid	< 0.58	24.51	24.44	24.51	24.89	100	102	74-141	2	30
Perfluorooctanesulfonamide	< 0.58	24.51	21.23	24.51	23.65	87	96	66-128	11	30
Perfluorooctanesulfonic acid	< 0.58	23.43	22.48	23.43	21.51	96	92	66-140	4	30
Perfluorooctanoic acid	< 0.58	24.51	23.29	24.51	22.51	95	92	80-140	3	30
Perfluoropentanesulfonate	< 2.9	22.98	23.49	22.98	22.38	102	97	78-131	5	30
Perfluoropentanoic acid	0.481	24.51	23.98	24.51	24.08	96	96	73-140	0	30
Perfluorotetradecanoic acid	< 0.58	24.51	25.37	24.51	25.09	104	102	81-137	1	30
Perfluorotridecanoic acid	< 0.58	24.51	23.68	24.51	23.42	97	96	75-147	1	30
Perfluoroundecanoic acid	< 0.58	24.51	25.15	24.51	24.56	103	100	63-147	2	30
Batch number: 19352007	Sample number(s): 1221716-1221725 UNSPK: 1221721									
4:2-Fluorotelomersulfonic acid	< 1.8	22.9	22.6	22.9	20.34	99	89	63-132	11	30
6:2-Fluorotelomersulfonic acid	< 1.8	23.24	20.9	23.24	22.55	90	97	51-156	8	30
8:2-Fluorotelomersulfonic acid	< 2.8	23.47	23.35	23.47	22.98	100	98	61-142	2	30
NEtFOSAA	< 1.8	24.51	23.66	24.51	23.46	97	96	60-143	1	30
NMeFOSAA	< 1.8	24.51	28.1	24.51	24.41	115	100	56-142	14	30
Perfluorobutanesulfonic acid	< 1.8	21.69	21.25	21.69	21.3	98	98	80-134	0	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Perfluorobutanoic acid	< 1.8	24.51	22.26	24.51	22.6	91	92	79-146	2	30
Perfluorodecanesulfonic acid	< 0.55	23.61	25.54	23.61	24.32	108	103	59-142	5	30
Perfluorodecanoic acid	< 0.55	24.51	23.64	24.51	24	96	98	79-136	1	30
Perfluorododecanoic acid	< 0.55	24.51	23.91	24.51	24.29	98	99	76-142	2	30
Perfluoroheptanesulfonic acid	< 0.55	23.31	23	23.31	22.34	99	96	75-131	3	30
Perfluoroheptanoic acid	< 0.55	24.51	25.74	24.51	25.24	105	103	81-140	2	30
Perfluorohexanesulfonic acid	< 0.55	23.18	22.29	23.18	21.9	96	94	75-131	2	30
Perfluorohexanoic acid	< 0.55	24.51	23.69	24.51	22.96	97	94	73-145	3	30
Perfluorononanoic acid	< 0.55	24.51	22.72	24.51	24.96	93	102	74-141	9	30
Perfluorooctanesulfonamide	< 0.55	24.51	22.07	24.51	23.58	90	96	66-128	7	30
Perfluorooctanesulfonic acid	< 0.55	23.43	21.87	23.43	22.01	93	94	66-140	1	30
Perfluorooctanoic acid	< 0.55	24.51	23.04	24.51	23.79	94	97	80-140	3	30
Perfluoropentanesulfonate	< 2.8	22.98	22.7	22.98	23.34	99	102	78-131	3	30
Perfluoropentanoic acid	< 0.55	24.51	23.8	24.51	23.64	97	96	73-140	1	30
Perfluorotetradecanoic acid	< 0.55	24.51	25.38	24.51	25.64	104	105	81-137	1	30
Perfluorotridecanoic acid	< 0.55	24.51	24.39	24.51	23.43	100	96	75-147	4	30
Perfluoroundecanoic acid	< 0.55	24.51	24.93	24.51	24.93	102	102	63-147	0	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 19347820004A	Sample number(s): 1221700-1221710 BKG: 1221702			
Moisture	2.61	2.55	3	5
Moisture	2.61	2.55	3	5
Moisture Duplicate	2.61	2.55	3	5
Batch number: 19347820004B	Sample number(s): 1221711-1221712,1221714-1221724 BKG: 1221721			
Moisture	7.12	7.56	6*	5
Moisture	7.12	7.56	6*	5
Moisture Duplicate	7.12	7.56	6*	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221699	115	109	112	115	118	121
1221713	105	113	107	114	105	114
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117
LCSD	109	106	105	115	113	110
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221699	113	126	120	113	119	114
1221713	112	115	108	102	103	100
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221699	114	127	120	131	118	114
1221713	102	104	104	101	99	91
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221699	105
1221713	91
Blank	105
LCS	100
LCSD	106
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221700	80	78	73	63	73	84
1221701	76	74	69	57	70	83
1221702	79	79	72	58	72	82
1221703	84	83	75	70	83	90

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221704	75	71	67	58	70	79
1221705	78	77	70	59	75	83
1221706	79	80	71	61	73	87
1221707	75	74	68	59	70	80
1221708	76	73	67	55	72	84
1221709	74	75	67	55	70	80
1221710	82	80	72	65	76	88
1221711	74	71	65	54	70	81
1221712	77	78	67	59	73	85
1221714	70	63	69	62	68	83
Blank	83	82	72	65	78	87
LCS	77	75	67	57	73	81
MS	84	83	75	70	83	90
MSD	75	71	67	58	70	79
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221700	72	84	75	78	75	77
1221701	70	75	72	74	73	71
1221702	73	80	78	82	78	76
1221703	80	84	84	82	80	78
1221704	70	78	74	75	70	71
1221705	74	80	81	79	75	74
1221706	74	80	78	74	75	72
1221707	69	80	77	76	75	69
1221708	72	77	77	74	76	71
1221709	68	73	74	71	71	71
1221710	75	82	79	82	76	80
1221711	71	75	77	79	74	71
1221712	77	79	76	77	73	74
1221714	73	81	73	74	71	63
Blank	75	86	82	82	82	80
LCS	74	77	76	76	73	69
MS	80	84	84	82	80	78
MSD	70	78	74	75	70	71
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221700	83	60	75	65	75	66
1221701	78	56	72	59	68	64

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352006

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221702	78	58	72	62	73	63
1221703	81	61	81	62	80	73
1221704	73	64	75	67	74	68
1221705	72	62	71	68	73	66
1221706	70	63	75	65	66	67
1221707	71	65	75	69	71	68
1221708	83	66	71	71	74	66
1221709	78	69	70	63	72	62
1221710	82	76	81	78	74	64
1221711	74	53	68	59	66	61
1221712	82	73	78	73	74	69
1221714	73	46*	61	49*	61	59
Blank	83	89	79	87	76	68
LCS	76	78	72	76	71	66
MS	81	61	81	62	80	73
MSD	73	64	75	67	74	68
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221700	71
1221701	75
1221702	79
1221703	91
1221704	76
1221705	83
1221706	81
1221707	77
1221708	79
1221709	81
1221710	82
1221711	77
1221712	85
1221714	64
Blank	85
LCS	73
MS	91
MSD	76
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221716	94	90	82	69	89	105
1221717	92	84	81	68	85	96
1221718	78	77	78	66	77	95
1221719	81	78	74	58	79	94
1221720	92	89	83	68	87	98
1221721	96	92	85	71	93	100
1221722	88	86	79	66	88	98
1221723	84	83	75	69	85	98
1221724	91	88	81	71	93	98
1221725	96	92	84	75	92	105
Blank	103	99	90	77	103	113
LCS	89	86	81	67	89	98
MS	88	86	79	66	88	98
MSD	84	83	75	69	85	98
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221716	93	90	93	99	96	91
1221717	84	83	87	90	90	90
1221718	81	85	87	83	79	81
1221719	80	75	84	82	78	74
1221720	88	84	95	87	86	89
1221721	90	90	96	92	90	91
1221722	87	87	92	91	90	85
1221723	88	78	85	83	78	87
1221724	87	92	91	90	85	88
1221725	99	88	97	93	94	95
Blank	99	95	107	99	99	94
LCS	91	84	89	90	83	87
MS	87	87	92	91	90	85
MSD	88	78	85	83	78	87
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221716	84	91	85	87	89	79
1221717	79	83	88	92	89	81
1221718	82	67	83	80	82	75
1221719	65	62	75	65	75	71
1221720	79	72	89	75	85	77
1221721	86	82	96	84	89	85

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221722	74	67	83	72	85	81
1221723	78	83	87	84	88	77
1221724	83	86	93	89	86	79
1221725	91	88	91	86	87	85
Blank	90	110	100	100	96	87
LCS	83	101	94	104	94	84
MS	74	67	83	72	85	81
MSD	78	83	87	84	88	77
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221716	72
1221717	82
1221718	51
1221719	65
1221720	76
1221721	84
1221722	67
1221723	69
1221724	71
1221725	98
Blank	107
LCS	100
MS	67
MSD	69
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1221715	60	55	60	53	59	63
Blank	87	85	81	77	85	87
LCS	79	73	75	66	74	75
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1221715	63	68	60	60	59	60
Blank	86	94	91	85	84	87
LCS	78	83	75	78	80	80

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/13/2020 11:25

Group Number: 2079058

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1221715	58	25*	59	29*	58	59
Blank	93	91	88	92	94	90
LCS	85	86	75	75	82	81
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1221715	50
Blank	85
LCS	79
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

11 3

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Environmental Analysis Request/Chain of Custody

Acct. # 10195 Group # 2079058 Sample # 1221644-725

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water (Ground / Potable / Surface / NPDES)	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-FB-121019	12/10/19	0753	X				X		2	X	
SB-2-1		0806	X		X				1	X	
SB-2-5		0850	X		X				1	X	
SB-2-10		0853	X		X				1	X	
SB-2-15		0856	X		X				1	X	
SB-2-15K		0856	X		X				1	X	
SB-2-10		0853	X		X				2	X	MS/MSD
SB-2-20		0908	X		X				1	X	
SB-2-25		0920	X		X				1	X	
SB-2-25K		0920	X		X				1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/10/19				
				12/11/19	1148

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 28 °C

2 3

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079059 Sample # 1221699-725

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Sediment	Matrix: Soil ☒	Matrix: Potable	Matrix: Ground	Matrix: Surface	Matrix: NPDES	Matrix: Water	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-2-30	12/10/19	0933	X			X							1	X	
SB-2-40		0947	X			X							1	X	
SB-2-48		1008	X			X							1	X	
SB-EB-121019		1228	X								X		2	X	
SB-1-1		1230	X			X							1	X	
SB-1-5		1258	X			X							1	X	
SB-1-10		1300	X			X							1	X	
SB-1-15		1303	X			X							1	X	
SB-1-20		1308	X			X							1	X	
SB-1-25		1314	X			X							1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/10/19				
				12/11/19	1048

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.8 °C

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Environmental Analysis Request/Chain of Custody

Acct. # 10195 Group # 2079058 Sample # 1221699-725

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR26393-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☒ Sediment	Matrix: Water ☐ Ground ☐ Surface ☐ Potable ☐ NPDES	Matrix: Other:	Total # of Containers	Analyses Requested: PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-1-25K	12/10/19	1314	X		X			1	X	
SB-1-30		1318	X		X			1	X	
SB-1-30		1318	X		X			2	X	MS/MSD
SB-1-40		1325	X		X			1	X	
SB-1-50		1359	X		X			1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/10/19				

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.8 °C

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Page 49 of 52

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Sample Administration Receipt Documentation Log

Doc Log ID: 269508

Group Number(s): 2079058

Client: GEOSYNTEC CONSULTANTS

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/11/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	2.8	IR	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 09, 2020 13:55

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2079255
PO Number: 100010120
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-3-1 Grab Soil	12/11/2019 07:50	1222680
SB-3-1MS Grab Soil	12/11/2019 07:50	1222681
SB-3-1MSD Grab Soil	12/11/2019 07:50	1222682
SB-3-5 Grab Soil	12/11/2019 08:35	1222683
SB-3-5K Grab Soil	12/11/2019 08:35	1222684
SB-3-10 Grab Soil	12/11/2019 08:38	1222685
SB-3-10MS Grab Soil	12/11/2019 08:38	1222686
SB-3-10MSD Grab Soil	12/11/2019 08:38	1222687
SB-3-15 Grab Soil	12/11/2019 08:42	1222688
SB-3-21 Grab Soil	12/11/2019 08:56	1222689
SB-3-25 Grab Soil	12/11/2019 09:01	1222690
SB-3-25K Grab Soil	12/11/2019 09:01	1222691
SB-3-30 Grab Soil	12/11/2019 09:08	1222692
SB-3-40 Grab Soil	12/11/2019 09:21	1222693
SB-3-48 Grab Soil	12/11/2019 09:44	1222694
SB-FB Grab Water	12/11/2019 11:42	1222695
SB-7-1 Grab Soil	12/11/2019 11:51	1222696
SB-7-1K Grab Soil	12/11/2019 11:51	1222697
SB-7-5 Grab Soil	12/11/2019 12:00	1222698
SB-7-10 Grab Soil	12/11/2019 12:06	1222699
SB-7-15 Grab Soil	12/11/2019 12:11	1222700
SB-7-15K Grab Soil	12/11/2019 12:11	1222701
SB-7-20 Grab Soil	12/11/2019 12:14	1222702
SB-7-25 Grab Soil	12/11/2019 12:56	1222703
SB-7-30 Grab Soil	12/11/2019 13:00	1222704
SB-7-40 Grab Soil	12/11/2019 13:58	1222705
SB-7-50 Grab Soil	12/11/2019 14:40	1222706
SB-EB Grab Water	12/11/2019 14:50	1222707

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: SB-3-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222680
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	160	21	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	160	32	10
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	2.2	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	3.6	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	1.8	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	18	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	48	0.64	1
14478	Perfluorohexanoic acid	307-24-4	19	0.64	1
14478	Perfluorononanoic acid	375-95-1	5.0	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	130	6.4	10
14478	Perfluorooctanoic acid	335-67-1	17	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	15	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:01	Devon M Whooley	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:28	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-1 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222680
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-1MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222681
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	20	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	130 E	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	200 E	3.1	1
14478	NEtFOSAA	2991-50-6	24	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	23	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	20	2.1	1
14478	Perfluorobutanoic acid	375-22-4	22	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	23	0.63	1
14478	Perfluorodecanoic acid	335-76-2	27	0.63	1
14478	Perfluorododecanoic acid	307-55-1	24	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	21	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	39	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	46	0.63	1
14478	Perfluorohexanoic acid	307-24-4	38	0.63	1
14478	Perfluorononanoic acid	375-95-1	25	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	22	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	110 E	0.63	1
14478	Perfluorooctanoic acid	335-67-1	38	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	22	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	38	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	21	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	25	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	23	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	8.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:10	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-1MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222682
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	20	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	190 E	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	210 E	3.0	1
14478	NEtFOSAA	2991-50-6	24	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	23	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	22	2.0	1
14478	Perfluorobutanoic acid	375-22-4	23	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	24	0.59	1
14478	Perfluorodecanoic acid	335-76-2	30	0.59	1
14478	Perfluorododecanoic acid	307-55-1	24	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	23	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	40	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	61	0.59	1
14478	Perfluorohexanoic acid	307-24-4	43	0.59	1
14478	Perfluorononanoic acid	375-95-1	28	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	21	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	150 E	0.59	1
14478	Perfluorooctanoic acid	335-67-1	40	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	24	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	39	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	24	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	24	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	25	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	8.0	0.50	1
00121	Moisture Duplicate	n.a.	7.9	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:19	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-1MSD Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222682
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222683
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	240	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	4.6	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.4	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.6	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	7.1	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	3.6	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 04:31	Marissa C Drexinger	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:37	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-5 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222683
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-5K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222684
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	250	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	6.2	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.7	0.61	1
14478	Perfluorohexanoic acid	307-24-4	3.3	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	7.8	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	4.7	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 04:40	Marissa C Drexinger	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:46	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-5K Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222684
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222685
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	250	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	2.4	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	6.8	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.3	0.60	1
14478	Perfluorohexanoic acid	307-24-4	5.4	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	7.2	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	7.3	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:39	Mark Collare	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/02/2020 10:54	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-10 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222685
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-10MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222686
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	20	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	210 E	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	16	2.9	1
14478	NEtFOSAA	2991-50-6	24	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	22	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	20	1.9	1
14478	Perfluorobutanoic acid	375-22-4	23	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	20	0.58	1
14478	Perfluorodecanoic acid	335-76-2	22	0.58	1
14478	Perfluorododecanoic acid	307-55-1	22	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	21	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	31	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.58	1
14478	Perfluorohexanoic acid	307-24-4	28	0.58	1
14478	Perfluorononanoic acid	375-95-1	23	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	21	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	19	0.58	1
14478	Perfluorooctanoic acid	335-67-1	29	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	21	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	28	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	23	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	23	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	24	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	4.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:48	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-10MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222687
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	22	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	130 E	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	21	3.0	1
14478	NEtFOSAA	2991-50-6	27	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	24	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	21	2.0	1
14478	Perfluorobutanoic acid	375-22-4	24	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	20	0.61	1
14478	Perfluorodecanoic acid	335-76-2	25	0.61	1
14478	Perfluorododecanoic acid	307-55-1	24	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	22	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	30	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.61	1
14478	Perfluorohexanoic acid	307-24-4	29	0.61	1
14478	Perfluorononanoic acid	375-95-1	24	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	21	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	20	0.61	1
14478	Perfluorooctanoic acid	335-67-1	26	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	22	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	29	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	24	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	27	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	24	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	4.0	0.50	1
00121	Moisture Duplicate	n.a.	3.9	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:57	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-10MSD Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222687
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:42

GeoSyntec Consultants
ELLE Sample #: SW 1222688
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	100	19	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	2.1	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	6.7	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.0	0.57	1
14478	Perfluorohexanoic acid	307-24-4	4.7	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	2.3	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	6.0	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:06	Mark Collare	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/02/2020 11:21	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-15 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:42

GeoSyntec Consultants
ELLE Sample #: SW 1222688
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-21 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1222689
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	88	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	4.1	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	4.3	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.0	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	1.9	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	2.4	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:15	Mark Collare	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/02/2020 11:30	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-21 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1222689
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:01

GeoSyntec Consultants
ELLE Sample #: SW 1222690
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	63	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.56	0.56	1
14478	Perfluorodecanoic acid	335-76-2	< 0.56	0.56	1
14478	Perfluorododecanoic acid	307-55-1	< 0.56	0.56	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.56	0.56	1
14478	Perfluoroheptanoic acid	375-85-9	2.8	0.56	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.9	0.56	1
14478	Perfluorohexanoic acid	307-24-4	1.7	0.56	1
14478	Perfluorononanoic acid	375-95-1	< 0.56	0.56	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.56	0.56	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.56	0.56	1
14478	Perfluorooctanoic acid	335-67-1	0.99	0.56	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	1.8	0.56	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.56	0.56	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.56	0.56	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.56	0.56	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:24	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-25K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:01

GeoSyntec Consultants
ELLE Sample #: SW 1222691
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/g	ng/g	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	77	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	3.8	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.5	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.1	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	1.2	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	2.1	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		%	%	
00111	Moisture	n.a.	3.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:42	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:08

GeoSyntec Consultants
ELLE Sample #: SW 1222692
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	47	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	3.2	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.3	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.2	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	2.2	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:51	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:21

GeoSyntec Consultants
ELLE Sample #: SW 1222693
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	32	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	2.1	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	2.4	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	2.8	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:00	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-48 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:44

GeoSyntec Consultants
ELLE Sample #: SW 1222694
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	50	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	2.6	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	4.5	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	4.1	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:09	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-FB Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 11:42

GeoSyntec Consultants
ELLE Sample #: WW 1222695
ELLE Group #: 2079255
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.1	4.1	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.4	2.4	1
14434	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.1	4.1	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:38	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

Sample Description: SB-7-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 11:51

GeoSyntec Consultants
ELLE Sample #: SW 1222696
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.3	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	7.3	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	0.67	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:18	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-1K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 11:51

GeoSyntec Consultants
ELLE Sample #: SW 1222697
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.2	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	7.1	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:28	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-7-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:00

GeoSyntec Consultants
ELLE Sample #: SW 1222698
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	15	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	4.2	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	0.78	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:37	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:06

GeoSyntec Consultants
ELLE Sample #: SW 1222699
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	1.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:46	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:11

GeoSyntec Consultants
ELLE Sample #: SW 1222700
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.78	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:55	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-15K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:11

GeoSyntec Consultants
ELLE Sample #: SW 1222701
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:04	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:14

GeoSyntec Consultants
ELLE Sample #: SW 1222702
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:22	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:56

GeoSyntec Consultants
ELLE Sample #: SW 1222703
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.58	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.95	0.58	1
14478	Perfluorohexanoic acid	307-24-4	< 0.58	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	< 0.58	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.58	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:31	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 13:00

GeoSyntec Consultants
ELLE Sample #: SW 1222704
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.65	0.65	1
14478	Perfluorodecanoic acid	335-76-2	< 0.65	0.65	1
14478	Perfluorododecanoic acid	307-55-1	< 0.65	0.65	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.65	0.65	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.65	0.65	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.7	0.65	1
14478	Perfluorohexanoic acid	307-24-4	< 0.65	0.65	1
14478	Perfluorononanoic acid	375-95-1	< 0.65	0.65	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.65	0.65	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.65	0.65	1
14478	Perfluorooctanoic acid	335-67-1	< 0.65	0.65	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.65	0.65	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.65	0.65	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.65	0.65	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.65	0.65	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	7.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:40	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 13:58

GeoSyntec Consultants
ELLE Sample #: SW 1222705
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.7	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	1.4	0.60	1
14478	Perfluorooctanoic acid	335-67-1	0.63	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:49	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820005A	12/17/2019 12:19	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-50 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 14:40

GeoSyntec Consultants
ELLE Sample #: SW 1222706
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.3	3.3	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.66	0.66	1
14478	Perfluorodecanoic acid	335-76-2	< 0.66	0.66	1
14478	Perfluorododecanoic acid	307-55-1	< 0.66	0.66	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.66	0.66	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.66	0.66	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.66	0.66	1
14478	Perfluorohexanoic acid	307-24-4	< 0.66	0.66	1
14478	Perfluorononanoic acid	375-95-1	< 0.66	0.66	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.66	0.66	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.66	0.66	1
14478	Perfluorooctanoic acid	335-67-1	< 0.66	0.66	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.3	3.3	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.66	0.66	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.66	0.66	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.66	0.66	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.66	0.66	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:58	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820005A	12/17/2019 12:19	William C Schwebel	1

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Analysis Report

Sample Description: SB-EB Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 14:50

GeoSyntec Consultants
ELLE Sample #: WW 1222707
ELLE Group #: 2079255
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.7	1.7	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.2	4.2	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.5	2.5	1
14434	NEtFOSAA	2991-50-6	< 2.5	2.5	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.7	1.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.7	1.7	1
14434	Perfluorobutanoic acid	375-22-4	< 4.2	4.2	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.7	1.7	1
14434	Perfluorodecanoic acid	335-76-2	< 1.7	1.7	1
14434	Perfluorododecanoic acid	307-55-1	< 1.7	1.7	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.7	1.7	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.7	1.7	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.7	1.7	1
14434	Perfluorohexanoic acid	307-24-4	< 1.7	1.7	1
14434	Perfluorononanoic acid	375-95-1	< 1.7	1.7	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.7	1.7	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.7	1.7	1
14434	Perfluorooctanoic acid	335-67-1	< 1.7	1.7	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.7	1.7	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.7	1.7	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.7	1.7	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.7	1.7	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.7	1.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:47	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	LOQ ng/g
Batch number: 19350006	Sample number(s): 1222680-1222684	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19365005	Sample number(s): 1222685-1222694,1222696-1222706	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Method Blank (continued)

Analysis Name	Result	LOQ
	ng/g	ng/g
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1222695,1222707	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19350006	Sample number(s): 1222680-1222684								

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4:2-Fluorotelomersulfonic acid	23.36	19.61			84		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.81			88		51-156		
8:2-Fluorotelomersulfonic acid	23.94	19.63			82		61-142		
NEtFOSAA	25	24.59			98		60-143		
NMeFOSAA	25	23.98			96		56-142		
Perfluorobutanesulfonic acid	22.12	19.52			88		80-134		
Perfluorobutanoic acid	25	19.89			80		79-146		
Perfluorodecanesulfonic acid	24.08	22.31			93		59-142		
Perfluorodecanoic acid	25	20.82			83		79-136		
Perfluorododecanoic acid	25	20.73			83		76-142		
Perfluoroheptanesulfonic acid	23.78	19.93			84		75-131		
Perfluoroheptanoic acid	25	23.29			93		81-140		
Perfluorohexanesulfonic acid	23.64	19.54			83		75-131		
Perfluorohexanoic acid	25	20.6			82		73-145		
Perfluorononanoic acid	25	22.04			88		74-141		
Perfluorooctanesulfonamide	25	20.52			82		66-128		
Perfluorooctanesulfonic acid	23.9	18.67			78		66-140		
Perfluorooctanoic acid	25	21.38			86		80-140		
Perfluoropentanesulfonate	23.44	20.54			88		78-131		
Perfluoropentanoic acid	25	20.73			83		73-140		
Perfluorotetradecanoic acid	25	21.71			87		81-137		
Perfluorotridecanoic acid	25	21.48			86		75-147		
Perfluoroundecanoic acid	25	21.58			86		63-147		
Batch number: 19365005	Sample number(s): 1222685-1222694,1222696-1222706								
4:2-Fluorotelomersulfonic acid	23.36	19.21			82		63-132		
6:2-Fluorotelomersulfonic acid	23.7	19.65			83		51-156		
8:2-Fluorotelomersulfonic acid	23.94	17.66			74		61-142		
NEtFOSAA	25	23.4			94		60-143		
NMeFOSAA	25	19.59			78		56-142		
Perfluorobutanesulfonic acid	22.12	19.37			88		80-134		
Perfluorobutanoic acid	25	20.64			83		79-146		
Perfluorodecanesulfonic acid	24.08	20.02			83		59-142		
Perfluorodecanoic acid	25	21.88			88		79-136		
Perfluorododecanoic acid	25	20.21			81		76-142		
Perfluoroheptanesulfonic acid	23.78	20.72			87		75-131		
Perfluoroheptanoic acid	25	22.77			91		81-140		
Perfluorohexanesulfonic acid	23.64	20.75			88		75-131		
Perfluorohexanoic acid	25	22.12			88		73-145		
Perfluorononanoic acid	25	21.14			85		74-141		
Perfluorooctanesulfonamide	25	18.79			75		66-128		
Perfluorooctanesulfonic acid	23.9	19.05			80		66-140		
Perfluorooctanoic acid	25	20.85			83		80-140		
Perfluoropentanesulfonate	23.44	20.39			87		78-131		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluoropentanoic acid	25	21.08			84		73-140		
Perfluorotetradecanoic acid	25	21.82			87		81-137		
Perfluorotridecanoic acid	25	22.01			88		75-147		
Perfluoroundecanoic acid	25	22.02			88		63-147		
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19350004	Sample number(s): 1222695,1222707								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19350820003A	Sample number(s): 1222680-1222682,1222698-1222704								
Moisture	89.5	89.44			100		99-101		
Moisture	89.5	89.44			100		99-101		
Moisture Duplicate	89.5	89.44			100		99-101		
Batch number: 19350820003B	Sample number(s): 1222683-1222694,1222696-1222697								
Moisture	89.5	89.44			100		99-101		
Moisture	89.5	89.44			100		99-101		
Moisture Duplicate	89.5	89.44			100		99-101		
Batch number: 19350820005A	Sample number(s): 1222705-1222706								
Moisture	89.5	89.44			100		99-101		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19350006	Sample number(s): 1222680-1222684 UNSPK: 1222680									
4:2-Fluorotelomersulfonic acid	< 2.0	22.46	18.79	21.24	18.77	84	88	63-132	0	30
6:2-Fluorotelomersulfonic acid	151.43	22.79	116.56	21.55	170.37	-152 (2)	88 (2)	51-156	38*	30
8:2-Fluorotelomersulfonic acid	150.01	23.02	183.92	21.76	192.66	147 (2)	196 (2)	61-142	5	30
NEtFOSAA	< 2.0	24.04	21.66	22.73	21.84	90	96	60-143	1	30
NMeFOSAA	< 2.0	24.04	21.09	22.73	21.23	88	93	56-142	1	30
Perfluorobutanesulfonic acid	0.917	21.27	18.29	20.11	20.14	82	96	80-134	10	30
Perfluorobutanoic acid	2.01	24.04	20.62	22.73	21.59	77*	86	79-146	5	30
Perfluorodecanesulfonic acid	< 0.59	23.15	21.18	21.89	21.98	91	100	59-142	4	30
Perfluorodecanoic acid	3.31	24.04	24.51	22.73	27.22	88	105	79-136	10	30
Perfluorododecanoic acid	0.280	24.04	22.53	22.73	22.49	93	98	76-142	0	30
Perfluoroheptanesulfonic acid	1.63	22.87	19.53	21.62	20.71	78	88	75-131	6	30
Perfluoroheptanoic acid	16.26	24.04	35.56	22.73	36.82	80*	90	81-140	3	30
Perfluorohexanesulfonic acid	44.41	22.73	42.29	21.49	55.92	-8*	54*	75-131	28	30
Perfluorohexanoic acid	17.16	24.04	35.38	22.73	39.18	76	97	73-145	10	30
Perfluorononanoic acid	4.55	24.04	23.33	22.73	25.69	78	93	74-141	10	30
Perfluorooctanesulfonamide	< 0.59	24.04	20.03	22.73	19.36	83	85	66-128	3	30
Perfluorooctanesulfonic acid	118.13	22.98	99.68	21.73	135.52	-79 (2)	80 (2)	66-140	30	30
Perfluorooctanoic acid	15.77	24.04	34.8	22.73	36.9	79*	93	80-140	6	30
Perfluoropentanesulfonate	1.95	22.54	20.24	21.31	21.98	81	94	78-131	8	30
Perfluoropentanoic acid	13.51	24.04	35.14	22.73	35.45	90	97	73-140	1	30
Perfluorotetradecanoic acid	< 0.59	24.04	19.36	22.73	21.86	81	96	81-137	12	30
Perfluorotridecanoic acid	< 0.59	24.04	22.65	22.73	22.5	94	99	75-147	1	30
Perfluoroundecanoic acid	0.290	24.04	21.38	22.73	22.68	88	99	63-147	6	30
Batch number: 19365005	Sample number(s): 1222685-1222694,1222696-1222706 UNSPK: 1222685									
4:2-Fluorotelomersulfonic acid	< 1.9	21.63	19.32	22.68	20.76	89	92	63-132	7	30
6:2-Fluorotelomersulfonic acid	241.29	21.94	201.43	23.01	123.66	-181 (2)	-510 (2)	51-156	48*	30
8:2-Fluorotelomersulfonic acid	< 2.9	22.17	15.42	23.24	20.44	70	88	61-142	28	30
NEtFOSAA	< 1.9	23.15	22.7	24.27	26.2	98	108	60-143	14	30
NMeFOSAA	< 1.9	23.15	20.97	24.27	23.41	91	96	56-142	11	30
Perfluorobutanesulfonic acid	< 1.9	20.48	19.21	21.48	20.39	94	95	80-134	6	30
Perfluorobutanoic acid	2.30	23.15	21.64	24.27	22.69	84	84	79-146	5	30
Perfluorodecanesulfonic acid	< 0.57	22.3	19.42	23.38	19.5	87	83	59-142	0	30
Perfluorodecanoic acid	< 0.57	23.15	21.37	24.27	24.27	92	100	79-136	13	30
Perfluorododecanoic acid	< 0.57	23.15	20.69	24.27	23.25	89	96	76-142	12	30
Perfluoroheptanesulfonic acid	< 0.57	22.02	19.69	23.09	21.13	89	92	75-131	7	30
Perfluoroheptanoic acid	6.58	23.15	29.28	24.27	28.6	98	91	81-140	2	30
Perfluorohexanesulfonic acid	3.20	21.89	22.64	22.95	23.19	89	87	75-131	2	30
Perfluorohexanoic acid	5.16	23.15	26.57	24.27	28.24	92	95	73-145	6	30
Perfluorononanoic acid	< 0.57	23.15	22.37	24.27	22.72	97	94	74-141	2	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Perfluorooctanesulfonamide	< 0.57	23.15	20.51	24.27	20.5	89	84	66-128	0	30
Perfluorooctanesulfonic acid	< 0.57	22.13	18.3	23.2	19.42	83	84	66-140	6	30
Perfluorooctanoic acid	6.94	23.15	27.52	24.27	24.77	89	73*	80-140	11	30
Perfluoropentanesulfonate	< 2.9	21.7	19.95	22.76	21.46	92	94	78-131	7	30
Perfluoropentanoic acid	6.97	23.15	27.02	24.27	28.08	87	87	73-140	4	30
Perfluorotetradecanoic acid	< 0.57	23.15	21.8	24.27	22.89	94	94	81-137	5	30
Perfluorotridecanoic acid	< 0.57	23.15	22.32	24.27	25.68	96	106	75-147	14	30
Perfluoroundecanoic acid	< 0.57	23.15	22.61	24.27	23.16	98	95	63-147	2	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 19350820003A	Sample number(s): 1222680-1222682,1222698-1222704 BKG: 1222680			
Moisture	7.95	7.90	1	5
Moisture	7.95	7.90	1	5
Moisture Duplicate	7.95	7.90	1	5
Batch number: 19350820003B	Sample number(s): 1222683-1222694,1222696-1222697 BKG: 1222685			
Moisture	4.02	3.91	3	5
Moisture	4.02	3.91	3	5
Moisture Duplicate	4.02	3.91	3	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1222695	108	114	109	106	108	111
1222707	106	105	103	114	113	114
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117
LCSD	109	106	105	115	113	110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222695	106	111	109	102	111	112
1222707	109	111	110	102	102	106
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1222695	118	123	118	119	111	108
1222707	111	109	112	113	112	89
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C8-PFOSA					
1222695	104					
1222707	100					
Blank	105					
LCS	100					
LCSD	106					
Limits:	50-150					

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1222680	86	84	80	80	83	97
1222681	89	85	84	80	90	102
1222682	84	83	76	76	82	92
1222683	83	85	80	87	79	85
1222684	89	88	85	88	90	93
Blank	89	90	86	96	85	91
LCS	92	94	89	96	88	95
MS	89	85	84	80	90	102
MSD	84	83	76	76	82	92

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222680	87	98	90	92	88	80
1222681	92	100	89	93	92	80
1222682	86	93	85	86	85	79
1222683	82	99	82	82	82	91
1222684	86	97	89	87	88	86
Blank	87	99	94	93	93	86
LCS	90	99	92	92	90	87
MS	92	100	89	93	92	80
MSD	86	93	85	86	85	79

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1222680	98	86	88	87	91	98
1222681	98	86	84	87	88	103
1222682	105	87	83	95	90	97
1222683	124	89	87	90	82	84
1222684	100	74	85	89	76	78
Blank	93	96	87	84	91	84
LCS	93	91	86	82	88	83
MS	98	86	84	87	88	103
MSD	105	87	83	95	90	97

Limits:	50-150
	13C8-PFOSA
1222680	87
1222681	78
1222682	82
1222683	91
1222684	87
Blank	92
LCS	80
MS	78
MSD	82
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1222685	74	67	71	63	71	70
1222686	75	71	74	67	74	76
1222687	71	64	66	58	67	71
1222688	70	67	68	62	69	68
1222689	78	72	74	66	75	77
1222690	74	72	73	62	70	75
1222691	89	83	86	80	86	86
1222692	115	115	108	97	107	109
1222693	74	69	71	59	69	70
1222694	76	73	74	61	70	82
1222696	88	85	87	77	84	86
1222697	84	83	83	79	81	86
1222698	87	80	87	69	82	90
1222699	85	83	79	75	86	86
1222700	91	92	89	81	87	91
1222701	83	80	80	67	77	79
1222702	99	92	94	84	95	97
1222703	92	91	89	82	86	92
1222704	84	79	82	70	79	81
1222705	87	82	82	77	83	84
1222706	82	79	77	68	82	82
Blank	87	85	81	77	85	87
LCS	79	73	75	66	74	75
MS	75	71	74	67	74	76
MSD	71	64	66	58	67	71
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222685	70	76	71	72	69	76
1222686	74	74	72	73	71	71
1222687	73	74	72	71	69	64
1222688	67	74	71	73	73	67
1222689	78	77	78	77	78	77
1222690	73	76	72	73	72	76
1222691	86	93	87	90	87	91
1222692	108	117	106	120	116	118
1222693	69	71	72	75	73	64
1222694	77	83	77	78	75	66
1222696	87	98	89	92	86	90
1222697	80	85	88	87	90	78
1222698	84	92	84	87	87	88

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222699	89	94	88	88	92	79
1222700	93	105	92	85	84	88
1222701	79	80	82	83	85	81
1222702	99	101	97	97	97	102
1222703	94	99	96	95	94	96
1222704	81	79	82	81	82	77
1222705	81	94	87	85	84	79
1222706	80	88	82	79	84	87
Blank	86	94	91	85	84	87
LCS	78	83	75	78	80	80
MS	74	74	72	73	71	71
MSD	73	74	72	71	69	64
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1222685	79	59	71	64	73	67
1222686	80	64	67	58	71	69
1222687	69	56	66	55	64	67
1222688	71	60	64	62	63	64
1222689	80	70	81	71	79	73
1222690	82	61	70	59	74	71
1222691	103	71	88	68	89	84
1222692	133	78	112	86	115	104
1222693	71	56	67	60	69	70
1222694	67	63	67	59	67	69
1222696	105	70	88	69	88	86
1222697	86	63	79	67	82	84
1222698	90	50	84	59	89	86
1222699	84	69	73	71	80	77
1222700	94	83	87	81	81	83
1222701	86	65	77	72	80	77
1222702	112	90	98	87	103	98
1222703	108	87	92	89	90	87
1222704	84	50	75	50	75	75
1222705	88	68	75	69	75	74
1222706	96	66	82	67	83	77
Blank	93	91	88	92	94	90
LCS	85	86	75	75	82	81
MS	80	64	67	58	71	69
MSD	69	56	66	55	64	67

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C8-PFOSA					
1222685	72					
1222686	67					
1222687	66					
1222688	64					
1222689	77					
1222690	69					
1222691	92					
1222692	106					
1222693	68					
1222694	68					
1222696	75					
1222697	66					
1222698	84					
1222699	78					
1222700	90					
1222701	79					
1222702	104					
1222703	91					
1222704	79					
1222705	65					
1222706	81					
Blank	85					
LCS	79					
MS	67					
MSD	66					
Limits:	50-150					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079255 Sample # 1222680-707

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil (☒ Sediment)	Matrix: Water (☐ Ground, ☐ Surface, ☐ Potable, ☐ NPDES)	Matrix: Other:	Total # of Containers	Analyses Requested: PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-3-1	12/11/19	0750	X		X			3	X	MS/MSD
SB-3-5	↓	0835	X		X			1	X	
SB-3-5K		0835	X		X			1	X	
SB-3-10		0838	X		X			3	X	MS/MSD
SB-3-15		0842	X		X			1	X	
SB-3-20		0856	X		X			1	X	
SB-3-25		0901	X		X			1	X	
SB-3-25K		0901	X		X			1	X	
SB-3-30		0908	X		X			1	X	
SB-3-40		0921	X		X			1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/11/19				

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

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7045 0713

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Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079258 Sample # 1222680-707

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Potable	Matrix: Ground	Matrix: Surface	Matrix: NPDES	Matrix: Water	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-3-48	12/11/19	0944	X		X								1	X	
SB-FB-121119		1142	X								X		2	X	
SB-7-1		1151	X		X								1	X	
SB-7-1K		1151	X		X								1	X	
SB-7-5		1200	X		X								1	X	
SB-7-10		1206	X		X								1	X	
SB-7-15		1211	X		X								1	X	
SB-7-15K		1211	X		X								1	X	
SB-7-20		1214	X		X								1	X	
SB-7-25		1256	X		X								1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/11/19				
			12/12/19		1034

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

3/3

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079255 Sample # 1222680-707

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Potable Water	Matrix: Ground Water	Matrix: Surface Water	Matrix: NPDES	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-7-36	12/11/19	1300	X		X							1	X	
SB-7-40		1350	X		X							1	X	
SB-7-50		1440	X		X							1	X	
SB-EB-121119		1450	X				X					2	X	
~~SB-EB-121119~~														

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/11/19				

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

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7045 0713

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Sample Administration Receipt Documentation Log

Doc Log ID: 269642

Group Number(s): 2079205

Client: GEOSYNTEC CONSULTANTS

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/12/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	California		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	1.8	IR	Wet	Y	Bagged	N

Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	Comments
SB-3-20	SB-3-21	

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 09, 2020 13:55

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2079255
PO Number: 100010120
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-3-1 Grab Soil	12/11/2019 07:50	1222680
SB-3-1MS Grab Soil	12/11/2019 07:50	1222681
SB-3-1MSD Grab Soil	12/11/2019 07:50	1222682
SB-3-5 Grab Soil	12/11/2019 08:35	1222683
SB-3-5K Grab Soil	12/11/2019 08:35	1222684
SB-3-10 Grab Soil	12/11/2019 08:38	1222685
SB-3-10MS Grab Soil	12/11/2019 08:38	1222686
SB-3-10MSD Grab Soil	12/11/2019 08:38	1222687
SB-3-15 Grab Soil	12/11/2019 08:42	1222688
SB-3-21 Grab Soil	12/11/2019 08:56	1222689
SB-3-25 Grab Soil	12/11/2019 09:01	1222690
SB-3-25K Grab Soil	12/11/2019 09:01	1222691
SB-3-30 Grab Soil	12/11/2019 09:08	1222692
SB-3-40 Grab Soil	12/11/2019 09:21	1222693
SB-3-48 Grab Soil	12/11/2019 09:44	1222694
SB-FB Grab Water	12/11/2019 11:42	1222695
SB-7-1 Grab Soil	12/11/2019 11:51	1222696
SB-7-1K Grab Soil	12/11/2019 11:51	1222697
SB-7-5 Grab Soil	12/11/2019 12:00	1222698
SB-7-10 Grab Soil	12/11/2019 12:06	1222699
SB-7-15 Grab Soil	12/11/2019 12:11	1222700
SB-7-15K Grab Soil	12/11/2019 12:11	1222701
SB-7-20 Grab Soil	12/11/2019 12:14	1222702
SB-7-25 Grab Soil	12/11/2019 12:56	1222703
SB-7-30 Grab Soil	12/11/2019 13:00	1222704
SB-7-40 Grab Soil	12/11/2019 13:58	1222705
SB-7-50 Grab Soil	12/11/2019 14:40	1222706
SB-EB Grab Water	12/11/2019 14:50	1222707

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: SB-3-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222680
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	160	21	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	160	32	10
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	2.2	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.64	0.64	1
14478	Perfluorodecanoic acid	335-76-2	3.6	0.64	1
14478	Perfluorododecanoic acid	307-55-1	< 0.64	0.64	1
14478	Perfluoroheptanesulfonic acid	375-92-8	1.8	0.64	1
14478	Perfluoroheptanoic acid	375-85-9	18	0.64	1
14478	Perfluorohexanesulfonic acid	355-46-4	48	0.64	1
14478	Perfluorohexanoic acid	307-24-4	19	0.64	1
14478	Perfluorononanoic acid	375-95-1	5.0	0.64	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.64	0.64	1
14478	Perfluorooctanesulfonic acid	1763-23-1	130	6.4	10
14478	Perfluorooctanoic acid	335-67-1	17	0.64	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	15	0.64	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.64	0.64	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.64	0.64	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.64	0.64	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	8.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:01	Devon M Whooley	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:28	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-1 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222680
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-1MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222681
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	20	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	130 E	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	200 E	3.1	1
14478	NEtFOSAA	2991-50-6	24	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	23	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	20	2.1	1
14478	Perfluorobutanoic acid	375-22-4	22	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	23	0.63	1
14478	Perfluorodecanoic acid	335-76-2	27	0.63	1
14478	Perfluorododecanoic acid	307-55-1	24	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	21	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	39	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	46	0.63	1
14478	Perfluorohexanoic acid	307-24-4	38	0.63	1
14478	Perfluorononanoic acid	375-95-1	25	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	22	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	110 E	0.63	1
14478	Perfluorooctanoic acid	335-67-1	38	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	22	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	38	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	21	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	25	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	23	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	8.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:10	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-1MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222682
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	20	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	190 E	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	210 E	3.0	1
14478	NEtFOSAA	2991-50-6	24	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	23	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	22	2.0	1
14478	Perfluorobutanoic acid	375-22-4	23	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	24	0.59	1
14478	Perfluorodecanoic acid	335-76-2	30	0.59	1
14478	Perfluorododecanoic acid	307-55-1	24	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	23	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	40	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	61	0.59	1
14478	Perfluorohexanoic acid	307-24-4	43	0.59	1
14478	Perfluorononanoic acid	375-95-1	28	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	21	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	150 E	0.59	1
14478	Perfluorooctanoic acid	335-67-1	40	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	24	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	39	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	24	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	24	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	25	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	8.0	0.50	1
00121	Moisture Duplicate	n.a.	7.9	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:19	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-1MSD Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 07:50

GeoSyntec Consultants
ELLE Sample #: SW 1222682
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222683
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	240	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	4.6	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.4	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.6	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	7.1	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	3.6	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 04:31	Marissa C Drexinger	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:37	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-5 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222683
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-5K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222684
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	250	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	6.2	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.7	0.61	1
14478	Perfluorohexanoic acid	307-24-4	3.3	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	7.8	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	4.7	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/19/2019 04:40	Marissa C Drexinger	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/21/2019 00:46	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350006	12/16/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-5K Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:35

GeoSyntec Consultants
ELLE Sample #: SW 1222684
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222685
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	250	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	2.4	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	6.8	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.3	0.60	1
14478	Perfluorohexanoic acid	307-24-4	5.4	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	7.2	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	7.3	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:39	Mark Collare	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/02/2020 10:54	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-10 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222685
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-10MS Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222686
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	20	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	210 E	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	16	2.9	1
14478	NEtFOSAA	2991-50-6	24	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	22	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	20	1.9	1
14478	Perfluorobutanoic acid	375-22-4	23	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	20	0.58	1
14478	Perfluorodecanoic acid	335-76-2	22	0.58	1
14478	Perfluorododecanoic acid	307-55-1	22	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	21	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	31	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.58	1
14478	Perfluorohexanoic acid	307-24-4	28	0.58	1
14478	Perfluorononanoic acid	375-95-1	23	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	21	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	19	0.58	1
14478	Perfluorooctanoic acid	335-67-1	29	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	21	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	28	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	23	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	23	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	24	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	4.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:48	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-10MSD Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222687
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	22	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	130 E	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	21	3.0	1
14478	NEtFOSAA	2991-50-6	27	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	24	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	21	2.0	1
14478	Perfluorobutanoic acid	375-22-4	24	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	20	0.61	1
14478	Perfluorodecanoic acid	335-76-2	25	0.61	1
14478	Perfluorododecanoic acid	307-55-1	24	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	22	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	30	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	24	0.61	1
14478	Perfluorohexanoic acid	307-24-4	29	0.61	1
14478	Perfluorononanoic acid	375-95-1	24	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	21	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	20	0.61	1
14478	Perfluorooctanoic acid	335-67-1	26	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	22	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	29	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	24	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	27	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	24	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00118	Moisture	n.a.	4.0	0.50	1
00121	Moisture Duplicate	n.a.	3.9	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 12:57	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-10MSD Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:38

GeoSyntec Consultants
ELLE Sample #: SW 1222687
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00118	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1
00121	Moisture Duplicate	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:42

GeoSyntec Consultants
ELLE Sample #: SW 1222688
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	100	19	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	2.1	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	6.7	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.0	0.57	1
14478	Perfluorohexanoic acid	307-24-4	4.7	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	2.3	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	6.0	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:06	Mark Collare	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/02/2020 11:21	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-15 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:42

GeoSyntec Consultants
ELLE Sample #: SW 1222688
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-21 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1222689
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	88	20	10
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	4.1	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	4.3	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.0	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	1.9	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	2.4	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:15	Mark Collare	1
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/02/2020 11:30	Devon M Whooley	10
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1

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Analysis Report

Sample Description: **SB-3-21 Grab Soil**
BUR PFAS Investigation/WR2693

Project Name: **BUR PFAS Investigation/WR2693**

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 08:56

GeoSyntec Consultants
ELLE Sample #: SW 1222689
ELLE Group #: 2079255
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:01

GeoSyntec Consultants
ELLE Sample #: SW 1222690
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	63	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.8	2.8	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.56	0.56	1
14478	Perfluorodecanoic acid	335-76-2	< 0.56	0.56	1
14478	Perfluorododecanoic acid	307-55-1	< 0.56	0.56	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.56	0.56	1
14478	Perfluoroheptanoic acid	375-85-9	2.8	0.56	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.9	0.56	1
14478	Perfluorohexanoic acid	307-24-4	1.7	0.56	1
14478	Perfluorononanoic acid	375-95-1	< 0.56	0.56	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.56	0.56	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.56	0.56	1
14478	Perfluorooctanoic acid	335-67-1	0.99	0.56	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.8	2.8	1
14478	Perfluoropentanoic acid	2706-90-3	1.8	0.56	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.56	0.56	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.56	0.56	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.56	0.56	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:24	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-25K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:01

GeoSyntec Consultants
ELLE Sample #: SW 1222691
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/g	ng/g	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	77	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	3.8	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.5	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.1	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	1.2	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	2.1	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		%	%	
00111	Moisture	n.a.	3.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:42	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-3-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:08

GeoSyntec Consultants
ELLE Sample #: SW 1222692
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	47	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	3.2	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	2.3	0.59	1
14478	Perfluorohexanoic acid	307-24-4	2.2	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	2.2	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 13:51	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:21

GeoSyntec Consultants
ELLE Sample #: SW 1222693
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	32	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.57	0.57	1
14478	Perfluorodecanoic acid	335-76-2	< 0.57	0.57	1
14478	Perfluorododecanoic acid	307-55-1	< 0.57	0.57	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.57	0.57	1
14478	Perfluoroheptanoic acid	375-85-9	2.1	0.57	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.57	0.57	1
14478	Perfluorohexanoic acid	307-24-4	2.4	0.57	1
14478	Perfluorononanoic acid	375-95-1	< 0.57	0.57	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.57	0.57	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.57	0.57	1
14478	Perfluorooctanoic acid	335-67-1	< 0.57	0.57	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	2.8	0.57	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.57	0.57	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.57	0.57	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.57	0.57	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:00	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-3-48 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 09:44

GeoSyntec Consultants
ELLE Sample #: SW 1222694
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	50	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	2.6	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	4.5	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	4.1	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:09	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-FB Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 11:42

GeoSyntec Consultants
ELLE Sample #: WW 1222695
ELLE Group #: 2079255
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.1	4.1	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.4	2.4	1
14434	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.1	4.1	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:38	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

Sample Description: SB-7-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 11:51

GeoSyntec Consultants
ELLE Sample #: SW 1222696
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.1	2.1	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.1	2.1	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.3	0.63	1
14478	Perfluorohexanoic acid	307-24-4	< 0.63	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	7.3	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	0.67	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.8	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:18	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-1K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 11:51

GeoSyntec Consultants
ELLE Sample #: SW 1222697
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.2	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	7.1	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:28	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003B	12/17/2019 09:49	William C Schwebel	1

Sample Description: SB-7-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:00

GeoSyntec Consultants
ELLE Sample #: SW 1222698
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	15	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	4.2	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	0.78	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	6.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:37	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:06

GeoSyntec Consultants
ELLE Sample #: SW 1222699
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.60	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.60	0.60	1
14478	Perfluorooctanoic acid	335-67-1	< 0.60	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	1.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:46	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:11

GeoSyntec Consultants
ELLE Sample #: SW 1222700
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.78	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 14:55	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-15K Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:11

GeoSyntec Consultants
ELLE Sample #: SW 1222701
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:04	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:14

GeoSyntec Consultants
ELLE Sample #: SW 1222702
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	3.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:22	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 12:56

GeoSyntec Consultants
ELLE Sample #: SW 1222703
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.58	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	0.95	0.58	1
14478	Perfluorohexanoic acid	307-24-4	< 0.58	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	< 0.58	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.58	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	5.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:31	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 13:00

GeoSyntec Consultants
ELLE Sample #: SW 1222704
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.2	3.2	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.65	0.65	1
14478	Perfluorodecanoic acid	335-76-2	< 0.65	0.65	1
14478	Perfluorododecanoic acid	307-55-1	< 0.65	0.65	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.65	0.65	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.65	0.65	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.7	0.65	1
14478	Perfluorohexanoic acid	307-24-4	< 0.65	0.65	1
14478	Perfluorononanoic acid	375-95-1	< 0.65	0.65	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.65	0.65	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.65	0.65	1
14478	Perfluorooctanoic acid	335-67-1	< 0.65	0.65	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.2	3.2	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.65	0.65	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.65	0.65	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.65	0.65	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.65	0.65	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	7.1	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:40	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820003A	12/17/2019 09:49	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-40 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 13:58

GeoSyntec Consultants
ELLE Sample #: SW 1222705
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.60	0.60	1
14478	Perfluorodecanoic acid	335-76-2	< 0.60	0.60	1
14478	Perfluorododecanoic acid	307-55-1	< 0.60	0.60	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.60	0.60	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.60	0.60	1
14478	Perfluorohexanesulfonic acid	355-46-4	1.7	0.60	1
14478	Perfluorohexanoic acid	307-24-4	< 0.60	0.60	1
14478	Perfluorononanoic acid	375-95-1	< 0.60	0.60	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.60	0.60	1
14478	Perfluorooctanesulfonic acid	1763-23-1	1.4	0.60	1
14478	Perfluorooctanoic acid	335-67-1	0.63	0.60	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.60	0.60	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.60	0.60	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.60	0.60	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.60	0.60	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	4.0	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:49	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820005A	12/17/2019 12:19	William C Schwebel	1

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Analysis Report

Sample Description: SB-7-50 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 14:40

GeoSyntec Consultants
ELLE Sample #: SW 1222706
ELLE Group #: 2079255
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.3	3.3	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.66	0.66	1
14478	Perfluorodecanoic acid	335-76-2	< 0.66	0.66	1
14478	Perfluorododecanoic acid	307-55-1	< 0.66	0.66	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.66	0.66	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.66	0.66	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.66	0.66	1
14478	Perfluorohexanoic acid	307-24-4	< 0.66	0.66	1
14478	Perfluorononanoic acid	375-95-1	< 0.66	0.66	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.66	0.66	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.66	0.66	1
14478	Perfluorooctanoic acid	335-67-1	< 0.66	0.66	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.3	3.3	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.66	0.66	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.66	0.66	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.66	0.66	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.66	0.66	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19365005	01/01/2020 15:58	Mark Collare	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	2	19365005	12/31/2019 09:30	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19350820005A	12/17/2019 12:19	William C Schwebel	1

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Analysis Report

Sample Description: SB-EB Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/12/2019 10:34
Collection Date/Time: 12/11/2019 14:50

GeoSyntec Consultants
ELLE Sample #: WW 1222707
ELLE Group #: 2079255
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/l**	**ng/l**	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.7	1.7	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.2	4.2	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.5	2.5	1
14434	NEtFOSAA	2991-50-6	< 2.5	2.5	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.7	1.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.7	1.7	1
14434	Perfluorobutanoic acid	375-22-4	< 4.2	4.2	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.7	1.7	1
14434	Perfluorodecanoic acid	335-76-2	< 1.7	1.7	1
14434	Perfluorododecanoic acid	307-55-1	< 1.7	1.7	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.7	1.7	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.7	1.7	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.7	1.7	1
14434	Perfluorohexanoic acid	307-24-4	< 1.7	1.7	1
14434	Perfluorononanoic acid	375-95-1	< 1.7	1.7	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.7	1.7	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.7	1.7	1
14434	Perfluorooctanoic acid	335-67-1	< 1.7	1.7	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.7	1.7	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.7	1.7	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.7	1.7	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.7	1.7	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.7	1.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:47	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	LOQ ng/g
Batch number: 19350006	Sample number(s): 1222680-1222684	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
Batch number: 19365005	Sample number(s): 1222685-1222694,1222696-1222706	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Method Blank (continued)

Analysis Name	Result	LOQ
	ng/g	ng/g
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1222695,1222707	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19350006	Sample number(s): 1222680-1222684								

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4:2-Fluorotelomersulfonic acid	23.36	19.61			84		63-132		
6:2-Fluorotelomersulfonic acid	23.7	20.81			88		51-156		
8:2-Fluorotelomersulfonic acid	23.94	19.63			82		61-142		
NEtFOSAA	25	24.59			98		60-143		
NMeFOSAA	25	23.98			96		56-142		
Perfluorobutanesulfonic acid	22.12	19.52			88		80-134		
Perfluorobutanoic acid	25	19.89			80		79-146		
Perfluorodecanesulfonic acid	24.08	22.31			93		59-142		
Perfluorodecanoic acid	25	20.82			83		79-136		
Perfluorododecanoic acid	25	20.73			83		76-142		
Perfluoroheptanesulfonic acid	23.78	19.93			84		75-131		
Perfluoroheptanoic acid	25	23.29			93		81-140		
Perfluorohexanesulfonic acid	23.64	19.54			83		75-131		
Perfluorohexanoic acid	25	20.6			82		73-145		
Perfluorononanoic acid	25	22.04			88		74-141		
Perfluorooctanesulfonamide	25	20.52			82		66-128		
Perfluorooctanesulfonic acid	23.9	18.67			78		66-140		
Perfluorooctanoic acid	25	21.38			86		80-140		
Perfluoropentanesulfonate	23.44	20.54			88		78-131		
Perfluoropentanoic acid	25	20.73			83		73-140		
Perfluorotetradecanoic acid	25	21.71			87		81-137		
Perfluorotridecanoic acid	25	21.48			86		75-147		
Perfluoroundecanoic acid	25	21.58			86		63-147		
Batch number: 19365005	Sample number(s): 1222685-1222694,1222696-1222706								
4:2-Fluorotelomersulfonic acid	23.36	19.21			82		63-132		
6:2-Fluorotelomersulfonic acid	23.7	19.65			83		51-156		
8:2-Fluorotelomersulfonic acid	23.94	17.66			74		61-142		
NEtFOSAA	25	23.4			94		60-143		
NMeFOSAA	25	19.59			78		56-142		
Perfluorobutanesulfonic acid	22.12	19.37			88		80-134		
Perfluorobutanoic acid	25	20.64			83		79-146		
Perfluorodecanesulfonic acid	24.08	20.02			83		59-142		
Perfluorodecanoic acid	25	21.88			88		79-136		
Perfluorododecanoic acid	25	20.21			81		76-142		
Perfluoroheptanesulfonic acid	23.78	20.72			87		75-131		
Perfluoroheptanoic acid	25	22.77			91		81-140		
Perfluorohexanesulfonic acid	23.64	20.75			88		75-131		
Perfluorohexanoic acid	25	22.12			88		73-145		
Perfluorononanoic acid	25	21.14			85		74-141		
Perfluorooctanesulfonamide	25	18.79			75		66-128		
Perfluorooctanesulfonic acid	23.9	19.05			80		66-140		
Perfluorooctanoic acid	25	20.85			83		80-140		
Perfluoropentanesulfonate	23.44	20.39			87		78-131		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluoropentanoic acid	25	21.08			84		73-140		
Perfluorotetradecanoic acid	25	21.82			87		81-137		
Perfluorotridecanoic acid	25	22.01			88		75-147		
Perfluoroundecanoic acid	25	22.02			88		63-147		
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19350004	Sample number(s): 1222695,1222707								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19350820003A	Sample number(s): 1222680-1222682,1222698-1222704								
Moisture	89.5	89.44			100		99-101		
Moisture	89.5	89.44			100		99-101		
Moisture Duplicate	89.5	89.44			100		99-101		
Batch number: 19350820003B	Sample number(s): 1222683-1222694,1222696-1222697								
Moisture	89.5	89.44			100		99-101		
Moisture	89.5	89.44			100		99-101		
Moisture Duplicate	89.5	89.44			100		99-101		
Batch number: 19350820005A	Sample number(s): 1222705-1222706								
Moisture	89.5	89.44			100		99-101		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19350006	Sample number(s): 1222680-1222684 UNSPK: 1222680									
4:2-Fluorotelomersulfonic acid	< 2.0	22.46	18.79	21.24	18.77	84	88	63-132	0	30
6:2-Fluorotelomersulfonic acid	151.43	22.79	116.56	21.55	170.37	-152 (2)	88 (2)	51-156	38*	30
8:2-Fluorotelomersulfonic acid	150.01	23.02	183.92	21.76	192.66	147 (2)	196 (2)	61-142	5	30
NEtFOSAA	< 2.0	24.04	21.66	22.73	21.84	90	96	60-143	1	30
NMeFOSAA	< 2.0	24.04	21.09	22.73	21.23	88	93	56-142	1	30
Perfluorobutanesulfonic acid	0.917	21.27	18.29	20.11	20.14	82	96	80-134	10	30
Perfluorobutanoic acid	2.01	24.04	20.62	22.73	21.59	77*	86	79-146	5	30
Perfluorodecanesulfonic acid	< 0.59	23.15	21.18	21.89	21.98	91	100	59-142	4	30
Perfluorodecanoic acid	3.31	24.04	24.51	22.73	27.22	88	105	79-136	10	30
Perfluorododecanoic acid	0.280	24.04	22.53	22.73	22.49	93	98	76-142	0	30
Perfluoroheptanesulfonic acid	1.63	22.87	19.53	21.62	20.71	78	88	75-131	6	30
Perfluoroheptanoic acid	16.26	24.04	35.56	22.73	36.82	80*	90	81-140	3	30
Perfluorohexanesulfonic acid	44.41	22.73	42.29	21.49	55.92	-8*	54*	75-131	28	30
Perfluorohexanoic acid	17.16	24.04	35.38	22.73	39.18	76	97	73-145	10	30
Perfluorononanoic acid	4.55	24.04	23.33	22.73	25.69	78	93	74-141	10	30
Perfluorooctanesulfonamide	< 0.59	24.04	20.03	22.73	19.36	83	85	66-128	3	30
Perfluorooctanesulfonic acid	118.13	22.98	99.68	21.73	135.52	-79 (2)	80 (2)	66-140	30	30
Perfluorooctanoic acid	15.77	24.04	34.8	22.73	36.9	79*	93	80-140	6	30
Perfluoropentanesulfonate	1.95	22.54	20.24	21.31	21.98	81	94	78-131	8	30
Perfluoropentanoic acid	13.51	24.04	35.14	22.73	35.45	90	97	73-140	1	30
Perfluorotetradecanoic acid	< 0.59	24.04	19.36	22.73	21.86	81	96	81-137	12	30
Perfluorotridecanoic acid	< 0.59	24.04	22.65	22.73	22.5	94	99	75-147	1	30
Perfluoroundecanoic acid	0.290	24.04	21.38	22.73	22.68	88	99	63-147	6	30
Batch number: 19365005	Sample number(s): 1222685-1222694,1222696-1222706 UNSPK: 1222685									
4:2-Fluorotelomersulfonic acid	< 1.9	21.63	19.32	22.68	20.76	89	92	63-132	7	30
6:2-Fluorotelomersulfonic acid	241.29	21.94	201.43	23.01	123.66	-181 (2)	-510 (2)	51-156	48*	30
8:2-Fluorotelomersulfonic acid	< 2.9	22.17	15.42	23.24	20.44	70	88	61-142	28	30
NEtFOSAA	< 1.9	23.15	22.7	24.27	26.2	98	108	60-143	14	30
NMeFOSAA	< 1.9	23.15	20.97	24.27	23.41	91	96	56-142	11	30
Perfluorobutanesulfonic acid	< 1.9	20.48	19.21	21.48	20.39	94	95	80-134	6	30
Perfluorobutanoic acid	2.30	23.15	21.64	24.27	22.69	84	84	79-146	5	30
Perfluorodecanesulfonic acid	< 0.57	22.3	19.42	23.38	19.5	87	83	59-142	0	30
Perfluorodecanoic acid	< 0.57	23.15	21.37	24.27	24.27	92	100	79-136	13	30
Perfluorododecanoic acid	< 0.57	23.15	20.69	24.27	23.25	89	96	76-142	12	30
Perfluoroheptanesulfonic acid	< 0.57	22.02	19.69	23.09	21.13	89	92	75-131	7	30
Perfluoroheptanoic acid	6.58	23.15	29.28	24.27	28.6	98	91	81-140	2	30
Perfluorohexanesulfonic acid	3.20	21.89	22.64	22.95	23.19	89	87	75-131	2	30
Perfluorohexanoic acid	5.16	23.15	26.57	24.27	28.24	92	95	73-145	6	30
Perfluorononanoic acid	< 0.57	23.15	22.37	24.27	22.72	97	94	74-141	2	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Perfluorooctanesulfonamide	< 0.57	23.15	20.51	24.27	20.5	89	84	66-128	0	30
Perfluorooctanesulfonic acid	< 0.57	22.13	18.3	23.2	19.42	83	84	66-140	6	30
Perfluorooctanoic acid	6.94	23.15	27.52	24.27	24.77	89	73*	80-140	11	30
Perfluoropentanesulfonate	< 2.9	21.7	19.95	22.76	21.46	92	94	78-131	7	30
Perfluoropentanoic acid	6.97	23.15	27.02	24.27	28.08	87	87	73-140	4	30
Perfluorotetradecanoic acid	< 0.57	23.15	21.8	24.27	22.89	94	94	81-137	5	30
Perfluorotridecanoic acid	< 0.57	23.15	22.32	24.27	25.68	96	106	75-147	14	30
Perfluoroundecanoic acid	< 0.57	23.15	22.61	24.27	23.16	98	95	63-147	2	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 19350820003A	Sample number(s): 1222680-1222682,1222698-1222704 BKG: 1222680			
Moisture	7.95	7.90	1	5
Moisture	7.95	7.90	1	5
Moisture Duplicate	7.95	7.90	1	5
Batch number: 19350820003B	Sample number(s): 1222683-1222694,1222696-1222697 BKG: 1222685			
Moisture	4.02	3.91	3	5
Moisture	4.02	3.91	3	5
Moisture Duplicate	4.02	3.91	3	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1222695	108	114	109	106	108	111
1222707	106	105	103	114	113	114
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117
LCSD	109	106	105	115	113	110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222695	106	111	109	102	111	112
1222707	109	111	110	102	102	106
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1222695	118	123	118	119	111	108
1222707	111	109	112	113	112	89
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C8-PFOSA					
1222695	104					
1222707	100					
Blank	105					
LCS	100					
LCSD	106					
Limits:	50-150					

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1222680	86	84	80	80	83	97
1222681	89	85	84	80	90	102
1222682	84	83	76	76	82	92
1222683	83	85	80	87	79	85
1222684	89	88	85	88	90	93
Blank	89	90	86	96	85	91
LCS	92	94	89	96	88	95
MS	89	85	84	80	90	102
MSD	84	83	76	76	82	92

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19350006

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222680	87	98	90	92	88	80
1222681	92	100	89	93	92	80
1222682	86	93	85	86	85	79
1222683	82	99	82	82	82	91
1222684	86	97	89	87	88	86
Blank	87	99	94	93	93	86
LCS	90	99	92	92	90	87
MS	92	100	89	93	92	80
MSD	86	93	85	86	85	79

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1222680	98	86	88	87	91	98
1222681	98	86	84	87	88	103
1222682	105	87	83	95	90	97
1222683	124	89	87	90	82	84
1222684	100	74	85	89	76	78
Blank	93	96	87	84	91	84
LCS	93	91	86	82	88	83
MS	98	86	84	87	88	103
MSD	105	87	83	95	90	97

Limits:	50-150
	13C8-PFOSA
1222680	87
1222681	78
1222682	82
1222683	91
1222684	87
Blank	92
LCS	80
MS	78
MSD	82
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1222685	74	67	71	63	71	70
1222686	75	71	74	67	74	76
1222687	71	64	66	58	67	71
1222688	70	67	68	62	69	68
1222689	78	72	74	66	75	77
1222690	74	72	73	62	70	75
1222691	89	83	86	80	86	86
1222692	115	115	108	97	107	109
1222693	74	69	71	59	69	70
1222694	76	73	74	61	70	82
1222696	88	85	87	77	84	86
1222697	84	83	83	79	81	86
1222698	87	80	87	69	82	90
1222699	85	83	79	75	86	86
1222700	91	92	89	81	87	91
1222701	83	80	80	67	77	79
1222702	99	92	94	84	95	97
1222703	92	91	89	82	86	92
1222704	84	79	82	70	79	81
1222705	87	82	82	77	83	84
1222706	82	79	77	68	82	82
Blank	87	85	81	77	85	87
LCS	79	73	75	66	74	75
MS	75	71	74	67	74	76
MSD	71	64	66	58	67	71
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222685	70	76	71	72	69	76
1222686	74	74	72	73	71	71
1222687	73	74	72	71	69	64
1222688	67	74	71	73	73	67
1222689	78	77	78	77	78	77
1222690	73	76	72	73	72	76
1222691	86	93	87	90	87	91
1222692	108	117	106	120	116	118
1222693	69	71	72	75	73	64
1222694	77	83	77	78	75	66
1222696	87	98	89	92	86	90
1222697	80	85	88	87	90	78
1222698	84	92	84	87	87	88

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1222699	89	94	88	88	92	79
1222700	93	105	92	85	84	88
1222701	79	80	82	83	85	81
1222702	99	101	97	97	97	102
1222703	94	99	96	95	94	96
1222704	81	79	82	81	82	77
1222705	81	94	87	85	84	79
1222706	80	88	82	79	84	87
Blank	86	94	91	85	84	87
LCS	78	83	75	78	80	80
MS	74	74	72	73	71	71
MSD	73	74	72	71	69	64
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1222685	79	59	71	64	73	67
1222686	80	64	67	58	71	69
1222687	69	56	66	55	64	67
1222688	71	60	64	62	63	64
1222689	80	70	81	71	79	73
1222690	82	61	70	59	74	71
1222691	103	71	88	68	89	84
1222692	133	78	112	86	115	104
1222693	71	56	67	60	69	70
1222694	67	63	67	59	67	69
1222696	105	70	88	69	88	86
1222697	86	63	79	67	82	84
1222698	90	50	84	59	89	86
1222699	84	69	73	71	80	77
1222700	94	83	87	81	81	83
1222701	86	65	77	72	80	77
1222702	112	90	98	87	103	98
1222703	108	87	92	89	90	87
1222704	84	50	75	50	75	75
1222705	88	68	75	69	75	74
1222706	96	66	82	67	83	77
Blank	93	91	88	92	94	90
LCS	85	86	75	75	82	81
MS	80	64	67	58	71	69
MSD	69	56	66	55	64	67

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:55

Group Number: 2079255

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19365005

Limits:	50-150	50-150	50-150	50-150	50-150	50-150
	13C8-PFOSA					
1222685	72					
1222686	67					
1222687	66					
1222688	64					
1222689	77					
1222690	69					
1222691	92					
1222692	106					
1222693	68					
1222694	68					
1222696	75					
1222697	66					
1222698	84					
1222699	78					
1222700	90					
1222701	79					
1222702	104					
1222703	91					
1222704	79					
1222705	65					
1222706	81					
Blank	85					
LCS	79					
MS	67					
MSD	66					
Limits:	50-150					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

3

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079255 Sample # 1222680-707

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

Matrix: Sediment ☐ Soil ☒ Water: Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Other:

Analyses Requested / Preservation Codes: PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-3-1	12/11/19	0750	X		X			3	X	MS/MSD
SB-3-5	↓	0835	X		X			1	X	
SB-3-5K		0835	X		X			1	X	
SB-3-10		0838	X		X			3	X	MS/MSD
SB-3-15		0842	X		X			1	X	
SB-3-20		0856	X		X			1	X	
SB-3-25		0901	X		X			1	X	
SB-3-25K		0901	X		X			1	X	
SB-3-30		0908	X		X			1	X	
SB-3-40		0921	X		X			1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/11/19				

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

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213

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079258 Sample # 1222680-707

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Potable	Matrix: Ground	Matrix: Surface	Matrix: NPDES	Matrix: Water	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-3-48	12/11/19	0944	X		X								1	X	
SB-FB-121119		1142	X								X		2	X	
SB-7-1		1151	X		X								1	X	
SB-7-1K		1151	X		X								1	X	
SB-7-5		1200	X		X								1	X	
SB-7-10		1206	X		X								1	X	
SB-7-15		1211	X		X								1	X	
SB-7-15K		1211	X		X								1	X	
SB-7-20		1214	X		X								1	X	
SB-7-25		1256	X		X								1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/11/19				
			12/12/19		1034

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

3/3

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079255 Sample # 1222680-707

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Potable Water	Matrix: Ground Water	Matrix: Surface Water	Matrix: NPDES	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-7-36	12/11/19	1300	X		X							1	X	
SB-7-40		1350	X		X							1	X	
SB-7-50		1440	X		X							1	X	
SB-EB-121119		1450	X				X					2	X	
~~SB-EB-121119~~														

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/11/19				

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 269642

Group Number(s): 2079205

Client: GEOSYNTEC CONSULTANTS

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/12/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	California		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	1.8	IR	Wet	Y	Bagged	N

Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	Comments
SB-3-20	SB-3-21	

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GeoSyntec Consultants
65 N Raymond Ave
Suite 200
Pasadena CA 91103

Report Date: January 09, 2020 13:56

Project: BUR PFAS Investigation/WR2693

Account #: 10195
Group Number: 2079509
PO Number: WR2693-02-02
State of Sample Origin: CA

Electronic Copy To GeoSyntec Consultants Attn: Jake Sneider

Respectfully Submitted,

Elizabeth M. Zanar

Elizabeth M. Zanar
Project Manager

(717) 556-7290

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
SB-FB-121219 Grab Water	12/12/2019 07:45	1224027
SB-6-1 Grab Soil	12/12/2019 07:40	1224028
SB-6-5 Grab Soil	12/12/2019 07:52	1224029
SB-6-10 Grab Soil	12/12/2019 07:57	1224030
SB-6-15 Grab Soil	12/12/2019 08:01	1224031
SB-6-20 Grab Soil	12/12/2019 08:20	1224032
SB-6-25 Grab Soil	12/12/2019 08:53	1224033
SB-EB-121219 Grab Water	12/12/2019 10:41	1224034
SB-6-30 Grab Soil	12/12/2019 10:12	1224035
SB-6-36 Grab Soil	12/12/2019 10:21	1224036

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: SB-FB-121219 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 07:45

GeoSyntec Consultants
ELLE Sample #: WW 1224027
ELLE Group #: 2079509
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/l	ng/l	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 3.9	3.9	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.4	2.4	1
14434	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 3.9	3.9	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 18:56	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-6-1 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 07:40

GeoSyntec Consultants
ELLE Sample #: SW 1224028
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.2	2.2	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.2	2.2	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.3	3.3	1
14478	NEtFOSAA	2991-50-6	< 2.2	2.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.2	2.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.2	2.2	1
14478	Perfluorobutanoic acid	375-22-4	< 2.2	2.2	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.67	0.67	1
14478	Perfluorodecanoic acid	335-76-2	< 0.67	0.67	1
14478	Perfluorododecanoic acid	307-55-1	< 0.67	0.67	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.67	0.67	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.67	0.67	1
14478	Perfluorohexanesulfonic acid	355-46-4	3.3	0.67	1
14478	Perfluorohexanoic acid	307-24-4	< 0.67	0.67	1
14478	Perfluorononanoic acid	375-95-1	< 0.67	0.67	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.67	0.67	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.67	0.67	1
14478	Perfluorooctanoic acid	335-67-1	2.5	0.67	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.3	3.3	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.67	0.67	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.67	0.67	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.67	0.67	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.67	0.67	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	10.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:47	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

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Analysis Report

Sample Description: SB-6-5 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 07:52

GeoSyntec Consultants
ELLE Sample #: SW 1224029
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.3	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 19:56	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

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Analysis Report

Sample Description: SB-6-10 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 07:57

GeoSyntec Consultants
ELLE Sample #: SW 1224030
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 1.9	1.9	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 1.9	1.9	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.58	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.58	0.58	1
14478	Perfluorohexanoic acid	307-24-4	< 0.58	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	< 0.58	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.58	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.2	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 20:05	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

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Analysis Report

Sample Description: SB-6-15 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 08:01

GeoSyntec Consultants
ELLE Sample #: SW 1224031
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.63	0.63	1
14478	Perfluorodecanoic acid	335-76-2	< 0.63	0.63	1
14478	Perfluorododecanoic acid	307-55-1	< 0.63	0.63	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.63	0.63	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.63	0.63	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.63	0.63	1
14478	Perfluorohexanoic acid	307-24-4	1.5	0.63	1
14478	Perfluorononanoic acid	375-95-1	< 0.63	0.63	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.63	0.63	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.63	0.63	1
14478	Perfluorooctanoic acid	335-67-1	< 0.63	0.63	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	0.75	0.63	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.63	0.63	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.63	0.63	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.63	0.63	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	10	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 20:14	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

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Analysis Report

Sample Description: SB-6-20 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 08:20

GeoSyntec Consultants
ELLE Sample #: SW 1224032
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA	2991-50-6	< 2.0	2.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 2.0	2.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.59	0.59	1
14478	Perfluorodecanoic acid	335-76-2	< 0.59	0.59	1
14478	Perfluorododecanoic acid	307-55-1	< 0.59	0.59	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.59	0.59	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.59	0.59	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.59	0.59	1
14478	Perfluorohexanoic acid	307-24-4	< 0.59	0.59	1
14478	Perfluorononanoic acid	375-95-1	< 0.59	0.59	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.59	0.59	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.59	0.59	1
14478	Perfluorooctanoic acid	335-67-1	< 0.59	0.59	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.59	0.59	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.59	0.59	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.59	0.59	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.59	0.59	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 20:32	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

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Analysis Report

Sample Description: SB-6-25 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 08:53

GeoSyntec Consultants
ELLE Sample #: SW 1224033
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.1	2.1	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.1	2.1	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.1	3.1	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.1	2.1	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.1	2.1	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.1	2.1	1
14478	Perfluorobutanoic acid	375-22-4	< 2.1	2.1	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.62	0.62	1
14478	Perfluorodecanoic acid	335-76-2	< 0.62	0.62	1
14478	Perfluorododecanoic acid	307-55-1	< 0.62	0.62	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.62	0.62	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.62	0.62	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.62	0.62	1
14478	Perfluorohexanoic acid	307-24-4	< 0.62	0.62	1
14478	Perfluorononanoic acid	375-95-1	< 0.62	0.62	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.62	0.62	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.62	0.62	1
14478	Perfluorooctanoic acid	335-67-1	< 0.62	0.62	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.1	3.1	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.62	0.62	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.62	0.62	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.62	0.62	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.62	0.62	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.6	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 20:41	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

Sample Description: SB-EB-121219 Grab Water
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 10:41

GeoSyntec Consultants
ELLE Sample #: WW 1224034
ELLE Group #: 2079509
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		ng/l	ng/l	
14434	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.6	1.6	1
14434	6:2-Fluorotelomersulfonic acid	27619-97-2	< 4.0	4.0	1
14434	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.4	2.4	1
14434	NEtFOSAA	2991-50-6	< 2.4	2.4	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14434	NMeFOSAA	2355-31-9	< 1.6	1.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14434	Perfluorobutanesulfonic acid	375-73-5	< 1.6	1.6	1
14434	Perfluorobutanoic acid	375-22-4	< 4.0	4.0	1
14434	Perfluorodecanesulfonic acid	335-77-3	< 1.6	1.6	1
14434	Perfluorodecanoic acid	335-76-2	< 1.6	1.6	1
14434	Perfluorododecanoic acid	307-55-1	< 1.6	1.6	1
14434	Perfluoroheptanesulfonic acid	375-92-8	< 1.6	1.6	1
14434	Perfluoroheptanoic acid	375-85-9	< 1.6	1.6	1
14434	Perfluorohexanesulfonic acid	355-46-4	< 1.6	1.6	1
14434	Perfluorohexanoic acid	307-24-4	< 1.6	1.6	1
14434	Perfluorononanoic acid	375-95-1	< 1.6	1.6	1
14434	Perfluorooctanesulfonamide	754-91-6	< 1.6	1.6	1
14434	Perfluorooctanesulfonic acid	1763-23-1	< 1.6	1.6	1
14434	Perfluorooctanoic acid	335-67-1	< 1.6	1.6	1
14434	Perfluoropentanesulfonate	2706-91-4	< 1.6	1.6	1
14434	Perfluoropentanoic acid	2706-90-3	< 1.6	1.6	1
14434	Perfluorotetradecanoic acid	376-06-7	< 1.6	1.6	1
14434	Perfluorotridecanoic acid	72629-94-8	< 1.6	1.6	1
14434	Perfluoroundecanoic acid	2058-94-8	< 1.6	1.6	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside of the method holding time and the recovery for a target analyte(s) in the Laboratory Control Spike(s) was within the QC acceptance limits.

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14434	23 PFAS in Water Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/27/2019 19:05	Devon M Whooley	1
14465	PFAS Water Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19350004	12/16/2019 07:00	Austin Prince	1

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Analysis Report

Sample Description: SB-6-30 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 10:12

GeoSyntec Consultants
ELLE Sample #: SW 1224035
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 1.9	1.9	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 1.9	1.9	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 2.9	2.9	1
14478	NEtFOSAA	2991-50-6	< 1.9	1.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14478	NMeFOSAA	2355-31-9	< 1.9	1.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14478	Perfluorobutanesulfonic acid	375-73-5	< 1.9	1.9	1
14478	Perfluorobutanoic acid	375-22-4	< 1.9	1.9	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.58	0.58	1
14478	Perfluorodecanoic acid	335-76-2	< 0.58	0.58	1
14478	Perfluorododecanoic acid	307-55-1	< 0.58	0.58	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.58	0.58	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.58	0.58	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.58	0.58	1
14478	Perfluorohexanoic acid	307-24-4	< 0.58	0.58	1
14478	Perfluorononanoic acid	375-95-1	< 0.58	0.58	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.58	0.58	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.58	0.58	1
14478	Perfluorooctanoic acid	335-67-1	< 0.58	0.58	1
14478	Perfluoropentanesulfonate	2706-91-4	< 2.9	2.9	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.58	0.58	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.58	0.58	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.58	0.58	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.58	0.58	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture	n.a.	2.4	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 20:50	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

Sample Description: SB-6-36 Grab Soil
BUR PFAS Investigation/WR2693

Project Name: BUR PFAS Investigation/WR2693

Submittal Date/Time: 12/13/2019 10:32
Collection Date/Time: 12/12/2019 10:21

GeoSyntec Consultants
ELLE Sample #: SW 1224036
ELLE Group #: 2079509
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous	**EPA 537 mod QSM 5.1 table B-15**		**ng/g**	**ng/g**	
14478	4:2-Fluorotelomersulfonic acid	757124-72-4	< 2.0	2.0	1
14478	6:2-Fluorotelomersulfonic acid	27619-97-2	< 2.0	2.0	1
14478	8:2-Fluorotelomersulfonic acid	39108-34-4	< 3.0	3.0	1
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	< 2.0	2.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	< 2.0	2.0	1
14478	Perfluorobutanesulfonic acid	375-73-5	< 2.0	2.0	1
14478	Perfluorobutanoic acid	375-22-4	< 2.0	2.0	1
14478	Perfluorodecanesulfonic acid	335-77-3	< 0.61	0.61	1
14478	Perfluorodecanoic acid	335-76-2	< 0.61	0.61	1
14478	Perfluorododecanoic acid	307-55-1	< 0.61	0.61	1
14478	Perfluoroheptanesulfonic acid	375-92-8	< 0.61	0.61	1
14478	Perfluoroheptanoic acid	375-85-9	< 0.61	0.61	1
14478	Perfluorohexanesulfonic acid	355-46-4	< 0.61	0.61	1
14478	Perfluorohexanoic acid	307-24-4	< 0.61	0.61	1
14478	Perfluorononanoic acid	375-95-1	< 0.61	0.61	1
14478	Perfluorooctanesulfonamide	754-91-6	< 0.61	0.61	1
14478	Perfluorooctanesulfonic acid	1763-23-1	< 0.61	0.61	1
14478	Perfluorooctanoic acid	335-67-1	< 0.61	0.61	1
14478	Perfluoropentanesulfonate	2706-91-4	< 3.0	3.0	1
14478	Perfluoropentanoic acid	2706-90-3	< 0.61	0.61	1
14478	Perfluorotetradecanoic acid	376-06-7	< 0.61	0.61	1
14478	Perfluorotridecanoic acid	72629-94-8	< 0.61	0.61	1
14478	Perfluoroundecanoic acid	2058-94-8	< 0.61	0.61	1
Wet Chemistry	**SM 2540 G-2011 %Moisture Calc**		**%**	**%**	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.0	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	23 PFAS in Soil Table B-15	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/22/2019 20:59	Devon M Whooley	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	19352007	12/18/2019 11:00	Austin Prince	1
00111	Moisture	SM 2540 G-2011 %Moisture Calc	1	19351820002B	12/18/2019 11:19	Larry E Bevins	1

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:56

Group Number: 2079509

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ng/g	ng/g
Batch number: 19352007	Sample number(s): 1224028-1224033,1224035-1224036	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 2.0	2.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 2.0	2.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 2.0	2.0
Perfluorodecanesulfonic acid	< 0.60	0.60
Perfluorodecanoic acid	< 0.60	0.60
Perfluorododecanoic acid	< 0.60	0.60
Perfluoroheptanesulfonic acid	< 0.60	0.60
Perfluoroheptanoic acid	< 0.60	0.60
Perfluorohexanesulfonic acid	< 0.60	0.60
Perfluorohexanoic acid	< 0.60	0.60
Perfluorononanoic acid	< 0.60	0.60
Perfluorooctanesulfonamide	< 0.60	0.60
Perfluorooctanesulfonic acid	< 0.60	0.60
Perfluorooctanoic acid	< 0.60	0.60
Perfluoropentanesulfonate	< 3.0	3.0
Perfluoropentanoic acid	< 0.60	0.60
Perfluorotetradecanoic acid	< 0.60	0.60
Perfluorotridecanoic acid	< 0.60	0.60
Perfluoroundecanoic acid	< 0.60	0.60
	ng/l	ng/l
Batch number: 19350004	Sample number(s): 1224027,1224034	
4:2-Fluorotelomersulfonic acid	< 2.0	2.0
6:2-Fluorotelomersulfonic acid	< 5.0	5.0
8:2-Fluorotelomersulfonic acid	< 3.0	3.0
NEtFOSAA	< 3.0	3.0
NMeFOSAA	< 2.0	2.0
Perfluorobutanesulfonic acid	< 2.0	2.0
Perfluorobutanoic acid	< 5.0	5.0
Perfluorodecanesulfonic acid	< 2.0	2.0
Perfluorodecanoic acid	< 2.0	2.0
Perfluorododecanoic acid	< 2.0	2.0
Perfluoroheptanesulfonic acid	< 2.0	2.0
Perfluoroheptanoic acid	< 2.0	2.0
Perfluorohexanesulfonic acid	< 2.0	2.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:56

Group Number: 2079509

Method Blank (continued)

Analysis Name	Result ng/l	LOQ ng/l
Perfluorohexanoic acid	< 2.0	2.0
Perfluorononanoic acid	< 2.0	2.0
Perfluorooctanesulfonamide	< 2.0	2.0
Perfluorooctanesulfonic acid	< 2.0	2.0
Perfluorooctanoic acid	< 2.0	2.0
Perfluoropentanesulfonate	< 2.0	2.0
Perfluoropentanoic acid	< 2.0	2.0
Perfluorotetradecanoic acid	< 2.0	2.0
Perfluorotridecanoic acid	< 2.0	2.0
Perfluoroundecanoic acid	< 2.0	2.0

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19352007	Sample number(s): 1224028-1224033,1224035-1224036								
4:2-Fluorotelomersulfonic acid	23.36	22.09			95		63-132		
6:2-Fluorotelomersulfonic acid	23.7	21.57			91		51-156		
8:2-Fluorotelomersulfonic acid	23.94	24.31			102		61-142		
NEtFOSAA	25	25.86			103		60-143		
NMeFOSAA	25	29.06			116		56-142		
Perfluorobutanesulfonic acid	22.12	21.73			98		80-134		
Perfluorobutanoic acid	25	23.52			94		79-146		
Perfluorodecanesulfonic acid	24.08	25.24			105		59-142		
Perfluorodecanoic acid	25	26.83			107		79-136		
Perfluorododecanoic acid	25	24.99			100		76-142		
Perfluoroheptanesulfonic acid	23.78	23.45			99		75-131		
Perfluoroheptanoic acid	25	26.73			107		81-140		
Perfluorohexanesulfonic acid	23.64	23.43			99		75-131		
Perfluorohexanoic acid	25	24.41			98		73-145		
Perfluorononanoic acid	25	25.92			104		74-141		
Perfluorooctanesulfonamide	25	23.92			96		66-128		
Perfluorooctanesulfonic acid	23.9	22.51			94		66-140		
Perfluorooctanoic acid	25	25.15			101		80-140		
Perfluoropentanesulfonate	23.44	23.41			100		78-131		
Perfluoropentanoic acid	25	24.88			100		73-140		
Perfluorotetradecanoic acid	25	27.19			109		81-137		
Perfluorotridecanoic acid	25	24.99			100		75-147		
Perfluoroundecanoic acid	25	26.85			107		63-147		
	ng/l	ng/l	ng/l	ng/l					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:56

Group Number: 2079509

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19350004	Sample number(s): 1224027,1224034								
4:2-Fluorotelomersulfonic acid	23.92	18.95	23.92	18.47	79	77	64-134	3	30
6:2-Fluorotelomersulfonic acid	24.28	20.43	24.28	20.91	84	86	51-155	2	30
8:2-Fluorotelomersulfonic acid	24.52	20.86	24.52	20.74	85	85	62-133	1	30
NEtFOSAA	25.6	26.26	25.6	24.27	103	95	59-145	8	30
NMeFOSAA	25.6	22.39	25.6	23.23	87	91	53-136	4	30
Perfluorobutanesulfonic acid	22.64	18.4	22.64	18.91	81	84	81-133	3	30
Perfluorobutanoic acid	25.6	20.29	25.6	20.15	79*	79*	84-135	1	30
Perfluorodecanesulfonic acid	24.64	17.78	24.64	18.42	72	75	69-124	4	30
Perfluorodecanoic acid	25.6	22.02	25.6	21.59	86	84	78-137	2	30
Perfluorododecanoic acid	25.6	24.08	25.6	23.15	94	90	75-139	4	30
Perfluoroheptanesulfonic acid	24.36	18.99	24.36	20.77	78*	85	80-129	9	30
Perfluoroheptanoic acid	25.6	22.55	25.6	24.4	88	95	80-140	8	30
Perfluorohexanesulfonic acid	24.2	19.88	24.2	21.06	82	87	71-131	6	30
Perfluorohexanoic acid	25.6	20.72	25.6	20.82	81	81	80-137	1	30
Perfluorononanoic acid	25.6	20.41	25.6	22.59	80	88	73-140	10	30
Perfluorooctanesulfonamide	25.6	23.25	25.6	22.32	91	87	73-121	4	30
Perfluorooctanesulfonic acid	24.48	17.75	24.48	19.38	73	79	54-139	9	30
Perfluorooctanoic acid	25.6	20.84	25.6	19.65	81*	77*	83-138	6	30
Perfluoropentanesulfonate	24	20.18	24	20.7	84	86	82-132	3	30
Perfluoropentanoic acid	25.6	20.43	25.6	21.65	80	85	75-138	6	30
Perfluorotetradecanoic acid	25.6	22.02	25.6	24.44	86	95	79-134	10	30
Perfluorotridecanoic acid	25.6	21.48	25.6	19.75	84	77	67-144	8	30
Perfluoroundecanoic acid	25.6	22.08	25.6	20.41	86	80	70-134	8	30
	%	%	%	%					
Batch number: 19351820002B	Sample number(s): 1224028-1224033,1224035-1224036								
Moisture	89.5	89.44			100		99-101		

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1224027	103	97	100	116	113	111
1224034	108	108	106	121	112	120
Blank	110	104	106	111	110	113
LCS	112	112	115	125	115	117

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:56

Group Number: 2079509

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Water Table B-15
Batch number: 19350004

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
LCSD	109	106	105	115	113	110
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1224027	103	111	106	96	102	101
1224034	112	117	115	114	116	100
Blank	108	115	109	102	109	111
LCS	116	124	112	115	118	118
LCSD	108	119	112	106	109	115
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1224027	98	114	105	106	101	94
1224034	104	121	103	118	108	107
Blank	115	123	115	116	106	110
LCS	117	132	117	115	113	108
LCSD	117	135	122	120	120	109
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1224027	93
1224034	96
Blank	105
LCS	100
LCSD	106
Limits:	50-150

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1224028	83	81	75	60	85	93
1224029	98	93	88	70	93	107
1224030	95	92	81	69	91	101
1224031	83	78	72	64	82	96
1224032	97	98	87	70	93	105
1224033	95	91	85	69	93	105
1224035	86	83	77	61	80	93
1224036	91	84	80	70	91	107

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:56

Group Number: 2079509

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
Blank	103	99	90	77	103	113
LCS	89	86	81	67	89	98
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1224028	79	79	83	82	79	81
1224029	95	89	96	98	93	94
1224030	86	87	92	96	93	94
1224031	81	81	87	83	81	92
1224032	90	89	96	99	92	95
1224033	92	85	97	96	90	88
1224035	84	77	85	87	85	87
1224036	88	86	95	95	89	83
Blank	99	95	107	99	99	94
LCS	91	84	89	90	83	87
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA	13C2-PFTeDA
1224028	79	77	84	76	82	79
1224029	86	92	101	90	96	83
1224030	88	85	97	91	94	83
1224031	80	69	89	75	85	75
1224032	84	86	86	84	91	82
1224033	82	79	90	82	94	77
1224035	82	70	86	78	86	75
1224036	79	80	91	91	89	85
Blank	90	110	100	100	96	87
LCS	83	101	94	104	94	84
Limits:	50-150	50-150	50-150	50-150	50-150	50-150

	13C8-PFOSA
1224028	87
1224029	105
1224030	106
1224031	87
1224032	100
1224033	86
1224035	95
1224036	96

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GeoSyntec Consultants
Reported: 01/09/2020 13:56

Group Number: 2079509

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 23 PFAS in Soil Table B-15
Batch number: 19352007

	13C8-PFOSA
Blank	107
LCS	100
Limits:	50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

1/2

Environmental Analysis Request/Chain of Custody

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Acct. # 10145 Group # 2079504 Sample # 1224027-36

Client: Geosyntec Consultants
Project Name/#: BUR PFAS Investigation/WR2693 | Site ID #:
Project Manager: Jake Sneider | P.O. #: WR2693-02-02
Sampler: Julia Loper | PWSID #:
Phone #: 415-971-1849 | Quote #:221387A Rev 1
State where sample(s) were collected: CA

For Lab Use Only
SF #:
SCR #:

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Sediment	Soil	Potable	Ground	Surface	NPDES	Water	Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-FB-121219	12/12/19	0745	X								X		2	X	
SB-6-1		0740	X			X							1	X	
SB-6-5		0752	X			X							1	X	
SB-6-10		0757	X			X							1	X	
SB-6-~~20~~15		0801	X			X							1	X	
SB-6-20		0820	X			X							1	X	
SB-6-25 0853		~~0820~~	X			X							1	X	
~~SB-6-30~~			X			X							1	X	
SB-EB-121219		1041	X								X		2	X	
SB-6-30		1012	X			X							1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/12/19				
			Kristin	12/13/19	1032

Relinquished by Commercial Carrier:
UPS _____ FedEx X Other _____

Temperature upon receipt 1.2 °C

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7045 0713

2/2

Environmental Analysis Request/Chain of Custody

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Acct. # 10195 Group # 2079509 Sample # 1224027-36

Client: Geosyntec Consultants	
Project Name/#: BUR PFAS Investigation/WR2693	Site ID #:
Project Manager: Jake Sneider	P.O. #: WR2693-02-02
Sampler: Julia Loper	PWSID #:
Phone #: 415-971-1849	Quote #:221387A Rev 1
State where sample(s) were collected: CA	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Potable Water	Matrix: Ground Water	Matrix: Surface Water	Matrix: NPDES	Matrix: Other:	Total # of Containers	PFAS (23 Compound CA RWQCB Table 1 List) via EPA 537 mod QSM table B-15	Remarks
SB-6-36	12/12/19	1021	X		X							1	X	

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 21 days from sample receipt

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: jsneider@geosyntec.com

Phone: 415-971-1849

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Julia Loper	12/12/19				
			Received by:	12/13/19	1032

Relinquished by Commercial Carrier:
UPS _____ FedEx X Other _____

Temperature upon receipt 1.2 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 269841

Group Number(s): 2079509

Client: Geosyntec Consultants

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	12/13/2019
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Tamara Lugardo

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	192050133	1.2	IR	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

April 20, 2020

Mr. Mark Hardyment
Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, California 91505

SUBJECT: **APPROVAL OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) GROUNDWATER SAMPLING WORK PLAN**

SITE/CASE: **BOB HOPE AIRPORT**
2627 HOLLYWOOD WAY
BURBANK, CA 91505
(FILE NO. T10000012771; SITE ID NO. N/A)

Dear Mr. Hardyment:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility to protect groundwater and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura counties, including the above-referenced Site.

TECHNICAL REPORT

The Regional Board received the following document, submitted on your behalf, for review:

- *Per- and Polyfluoroalkyl Substances (PFAS) Investigation Groundwater Sampling Work Plan* (GW Work Plan), 2627 Hollywood Way, Burbank, California 91505, dated November 27, 2019, prepared by Geosyntec Consultants, Inc. (Geosyntec).

BACKGROUND

By Order dated March 20, 2019, the State Water Board, pursuant to Water Code section 13267, directed that all airport facilities certified for aqueous film forming foam (AFFF) use by the FAA and municipal solid waste landfills in the State conduct investigations for the possible presence of per- and polyfluoroalkyl substances (PFAS) at those facilities.

Pursuant to that order and on behalf of the Burbank-Glendale-Pasadena Airport Authority (the Authority), Geosyntec Consultants, Inc. (Geosyntec) has prepared the GW Work Plan for the Hollywood Burbank

Airport[1] (the Airport or Site; Figure 1). Geosyntec previously submitted the *PFAS Investigation Work Plan* to the Regional Board on June 11, 2019. In response to the *PFAS Investigation Work Plan* (Work Plan), the Regional Board issued a work plan approval letter, dated August 20, 2019 (the Letter), requesting a separate groundwater sampling work plan be submitted for the Site. The GW Work Plan was submitted to the Regional Board in response to the Letter.

The objective of the groundwater sampling presented in the GW Work Plan is to evaluate the potential presence of PFAS in groundwater in existing monitoring wells on and in the vicinity of the Site.

PROPOSED WORK

The GW Work Plan proposes the following tasks:

1. Groundwater Sampling
    a. Groundwater samples will be collected from six selected existing groundwater monitoring wells (Table 1, Figure 2) in general accordance with the *Revised Final Focused Feasibility Study Groundwater Monitoring Sampling and Analysis Plan*[2] for the Burbank Operable Unit (BOU) dated March 29, 2019 (Brown and Caldwell/SLR International, 2019).
    b. Groundwater samples will be collected (for the list of analytes in compliance with Tables 1 and 2 of the Order [attached]) from each well using low-flow sampling techniques via a portable, non-dedicated pump equipped with disposable tubing and components compatible with PFAS sampling.
    c. The groundwater level at each well will also be measured prior to and during the purging. Once steady-state conditions are reached during purging, groundwater samples will be collected in 250-ml HDPE bottles (2 bottles per sample) with unlined (no Teflon) polyethylene screw caps for PFAS and for general water chemistry parameters as described in Table 2 of the Order (attached). The dedicated pumps and tubing will be reinstalled in each well after samples are collected.
    d. Groundwater samples will be analyzed for the mandatory 23 PFAS analytes by a laboratory accredited by the California Environmental Laboratory Accreditation Program (ELAP) to perform the analytical method for PFAS compliant with Table B-15 of Department of Defense (DoD) Quality Systems Manual (QSM) Version 5.1 or later as indicated in the Order. Sample bottles and PFAS free water will be also provided by the laboratory.
    e. In addition to the PFAS analytes, groundwater samples will also be analyzed for the following general water chemistry parameters by ELAP certified Eurofins Calscience of Garden Grove, California, as indicated in Table 2 of the Order (attached):

---

[1] Regional Board correspondence refers to the Airport as "Bob Hope" based on the F.A.A.'s Airport Master Record's website. Although the Airport's legal name is the Bob Hope Airport, the Airport is now publicly referred to as the Hollywood Burbank Airport and will be referred to as such in this Work Plan. The Authority owns and operates the Hollywood Burbank Airport.

[2] Brown and Caldwell/SLR International, 2019. *Revised Final Focused Feasibility Study Groundwater Monitoring Sampling and Analysis Plan Burbank Operable Unit*, Burbank, California. March 29.

- Total dissolved solids via Standard Method (SM) 2540C;
- Chloride, sulfate, and nitrate-nitrogen by United States Environmental Protection Agency (USEPA) Method 300;
- Carbonate and bicarbonate by SM 2320B; and
- Calcium, magnesium, potassium and sodium by USEPA Method 6010B.

Details of the analytical program, including sample containers, are summarized in Table 3 (attached). Reporting Limits (RLs) and Method Detection Limits (MDLs) for each PFAS analyte are presented in Table 2.

2. Decontamination
   a. Before collecting groundwater samples, sampling devices will be decontaminated. Dedicated or disposable equipment will be rinsed with laboratory-certified, PFAS-free water. Each piece of reusable sampling equipment that comes into contact with sampled media will be decontaminated before initiation of sampling operations and between each sample location. Spent decontamination fluids will be contained, properly labeled and appropriately disposed of in accordance with Section 3.5 of the GW Work Plan.
   b. Non-dedicated sampling equipment (e.g., water level probes, submersible pump) will be decontaminated by the "three-bucket-wash" method. The equipment will be first washed using a solution of Liquinox® made with potable water, followed by a first rinse using distilled water and a second rinse using laboratory-certified, PFAS-free water.
   c. Water used for the final rinse during decontamination of sampling equipment will be laboratory-certified, PFAS-free water. To the extent practical, equipment parts that come in direct contact with samples will be rinsed with laboratory-certified, PFAS-free water.

3. Investigation-Derived Waste
   a. The investigation-derived waste (IDW) generated during groundwater sampling and decontamination of the sampling equipment will be containerized (e.g., Department of Transportation approved 30-gallon or 55-gallon drums), sealed, properly labeled, and temporarily stored onsite. Following the completion of groundwater sampling activities, a composite soil sample and a wastewater sample will be collected and analyzed for volatile organic compounds (VOCs) by USEPA Method 8260B, Title 22 Metals by USEPA Method 6010B/7471A, and total petroleum hydrocarbons (TPH) by USEPA Method 8015M. Following receipt of the analytical results, the containerized IDW will be disposed, per applicable procedures and protocols.

      In addition, the disposal contractor will be made aware of the presence of PFAS (if established) and the results of the proposed PFAS investigation will be shared, which, it is anticipated, will likely be accepted in lieu of a separate IDW analysis for PFAS.

4. Quality Assurance/Quality Control
   a. Field Duplicates
      i. Field duplicates are generally collected at a minimum rate of one field duplicate for every 10 primary samples and each field event. Therefore, for this proposed sampling event, one field duplicate will be collected.
      ii. Field duplicates will be labeled with a unique sample identifier and not be indicated as a duplicate.

b. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Sample
    i. At least one MS/MSD sample will be collected for every 20 primary samples and every sample batch. MS/MSD samples will be labeled with the same sample name and time as the primary sample and denoted as MS/MSD samples on the chain of custody (COC) and sample label.
c. Equipment Blanks
    i. Equipment blanks are used to assess potential sources of field and laboratory contamination. Equipment blanks are prepared by pouring PFAS-free water over or through decontaminated reusable field sampling equipment and collecting the rinsate in a sample container. One equipment blank will be collected for each day of field work.
d. Field Blanks
    i. Field blanks are used to assess ambient contamination within the field and laboratory. Field blanks will be prepared by filling a sample container with PFAS-free water in the field in the same manner as environmental samples. Field blanks are an effective way of assessing potential cross-contamination as a result of sample handling. One field blank will be collected each day.
e. Temperature Blanks
    i. Temperature blanks are used to assess the temperature of samples during shipping. Temperature blanks will be provided by the laboratory or prepared by filling a sample container with water prior to shipment of the sample containers. The blank will be kept in the cooler during sampling and shipment to the laboratory. Once the cooler returns to the laboratory, the temperature of the blank will be measured to ensure that recommended sample storage criteria are met (typically less than 6 degrees Celsius).

REGIONAL BOARD APPROVAL

The Regional Board approves the GW Work Plan with the following comments and requests:

1. Groundwater Sample Collection Adjacent to SB-5
    a. Regional Board staff requires that a groundwater grab sample is collected adjacent to former soil sample location SB-5 (Figures 2 and 3). Soil sampling results from the Geosyntec *Per- and Polyfluoroalkyl Substances (PFAS) Soils Investigation Report* (PFAS Soils Investigation Report; dated February 6, 2020) indicate elevated PFAS concentrations in soil at SB-5, located in the Fuel Farm area (Table 5; Figures 2 and 3). The PFAS Soils Investigation Report documented the results of a PFAS soil investigation that was performed from December 9 to 12, 2019 at seven locations (to approximately 50 feet below ground surface [bgs]) to evaluate the potential presence of PFAS in soil at locations where PFAS releases have had the potential to occur at the Airport. The report is accessible at the following link:
    https://geotracker.waterboards.ca.gov/esi/uploads/geo_report/5370367228/T10000012771.PDF
    b. The groundwater grab sample adjacent to SB-5 may be collected by installing a temporary well or by collecting a Hydropunch™ sample. The groundwater grab sample should be analyzed for PFAS, similar to the six selected existing groundwater monitoring wells (Table 1, Figure 2) proposed for PFAS sampling in the GW Work Plan.

c. As for the other soil sampling locations in the PFAS Soils Investigation Report (sampled in December 2019), SB-1 had detections of various PFAS compounds at 1 and 10 feet bgs, but the detections were non-detect below 10 feet bgs (Table 5). SB-2 had negligible concentrations for a few PFAS compounds at 1 and 5 feet bgs, but the concentrations were non-detect below 5 feet bgs (Table 5). Groundwater samples are proposed in the GW Work Plan (subject Work Plan) to be collected adjacent to the remaining soil sampling locations described in the PFAS Soils Investigation Report, including SB-3, SB-4, SB-6 and SB-7 (Figures 2 and 3; Table 5).

2. Groundwater Sample Analysis
   a. The groundwater sample collection and analysis for the Airport investigation must follow the procedures, protocol, and requirements applicable for PFAS including:
      i. The laboratory must be accredited by the California Environmental Laboratory Accreditation Program (ELAP) to perform the analytical method for PFAS compliant with Department of Defense (DoD) Table B-15 of Quality Systems Manual (QSM), dated 2017, version 5.1 or later. The method can be found at the following weblink: https://www.denix.osd.mil/edqw/documents/documents/qsm-version-5-1-final/
   b. Groundwater collected and submitted for analysis shall be for those compounds in accordance with parameters listed in Table 1 (attached) as presented in the State Water Board Order WQ 2019-0005-DWQ.
      i. The laboratory must have the capacity to quantify the target PFAS analytes listed in Table 1. PFAS Analytes Subject to Analysis in the Order and must be capable of achieving the QA/QC requirements specified in Table B-15 of the DoD QSM, version 5.1 or later.
      ii. The groundwater sampling field parameters and the groundwater geochemistry parameters shall follow the prescribed analysis and protocols as listed in Table 2 as presented in the State Water Board Order WQ 2019-0005-DWQ (attached).

3. Field Work Notification
   a. The Regional Board case manager shall be notified a minimum of seven (7) working days prior to the start of field work so that staff may coordinate field oversight.

4. Groundwater Sampling Report Submittal
   b. A groundwater sampling final report (Report) must be submitted in a searchable electronic format, with transmittal letter, text, tables, figures, laboratory analytical data, and appendices in Portable Document Format (PDF) format (one PDF for the entire report) as well as in electronic data deliverable (EDD) format. The final Report, laboratory reports and EDD must be uploaded to GeoTracker via the Electronic Submittal of Information (ESI) Portal, as stipulated by California State law.
   c. The groundwater sampling report shall be submitted to the Regional Board within **180-days** of the Work Plan approval, and shall include, at a minimum, the following items:
      i. Scaled maps showing the locations of the sampled monitoring wells labeled with unique identifications, as well as the locations of any active or former PFAS storage area(s), known PFAS release areas, prior PFAS soil sampling locations (from the PFAS Soils Investigation Report prepared by Geosyntec dated February

6, 2020), underground storage tank(s), waste storage area(s), sewer line, plating areas, clarifier, and dry wells;

ii. Data tables showing the analytical results;
iii. Groundwater flow direction and gradient map;
iv. Historical boring logs from the sampled monitoring wells;
v. Laboratory reports, chain-of-custody documentation, and QA/QC data;
vi. Copies of all necessary permits from appropriate agencies;
vii. Evaluation of the data, conclusions, and recommendations;
viii. The following perjury statement signed by a senior authorized representative (not by a consultant) of the Authority:

"I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

5. As presented in State Water Resources Control Board Resolution 92-49, professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. Moreover, the work plans or final reports submitted to this Regional Board should be reviewed, signed and stamped by a California registered geologist, or a California registered civil engineer with at least 5 years of hydrogeologic experience. Furthermore, the California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. Therefore, all future work should be performed by or under the direction of a registered geologist of registered civil engineer. A statement is requested in the final reports that the registered professional in charge actually supervised or personally conducted all the work associated with the work plan and final reports.

The required technical report is necessary to investigate the characteristics of and extent of the discharges of PFAS waste at the site at areas where PFAS releases are known to have occurred. Therefore, the burden, including costs, of the report bear a reasonable relationship to the need for the report and benefits to be obtained. Pursuant to section 13268(b)(1) of the CWC, failure to submit the required technical report described above by the specified due date may result in civil liability penalties administratively imposed by the Regional Board in an amount up to one thousand dollars ($1,000) per day for each day the technical report is not received after the above due date. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

Should you have any questions related to this matter, please contact Ms. Nicole Alkov (Case Manager) at (213) 576-6677 (Nicole.Alkov@waterboards.ca.gov) or Mr. Jeffrey Hu (Unit Chief, Site Cleanup Unit II) at (213) 576-6803 (Jeffrey.Hu@waterboards.ca.gov).

Sincerely,

R. Purdy

Digitally signed by R. Purdy
Date: 2020.04.18 07:58:27 -07'00'

Water Boards

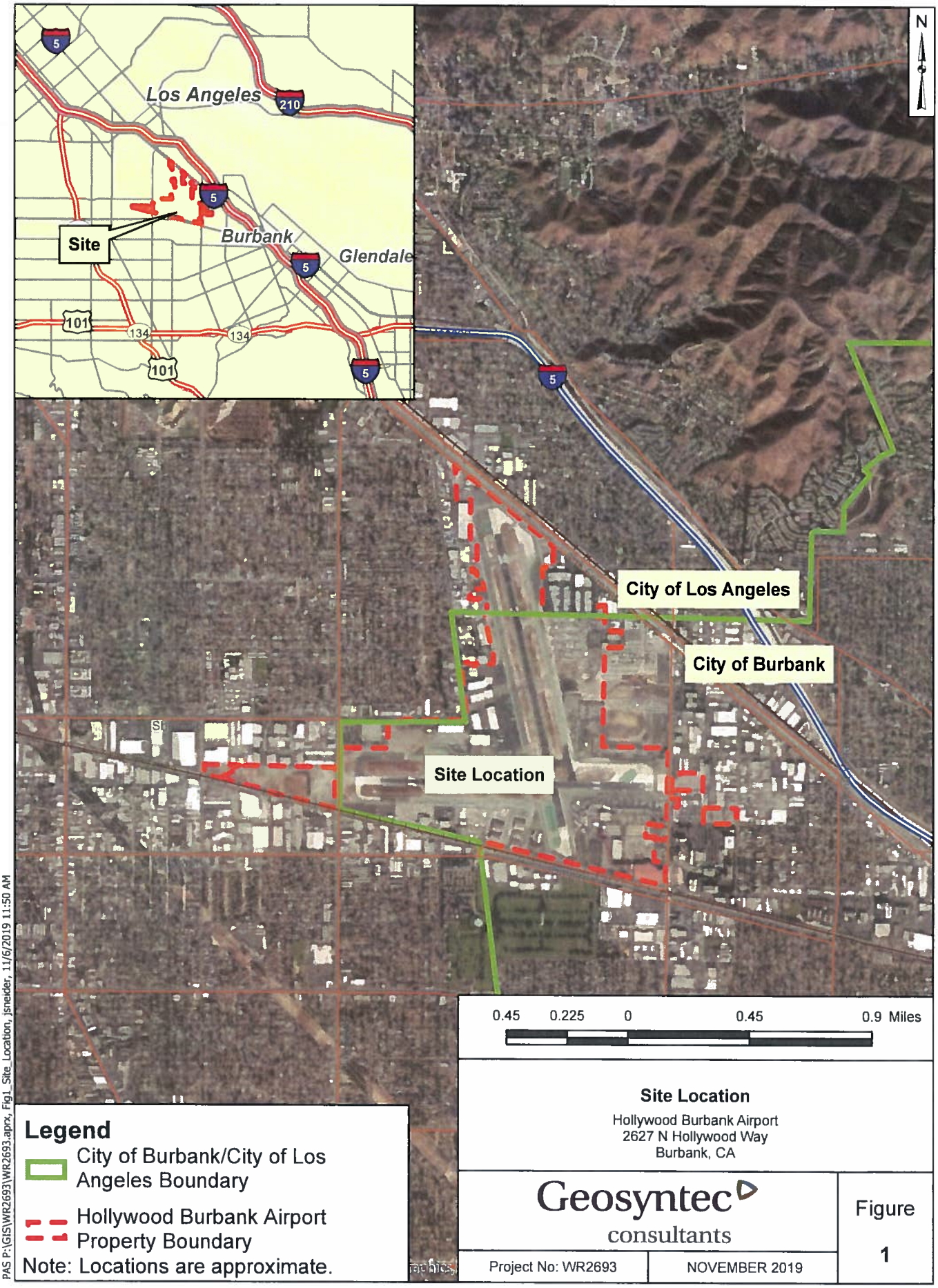
Renee Purdy
Executive Officer

Attachments: Figure 1. Site Location Map
Figure 2. Site Layout and Selected Well Locations
Figure 3. PFAS Soil Sampling Locations

Table 1. Groundwater Monitoring Wells Selected for Sampling
Table 2. Laboratory Reporting Limits
Table 3. Analytical Summary
Table 4. Field Quality Assurance/Quality Control Metrics
Table 5. Soil PFAS Results

Table 1. PFAS Analytes Subject to Analysis (13267 Order Attachment 2)
Table 2. Field Parameters and General Chemistry for Groundwater (13267 Order Attachment 2)

cc: Mr. Ravi Arulanantham, Geosyntec (RArulanantham@Geosyntec.com)
Ms. Mital Desai, Geosyntec (MDesai@Geosyntec.com)
Ms. Maggie Martinez, Hollywood Burbank Airport (MMartinez@bur.org)



Site Location

Hollywood Burbank Airport
2627 N Hollywood Way
Burbank, CA

Geosyntec consultants

Project No: WR2693 | NOVEMBER 2019

Figure 1

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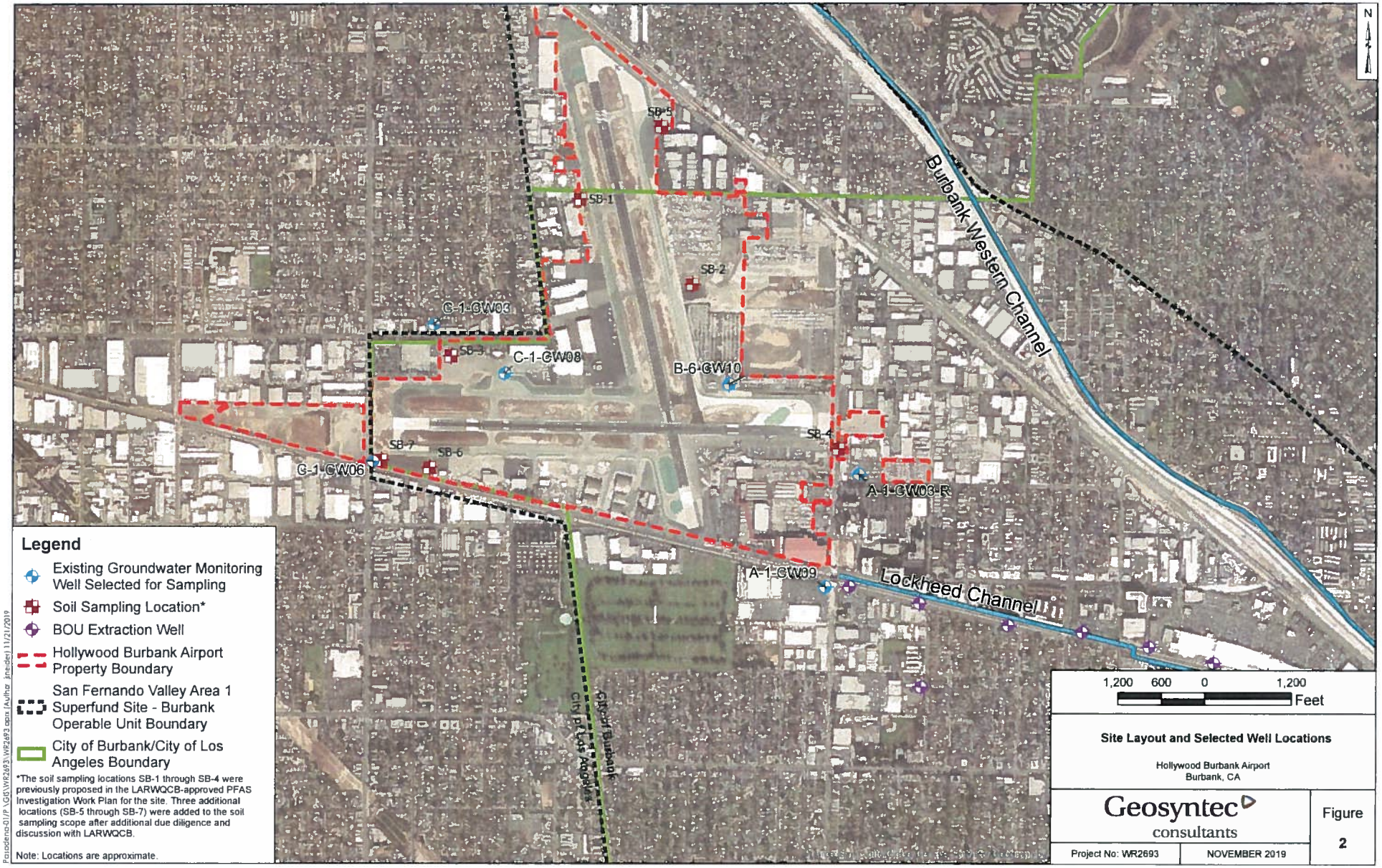

Legend

- Existing Groundwater Monitoring Well Selected for Sampling
- Soil Sampling Location*
- BOU Extraction Well
- Hollywood Burbank Airport Property Boundary
- San Fernando Valley Area 1 Superfund Site - Burbank Operable Unit Boundary
- City of Burbank/City of Los Angeles Boundary

*The soil sampling locations SB-1 through SB-4 were previously proposed in the LARWQCB-approved PFAS Investigation Work Plan for the site. Three additional locations (SB-5 through SB-7) were added to the soil sampling scope after additional due diligence and discussion with LARWQCB.

Note: Locations are approximate.

Site Layout and Selected Well Locations

Hollywood Burbank Airport
Burbank, CA

Geosyntec consultants

Figure 2

Project No: WR2693 | NOVEMBER 2019

Pasadena-01/P:\GIS\WR2693\WR2693.aprx (Author: jineden) 11/21/2019

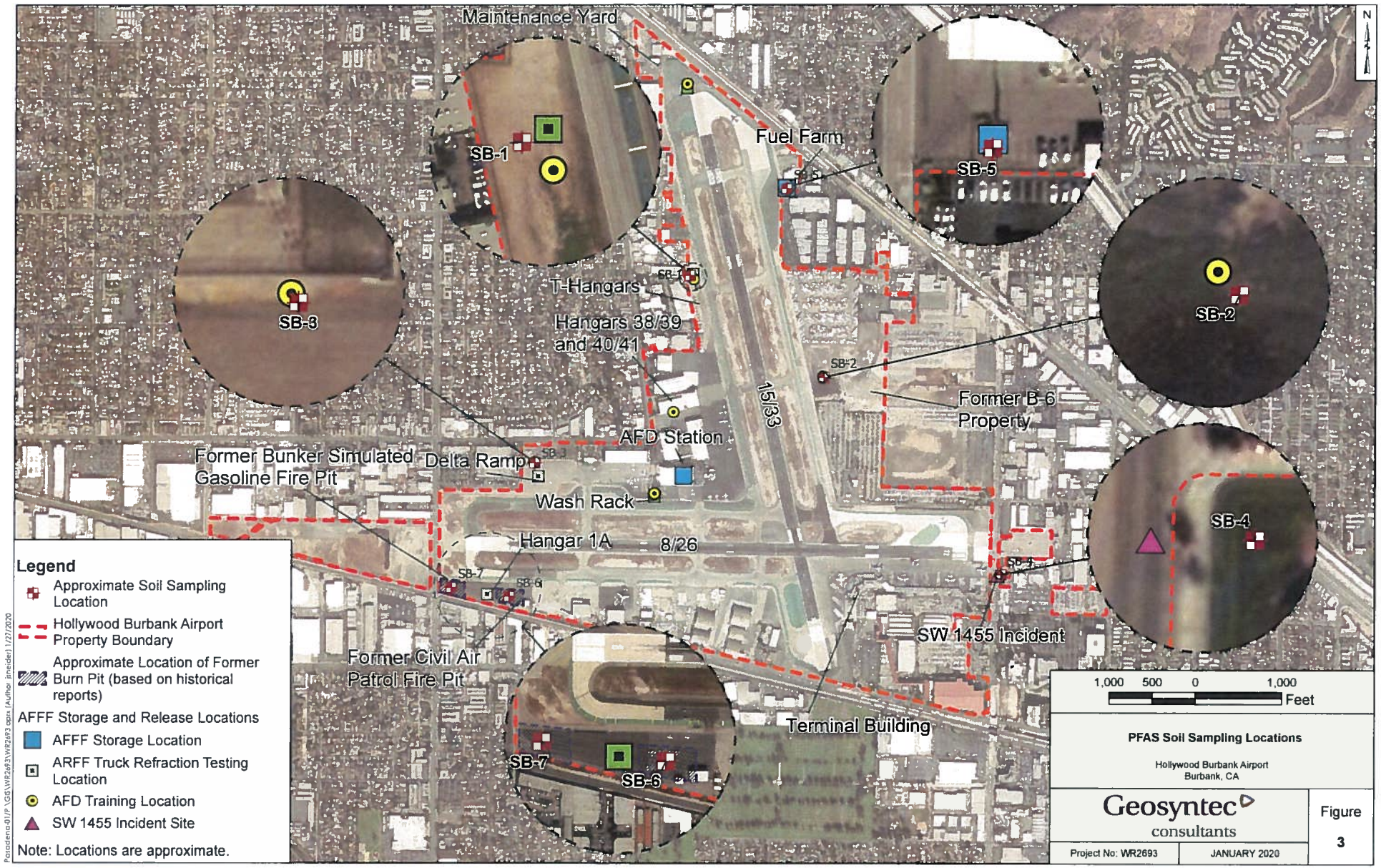
Maintenance Yard
SB-1
Fuel Farm
SB-5
SB-3
T-Hangars
Hangars 38/39
and 40/41
SB-2
15/33
Former B-6
Property
AFD Station
Former Bunker Simulated
Gasoline Fire Pit
Delta Ramp
Wash Rack
Hangar 1A
8/26
SB-4
SW 1455 Incident
Former Civil Air
Patrol Fire Pit
SB-7
SB-6
Terminal Building
N
Legend
Approximate Soil Sampling Location
Hollywood Burbank Airport Property Boundary
Approximate Location of Former Burn Pit (based on historical reports)
AFFF Storage and Release Locations
AFFF Storage Location
ARFF Truck Refraction Testing Location
AFD Training Location
SW 1455 Incident Site
Note: Locations are approximate.
1,000 500 0 1,000
Feet
PFAS Soil Sampling Locations
Hollywood Burbank Airport
Burbank, CA
Geosyntec consultants
Figure
3
Project No: WR2693
JANUARY 2020

TABLE 1
GROUNDWATER MONITORING WELLS SELECTED FOR SAMPLING
Hollywood Burbank Airport

Well ID	Screen Interval (ft bgs)	Latest Measured Groundwater Depth April 2019 (ft btoc)	Dedicated Pump (yes/no)	Property Owner
A-1-CW03-R	245 - 285	225.73	Yes	VSP Parking
A-1-CW09	187 - 227	215.30	Yes	Fry's Electronics
B-6-CW10	203 - 253	242.05	Yes	Burbank Airport Authority
C-1-CW03	259 - 280	263.33	Yes	Wet Enterprises
C-1-CW06	232 - 252	244.36	No	Burbank Airport Authority
C-1-CW08	245 - 285	256.65	Yes	Burbank Airport Authority

Notes:
1. Information in this table courtesy of the *Annual Groundwater Monitoring Report, Second Quarter 2019, Burbank Operable Unit* dated September 2019 (Tetra Tech, 2019).
2. Wells with dedicated pumps will have the pumps removed prior to sampling and a temporary, portable low flow pump compatible with PFAS sampling will be installed in the well for this sampling effort.

TABLE 2
LABORATORY REPORTING LIMITS
Hollywood Burbank Airport

PFAS Chemical Name	Abbreviation	CAS No.	Groundwater (ng/L)	
			RL	MDL
Perfluorooctane sulfonic acid	PFOS	1763-23-1	2.0	0.4
Perfluoroundecanoic acid	PFUnDA	2058-94-8	2.0	0.4
N-Methyl perfluorooctane sulfonamidoacetic acid	NMeFOSAA	2355-31-9	3.0	1
Perfluoropentanoic acid	PFPeA	2706-90-3	6.0	2
Perfluoropentane sulfonoic acid	PFPeS	2706-91-4	2.0	0.4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2	2.0	1
N-Ethyl perfluorooctane sulfonamidoacetic acid	NEtFOSAA	2991-50-6	3.0	1
Perfluorohexanoic acid	PFHxA	307-24-4	2.0	0.4
Perfluorododecanoic acid	PFDoDA	307-55-1	2.0	0.5
Perfluorooctanoic acid	PFOA	335-67-1	1.0	0.3
Perfluorodecanoic acid	PFDA	335-76-2	2.0	0.9
Perfluorodecane sulfonic acid	PFDS	335-77-3	2.0	0.6
Perfluorohexane sulfonic acid	PFHxS	355-46-4	2.0	0.4
Perfluorobutanoic acid	PFBA	375-22-4	6.0	2
Perfluorobutane sulfonic acid	PFBS	375-73-5	1.0	0.3
Perfluoroheptanoic acid	PFHpA	375-85-9	1.0	0.4
Perfluoroheptane sulfonic acid	PFHpS	375-92-8	2.0	0.4
Perfluorononanoic acid	PFNA	375-95-1	2.0	0.4
Perfluorotetradecanoic acid	PFTeDA	376-06-7	1.0	0.3
8:2 Fluorotelomer sulfonic acid	8:2 FTS	39108-34-4	6.0	2
Perfluorotridecanoic acid	PFTrDA	72629-94-8	1.0	0.4
Perfluorooctanesulfonamide	PFOSAm	754-91-6	3.0	0.5
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4	3.0	1

Notes:
1. ng/L - nanogram per Liter.
2. RL - reporting limit.
3. MDL - method detection limit.
4. Laboratory RLs and MDLs are evaluated periodically and subject to change. The RL and MDL values presented in this table are current as of March 2019.

TABLE 3
ANALYTICAL SUMMARY
Hollywood Burbank Airport

Analyte	Method	Preservative	Container	Holding Time
PFAS Compounds	USEPA Method 537 Version 1.1 Modified	None	250 ml HDPE bottle	14 days
Total Dissolved Solids	SM 2540C	None	1 liter plastic	7 days
Chloride, Sulfate	USEPA 300	None	250 ml plastic	28 days
Nitrate-Nitrogen	USEPA 300	None	250 ml plastic	48 hours
Carbonate and Bicarbonate	SM2320B	None	250 ml plastic	14 days
Calcium, Magnesium, Potassium and Sodium	USEPA 6010B	Nitric Acid	250 ml plastic	180 days

Notes:
ml - milliliter
SM - Standard Method
USEPA - United States Environmental Protection Agency

TABLE 4
FIELD QUALITY ASSURANCE/QUALITY CONTROL METRICS
Hollywood Burbank Airport

QA/QC Sample	Purpose	Typical Metric	Frequency
Field duplicate	Assess precision	30% relative percent difference (RPD)	One per 10 samples
Matrix spike/matrix spike duplicate	Assess accuracy, bias, precision	Laboratory statistically derived control limits (e.g., 70 to 130%); RPD ≤ 30%	One per laboratory batch (one per 20 samples)
Equipment blanks	Assess potential cross-contamination despite decontamination practices and field equipment selection	No analyte detection > ½ RL, 10% of sample result, or 10% of regulatory limit, whichever is greater	One per day
Field blanks	Assess potential contamination from field practices	No analyte detection > ½ RL, 10% of sample result, or 10% of regulatory limit, whichever is greater	One per day
Temperature blanks	Assess representativeness of sample due to temperature of storage conditions	Temperature < 6°C	One per cooler

Notes:
QA/QC - quality assurance/quality control
RPD - relative percent difference
RL - reporting limit
The field QC samples will be only analyzed for PFAS compounds and not for general water chemistry parameters.

TABLE 5
Soil PFAS Results
Hollywood Burbank Airport
Page 1 of 3

Location	Sample Date	Depth (ft bgs)	4:2 Fluorotelomersulfonic acid (FTS)	6:2 FTS	8:2 FTS	N-ethylperfluorooctanesulfonamido-acetic acid (NEtFOSAA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
SB-1	12/10/2019	1	ND<2.1	390	4.4	2.9 J-	ND<2.1	14	ND<0.62	ND<0.62	34	13	77	ND<0.62	17	6.4	ND<3.1	96
		5	ND<1.9	ND<1.9	ND<2.9	ND<1.9 UJ	ND<1.9	ND<1.9	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<2.9	ND<0.57
		10	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	0.95	0.82	9.9	ND<0.63	ND<0.63	ND<0.63	ND<3.2	13
		15	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		20	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<3.2	ND<0.64
		25	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<3.2	ND<0.64
		25 (Duplicate)	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61
		30	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		40	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		50	ND<2.4	ND<2.4	ND<3.6	ND<2.4	ND<2.4	ND<2.4	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<0.72	ND<3.6	ND<0.72
SB-2	12/10/2019	1	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	1.9	3.1	ND<0.64	ND<0.64	2.3	ND<0.64	ND<3.2	ND<0.64
		5	ND<2.0	ND<2.0	ND<3.1	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	1.2	ND<0.61	ND<0.61	ND<0.61	ND<3.1	1.3
		10	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		15	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		15 (Duplicate)	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61
		20	ND<2.0	ND<2.0	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<2.9	ND<0.59
		25	ND<2.0	ND<2.0	ND<3.1	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.1	ND<0.61
		25 (Duplicate)	ND<1.9	ND<1.9	ND<2.8	ND<1.9	ND<1.9	ND<1.9	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<2.8	ND<0.57
		30	ND<1.9	ND<1.9	ND<2.8	ND<1.9	ND<1.9	ND<1.9	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<0.57	ND<2.8	ND<0.57
		40	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<3.1	ND<0.63
		48	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
SB-3	12/11/2019	1	ND<2.1	160	160	ND<2.1	ND<2.1	2.2 J	3.6	1.8	18 J	48 J	19	5	130	17 J	ND<3.2	15
		5	ND<2.0	240	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	4.6	3.4	2.6	ND<0.59	ND<0.59	7.1	ND<2.9	3.6
		5 (Duplicate)	ND<2.0	250	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	6.2	3.7	3.3	ND<0.61	ND<0.61	7.8	ND<3.0	4.7
		10	ND<2.0	250	ND<3.0	ND<2.0	ND<2.0	2.4	ND<0.60	ND<0.60	6.8	3.3	5.4	ND<0.60	ND<0.60	7.2	ND<3.0	7.3
		15	ND<1.9	100	ND<2.8	ND<1.9	ND<1.9	2.1	ND<0.57	ND<0.57	6.7	2	4.7	ND<0.57	ND<0.57	2.3	ND<2.8	6
		21	ND<2.0	88	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	4.1	4.3	2	ND<0.59	ND<0.59	1.9	ND<2.9	2.4
		25	ND<1.9	63	ND<2.8	ND<1.9	ND<1.9	ND<1.9	ND<0.56	ND<0.56	2.8	1.9	1.7	ND<0.56	ND<0.56	0.99	ND<2.8	1.8
		25 (Duplicate)	ND<2.0	77	ND<2.9	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	3.8	2.5	2.1	ND<0.59	ND<0.59	1.2	ND<2.9	2.1
		30	ND<2.0	47	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	3.2	2.3	2.2	ND<0.59	ND<0.59	ND<0.59	ND<3.0	2.2
		40	ND<1.9	32	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.57	ND<0.57	2.1	ND<0.57	2.4	ND<0.57	ND<0.57	ND<0.57	ND<2.9	2.8
		48	ND<2.0	50	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	2.6	ND<0.60	4.5	ND<0.60	ND<0.60	ND<0.60	ND<3.0	4.1

TABLE 5
Soil PFAS Results
Hollywood Burbank Airport

Location	Sample Date	Depth (ft bgs)	4:2 Fluorotelomersulfonic acid (FTS)	6:2 FTS	8:2 FTS	N-ethylperfluorooctanesulfonamido-acetic acid (NEtFOSAA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
SB-4	12/9/2019	1	ND<2.2	ND<2.2	ND<3.3	ND<2.2	ND<2.2	ND<2.2	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<3.3	ND<0.66
		5	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	1.7	ND<0.63	ND<3.1	ND<0.63
		10	ND<2.1	ND<2.1	ND<3.2	ND<2.1	ND<2.1	ND<2.1	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	ND<0.64	0.69	ND<0.64	ND<3.2	ND<0.64
		15	ND<2.2	ND<2.2	ND<3.2	ND<2.2	ND<2.2	ND<2.2	ND<0.65	ND<0.65	ND<0.65	ND<0.65	ND<0.65	ND<0.65	0.79	ND<0.65	ND<3.2	ND<0.65
		20	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<0.63	ND<3.1	ND<0.63
		25	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		30	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		40	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		50	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
SB-5	12/9/2019	1	ND<2.1	12	15	ND<2.1	ND<2.1	2.9	ND<0.63	ND<0.63	3.9	4.3	8	0.71	4.9	2.2	ND<3.1	15
		5	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	2.2	0.96	4.7	ND<0.61	0.75	ND<0.61	ND<3.0	5.9
		10	ND<2.0	ND<2.0	ND<3.0	ND<2.0	3	5.9	ND<0.59	ND<0.59	12	2.3	38	ND<0.59	ND<0.59	ND<0.59	3.9	35
		15	ND<2.1	15 J	ND<3.1	ND<2.1	4 J	8.2 J	ND<0.62	ND<0.62	5.9 J	2.1 J	25	ND<0.62	ND<0.62	ND<0.62	ND<3.1	38
		15 (Duplicate)	ND<1.9	26 J	ND<2.8	ND<1.9	2.5 J	5.3 J	ND<0.57	ND<0.57	11 J	4.7 J	24	ND<0.57	ND<0.57	1.3	ND<2.8	29
		20	ND<2.0	4.5	ND<3.0	ND<2.0	3.7	6.4	ND<0.61	ND<0.61	2	ND<0.61	14	ND<0.61	ND<0.61	ND<0.61	ND<3.0	23
		25	3	25	ND<2.9	ND<1.9	23	14	ND<0.58	ND<0.58	7.1	3.5	50	ND<0.58	ND<0.58	1.1	4.7	46
		30	ND<1.9	ND<1.9	ND<2.8	ND<1.9	6.6	7	ND<0.57	ND<0.57	1.9	ND<0.57	21	ND<0.57	ND<0.57	ND<0.57	ND<2.8	26
		40	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	3	ND<0.62	ND<0.62	1.4	ND<0.62	13	ND<0.62	ND<0.62	ND<0.62	ND<3.1	16
		44	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	4.7	ND<0.60	ND<0.60	ND<0.60	ND<3.0	6.7
SB-6	12/12/2019	1	ND<2.2	ND<2.2	ND<3.3	ND<2.2	ND<2.2	ND<2.2	ND<0.67	ND<0.67	ND<0.67	3.3	ND<0.67	ND<0.67	ND<0.67	2.5	ND<3.3	ND<0.67
		5	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61
		10	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		15	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	ND<0.63	1.5	ND<0.63	ND<0.63	ND<0.63	ND<3.1	0.75
		20	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		25	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<0.62	ND<3.1	ND<0.62
		30	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		36	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<0.61	ND<3.0	ND<0.61

TABLE 5
Soil PFAS Results
Hollywood Burbank Airport

Location	Sample Date	Depth (ft bgs)	4:2 fluorotelomersulfonic acid (FTS)	6:2 FTS	8:2 FTS	N-ethylperfluorooctanesulfonamido-acetic acid (NEtFOSAA)	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
SB-7	12/11/2019	1	ND<2.1	ND<2.1	ND<3.1	ND<2.1	ND<2.1	ND<2.1	ND<0.63	ND<0.63	ND<0.63	1.3	ND<0.63	ND<0.63	7.3	ND<0.63	ND<3.1	0.67 J
		1 (Duplicate)	ND<2.0	ND<2.0	ND<3.1	ND<2.0	ND<2.0	ND<2.0	ND<0.61	ND<0.61	ND<0.61	1.2	ND<0.61	ND<0.61	7.1	ND<0.61	ND<3.1	ND<0.61 UJ
		5	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	15	ND<0.60	ND<0.60	ND<0.60	4.2	ND<3.0	0.78
		10	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<0.60	ND<3.0	ND<0.60
		15	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	0.78 J	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		15 (Duplicate)	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59 UJ	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		20	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<0.59	ND<3.0	ND<0.59
		25	ND<1.9	ND<1.9	ND<2.9	ND<1.9	ND<1.9	ND<1.9	ND<0.58	ND<0.58	ND<0.58	0.95	ND<0.58	ND<0.58	ND<0.58	ND<0.58	ND<2.9	ND<0.58
		30	ND<2.2	ND<2.2	ND<3.2	ND<2.2	ND<2.2	ND<2.2	ND<0.65	ND<0.65	ND<0.65	1.7	ND<0.65	ND<0.65	ND<0.65	ND<0.65	ND<3.2	ND<0.65
		40	ND<2.0	ND<2.0	ND<3.0	ND<2.0	ND<2.0	ND<2.0	ND<0.60	ND<0.60	ND<0.60	1.7	ND<0.60	ND<0.60	1.4	0.63	ND<3.0	ND<0.60
		50	ND<2.2	ND<2.2	ND<3.3	ND<2.2	ND<2.2	ND<2.2	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<0.66	ND<3.3	ND<0.66

Notes:
1 Per- and Polyfluoroalkyl Substances (PFAS) were analyzed using modified USEPA Method 537
2 Non-Detects (ND) are reported as less than (<) the laboratory reporting limit (RL)
3 Units are in nanogram per gram (ng/g)
4 Results for PFAS compounds with detections are presented herein
5 ft bgs = feet below ground surface
6 The values reported herein are validated and appropriate qualifiers are applied as described below
J = result value is estimated because the matrix spike/matrix spike duplicate (MS/MSD) recovery was outside acceptance limits or the field duplicate relative percent difference (RPD) limit was exceeded
J- = the result is considered estimated with a low bias due to isotope dilution analyte(s) outside acceptance limits with low recovery(ies)
UJ = the non-detect result was considered estimated less than the RL due to laboratory control sample (LCS) recoveries outside acceptance limits, field duplicate RPD limits exceeded, and/or isotope dilution analyte(s) outside acceptance limits with low recovery(ies)

TABLE 1. PFAS Analytes Subject to Analysis

Chemical Name	Abbreviation	Chemical Abstracts Service (CAS) No.
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoic acid	HFPO-DA	13252-13-6*
10:2 Fluorotelomer sulfonic acid	10:2 FTS	120226-60-0*
2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic Acid	HFPA-DA	13252-13-6 *
Perfluorooctadecanoic acid	PFOcDA	16517-11-6*
N-Ethyl perfluorooctane sulfonamidoethanol	EtFOSE	1691-99-2*
Perfluorooctane sulfonic acid	PFOS	1763-23-1
Perfluoroundecanoic acid	PFUnDA	2058-94-8
N-Methyl perfluorooctane sulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-Methyl perfluorooctane sulfonamidoethanol	MeFOSE	24448-09-7*
Perfluoropentanoiic Acid	PFPeA	2706-90-3
Perfluoropentane sulfonoic acid	PFPeS	2706-91-4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2
N-Ethyl perfluorooctane sulfonamidoacetic acid	NEtFOSAA	2991-50-6
Perfluorohexanoic acid	PFHxA	307-24-4
1.0Perfluorododecanoic acid	PFDoDA	307-55-1
N-Methyl perfluorooctane sulfonamide	MeFOSA	31506-32-8*
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluorodecane sulfonic acid	PFDS	335-77-3
4,4,5,5,6,6,6-Heptafluorohexanoic Acid	3:3 FTCA	356-02-5*
Perfluorohexane sulfonic acid	PFHxS	355-46-4
Perfluorobutanoic acid	PFBA	375-22-4
Perfluorobutane sulfonic acid	PFBS	375-73-5
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluoroheptane sulfonic acid	PFHpS	375-92-8
Perfluorononanoic acid	PFNA	375-95-1
Perfluorotetradecanoic acid	PFTeDA	376-06-7
2H,2H,3H,3H-Perfluorodecanoic acid	7:3 FTCA	812-70-4*
8:2 Fluorotelomer sulfonic acid	8:2 FTS	39108-34-4
N-Ethyl perfluorooctane sulfonamide	EtFOSA	4151-50-2*
Perfluorononane sulfonic acid	PFNS	474511-07-4*
Perfluorohexadecanoic acid	PFHxDA	67905-19-5*
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorooctanesulfonamide	FOSA	754-91-6
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4
Perfluoro(2-((6-chlorohexyl)oxy)ethanesulfonic acid)	9Cl-PF3ONS	756426-58-1*
2-[(8-Chloro-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluorooctyl)oxy]-1,1,2,2-tetrafluoroethanesulfonic acid	11Cl-PF3OUdS	763051-92-9*
2H,2H,3H,3H-Perfluorooctanoic Acid (CAS 914637-49-3)	5:3 FTCA	914637-49-3*
4,8-Dioxa-3H-perfluorononanoic acid	Adona	919005-14-4*

Note: Only the 23 analytes without the asterisk (*) are required to be analyzed as part of this Order. The analytes with the asterisk (*) are included in some but not all lists provided by accredited laboratories and are encouraged to be analyzed as part of this effort.

TABLE 2
Field Parameters and General Chemistry for Groundwater

Parameter	Units
Field Parameters	
Depth to Groundwater	Feet, bgs
Temperature	Degrees C
Electrical Conductivity	µmhos/cm
pH	units
Turbidity	NTU
General Chemistry	
Total Dissolved Solids	mg/L
Chloride	mg/L
Carbonate	mg/L
Bicarbonate	mg/L
Nitrate-Nitrogen	mg/L
Sulfate	mg/L
Calcium	mg/L
Magnesium	mg/L
Potassium	mg/L
Sodium	mg/L

Notes:
bgs – below ground surface
C – Celsius
mg/L – milligrams
NTU – nephelometric turbidity units
µmhos/cm – micromhos per centimeter

Federal Aviation Administration

June 17, 2020

TO:
Bob Hope Airport (BGPAA)
Attn: Dan Lichtner
2627 Hollywood Way
Burbank, CA 91505
dlichtner@bur.org

CC:
BURBANK-GLENDALE-PASADENA APT
2627 HOLLYWOOD WAY
BURBANK, CA 91505
JHatanaka@bur.org

CC:
Bob Hope Airport
Attn: Dan Lichtner
2627 Hollywood Way
Burbank, CA 91505
dlichtner@bur.org

RE: *(See attached Table 1 for referenced case(s))*
FINAL DETERMINATION

Table 1 - Letter Referenced Case(s)

ASN	Prior ASN	Location	Latitude (NAD83)	Longitude (NAD83)	AGL (Feet)	AMSL (Feet)
2020-AWP-2670-NRA	2020-AWP-1412-NRA	BURBANK,CA	34-12-33.77N	118-21-25.06W	50	811

Description: Temporary drill rig for soil investigation requested by Los Angeles RQWCB at the Hollywood Burbank Airport fuel yard. Resubmitted for correction of latitude and longitude shown on previously submitted sketch. Please rush processing. Thank you.

We do not object with conditions to the construction described in this proposal provided:

You comply with the requirements set forth in FAA Advisory Circular 150/5370-2, "Operational Safety on Airports During Construction."

The proponent is required to coordinate all associated activities with the Airport Manager/Airport Traffic Control Tower (ATCT) 5 business days prior to bringing in construction equipment/crane to the airport.

The ATCT should be given a phone number to reach the crane operator.

The proponent is required to coordinate all associated activities with the Airport Manager/Airport Traffic Control Tower (ATCT) in order to ensure the appropriate local NOTAM's are issued whenever men or equipment are adjacent to the runway or other movement areas.

Any vehicles exceeding Part 77 surfaces and/or operating on movement areas are appropriately marked and lighted in accordance with Advisory Circular 150/5210-5, Painting, Marking and Lighting of Vehicles Used on the Airport.

We request that construction equipment/crane be lowered or removed from worksites at night and during other periods of non-use.

Additional coordination and mitigation may be required if there are any radar effects due to equipment/crane activity.

This determination is subject to review if disruption to FAA Operations should occur.

A separate notice to the FAA is required for any construction equipment, such as temporary cranes, whose working limits would exceed the height and lateral dimensions of your proposal.

This determination does not constitute FAA approval or disapproval of the physical development involved in the proposal. It is a determination with respect to the safe and efficient use of navigable airspace by aircraft and with respect to the safety of persons and property on the ground.

In making this determination, the FAA has considered matters such as the effects the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA), and known natural objects within the affected area would have on the airport proposal.

This determination expires on December 17, 2021 unless:
(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for the completion of construction, or the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be obtained at least 15 days prior to expiration date specified in this letter.

If you have any questions concerning this determination contact Lloyd E. Lewis (424) 405-7316 lloyd.e.lewis@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-AWP-2670-NRA.

Lloyd E. Lewis
DivUser
Signature Control No: 437563841-443143176

Geosyntec consultants

65 N. Raymond Avenue, Suite 200
Pasadena, CA 91103
PH 626.449.0664
www.geosyntec.com

1 July 2020

Mark Hardyment
Director, Transportation and Environmental Programs
Burbank-Glendale-Pasadena Airport Authority
2627 N Hollywood Way
Burbank, California 91505

Subject: **Proposal to Implement the PFAS Groundwater Sampling Work Plan**
Bob Hope Airport, Burbank, California

Dear Mr. Hardyment:

At your request, Geosyntec Consultants (Geosyntec) is pleased to submit to the Hollywood Burbank Airport (Airport, or Site) this proposal to implement the *Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan* (Work Plan) dated 27 November 2019 at the Airport.

Geosyntec submitted the Work Plan on behalf of Airport to fulfill the requirements of the *Water Code Section 13267 Order WQ 2019-0005-DWQ for the Determination of the Presence of Per- and Polyfluoroalkyl Substances at Bob Hope, Airport ID BUR, Los Angeles County, T10000012771* (the Order), specifically in response to the Regional Board letter dated 20 August 2019 (Letter). The Work Plan proposed collecting and analyzing groundwater samples from six selected existing monitoring wells (owned by Lockheed Martin Corporation [LMCO]) via low flow sampling. The Regional Board approved the Work Plan in its letter dated 20 April 2020 and requested collection and analysis of an additional grab groundwater sample from location adjacent to the previous soil sample location SB-5 (new location will be identified as SB-5A) via a temporary well or Hydropunch™.

To be able to understand the grab groundwater data collected from SB-5A, it was further decided (after discussion with the Airport) to collect soil samples at that location at every 10-foot interval starting from 60 feet (ft) below ground surface (bgs) to the groundwater[1].

The following presents the details of scope, schedule and budget to implement the Regional Board approved Work Plan as well as advance one additional soil boring in the vicinity of SB-5, now designated as SB-5A, for collection and analysis of soil samples (60 ft bgs to groundwater) and one grab groundwater sample. The scope will be implemented in accordance with the Order and the California State Water Resources Control Board (SWRCB) PFAS Sampling Guidelines[2].

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[1] During soil investigation in 2019, soil samples were collected at this location down to a depth of 44 ft bgs.
[2] Per- and Polyfluoroalkyl Substances (PFAS) Sampling Guidelines, California State Water Quality Control Board, Division of Water Quality, 20 March 2019.

SCOPE OF WORK

The six existing monitoring wells to be used for sampling are owned by LMCO. These wells have pumps installed in them to perform low flow sampling; however, five out of six wells have pumps that are not compatible for PFAS sampling. LMCO's contractor/consultant will remove the existing well pumps; store the existing well pumps; and re-install the existing well pumps upon completion of the proposed sampling activities. The following presents Geosyntec's scope of work**:**

Task 1: Preparation and Planning

The following tasks will be performed under Task 1:

- Attend a conference call with Airport/LMCO personnel to go over the logistics, access issues, schedule, Airport specific notification and coordination during the implementation of the field work described in Task 2. FAA 7640 permitting required for advancement of soil boring now designated as SB-5A is already complete. We expect that the Airport and LMCO will provide a point of contact to complete field coordination activities;
- Prepare/update a Site-specific Health and Safety Plan that will be adhered to during the proposed work;
- Obtain necessary permit from Los Angeles County Department of Public Health (LACDPH) to advance SB-5A; and
- Perform other coordination and preparation activities such as ordering supplies, sample bottles, coolers, issue work orders to subcontractors, provide PFAS specific instructions to subcontractors, etc.

Task 2: Implementation of the Field Work

The details of this task are provided in the Work Plan and summarized as follows. Geosyntec will:

- Collect groundwater samples from existing monitoring wells A-1-CW03R, A-1-CW09, B-6-CW10, C-1-CW03, C-1-CW06, C-1-CW08 via low-flow sampling;
- Perform geophysical investigation to clear subsurface utilities at the location of SB-5A;
- Advance SB-5A via a sonic drill rig while collecting soil samples at each 10-ft interval starting from 60 ft bgs to the first occurring groundwater table;
- Collect a grab groundwater sample at SB-5A;
- Handle samples appropriately and ship them to the respective laboratories under appropriate chain-of-custody (COC) documentation;
- Analyze the soil, groundwater and quality assurance/quality control (QA/QC) samples for analysis of PFAS compounds; and
- Characterize and dispose of the investigation derived waste (IDW).

Task 3: Preparation of the Report

After completion of the activities described in Task 2 and receipt of the laboratory data, the data will be reviewed for completeness, appropriate QA/QC measures, and are usable for the intended purpose. A report describing the results of the investigation will be prepared that will include:

- Documentation of sampling activities and necessary deviations from the Work Plan (if any);
- Summary of analytical results and comparison to reporting limits for PFAS;
- Groundwater flow direction and gradient map:
- COC from sample submittal;
- Analytical laboratory reports and QA/QC data;
- Copies of permits;
- Historical boring logs and field logs;
- Site map showing sampling locations; and
- Data evaluation and conclusions.

A California-licensed professional geologist or professional engineer will sign and stamp the final report.

Task 4: Project Management and Communication

This task includes performing necessary project management and communication during the course of the project.

SCHEDULE

Task 1 will begin immediately upon obtaining a Notice to Proceed (NTP) for this proposal from the Airport. The LACDPH permitting is expected to take three weeks. Meanwhile, Geosyntec will start coordinating field activities with its subcontractors, the Airport, and LMCO.

Immediately after completion of the preparation/planning process, Geosyntec will perform the field activities described in Task 2 which is expected to be completed in seven business days.

Within four weeks after receipt of the laboratory reports, Geosyntec will provide the first draft report for the Airport's review.

We understand that the timeline for implementation of tasks described herein Tasks 1 through 4 is governed by the schedule dictated in the Letter which requires completion of the field investigation and submittal of the report by 20 October 2020.

Geosyntec will make its best effort to expedite the implementation of these tasks to the maximum extent practicable, assuming all necessary support from the Airport and LMCO with respect to access, clearance, etc.

ESTIMATED BUDGET

Implementation of the above-described tasks will be conducted under a new Professional Services Agreement (PSA) which will be similar to the previous PSA dated 2 May 2019. Geosyntec will perform these services on a time and materials basis for an estimated cost of $167,200 in accordance with the rate schedule provided as Attachment A and terms and conditions defined in the new PSA. A cost summary table is provided below.

Geosyntec's Efforts on behalf of Airport				
Task	**Scope**	**Geosyntec Labor**	**Subcontractor and Other Direct Costs**	**Total**
1	Preparation/Planning	$6,800	$600	$7,400
2	Implementation of the Field Work	$24,500	$89,800	$114,300
3	Preparation of Report	$22,000	$900	$22,900
4	Project Management and Communication	$7,100	$300	$7,400
PROPOSED BUDGET				$ 152,000
Contingency Budget[3] (10% of total)				$15,200
GEOSYNTEC TOTAL BUDGET				**$ 167,200**

Geosyntec will not exceed the amount of $ 167,200 without prior approval. In the process of completing the proposed scope, if more budget appears to be needed due to out of scope activities that may be necessary for completion of the tasks or conditions different than assumed are encountered, an additional time and material budget will be requested for the Airport's authorization.

ASSUMPTIONS

Assumptions in preparation of this proposal are stated herein:

- Geosyntec expects that location SB-5A and the six monitoring wells will be easily accessible on the scheduled day and there will be no downtime or waiting for access. Geosyntec also assumes that the Airport's counsel will have arranged for appropriate access with LMCO and Geosyntec will not incur any time in separate negotiations over an access agreement. Access limitations may require an additional mobilization and/or subcontractor standby time at additional cost.

[3] Contingency budget is for unexpected scope of work that includes, but not limited to, unforeseen field conditions, communication required beyond Task 4, multiple reviews of the draft report etc.

- The soil and groundwater sampling at location SB-5A (via sonic drill rig) is expected to be completed in five 10-hour days during normal business hours of 7 am to 5 pm. The sonic drill rig equipment is expected to remain on-Site, set-on the borehole (with mast down when not in use) until completion of proposed sampling at this location.
- Geosyntec is not responsible for delays due to unforeseen Site conditions such as drilling refusal or inclement weather slowing the progress.
- Geosyntec is not responsible for damage to the drilling equipment due to Site conditions (e.g. damaging auger tip on encountering large cobble or debris); such costs shall be reimbursed by the Airport.
- The groundwater sampling at the existing monitoring wells is assumed to be completed in two 10-hour days during normal business hours of 7 am to 5 pm.
- Soil samples will be analyzed by the laboratory on a normal turnaround time basis. Expedited turnaround time can be accommodated at an additional cost.
- Dilutions up to 50X -100X can typically be accommodated. Extract dilutions greater than 100X may require further addition of isotope dilution analyte or labeled analyte (IDA). If the extract requires further addition of IDA's, this complex dilution will incur a surcharge of 50% of the analytical rate.
- Samples will be shipped to the laboratories via overnight delivery services.
- IDW will be appropriately labelled and staged at a location provided by the Airport. Geosyntec will not be responsible for vandalism of the IDW drums during the time the IDW is staged pending characterization and profiling.
- IDW will be characterized as non-hazardous waste for the purpose of disposal. Non-hazardous soil will be acceptable for bulking to Soil Safe and non-hazardous water is acceptable for bulking to Crosby & Overton while on routine pick-up in the area. The profile and manifest will be signed by an Airport representative. It is assumed no more than fifty 55-gallon drum of wastewater and soil IDW will be generated.
- Field measurements to prominent Site features will be used to map the location of SB-5A. A Site survey will not be performed.
- No traffic control is assumed to be necessary for the investigation.
- One round of consolidated review comments will be addressed. One telephone meeting (up to two hours in duration) will be scheduled to discuss the content of the draft report prior to finalizing it.
- The draft report will be submitted in electronic format.
- The final report will be uploaded by Geosyntec on GeoTracker and provided to the Airport in electronic format.

SUMMARY

Geosyntec appreciates this opportunity to submit this proposal to the Airport for this important project. If this proposal meets your needs, please sign the notice to proceed and provide a new PSA for execution. If you have questions regarding this proposal, please contact Mital Desai at (626) 788-4634.

Sincerely,

Mital Desai
Senior Professional

Ravi Arulanantham
Senior Principal

Attachment A: Rate Schedule

Notice to Proceed

Hollywood Burbank Airport authorizes Geosyntec's services presented herein and acknowledges intent to pay Geosyntec for requested project activities in the amount not to exceed $167,200 on a time and materials basis (rate schedule shown in Attachment A) and in accordance with the new PSA.

_____ _____

Frank Miller Date

Attachment A
Geosyntec 2020 Rate Schedule

GEOSYNTEC CONSULTANTS
2020 RATE SCHEDULE

Staff Professional	$132
Senior Staff Professional	$153
Professional	$174
Project Professional	$196
Senior Professional	$220
Principal	$240
Senior Principal	$262
Technician I	$ 70
Technician II	$ 75
Senior Technician I	$ 81
Senior Technician II	$ 88
Site Manager I	$100
Site Manager II	$104
Construction Manager I	$117
Construction Manager II	$126
Designer	$140
Senior Drafter/Senior CADD Operator	$ 128
Drafter/CADD Operator/Artist	$ 116
Project Administrator	$ 72
Clerical	$ 57
Direct Expenses	Cost plus 12%
Subcontract Services	Cost plus 12%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	$ 15
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	$ .09

Rates are provided on a confidential basis and are client and project specific.
Unless otherwise agreed, rates will be adjusted annually based on a minimum of the Produce Price Index for Engineering Services.
Rates for field equipment, health and safety equipment, and graphical supplies presented upon request.
Construction management fee presented upon request.

PROFESSIONAL SERVICES AGREEMENT

(Burbank-Glendale-Pasadena Airport Authority / Geosyntec Consultants, Inc.)

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is dated September 21, 2020 for reference purposes and is executed by the Burbank-Glendale-Pasadena Airport Authority ("Authority"), a California joint powers agency, and Geosyntec Consultants, Inc. ("Consultant"), a Florida corporation.

R E C I T A L S

A. The Authority owns and operates the Bob Hope Airport (commonly known as Hollywood Burbank Airport) ("Airport") and desires to retain Consultant as an independent contractor to provide the following professional services: implementation of Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan dated 29 November 2019 with modifications contained in Regional Water Quality Control Board-Los Angeles Region letter of April 20, 2020. .

B. Consultant represents that it is fully qualified to perform such work by virtue of the training and experience of its personnel.

NOW, THEREFORE, the parties agree as follows:

1. Definitions. In addition to the terms defined above, the following definitions shall apply for purposes of this Agreement:

A. "Commencement Date": August 17, 2020

B. "Contract Administrator": Mark Hardyment or a duly authorized designee.

C. "Contract Limit": One hundred sixty-seven thousand two hundred dollars ($167,200)).

D. "Executive Director": Frank R. Miller or a duly authorized designee.

E. "Expiration Date": June 30, 2021.

F. "Federal Requirements" the federal requirements set forth in the attached **Exhibit C**, which requirements are applicable to projects not funded by an Airport Improvement Program grant from the Federal Aviation Administration.

G. "Fee Schedule": the fee schedule set forth in the Proposal attached hereto as **Exhibit A**.

H. "Indemnitees": The Authority, TBI Airport Management, Inc., the Cities of Burbank, Glendale and Pasadena, and the respective officers, agents, employees and volunteers of each such entity.

I. "Insurance Requirements": the insurance requirements set forth in the attached **Exhibit B**.

J. "Proposal": Consultant's July 1, 2020 proposal attached as **Exhibit A**.

K. "Services": the tasks set forth in the Proposal.

2. Services.

A. Consultant shall perform the Services in a timely, regular basis in accordance with the Authority's rules for the Airport, the Federal Requirements, and applicable laws. Time is of the essence in the performance of this Agreement.

B. Consultant shall perform all work to the prevailing professional standards and in a manner reasonably satisfactory to the Authority. Consultant shall consult the Contract Administrator for any decisions that must be made by the Authority. Consultant shall promptly notify the Contract Administrator of any unsafe condition that Consultant discovers at the Airport.

C. In the event any claim is brought against the Authority relating to Consultant's performance of the Services, Consultant shall provide any reasonable assistance and cooperation that the Authority might require.

3. Term.

A. This Agreement shall commence on the Commencement Date and shall expire on the Expiration Date unless earlier terminated.

B. If Consultant breaches this Agreement and fails to cure such breach within seven days of written notice from the Contract Administrator, then the Authority may immediately terminate this Agreement for cause. Either party may terminate this Agreement for convenience upon 15 days prior written notice to the other party.

4. Compensation.

A. The Authority shall compensate Consultant for performance of the Services, and Consultant agrees to accept as full satisfaction for such work, payment on a time and materials basis according to the Fee Schedule. In no event shall the compensation payable to Consultant under this Agreement exceed the Contract Limit.

B. Consultant shall submit monthly invoices to the Authority for the Services. Each invoice shall itemize the work performed during the billing period and the amount due. Within 10 business days of receipt of each invoice, the Authority shall notify Consultant in writing of any disputed amounts on the invoice. Within 30 calendar days of receipt of each invoice, the Authority shall pay all undisputed amounts on the invoice. The Authority shall not withhold

applicable taxes or other authorized deductions from the payments, and Consultant shall pay all required taxes on the payments.

5. Independent Contractor Status. Consultant is, and shall at all times remain as to the Authority, an independent contractor. Consultant shall have no power to incur any debt, obligation, or liability on behalf of the Authority or to act otherwise on behalf of the Authority as an agent. Neither the Authority nor any of its officers, employees, agents or volunteers shall have control over the conduct of Consultant except as set forth in this Agreement.

6. Work Product Ownership. All reports, documents, or other written material developed by Consultant in the performance of this Agreement shall be and remain the property of the Authority without limitation upon use or dissemination by the Authority.

7. Confidentiality. Consultant shall preserve the confidentiality of all nonpublic data, documents, discussion or other information that is developed or received by it in connection with this Agreement. Consultant shall not disclose such information without the prior written authorization of the Executive Director. Upon request, all Authority data shall be returned to the Authority at expiration or termination of this Agreement. Consultant's obligations under this section shall survive expiration or termination of this Agreement.

8. Conflict of Interest. Consultant shall not maintain or acquire any financial interest that may be affected by the Services. Consultant shall avoid the appearance of having any financial interest that would conflict in any manner with the Services.

9. Indemnification.

A. Consultant shall hold harmless and indemnify the Indemnitees from and against any actual, alleged, or threatened causes of action, claims, costs, damages, demands, expenses, judgments, liens, losses, penalties, and proceedings of any nature whatsoever (collectively, "Liabilities") that arise out of the negligent acts or omissions of Consultant or its subcontractors in connection with this Agreement.

B. Consultant's obligations under this section shall survive expiration or termination of this Agreement, and shall apply regardless of whether or not any insurance policies are determined to be applicable to the Liabilities.

C. Consultant's obligations under this section shall apply, without limitation, to Liabilities that partially involve active or passive negligence by the Authority. However, Consultant's obligations under this section shall not apply to Liabilities that arise from the negligence or willful misconduct of the Authority, as determined by final arbitration or court decision or by consensus of the parties.

10. Insurance. Without limiting Consultant's defense, hold harmless, and indemnification obligations under this Agreement, Consultant shall maintain policies of insurance as specified in the Insurance Requirements.

11. Suspension. The Contract Administrator may suspend all or any part of the Services for the Authority's convenience or for work stoppages beyond the control of the parties. Written notice of a suspension shall be given to Consultant.

12. Notices. Any notices, invoices, or other documents related to this Agreement shall be deemed received on: (a) the day of delivery, if delivered by hand during the receiving party's regular business hours or by e-mail before or during the receiving party's regular business hours; (b) the business day after delivery, if delivered by e-mail after the receiving party's regular business hours; or (c) on the second business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or to such other addresses as the parties may, from time to time, designate in writing.

Authority
Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way
Burbank, CA 91505
Attn: Mark Hardyment
E-mail: MHARDYMENT@bur.org>

Consultant
Geosyntec Consultants, Inc.
65 N. Raymond Avenue, Suite 200
Pasadena, CA 91103
Attn: Ravi Arulanantham, Ph.D.
E-mail: RArulanantham@Geosyntec.com

13. Assignability. Consultant shall not assign, transfer or subcontract any interest in this Agreement or the performance of any of its obligations without the Executive Director's prior written consent. This prohibition is not intended to preclude, and shall not be interpreted as precluding, Consultant from utilizing subcontractors identified in Consultant's proposal for the Services. Any attempt by Consultant to assign, transfer or subcontract any rights, duties or obligations in violation of this prohibition shall be void.

14. Litigation. In the event that either party shall commence legal action to enforce or interpret this Agreement, the prevailing party shall be entitled to recover its costs of suit including reasonable attorneys' fees. The venue for litigation shall be Los Angeles County, California. The interpretation of this Agreement shall not be resolved by any rules of construction providing for interpretation against the party who causes the uncertainty to exist or against the party who drafted the disputed language.

15. Exhibits. Exhibits A through C are incorporated into this Agreement by reference. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of Exhibits A or B, the provisions of this Agreement shall prevail. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of Exhibit C, the provisions of Exhibit C shall prevail.

16. Incorporation of Mandatory Language. Each and every provision required by law to be inserted in this Agreement shall be deemed to be inserted and this Agreement shall be read and enforced as though such provision were included. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon request of either party this Agreement shall promptly be amended to make such insertion or correction.

17. Entire Agreement. This Agreement (and the attached Exhibits) represents the entire and integrated contract between the parties regarding the Services. This Agreement supersedes all prior oral or written negotiations, representations and contracts related to the Services. This Agreement may not be amended, nor any provision or breach waived, except in a writing that is signed by the parties and that expressly refers to this Agreement.

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

Geosyntec Consultants, Inc.

□ Chairperson □ President ☒ Vice President MICHAEL MINCH	□ Secretary □ Asst. Secretary ☒ Chief Finance Officer □ Asst. Treasurer for

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

Burbank-Glendale-Pasadena Airport Authority

_____
President

Approved as to form:

_____
Richards, Watson & Gershon
A Professional Corporation

EXHIBIT A
Proposal

(attached)

Geosyntec consultants

65 N. Raymond Avenue, Suite 200
Pasadena, CA 91103
PH 626.449.0664
www.geosyntec.com

1 July 2020

Mark Hardyment
Director, Transportation and Environmental Programs
Burbank-Glendale-Pasadena Airport Authority
2627 N Hollywood Way
Burbank, California 91505

Subject: **Proposal to Implement the PFAS Groundwater Sampling Work Plan**
Bob Hope Airport, Burbank, California

Dear Mr. Hardyment:

At your request, Geosyntec Consultants (Geosyntec) is pleased to submit to the Hollywood Burbank Airport (Airport, or Site) this proposal to implement the *Per- and Polyfluoroalkyl Substances (PFAS) Groundwater Sampling Work Plan* (Work Plan) dated 27 November 2019 at the Airport.

Geosyntec submitted the Work Plan on behalf of Airport to fulfill the requirements of the *Water Code Section 13267 Order WQ 2019-0005-DWQ for the Determination of the Presence of Per- and Polyfluoroalkyl Substances at Bob Hope, Airport ID BUR, Los Angeles County, T10000012771* (the Order), specifically in response to the Regional Board letter dated 20 August 2019 (Letter). The Work Plan proposed collecting and analyzing groundwater samples from six selected existing monitoring wells (owned by Lockheed Martin Corporation [LMCO]) via low flow sampling. The Regional Board approved the Work Plan in its letter dated 20 April 2020 and requested collection and analysis of an additional grab groundwater sample from location adjacent to the previous soil sample location SB-5 (new location will be identified as SB-5A) via a temporary well or Hydropunch™.

To be able to understand the grab groundwater data collected from SB-5A, it was further decided (after discussion with the Airport) to collect soil samples at that location at every 10-foot interval starting from 60 feet (ft) below ground surface (bgs) to the groundwater[1].

The following presents the details of scope, schedule and budget to implement the Regional Board approved Work Plan as well as advance one additional soil boring in the vicinity of SB-5, now designated as SB-5A, for collection and analysis of soil samples (60 ft bgs to groundwater) and one grab groundwater sample. The scope will be implemented in accordance with the Order and the California State Water Resources Control Board (SWRCB) PFAS Sampling Guidelines[2].

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[1] During soil investigation in 2019, soil samples were collected at this location down to a depth of 44 ft bgs.
[2] Per- and Polyfluoroalkyl Substances (PFAS) Sampling Guidelines, California State Water Quality Control Board, Division of Water Quality, 20 March 2019.

SCOPE OF WORK

The six existing monitoring wells to be used for sampling are owned by LMCO. These wells have pumps installed in them to perform low flow sampling; however, five out of six wells have pumps that are not compatible for PFAS sampling. LMCO's contractor/consultant will remove the existing well pumps; store the existing well pumps; and re-install the existing well pumps upon completion of the proposed sampling activities. The following presents Geosyntec's scope of work**:**

Task 1: Preparation and Planning

The following tasks will be performed under Task 1:

- Attend a conference call with Airport/LMCO personnel to go over the logistics, access issues, schedule, Airport specific notification and coordination during the implementation of the field work described in Task 2. FAA 7640 permitting required for advancement of soil boring now designated as SB-5A is already complete. We expect that the Airport and LMCO will provide a point of contact to complete field coordination activities;
- Prepare/update a Site-specific Health and Safety Plan that will be adhered to during the proposed work;
- Obtain necessary permit from Los Angeles County Department of Public Health (LACDPH) to advance SB-5A; and
- Perform other coordination and preparation activities such as ordering supplies, sample bottles, coolers, issue work orders to subcontractors, provide PFAS specific instructions to subcontractors, etc.

Task 2: Implementation of the Field Work

The details of this task are provided in the Work Plan and summarized as follows. Geosyntec will:

- Collect groundwater samples from existing monitoring wells A-1-CW03R, A-1-CW09, B-6-CW10, C-1-CW03, C-1-CW06, C-1-CW08 via low-flow sampling;
- Perform geophysical investigation to clear subsurface utilities at the location of SB-5A;
- Advance SB-5A via a sonic drill rig while collecting soil samples at each 10-ft interval starting from 60 ft bgs to the first occurring groundwater table;
- Collect a grab groundwater sample at SB-5A;
- Handle samples appropriately and ship them to the respective laboratories under appropriate chain-of-custody (COC) documentation;
- Analyze the soil, groundwater and quality assurance/quality control (QA/QC) samples for analysis of PFAS compounds; and
- Characterize and dispose of the investigation derived waste (IDW).

Task 3: Preparation of the Report

After completion of the activities described in Task 2 and receipt of the laboratory data, the data will be reviewed for completeness, appropriate QA/QC measures, and are usable for the intended purpose. A report describing the results of the investigation will be prepared that will include:

- Documentation of sampling activities and necessary deviations from the Work Plan (if any);
- Summary of analytical results and comparison to reporting limits for PFAS;
- Groundwater flow direction and gradient map:
- COC from sample submittal;
- Analytical laboratory reports and QA/QC data;
- Copies of permits;
- Historical boring logs and field logs;
- Site map showing sampling locations; and
- Data evaluation and conclusions.

A California-licensed professional geologist or professional engineer will sign and stamp the final report.

Task 4: Project Management and Communication

This task includes performing necessary project management and communication during the course of the project.

SCHEDULE

Task 1 will begin immediately upon obtaining a Notice to Proceed (NTP) for this proposal from the Airport. The LACDPH permitting is expected to take three weeks. Meanwhile, Geosyntec will start coordinating field activities with its subcontractors, the Airport, and LMCO.

Immediately after completion of the preparation/planning process, Geosyntec will perform the field activities described in Task 2 which is expected to be completed in seven business days.

Within four weeks after receipt of the laboratory reports, Geosyntec will provide the first draft report for the Airport's review.

We understand that the timeline for implementation of tasks described herein Tasks 1 through 4 is governed by the schedule dictated in the Letter which requires completion of the field investigation and submittal of the report by 20 October 2020.

Geosyntec will make its best effort to expedite the implementation of these tasks to the maximum extent practicable, assuming all necessary support from the Airport and LMCO with respect to access, clearance, etc.

ESTIMATED BUDGET

Implementation of the above-described tasks will be conducted under a new Professional Services Agreement (PSA) which will be similar to the previous PSA dated 2 May 2019. Geosyntec will perform these services on a time and materials basis for an estimated cost of $167,200 in accordance with the rate schedule provided as Attachment A and terms and conditions defined in the new PSA. A cost summary table is provided below.

Geosyntec's Efforts on behalf of Airport				
Task	**Scope**	**Geosyntec Labor**	**Subcontractor and Other Direct Costs**	**Total**
1	Preparation/Planning	$6,800	$600	$7,400
2	Implementation of the Field Work	$24,500	$89,800	$114,300
3	Preparation of Report	$22,000	$900	$22,900
4	Project Management and Communication	$7,100	$300	$7,400
PROPOSED BUDGET				$ 152,000
Contingency Budget[3] (10% of total)				$15,200
GEOSYNTEC TOTAL BUDGET				**$ 167,200**

Geosyntec will not exceed the amount of $ 167,200 without prior approval. In the process of completing the proposed scope, if more budget appears to be needed due to out of scope activities that may be necessary for completion of the tasks or conditions different than assumed are encountered, an additional time and material budget will be requested for the Airport's authorization.

ASSUMPTIONS

Assumptions in preparation of this proposal are stated herein:

- Geosyntec expects that location SB-5A and the six monitoring wells will be easily accessible on the scheduled day and there will be no downtime or waiting for access. Geosyntec also assumes that the Airport's counsel will have arranged for appropriate access with LMCO and Geosyntec will not incur any time in separate negotiations over an access agreement. Access limitations may require an additional mobilization and/or subcontractor standby time at additional cost.

[3] Contingency budget is for unexpected scope of work that includes, but not limited to, unforeseen field conditions, communication required beyond Task 4, multiple reviews of the draft report etc.

- The soil and groundwater sampling at location SB-5A (via sonic drill rig) is expected to be completed in five 10-hour days during normal business hours of 7 am to 5 pm. The sonic drill rig equipment is expected to remain on-Site, set-on the borehole (with mast down when not in use) until completion of proposed sampling at this location.
- Geosyntec is not responsible for delays due to unforeseen Site conditions such as drilling refusal or inclement weather slowing the progress.
- Geosyntec is not responsible for damage to the drilling equipment due to Site conditions (e.g. damaging auger tip on encountering large cobble or debris); such costs shall be reimbursed by the Airport.
- The groundwater sampling at the existing monitoring wells is assumed to be completed in two 10-hour days during normal business hours of 7 am to 5 pm.
- Soil samples will be analyzed by the laboratory on a normal turnaround time basis. Expedited turnaround time can be accommodated at an additional cost.
- Dilutions up to 50X -100X can typically be accommodated. Extract dilutions greater than 100X may require further addition of isotope dilution analyte or labeled analyte (IDA). If the extract requires further addition of IDA's, this complex dilution will incur a surcharge of 50% of the analytical rate.
- Samples will be shipped to the laboratories via overnight delivery services.
- IDW will be appropriately labelled and staged at a location provided by the Airport. Geosyntec will not be responsible for vandalism of the IDW drums during the time the IDW is staged pending characterization and profiling.
- IDW will be characterized as non-hazardous waste for the purpose of disposal. Non-hazardous soil will be acceptable for bulking to Soil Safe and non-hazardous water is acceptable for bulking to Crosby & Overton while on routine pick-up in the area. The profile and manifest will be signed by an Airport representative. It is assumed no more than fifty 55-gallon drum of wastewater and soil IDW will be generated.
- Field measurements to prominent Site features will be used to map the location of SB-5A. A Site survey will not be performed.
- No traffic control is assumed to be necessary for the investigation.
- One round of consolidated review comments will be addressed. One telephone meeting (up to two hours in duration) will be scheduled to discuss the content of the draft report prior to finalizing it.
- The draft report will be submitted in electronic format.
- The final report will be uploaded by Geosyntec on GeoTracker and provided to the Airport in electronic format.

SUMMARY

Geosyntec appreciates this opportunity to submit this proposal to the Airport for this important project. If this proposal meets your needs, please sign the notice to proceed and provide a new PSA for execution. If you have questions regarding this proposal, please contact Mital Desai at (626) 788-4634.

Sincerely,

Mital Desai
Senior Professional

Ravi Arulanantham
Senior Principal

Attachment A: Rate Schedule

Notice to Proceed

Hollywood Burbank Airport authorizes Geosyntec's services presented herein and acknowledges intent to pay Geosyntec for requested project activities in the amount not to exceed $167,200 on a time and materials basis (rate schedule shown in Attachment A) and in accordance with the new PSA.

_____ _____

Frank Miller Date

Attachment A
Geosyntec 2020 Rate Schedule

GEOSYNTEC CONSULTANTS
2020 RATE SCHEDULE

Staff Professional	$132
Senior Staff Professional	$153
Professional	$174
Project Professional	$196
Senior Professional	$220
Principal	$240
Senior Principal	$262
Technician I	$ 70
Technician II	$ 75
Senior Technician I	$ 81
Senior Technician II	$ 88
Site Manager I	$100
Site Manager II	$104
Construction Manager I	$117
Construction Manager II	$126
Designer	$140
Senior Drafter/Senior CADD Operator	$ 128
Drafter/CADD Operator/Artist	$ 116
Project Administrator	$ 72
Clerical	$ 57
Direct Expenses	Cost plus 12%
Subcontract Services	Cost plus 12%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	$ 15
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	$ .09

Rates are provided on a confidential basis and are client and project specific.
Unless otherwise agreed, rates will be adjusted annually based on a minimum of the Produce Price Index for Engineering Services.
Rates for field equipment, health and safety equipment, and graphical supplies presented upon request.
Construction management fee presented upon request.

EXHIBIT B
Insurance Requirements

1. Consultant shall obtain, provide, and maintain policies of insurance as specified below.

A. General Liability Insurance. Consultant shall maintain commercial general liability insurance in an amount not less than $1,000,000 per occurrence, $2,000,000 general aggregate, for bodily injury, personal injury, and property damage.

B. Automobile Liability Insurance. Consultant shall maintain automobile insurance covering bodily injury and property damage for all activities of Consultant arising out of or in connection with the Services, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

C. Professional Liability (Errors and Omissions) Insurance. Consultant shall maintain professional liability insurance that covers the Services in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the Commencement Date and Consultant shall maintain continuous coverage through a period of no less than three years after expiration or termination of this Agreement.

D. Workers' Compensation/Employer's Liability Insurance. Consultant shall maintain workers' compensation insurance (statutory limits) and employer's liability insurance with limits of at least $1,000,000.

2. The insurance policy or policies shall contain, or shall be endorsed to contain, the following provisions:

A. General liability policies shall provide or be endorsed to provide: (i) that the Indemnitees shall be additional insureds; and (ii) a waiver of subrogation in favor of additional insureds. This provision shall also apply to any excess/umbrella liability policies.

B. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

C. The coverage shall contain no special limitations on the scope of protection afforded to the Indemnitees.

D. For any claims related to this Agreement, Consultant's insurance coverage shall be primary insurance as respects the Indemnitees. Any insurance or self-insurance maintained by the Indemnitees shall be excess of Consultant's insurance and shall not contribute with it.

E. The limits of insurance may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of each Indemnitee before the Indemnitee's own insurance or self-insurance shall be called upon to protect it as a named insured.

F. Any failure to comply with reporting or other provisions of the policy, including breaches of warranties, shall not affect coverage provided to the Indemnitees.

G. Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

H. The policy shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, or reduced in coverage or in limits except after 30 calendar days (10 calendar days in the event of non-payment of premium) prior written notice by certified mail, return receipt requested, has been given to the Authority.

I. Insurance is to be placed with insurers authorized to conduct business in the State of California with a minimum current A.M. Best's rating of no less than A:X, unless waived by the Contract Administrator. An exception to this standard will be made for the State Compensation Insurance Fund when not specifically rated.

J. Any deductibles or self-insured retentions must be declared to and approved by the Contract Administrator. At the option of the Contract Administrator, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Indemnitees, or Consultant shall provide a financial guarantee satisfactory to the Contract Administrator guaranteeing payment of losses and related investigations, claim administration and defense expenses.

K. The workers' compensation insurer agrees to waive all rights of subrogation against the Authority for injuries to employees of Consultant resulting from work for the Authority or use of the Airport.

3. Requirements of specific coverage features or limits are not intended as a limitation on coverage, limits, or other requirements, or as a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for clarification purposes only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If Consultant maintains higher limits than the minimum specified above, the Authority requires and shall be entitled to coverage for the higher limits maintained by Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Authority.

4. Consultant shall furnish to the Authority an original certificate or certificates of insurance and amendatory endorsements showing that required policies are in effect in the required amounts and, as to the workers' compensation insurance, with the required waiver of

subrogation. The certificates and endorsements must be received and approved by the Contract Administrator prior to commencement of work.

5. Consultant shall ensure that its subcontractors provide the same minimum insurance coverage and endorsements required of Consultant. Consultant shall monitor and review all such coverage, and Consultant assumes all responsibility for ensuring that such coverage is provided. Upon request, Consultant shall submit all subcontractor agreements to the Authority for review.

6. In the event any policy of insurance does not comply with these requirements or is cancelled and not replaced, the Authority has the right but not the duty to obtain the insurance it deems necessary. Any premium paid by the Authority in such event shall be promptly reimbursed by Consultant or the Authority shall withhold from its payments to Consultant an amount sufficient to pay that premium.

7. The Authority reserves the right at any time to change the amounts and types of required insurance by giving Consultant 90 days notice of such change. If such change results in additional cost to Consultant, then the parties shall renegotiate Consultant's compensation.

EXHIBIT C
Non-AIP Project Federal Requirements

1. General Civil Rights Provisions

Consultant agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision binds Consultant and sub-tier contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

2. Civil Rights – Title VI Assurance

During the performance of this contract, Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees as follows:

A. Compliance with Regulations: Consultant will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

B. Non-discrimination: Consultant, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Consultant will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

C. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by Consultant for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by Consultant of Consultant's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.

D. Information and Reports: Consultant will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Authority or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, Consultant will so certify to the Authority or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of Consultant's noncompliance with the non-discrimination provisions of this contract, the Authority will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

1. Withholding payments to Consultant under the contract until Consultant complies; and/or

2. Cancelling, terminating, or suspending a contract, in whole or in part.

F. Incorporation of Provisions: Consultant will include the provisions of paragraphs A through F in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. Consultant will take action with respect to any subcontract or procurement as the Authority or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if Consultant becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, Consultant may request the Authority to enter into any litigation to protect the interests of the Authority. In addition, Consultant may request the United States to enter into the litigation to protect the interests of the United States.

G. During the performance of this contract, Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq*., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);

2. 49 CFR part 21 (Non-discrimination in Federally-Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);

3. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

4. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;

5. The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 *et seq*.), (prohibits discrimination on the basis of age);

6. Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

7. The Civil Rights Restoration Act of 1987, (PL 100-209), (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

8. Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;

9. The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

11. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

12. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq*).

3. <u>Federal Fair Labor Standards Act</u>

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers. Consultant has full responsibility to monitor compliance to the referenced statute or regulation. Consultant must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

4. Occupational Safety and Health Act

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Consultant must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. Consultant retains full responsibility to monitor its compliance and its subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Consultant must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

STAFF REPORT PRESENTED TO THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY AUGUST 17, 2020

ACCESS AND LICENSE AGREEMENT LOCKHEED MARTIN CORPORATION

SUMMARY

Staff seeks the Commission's approval of a proposed Access and License Agreement ("Access Agreement") with Lockheed Martin Corporation ("LMCO") in the amount of $7,500. The Access Agreement will allow the Authority (through Geosyntec Consultants, Inc.) ("Geosyntec") to temporarily access six LMCO monitoring wells for implementation of the second phase of a State mandated work plan to determine the presence and extent in groundwater of a class of chemical substances commonly known as per- and polyfluoroalkyl substances ("PFAS").

BACKGROUND

In March 2019, the Authority received a State Water Resources Control Board ("State Water Board") Order ("Order") through the Los Angeles Regional Water Quality Control Board ("LARWQCB") to develop a work plan and to conduct soil and groundwater testing for the determination of the presence and extent of PFAS. This class of compounds is contained in many products, including a wide variety of consumer products such as non-stick cookware (Teflon) and carpet protective coatings. Specifically relating to airports, this class of substances is primarily found in the aqueous film-forming foam ("AFFF") product that is mandated by the Federal Aviation Administration for aircraft rescue and firefighting use.

As stated in the Order, the Hollywood Burbank Airport was "identified as a facility that has accepted, stored, or used materials that may contain "per- and polyfluoroalkyl substances". The Order continued, requiring that the Authority submit technical reports to investigate PFAS impacts to the site as specified further in the Order.

Geosyntec separated the work to comply with the Order into two parts—an initial soils investigation followed by a subsequent groundwater investigation. Geosyntec submitted a work plan for groundwater sampling on 27 November 2019 (that proposed sampling of six existing groundwater monitoring wells owned or operated by LMCO. LMCO was consulted beforehand during preparation of the groundwater work plan and had indicated a willingness to provide access to those wells. Because the LMCO well pumps contain Teflon materials, it will be necessary to make special one-time adjustments to remove the existing pumps and use special one-time pumps that will avoid the potential for cross-contamination during the PFAS sampling process.

The costs of drilling groundwater monitoring wells in this area are quite high, because drilling companies charge based on the number of feet that the well has to be drilled and a measurable amount of groundwater in this portion of the basin is often 230-250 feet below ground surface. For this reason, it is much preferable to use existing wells rather than attempt to drill entirely new groundwater monitoring wells.

The LARWQCB approved Geosyntec's groundwater sampling workplan in a letter dated April 20, 2020 with conditions for additional investigation at the soil boring location designated as SB-5 located in the Fuel Supply Area, which has an above-ground storage tank containing AFFF.

The Authority has entered into various agreements with LMCO related to different portions of the property now part of the Airport. Most recently, in 2017, the Authority and LMCO executed two Memoranda of Understanding that provided access to LMCO for investigations (and groundwater monitoring wells) located on Airport property. Those agreements did not provide for a reciprocal right to the Authority to access those same wells. Indeed, until the 2019 Order from the State Water Board, there was no requirement that the Authority investigate groundwater beneath its property.

Staff and legal counsel originally sought to obtain and present to the Legal, Government & Environmental Affairs Committee a separate Access Agreement with LMCO to provide access to the six groundwater monitoring wells that are the subject of the further groundwater investigation at its July 20, 2020 meeting. However, at the time of that meeting staff and legal counsel were still in the process of negotiating the final terms of the Access Agreement, and the Committee agreed to allow Staff to present a proposed Access Agreement with LMCO directly to the Commission in conjunction with the related item of approval for a new Profession Services Agreement with Geosyntec to implement the drilling work also presented at the Commission meeting.

PROPOSED ACCESS AGREEMENT

The proposed Access Agreement (Exhibit A) was initially drafted by LMCO after discussions by Geosyntec and Authority legal counsel about the need for a reciprocal access agreement permitting access to the six existing groundwater monitoring wells. The Access Agreement, which incorporates revisions made by the Authority's legal team, provides the following essential terms:

1. LMCO will provide access to the Authority (or its contractor) to collect and analyze groundwater samples (via low flow sampling) from six selected existing monitoring wells owned by LMCO. LMCO will provide access to one existing monitoring well, C-1-CW06 and directly operate the pump in that well to allow for low-flow sampling.
2. LMCO (or its contractor) will coordinate the Authority's access with various property owners; remove, store, and re-install the existing pumps at the other five wells specified in Exhibit A to the Access Agreement; and oversee the Authority's installation and removal of the temporary new pumps for this project.
3. The Authority will install and remove temporary new pumps for this project.
4. The Authority will compensate LMCO a fee of $7,500 for the cost of LMCO's coordination of access with various property owners; removal, storage, and re-installation of the existing pumps; and overseeing of the Authority's installation and removal of the temporary new pumps.
5. Each party (both the Authority and LMCO) agrees to reciprocal indemnity provisions against any negligence by the other party in implementing the drilling

work to be conducted pursuant to the Access Agreement.

6. The Authority will provide standard certificates of insurance to LMCO for coverage under a Comprehensive General Liability (CGL) and automobile policy.

FUNDING

The FY 2021 budget includes a $200,000 allocation for this second phase of groundwater sampling work. In a separate Staff Report, the Legal, Government and Environmental Affairs Committee has recommended Commission approval of a new Professional Services Agreement with Geosyntec in an amount not to exceed $167,200. Thus, the additional $7,500 proposed in payments to LMCO under the Access Agreement is within the overall $200,000 budget allocation.

RECOMMENDATION

Staff recommends that the Commission approve and authorize the President to execute the attached new Access Agreement with LMCO to allow for access to existing groundwater monitoring wells in or adjacent to Airport property for purposes of complying with the 2019 Order from the State Water Board with respect to PFAS groundwater sampling work in exchange for a fee of $7,500.

List of Exhibits:

Exhibit A: Proposed Access and License Agreement with LMCO dated July XX, 2020.

EXHIBIT A
FINAL SIGNATURE VERSION

ACCESS AND LICENSE AGREEMENT

This ACCESS AND LICENSE AGREEMENT ("Agreement") is entered into on July __, 2020 by and between LOCKHEED MARTIN CORPORATION ("LOCKHEED MARTIN"), a Maryland Corporation, and the BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY ("BGPAA"), a public entity formed under a joint exercise of powers agreement among the Cities of Burbank, Glendale, and Pasadena, California, pursuant to the California Joint Exercise of Powers Act.

RECITALS

A. BGPAA is the current owner of that certain property, located at 2627 North Hollywood Way, Burbank, California and commonly referred to as the Hollywood Burbank Airport ("the Airport Property").

B. LOCKHEED MARTIN is the current owner of groundwater monitoring wells A-1-CW03R, A-1-CW09, B-6-CW10, C-1-CW03, C-1-CW06, C-1-CW08 (collectively, "LOCKHEED MARTIN Wells") located on and in the vicinity of the Airport Property. The locations of these LOCKHEED MARTIN Wells are further defined in the attached Exhibit A.,.

C. By Order dated March 20, 2019, the State Water Board, pursuant to Water Code section 13267, directed that all airport facilities in the State certified for aqueous film forming foam ("AFFF") use by the Federal Aviation Administration ("FAA") conduct investigations for the possible presence of per- and polyfluoroalkyl substances ("PFAS") at those facilities. Pursuant to that order, BGPAA submitted a groundwater workplan ("GW Workplan") to the Los Angeles Regional Water Quality Control Board ("Regional Board") for the Airport Property to sample the groundwater in existing monitoring wells on and in the vicinity of the Airport Property for the potential presence of PFAS. The GW Workplan is attached hereto as Exhibit B. The Regional Board has approved the GW Workplan. BGPAA retained Geosyntec Consultants, Inc. ("Geosyntec") to prepare the GW Workplan and perform the sampling.

D. In order to perform the sampling required by the State Water Board Order and pursuant to the GW Workplan, BGPAA requires access to and license to use the LOCKHEED MARTIN Wells.

E. The parties are entering into this Agreement to set forth the terms and conditions pursuant to which BGPAA shall have the right to access and use the LOCKHEED MARTIN Wells after the date hereof in order to perform PFAS groundwater sampling and associated activities as required by the March 20, 2019State Water Board Order, and as set forth in the GW Workplan.

F. LOCKHEED MARTIN is not liable for the handling or disposal of any PFAS-contaminated materials (including soil, groundwater, sampling equipment, or waste of any kind) generated by the sampling activities in the GW Workplan.

G. LOCKHEED MARTIN is not liable for any damage to person or property that results from the sampling activities conducted pursuant to the GW Workplan, including damage to the LOCKHEED MARTIN Wells.

H. This Agreement does not replace or supersede any previous agreements between BGPAA and

LOCKHEED MARTIN, including the March 30, 1978 Agreement for Purchase between BGPAA and Lockheed Martin ("1978 Purchase Agreement"). Specifically, this Agreement does not modify or nullify BGPAA's obligation to indemnify LOCKHEED MARTIN, nor does it modify or nullify LOCKHEED MARTIN's obligation to indemnity BGPAA, as set forth in the 1978 Purchase Agreement.

AGREEMENT

Now, therefore, in consideration of the terms hereof and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. LOCKHEED MARTIN Obligations:

   (a) LOCKHEED MARTIN hereby agrees to provide access and license to use the LOCKHEED MARTIN Wells to BGPAA and its representatives and contractors for the sole purpose of conducting the sampling required by the GW Workplan as developed pursuant to the March 20, 2019 State Water Board Order.

   (b) LOCKHEED MARTIN and its representatives and contractors shall be present at the time of BGPAA's access to unlock the LOCKHEED MARTIN Wells.

   (c) LOCKHEED MARTIN and its representatives and contractors will: remove the existing well pumps from the LOCKHEED MARTIN Wells within ten (10) business days of BGPAA's request to remove the pumps before BGPAA accesses and uses the LOCKHEED MARTIN Wells; provide temporary storage for such pumps; and re-install the previously existing pumps upon completion of the sampling activities set forth in the GW Workplan.

2. BGPAA Obligations:

   (a) BGPAA will notify LOCKHEED MARTIN at least ten (10) business days prior to accessing the LOCKHEED MARTIN Wells, so that LOCKHEED MARTIN can remove the pumps.

   (b) Once LOCKHEED MARTIN has removed the existing well pumps to allow for BGPAA's access and use of the LOCKHEED MARTIN Wells, BGPAA and its representatives and contractors shall install new well pumps that are appropriate for sampling PFAS and shall remove such pumps upon the completion of the sampling activities set forth in the GW Workplan, at no cost to LOCKHEED MARTIN.

   (c) BGPAA shall pay LOCKHEED MARTIN $7,500 for the cost to: remove the existing well pumps; store the existing well pumps; re-install the existing well pumps upon completion of the sampling activities conducted by BGPAA and its representatives and consultants; and provide BGPAA, its representatives and contractors the necessary access to perform the sampling activities set forth in the GW Workplan.

      i. LOCKHEED MARTIN shall provide BGPAA an invoice for the $7,500, including a current W-9 form. This invoice shall be sent electronically to the BGPAA notice parties listed below.

ii. BGPAA shall pay LOCKHEED MARTIN the $7,500. within twenty (20) business days of receipt of an invoice from LOCKHEED MARTIN.

(d) Nothing in this Agreement shall give BGPAA the right to use the LOCKHEED MARTIN Wells and/or the real property upon which the LOCKHEED MARTIN Wells are located to treat, store or dispose of any wastes or hazardous materials. BGPAA shall as soon as practicable remove from the LOCKHEED MARTIN Wells and the real property upon which the LOCKHEED MARTIN Wells are located any wastes and hazardous materials used in or generated by BGPAA's sampling activities. Any bills of lading, waste disposal manifests, or other documents necessary for purposes of disposing of any waste materials generated by any sampling activities conducted pursuant to this Agreement shall be signed by an authorized representative of BGPAA as the "generator" and shall bear the EPA/Cal EPA generator identification number of BGPAA. Further, BGPAA shall be solely responsible for any hazardous waste generator fees or other fees and/or taxes related to BGPAA's sampling activities under this Agreement.

(e) BGPAA shall take reasonable precautions to minimize damage to the LOCKHEED MARTIN Wells, and to the real property upon which the LOCKHEED MARTIN Wells are located, as a result of the sampling activities. BGPAA shall restore the LOCKHEED MARTIN Wells, as best as reasonably possible, to their condition prior to commencement of the sampling activities.

(f) BGPAA shall make prior arrangements with LOCKHEED MARTIN establishing the times during which BGPAA shall be entitled to exercise its rights hereunder to perform the particular work involved. BGPAA shall notify LOCKHEED MARTIN and its representatives and contractors at least ten (10) business days in advance of the date and time BGPAA intends to access the LOCKHEED MARTIN Wells and will coordinate such access and use with LOCKHEED MARTIN. Notice shall be provided pursuant to paragraph 3 herein.

(g) BGPAA shall notify LOCKHEED MARTIN within five (5) business days of completion of the sampling activities. Notice shall be provided pursuant to paragraph 3 herein.

(h) BGPAA's access to and use of the LOCKHEED MARTIN Wells shall be scheduled during normal business hours (it being understood and agreed that equipment and other material may remain on the LOCKHEED MARTIN Wells and/or the real property upon which the LOCKHEED MARTIN Wells are located at all times of the day during BGPAA's permitted use) in a manner such that BGPAA's activities shall not unreasonably interfere with non-exclusive use of the real property upon which the LOCKHEED MARTIN Wells are located. BGPAA shall make reasonable efforts not to unduly interfere with any business then conducted on the real property upon which the LOCKHEED MARTIN Wells are located, specifically as indicated below:

i. A-1-CW09 is located on property owned and/or operated by Fry's Electronics.

ii. A-1-CW03R is located on property owned and/or operated by VSP Parking.

iii. C-1-CW03 is located on property owned and/or operated by WET Industries.

(i) BGPAA's right of access and license to use the LOCKHEED MARTIN Wells under this Agreement shall continue until BGPAA and its representatives and consultants have completed the work set forth in the GW Workplan; provided, however, that this Agreement shall automatically terminate

on December 31, 2020, unless extended by written agreement of the parties.

(j) To the extent that BGPAA or its representatives or contractors need a staging area located on the real property that is not owned by BGPAA or by LOCKHEED MARTIN, then BGPAA shall promptly notify LOCKHEED MARTIN in advance of this potential requirement. LOCKHEED MARTIN will make reasonable efforts to accommodate this request by notifying the owner and operator of the real property upon which the LOCKHEED MARTIN Wells are located to determine if space and prior use commitments made by the owner or operator allow for such accommodation.

3. Any notice to be given under this Agreement shall be in writing, unless otherwise agreed to by the patties, and mailed, e-mailed or faxed to the representatives listed below. Delivery shall be deemed effective within 24 hours of an email or faxed notice and within 72 hours of any mailed notice to:

If to BGPAA:
Burbank-Glendale-Pasadena Airport Authority
2627 Hollywood Way Burbank, CA 91505
Attn: Mark Hardyment
Telephone: (818) 840-8840
Facsimile: (818) 840-8213
Email: mhardyment@bur.com

With a copy to:
Ring Bender LLP
3150 Bristol St. Suite 220
Costa Mesa, CA 92626
Attn: Norman A. Dupont, Esq.
Telephone: (949) 202-5810
Facsimile: _(949) 606-7025
Email: NDupont@ringbenderlaw.com

If to LOCKHEED MARTIN:
Lockheed Martin Corporation
Corporate ESH
2550 N. Hollywood Way, Suite 406
Burbank, CA 91505
Attn: Liaht Rosenstein
Telephone: (720) 842-6121
Facsimile: (818) 847-0256
Email: liaht.rosenstein@lmco.com

With a copy to:
Beth M. Kramer
Lockheed Martin Corporation
6801 Rockledge Drive
Bethesda, MD 20817
Telephone: (301) 897-6402
Email: beth.m.kramer@lmco.com

Either party may change the above designations by written notice to the other party.

4. This Agreement does not release BGPAA or LOCKHEED MARTIN from any obligations to indemnify, protect, and defend each other pursuant to the 1978 Purchase Agreement. This Agreement does not supersede the 1978 Purchase Agreement. If there are any conflicts between the two agreements, the 1978 Purchase Agreement controls.

5. Nothing in this Agreement shall be construed as an admission of liability or a declaration against interest on the part of LOCKHEED MARTIN or BGPAA.

6. Except as otherwise provided herein, this Agreement is solely for the benefit of the parties hereto, and does not confer any rights upon any other persons.

7. The terms, conditions and covenants of this Agreement are binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

8. Each party (the "Indemnifying Party") agrees to indemnify and hold the other party harmless from any and all claims, damages, expenses or losses, including reasonable attorneys' fees, arising out of the failure of the "Indemnifying Party" to perform its obligations under this Agreement. BGPAA shall indemnify and hold LOCKHEED MARTIN harmless from any and all claims, damages, costs and expenses, including reasonable attorneys' fees, arising from any act of negligence (including acts or omissions that are negligent, reckless or intentional) of BGPAA, its agents, contractors and employees arising from BGPAA's access and license to use the LOCKHEED MARTIN Wells, and the real property upon which the LOCKHEED MARTIN Wells are located, pursuant to this Agreement. LOCKHEED MARTIN shall indemnify and hold BGPAA harmless from any and all claims, damages, costs and expenses, including reasonable attorneys' fees, arising from any act of negligence (including acts or omissions that are negligent, reckless or intentional) of LOCKHEED MARTIN, its agents, contractors and employees in connection with BGPAA's access and license to use the LOCKHEED MARTIN Wells, and the real property upon which the LOCKHEED MARTIN Wells are located, pursuant to this Agreement. This provision shall survive the termination of this Agreement for a period of one year.

9. BGPAA shall carry or cause its contractor to carry liability insurance in a commercially reasonable amount. Notwithstanding the foregoing, BGPAA (or its consultant) shall obtain and maintain in full force the following insurance coverages in not less than the amounts indicated: (i)Workers' Compensation Insurance for BGPAA's employees with coverage not less than that required by applicable law: (ii) Comprehensive General Liability insurance on a broad-form occurrence basis (including explosion, collapse and underground lability coverage) with a limit of not less than $5,000,000; (iii) Professional errors and omissions insurance with a limit of not less than $2,000,000 per occurrence; and (iv) Automobile liability insurance (owned, non-owned, and hired), including personal injury and property damage, with a limit of not less than $1,000,000 per occurrence.

10. Prior to conducting or causing to be conducted any sampling activities at the LOCKHEED MARTIN Wells, BGPAA shall: (i) furnish to LOCKHEED MARTIN copies of insurance certificate(s) or, in the case of worker's compensation, a letter confirming evidencing that BGPAA or BGPAA's consultant maintain the coverages set forth above (which shall be maintained throughout the term of this Agreement), and (ii) cause its consultants to name LOCKHEED MARTIN as an additional insured on the above described policies (except professional errors and omissions insurance and worker's compensation insurance).

11. This Agreement is the entire agreement between the parties with respect to the subject matter hereof and may only be amended by a subsequent written agreement signed by both parties. The laws of the State of California shall govern the validity, enforcement and interpretation of this Agreement. If any one or more of the provisions of this Agreement, or the applicability of any such provision to a specific situation, shall be held invalid or unenforceable, such provision shall be modified to the minimum extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of this Agreement and all other applications of any such provision shall not be affected thereby.

12. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the date(s) below, to be effective as of the date designated in the first page above.

Burbank-Glendale-Pasadena Airport Authority, a public entity

By: _____

Name: _____

Title: _____

Date: _____

Lockheed Martin Corporation, a Maryland Corporation

By: Kevin Pearson

Name: Kevin Pearson

Title: Director, Environmental Remediation

Date: 08/06/2020

EXHIBIT A

Well ID	Address/Location	Property Owner or Tennant	Property Contact
A-1-CW03R	2612 N. Hollywood Way, Burbank, CA 91505	VSP Parking	Tyler Martin (818-842-9338)
A-1-CW09	2311 N Hollywood Way, Burbank, CA 91505	Fry's Electronics	Parking lot security guard
B-6-CW10	Burbank Airport Parking Lot A	Burbank Airport	
C-1-CW03	10847 Sherman Way, Sun Valley, CA 91352	WET Industries	Rene (818-859-3676)
C-1-CW06	Burbank Airport Property; ~350 ft south of west end of runway	Burbank Airport	
C-1-CW08	South of Atlantic Aviation Terminal on Sherman Way; on green strip between apron and taxiway	Burbank Airport	

EXHIBIT B

[GW WORKPLAN]

STAFF REPORT PRESENTED TO THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY AUGUST 17, 2020

TBI AIRPORT MANAGEMENT HUMAN RESOURCES COMPLIANCE AUDIT REQUEST FOR PROPOSALS

SUMMARY

At its meeting of July 20, 2020, the Legal, Government, and Environmental Affairs Committee ("Committee") voted unanimously (3–0) to recommend to the Commission that the Authority participate in a request for proposals ("RFP"), copy attached, that TBI Airport Management, Inc. ("TBI") is issuing for a human resources compliance audit. TBI will evaluate proposals with input from the Authority General Counsel, and will select and contract with its preferred respondent. The consultant's audit findings will be issued to TBI and the Authority in a confidential legal opinion, and TBI requests that the Authority pay 35% of the consultant's fee up to a maximum of $35,000.

BACKGROUND

On April 6, 2020, the Commission approved a fourth amended and restated airport management services agreement ("Fourth Management Contract") with TBI. Pursuant this contract, among other duties, TBI provides and manages all human resource and personnel functions at the Airport. TBI now intends to issue an RFP for a human resources compliance audit.

The purpose of the audit is to obtain an evaluation of human resources operations and practices. Because the audit will include a review of the intersection between TBI and the Authority as part of an organizational structure review, and because the Fourth Management Contract provides for equitable cost sharing with respect to employee grievances and litigation, TBI is seeking the Authority's participation in and financial support for this effort. It is anticipated that the audit will lead to best practices and process improvements that ultimately reduce such costs by reducing employee grievances and litigation.

RFP DETAILS

The RFP specifies three categories of services to be provided by the selected respondent. These categories are: (1) a comprehensive review of TBI's and the Authority's human resource framework and core functions, structure, responsibilities, and practices; (2) a review of TBI's payroll processes and procedures; and (3) assessments of TBI and the Authority's compliance with federal, California, and local laws regarding these areas. The audit findings are required to be prepared in a confidential written report by a licensed California attorney.

As this is a TBI-initiated effort, TBI will select and contract with its preferred respondent. TBI intends to establish an evaluation panel to review proposals, identify the highest ranked respondents, and, potentially, conduct interviews. The Committee recommends that Authority General Counsel be part of TBI's evaluation panel if the Authority participates in this project and TBI concurs with that recommendation.

TBI requests that the Authority pay 35% of the consultant's fee up to a maximum of $35,000. The Committee did not make a recommendation on the amount of financial contribution the Authority should make for this project.

BUDGET IMPACT

Appropriations for the services in the proposed RFP were not contemplated during the development of FY 2021 budget. Subject to the agreement between the Commission and TBI for the cost sharing of these services and financial performance during the year, a future budget amendment may be required.

RECOMMENDATION

At its meeting of July 20, 2020, the Committee voted unanimously (3–0) to recommend that the Commission approve the Authority's participation in TBI's human resources compliance audit RFP.

NOTICE OF
REQUEST FOR PROPOSALS
FOR

TBI AIRPORT MANAGEMENT, INC.
For its location at the
Hollywood Burbank Airport
2627 N. Hollywood Way
Burbank, CA 91505

TBI Airport Management, Inc. (TBI) has issued this Request for Proposals (RFP) soliciting written proposals from qualified firms and individuals, on its own behalf and as agent for the Burbank-Glendale-Pasadena Airport Authority (Authority), for the opportunity to provide Human Resources Compliance Auditing Services to TBI and the Authority at the Hollywood Burbank Airport. The selected Respondent will be required to enter into a professional services agreement to provide to TBI and the Authority a one-time audit, with the potential to renew, as more fully described in this RFP.

In order to be considered, Respondents must submit a formal written proposal and be able to demonstrate significant knowledge and past experience in providing the type of services requested in the State of California and must meet the other qualifications set forth in this RFP.

* * *

PROPOSED RFP SCHEDULE

Please refer to the following **tentative** schedule for important dates for response to this RFP:

Advertisement Period:	Monday, _____ through _____
Pre-Proposal Teleconference:	Day, date, time
Last Day to Submit Questions:	Day, date
Final Addendum Issued:	Day, date
Proposal Submission Deadline:	Day, date, time

Telephone Interviews (preferred Respondents):	Date through Date
Notice of Intent to Award:	Day, date
Formal Contract Award:	Day, date
Contract Commencement:	Day, date

SUBMISSION OF PROPOSALS

Sealed Proposals will be accepted at the Offices of TBI Airport Management, Inc., 2001 Red Cleveland Boulevard, Suite 2219, Sanford, Florida 32773 until and not later than **X:00 p.m. P.S.T. on Day, Date.** Additional information regarding the form and content of Proposals is set forth in Part 2 of this RFP.

CONTACT INFORMATION

All interested Respondents are directed to contact Marsha Michael, Human Resources Manager, with all questions and/or requests for information as follows: marsha.michael@aww.aero or 407-585-4554.

Dated: _____

_____
John Green, President
TBI Airport Management, Inc.

TBI
AIRPORT MANAGEMENT, INC.

Part 1. OPPORTUNITY

A. OBJECTIVE. TBI is soliciting written proposals (each, a Proposal) from qualified firms and individuals (each, a Respondent) for the opportunity to provide a Human Resources Compliance Audit to TBI and the Authority at the Hollywood Burbank Airport (Airport). The selected Respondent will be required to enter into a professional services agreement to provide same to TBI and the Authority, with the potential to renew, as more fully described in this RFP.

B. TBI'S BUSINESS. TBI is a for-profit Delaware corporation engaged in the business of providing airport operation and management services at various locations. TBI provides such services at the Hollywood Burbank Airport for the Authority pursuant to an April 6, 2020 Fourth Amended and Restated Agreement for Airport Management Services, which is attached here as Appendix I. TBI's business falls within NAICS Industry Classification Code 488119 -- Other Airport Operations. In addition to its Burbank location, TBI provides airport management and operations services at five other airports in the United States, however only TBI's operations and employees at the Burbank location are within the scope of this RFP. TBI employs a total of 129 employees at its Burbank location, 75 of whom are hourly employees. Forty-four of TBI's employees are covered by a collective bargaining agreement as members of the International Union of Operating Engineers Local 501, while 18 employees are covered by a collective bargaining agreement as members of the International Association of Fire Fighters, Local 1-61.

AUTHORITY'S BUSINESS. The Authority is a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Government Code, section 6500, *et seq.*, the Joint Powers Law) and is subject to the provisions and limitations of an Amended and Restated Joint Exercise of Powers Agreement among the cities of Burbank, Glendale and Pasadena. The Authority owns and operates the Airport and is governed by a nine-member Commission. The Authority employs __ police officers and has no other personnel.

C. SCOPE OF SERVICES. TBI seeks a qualified human resources consulting company to conduct an audit of human resources operations and practices and provide an audit report and legal opinion as to compliance improvements, inclusive of the following services (Services):

(1) A comprehensive review of TBI's and the Authority's human resource framework and core functions, structure, responsibilities, and practices, including:

-Recruiting, hiring, job descriptions/classifications, on-boarding forms, and employee files;

-Employee relations, employee handbooks, poster compliance, and policies;

-Recordkeeping, timekeeping, and related documentation review;

-Performance management and training compliance; and

-Organizational structure, including intersection between TBI and Authority.

(2) A review of TBI's payroll processes and procedures.

TBI
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(3) Specific assessments of TBI and the Authority's compliance with federal, California, and local laws regarding the areas in sections (1) and (2) above.

The Services shall include, at minimum, (a) the conduct of comprehensive audit of the foregoing areas, (b) preparation of a confidential written report of audit findings by a licensed California attorney, with any recommended new measures to be implemented, and (c) professional recommendation of best practices or business process improvement for areas identified as being of higher risk for regulatory scrutiny or private litigation.

In its Proposal a Respondent may, but is not required to, suggest additional services to TBI that are not within the foregoing Scope of Services. If such additional services are recommended by a Respondent, Respondent must set forth the fees associated with such services as a separate item in the Fee Proposal (Part 2E of this RFP).

D. MINIMUM QUALIFICATIONS OF RESPONDENTS. Respondents must have at least the following minimum qualifications, which shall be set forth as part of the Proposal Contents (Part 2 of this RFP):

- Respondent shall have conducted business as a human resources consultant in California continuously for a period of at least 7 years;
- Respondent shall have at least one licensed California attorney in good standing on staff or retained through subcontract to prepare a confidential written report of audit findings;
- Respondent shall have demonstrated knowledge and experience in conducting a minimum of 10 comprehensive human resources compliance audits with similar scope of services for organizations in different industries and of different sizes. At least 3 of such audits shall have been performed for a California public entity;
- Respondent shall have the ability to provide at least 3 professional references for similar services provided to clients in the State of California within the immediately preceding five (5) years.

E. PROPOSAL VALIDITY. Proposals shall remain valid for 120 calendar days from the final date Proposals are due for submission. By submission of a Proposal, a Respondent guarantees that its offer is firm for ninety (90) calendar days from the submission deadline. If an award is not made during that period, each Respondent shall automatically extend its offer for an additional 90 days, unless Respondent indicates otherwise in writing to TBI at least 30 days prior to the last day of the original 120-day validity period.

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Part 2. PROPOSAL CONTENTS

Respondents are required to follow the format and assemble a sealed Proposal as specified below. The Proposal shall be in writing on letter-sized paper bound on the left edge to open as a book. Alternatively, the Proposal may be submitted electronically in Portable Document Format. The Proposal must be clear, concise, and complete. The Proposal shall be limited to a maximum of twenty (20) pages and in no smaller than 12-point font. The page count does not include: the Respondent's cover letter; Attachments A and B, resumes, Table of Contents (not required), and Section Dividers (not required). Proposals not submitted in the manner described herein may be rejected as non-responsive, at the sole discretion of TBI. Each section of the Proposal shall be organized to correlate with the following sections:

A. COVER LETTER. Not to exceed two (2) pages and shall include the following information:

1. Respondent Contact Information. Provide the name, title, telephone, and email of the personnel responsible for the primary communication with TBI regarding the Proposal, as well as a physical street address where communications may be submitted.

2. Executive Summary. Provide a brief summary of the reasons why your firm should be selected in response to this RFP. Include a statement indicating Respondent's clear understanding of and commitment to the provision of the Services and general information regarding Respondent's ability to provide the Services, including any constraints or limitations Respondent may have.

3. Potential Conflicts. Respondent must disclose any actual or potential conflicts of interest, including a brief statement as to whether Respondent and/or Respondent's owners, partners or shareholders (for purposes of this Paragraph only, collectively referred to as Respondent), or any other individual or entity of Respondent's team has any potential conflicts of interest that may arise in the performance of the services.

B. EXPERIENCE AND QUALIFICATIONS. Detailed description of Respondent's qualifications and experience related to the areas of the Services, including years of experience in providing similar services and any professional certifications or designations held. Note that Respondents must have at least 7 years of experience in human resources compliance services, have a California licensed attorney in good standing on staff, and have completed at least 10 projects of similar size and complexity for clients in the State of California. Respondent shall demonstrate knowledge of federal, California and applicable local laws governing TBI, the Authority, and the subject matter of the Services.

C. PROJECT PLAN. The Project Plan section should demonstrate Respondent's thorough understanding of the Services, and provide at least the following:

1. A detailed narrative showing Respondent's proposed plan and approach to providing the Services. The narrative shall set forth all information necessary for TBI to have a thorough understanding of the manner in which Respondent will provide the Services and the manner in which Respondent's firm operates;

2. Describe previous experience, including any experience in similar engagements or in similar industries, including any audits of a public agency or entity or public-private partnerships;

3. Respondent's timeline for the project with key dates;

4. Provide information regarding proposed project team composition, including key personnel to be assigned to the project and their qualifications and resumes;

5. Set forth the manner in which TBI and/or Authority personnel may be involved in the Project Plan, including whether interviews will be conducted of TBI/Authority personnel and what records will be needed by Respondent;

6. Describe all deliverables to be provided to TBI and the Authority as part of the Services and anticipated timeline for same, including the proposed length and scope of any reports to be provided detailing findings and recommendations

D. PROPOSED FEE. Set forth the fixed fee Respondent shall charge for the Services, including any relevant breakdown, any contingencies or limitations regarding the fee, payment terms, and all information that may be relevant to TBI's evaluation of Respondent's fixed fee. Any fee for additional recommended services must be separately set forth.

E. PROPOSED FORM OF AGREEMENT. Please attach Respondent's proposed form of professional services agreement. Note that the agreement to be entered into between the selected Respondent and TBI shall be subject to review, negotiation and approval by TBI.

F. REFERENCES. Provide a minimum of three (3) client references from projects that you have worked on in the last five (5) years that are similar to the Services. Include the following information as to each listed project: business name, contact name, title, address, phone, and email. It is the Respondent's responsibility to validate the contact information for references. TBI may request information from Respondent's clients, government agencies, or any other available sources.

G. ATTACHMENTS. Each Proposal shall be submitted with the following completed attachments, blank copies of which are provided in this RFP.

1. Attachment A – Business Organization Statement;

2. Attachment B – Affidavit of Non-Collusion (provide a copy of this notarized attachment);

Part 3. EVALUATION AND SELECTION PROCESS

Evaluation Panel. TBI intends to select one Respondent to provide the Services. An evaluation panel (Panel) established by TBI will evaluate the Proposals in accordance with Part 4, Evaluation Criteria. The Panel may "short-list" Respondents for this RFP to identify the highest ranked Respondents (Preferred Respondents), who may then be requested to interview with the Panel. Respondents may also be requested by TBI to provide supplemental information. Those Preferred Respondents who are invited to interview may have criteria re-evaluated by the Panel as a part of the interview process, after which TBI will select a Respondent for provision of the Services, to be subject to final approval by the Authority.

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Part 4. EVALUATION CRITERIA

The Panel will evaluate Respondents' Proposals and interview based on the following evaluation criteria and approximate weightings.

A. Company Experience, Qualification and References-- 20%

B. Project Plan -- 40%

C. Proposed Fee -- 35%

D. Proposed Agreement, which will be subject to negotiation at the discretion of TBI -- 5%

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Part 5. ADDITIONAL CONDITIONS AND INFORMATION

A. RFP/ADDENDA QUESTIONS. If discrepancies or omissions are found by any Respondent or there is doubt as to the true meaning of any part of this RFP, a written request for clarification or interpretation shall be submitted by _____ to _____. Questions submitted after this time will not be considered. Any clarification or interpretation or change to this RFP in light of such questions will be by written addendum signed by an authorized representative of TBI. TBI is not responsible for any explanation, clarification, interpretation, or approval made or given in any manner except by written addendum. A copy of each addendum will be published at _____. Any addenda so issued are to be considered a part of the RFP document.

B. NO ORAL MODIFICATION. TBI, ITS OFFICERS, AGENTS, AND EMPLOYEES WILL NOT BE RESPONSIBLE FOR ANY ORAL INSTRUCTION, MODIFICATION, OR CLARIFICATION RELATED TO THIS RFP. RESPONDENTS SHALL NOT RELY UPON ORAL COMMUNICATIONS. **All questions and RFP related correspondence shall be emailed to** Marsha.michael@aww.aero in accordance with Section A.

C. AWARD OF PROPOSALS. The award of an agreement shall be made to the Respondent who demonstrates, in TBI's sole judgment, that it is best capable of and will meet or exceed TBI's goals and objectives.

D. AGREEMENT. Within 30 days of an award made by TBI pursuant to this RFP, the selected Respondent shall be required to enter into a professional services agreement with TBI to perform the Services. The agreement shall, among other things, incorporate by reference the selected Respondent's Proposal, with any modifications thereto, and shall be in such form as shall be acceptable to TBI.

E. INSURANCE. The selected Respondent must be able to procure, and maintain in force during the term of the agreement, the following types and amounts of insurance: Worker's compensation and employer's liability in the amounts required by California law and professional liability/errors and ommissions insurance in an amount not less than Five Million Dollars ($5,000,000). The selected Respondent shall provide evidence of such insurance to TBI at the time the agreement is executed, if so requested.

F. OTHER COMMUNICATIONS. Respondents who conduct or arrange for any communication not provided for in this RFP with any employee of TBI, the Authority, or member of the Panel regarding this RFP shall be disqualified.

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G. RESPONDENT'S REPRESENTATION OF DUE DILIGENCE. The submission of a Proposal shall be deemed a representation and certification by the Respondent that it has investigated all relevant conditions, facts, circumstances, procedural requirements and aspects associated with this RFP, and that it has read, understands, and accepts the RFP as written.

H. WITHDRAWAL. No Proposal may be withdrawn after it has been submitted to TBI unless the Respondent so requests by letter or facsimile and such request is received by TBI before the time set for receiving proposals. No Proposal may be withdrawn after the scheduled due date for a period of 120 days.

I. TBI INVESTIGATION. By submitting a Proposal, Respondent acknowledges that TBI has the right to make any inquiry or investigation that it deems appropriate to substantiate or supplement information, and authorizes the release to TBI of any and all information sought in such inquiry or investigation.

J. TBI's RESERVATION OF RIGHTS. There is no guarantee that a Respondent will be interviewed and no guarantee that an agreement will be awarded. TBI reserves the right to award an agreement contingent upon the selected Respondent's satisfactory completion of all conditions. This RFP constitutes only an invitation to prepare and submit a Proposal and is not a request for a competitive bid.

TBI reserves the right to reject any and all Proposals; to waive any informalities or irregularities in any Proposal received; to waive any requirement of the RFP documents as to the submitting procedure; to revise the RFP prior to the time for final submission of written Proposals or to revise the RFP documents at any time; to withdraw this RFP at any time; to extend the time for submittal of Proposals; to conduct or not conduct interviews; to reschedule interviews scheduled.

TBI reserves the right to evaluate the qualifications of the Respondent, based on experience and past performance, technical ability, suitable and appropriate credentials, and the overall capability of the company to perform the required scope as it deems in its best interest. TBI reserves the right to request clarifications on all associated items as part of its evaluation prior to contract award. This solicitation is not a commitment to contract, a promise nor an authorization to purchase required resources, nor does it authorize commencement of any order or project.

TBI reserves the right to award an agreement on the basis of Proposals submitted or to negotiate with the Respondent found to offer the best Proposal, at TBI's option. By submission of its Proposal, each Respondent agrees to be legally bound thereby if its Proposal is accepted by TBI. TBI shall not be obligated to respond to any Proposal submitted nor shall it be legally bound in any manner whatsoever by the receipt of any Proposal.

The Scope of Services set forth in Part 1 of this RFP is a proposed Scope of Services for the agreement that TBI intends to execute pursuant to this RFP process. Respondents should note that TBI reserves the right to modify the Scope of Services during agreement negotiations with the selected Respondent. Any and all agreements arising out of a Proposal submitted hereunder (including any negotiations that follow) shall

not be binding on TBI, its officers, employees, or agents unless duly approved and executed by TBI in accordance with TBI's policies and applicable laws.

K. CONFIDENTIALITY OF PROPOSAL. All documents submitted in connection with this RFP may be subject to disclosure in accordance with the California Public Records Act (Cal. Gov. Code §6250, et seq.), as TBI is a contractor and agent of the Authority, which is a public entity. Proposals will remain confidential until TBI has concluded negotiations with the successful Respondent but may be released before final approval by TBI (*see Michaelis, Montanari & Johnson v. Superior Court (2006) 38 Cal.4th 1065*). Proposals will become the property of TBI upon receipt. The Respondent must identify, in writing on such documents, all copyrighted material, trade secrets or other proprietary information that the Respondent claims are exempt from disclosure pursuant to the California Public Records Act. The Respondent claiming such an exemption must also state in its Proposal that, "The Respondent agrees to indemnify and hold harmless TBI, the Authority, and their respective officers, officials, managers, employees, agents, and volunteers (collective, "Indemnitees"), from any claims, liability or damages, including reasonable attorney's fees and court costs, against the Indemnitees and to defend any actions brought against the Indemnitees for its refusal to disclose such material, trade secrets or other proprietary information to any party."

L. INDEMNIFICATION OF TBI and the Authority. The Respondent agrees to defend, indemnify, and hold harmless TBI, the Authority, and their respective officers, officials, directors, employees, agents, and volunteers for any claims of copyright, patent or trademark infringement arising out of, caused directly or indirectly by the acts or omissions of the Respondent in relation to this RFP and the proposal.

M. COSTS OF RESPONDING TO RFP. Each party responding to this RFP shall bear all of its own costs and expenses, direct and indirect, associated with or related to any action taken in response to this RFP, and neither TBI nor the Authority will be responsible in any manner for such costs and expenses. Proposals, including all drawings, plans, photos, and narrative material, shall become the property of TBI upon receipt. TBI and the Authority shall have the right to copy, reproduce, publicize, or otherwise dispose of each Proposal in any way that they select. TBI and the Authority shall be free to use as its own, without payment of any kind or liability therefore, any idea, scheme, technique, suggestions, layout, or plan received during the RFP process.

Part 8. ATTACHMENTS

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Attachment A – Business Organization Statement

Business (or Individual) Legal Name: (Exactly as it is to appear on the Agreement)

Name and Title: (of individual authorized to execute the Agreement on behalf of Respondent)

Agreement Mailing Address: City:
State: Zip:

Telephone Number: Email:

Business Type, if applicable, include State where incorporated, (i.e., a California Corporation, a
Nevada Limited Partnership, a Sole Proprietor, etc.).

If using a fictitious business name ("DBA") state name and provide evidence of Cal. Bus. & Prof.
Code §17900 *et seq.* compliance:

Addenda: By my signature below I acknowledge receipt of all addenda, if any.
State the date of the Addenda, if any, you have received:

_____

Debarment: Have you or your firm ever been debarred from doing business with any government

entity? **Yes**_____ **No**_____

If the answer is "YES," please provide information regarding each debarment by listing on an attached paper the following information; (1) debarring government entity; (2) dates of debarment; and, (3) reason of debarment.

[SIGNATURES ON NEXT PAGE]

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Signature: _____ Title: _____

Print Name: _____ Date: _____

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Attachment B – Affidavit of Non-Collusion

AFFIDAVIT OF NON-COLLUSION TO ACCOMPANY PROPOSAL

State of_____)

County of_____)

_____[NAME OF AFFIANT], being first duly sworn, deposes and states:

That he/she is _____[TITLE] of_____[RESPONDENT]

and submits herewith the attached Proposal to TBI Airport Management, Inc.; that the Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation; that the Proposal is genuine and not collusive or a sham; that the Respondent has not directly or indirectly induced or solicited any other Respondent to put in a false or sham Proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Respondent or anyone else to put in a sham Proposal, or that anyone shall refrain from proposing; that the Respondent has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Proposal price of the Respondent or any other Respondent, or to fix any overhead, profit, or cost element of the proposed price, or of that of any other Respondent, or to secure any advantage against the public body awarding the Agreement of anyone interested in the proposed Agreement; that all statements contained in the Proposal are true; and, further, that the Respondent has not, directly or indirectly, submitted his/her/its proposed price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto; that Respondent has not paid, and will not pay, any fee to any corporation, partnership, company association, organization, or to any member or agent thereof, to effectuate a collusive or sham Proposal. Respondent further swears under penalty of perjury that all information in this Proposal and this Affidavit is correct.

TBI
AIRPORT MANAGEMENT, INC.

Dated:_____, 20___.

_____
Signature of Affiant

Subscribed and sworn to (or affirmed) before me on this ____day of_____, 20__

_____
Notary Public

Place seal here.

WARNING: Proposals will not be considered unless this Affidavit is fully executed before a Notary Public.

STAFF REPORT PRESENTED TO THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY AUGUST 17, 2020

RESPONSE TO SOUTHERN SAN FERNANDO VALLEY AIRPLANE NOISE TASK FORCE RECOMMENDATIONS

SUMMARY

Staff seeks the Commission's authorization for the Executive Director to send the Southern San Fernando Valley Airplane Noise Task Force ("Task Force") the attached letter in response to the Task Force's five recommendations that are specific to the Authority.

BACKGROUND

Last August, the Authority and Los Angeles World Airports ("LAWA") jointly formed the Task Force to help address community concerns regarding noise generated by aircraft departures from Hollywood Burbank Airport and Van Nuys Airport. Over the course of ten months, the Task Force held seven meetings, the last of which was split over two evenings on May 6th and May 7th. On May 28th, the Task Force sent its recommendations to the Authority, LAWA, the Federal Aviation Administration, U.S. Customs and Border Protection, and Congressional officials

As noted during the community noise concerns agenda item at the Commission's July 20th meeting, five of the Task Force's sixteen recommendations are specific to the Authority. Staff and legal counsel have drafted the attached response letter for the Commission's consideration.

RECOMMENDATION

Staff recommends that the Commission authorize the Executive Director to send the attached letter to the Task Force.

EXHIBIT

A. Proposed Response Letter

EXHIBIT A

August 17, 2020

Honorable Emily Gabel-Luddy
Chair, Southern San Fernando Valley Airplane Noise Task Force
City Council Member, City of Burbank
275 East Olive Avenue
Burbank, California 91502

Honorable Paul Krekorian
Vice Chair, Southern San Fernando Valley Airplane Noise Task Force
City Councilmember, City of Los Angeles
200 North Spring Street Room 435
Los Angeles, California 90012

Via Email; Original via U.S. Mail

Re: Noise Task Force Recommendations

Dear Chair Gabel-Luddy and Vice Chair Krekorian:

The Burbank-Glendale-Pasadena Airport Authority (BGPAA), owner and operator of the Bob Hope Airport (commonly known as Hollywood Burbank Airport), is in receipt of Chair Gabel-Luddy's May 28, 2020 correspondence transmitting the recommendations of the Southern San Fernando Valley Airplane Noise Task Force. I am writing to thank the Task Force for the significant work that led to the recommendations and to provide BGPAA's responses to the five items that are specific to our agency.

***

Recommendation 4

Conduct a study to determine how to obtain the lowest noise levels from aircraft departures from Hollywood Burbank Airport (BUR) Runway 15 and Van Nuys Airport (VNY) Runway 16R in the South San Fernando Valley communities through increased climb gradients, noise abatement departures profile (NADP) procedures, de-rated takeoff procedures, or a combination of the three alternatives.

2627 Hollywood Way • Burbank, California 91505 • (818) 840-8840 • Fax: (818) 848-1173

Fernando Valley communities. The NCPs will specifically consider preferential runway use programs in a coordinated approach at both airports to determine whether more northerly flow provides noise benefits. The NCP at BUR will also analyze Runway 33 arrivals to limit the use of the flight path some operators use to arrive over the Santa Monica Mountains.

Responsible Entities: Burbank-Glendale-Pasadena Airport Authority and Los Angeles World Airports

BGPAA Response: As previously noted, BGPAA intends to undertake a new Part 150 study once there has been sufficient operational and economic recovery from the COVID-19 pandemic. That study will include updated noise exposure maps.

Recommendation 15

Create a Citizen's Advisory Committee at Hollywood Burbank Airport (BUR) to address community concerns throughout the San Fernando Valley.

Responsible Entity: Burbank-Glendale-Pasadena Airport Authority

BGPAA Response: BGPAA is currently evaluating issues associated with the creation of a Citizen's Advisory Committee. The issues being considered include size, membership selection, function, and duration. BGPAA anticipates that a final determination will be made by the end of the year and will provide an update at that time.

***

In closing, I wish to reiterate that BGPAA appreciates the Task Force's efforts to identify measures that can help mitigate airplane noise impacts in the Southern San Fernando Valley region. This letter is the start, not the end, of BGPAA's response to the Task Force's recommendations.

Sincerely,

Frank R. Miller
Executive Director

cc: Commissioners
Raquel Girvin, Regional Administrator, Federal Aviation Administration Western-Pacific Region
Justin Erbacci, Chief Executive Officer, Los Angeles World Airports

STAFF REPORT PRESENTED TO THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY AUGUST 17, 2020

COMMENT LETTER FOR CALIFORNIA HIGH-SPEED RAIL AUTHORITY BURBANK TO LOS ANGELES PROJECT SECTION DRAFT ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL IMPACT STATEMENT

SUMMARY

Staff seeks authorization from the Commission for the Authority General Counsel's office to send the California High-Speed Rail Authority (CHSRA) the attached comment letter on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Burbank to Los Angeles Project Section.

BACKGROUND

In May 2020, the CHSRA issued a Draft EIR/EIS for the Burbank to Los Angeles Project Section of its proposed high-speed rail system. The public comment period has been extended several times and the deadline for submission of comments now is August 31, 2020. Attached as Exhibit A is a draft comment letter prepared by Staff and the Authority General Counsel's office for the Commission's consideration. Eco-Rapid Transit and the City of Burbank have already submitted comment letters, and copies of those letters are respectively attached as Exhibit B and Exhibit C.

RECOMMENDATION

Staff recommends that the Commission authorize the Authority General Counsel's office to send the attached comment letter to the CHSRA.

EXHIBITS

A. Proposed Comment Letter
B. Eco-Rapid Transit Comment Letter
C. City of Burbank Comment Letter

ECO-RAPID TRANSIT

Eco-Rapid Transit, formerly known as the Orangeline Development Authority, is a joint powers authority (JPA) created to pursue development of a transit system that moves as rapidly as possible, uses grade separation as appropriate, and is environmentally friendly and energy efficient. The system is designed to enhance and increase transportation options for riders of this region utilizing safe, advanced transit technology to expand economic growth that maximizes ridership in Southern California.
The Authority is composed of the following public agencies:

City of Artesia
City of Bell
City of Bell Gardens
City of Cudahy
City of Downey
City of Glendale
City of Huntington Park
City of Maywood
City of Paramount
City of South Gate
Burbank-Glendale-Pasadena Airport Authority

Chair
Karina Macias
Mayor
City of Huntington Park

Vice-Chair
Ali Sajjad Taj
Mayor
City of Artesia

Secretary
Sean Ashton
Councilmember
City of Downey

Treasurer
Vrej Agajanian
Council Member
City of Glendale

Internal Auditor
Jose R. Gonzalez
Mayor
City of Cudahy

Executive Director
Michael R. Kodama

General Counsel
Teresa L. Highsmith

Ex-Officio
William Rawlings
City Manager Representative

July 30, 2020

Mr. Brian P. Kelly
Chief Executive Officer
California High Speed Rail Authority
355 South Grand Avenue, Suite 2050
Los Angeles CA 90071

Re: California High Speed Rail Authority, Burbank to Los Angeles Project Section, Draft EIR/EIS Comments

Dear Mr. Kelly:

Eco-Rapid Transit respectfully is submitting its comments regarding California High Speed Rail Authority's Burbank to Los Angeles Project Section EIR/EIS. Eco-Rapid Transit is a Joint Powers Authority with 11 members (10 cities and the Burbank-Glendale-Pasadena Airport Authority) who have formed the Authority to improve transportation and connectivity to benefit our member cities. Eco-Rapid Transit is in support of high-speed rail for this project section, if CHSRA addresses significant environmental issues.

- Construction of the proposed alignment may impact Hollywood Burbank Airport operations. It is vital that CHSRA work closely with the Hollywood Burbank Airport and the FAA to prevent significant impacts to structures, taxiways or runways.

- The high-speed rail project will have significant impacts on existing businesses in the station areas. CHSRA must update and revise its plan to complement rather than displace or outright eliminate existing businesses along the route and in station areas. This includes Hollywood Burbank Airport and the station area under development. CHSRA should plan a high-speed rail transit system that enhances and supports the Airport and expands local economic opportunities in Burbank and Glendale. CHSRA can revise the EIR/EIS to reflect these goals and objectives in station areas; create community hubs and create jobs and revenues for the State.

- Although the CHSRA EIR references the Airport Ground Access Study and the Airport/Burbank Transit Oriented Development (TOD) Plan, the proposed CHSRA Airport Station is in conflict with that plan. The DEIR Hollywood Burbank Airport Station Plan is a 46-acre, 3,200 space surface parking lot. As designed, the Station ignores the principles or objectives of transit-oriented development opportunities contemplated as art of the current development in the station area. Thew DEIR station proposal appears to have been made with no real interface with the Airport or adjacent mass transit. The DEIR station design conflicts with CHSRA station planning objectives and does not enhance or create a "station community." The Station Plan displaces and eliminates existing businesses without a strategy to enhance or replace existing businesses in the Station area. The CHSRA Station Plan must build upon the Airport Ground Access Study and the Airport/Burbank TOD Plan (Link Burbank).

Eco-Rapid Transit, formerly known as the Orangeline Development Authority, is a joint powers authority (JPA) created to pursue development of a transit system that moves as rapidly as possible, uses grade separation as appropriate, and is environmentally friendly and energy efficient. The system is designed to enhance and increase transportation options for riders of this region utilizing safe, advanced transit technology to expand economic growth that maximizes ridership in Southern California.
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Mayor
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Vice-Chair
Ali Sajjad Taj
Mayor
City of Artesia

Secretary
Sean Ashton
Councilmember
City of Downey

Treasurer
Vrej Agajanian
Council Member
City of Glendale

Internal Auditor
Jose R. Gonzalez
Mayor
City of Cudahy

Executive Director
Michael R. Kodama

General Counsel
Teresa L. Highsmith

Ex-Officio
William Rawlings
City Manager Representative

- CHSRA describes this project section as a connection between two key multi-modal transportation hubs, the Hollywood Burbank Airport and Los Angeles Union Station. Yet, the CHSRA DEIR/DEIS provides no plan to interface with Hollywood Burbank Airport. The DEIR/DEIS acknowledges that the Station area will be a giant surface parking lot with no planning related to how high-speed rail can complement or enhance existing transportation options, airport operations (different types of flights), and create local economic opportunities rather its focus is on replacing airline flights. If the goal is to work with and enhance local connectivity, the EIR/EIS proposes significant impacts to the Airport and local business and residential community without the desired connection or potential to create local community and economic benefits.

- The DEIR/DEIS must address connectivity to the Airport's Regional Intermodal Transit Center (RITC), the Metrolink Burbank Airport Antelope Valley Line Rail Station and the Metrolink Burbank Airport Ventura Line Rail Station which have existing connections to the Los Angeles Regional Rail and transit options. Passengers also use transit options from the Airport to access the North Hollywood Metro Rail Station.

- How is CHSRA reducing and mitigating significant local traffic issues related to the Airport station area? We believe that as proposed, the CHSRA surface parking lot Station Plan will only create additional traffic and become an origin station that will have significant local community and business impacts. The DEIR/DEIS needs to be updated to include and build upon local and regional transportation, community and economic goals and objectives.

- CHSRA has not provided enough information regarding how it plans to mitigate construction and traffic impacts during project implementation.

- CHSRA has not indicated how it will work with the City of Glendale to ensure the proposed route does not negatively impact adjacent communities and the City's concerns related to public safety, access issues and utilities.

- CHSRA has not discussed how it will consult with Metro to ensure that West Santa Ana Branch (WSAB) Line retains access Union Station. This needs to be a priority.

Eco-Rapid Transit acknowledges that the Statewide Program (Tier 1) EIR/EIS was completed in 2005 as the first phase of a tiered environmental review process for the proposed California High-Speed Rail (HSR) System planned to provide a reliable high-speed electric-powered rail system that links the major metropolitan areas of the state and that delivers predictable and consistent travel times. The system and Burbank to Los Angeles Project Section should provide an interface with commercial airports, mass transit, and the highway network, relieving capacity constraints of the existing transportation system. This EIR/EIS does not provide this critical interface and rather relies upon an outdated surface parking plan that creates significant local community impacts and contributes nothing to enhance the multi-modal transportation system. It is short sighted and misses a golden opportunity.

16401 Paramount Boulevard ▪ Paramount ▪ California 90723 · (562) 663-6850 · www.eco-rapid.org

ECO-RAPID TRANSIT

Eco-Rapid Transit, formerly known as the Orangeline Development Authority, is a joint powers authority (JPA) created to pursue development of a transit system that moves as rapidly as possible, uses grade separation as appropriate, and is environmentally friendly and energy efficient. The system is designed to enhance and increase transportation options for riders of this region utilizing safe, advanced transit technology to expand economic growth that maximizes ridership in Southern California.
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Secretary
Sean Ashton
Councilmember
City of Downey

Treasurer
Vrej Agajanian
Council Member
City of Glendale

Internal Auditor
Jose R. Gonzalez
Mayor
City of Cudahy

Executive Director
Michael R. Kodama

General Counsel
Teresa L. Highsmith

Ex-Officio
William Rawlings
City Manager Representative

Eco-Rapid Transit appreciates this opportunity to provide comments on the EIR/EIS. You can contact us at (562) 663-6850.

Sincerely,

Michael R. Kodama
Executive Director

Cc: Eco-Rapid Transit Board of Directors

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August 31, 2020

VIA ELECTRONIC MAIL & U.S. MAIL

California High-Speed Rail Authority
Attn: Burbank to Los Angeles Draft EIR/EIS Comment
355 S. Grand Avenue, Suite 2050
Los Angeles, CA 90071
(Burbank_Los.Angeles@hsr.ca.gov)

Re: Comments on Draft Environmental Impact Report/Environmental Impact Statement for Burbank to Los Angeles Project Section of the California High-Speed Rail Project

Dear Members of the California High-Speed Rail Authority:

Our office represents the Burbank-Glendale-Pasadena Airport Authority (BGPAA), which operates the Hollywood Burbank Airport (Airport). We write to provide comments on the Draft Environmental Impact Report/Environmental Impact Statement (EIR) (State Clearinghouse No. 2014071073) for the Burbank to Los Angeles Project Section of the California High-Speed Rail Project (Project). The Project spans approximately 14 miles and would provide high-speed rail service between the Burbank Airport Station in Burbank and Los Angeles Union Station in Los Angeles. BGPAA's interests in this matter include ensuring that the Project does not adversely impact the safety and security of the Airport's operations or adversely affect the Airport's visitors, employees, and tenants.

As discussed below, the Draft EIR fails to comply with the requirements of the California Environmental Quality Act (CEQA) (Pub. Res. Code § 21000, *et seq*.) and its implementing Guidelines (14 Cal. Code Regs § 15000, *et seq*.) The Draft EIR fails to fully analyze, disclose, and mitigate potential impacts to the Airport, including to the safety of its operations. Based on these defects and inadequacies in the Draft EIR, BGPAA requests that the California High-Speed Rail Authority (CHSRA) suspend any further consideration of the Project until a Draft EIR that fully complies with CEQA is prepared and recirculated for public review and comment. BGPAA objects to any further CHSRA action on the Project until the necessary environmental review has been completed.

CITY OF BURBANK

OFFICE OF THE CITY COUNCIL

July 31, 2020

California High Speed Rail Authority
Attn: Burbank to Los Angeles Draft EIR/EIS Comment
355 S. Grand Avenue, Suite 2050
Los Angeles, CA 90071

RE: City of Burbank Comments on Draft Environmental Impact Report / Draft Environmental Impact Statement for the California High Speed Rail System – Burbank to Los Angeles Section

Dear Members of the Authority,

The Burbank City Council wants to thank you for allowing the City to comment on the Draft Project Level Environmental Impact Report / Draft Environmental Impact Statement (the DEIR/DEIS) for the Burbank to Los Angeles segment of the California High Speed Train System. As the City of Burbank is located along the proposed corridor and would have a station located within the city, we are committed to ensuring that the proposed project is constructed in a manner that meets state and regional transportation objectives while ensuring that the interests of Burbank's residents and businesses are protected from environmental impacts caused by its construction and operation. The City of Burbank has held extensive, ongoing communication with the Authority as this project has progressed from the Program EIR/EIS phase in 2004, two NOP periods in 2007 and 2014, the development of project Business Plans in 2016, and participation in several Alternatives Analyses. With the release of the DEIR/DEIS, the City would like to submit the following comments to ensure that the Project's environmental impacts are fully analyzed, considered, and mitigated.

<u>Insufficient Range of Project Alternatives Analyzed</u>

The DEIR/DEIS limits the alternatives analysis to corridor and alignment alternatives but fails to analyze reasonable alternative track profiles or cross sections within the preferred alignment that could satisfy the project objectives and reduce or avoid many significant impacts. The City of Burbank appreciates that the Authority is no longer considering proposed aerial structure alignments that would have run along San Fernando Boulevard from the northern city limits to the Downtown Burbank Metrolink Station. These aerial alignments would likely have introduced significant noise, vibration, and aesthetic impacts, and would require extensive property acquisitions along San Fernando Boulevard. An aerial structure running laong San Fernando Boulevard would also have required a Burbank Airport Station location that was disconnected from the Burbank Airport's proposed relocated Passenger Terminal and would have required constrained ground transportation connections.

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Nonetheless, the City of Burbank believes that the single Project Build Alternative does not present an adequate range of alternatives required by both CEQA and NEPA to fully analyze the proposed project. The Project Build Alternative does not include a reasonable range of cross section and alignment alternatives to address potential traffic, construction, noise, vibration, and land use impacts. The Project Build alternative is proposed to be constructed mostly at grade and would therefore further divide established communities. It would greatly expand the footprint of the existing rail corridor in Downtown Burbank and further separate the Downtown Burbank Metrolink Station from existing and potential housing opportunities in Downtown Burbank. It would introduce significant and unavoidable noise and vibration impacts to established single family residential neighborhoods, and further separates communities located along the Union Pacific (UPRR) / Metrolink Coast Line by failing to grade separate existing conventional railroad tracks as part of the project. It fails to study a range of potential mitigation measures to several environmental effects. The inadequacy of the DEIR/DEIS to identify impacts and mitigations is documented in the remain der of this letter. But, specifically, the DEIR/DEIS should include a reasonable range of project alternatives that encompass the following features:

- Include a project alternative or mitigation measure that extends the tunnel and trench sections further east of the planned daylighting location near Hollywood Way to 1) Victory Place and 2) south of Downtown Burbank near the I-5 rail grade separation at Providencia Avenue.
- Include a project alternative or mitigation measure that places conventional tracks adjacent to the proposed high speed tracks in the same trench or tunnel
- Include a "blended" project alternative that places high speed trains and conventional trains on the same set of tracks by electrifying the conventional trains to reduce the project's footprint and environmental impacts to Burbank
- Include a reduced station footprint design alternative that reduces private property acquisition, surface parking area, and associated urban heat island effects.

Finally, NEPA and the Federal Railroad Administration Procedures for Considering Environmental Impacts applicable to this DEIR/DEIS require that impacts related to projects and alternatives be fully discussed under each area of impact in the NEPA analysis. This requirement was clearly not followed, as there is only one build alternative presented and analyzed. The DEIR/DEIS does not sufficiently analyze the project's potential significant impacts, and potential mitigation measures, by failing to present a reasonable range of project alternatives, such as increased tunneling, which could enhance the environmental quality or avoid some or all adverse impacts of the proposed action.

Transportation Analysis is Internally Inconsistent

The DEIR/DEIS identifies LOS congestion impacts due to both construction and operation of the proposed project, based on LOS significance thresholds. It also identifies various feasible mitigation measures, and identifies impacts to be significant and unavoidable if mitigations are not implemented. The City of Burbank takes issue with how this analysis was conducted and believes that the DEIR/DEIS does not reveal the full scope of potential congestion impacts. The reasons for this are documented in the comments below. However, the DEIR/DEIS also includes high-level statements that indicate that LOS is no longer considered an impact under CEQA per the implementation of SB-743, and therefore these congestion effects caused by the project are not significant impacts. This

conclusion is internally inconsistent with other portions of the DEIR/DEIS which state that these congestion effects are impacts. The DEIR/DEIS should be updated to remove this internal inconsistency because it is not clear which transportation significance thresholds are being used for different parts of the document. It is also unclear if certain portions of the transportation analysis apply only to NEPA and not to CEQA, or how certain impacts and mitigation measures might only be applied to one or the other. Further, while LOS and vehicle delay are no longer considered transportation impacts under CEQA, projects that cause intersection LOS to exceed the level specified in the Burbank 2035 General Plan may cause a significant land use impact, because this congestion is contrary to the goals and policies of the Burbank2035 General Plan. The DEIR/DEIS should be updated to reflect how increased congestion and delay may impact Burbank's General Plan.

Transportation Analysis Assumptions, Methodology, and Thresholds are Inadequate

Traffic forecasts utilize the SCAG 2008 RTP/SCS for 2015 baseline conditions, and SCAG 2012 RTP/SCS for opening year 2029 conditions. The SCAG RTP/SCS has been updated three times since 2008 (in 2012, 2016 and 2020) and therefore the assumptions used to develop the baseline and horizon year traffic forecasts are relying on significantly outdated land use and transportation assumptions. Further, it is unclear why two versions of the SCAG RTP/SCS were used for the transportation analysis. Specifically, the 2008 and 2012 RTP/SCS do not incorporate the land use and transportation assumptions in the Burbank2035 General Plan. Therefore, the analysis of impacts and mitigation measures that rely on these old SCAG RTP/SCS versions could understate these impacts and mitigations. The DEIR/DEIS should be updated to include the 2016 or later SCAG RTP/SCS assumptions, or the City of Burbank's local land use and transportation assumptions should be used for transportation analysis in the City of Burbank.

The report lists the following street segment capacities (Table 3.2-8):

- Two-lane road 26,400 to 30,000 vehicles per day (vpd)
- Four-lane road 65,400 to 72,000 vpd
- Five-lane road 93,600 vpd
- Six-lane road 118,200 vpd

These segment capacities are significantly higher than are typically used in a transportation analysis for urban roadways. These capacities cannot be justified for the streets in Burbank given the number and spacing of traffic signals located along the City's major corridors. Because the capacity assumptions are so high, the DEIR/DEIS under-reports the number of locations where project traffic increases congestion to levels that are inconsistent with the Burbank2035 General Plan because the DEIR/DEIS assumes that many more vehicles can be accommodated on a given street segment than can actually be given the presence of closely-spaced signalized intersections. It is likely that the locations on Table 3.2-14 that exceed the LOS threshold are under-representative of the actual locations that will see significantly-increased congestion as part of the project. In the City's 2014 Notice of Preparation comment letter, it was requested that the Authority consult with the City on the applicable significance thresholds to use for the transportation analysis in the City of Burbank so that the analysis was consistent with the City's local standards. Therefore the DEIR/DEIS analysis is insufficient to determine if the project conflicts with local plans and policies addressing the roadway circulation system.

Page 3.2-32 of the DEIR/DEIS identifies a LOS significance threshold that is far less conservative than the significant impact criteria used by the City of Burbank (Table 3.2-2). The DEIR/DEIS does not directly disclose that it is using a more permissive LOS significance threshold than the thresholds used by all the local jurisdictions within the study area (Burbank, Glendale, Los Angeles). Because a permissive LOS significance threshold is used, the DEIR/DEIS is understating the number of locations where project traffic increases congestion to levels that are inconsistent with the Burbank2035 General Plan. The DEIR/DEIS should be updated to utilize congestion parameters that are closer to those used by the jurisdictions within the project study area. It is likely that the locations on Table 3.2-14 that exceed the LOS threshold are under-representative of the actual locations that will see significantly-increased congestion as part of the project. Therefore the DEIR/DEIS analysis is insufficient to determine if the project conflicts with local plans and policies addressing the roadway circulation system.

The study identifies that freeway off-ramps are significantly impacted if project traffic is expected to cause a ramp queue length to exceed the 95th percentile under the project build alternative when it is not exceeded under the no-project condition (Page 3.2-31). It is unclear if a project impact is identified for ramps that exceed the 95th percentile queue length under the no project condition and that condition is further exacerbated by the project build alternative. The report states that the project does not significantly impact any freeway ramps in the study area after conducting a "preliminary analysis." This is inconsistent with several traffic impact studies conducted by the City of Burbank. In particular, the I-5 SB ramp at Hollywood Way has been identified to be significantly impacted by several development projects as well as the Hollywood Burbank Airport Terminal Relocation EIR. The analysis does not provide sufficient information to determine if the project substantially increases hazards caused by stopped vehicles backing onto the mainline freeway. The DEIR/DEIS should be revised to include a more detailed analysis of ramp queues at I-5 / Hollywood Way, I-5 / Buena Vista, I-5 / Empire Avenue, and I-5 / Burbank Blvd.

The DEIR/DEIS lists transit services near the Burbank Airport Station that were not current as of 2019, which is listed in the footnote of Table 3.2-11. In particular, there Empire-Downtown route was eliminated in 2018 and was replaced by a circulator service that operated beginning in May 2018 until November 2019. Currently there is no BurbankBus Service serving the existing Burbank Airport North Metrolink Station which is the most proximate rail station to the proposed High Speed Rail Station. In addition, the DEIR/DEIS omits the Metro 165 service, which provides frequent east-west connectivity to the Airport Station area via the Burbank Airport Regional Intermodal Transportation Center.

Construction Impacts are not Fully Disclosed or Analyzed

The impacts of construction are measured against Year 2015 conditions. However, construction is not likely to take place until Year 2022 to 2025 or later. Thus, the base condition for the assessment of construction impacts should be updated to a more appropriate year that is closer to the actual construction. The DEIR/DEIS therefore does not adequately identify the potential for significant construction impacts.

The DEIR/DEIS Section 3.2.6.3 refers to the separate Transportation Technical Report for the construction road closures that would be required for the Project. That report identifies that road closures would be needed on the following streets:

- Buena Vista Street at Vanowen Street
- Burbank Boulevard at I-5
- Empire Avenue west of Buena Vista Street
- Victory Place north of Burbank Boulevard

The DEIR/DEIS and the accompanying Technical Report identifies several intersections where LOS increases to E or F during project construction, due to necessary detours needed for the project's construction. However, the manner in which this detour traffic was applied to the street network to identify construction impacts is not documented in the DEIR/DEIS. The number of street closures needed for the project is significant, and the DEIR/DEIS assumes that all street closures will occur at once (Page 3.2-60). Therefore, all of the City's north/south arterial roadways west of I-5 could be closed at once during project construction (Victory Place, Buena Vista Street, Hollywood Way), and two major east-west streets that cross I-5 will be closed at once (Empire Avenue and Burbank Boulevard). These simultaneous closures would cause extreme and unacceptable construction congestion delay and would impact the delivery of emergency services. The construction impact analysis does not clarify if multiple street closures were considered, or if closure phasing was considered, or if other means to sequence construction to minimize delays was included in the analysis. As a result, the DEIR/DEIS does not adequately study and address construction impacts.

The DEIR/DEIS claims that by introducing several Impact Avoidance and Mitigation Features (IAMF) to the project, the project will not have an impact on Circulation and Emergency Access. The project features considered to offset the construction impacts identified in the DEIR/DEIS consist of the project contractor developing traffic management plans, detour plans, outreach plans, staggered construction shifts, and minor roadway restriping. The DEIR/DEIS also proposes a blanket IAMF that states emergency access will be maintained at all times, but does it not document how this will occur. The DEIR/DEIS must explicitly identify how emergency access will be maintained because the nature of the road closures needed for construction (e.g. those roads that cross existing rail lines or freeways) means that reasonable detour routes to preserve emergency access may not be feasible due to the length of these required detours. Therefore, it is likely that a significant construction impact will be caused by the project. Because of this, the DEIR/DEIS did not consider an adequate range of additional mitigation measures. Additional mitigation measures that were not considered include explicitly identifying a construction phasing program to avoid multiple road closures, identifying alternative means of construction to keep roadways partially opened during construction, and providing alternative means for local agencies to redeploy their police, fire, and emergency services to account for multiple extended road closures. These should not be IAMFs but should be mitigation measures so that they may be included in the Mitigation Monitoring and Reporting Program. Further, the feasibility of each measure must be analyzed, as required by CEQA.

Table 3.2-16 of the main DEIR/DEIS only identifies a street closure at Hollywood Way near Empire Avenue, which is ostensibly needed to construct the project tunnel section between the proposed Burbank Airport Station and the existing UPRR/Metrolink Coast Line railroad tracks. However, the other street closures identified in the Technical Report (Buena Vista, Empire, Victory Place, Burbank Boulevard), are not reflected in this Table. For instance, the closure at Hollywood Way appears to assign detour traffic to intersections along Buena Vista Street, but this roadway is also subject to a street closure. This inconsistency in DEIR/DEIS suggests that the sequencing of multiple closures was

not addressed in the analysis, or that the assumptions used for these closures is not properly documented. Therefore the project's construction impacts are not adequately studied.

The project 15 percent conceptual design plans provided by the Authority require the reconstruction and re-profiling of the Burbank Boulevard / Victory Boulevard intersection to raise the roadway profile of the Burbank Bridge, which must also be demolished and reconstructed. This will likely cause full street closures of the three arterials that lead into the City's "5-points" intersection at this location. These likely closures are not identified in the DEIR/DEIS.

Figure 3.2-3 illustrates the street detour routes in Burbank needed to construct the project. These detour routes are not consistent with the scope of the closures required to construct the project. For instance, the detour route needed for project construction at Hollywood Way is routed to Buena Vista Street, which itself will be closed for construction. Several detour routes lead into the Burbank Blvd / Victory Blvd / Victory Place "5-Points" intersection, which will likely also need to be closed due to the reconstruction of the Burbank Boulevard Bridge. Also, several identified detour routes of major arterial streets are routed onto small collector roadways that are located in residential neighborhoods that will not be able to accommodate detour traffic (e.g. Mariposa Street, Thornton Avenue, Chandler Boulevard). This detour map also identifies a route between Empire Avenue and Victory Place, which is grade separated and has no direct access. The major inconsistencies and inadequacies of the proposed detour routes suggests that the construction impact analysis in the DEIR/DEIS is inadequate and does not properly identify construction impacts.

The DEIR/DEIS concludes that by introducing an IAMF for the contractor to limit construction traffic to specified detour routes, to minimize the movement of construction vehicles, and to repair pavement caused by construction, there will be no significant impact caused by construction. However, these measures should be included as mitigation measures so that they may be included in the Mitigation Monitoring and Reporting Program. The mitigation measure should identify the explicit mechanism whereby the Authority or the City may enforce the obligation for the contractor to abide by the mitigation measures and repair damaged streets. This could include requiring the contractor to be bound by permit conditions by the City of Burbank that guarantees the repair of roadways, providing a financial set-aside to repair damaged City infrastructure, or by requiring the repair or repaving of streets that will likely be damaged, particularly all streets that abut the proposed project construction footprint, and all detour routes. By including the mitigation measures as IAMFs, and by omitting an mechanism to enforce compliance by the contractor, the DEIR/DEIS does not adequately address construction impacts to city roadway infrastructure caused by construction.

<u>Mitigations to Transit and Active Transportation Network Impacts are not Fully Documented</u>

The DEIR/DEIS identifies that several transit and bicycle routes will be impacted by construction and identifies a general IAMF that includes developing a construction plan to address these disruptions. However, given the nature of the closures and lengthy detours required, the DEIR/DEIS does not demonstrate that this IAMF is feasible. The DEIR/DEIS should explicitly identify a plan for how to detour transit and cyclists during construction to ensure that the project does not cause a significant construction impact.

The DEIR/DEIS concludes that the project would permanently disrupt a 0.28 mile segment of the San Fernando Bikeway between Lake Street and the Downtown Burbank Metrolink Station. The San Fernando Bikeway is a regional Class I bikeway identified on the City of Burbank2035 General Plan, Bicycle Master Plan, and Complete Streets Plan. The project is currently funded and is in the design phase. The DEIR/DEIS proposes a mitigation measure to reroute the class I bike path onto Lake Street as a class II bike path between Burbank Boulevard and Cypress Avenue. This mitigation measure is inadequate because 1) Lake Street ends at a cul-de-sac just north of the Burbank Wye freight spur and does not close the gap in the San Fernando Bikeway caused by the project and 2) replacing a protected Class I facility with an in-street Class II bike lane facility does not adequately mitigate the disruption to the City's Class I bikeway network and is therefore incompatible with Burbank's local General Plan, Bicycle Master Plan, and Complete Streets Plan. An alternative mitigation measure that should be considered in the DEIR/DEIS is to construct a Class IV raised, protected Bike Lane along Victory Boulevard in existing sidewalk right of way between Lake Street and Cypress Avenue, and a Class IV raised, protected two-way cycle track on the north side of Cypress Avenue between Victory Boulevard and the Burbank Western Channel. This alternative mitigation measure would be consistent with the City's local plans. This comment was also discussed during the City's 4(F) Consultation with the High Speed Rail Authority on June 24, 2020.

The DEIR/DEIS concludes that the project would temporarily disrupt the planned Chandler Bikeway Extension between Victory Boulevard and the Burbank Western Channel. The Chandler Bikeway Extension is planned to be constructed as a Class I bikeway between Mariposa Street and point midway between Mariposa Street and Victory Boulevard, where it will transition to raised, protected Class IV bikeway. The reason the proposed Chandler Bikeway transitions to an in-street facility is because a Class I bikeway would conflict with the existing Union Pacific Railroad freight spurs near Victory Boulevard. As part of the High Speed Rail Project, these freight spurs would be permanently removed. In concert with this removal, the project should reconstruct the Chandler Bikeway extension not as a Class IV facility but relocated as a separated, Class I bike path between Victory Boulevard and the Burbank Western Channel along the right of way acquired to remove the freight spurs. This would improve the City's Class I bike path network consistent with its Bicycle Master Plan and General Plan, and would provide a productive re-use of the right of way remaining after the freight spurs are removed for the High Speed Rail Project. This comment was also discussed during the City's 4(F) Consultation with the High Speed Rail Authority on June 24, 2020.

The DEIR/DEIS concludes that the project would permanently disrupt a small portion of the Burbank Channel Bikeway that is currently under construction. The permanent disruption is located where the bikeway intersections Flower Street at a rail bridge that is being repurposed for the Burbank Channel Bikeway Project. The disruption would block access between the bikeway and the Downtown Burbank Metrolink Station and would require a lengthy re-route of the facility on local streets. It would permanently disrupt an important link in the regional bikeway network by disconnecting the Burbank Channel Bikeway from the Downtown Metrolink Station and the Chandler Bikeway Extension. This would cause a significant impact because it would conflict with the Burbank Bicycle Master Plan, General Plan, and Complete Streets Plan. The project should ensure that the bikeway connection at Flower Street is re-routed or reconstructed as part of the project to ensure that the Class I bike path is maintained after construction.

Proposed Project Further Divides Established Neighborhoods and Permanently Eliminates Existing and Future TOD Opportunities

Proposed project would construct a high speed train through the City of Burbank via combination of tunnel, trench, and at-grade alignments. The alignment would occur both within existing transportation corridors as well as via construction of a new corridor. The project would expand the footprint of the existing rail transportation corridor through Downtown Burbank along the existing UPRR/Metrolink rail line between Victory Place and the Southern City Limits. The expansion of this transportation corridor, both in physical size as well as intensity of use, was not studied in the DEIR/DEIS. In particular, the proposed project would exacerbate and further divide the City of Burbank, particularly in Downtown Burbank. It would further divide the Downtown Burbank Metrolink Station from the core land uses of the Downtown. The Burbank2035 General Plan and Burbank Center Specific Plan both rely on the connection between the Downtown Burbank land uses to the Downtown Burbank Metrolink Station as a means to enhance and encourage non-motorized travel. Further, the City of Burbank is required to accommodate nearly 9,000 housing units as part of the latest Regional Housing Needs Assessment in order to help address the State of California's severe housing shortage. Given existing land use plans as well as planning efforts currently underway, most of this new housing will be located in Downtown Burbank, and will need to be connected to the Downtown Burbank Metrolink Station. The DEIR/DEIS does not disclose how the construction of a surface-grade high speed train will conflict with the City's local land use policies as well as the State of California's housing mandates. It does not identify the potential for the project to permanently disrupt planned housing development in Downtown Burbank. Therefore the DEIR/DEIS does not adequately address the potential land use impacts to the City of Burbank as well as conflicts with adopted plans and documents.

While the Project creates a new Transit Oriented Development (TOD) opportunity around the proposed Burbank Airport Station, it removes existing TOD opportunities around the existing Burbank Airport North and Downtown Burbank Metrolink Stations, which is not served by the project. It removes significant amounts of private land around the existing station, particularly undeveloped land immediately to the west of the station, as well as lower-intensity industrial uses south of the station along Flower Street that have future potential to be developed as more intense TOD. The project will also reduce TOD opportunities throughout Downtown Burbank by further dividing the Downtown Metrolink Station from the rest of Downtown Burbank. The DEIR/DEIS It does not identify the potential for the project to permanently disrupt planned TOD development in Downtown Burbank.

The project proposes to create a series of surface parking lots around the proposed Burbank Airport Metrolink Station, which significantly reduces TOD opportunities around the station and encourages more local automobile traffic to access the station. The DEIR/DEIS should identify project features or mitigation measures that can encourage TOD and discourage automobile use around the station, including constructing parking that is underground or consolidated in structures to make more land available for TOD, situating the station portal and circulation so that there is more direct access to non-motorized transportation networks on Hollywood Way, and reinforcing the connection between the proposed station and the Burbank Airport terminal. The DEIR/DEIS does not address the project's likelihood to reduce TOD opportunities in the City of Burbank, which would be inconsistent with local plans and policies.

The project requires heavy trench and tunnel construction immediately adjacent to single and multi-family neighborhoods, particularly along Vanowen Street, Empire Avenue, Ontario Street, and the neighborhoods north of Victory Boulevard and east of Buena Vista Street. The DEIR/DEIS does not identify the potential for this construction activity to significantly impact these sensitive land uses. The DEIR/DEIS proposes general IAMFs to mitigate construction impacts, but these measures, as well as additional measures, should be identified as mitigations so that they may be included in the Mitigation Monitoring and Reporting Program.

The DEIR/DEIS does not adequately investigate a range of potential project alternatives or mitigation measures to offset significant land use impacts to surrounding land uses, or to mitigate permanent divisions of existing and established communities. The DEIR/DEIS should include an analysis of mitigation measures or project alternatives that consider placing more of the project below grade (in a trench or tunnel section). Incorporating this project feature or mitigation measure could reduce land use, noise, and vibration impacts to less than significant. By not including this range of project alternatives or mitigation measures in the DEIR/DEIS, the document does not fully disclose the environmental effects of the project.

The DEIR/DEIS should include an analysis of offsetting its effects on dividing the City of Burbank with project features that restore these divisions. For example, the project proposes to grade separate the High Speed Rail tracks at Buena Vista Street, but does not consider grade separating the immediately adjacent conventional rail tracks in the same grade separation. This would have the effect of offsetting the impacts caused by the project by improving the conditions of the adjacent conventional corridor. Similarly, the project proposes to construct a new grade separation at Victory Place, but does propose to reconstruct the adjoining 80-year old conventional rail grade separation nearby. The project should offset potential land use impacts that further divide established neighborhoods by consolidating these two rail lines into a single corridor that improves connectivity across the combined corridor.

The Project DEIR/DEIS does not adequately disclose the required condemnation of single family residences immediately adjacent to the project east of Buena Vista Street. These acquisitions could cause land use impacts by disrupting established residential neighborhoods. In addition, the project would result in the demolition and condemnation of the Avion project located at the proposed Burbank Airport station. The project would result in the potential loss of 1 million square feet of industrial space; 142,000 square feet of office space; and 15,475 sq. ft. of retail space. In addition, the project may result in the loss of improvements provided by the Avion project including shade trees, bike lanes, expanded pedestrian pathways, and parking for the adjacent Metrolink Station and other publicly accessible amenities.

Mitigations to Noise and Vibration Impacts are not Identified

The DEIR/DEIS identifies moderate and severe land use impacts (due to noise), noise impacts, and vibration impacts to residential properties located adjacent to the proposed project between Buena Vista Street and Victory Place. These are residential locations adjacent to a proposed trench section and proximate to the tunnel portal of the underground portion of the project near the Burbank Airport Station. The DEIR/DEIS identifies a general mitigation measure to implement program-wide noise mitigation guidelines to attempt to mitigate these impacts, including constructing sound walls, applying noise-reducing improvements to nearby homes, or acquiring noise easements

or condemnations of affected properties. However, the project does not consider other reasonable project features or mitigation measures, such as constructing portions of the alignment that impact sensitive residential land uses underground. For example, given the significant number of established residential uses immediately adjacent to the project between Hollywood Way and Victory Place, the DEIR/DEIS should analyze a project alternative or mitigation measure to extend the underground or below-grade alignment eastward from Hollywood Way to at least Victory Place. The project should also analyze if the application of specific measures in the Noise Mitigation Guidelines can mitigate the specific impacts identified in the DEIR/DEIS, and include these measures as mitigations in the Mitigation Monitoring and Reporting Program, rather than deferring mitigation to a future application of the guidelines on specific properties outside of the environmental review process. Because the DEIR/DEIS does not adequately analyze an appropriate range of alternatives or mitigation measures, it is inadequate in analyzing the potential noise and vibration impacts caused by the project.

The DEIR/DEIS does not consider planned future residential land uses identified in Downtown Burbank that will be located immediately adjacent to the project. This includes an approved residential project planned at 777 Front Street immediately adjacent to the proposed project, as well as mixed-use projects that are allowed in the Burbank Center Specific Plan in Downtown Burbank, where the project will be constructed at-grade. The DEIR/DEIS should analyze the effects of noise on existing and planned residential developments in Downtown Burbank that are adjacent to the at-grade section of the proposed project, and consider project alternatives that place the project below grade or underground through Downtown Burbank.

The DEIR/DEIS does not explain why there are no identified vibration impacts to existing land uses that will be located directly on top of the proposed underground tunnel section of the project between the Burbank Airport Station and the planned tunnel portal east of Hollywood Way.

Per section 3.4 Noise and Vibration, impacted structures may need vibration and displacement mitigation, and since the Olive Avenue Bridge and Magnolia Boulevard Bridge columns and supports are close to the new HSR rails, vibration generated by the rail system will have great impact and is a serious concern since the bridge railings are sub-standard and will need to be upgraded by this project to keep pedestrians on the bridges safe from increased vibrations and displacements caused by the rail system. Also, seismic retrofit of the bridges is highly recommended and should be completed prior to construction of the rail system. The City can provide the latest bridge inspection reports upon request. Given the age of the structures, the need to retrofit the bridges to accommodate High Speed Rail, and the project's land use impact by further dividing Downtown Burbank from it's primary transit center, the Authority should consider replacing both structures as part of the project and improving the crossings of both streets for all travel modes consistent with the City's Burbank2035 General Plan and Complete Streets Plan.

<u>Geology, Soils, Seismicity, and Paleontological Resources Analysis is Incomplete</u>

Page S-59 of the DEIR/DEIS, Section S.11 claims that the project does not cause significant impacts to Geology, Soils, Seismicity and Paleontological Resources. However, the liquefaction and fault trace map shows areas of the High Speed Rail within the said map zone. The DEIR/DEIS should substantiate the claim that the project does

not create significant seismic impacts despite being located within these fault and liquefaction areas.

Public Infrastructure Impacts must be Addressed in DEIR/DEIS, City is Responsible Agency

The proposed project will heavily impact significant roadway, sewer, storm drain, and other municipal infrastructure throughout the City of Burbank. The project may result in the loss of infrastructure at the Avion project including shade trees, bike lanes, expanded pedestrian pathways, and parking for the adjacent Metrolink Station. In addition to the comments provided above, detailed comments related to city infrastructure and traffic detour phasing is included as Attachment A.

The City of Burbank will be a Responsible Agency under CEQA for the project for all work that occurs within City public right of way. The project will also be subject to the City's permit requirements for any work that must occur within City right of way that could include the requirement to obtain an encroachment permit and/or excavation permit. The DEIR/DEIS should disclose that the project is subject to City of Burbank construction permit requirements and should include the requirement to obtain these permits as a mitigation measure (additional detailed permit comments included in Attachment A). Note that the City as a Responsible Agency may not be able to issue these required permits if the project results in significant and unavoidable impacts that are not properly disclosed and analyzed in the DEIR/DEIS. Also, as many city right of way are owned in fee, there may be additional temporary and permanent right-of-way impacts to City streets that are not addressed in the DEIR/DEIS.

The project should ensure that any impacts to the City's tree canopy be fully mitigated through replacement of trees in either City right-of-way or Project right-of-way. Any tree replacements should be coordinated with the City of Burbank to ensure consistency with its Street Tree Master Plan.

Public Utility Impacts and Mitigations not Fully Disclosed

Based on the information contained in the DEIR/DEIS as well as the 15 percent conceptual plans provided by the Authority, the proposed project could potentially impact many Burbank Water and Power (BWP) pressurized potable and recycled water mains along the proposed train's route on both the surface portion and the underground portion. The DEIR/DEIS should identify significant impacts to public water utilities and identify mitigation measures to offset those impacts, including:

- Water mains in conflict with the proposed projects shall be relocated while the existing mains remain active in order to provide uninterrupted service.
- The preferred method for water main relocation (while maintain existing mains in service) is the Jack & Bore method per Metrolink Engineering Standard #2201.
- The HSR Authority shall prepare the plans for BWP review and approval. All design and specifications shall be per BWP and AWWA standards.
- Geotechnical report, design and construction costs for any utility relocations or modifications shall be paid for by the HSR Authority.
- Recycled water shall be used for construction purposes and dust control for all construction activities.

Based on information contained in the DEIR/DEIS as well as the 15 percent conceptual plans provided by the Authority, the proposed project could potentially impact many BWP electrical utility systems. The DEIR/DEIS should identify potential significant impacts to public electric utilities and identify mitigation measures to offset those impacts.

The DEIR/DEIS does not disclose the electric power needs of the proposed Burbank Airport Station and therefore does not adequately identify if a significant impact to the City's electrical utility system will occur as part of the project. The DEIR/DEIS should be revised to show the electric power requirements of the project to ensure that the City's public utility can meet the demands of the proposed project.

Further detailed project comments to aid the Authority in ensuring that project impacts and mitigations related to electrical utility systems are identified and included as Attachment B to this comment letter.

The DEIR/DEIS should ensure that all project elements including the proposed Burbank Airport Station, are constructed in conformance with all applicable state and local fire and life safety codes. Detailed project comments related to fire life safety are included as Attachment C to this comment letter.

The project description studied in the DEIR/DEIS is a significant departure to the project description disclosed in the 2014 NOP for the Burbank to Los Angeles alignment. Given the size of this project, the six-year span of time between the NOP and the DEIR/DEIS, the change of alignment in the project description between the NOP and the DEIR/DEIS, and the significant breadth of DEIR/DEIS inadequacies identified in the City's comments, the City requests that the DEIR/DEIS be re-circulated after the Authority responds to all comments received on the DEIR/DEIS. If the DEIR/DEIS is recirculated, the Authority should provide stakeholders a 90-day public comment period in order to provide adequate time to review the extensive new information contained in the DEIR/DEIS. This recirculation and extended comment period will provide all stakeholders the opportunity to review the updated document to determine if the Authority has adequately addressed the deficiencies identified in the DEIR/DEIS.

Thank you again for providing an opportunity to comment on the Draft EIR/EIS for the Burbank to Los Angeles segment located in the City of Burbank. If you have any questions regarding the contents of this letter, please feel free to contact David Kriske, Assistant Community Development Director with the Community Development Department, at 818.238.5269 or via email at dkriske@burbankca.gov.

Sincerely,

Sharon Springer, Mayor

Bob Frutos, Vice Mayor

Jess A. Talamantes, Council Member

Emily Gabel-Luddy, Council Member

Timothy M. Murphy, Council Member

Attachments

BGPAA requests that written responses to each of the following comments be provided in accordance with CEQA Guidelines section 15088.

I. The Project Description Is Neither Stable Nor Finite, and Is Incomplete

"An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185.) Failure to adequately describe the project undermines CEQA's general purposes, which include informing "governmental decision makers and the public about the potential significant effects of proposed activities" (CEQA Guidelines § 15002(a)(1).) The Draft EIR fails to comply with this requirement.

For example, the Draft EIR states that CHSRA "would not acquire temporary construction staging areas through the right-of-way acquisition process. It would be the responsibility of the design-build contractor to negotiate with property owners to secure access and temporary use of their property for staging or laydown areas." (Draft EIR, p. 3.1-9.) First, it is unclear how this statement is reconciled with the statement that "the Authority [CHSRA] would negotiate with property owners to lease the land required for the TCE [temporary construction easement]." (Draft EIR, p. 3.13-49.) Second, it is not clear where construction staging areas will be located if property owners decline to negotiate with the contractor (or CHSRA) or allow any temporary access to or use of their property. While the Draft EIR asserts that it "includes an evaluation of the environmental impacts of various vacant parcels that are near parts of the project that would require construction staging and laydown areas" (Draft EIR, p. 3.1-9), this sidesteps the point. If there is no certainty that CHSRA will acquire the necessary staging areas that were evaluated in the Draft EIR, then other staging areas which have not been environmentally reviewed may be used. This would lead to potential adverse impacts that have not been analyzed, disclosed or mitigated, in violation of CEQA and based on the unstable project description in the Draft EIR.

The Draft EIR also contains incomplete information regarding the Project area and the Airport specifically:

- Page 1-13, Section 1.2.4.1: The northern extent of the Project, such as in the vicinity of the Airport, is also located within the San Fernando Valley, which is distinct from the LA Basin.

- Page 1-28, Section 1.2.4.3: The Airport's Regional Intermodal Transit Center (RITC) has been in operation since 2014.

- Page 1-29, Section 1.2.4.3: There are two official airport-serving Metrolink stations, now referred to by Metrolink as "Burbank Airport - North", which is nearest to the Project corridor and served by the Antelope Valley (AV) Line, and the older "Burbank Airport - South" station, served by the Ventura County (VC) line and closest in proximity to the RITC

and current terminal. While the North station requires a shuttle connection, the relationship of this station would change under future conditions with a replacement passenger terminal at BGPAA's preferred location in the northeast quadrant of the Airport, whereby it would be the closer of the two Metrolink stations.

- Page 1-37, Section 1.4.1: The new station referred to is the "Burbank Airport – North" Station.

- Page 2-30, Section 2.4.2.2 (Burbank Airport Station Subheading): Please revise the final paragraph: "Option B Refined was designed to locate the platforms closer to the planned relocation of the Hollywood Burbank Airport Terminal…."

- Page 2-36, Section 2.5.1.3, para. 1: The Airport's replacement passenger terminal will not include development of surplus airport property into commercial uses as stated. The adjacent commercial development is under rapid construction and being conducted by a private developer on property that is a separate, stand-alone project.

- Page 2-36, Section 2.5.1.3, para. 2: Please revise "…separate but adjacent commercial project at Hollywood Burbank Airport, using surplus land from the terminal replacement project" to reflect the fact that (i) there is no surplus land related to the proposed replacement passenger terminal project; (ii) the Avion Burbank project is not related to the replacement passenger terminal project; and (iii) it is not Airport property.

- Page 2-44, Section 2.5.2.3 and page 2-54, Figure 2-29: Although not Airport property, it is important to note that the current land associated with a large portion of the station site and its associated surface parking spaces as depicted in Figure 2-29 is undergoing rapidly advancing construction. As a result, the description of the area is no longer accurate.

- Page 2-92, Figure 2-42: The Air Operations Area fence in the southeast quadrant of the Airport (depicted approximately, but not precisely by the dashed orange line in the Figure) will be extended further south upon completion of the replacement passenger terminal, subsequent demolition of the current passenger terminal, and extension of Taxiway C, to approximately the current sequential excavation method-to-cut-and-cover transition line.

- Page 3.4-23, Section 3.4.4.4: The Airport is a Medium Hub, not a small airport.

- App. 3-12D, Sheets 2-9: Many of the Airport's parcels are placed under "Partial Acquisition." Please clarify what this means and whether it is intended to be limited to the purpose of tunneling rights, as no other acquisition is mentioned in the Draft EIR.

II. The Draft EIR's Analysis is Flawed in Several Critical Respects

CEQA is clear: "An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences." (CEQA Guidelines § 15151.) The Draft EIR in its present form fails to comply with this requirement as the analysis is flawed in several critical respects, as discussed below.

A. The Draft EIR Relies on Outdated Information, Including Applicable Regulations

The Draft EIR is fundamentally flawed because it relies on baseline data that is already outdated and that does not provide a proper basis for comparison and analysis of Project impacts. By using Year 2015 as the baseline, the Draft EIR sets up a further and ongoing inaccurate analysis for air quality, greenhouse gas (GHG) emissions, and traffic impacts. Realistically, construction is unlikely to start for several years, and the analyses that assume construction will have commenced in 2020 already are outdated and inaccurate. Table 3-3.16 highlights this error; this Table purports to show construction-related air quality emissions during the nine year span from 2020 to 2028. But, practically, no construction will occur in the remaining five months of 2020 for a Project that has not yet been approved. The baseline year and construction and build-out years all should be updated to more accurate reflect the Project status and to close the gap between the year used for analysis and the likely Project construction and build-out years. These revisions are needed to accurately capture potential adverse impacts in multiple environmental impact areas.

In addition, the Draft EIR references the 2016–2040 Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (see, e.g., Draft EIR § 1.3.4; Table 3.2-2), but then fails to carry it through for analysis. For example, the Transportation section of the Draft EIR states that a SCAG RTP/SCS baseline year of 2008 "was used for the growth projections in the traffic analysis" because "[t]his was the best available data source when the study was initiated." (Draft EIR, p. 3.2-29.) The leads to the Draft EIR using Year 2015 for "Existing Year" baseline conditions. (see, e.g., Draft EIR, p. 3.2-53.) The Draft EIR cannot use a lengthy delay in preparation of an analysis as a justification for using baseline traffic data that is several years old. Compounding this error, SCAG's 2020-2045 RTP/SCS ("Connect SoCal") was adopted May 7, 2020 and contains further updated information which is not considered; given the subsequent impacts of the COVID-19 pandemic, even this information may require additional consideration and still further revisions.

B. The Draft EIR Fails to Adequately Analyze and Disclose Potential Safety Hazards and Impacts to the Airport

The Draft EIR fails to sufficiently analyze and disclose potential impacts to the Airport's operations, including critical airport safety zones. This is a significant deficiency given the nature

of the issue and the potential impacts to the health and safety of the public and Airport employees.

Draft EIR sections 2.5.2.2 and 2.9.5.3, and Figure 2-44, state that portions of the tunnel through Airport property, particularly outside of "critical airport safety zones," are proposed for a cut-and-cover method of tunneling, and then conclude that there is no potential impact to Airport operations. This conclusion rests on the assumption that Project construction will occur after the Airport's replacement passenger terminal is open. Even under these conditions, the southeast quadrant of the Airport, where cut-and-cover construction is proposed, still is anticipated to be programmed to accommodate some portion of the Airport's landside operations. Therefore, it is not accurate to conclude that there would be no operational impact to the Airport. Rather, there would be a construction-related impact to Airport operations.

In addition, the curve of the alignment to bring the right-of-way tangent to the Metrolink Ventura Subdivision likely also would pass near or under the Airport's RITC. This would preclude cut-and-cover in that vicinity, as the Draft EIR states that connectivity with the RITC is a multimodal aim of the Project.

This flawed approach to hazards analysis continues with the Draft EIR's analysis of potential hazards resulting from construction-related traffic. The analysis there is incomplete and again relies on assumptions and supposition to conclude that no impacts to Airport safety will occur. The Draft EIR states that the Project:

> "…would not create hazards to airport operations or disrupt air travel. A portion of the [Project] crosses under Runway 8-26, Taxiway D, the proposed extended Taxiway C, and critical airport safety zones at the Hollywood Burbank Airport. For the portion of the tunnel alignment under the Hollywood Burbank Airport runway and taxiways, the preferred method of construction would be the sequential excavation method, which would avoid disruption to runway and taxiways operations during construction. The runway and taxiways systems are expected to remain fully operational during construction because the SEM minimizes surface disruption, which would be limited to the tunnel entry and exit points. These areas are located outside the runway areas and associated safety zones. All areas needed for construction, including the tunnel launch box and staging areas, would be outside of the airfield and critical airport safety zones."

(Draft EIR, p. 3.2-67.)

Stating that the preferred method of construction "would avoid disruption," without more, is simply an unsupported conclusion. In addition, the assertion that "[a]ll areas needed for construction, including the tunnel launch box and staging areas, would be outside of the airfield and critical airport safety zones" is belied by the fact that, as noted above, CHSRA has declined

to take any responsibility for ensuring that necessary staging areas are secured. Consequently, it is possible that the anticipated staging areas will not be used and other areas which **do** impact critical Airport safety zones will be used. As a result, there is no support for the Draft EIR's bare assertion that no impacts will occur.

Similarly, the Draft EIR's reliance on the Federal Aviation Administration's (FAA) determination that it does not object to the construction of the portion of the tunnel under Runway 8-26, Taxiway D, the proposed extended Taxiway C, and critical airport safety zones (Draft EIR, p. 3.2-68; Draft EIR Appendix 3.11-B-3) is unavailing. The submission of Form 7460-1 is required under 14 C.F.R. Part 77, pursuant to 49 U.S.C. Section 44718. Section 77.5(c) ("Applicability") of the regulations provides that Form 7460-1 will be used to:

- (1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;
- (2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;
- (3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460-1, Obstruction Marking and Lighting;
- (4) Determine other appropriate measures to be applied for continued safety of air navigation; and
- (5) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

As such, none of the Form's listed uses relate to evaluating proposed below ground structures. Furthermore, Section 77.31(e) (Determinations) of the regulations provides that "[t]he FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation." All of the obstruction determinations in Section 77.17 are *based on height* (e.g., an object would obstruct air navigation if it is taller than "a height of 499 feet AGL at the site of the object"). Thus, a Determination of No Hazard to Air Navigation is not an approval of proposed *below ground* construction projects. The proposed impact avoidance and minimization feature related to this issue likewise focuses only on airspace conflicts and does not address potential hazards to Airport operations from underground construction, nor does the land use consistency analysis address this issue. (Draft EIR, Appendix 2-B-26 through 2-B-27; Draft EIR Appendix 3.1-B-75.)

With respect to the proposed Airport station site, a significant portion of land referred to as "underdeveloped… due to the prevalence of surface parking lots surrounding Hollywood Burbank Airport" (see Draft EIR § 3.13.5.1) falls within the Airport's Runway Protection Zone, and

thus it is not eligible for additional or more intense development as is required to become fallow as soon as practical with the development of a replacement passenger terminal.

The Draft EIR skirts all of these serious safety and hazards issues by proposing "if necessary, coordination with the Hollywood Burbank Airport to amend the current Airport Layout Plan (ALP) for any permanent construction-related facilities required for the [Project], to be submitted to the FAA for approval." (Draft EIR, p. 3.11-70; Draft EIR Appendix 2-B-27.) There are several flaws in this approach. First, this constitutes impermissibly deferred analysis by proposing to figure out if there is a concern or an impact at a later time. Second, the Draft EIR does not discuss or analyze what amendments would be necessary or what impacts might result from the amendments. Third, this approach fails to grapple with what happens if BGPAA objects to an amendment of its ALP or if FAA approval is not granted.

The Draft EIR also appears to be internally inconsistent. The Draft EIR states, without any support, that the Project "would not permanently encroach on any areas that have height or land use restrictions associated with the Los Angeles County Airport Land Use Plan (Los Angeles County Airport Land Use Commission 2004). Consequently, there would be no potential for permanent safety hazards resulting from interference with airport safety." (Draft EIR, Appendix 3.11-B-2.) Yet, the land use consistency analysis finds in many cases that the Project is *incompatible* with other elements of that same Land Use Plan (see, e.g., Draft EIR, Appendix 3.1-B-13) and with the Airport Land Use Commission's Review Procedures, including as it relates to safety and security. (Draft EIR, Appendix 3.1-B-71.)

The Draft EIR similarly avoids any meaningful analysis of potential electromagnetic interference (EMI) and electromagnetic fields (EMF) impacts on Airport operations. The Draft EIR correctly notes that the Airport is considered a sensitive receptor (Draft EIR, p. 3.5-18) and that the applicable threshold of significance provides that no interference with Airport communications equipment is allowed (Draft EIR, p. 3.5-16). Yet, the Draft EIR contains no substantive analysis to ensure that this threshold is not exceeded. Instead, the Draft EIR states only that "[p]otential impacts would be avoided through implementation of EMI/EMF-IAMF [impact avoidance and minimization feature]#2, which would provide the necessary third-party coordination…." (Draft EIR, p. 3.5-30.) The Draft EIR then admits to deferred analysis, stating, that "[d]uring the planning stage through system design, [CHSRA] would perform additional EMC [electromagnetic compatibility]/EMI safety analyses…." (Draft EIR, p. 3.5-30.) Performing studies at a future time, with no stated benchmark standards or means of ensuring that there will be no impacts to the Airport's safe operations, constitutes impermissible deferred analysis and mitigation.

Finally, please also note that as an FAR Part 139-certificated airport receiving Federal Grants-in-Aid, BGPAA is required to maintain a Wildlife Hazard Mitigation Plan (WHMP) that is itself based on a 12-month-long Wildlife Hazard Assessment (WHA), last completed in 2014 and 2012, respectively. Based upon these studies, the current condition of the site proposed for the

Burbank Airport Station, as well under Avion development post-project conditions, has not been deemed incompatible with Federal guidelines for land uses surrounding airports with respect to wildlife habitats. The FAA requires off-airport proponents of potentially incompatible land uses to notify the local airports and the FAA of their plans and to present evidence demonstrating that the land use will not cause a wildlife hazard to aviation.

C. The Draft EIR Fails to Properly Analyze and Disclose Potential Transportation Impacts

The Draft EIR appears to use level of service (LOS) selectively, leading to a lack of clear analysis and disclosure of impacts. For example, Impact TR #1 uses LOS methodology for the entirety of the impact analysis, only to state as follows in the CEQA conclusion: "This threshold is not applicable to CEQA because LOS is no longer the performance standard for transportation impacts for CEQA." (Draft EIR, p. 3.2-57.) This same approach and impact conclusion statement appears in Impact TR #2 and Impact TR #3. As a result, the Draft EIR fails to adequately disclose potential adverse impacts from the Project. If LOS is not used for any impact conclusions, why was it used to analyze the impact?

In addition, some corrections to the Draft EIR are needed:

- Page 3.2-46, Section 3.2.5.4, para. 2: There are two Airport Metrolink stations: "Burbank Airport - North" on Metrolink's AV Line and "Burbank Airport - South" on Metrolink's VC Line.

- Page 3.2-46, Section 3.2.5.4, para. 3: The B-6 Parcel is a former portion of the Lockheed Martin Corporation's manufacturing property. The eastern part is not owned by BGPAA nor is it the preferred site of the proposed Replacement Passenger Terminal project. Certain statements contained in this section are factually incorrect.

- Page 3.2-47, Section 3.2.5.5: The Burbank Airport Station ("Burbank Airport - North") on the Antelope Valley Line is currently open and in service.

- Page 3.2-49, Section 3.2.6.2, Aviation Subsection: The Avion Burbank commercial development referenced is "separate but adjacent to Hollywood Burbank Airport." The parcel is owned by a private developer who is well underway with the project.

III. <u>The Draft EIR Must Be Revised and Recirculated</u>

CEQA requires that an EIR be recirculated when "significant new information is added to the EIR" prior to certification of the document. (CEQA Guidelines § 15088.5.)

Here, given the substantial new information that must be included in the Draft EIR to comply with CEQA, and to ensure that CHSRA complies with its mandate under CEQA to ensure

that its EIR "demonstrate[s] to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action" (CEQA Guidelines § 15003(d)), the EIR must be revised and recirculated for public review and comment.

BGPAA therefore objects to any further action on the Project until the necessary and proper environmental review has been completed and the public has been provided a meaningful opportunity to comment on the revised EIR.

IV. Written Request for Notices

Pursuant to Public Resources Code section 21092.2(a), BGPAA intends that this letter serve as a written request for a copy of all notices that may be issued or filed related to this Project or any part or component thereof. Please direct all such notices to me at the address on this letter.

Very truly yours,

Ginetta L. Giovinco

cc: Frank R. Miller, Executive Director, BGPAA
John T. Hatanaka, Senior Deputy Executive Director, BGPAA
Patrick J. Lammerding, Deputy Executive Director
Planning & Development, BGPAA
Mark D. Hardyment, Director, Transportation & Environmental Affairs, BGPAA
Aaron K. Galinis, AICP, Airport Planner, BGPAA
Terence Boga, General Counsel, BGPAA

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Hollywood Burbank Airport

REVENUE PASSENGERS	June 2020	June 2019	June % Change	January - June 2020	January - June 2019	January - June % Change
Signatory Airlines						
Alaska Airlines	8,658	60,648	-85.72%	108,890	281,414	-61.31%
American Airlines	10,392	33,422	-68.91%	98,880	135,800	-27.19%
Delta Airlines	0	13,992	-100.00%	55,222	76,424	-27.74%
JetBlue Airways	0	20,907	-100.00%	49,557	125,230	-60.43%
Southwest Airlines	69,244	356,781	-80.59%	881,505	1,969,583	-55.24%
Spirit Airlines	2,503	3,681	-32.00%	27,121	3,681	636.78%
United Airlines	4,094	30,784	-86.70%	71,217	143,796	-50.47%
Total Revenue Passengers	94,891	520,215	-81.76%	1,292,392	2,735,928	-52.76%
Inbound (deplaned)	47,232	258,606	-81.74%	645,615	1,363,015	-52.63%
Outbound (enplaned)	47,659	261,609	-81.78%	646,777	1,372,913	-52.89%

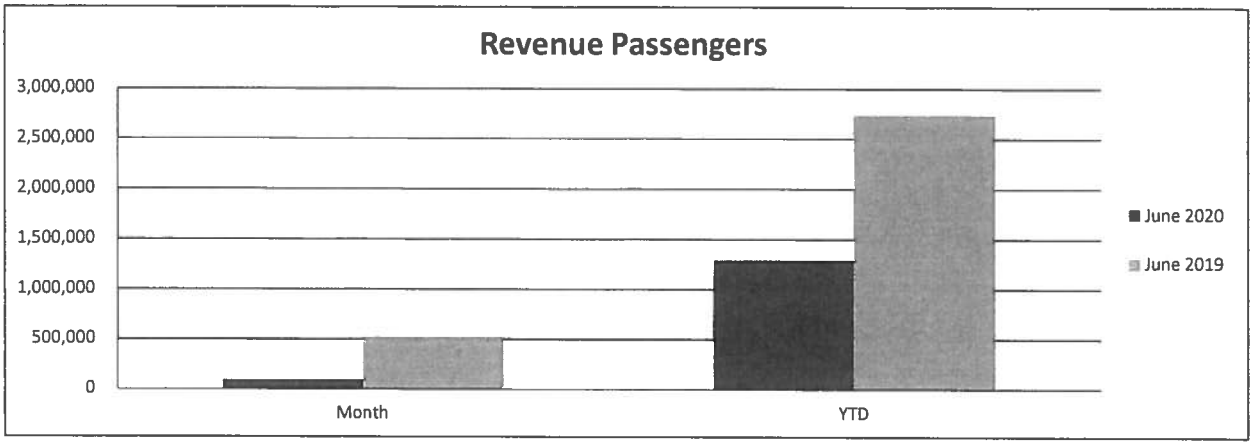
AIRCRAFT OPERATIONS *	June 2020	June 2019	June % Change	January - June 2020	January - June 2019	January - June % Change
Air Carrier	2,079	5,652	-63.22%	20,294	30,352	-33.14%
Air Taxi	1,288	1,835	-29.81%	8,211	10,830	-24.18%
General Aviation	2,056	2,675	-23.14%	11,743	15,212	-22.80%
Military Itinerant	32	44	-27.27%	241	263	-8.37%
Civil Local	3,192	2,188	45.89%	14,553	14,457	0.66%
Military Local	0	0	N/A	0	0	N/A
Total Aircraft Operations	8,647	12,394	-30.23%	55,042	71,114	-22.60%

* Source: FAA Tower Daily Airport Operations Count, adjusted to show Canadair Regional Jet-200 operations as Air Carrier. Includes Hollywood Burbank Airport arrivals/departures only; excludes aircraft that enter local air space but do not land or take off at Hollywood Burbank Airport.

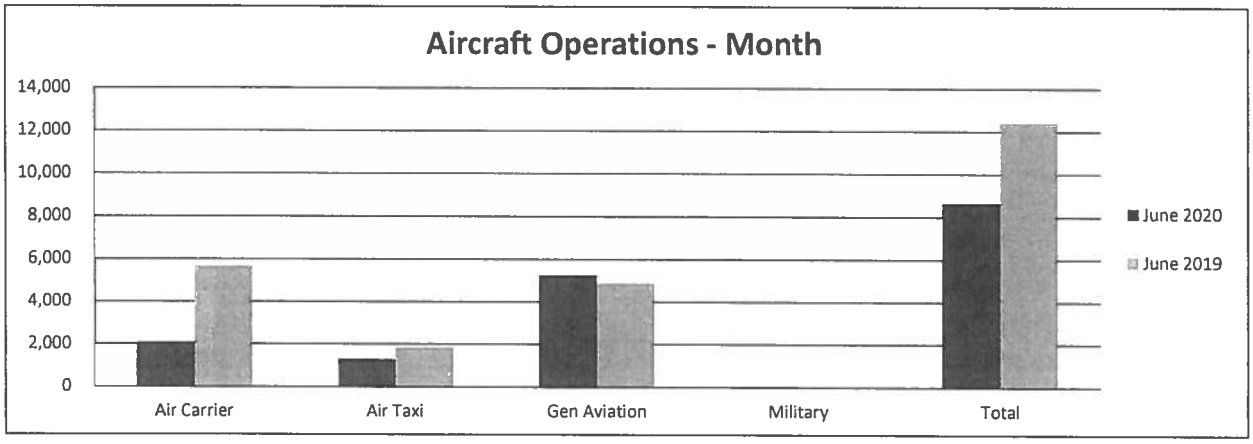
Hollywood Burbank Airport

AIR CARGO (lbs.)	June 2020	June 2019	June % Change	January - June 2020	January - June 2019	January - June % Change
Signatory Airlines						
Alaska Airlines	608	797	-23.71%	2,327	3,646	-36.18%
American Airlines	235	0	N/A	580	11	5172.73%
Delta Airlines	0	0	N/A	8	0	N/A
JetBlue Airways						
Southwest Airlines	81,818	163,551	-49.97%	828,661	945,762	-12.38%
Spirit Airlines						
United Airlines	0	44,421	-100.00%	1,106	44,421	-97.51%
Other Scheduled Carriers						
Federal Express	5,100,258	4,118,428	23.84%	24,076,661	26,864,588	-10.38%
United Parcel Service	5,030,501	4,014,916	25.30%	27,001,250	22,922,432	17.79%
Charter/Contract Carriers						
AirNet Express	0	0	N/A	0	0	N/A
Ameriflight	294,749	246,941	19.36%	1,639,818	1,293,599	26.76%
Total Air Cargo	10,508,169	8,589,054	22.34%	53,550,411	52,074,459	2.83%
Inbound (deplaned)	5,638,249	4,154,544	35.71%	28,590,013	25,183,674	13.53%
Outbound (enplaned)	4,869,920	4,434,510	9.82%	24,960,398	26,890,785	-7.18%

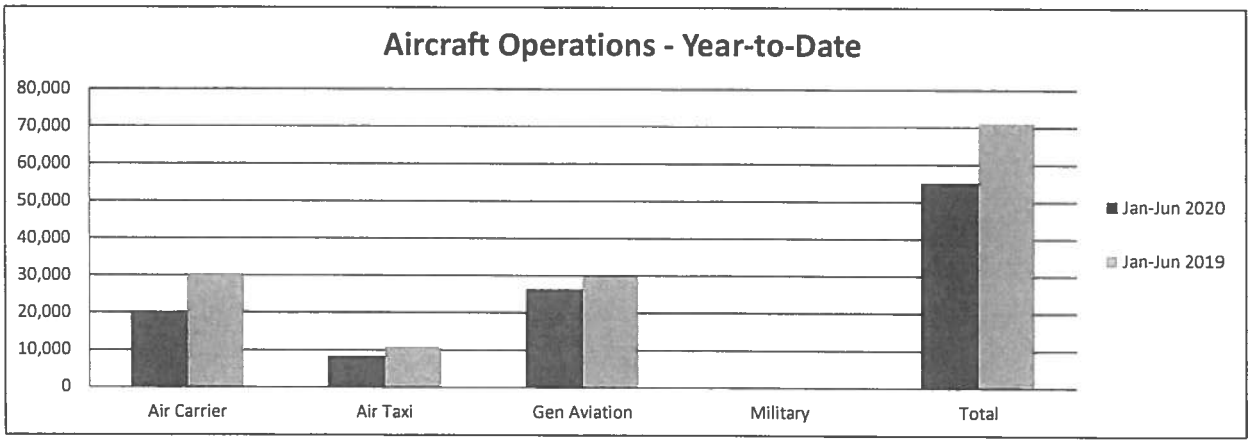
MAIL (lbs.)	June 2020	June 2019	June % Change	January - June 2020	January - June 2019	January - June % Change
United Parcel Service	0	0	N/A	6,032	0	N/A
Total Mail	0	0	N/A	6,032	0	N/A
Inbound (deplaned)	0	0	N/A	3,016	0	N/A
Outbound (enplaned)	0	0	N/A	3,016	0	N/A



Revenue Passengers	Month	YTD
June 2020	94,891	1,292,392
June 2019	520,215	2,735,928
% Change	-81.76%	-52.76%



Aircraft Operations - MO	Air Carrier	Air Taxi	Gen Aviation	Military	Total
June 2020	2,079	1,288	5,248	32	8,647
June 2019	5,652	1,835	4,863	44	12,394
% Change	-63.22%	-29.81%	7.92%	-27.27%	-30.23%



Aircraft Operations - YTD	Air Carrier	Air Taxi	Gen Aviation	Military	Total
Jan-Jun 2020	20,294	8,211	26,296	241	55,042
Jan-Jun 2019	30,352	10,830	29,669	263	71,114
% Change	-33.14%	-24.18%	-11.37%	-8.37%	-22.60%