

JUNE 13, 2019



SITE CHARACTERIZATION REPORT AND  
REMEDiation DEFERRAL REQUEST  
LONGFELLOW ENERGY, LP – STATE 20B BATTERY

2RP-5158

Prepared for: Longfellow Energy, LP

Prepared by: Sport Environmental Services, LLC

502 N. Big Spring St.

Midland, TX 79701

[www.sportenv.com](http://www.sportenv.com)



June 13, 2019

Mr. Mike Bratcher  
New Mexico Oil Conservation Division  
District 2 (Artesia)  
811 S. First St.  
Artesia, NM 88210

**Re: Site Characterization Report and Remediation Deferral Request  
Longfellow Energy, L.P.  
State 20B Battery  
RP #: 1RP-5158  
Approximate Geographic Coordinates: 32.824229°N, -104.089222 °W  
Unit Letter A, Section 20, Township 17S, Range 29E  
Eddy County, New Mexico**

Mr. Bratcher:

Sport Environmental Services, LLC is submitting, on behalf of Longfellow Energy, L.P. (*Longfellow* or *Client*), a Site Characterization Report and Remediation Deferral Request for the State 20B Battery (*State 20B* or *subject site*) where a release occurred as a result of a lightning strike which caused a pump failure. A request for remediation deferral is being made due to contamination presence in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. The areas outside of secondary containment were protected by the earthen berm as demonstrated by the photographs and imagery that accompany this report as well as by confirmation soil sampling. Longfellow has performed initial remedial activities within the containment area that was impacted by the release of produced water (with an oil skim) which occurred on November 5, 2018. Upon discovery of the release, efforts were made to stop the release at its source, the free liquid was removed and properly disposed of, and an inspection of the release site confirmed that the secondary containment effectively prevented the release from impacting areas outside of the berm. The Initial C-141 Form and the C-141 Form containing the Deferral Request related to this release is available in **Attachment A**.

#### ***Site Assessment & Characterization***

As part of assessment and characterization of the subject site, aerial imagery was evaluated for the presence of major watercourses within a 0.5-mile radius of the release site. Aerial imagery demonstrating the absence of surface water within a 0.5-mile radius of the release site can be found within **Attachment B**.

A groundwater depth evaluation was performed as well. The relevant New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) databases and GIS query tools were reviewed for groundwater depth information. A 1.5-mile bounding box was utilized when searching the USGS National Water Information System; however, no results appeared within this radius. A similar query was performed using the NMOSE Water Rights Reporting System, but revealed a well drilled in November 2012 with a depth to water of 76 feet located approximately 1.3 miles from the subject site. Please see **Figure 1** and **Figure 2** on the following pages for the results of the USGS and NMOSE queries which have established groundwater depth at the site to be 76 feet below ground surface ('bgs'). Therefore, the appropriate remediation standard specified in the NMOCD Table 1 (NMAC 19.15.29.11) will be applied.

We've detected you're using a mobile device. Find our [mobile dedicated web site here](#).

Click to hide News Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Search Results -- No sites found

No sites were found for groundwater level data using your search criteria.

The sites you requested may be available offline. For more information, contact [USGS Water Data Inquiries](#).

lat_long_bounding_box =	Position	Latitude	Longitude
	Corner 1	32°00'00.846028"	-104°00'00.115422"
	Corner 2	32°00'00.802487"	-104°00'00.063764"
	Coordinates are entered as Degrees-Minutes-Seconds (DMS). DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values		
Minimum number of levels 1			
=			


Use the "Back" button on your browser to change your search criteria.

[Return To Previous Page](#)

Figure 1. USGS National Water Information System – No results within 1.5-miles of subject site



## New Mexico Office of the State Engineer Point of Diversion Summary

<b>Well Tag</b>	<b>POD Number</b>	(quarters are 1=NW 2=NE 3=SW 4=SE)		(quarters are smallest to largest)		(NAD83 UTM in meters)			
		<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
	RA 11807 POD1	1	2	3	22	17S	29E	587360	3631585 

---

<b>Driller License:</b>	1348	<b>Driller Company:</b>	TAYLOR WATER WELL SERVICE		
<b>Driller Name:</b>	TAYLOR, CLINTON E.				
<b>Drill Start Date:</b>	11/23/2012	<b>Drill Finish Date:</b>	11/26/2012	<b>Plug Date:</b>	
<b>Log File Date:</b>	03/26/2013	<b>PCW Rcv Date:</b>		<b>Source:</b>	Shallow
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	4 GPM
<b>Casing Size:</b>	4.50	<b>Depth Well:</b>	131 feet	<b>Depth Water:</b>	76 feet

---

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	104	128	Other/Unknown

---

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	91	131

---

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/8/18 10:57 AM

Page 1 of 1

POD SUMMARY - RA 11807 POD1

*Figure 2. NMOSE Query Results (Groundwater at 76' bgs)*

Given a groundwater depth of approximately 76'bgs, the appropriate closure criteria for impacted soils at the subject site would appear to be as follows:

**Table 1:** Site Closure Criteria (Adapted from NMOCD Table 1(NMAC 19.15.29.11))

<b>Closure Criteria for Soils Impacted by a Release: Minimum depth below any point within the horizontal boundary of the release to groundwater is between 51-100 feet</b>	
<b><i>Constituent</i></b>	<b><i>Limit (mg/Kg)</i></b>
Chloride	10,000
TPH (Total Petroleum Hydrocarbons) (GRO+DRO+MRO)	2,500
GRO+DRO (Gasoline Range Organics and Diesel Range Organics)	1,000
BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes)	50
Benzene	10

Site characterization by means of horizontal and vertical delineation sampling was performed. The release footprint (approximately 3,958 ft<sup>2</sup>) was limited to the containment area and mapped with a GPS device to generate a Release Site Plan denoting sample location placement as shown in **Attachment C**.

### **Soil Sampling Protocol and Scope**

On February 20, 2019, discrete depth samples were collected utilizing a truck-mounted Geoprobe 540UD direct push unit outside of the fenced facility, and hand-augering was performed inside the active facility, as required. Soil samples were also collected approximately one month earlier on January 17, 2019, but were lost by FedEx while in transit to the analytical laboratory – Sport Environmental appreciates NMOCD's understanding with regard to granting an extension for completion of sampling and report generation on account of the delays associated these external factors. During the second round of soil sampling, soil samples were collected at the surface (0-1' bgs) and in one- to two-foot depth increments up to the maximum depth (8' bgs) depending on the ultimate depth of the borehole for soils characterization and assessment. Sample locations were selected to be representative of the affected area and to provide appropriate horizontal delineation – the exact location of each sample point was also determined by safety concerns regarding the position of subsurface lines and flowlines in the vicinity of the subject site. The depth of each sample point was ultimately determined by the point at which auger refusal was encountered.

Soil at the subject site was homogeneous outside the containment area did not show visual or olfactory evidence of impact. The area outside of secondary containment was a caliche well pad and the area inside of secondary containment was also caliche which could not be penetrated beyond a depth of 3.5'bgs. For this reason, soil lithology data (*i.e.*, boring logs) were not generated since caliche overburden could not be not fully penetrated to enter native soils. A boring log for the soil borehole location where the greatest depth (*i.e.*, 8'bgs at SB3) was prepared for inclusion in this report to show conditions at the site. A boring log for SB5 has also been prepared to show the conditions within the bermed area where concentrations of TPH and Chlorides were highest, but limited due to the presence of caliche. These boring logs are available in **Attachment D**. Due to the presence of caliche and underground piping in the affected bermed area, full vertical delineation was not possible. However, the client's rapid response to the release appears to have effectively limited impacts to the top four feet of caliche utilized on the well pad. Please see **Attachment E** for the run ticket confirming proper disposal of free liquids.

All samples were properly collected and preserved in accordance with proper sampling protocols to ensure representative characterization of soils submitted to Eurofins TestAmerica, a NELAP certified laboratory, under proper chain-of-custody for analysis. Each constituent was analyzed using appropriate analytical methods. Chlorides were analyzed using EPA Method 300, Total Petroleum Hydrocarbons (TPH) using Method 8015B, and BTEX constituents on the using Method 8260.

## Soil Sampling Results

Laboratory analytical results confirmed that impacts from the release were limited to the area within secondary containment (i.e., only the soil within the berm was affected). A summary of results is available in the table below and full analytical results, inclusive of the chain-of-custody, are provided in **Attachment F**.

**Table 2. Soil Sampling Results (February 20, 2019 Confirmation Sampling)**


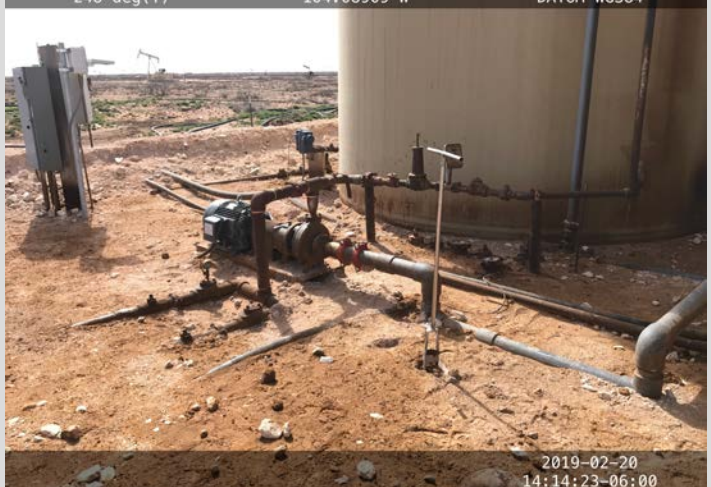
Analyte	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Gasoline Range Organics [C6 - C10]	Diesel Range Organics [C10-C28]	MRO (C28-C35)	Chloride
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria for Soils Impacted By a Release (Groundwater between 51 and 100' from maximum depth of contamination)	10	50	50	50	1,000	1,000	1,000	10,000
490-169021-1 SB1-001 @ 0-1'bgs 2/20/2019 11:36 AM	ND	0.000761	ND	ND	ND	184	198	702
490-169021-2 SB1-001 @ 1-2'bgs 2/20/2019 11:36 AM	ND	0.00101	ND	ND	ND	360	343	687
490-169021-3 SB1-001 @ 2-3'bgs 2/20/2019 11:36 AM	ND	ND	ND	ND	ND	ND	ND	234
490-169021-4 SB1-001 @ 5-6'bgs 2/20/2019 11:54 AM	ND	ND	ND	ND	ND	ND	ND	2,530
490-169021-5 SB2-001 @ 0-1'bgs 2/20/2019 12:15 PM	ND	ND	ND	ND	ND	205	203	831
490-169021-6 SB2-001 @ 1-2'bgs 2/20/2019 12:15 PM	ND	ND	ND	ND	ND	ND	3.16	348
490-169021-7 SB2-001 @ 2-3'bgs 2/20/2019 12:15 PM	ND	ND	ND	ND	ND	ND	3.08	341
490-169021-8 SB3-001 @ 0-1'bgs 2/20/2019 12:31 PM	ND	ND	ND	ND	ND	ND	3.99	13.0
490-169021-9 SB3-001 @ 1-2'bgs 2/20/2019 12:31 PM	ND	ND	ND	ND	ND	2.64	4.45	46.6
490-169021-10 SB3-001 @ 2-3'bgs 2/20/2019 12:31 PM	ND	ND	ND	ND	ND	ND	2.91	475
490-169021-11 SB3-001 @ 5-6'bgs 2/20/2019 12:43 PM	ND	ND	ND	ND	ND	ND	ND	32.2
490-169021-12 SB3-001 @ 7-8'bgs 2/20/2019 12:43 PM	ND	ND	ND	ND	ND	ND	ND	50.7
490-169021-13 SB4-001 @ 1'bgs 2/20/2019 12:56 PM	ND	0.00221	0.00689	0.0117	ND	380	262	1,130
490-169021-14 SB4-001 @ 2'bgs 2/20/2019 12:59 PM	ND	0.00136	0.00929	0.0124	ND	278	151	3,780
490-169021-15 SB4-001 @ 3'bgs 2/20/2019 1:05 PM	ND	0.167	12.1	18.8	264	1,590	463	1,030
490-169021-16 SB4-001 @ 3.5'bgs 2/20/2019 1:11 PM	ND	0.203	16.8	23.0	400	2,840	615	1,380
490-169021-17 SB5-001 @ 1'bgs 2/20/2019 1:16 PM	0.0236	2.31	5.49	13.3	220	1,910	805	11,500
490-169021-18 SB5-001 @ 1.5'bgs 2/20/2019 1:20 PM	0.0321	4.67	9.25	19.6	274	3,200	1,110	11,100

Note: The Total Petroleum Hydrocarbons (TPH) Limit for the 51-100' Groundwater scenario is 2,500 mg/kg inclusive of GRO, DRO, and MRO. The limit for combined GRO and DRO is 1,000 mg/kg.

### Geo-tagged Site Photographs

Photographs demonstrating facility congestion and the removal of free liquids are provided in the photographic log below. All geotagged photographs contain the geographic coordinates, date, time, and other data associated with their capture.

#### Photographic Log: November 12, 2018 and February 20, 2019

Photograph	Description
<div><div><div>DIRECTION 150 deg(T)</div><div>32.82442°N 104.08937°W</div><div>ACCURACY 4 m DATUM WGS84</div></div><div>2018-11-12 08:05:03-06:00</div></div> <div>The subject site is visible and free liquids have been removed. Since hand-augering was the only means of sampling allowed within the facility, due to safety concerns and the presence of the berm, auger refusal occurred at shallow depths where caliche was present on the well pad. The caliche appears to have limited infiltration of the produced water and mitigated impacts of this release.</div>	
<div><div><div>DIRECTION 248 deg(T)</div><div>32.82427°N 104.08909°W</div><div>ACCURACY 6 m DATUM WGS84</div></div><div>2019-02-20 14:14:23-06:00</div></div> <div>Soil boring within the containment at subject site. Photograph shows that free liquids have been removed and that fresh soil has been added to the site. The berm, which limited impacts to the area inside secondary containment, is visible in the background. The buried pipes and hard caliche surface limit the depth of contamination and make further vertical delineation infeasible at this active facility.</div>	



### ***Area Outside of Active Facility is Unaffected by the Release***

Based on the analytical data provided herein, the concentrations of all constituents (i.e., Chlorides, TPH, Benzene, Toluene, Ethylbenzene, and Xylenes) at the area outside of the active facility (i.e., the area outside of secondary containment) were below their respective limits as confirmed by the analytical data provided herein.

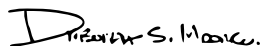
### ***Request for Deferral of Remedial Work Within Secondary Containment***

A review of the analytical results associated with characterization efforts was performed. The results indicate that a relatively small volume of soil at Soil Boring 4 (SB4) and Soil Boring 5 (SB5) exceeded the Total Petroleum Hydrocarbon (TPH) and Chloride limit applicable to the subject site. Since this soil boring location is within of the active facility fence and would be subject to deferral, Sport Environmental, on behalf of Longfellow Energy requests that deferral be granted until the time of site closure. The volume of affected soil associated with the deferred remediation request is estimated to be 440 cubic yards as estimated by multiplying the footprint of the entire area within the berm by three feet in depth. Based on a review of this information, the affected soil does not appear likely to cause an imminent risk to human health, the environment, or groundwater.

Sport Environmental respectfully requests remediation deferral of this release within the active facility on behalf of Longfellow Energy, LP.

Thank you again for granting an extension in sampling and reporting due to weather, equipment availability issues, and sample transit logistics. If NMOCD have any further questions or comments regarding this request for closure, please contact us at (432) 683-1100.

Sincerely,



Deborah S. Moore, ME, REPA, CESCO, RSO  
**President/Environmental Engineer**  
**Sport Environmental Services, LLC**

cc: Mr. David Cain and Mr. Monte Bell (Longfellow Energy, LP)

### ***List of Attachments:***

- A* NMOCD Form C-141 (Deferral Request and Initial)
- B* 0.5-Mile Radius Map Denoting Absence of Major Watercourses
- C* Release Site Plan Denoting Sample Locations
- D* Run Ticket
- E* Boring Logs
- F* Full Analytical Results and Chain-of-Custody



Attachment A

NMOCD Form C-141 (Deferral Request and Initial)

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Longfellow Energy, LP	OGRID 372210
Contact Name David Cain, Engineering Technologist & Regulatory Specialist	Contact Telephone (214) 265-4715
Contact email david.cain@longfellowenergy.com	Incident # (assigned by OCD)
Contact mailing address 16803 Dallas Pkwy, Addison, TX 75001	

### Location of Release Source

Latitude 32.824229°N Longitude -104.089222°W  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name State 20B Battery	Site Type Battery
Date Release Discovered November 5, 2018	API# (if applicable) 30-015-30918

Unit Letter	Section	Township	Range	County
A	20	17S	29E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 480 bbl	Volume Recovered (bbls) 480 bbl
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (see attached laboratory report)
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

Lightning strike caused pump failure resulting in the release.


State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?  Although the released fluids were immediately recovered, the initial release volume was > 200 bbl of produced water.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc.)?  Yes, immediate notification was given by David Cain, a Longfellow representative, via telephone to Mike Bratcher at the OCD District 2 office.	

**Initial Response**

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:          	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: David Cain	Title: Engineering Technologist & Regulatory Specialist
Signature: 	Date: 11-16-2018
email: david.cain@longfellowenergy.com	Telephone: (214) 265-4715
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>76</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: DAVID CAIN Title: ENGINEERING TECHNOLOGIST +  
Signature: David Cain Date: 6-18-19 REGULATORY SPECIALIST  
email: david.cain@longfellowenergy.com Telephone: 214-265-4715

OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.  
*Note: Full vertical delineation was not possible due to hard caliche within the secondary containment berm. No impact to areas outside the berm or well pad were present as confirmed with full horizontal delineation.*
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: DAVID CAIN Title: ENGINEERING TECHNOLOGIST +  
 Signature: David Cain Date: 6-18-19 REGULATORY SPECIALIST  
 email: david.cain@longfellowenergy.com Telephone: 214-265-4715

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

### **OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



## Attachment B

### 0.5-Mile Radius Map Demonstrating Absence of Major Watercourses





# Longfellow Energy, L.P. - State 20 B Battery (2RP-5158)

Location: 32.824229°, -104.89222°

Date of Image: March 12, 2016 (Source: Google Earth)

## Legend

 0.5-mile Radius

 Longfellow - State 20B Battery



Google Earth

© 2018 Google

2000 ft



## Attachment C

### Release Site Plan Depicting Sample Locations

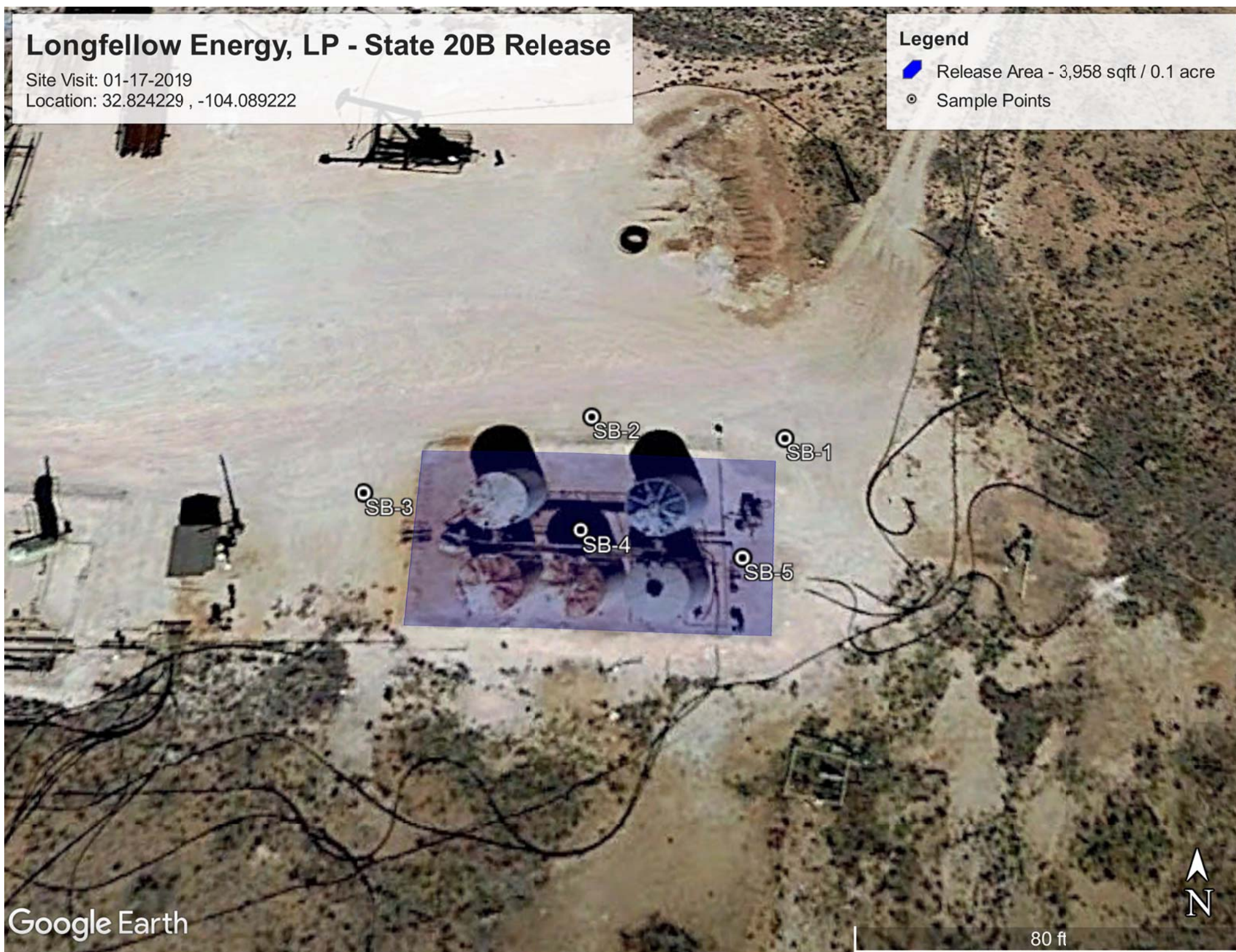
# Longfellow Energy, LP - State 20B Release

Site Visit: 01-17-2019

Location: 32.824229 , -104.089222

## Legend

-  Release Area - 3,958 sqft / 0.1 acre
-  Sample Points


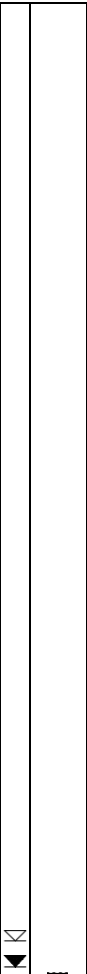



## Attachment D

### Boring Logs

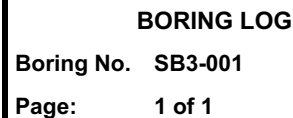


## BORING AND WELL LOG LEGEND

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	DESCRIPTION
			<p>ASPHALT CONCRETE BEDROCK IGNEOUS Rock METAMORPHIC Rock SEDIMENTARY Rock Well-graded GRAVEL (GW) Poorly graded GRAVEL (GP) Silty GRAVEL (GM) Clayey GRAVEL (GC) Well-graded GRAVEL with silt (GW-GM) Poorly graded GRAVEL with silt (GP-GM) Well-graded GRAVEL with clay (GW-GC) Poorly graded GRAVEL with clay (GP-GC) Well-graded SAND (SW) Poorly graded SAND (SP) Silty SAND (SM) Clayey SAND (SC) Well-graded SAND with silt (SW-SM) Poorly graded SAND with silt (SP-SM) Well-graded SAND with clay (SW-SC) Poorly graded SAND with clay (SP-SC) SILT (ML) Lean CLAY (CL) Organic SOIL (OL) Elastic SILT (MH) Fat CLAY (CH) Organic SOIL (OH) Organic SOIL (OL/OH) PEAT (PT) Volume Descriptors: Trace = &lt;5% Few = 5-10% Little = 15-25% Some = 30-45% Mostly = &gt;=50% Water Level During Drilling Water Level at End of Drilling/in Completed Well Cap Riser Screen End Plug Annular Seal (Bentonite-Cement Grout, Bentonite Slurry/Chips/Pellets/Powder, Other) Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other) Filter Pack (Sand, Gravel, Other) Backfill Grab GR EN SS SH CO DP ID Lab Sample and ID</p>	

NOTES:





Boring Depth (ft):	8.0
Boring Diameter (in):	2.00
Sampling Method(s):	
DTW During Drilling (ft):	N/A
DTW After Drilling (ft):	N/A
Ground Surface Elev. (ft):	3,806.00
Location (Lat, Long):	32.82427, -104.089415

NOTES:





Client: Longfellow Energy, LP  
Project: State 20B Battery  
Address: 502 N. Big Spring St., Midland, TX

**BORING LOG**  
Boring No. SB5-001  
Page: 1 of 1

Drilling Start Date: 02/20/2019 13:12  
Drilling End Date: 02/20/2019 13:20  
Drilling Company: Sport Environmental Services  
Drilling Method: Hollow Stem Auger  
Drilling Equipment: Hand Auger  
Driller: Clint Elliott  
Logged By: Cianna Logie

Boring Depth (ft): 1.5  
Boring Diameter (in): 4.00  
Sampling Method(s):  
DTW During Drilling (ft): N/A  
DTW After Drilling (ft): N/A  
Ground Surface Elev. (ft): 3,806.00  
Location (Lat, Long): 32.824223, -104.089118

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample	
0								(0') Fat CLAY (CH); few fine-medium sand, few silt, mostly clay, high plasticity, hard, moist, 10YR (7/3) very pale brown, mix of fresh caliche and hard caliche that was present at the subject site; strong hydrochloric acid reaction, hydrocarbon odor.			0
1											1
2								(1.5') Boring terminated			2
3											3
4											4
5											5

NOTES: Location is inside of containment at active oil and gas facility. Therefore, a stainless steel hand auger was utilized to conduct the borehole at this site.

Attachment E

Run Ticket

Loco Hills, (575) 677-2111  
Day or Nite  
Delivery Receipt



P.O. Box 98  
Loco Hills, N.M. - 88255

542067

Date 10-31-18

Truck No. 1002417 Capacity 130

Shipped From PIW CONTINUED

Lease 5 + 0.20

Shipped To 3000

Well No. 240

DESCRIPTION	BARRELS	RATE	CHARGE	TAX	TOTAL
PIW	480				
VT	9	95.00	855.00	50.94	905.94

Remarks: 31 had 170 \* 390  
1 had 90 90  
480

Top Gauge \_\_\_\_\_ Bottom Gauge \_\_\_\_\_ COMPANY \_\_\_\_\_

Start \_\_\_\_\_ Finish \_\_\_\_\_ Total \_\_\_\_\_

Driver Miguel Lorenzo 180 Longfellow

## Attachment F

### Full Analytical Results and Chain-of-Custody

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville

2960 Foster Creighton Drive

Nashville, TN 37204

Tel: (615)726-0177

TestAmerica Job ID: 490-169021-1

TestAmerica SDG: Longfellow-State 20B Release (1RP-5158)

Client Project/Site: 20B (32.824229,-104.089222)

For:

Sport Environmental Services LLC

502 N Big Spring St

Midland, Texas 79701

Attn: Debi Sport Moore



Authorized for release by:

3/4/2019 1:54:55 PM

Jennifer Gambill, Project Manager I

(615)301-5044

[jennifer.gambill@testamericainc.com](mailto:jennifer.gambill@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Sample Summary . . . . .	3
Case Narrative . . . . .	4
Definitions . . . . .	6
Client Sample Results . . . . .	7
QC Sample Results . . . . .	25
QC Association . . . . .	33
Chronicle . . . . .	39
Method Summary . . . . .	46
Certification Summary . . . . .	47
Chain of Custody . . . . .	48



## Sample Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-169021-1	SB1-001 @ 0-1'bgs	Solid	02/20/19 11:36	02/23/19 09:10
490-169021-2	SB1-001 @ 1-2'bgs	Solid	02/20/19 11:36	02/23/19 09:10
490-169021-3	SB1-001 @ 2-3'bgs	Solid	02/20/19 11:36	02/23/19 09:10
490-169021-4	SB1-001 @ 5-6'bgs	Solid	02/20/19 11:54	02/23/19 09:10
490-169021-5	SB2-001 @ 0-1'bgs	Solid	02/20/19 12:15	02/23/19 09:10
490-169021-6	SB2-001 @ 1-2'bgs	Solid	02/20/19 12:15	02/23/19 09:10
490-169021-7	SB2-001 @ 2-3'bgs	Solid	02/20/19 12:15	02/23/19 09:10
490-169021-8	SB3-001 @ 0-1'bgs	Solid	02/20/19 12:31	02/23/19 09:10
490-169021-9	SB3-001 @ 1-2'bgs	Solid	02/20/19 12:31	02/23/19 09:10
490-169021-10	SB3-001 @ 2-3'bgs	Solid	02/20/19 12:31	02/23/19 09:10
490-169021-11	SB3-001 @ 5-6'bgs	Solid	02/20/19 12:43	02/23/19 09:10
490-169021-12	SB3-001 @ 7-8'bgs	Solid	02/20/19 12:43	02/23/19 09:10
490-169021-13	SB4-001 @ 1'bgs	Solid	02/20/19 12:56	02/23/19 09:10
490-169021-14	SB4-001 @ 2'bgs	Solid	02/20/19 12:59	02/23/19 09:10
490-169021-15	SB4-001 @ 3'bgs	Solid	02/20/19 13:05	02/23/19 09:10
490-169021-16	SB4-001 @ 3.5'bgs	Solid	02/20/19 13:11	02/23/19 09:10
490-169021-17	SB5-001 @ 1'bgs	Solid	02/20/19 13:16	02/23/19 09:10
490-169021-18	SB5-001 @ 1.5'bgs	Solid	02/20/19 13:20	02/23/19 09:10



# Case Narrative

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Job ID: 490-169021-1**

**Laboratory: TestAmerica Nashville**

## Narrative

### Job Narrative 490-169021-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/23/2019 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

#### GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample was outside the upper control limit: SB1-001 @ 1-2'bgs (490-169021-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4 in the following samples was outside of acceptance limits: SB1-001 @ 1-2'bgs (490-169021-2). None of the compounds reported in the sample are associated with this ISTD; therefore, the data is reported.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 490-577346.

Method(s) 8260B: Surrogate recovery for the following samples were outside control limits: SB4-001 @ 1'bgs (490-169021-13), SB4-001 @ 3.5'bgs (490-169021-16), SB5-001 @ 1'bgs (490-169021-17), SB5-001 @ 1.5'bgs (490-169021-18), (490-169021-A-18-F MS) and (490-169021-A-18-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Internal standard (ISTD) response for 1,4-dichlorobenzene-d4 in the following samples was outside of acceptance limits: SB4-001 @ 1'bgs (490-169021-13), SB5-001 @ 1'bgs (490-169021-17) and SB5-001 @ 1.5'bgs (490-169021-18). None of the compounds reported in the sample are associated with this ISTD; therefore, the data is reported.

Method(s) 8260B: The following samples were diluted due to the nature of the sample matrix: SB4-001 @ 3'bgs (490-169021-15) and SB4-001 @ 3.5'bgs (490-169021-16). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: MSD was analyzed outside 12 hr clock time due to instrument error. Data has been reported. LCS/LCSD is also provided.

Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following samples: (490-169021-A-18-F MS) and (490-169021-A-18-G MSD). The samples show evidence of matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### HPLC/IC

Method(s) 300.0: The following samples were diluted due to the nature of the sample matrix: SB1-001 @ 0-1'bgs (490-169021-1), SB1-001 @ 1-2'bgs (490-169021-2), SB1-001 @ 2-3'bgs (490-169021-3), SB1-001 @ 5-6'bgs (490-169021-4), SB2-001 @ 0-1'bgs (490-169021-5), SB2-001 @ 1-2'bgs (490-169021-6), SB2-001 @ 2-3'bgs (490-169021-7), SB3-001 @ 2-3'bgs (490-169021-10), SB4-001 @ 1'bgs (490-169021-13), SB4-001 @ 2'bgs (490-169021-14), SB4-001 @ 3'bgs (490-169021-15), SB4-001 @ 3.5'bgs (490-169021-16), SB5-001 @ 1'bgs (490-169021-17) and SB5-001 @ 1.5'bgs (490-169021-18). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC VOA

Method(s) 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 490-577254 and analytical batch 490-577344 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

## Case Narrative

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### Job ID: 490-169021-1 (Continued)

#### Laboratory: TestAmerica Nashville (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method(s) 8015B: Surrogate recovery for the following samples were outside control limits: SB1-001 @ 0-1'bgs (490-169021-1), SB1-001 @ 1-2'bgs (490-169021-2), SB4-001 @ 1'bgs (490-169021-13), SB4-001 @ 2'bgs (490-169021-14), SB4-001 @ 3'bgs (490-169021-15), SB5-001 @ 1'bgs (490-169021-17), (490-169021-A-1-G MS) and (490-169021-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Elevated reporting limits are provided.

Method(s) 8015B: The following sample was diluted due to the nature of the sample matrix: SB4-001 @ 3.5'bgs (490-169021-16). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8015B: The following samples were diluted to bring the concentration of target analytes within the calibration range: SB1-001 @ 0-1'bgs (490-169021-1), SB1-001 @ 1-2'bgs (490-169021-2), SB4-001 @ 1'bgs (490-169021-13), SB4-001 @ 2'bgs (490-169021-14), SB4-001 @ 3'bgs (490-169021-15), SB5-001 @ 1'bgs (490-169021-17), (490-169021-A-1-G MS) and (490-169021-A-1-H MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

Method(s) 3550C: The following sample was diluted due to the nature of the sample matrix: SB4-001 @ 1'bgs (490-169021-13).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Definitions/Glossary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	ISTD response or retention time outside acceptable limits
X	Surrogate is outside control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

#### GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

#### GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB1-001 @ 0-1'bgs**

**Lab Sample ID: 490-169021-1**

**Date Collected: 02/20/19 11:36**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00199	0.000666	mg/Kg		02/25/19 10:55	02/25/19 19:14	1
Ethylbenzene	ND		0.00199	0.000666	mg/Kg		02/25/19 10:55	02/25/19 19:14	1
<b>Toluene</b>	<b>0.000761</b>	<b>J</b>	0.00199	0.000736	mg/Kg		02/25/19 10:55	02/25/19 19:14	1
Xylenes, Total	ND		0.00596	0.00122	mg/Kg		02/25/19 10:55	02/25/19 19:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		70 - 130				02/25/19 10:55	02/25/19 19:14	1
4-Bromofluorobenzene (Surr)	114		70 - 130				02/25/19 10:55	02/25/19 19:14	1
Dibromofluoromethane (Surr)	92		70 - 130				02/25/19 10:55	02/25/19 19:14	1
Toluene-d8 (Surr)	107		70 - 130				02/25/19 10:55	02/25/19 19:14	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.40	2.20	mg/Kg		02/25/19 10:55	02/25/19 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150				02/25/19 10:55	02/25/19 19:36	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>184</b>		24.8	12.4	mg/Kg		02/27/19 18:38	03/01/19 21:45	5
<b>MRO (C28-C35)</b>	<b>198</b>		24.8	12.4	mg/Kg		02/27/19 18:38	03/01/19 21:45	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	36	X	50 - 150				02/27/19 18:38	03/01/19 21:45	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>702</b>		101	70.9	mg/Kg			02/28/19 22:28	10

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB1-001 @ 1-2'bgs**

**Lab Sample ID: 490-169021-2**

**Date Collected: 02/20/19 11:36**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00191	0.000639	mg/Kg		02/25/19 10:55	02/25/19 19:44	1
Ethylbenzene	ND		0.00191	0.000639	mg/Kg		02/25/19 10:55	02/25/19 19:44	1
<b>Toluene</b>	<b>0.00101</b>	<b>J</b>	0.00191	0.000706	mg/Kg		02/25/19 10:55	02/25/19 19:44	1
Xylenes, Total	ND		0.00573	0.00117	mg/Kg		02/25/19 10:55	02/25/19 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	131	X	70 - 130	02/25/19 10:55	02/25/19 19:44	1
4-Bromofluorobenzene (Surr)	119	*	70 - 130	02/25/19 10:55	02/25/19 19:44	1
Dibromofluoromethane (Surr)	95		70 - 130	02/25/19 10:55	02/25/19 19:44	1
Toluene-d8 (Surr)	109		70 - 130	02/25/19 10:55	02/25/19 19:44	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.92	2.46	mg/Kg		02/25/19 10:55	02/25/19 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		50 - 150	02/25/19 10:55	02/25/19 20:10	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>360</b>		24.9	12.5	mg/Kg		02/27/19 18:38	03/01/19 22:35	5
<b>MRO (C28-C35)</b>	<b>343</b>		24.9	12.5	mg/Kg		02/27/19 18:38	03/01/19 22:35	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	43	X	50 - 150	02/27/19 18:38	03/01/19 22:35	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>687</b>		99.5	69.7	mg/Kg			02/28/19 22:44	10

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB1-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-3**

**Date Collected: 02/20/19 11:36**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00190	0.000638	mg/Kg		02/25/19 10:55	02/25/19 20:13	1
Ethylbenzene	ND		0.00190	0.000638	mg/Kg		02/25/19 10:55	02/25/19 20:13	1
Toluene	ND		0.00190	0.000705	mg/Kg		02/25/19 10:55	02/25/19 20:13	1
Xylenes, Total	ND		0.00571	0.00117	mg/Kg		02/25/19 10:55	02/25/19 20:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		70 - 130				02/25/19 10:55	02/25/19 20:13	1
4-Bromofluorobenzene (Surr)	108		70 - 130				02/25/19 10:55	02/25/19 20:13	1
Dibromofluoromethane (Surr)	95		70 - 130				02/25/19 10:55	02/25/19 20:13	1
Toluene-d8 (Surr)	104		70 - 130				02/25/19 10:55	02/25/19 20:13	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.24	2.12	mg/Kg		02/25/19 10:55	02/25/19 20:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150				02/25/19 10:55	02/25/19 20:43	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.89	2.45	mg/Kg		02/27/19 18:38	03/01/19 17:49	1
MRO (C28-C35)	ND		4.89	2.45	mg/Kg		02/27/19 18:38	03/01/19 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	67		50 - 150				02/27/19 18:38	03/01/19 17:49	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	234		19.8	13.9	mg/Kg			02/28/19 23:01	2

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB1-001 @ 5-6'bgs**

**Lab Sample ID: 490-169021-4**

**Date Collected: 02/20/19 11:54**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00175	0.000585	mg/Kg		02/25/19 10:55	02/25/19 20:43	1
Ethylbenzene	ND		0.00175	0.000585	mg/Kg		02/25/19 10:55	02/25/19 20:43	1
Toluene	ND		0.00175	0.000646	mg/Kg		02/25/19 10:55	02/25/19 20:43	1
Xylenes, Total	ND		0.00524	0.00107	mg/Kg		02/25/19 10:55	02/25/19 20:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		70 - 130				02/25/19 10:55	02/25/19 20:43	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/25/19 10:55	02/25/19 20:43	1
Dibromofluoromethane (Surr)	94		70 - 130				02/25/19 10:55	02/25/19 20:43	1
Toluene-d8 (Surr)	105		70 - 130				02/25/19 10:55	02/25/19 20:43	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.95	2.48	mg/Kg		02/25/19 10:55	02/25/19 21:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		50 - 150				02/25/19 10:55	02/25/19 21:17	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.99	2.50	mg/Kg		02/27/19 18:38	03/01/19 18:06	1
MRO (C28-C35)	ND		4.99	2.50	mg/Kg		02/27/19 18:38	03/01/19 18:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	74		50 - 150				02/27/19 18:38	03/01/19 18:06	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2530		201	141	mg/Kg			02/28/19 23:34	20



# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB2-001 @ 0-1'bgs**

**Lab Sample ID: 490-169021-5**

**Date Collected: 02/20/19 12:15**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00195	0.000654	mg/Kg		02/25/19 10:55	02/25/19 21:12	1
Ethylbenzene	ND		0.00195	0.000654	mg/Kg		02/25/19 10:55	02/25/19 21:12	1
Toluene	ND		0.00195	0.000723	mg/Kg		02/25/19 10:55	02/25/19 21:12	1
Xylenes, Total	ND		0.00586	0.00120	mg/Kg		02/25/19 10:55	02/25/19 21:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	130		70 - 130				02/25/19 10:55	02/25/19 21:12	1
4-Bromofluorobenzene (Surr)	112		70 - 130				02/25/19 10:55	02/25/19 21:12	1
Dibromofluoromethane (Surr)	94		70 - 130				02/25/19 10:55	02/25/19 21:12	1
Toluene-d8 (Surr)	106		70 - 130				02/25/19 10:55	02/25/19 21:12	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.67	2.34	mg/Kg		02/25/19 10:55	02/25/19 21:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		50 - 150				02/25/19 10:55	02/25/19 21:50	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	205		19.9	9.93	mg/Kg		02/27/19 18:38	03/01/19 22:52	4
MRO (C28-C35)	203		19.9	9.93	mg/Kg		02/27/19 18:38	03/01/19 22:52	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	56		50 - 150				02/27/19 18:38	03/01/19 22:52	4

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	831		101	70.7	mg/Kg			02/28/19 23:51	10

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB2-001 @ 1-2'bgs**

**Lab Sample ID: 490-169021-6**

**Date Collected: 02/20/19 12:15**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00185	0.000620	mg/Kg		02/25/19 10:55	02/25/19 21:42	1
Ethylbenzene	ND		0.00185	0.000620	mg/Kg		02/25/19 10:55	02/25/19 21:42	1
Toluene	ND		0.00185	0.000685	mg/Kg		02/25/19 10:55	02/25/19 21:42	1
Xylenes, Total	ND		0.00556	0.00114	mg/Kg		02/25/19 10:55	02/25/19 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		70 - 130	02/25/19 10:55	02/25/19 21:42	1
4-Bromofluorobenzene (Surr)	106		70 - 130	02/25/19 10:55	02/25/19 21:42	1
Dibromofluoromethane (Surr)	93		70 - 130	02/25/19 10:55	02/25/19 21:42	1
Toluene-d8 (Surr)	105		70 - 130	02/25/19 10:55	02/25/19 21:42	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND	F1	4.65	2.32	mg/Kg		02/25/19 10:55	02/26/19 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150	02/25/19 10:55	02/26/19 06:12	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.98	2.49	mg/Kg		02/27/19 18:38	03/01/19 18:23	1
<b>MRO (C28-C35)</b>	<b>3.16</b>	<b>J</b>	4.98	2.49	mg/Kg		02/27/19 18:38	03/01/19 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	70		50 - 150	02/27/19 18:38	03/01/19 18:23	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	348		49.4	34.6	mg/Kg			03/01/19 00:07	5

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB2-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-7**

**Date Collected: 02/20/19 12:15**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00194	0.000650	mg/Kg		02/25/19 10:55	02/25/19 22:12	1
Ethylbenzene	ND		0.00194	0.000650	mg/Kg		02/25/19 10:55	02/25/19 22:12	1
Toluene	ND		0.00194	0.000718	mg/Kg		02/25/19 10:55	02/25/19 22:12	1
Xylenes, Total	ND		0.00583	0.00119	mg/Kg		02/25/19 10:55	02/25/19 22:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130				02/25/19 10:55	02/25/19 22:12	1
4-Bromofluorobenzene (Surr)	105		70 - 130				02/25/19 10:55	02/25/19 22:12	1
Dibromofluoromethane (Surr)	93		70 - 130				02/25/19 10:55	02/25/19 22:12	1
Toluene-d8 (Surr)	104		70 - 130				02/25/19 10:55	02/25/19 22:12	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.60	2.30	mg/Kg		02/25/19 10:55	02/25/19 22:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150				02/25/19 10:55	02/25/19 22:24	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.90	2.45	mg/Kg		02/27/19 18:38	03/01/19 18:40	1
<b>MRO (C28-C35)</b>	<b>3.08 J</b>		4.90	2.45	mg/Kg		02/27/19 18:38	03/01/19 18:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	74		50 - 150				02/27/19 18:38	03/01/19 18:40	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>341</b>		49.3	34.5	mg/Kg			03/01/19 00:24	5

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB3-001 @ 0-1'bgs**

**Lab Sample ID: 490-169021-8**

**Date Collected: 02/20/19 12:31**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00188	0.000631	mg/Kg		02/25/19 10:55	02/25/19 22:41	1
Ethylbenzene	ND		0.00188	0.000631	mg/Kg		02/25/19 10:55	02/25/19 22:41	1
Toluene	ND		0.00188	0.000697	mg/Kg		02/25/19 10:55	02/25/19 22:41	1
Xylenes, Total	ND		0.00565	0.00116	mg/Kg		02/25/19 10:55	02/25/19 22:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	126		70 - 130	02/25/19 10:55	02/25/19 22:41	1
4-Bromofluorobenzene (Surr)	111		70 - 130	02/25/19 10:55	02/25/19 22:41	1
Dibromofluoromethane (Surr)	94		70 - 130	02/25/19 10:55	02/25/19 22:41	1
Toluene-d8 (Surr)	106		70 - 130	02/25/19 10:55	02/25/19 22:41	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.64	2.32	mg/Kg		02/25/19 10:55	02/25/19 22:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150	02/25/19 10:55	02/25/19 22:57	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.90	2.45	mg/Kg		02/27/19 18:38	03/01/19 18:57	1
<b>MRO (C28-C35)</b>	<b>3.99 J</b>		4.90	2.45	mg/Kg		02/27/19 18:38	03/01/19 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		50 - 150	02/27/19 18:38	03/01/19 18:57	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>13.0</b>		10.1	7.07	mg/Kg			02/28/19 11:18	1

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB3-001 @ 1-2'bgs**

**Lab Sample ID: 490-169021-9**

**Date Collected: 02/20/19 12:31**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00180	0.000604	mg/Kg		02/25/19 10:55	02/25/19 23:11	1
Ethylbenzene	ND		0.00180	0.000604	mg/Kg		02/25/19 10:55	02/25/19 23:11	1
Toluene	ND		0.00180	0.000667	mg/Kg		02/25/19 10:55	02/25/19 23:11	1
Xylenes, Total	ND		0.00541	0.00111	mg/Kg		02/25/19 10:55	02/25/19 23:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		70 - 130				02/25/19 10:55	02/25/19 23:11	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/25/19 10:55	02/25/19 23:11	1
Dibromofluoromethane (Surr)	95		70 - 130				02/25/19 10:55	02/25/19 23:11	1
Toluene-d8 (Surr)	105		70 - 130				02/25/19 10:55	02/25/19 23:11	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.39	2.19	mg/Kg		02/25/19 10:55	02/25/19 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		50 - 150				02/25/19 10:55	02/25/19 23:31	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.64	J	4.90	2.45	mg/Kg		02/27/19 18:38	03/01/19 19:13	1
MRO (C28-C35)	4.45	J	4.90	2.45	mg/Kg		02/27/19 18:38	03/01/19 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	74		50 - 150				02/27/19 18:38	03/01/19 19:13	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.6	F1	9.90	6.93	mg/Kg			02/27/19 11:13	1

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB3-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-10**

**Date Collected: 02/20/19 12:31**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00196	0.000657	mg/Kg		02/25/19 10:55	02/25/19 23:41	1
Ethylbenzene	ND		0.00196	0.000657	mg/Kg		02/25/19 10:55	02/25/19 23:41	1
Toluene	ND		0.00196	0.000725	mg/Kg		02/25/19 10:55	02/25/19 23:41	1
Xylenes, Total	ND		0.00588	0.00121	mg/Kg		02/25/19 10:55	02/25/19 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		70 - 130				02/25/19 10:55	02/25/19 23:41	1
4-Bromofluorobenzene (Surr)	108		70 - 130				02/25/19 10:55	02/25/19 23:41	1
Dibromofluoromethane (Surr)	93		70 - 130				02/25/19 10:55	02/25/19 23:41	1
Toluene-d8 (Surr)	105		70 - 130				02/25/19 10:55	02/25/19 23:41	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.67	2.34	mg/Kg		02/25/19 10:55	02/26/19 00:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		50 - 150				02/25/19 10:55	02/26/19 00:04	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.98	2.49	mg/Kg		02/27/19 18:38	03/01/19 19:30	1
<b>MRO (C28-C35)</b>	<b>2.91</b>	<b>J</b>	4.98	2.49	mg/Kg		02/27/19 18:38	03/01/19 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	70		50 - 150				02/27/19 18:38	03/01/19 19:30	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>475</b>		20.3	14.2	mg/Kg			02/27/19 16:10	2

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB3-001 @ 5-6'bgs**

**Lab Sample ID: 490-169021-11**

**Date Collected: 02/20/19 12:43**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00167	0.000559	mg/Kg		02/25/19 10:55	02/26/19 00:10	1
Ethylbenzene	ND		0.00167	0.000559	mg/Kg		02/25/19 10:55	02/26/19 00:10	1
Toluene	ND		0.00167	0.000618	mg/Kg		02/25/19 10:55	02/26/19 00:10	1
Xylenes, Total	ND		0.00501	0.00103	mg/Kg		02/25/19 10:55	02/26/19 00:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		70 - 130				02/25/19 10:55	02/26/19 00:10	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/25/19 10:55	02/26/19 00:10	1
Dibromofluoromethane (Surr)	94		70 - 130				02/25/19 10:55	02/26/19 00:10	1
Toluene-d8 (Surr)	103		70 - 130				02/25/19 10:55	02/26/19 00:10	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.68	2.34	mg/Kg		02/25/19 10:55	02/26/19 00:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150				02/25/19 10:55	02/26/19 00:38	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.84	2.42	mg/Kg		02/27/19 18:38	03/01/19 19:47	1
MRO (C28-C35)	ND		4.84	2.42	mg/Kg		02/27/19 18:38	03/01/19 19:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	65		50 - 150				02/27/19 18:38	03/01/19 19:47	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.2		9.92	6.94	mg/Kg			02/27/19 12:13	1

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB3-001 @ 7-8'bgs**

**Lab Sample ID: 490-169021-12**

**Date Collected: 02/20/19 12:43**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00187	0.000626	mg/Kg		02/25/19 10:55	02/26/19 15:06	1
Ethylbenzene	ND		0.00187	0.000626	mg/Kg		02/25/19 10:55	02/26/19 15:06	1
Toluene	ND		0.00187	0.000692	mg/Kg		02/25/19 10:55	02/26/19 15:06	1
Xylenes, Total	ND		0.00561	0.00115	mg/Kg		02/25/19 10:55	02/26/19 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 130				02/25/19 10:55	02/26/19 15:06	1
4-Bromofluorobenzene (Surr)	107		70 - 130				02/25/19 10:55	02/26/19 15:06	1
Dibromofluoromethane (Surr)	100		70 - 130				02/25/19 10:55	02/26/19 15:06	1
Toluene-d8 (Surr)	93		70 - 130				02/25/19 10:55	02/26/19 15:06	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.55	2.28	mg/Kg		02/25/19 10:55	02/26/19 01:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		50 - 150				02/25/19 10:55	02/26/19 01:11	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.91	2.45	mg/Kg		02/27/19 18:38	03/01/19 20:04	1
MRO (C28-C35)	ND		4.91	2.45	mg/Kg		02/27/19 18:38	03/01/19 20:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	72		50 - 150				02/27/19 18:38	03/01/19 20:04	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.7		9.95	6.96	mg/Kg			02/27/19 12:28	1



# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB4-001 @ 1'bgs**

**Lab Sample ID: 490-169021-13**

**Date Collected: 02/20/19 12:56**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00169	0.000568	mg/Kg		02/25/19 10:55	02/26/19 15:35	1
Ethylbenzene	0.00689		0.00169	0.000568	mg/Kg		02/25/19 10:55	02/26/19 15:35	1
Toluene	0.00221		0.00169	0.000627	mg/Kg		02/25/19 10:55	02/26/19 15:35	1
Xylenes, Total	0.0117		0.00508	0.00104	mg/Kg		02/25/19 10:55	02/26/19 15:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		70 - 130				02/25/19 10:55	02/26/19 15:35	1
4-Bromofluorobenzene (Surr)	149	X *	70 - 130				02/25/19 10:55	02/26/19 15:35	1
Dibromofluoromethane (Surr)	102		70 - 130				02/25/19 10:55	02/26/19 15:35	1
Toluene-d8 (Surr)	99		70 - 130				02/25/19 10:55	02/26/19 15:35	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.36	2.18	mg/Kg		02/25/19 10:55	02/26/19 01:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150				02/25/19 10:55	02/26/19 01:44	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	380		32.9	16.4	mg/Kg		02/27/19 18:38	03/01/19 23:08	4
MRO (C28-C35)	262		32.9	16.4	mg/Kg		02/27/19 18:38	03/01/19 23:08	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	38	X	50 - 150				02/27/19 18:38	03/01/19 23:08	4

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1130		49.5	34.6	mg/Kg			02/27/19 16:25	5

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB4-001 @ 2'bgs**

**Lab Sample ID: 490-169021-14**

**Date Collected: 02/20/19 12:59**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00192	0.000643	mg/Kg		02/25/19 10:55	02/26/19 16:05	1
Ethylbenzene	0.00929		0.00192	0.000643	mg/Kg		02/25/19 10:55	02/26/19 16:05	1
Toluene	0.00136	J	0.00192	0.000710	mg/Kg		02/25/19 10:55	02/26/19 16:05	1
Xylenes, Total	0.0124		0.00576	0.00118	mg/Kg		02/25/19 10:55	02/26/19 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130				02/25/19 10:55	02/26/19 16:05	1
4-Bromofluorobenzene (Surr)	125		70 - 130				02/25/19 10:55	02/26/19 16:05	1
Dibromofluoromethane (Surr)	102		70 - 130				02/25/19 10:55	02/26/19 16:05	1
Toluene-d8 (Surr)	93		70 - 130				02/25/19 10:55	02/26/19 16:05	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.26	2.13	mg/Kg		02/25/19 10:55	02/26/19 02:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150				02/25/19 10:55	02/26/19 02:18	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	278		19.7	9.84	mg/Kg		02/27/19 18:38	03/01/19 23:25	4
MRO (C28-C35)	151		19.7	9.84	mg/Kg		02/27/19 18:38	03/01/19 23:25	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	45	X	50 - 150				02/27/19 18:38	03/01/19 23:25	4

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3780		201	141	mg/Kg			02/27/19 16:40	20

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB4-001 @ 3'bgs**

**Lab Sample ID: 490-169021-15**

**Date Collected: 02/20/19 13:05**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0943	0.0321	mg/Kg		02/25/19 10:55	02/26/19 20:16	1
Ethylbenzene	12.1		0.0943	0.0321	mg/Kg		02/25/19 10:55	02/26/19 20:16	1
Toluene	0.167		0.0943	0.0349	mg/Kg		02/25/19 10:55	02/26/19 20:16	1
Xylenes, Total	18.8		0.283	0.0585	mg/Kg		02/25/19 10:55	02/26/19 20:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71		70 - 130	02/25/19 10:55	02/26/19 20:16	1
4-Bromofluorobenzene (Surr)	119		70 - 130	02/25/19 10:55	02/26/19 20:16	1
Dibromofluoromethane (Surr)	93		70 - 130	02/25/19 10:55	02/26/19 20:16	1
Toluene-d8 (Surr)	101		70 - 130	02/25/19 10:55	02/26/19 20:16	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	264		4.30	2.15	mg/Kg		02/25/19 10:55	02/26/19 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		50 - 150	02/25/19 10:55	02/26/19 03:58	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1590		122	60.8	mg/Kg		02/27/19 18:38	03/02/19 16:29	25
MRO (C28-C35)	463		24.3	12.2	mg/Kg		02/27/19 18:38	03/01/19 23:42	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	151	X	50 - 150	02/27/19 18:38	03/01/19 23:42	5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1030		198	138	mg/Kg			02/27/19 13:27	20

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB4-001 @ 3.5'bgs**

**Lab Sample ID: 490-169021-16**

**Date Collected: 02/20/19 13:11**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0853	0.0290	mg/Kg		02/25/19 10:55	02/26/19 21:14	1
Ethylbenzene	16.8		0.0853	0.0290	mg/Kg		02/25/19 10:55	02/26/19 21:14	1
Toluene	0.203		0.0853	0.0316	mg/Kg		02/25/19 10:55	02/26/19 21:14	1
Xylenes, Total	23.0		5.12	1.06	mg/Kg		02/25/19 10:55	02/26/19 21:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		70 - 130	02/25/19 10:55	02/26/19 21:14	1
1,2-Dichloroethane-d4 (Surr)	77		70 - 130	02/25/19 10:55	02/26/19 21:43	20
4-Bromofluorobenzene (Surr)	141	X	70 - 130	02/25/19 10:55	02/26/19 21:14	1
4-Bromofluorobenzene (Surr)	106		70 - 130	02/25/19 10:55	02/26/19 21:43	20
Dibromofluoromethane (Surr)	93		70 - 130	02/25/19 10:55	02/26/19 21:14	1
Dibromofluoromethane (Surr)	106		70 - 130	02/25/19 10:55	02/26/19 21:43	20
Toluene-d8 (Surr)	98		70 - 130	02/25/19 10:55	02/26/19 21:14	1
Toluene-d8 (Surr)	99		70 - 130	02/25/19 10:55	02/26/19 21:43	20

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	400		4.39	2.19	mg/Kg		02/25/19 10:55	02/26/19 05:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		50 - 150	02/25/19 10:55	02/26/19 05:05	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2840		124	62.0	mg/Kg		02/27/19 18:38	03/02/19 16:45	25
MRO (C28-C35)	615		124	62.0	mg/Kg		02/27/19 18:38	03/02/19 16:45	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	0	X	50 - 150	02/27/19 18:38	03/02/19 16:45	25

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1380		199	139	mg/Kg			02/27/19 13:57	20

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

Client Sample ID: SB5-001 @ 1'bgs

Lab Sample ID: 490-169021-17

Date Collected: 02/20/19 13:16

Matrix: Solid

Date Received: 02/23/19 09:10

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0236		0.00185	0.000619	mg/Kg		02/25/19 10:55	02/26/19 16:35	1
Ethylbenzene	5.49		0.0942	0.0320	mg/Kg		02/25/19 10:55	02/26/19 19:47	1
Toluene	2.31		0.0942	0.0348	mg/Kg		02/25/19 10:55	02/26/19 19:47	1
Xylenes, Total	13.3		0.282	0.0584	mg/Kg		02/25/19 10:55	02/26/19 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130	02/25/19 10:55	02/26/19 16:35	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 130	02/25/19 10:55	02/26/19 19:47	1
4-Bromofluorobenzene (Surr)	305	X *	70 - 130	02/25/19 10:55	02/26/19 16:35	1
4-Bromofluorobenzene (Surr)	114		70 - 130	02/25/19 10:55	02/26/19 19:47	1
Dibromofluoromethane (Surr)	105		70 - 130	02/25/19 10:55	02/26/19 16:35	1
Dibromofluoromethane (Surr)	103		70 - 130	02/25/19 10:55	02/26/19 19:47	1
Toluene-d8 (Surr)	260	X	70 - 130	02/25/19 10:55	02/26/19 16:35	1
Toluene-d8 (Surr)	89		70 - 130	02/25/19 10:55	02/26/19 19:47	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	220		4.64	2.32	mg/Kg		02/25/19 10:55	02/26/19 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		50 - 150	02/25/19 10:55	02/26/19 02:51	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1910		97.8	48.9	mg/Kg		02/27/19 18:38	03/02/19 17:18	20
MRO (C28-C35)	805		48.9	24.5	mg/Kg		02/27/19 18:38	03/02/19 00:16	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	0	X	50 - 150	02/27/19 18:38	03/02/19 00:16	10

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11500		496	347	mg/Kg			02/27/19 14:56	50

# Client Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB5-001 @ 1.5'bgs**

**Lab Sample ID: 490-169021-18**

**Date Collected: 02/20/19 13:20**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0321		0.00182	0.000609	mg/Kg		02/25/19 10:55	02/26/19 17:05	1
Ethylbenzene	9.25		0.0992	0.0337	mg/Kg		02/25/19 10:55	02/26/19 22:11	1
Toluene	4.67		0.0992	0.0367	mg/Kg		02/25/19 10:55	02/26/19 22:11	1
Xylenes, Total	19.6		0.298	0.0615	mg/Kg		02/25/19 10:55	02/26/19 22:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130	02/25/19 10:55	02/26/19 17:05	1
1,2-Dichloroethane-d4 (Surr)	77		70 - 130	02/25/19 10:55	02/26/19 22:11	1
4-Bromofluorobenzene (Surr)	482	X *	70 - 130	02/25/19 10:55	02/26/19 17:05	1
4-Bromofluorobenzene (Surr)	122		70 - 130	02/25/19 10:55	02/26/19 22:11	1
Dibromofluoromethane (Surr)	111		70 - 130	02/25/19 10:55	02/26/19 17:05	1
Dibromofluoromethane (Surr)	95		70 - 130	02/25/19 10:55	02/26/19 22:11	1
Toluene-d8 (Surr)	271	X	70 - 130	02/25/19 10:55	02/26/19 17:05	1
Toluene-d8 (Surr)	102		70 - 130	02/25/19 10:55	02/26/19 22:11	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	274		4.30	2.15	mg/Kg		02/25/19 10:55	02/26/19 03:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		50 - 150	02/25/19 10:55	02/26/19 03:25	1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3200		98.1	49.0	mg/Kg		02/27/19 18:38	03/02/19 17:35	20
MRO (C28-C35)	1110		49.0	24.5	mg/Kg		02/27/19 18:38	03/02/19 00:32	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	115		50 - 150	02/27/19 18:38	03/02/19 00:32	10

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11100		500	350	mg/Kg			02/27/19 15:26	50

# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 490-169021-18 MS

Matrix: Solid

Analysis Batch: 577457

Client Sample ID: SB5-001 @ 1.5'bgs

Prep Type: Total/NA

Prep Batch: 577256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0321		0.0469	0.08419		mg/Kg		111	21 - 150
Ethylbenzene	2.12	E	0.0469	2.924	E 4 *	mg/Kg		1717	10 - 150
Toluene	1.55	E	0.0469	2.155	E 4 *	mg/Kg		1288	17 - 150
Xylenes, Total	4.27		0.0938	5.924	4	mg/Kg		1763	10 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	134	X	70 - 130
4-Bromofluorobenzene (Surr)	727	X *	70 - 130
Dibromofluoromethane (Surr)	122		70 - 130
Toluene-d8 (Surr)	328	X *	70 - 130

Lab Sample ID: 490-169021-18 MSD

Matrix: Solid

Analysis Batch: 577457

Client Sample ID: SB5-001 @ 1.5'bgs

Prep Type: Total/NA

Prep Batch: 577256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.0321		0.0492	0.09455		mg/Kg		127	21 - 150	12	50
Ethylbenzene	2.12	E	0.0492	3.510	E 4 *	mg/Kg		2827	10 - 150	18	50
Toluene	1.55	E	0.0492	2.757	E 4 *	mg/Kg		2453	17 - 150	25	50
Xylenes, Total	4.27		0.0984	7.532	4	mg/Kg		3314	10 - 150	24	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	137	X	70 - 130
4-Bromofluorobenzene (Surr)	601	X *	70 - 130
Dibromofluoromethane (Surr)	128		70 - 130
Toluene-d8 (Surr)	382	X *	70 - 130

Lab Sample ID: 490-169006-C-10-A MS

Matrix: Solid

Analysis Batch: 577452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 577290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.194		3.01	3.295		mg/Kg		103	21 - 150
Ethylbenzene	0.0653	J	3.01	3.486		mg/Kg		114	10 - 150
Toluene	0.586		3.01	3.775		mg/Kg		106	17 - 150
Xylenes, Total	0.447		6.02	7.363		mg/Kg		115	10 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	79		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	104		70 - 130

# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-169006-C-10-A MSD

Matrix: Solid

Analysis Batch: 577452

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 577290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.194		3.01	3.299		mg/Kg		103	21 - 150	0	50
Ethylbenzene	0.0653	J	3.01	3.585		mg/Kg		117	10 - 150	3	50
Toluene	0.586		3.01	3.841		mg/Kg		108	17 - 150	2	50
Xylenes, Total	0.447		6.02	7.469		mg/Kg		117	10 - 150	1	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: MB 490-577346/7

Matrix: Solid

Analysis Batch: 577346

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			02/25/19 18:44	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			02/25/19 18:44	1
Toluene	ND		0.00200	0.000740	mg/Kg			02/25/19 18:44	1
Xylenes, Total	ND		0.00600	0.00123	mg/Kg			02/25/19 18:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130		02/25/19 18:44	1
4-Bromofluorobenzene (Surr)	104		70 - 130		02/25/19 18:44	1
Dibromofluoromethane (Surr)	91		70 - 130		02/25/19 18:44	1
Toluene-d8 (Surr)	107		70 - 130		02/25/19 18:44	1

Lab Sample ID: LCS 490-577346/3

Matrix: Solid

Analysis Batch: 577346

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04829		mg/Kg		97	70 - 130
Ethylbenzene	0.0500	0.04825		mg/Kg		97	70 - 130
Toluene	0.0500	0.04897		mg/Kg		98	70 - 130
Xylenes, Total	0.100	0.09914		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 130
4-Bromofluorobenzene (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
Toluene-d8 (Surr)	106		70 - 130

TestAmerica Nashville



# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-577346/4

Matrix: Solid

Analysis Batch: 577346

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04872		mg/Kg		97	70 - 130	1	37
Ethylbenzene	0.0500	0.04867		mg/Kg		97	70 - 130	1	38
Toluene	0.0500	0.04900		mg/Kg		98	70 - 130	0	40
Xylenes, Total	0.100	0.09871		mg/Kg		99	70 - 130	0	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 130
4-Bromofluorobenzene (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: MB 490-577452/8

Matrix: Solid

Analysis Batch: 577452

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0340	mg/Kg			02/26/19 14:58	1
Ethylbenzene	ND		0.100	0.0340	mg/Kg			02/26/19 14:58	1
Toluene	ND		0.100	0.0370	mg/Kg			02/26/19 14:58	1
Xylenes, Total	ND		0.300	0.0620	mg/Kg			02/26/19 14:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		02/26/19 14:58	1
4-Bromofluorobenzene (Surr)	95		70 - 130		02/26/19 14:58	1
Dibromofluoromethane (Surr)	119		70 - 130		02/26/19 14:58	1
Toluene-d8 (Surr)	89		70 - 130		02/26/19 14:58	1

Lab Sample ID: LCS 490-577452/5

Matrix: Solid

Analysis Batch: 577452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.614		mg/Kg		105	70 - 130
Ethylbenzene	2.50	2.649		mg/Kg		106	70 - 130
Toluene	2.50	2.546		mg/Kg		102	70 - 130
Xylenes, Total	5.00	5.334		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130
Toluene-d8 (Surr)	98		70 - 130

TestAmerica Nashville

# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-577452/6

Matrix: Solid

Analysis Batch: 577452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.738		mg/Kg		110	70 - 130	5	37
Ethylbenzene	2.50	2.813		mg/Kg		113	70 - 130	6	38
Toluene	2.50	2.694		mg/Kg		108	70 - 130	6	40
Xylenes, Total	5.00	5.660		mg/Kg		113	70 - 130	6	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	91		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: MB 490-577457/7

Matrix: Solid

Analysis Batch: 577457

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			02/26/19 14:36	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			02/26/19 14:36	1
Toluene	ND		0.00200	0.000740	mg/Kg			02/26/19 14:36	1
Xylenes, Total	ND		0.00600	0.00123	mg/Kg			02/26/19 14:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		02/26/19 14:36	1
4-Bromofluorobenzene (Surr)	106		70 - 130		02/26/19 14:36	1
Dibromofluoromethane (Surr)	104		70 - 130		02/26/19 14:36	1
Toluene-d8 (Surr)	94		70 - 130		02/26/19 14:36	1

Lab Sample ID: LCS 490-577457/3

Matrix: Solid

Analysis Batch: 577457

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05187		mg/Kg		104	70 - 130
Ethylbenzene	0.0500	0.05271		mg/Kg		105	70 - 130
Toluene	0.0500	0.05011		mg/Kg		100	70 - 130
Xylenes, Total	0.100	0.1048		mg/Kg		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
Toluene-d8 (Surr)	97		70 - 130

TestAmerica Nashville

# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-577457/4

Matrix: Solid

Analysis Batch: 577457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.05310		mg/Kg		106	70 - 130	2	37
Ethylbenzene	0.0500	0.05341		mg/Kg		107	70 - 130	1	38
Toluene	0.0500	0.04971		mg/Kg		99	70 - 130	1	40
Xylenes, Total	0.100	0.1079		mg/Kg		108	70 - 130	3	38

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	95		70 - 130

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 490-577254/1-A

Matrix: Solid

Analysis Batch: 577344

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 577254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.00	2.50	mg/Kg		02/25/19 10:53	02/25/19 19:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		50 - 150	02/25/19 10:53	02/25/19 19:02	1

Lab Sample ID: LCS 490-577254/2-A

Matrix: Solid

Analysis Batch: 577344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 577254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	500	522.9		mg/Kg		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	108		50 - 150

Lab Sample ID: LCSD 490-577254/3-A

Matrix: Solid

Analysis Batch: 577344

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 577254

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	500	506.8		mg/Kg		101	70 - 130	3	21

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	107		50 - 150

TestAmerica Nashville

# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 490-169021-6 MS

Matrix: Solid

Analysis Batch: 577344

Client Sample ID: SB2-001 @ 1-2'bgs

Prep Type: Total/NA

Prep Batch: 577254

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics [C6 - C10]	ND	F1	465	213.0	F1	mg/Kg	-	46	56 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
a.a.a-Trifluorotoluene	93		50 - 150								

Lab Sample ID: 490-169021-6 MSD

Matrix: Solid

Analysis Batch: 577344

Client Sample ID: SB2-001 @ 1-2'bgs

Prep Type: Total/NA

Prep Batch: 577254

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limits
Gasoline Range Organics [C6 - C10]	ND	F1	465	183.9	F1	mg/Kg		40	56 - 130	15	21
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	91		50 - 150								

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 490-577883/1-A

Matrix: Solid

Analysis Batch: 578270

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 577883

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		5.00	2.50	mg/Kg		02/27/19 18:38	03/01/19 12:20	1
MRO (C28-C35)	ND		5.00	2.50	mg/Kg		02/27/19 18:38	03/01/19 12:20	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
o-Terphenyl (Surr)	52		50 - 150				02/27/19 18:38	03/01/19 12:20	1

Lab Sample ID: LCS 490-577883/2-A

Matrix: Solid

Analysis Batch: 578270

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 577883

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics [C10-C28]			40.0	35.66		mg/Kg	-	89	54 - 130		
			LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits								
<i>o</i> -Terphenyl (Surr)	72		50 - 150								

Lab Sample ID: LCSD 490-577883/3-A

Matrix: Solid

Analysis Batch: 578270

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 577883

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	40.0	31.72		mg/Kg		79	54 - 130	12	47

TestAmerica Nashville

## QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	63		50 - 150

Lab Sample ID: 490-169021-1 MS

Matrix: Solid

Analysis Batch: 578270

Client Sample ID: SB1-001 @ 0-1'bgs

Prep Type: Total/NA

Prep Batch: 577883

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	184		39.0	226.6	4	mg/Kg		108	10 - 142

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	40	X	50 - 150

Lab Sample ID: 490-169021-1 MSD

Matrix: Solid

Analysis Batch: 578270

Client Sample ID: SB1-001 @ 0-1'bgs

Prep Type: Total/NA

Prep Batch: 577883

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	184		39.6	240.1	4	mg/Kg		141	10 - 142	6	47

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	43	X	50 - 150

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-577197/1-A

Matrix: Solid

Analysis Batch: 577735

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.96	6.97	mg/Kg			02/27/19 10:29	1

Lab Sample ID: LCS 490-577197/2-A

Matrix: Solid

Analysis Batch: 577735

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	99.73		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 490-577197/3-A

Matrix: Solid

Analysis Batch: 577735

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	99.7	98.49		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 490-169021-9 MS

Matrix: Solid

Analysis Batch: 577735

Client Sample ID: SB3-001 @ 1-2'bgs

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	46.6	F1	99.8	163.6		mg/Kg		117	80 - 120

TestAmerica Nashville

# QC Sample Results

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 490-169021-9 MSD

Matrix: Solid

Analysis Batch: 577735

Client Sample ID: SB3-001 @ 1-2'bgs

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	46.6	F1	99.2	171.7	F1	mg/Kg		126	80 - 120	5	20

Lab Sample ID: MB 490-577196/1-A

Matrix: Solid

Analysis Batch: 577832

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.96	6.97	mg/Kg			02/28/19 04:23	1

Lab Sample ID: LCS 490-577196/2-A

Matrix: Solid

Analysis Batch: 577832

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	93.60		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 490-577196/3-A

Matrix: Solid

Analysis Batch: 577832

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	99.7	93.99		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 490-169020-A-1-B MS

Matrix: Solid

Analysis Batch: 577832

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND		99.4	97.10		mg/Kg		98	80 - 120

Lab Sample ID: 490-169020-A-1-C MSD

Matrix: Solid

Analysis Batch: 577832

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND		99.8	96.97		mg/Kg		97	80 - 120	0	20

TestAmerica Nashville



## QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### GC/MS VOA

#### Prep Batch: 577255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	5030B	
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	5030B	
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	5030B	
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	5030B	

#### Prep Batch: 577256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Total/NA	Solid	5030B	
490-169021-2	SB1-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-3	SB1-001 @ 2-3'bgs	Total/NA	Solid	5030B	
490-169021-4	SB1-001 @ 5-6'bgs	Total/NA	Solid	5030B	
490-169021-5	SB2-001 @ 0-1'bgs	Total/NA	Solid	5030B	
490-169021-6	SB2-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-7	SB2-001 @ 2-3'bgs	Total/NA	Solid	5030B	
490-169021-8	SB3-001 @ 0-1'bgs	Total/NA	Solid	5030B	
490-169021-9	SB3-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-10	SB3-001 @ 2-3'bgs	Total/NA	Solid	5030B	
490-169021-11	SB3-001 @ 5-6'bgs	Total/NA	Solid	5030B	
490-169021-12	SB3-001 @ 7-8'bgs	Total/NA	Solid	5030B	
490-169021-13	SB4-001 @ 1'bgs	Total/NA	Solid	5030B	
490-169021-14	SB4-001 @ 2'bgs	Total/NA	Solid	5030B	
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	5030B	
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	5030B	
490-169021-18 MS	SB5-001 @ 1.5'bgs	Total/NA	Solid	5030B	
490-169021-18 MSD	SB5-001 @ 1.5'bgs	Total/NA	Solid	5030B	

#### Prep Batch: 577290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169006-C-10-A MS	Matrix Spike	Total/NA	Solid	5035	
490-169006-C-10-A MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 577346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Total/NA	Solid	8260B	577256
490-169021-2	SB1-001 @ 1-2'bgs	Total/NA	Solid	8260B	577256
490-169021-3	SB1-001 @ 2-3'bgs	Total/NA	Solid	8260B	577256
490-169021-4	SB1-001 @ 5-6'bgs	Total/NA	Solid	8260B	577256
490-169021-5	SB2-001 @ 0-1'bgs	Total/NA	Solid	8260B	577256
490-169021-6	SB2-001 @ 1-2'bgs	Total/NA	Solid	8260B	577256
490-169021-7	SB2-001 @ 2-3'bgs	Total/NA	Solid	8260B	577256
490-169021-8	SB3-001 @ 0-1'bgs	Total/NA	Solid	8260B	577256
490-169021-9	SB3-001 @ 1-2'bgs	Total/NA	Solid	8260B	577256
490-169021-10	SB3-001 @ 2-3'bgs	Total/NA	Solid	8260B	577256
490-169021-11	SB3-001 @ 5-6'bgs	Total/NA	Solid	8260B	577256
MB 490-577346/7	Method Blank	Total/NA	Solid	8260B	
LCS 490-577346/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-577346/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

#### Analysis Batch: 577452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	8260B	577255

TestAmerica Nashville

## QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### GC/MS VOA (Continued)

#### Analysis Batch: 577452 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	8260B	577255
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	8260B	577255
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	8260B	577255
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	8260B	577255
MB 490-577452/8	Method Blank	Total/NA	Solid	8260B	
LCS 490-577452/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-577452/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
490-169006-C-10-A MS	Matrix Spike	Total/NA	Solid	8260B	577290
490-169006-C-10-A MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	577290

#### Analysis Batch: 577457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-12	SB3-001 @ 7-8'bgs	Total/NA	Solid	8260B	577256
490-169021-13	SB4-001 @ 1'bgs	Total/NA	Solid	8260B	577256
490-169021-14	SB4-001 @ 2'bgs	Total/NA	Solid	8260B	577256
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	8260B	577256
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	8260B	577256
MB 490-577457/7	Method Blank	Total/NA	Solid	8260B	
LCS 490-577457/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-577457/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
490-169021-18 MS	SB5-001 @ 1.5'bgs	Total/NA	Solid	8260B	577256
490-169021-18 MSD	SB5-001 @ 1.5'bgs	Total/NA	Solid	8260B	577256

### GC VOA

#### Prep Batch: 577254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Total/NA	Solid	5030B	
490-169021-2	SB1-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-3	SB1-001 @ 2-3'bgs	Total/NA	Solid	5030B	
490-169021-4	SB1-001 @ 5-6'bgs	Total/NA	Solid	5030B	
490-169021-5	SB2-001 @ 0-1'bgs	Total/NA	Solid	5030B	
490-169021-6	SB2-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-7	SB2-001 @ 2-3'bgs	Total/NA	Solid	5030B	
490-169021-8	SB3-001 @ 0-1'bgs	Total/NA	Solid	5030B	
490-169021-9	SB3-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-10	SB3-001 @ 2-3'bgs	Total/NA	Solid	5030B	
490-169021-11	SB3-001 @ 5-6'bgs	Total/NA	Solid	5030B	
490-169021-12	SB3-001 @ 7-8'bgs	Total/NA	Solid	5030B	
490-169021-13	SB4-001 @ 1'bgs	Total/NA	Solid	5030B	
490-169021-14	SB4-001 @ 2'bgs	Total/NA	Solid	5030B	
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	5030B	
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	5030B	
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	5030B	
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	5030B	
MB 490-577254/1-A	Method Blank	Total/NA	Solid	5030B	
LCS 490-577254/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 490-577254/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
490-169021-6 MS	SB2-001 @ 1-2'bgs	Total/NA	Solid	5030B	
490-169021-6 MSD	SB2-001 @ 1-2'bgs	Total/NA	Solid	5030B	

TestAmerica Nashville

## QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### GC VOA (Continued)

#### Analysis Batch: 577344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Total/NA	Solid	8015B	577254
490-169021-2	SB1-001 @ 1-2'bgs	Total/NA	Solid	8015B	577254
490-169021-3	SB1-001 @ 2-3'bgs	Total/NA	Solid	8015B	577254
490-169021-4	SB1-001 @ 5-6'bgs	Total/NA	Solid	8015B	577254
490-169021-5	SB2-001 @ 0-1'bgs	Total/NA	Solid	8015B	577254
490-169021-6	SB2-001 @ 1-2'bgs	Total/NA	Solid	8015B	577254
490-169021-7	SB2-001 @ 2-3'bgs	Total/NA	Solid	8015B	577254
490-169021-8	SB3-001 @ 0-1'bgs	Total/NA	Solid	8015B	577254
490-169021-9	SB3-001 @ 1-2'bgs	Total/NA	Solid	8015B	577254
490-169021-10	SB3-001 @ 2-3'bgs	Total/NA	Solid	8015B	577254
490-169021-11	SB3-001 @ 5-6'bgs	Total/NA	Solid	8015B	577254
490-169021-12	SB3-001 @ 7-8'bgs	Total/NA	Solid	8015B	577254
490-169021-13	SB4-001 @ 1'bgs	Total/NA	Solid	8015B	577254
490-169021-14	SB4-001 @ 2'bgs	Total/NA	Solid	8015B	577254
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	8015B	577254
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	8015B	577254
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	8015B	577254
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	8015B	577254
MB 490-577254/1-A	Method Blank	Total/NA	Solid	8015B	577254
LCS 490-577254/2-A	Lab Control Sample	Total/NA	Solid	8015B	577254
LCSD 490-577254/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	577254
490-169021-6 MS	SB2-001 @ 1-2'bgs	Total/NA	Solid	8015B	577254
490-169021-6 MSD	SB2-001 @ 1-2'bgs	Total/NA	Solid	8015B	577254

### GC Semi VOA

#### Prep Batch: 577883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Total/NA	Solid	3550C	
490-169021-2	SB1-001 @ 1-2'bgs	Total/NA	Solid	3550C	
490-169021-3	SB1-001 @ 2-3'bgs	Total/NA	Solid	3550C	
490-169021-4	SB1-001 @ 5-6'bgs	Total/NA	Solid	3550C	
490-169021-5	SB2-001 @ 0-1'bgs	Total/NA	Solid	3550C	
490-169021-6	SB2-001 @ 1-2'bgs	Total/NA	Solid	3550C	
490-169021-7	SB2-001 @ 2-3'bgs	Total/NA	Solid	3550C	
490-169021-8	SB3-001 @ 0-1'bgs	Total/NA	Solid	3550C	
490-169021-9	SB3-001 @ 1-2'bgs	Total/NA	Solid	3550C	
490-169021-10	SB3-001 @ 2-3'bgs	Total/NA	Solid	3550C	
490-169021-11	SB3-001 @ 5-6'bgs	Total/NA	Solid	3550C	
490-169021-12	SB3-001 @ 7-8'bgs	Total/NA	Solid	3550C	
490-169021-13	SB4-001 @ 1'bgs	Total/NA	Solid	3550C	
490-169021-14	SB4-001 @ 2'bgs	Total/NA	Solid	3550C	
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	3550C	
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	3550C	
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	3550C	
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	3550C	
MB 490-577883/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 490-577883/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 490-577883/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
490-169021-1 MS	SB1-001 @ 0-1'bgs	Total/NA	Solid	3550C	

TestAmerica Nashville

## QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### GC Semi VOA (Continued)

#### Prep Batch: 577883 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1 MSD	SB1-001 @ 0-1'bgs	Total/NA	Solid	3550C	

#### Analysis Batch: 578270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Total/NA	Solid	8015B	577883
490-169021-2	SB1-001 @ 1-2'bgs	Total/NA	Solid	8015B	577883
490-169021-3	SB1-001 @ 2-3'bgs	Total/NA	Solid	8015B	577883
490-169021-4	SB1-001 @ 5-6'bgs	Total/NA	Solid	8015B	577883
490-169021-5	SB2-001 @ 0-1'bgs	Total/NA	Solid	8015B	577883
490-169021-6	SB2-001 @ 1-2'bgs	Total/NA	Solid	8015B	577883
490-169021-7	SB2-001 @ 2-3'bgs	Total/NA	Solid	8015B	577883
490-169021-8	SB3-001 @ 0-1'bgs	Total/NA	Solid	8015B	577883
490-169021-9	SB3-001 @ 1-2'bgs	Total/NA	Solid	8015B	577883
490-169021-10	SB3-001 @ 2-3'bgs	Total/NA	Solid	8015B	577883
490-169021-11	SB3-001 @ 5-6'bgs	Total/NA	Solid	8015B	577883
490-169021-12	SB3-001 @ 7-8'bgs	Total/NA	Solid	8015B	577883
490-169021-13	SB4-001 @ 1'bgs	Total/NA	Solid	8015B	577883
490-169021-14	SB4-001 @ 2'bgs	Total/NA	Solid	8015B	577883
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	8015B	577883
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	8015B	577883
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	8015B	577883
MB 490-577883/1-A	Method Blank	Total/NA	Solid	8015B	577883
LCS 490-577883/2-A	Lab Control Sample	Total/NA	Solid	8015B	577883
LCSD 490-577883/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	577883
490-169021-1 MS	SB1-001 @ 0-1'bgs	Total/NA	Solid	8015B	577883
490-169021-1 MSD	SB1-001 @ 0-1'bgs	Total/NA	Solid	8015B	577883

#### Analysis Batch: 578434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-15	SB4-001 @ 3'bgs	Total/NA	Solid	8015B	577883
490-169021-16	SB4-001 @ 3.5'bgs	Total/NA	Solid	8015B	577883
490-169021-17	SB5-001 @ 1'bgs	Total/NA	Solid	8015B	577883
490-169021-18	SB5-001 @ 1.5'bgs	Total/NA	Solid	8015B	577883

### HPLC/IC

#### Leach Batch: 577196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Soluble	Solid	DI Leach	
490-169021-2	SB1-001 @ 1-2'bgs	Soluble	Solid	DI Leach	
490-169021-3	SB1-001 @ 2-3'bgs	Soluble	Solid	DI Leach	
490-169021-4	SB1-001 @ 5-6'bgs	Soluble	Solid	DI Leach	
490-169021-5	SB2-001 @ 0-1'bgs	Soluble	Solid	DI Leach	
490-169021-6	SB2-001 @ 1-2'bgs	Soluble	Solid	DI Leach	
490-169021-7	SB2-001 @ 2-3'bgs	Soluble	Solid	DI Leach	
490-169021-8	SB3-001 @ 0-1'bgs	Soluble	Solid	DI Leach	
MB 490-577196/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-577196/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-577196/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
490-169020-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	

TestAmerica Nashville

## QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### HPLC/IC (Continued)

#### Leach Batch: 577196 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169020-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Leach Batch: 577197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-9	SB3-001 @ 1-2'bgs	Soluble	Solid	DI Leach	
490-169021-10	SB3-001 @ 2-3'bgs	Soluble	Solid	DI Leach	
490-169021-11	SB3-001 @ 5-6'bgs	Soluble	Solid	DI Leach	
490-169021-12	SB3-001 @ 7-8'bgs	Soluble	Solid	DI Leach	
490-169021-13	SB4-001 @ 1'bgs	Soluble	Solid	DI Leach	
490-169021-14	SB4-001 @ 2'bgs	Soluble	Solid	DI Leach	
490-169021-15	SB4-001 @ 3'bgs	Soluble	Solid	DI Leach	
490-169021-16	SB4-001 @ 3.5'bgs	Soluble	Solid	DI Leach	
490-169021-17	SB5-001 @ 1'bgs	Soluble	Solid	DI Leach	
490-169021-18	SB5-001 @ 1.5'bgs	Soluble	Solid	DI Leach	
MB 490-577197/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-577197/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-577197/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
490-169021-9 MS	SB3-001 @ 1-2'bgs	Soluble	Solid	DI Leach	
490-169021-9 MSD	SB3-001 @ 1-2'bgs	Soluble	Solid	DI Leach	

#### Analysis Batch: 577735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-9	SB3-001 @ 1-2'bgs	Soluble	Solid	300.0	577197
490-169021-10	SB3-001 @ 2-3'bgs	Soluble	Solid	300.0	577197
490-169021-11	SB3-001 @ 5-6'bgs	Soluble	Solid	300.0	577197
490-169021-12	SB3-001 @ 7-8'bgs	Soluble	Solid	300.0	577197
490-169021-13	SB4-001 @ 1'bgs	Soluble	Solid	300.0	577197
490-169021-14	SB4-001 @ 2'bgs	Soluble	Solid	300.0	577197
490-169021-15	SB4-001 @ 3'bgs	Soluble	Solid	300.0	577197
490-169021-16	SB4-001 @ 3.5'bgs	Soluble	Solid	300.0	577197
490-169021-17	SB5-001 @ 1'bgs	Soluble	Solid	300.0	577197
490-169021-18	SB5-001 @ 1.5'bgs	Soluble	Solid	300.0	577197
MB 490-577197/1-A	Method Blank	Soluble	Solid	300.0	577197
LCS 490-577197/2-A	Lab Control Sample	Soluble	Solid	300.0	577197
LCSD 490-577197/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	577197
490-169021-9 MS	SB3-001 @ 1-2'bgs	Soluble	Solid	300.0	577197
490-169021-9 MSD	SB3-001 @ 1-2'bgs	Soluble	Solid	300.0	577197

#### Analysis Batch: 577832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-8	SB3-001 @ 0-1'bgs	Soluble	Solid	300.0	577196
MB 490-577196/1-A	Method Blank	Soluble	Solid	300.0	577196
LCS 490-577196/2-A	Lab Control Sample	Soluble	Solid	300.0	577196
LCSD 490-577196/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	577196
490-169020-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	577196
490-169020-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	577196

#### Analysis Batch: 578086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-1	SB1-001 @ 0-1'bgs	Soluble	Solid	300.0	577196
490-169021-2	SB1-001 @ 1-2'bgs	Soluble	Solid	300.0	577196

TestAmerica Nashville

## QC Association Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### HPLC/IC (Continued)

#### Analysis Batch: 578086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-169021-3	SB1-001 @ 2-3'bgs	Soluble	Solid	300.0	577196
490-169021-4	SB1-001 @ 5-6'bgs	Soluble	Solid	300.0	577196
490-169021-5	SB2-001 @ 0-1'bgs	Soluble	Solid	300.0	577196
490-169021-6	SB2-001 @ 1-2'bgs	Soluble	Solid	300.0	577196
490-169021-7	SB2-001 @ 2-3'bgs	Soluble	Solid	300.0	577196



# Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB1-001 @ 0-1'bgs**

**Date Collected: 02/20/19 11:36**

**Date Received: 02/23/19 09:10**

**Lab Sample ID: 490-169021-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 19:14	SW1	TAL NSH
Total/NA	Prep	5030B			5.68 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 19:36	AK1	TAL NSH
Total/NA	Prep	3550C			25.23 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		5			578270	03/01/19 21:45	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9630 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		10			578086	02/28/19 22:28	SOO	TAL NSH

**Client Sample ID: SB1-001 @ 1-2'bgs**

**Date Collected: 02/20/19 11:36**

**Date Received: 02/23/19 09:10**

**Lab Sample ID: 490-169021-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.24 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 19:44	SW1	TAL NSH
Total/NA	Prep	5030B			5.08 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 20:10	AK1	TAL NSH
Total/NA	Prep	3550C			25.07 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		5			578270	03/01/19 22:35	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0138 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		10			578086	02/28/19 22:44	SOO	TAL NSH

**Client Sample ID: SB1-001 @ 2-3'bgs**

**Date Collected: 02/20/19 11:36**

**Date Received: 02/23/19 09:10**

**Lab Sample ID: 490-169021-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.25 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 20:13	SW1	TAL NSH
Total/NA	Prep	5030B			5.90 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 20:43	AK1	TAL NSH
Total/NA	Prep	3550C			25.54 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 17:49	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0280 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		2			578086	02/28/19 23:01	SOO	TAL NSH

**Client Sample ID: SB1-001 @ 5-6'bgs**

**Date Collected: 02/20/19 11:54**

**Date Received: 02/23/19 09:10**

**Lab Sample ID: 490-169021-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.73 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH

TestAmerica Nashville

## Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB1-001 @ 5-6'bgs**

**Lab Sample ID: 490-169021-4**

Date Collected: 02/20/19 11:54

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 20:43	SW1	TAL NSH
Total/NA	Prep	5030B			5.05 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 21:17	AK1	TAL NSH
Total/NA	Prep	3550C			25.03 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 18:06	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9848 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		20			578086	02/28/19 23:34	SOO	TAL NSH

**Client Sample ID: SB2-001 @ 0-1'bgs**

**Lab Sample ID: 490-169021-5**

Date Collected: 02/20/19 12:15

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.12 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 21:12	SW1	TAL NSH
Total/NA	Prep	5030B			5.35 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 21:50	AK1	TAL NSH
Total/NA	Prep	3550C			25.17 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		4			578270	03/01/19 22:52	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9719 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		10			578086	02/28/19 23:51	SOO	TAL NSH

**Client Sample ID: SB2-001 @ 1-2'bgs**

**Lab Sample ID: 490-169021-6**

Date Collected: 02/20/19 12:15

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.40 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 21:42	SW1	TAL NSH
Total/NA	Prep	5030B			5.38 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 06:12	AK1	TAL NSH
Total/NA	Prep	3550C			25.11 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 18:23	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0335 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		5			578086	03/01/19 00:07	SOO	TAL NSH

**Client Sample ID: SB2-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-7**

Date Collected: 02/20/19 12:15

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.15 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 22:12	SW1	TAL NSH

TestAmerica Nashville

## Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB2-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-7**

Date Collected: 02/20/19 12:15

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.43 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 22:24	AK1	TAL NSH
Total/NA	Prep	3550C			25.49 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 18:40	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0423 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		5			578086	03/01/19 00:24	SOO	TAL NSH

**Client Sample ID: SB3-001 @ 0-1'bgs**

**Lab Sample ID: 490-169021-8**

Date Collected: 02/20/19 12:31

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.31 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 22:41	SW1	TAL NSH
Total/NA	Prep	5030B			5.39 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 22:57	AK1	TAL NSH
Total/NA	Prep	3550C			25.50 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 18:57	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9705 g	30 mL	577196	02/27/19 10:35	JHS	TAL NSH
Soluble	Analysis	300.0		1			577832	02/28/19 11:18	JHS	TAL NSH

**Client Sample ID: SB3-001 @ 1-2'bgs**

**Lab Sample ID: 490-169021-9**

Date Collected: 02/20/19 12:31

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.55 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 23:11	SW1	TAL NSH
Total/NA	Prep	5030B			5.70 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/25/19 23:31	AK1	TAL NSH
Total/NA	Prep	3550C			25.52 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 19:13	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0309 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		1			577735	02/27/19 11:13	JHS	TAL NSH

**Client Sample ID: SB3-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-10**

Date Collected: 02/20/19 12:31

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.10 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/25/19 23:41	SW1	TAL NSH
Total/NA	Prep	5030B			5.35 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH

TestAmerica Nashville

# Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB3-001 @ 2-3'bgs**

**Lab Sample ID: 490-169021-10**

Date Collected: 02/20/19 12:31

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 00:04	AK1	TAL NSH
Total/NA	Prep	3550C			25.12 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 19:30	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9510 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		2			577735	02/27/19 16:10	JHS	TAL NSH

**Client Sample ID: SB3-001 @ 5-6'bgs**

**Lab Sample ID: 490-169021-11**

Date Collected: 02/20/19 12:43

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.99 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 g	577346	02/26/19 00:10	SW1	TAL NSH
Total/NA	Prep	5030B			5.34 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 00:38	AK1	TAL NSH
Total/NA	Prep	3550C			25.85 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 19:47	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0252 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		1			577735	02/27/19 12:13	JHS	TAL NSH

**Client Sample ID: SB3-001 @ 7-8'bgs**

**Lab Sample ID: 490-169021-12**

Date Collected: 02/20/19 12:43

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.35 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	577457	02/26/19 15:06	S1S	TAL NSH
Total/NA	Prep	5030B			5.49 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 01:11	AK1	TAL NSH
Total/NA	Prep	3550C			25.46 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		1			578270	03/01/19 20:04	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0160 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		1			577735	02/27/19 12:28	JHS	TAL NSH

**Client Sample ID: SB4-001 @ 1'bgs**

**Lab Sample ID: 490-169021-13**

Date Collected: 02/20/19 12:56

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.90 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	577457	02/26/19 15:35	S1S	TAL NSH
Total/NA	Prep	5030B			5.74 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 01:44	AK1	TAL NSH

TestAmerica Nashville

## Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB4-001 @ 1'bgs**

**Lab Sample ID: 490-169021-13**

Date Collected: 02/20/19 12:56

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.21 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		4			578270	03/01/19 23:08	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0305 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		5			577735	02/27/19 16:25	JHS	TAL NSH

**Client Sample ID: SB4-001 @ 2'bgs**

**Lab Sample ID: 490-169021-14**

Date Collected: 02/20/19 12:59

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.21 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	577457	02/26/19 16:05	S1S	TAL NSH
Total/NA	Prep	5030B			5.87 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 02:18	AK1	TAL NSH
Total/NA	Prep	3550C			25.41 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		4			578270	03/01/19 23:25	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9889 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		20			577735	02/27/19 16:40	JHS	TAL NSH

**Client Sample ID: SB4-001 @ 3'bgs**

**Lab Sample ID: 490-169021-15**

Date Collected: 02/20/19 13:05

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.30 g	5.0 mL	577255	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	0.1 mL	5 mL	577452	02/26/19 20:16	S1S	TAL NSH
Total/NA	Prep	5030B			5.81 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 03:58	AK1	TAL NSH
Total/NA	Prep	3550C			25.70 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		5			578270	03/01/19 23:42	GMH	TAL NSH
Total/NA	Prep	3550C			25.70 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		25			578434	03/02/19 16:29	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0328 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		20			577735	02/27/19 13:27	JHS	TAL NSH

**Client Sample ID: SB4-001 @ 3.5'bgs**

**Lab Sample ID: 490-169021-16**

Date Collected: 02/20/19 13:11

Matrix: Solid

Date Received: 02/23/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.86 g	5.0 mL	577255	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	0.1 mL	5 mL	577452	02/26/19 21:14	S1S	TAL NSH
Total/NA	Prep	5030B			5.86 g	5.0 mL	577255	02/25/19 10:55	JLP	TAL NSH

TestAmerica Nashville

## Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

**Client Sample ID: SB4-001 @ 3.5'bgs**

**Lab Sample ID: 490-169021-16**

**Date Collected: 02/20/19 13:11**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	0.1 mL	5 mL	577452	02/26/19 21:43	S1S	TAL NSH
Total/NA	Prep	5030B			5.70 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 05:05	AK1	TAL NSH
Total/NA	Prep	3550C			25.22 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		25			578434	03/02/19 16:45	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0205 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		20			577735	02/27/19 13:57	JHS	TAL NSH

**Client Sample ID: SB5-001 @ 1'bgs**

**Lab Sample ID: 490-169021-17**

**Date Collected: 02/20/19 13:16**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.31 g	5.0 mL	577255	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	0.1 mL	5 mL	577452	02/26/19 19:47	S1S	TAL NSH
Total/NA	Prep	5030B			5.41 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	577457	02/26/19 16:35	S1S	TAL NSH
Total/NA	Prep	5030B			5.39 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 02:51	AK1	TAL NSH
Total/NA	Prep	3550C			25.56 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		10			578270	03/02/19 00:16	GMH	TAL NSH
Total/NA	Prep	3550C			25.56 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		20			578434	03/02/19 17:18	GMH	TAL NSH
Soluble	Leach	DI Leach			3.0229 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		50			577735	02/27/19 14:56	JHS	TAL NSH

**Client Sample ID: SB5-001 @ 1.5'bgs**

**Lab Sample ID: 490-169021-18**

**Date Collected: 02/20/19 13:20**

**Matrix: Solid**

**Date Received: 02/23/19 09:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.04 g	5.0 mL	577255	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	0.1 mL	5 mL	577452	02/26/19 22:11	S1S	TAL NSH
Total/NA	Prep	5030B			5.50 g	5.0 mL	577256	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	577457	02/26/19 17:05	S1S	TAL NSH
Total/NA	Prep	5030B			5.82 g	5.0 mL	577254	02/25/19 10:55	JLP	TAL NSH
Total/NA	Analysis	8015B		1	0.1 mL	5 mL	577344	02/26/19 03:25	AK1	TAL NSH
Total/NA	Prep	3550C			25.49 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		10			578270	03/02/19 00:32	GMH	TAL NSH
Total/NA	Prep	3550C			25.49 g	1 mL	577883	02/27/19 18:38	AMD	TAL NSH
Total/NA	Analysis	8015B		20			578434	03/02/19 17:35	GMH	TAL NSH
Soluble	Leach	DI Leach			2.9979 g	30 mL	577197	02/27/19 08:20	JHS	TAL NSH
Soluble	Analysis	300.0		50			577735	02/27/19 15:26	JHS	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

1
2
3
4
5
6
7
8
9
10
11
12



## Method Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8015B	Gasoline Range Organics - (GC)	SW846	TAL NSH
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH
3550C	Ultrasonic Extraction	SW846	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Accreditation/Certification Summary

Client: Sport Environmental Services LLC  
Project/Site: 20B (32.824229,-104.089222)

TestAmerica Job ID: 490-169021-1  
SDG: Longfellow-State 20B Release (1RP-5158)

### Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	06-30-19
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19 *
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Nashville

## COOLER RECEIPT FORM



490-169021 Chain of Custody

Cooler Received/Opened On 2/23/2019 @ 9:10

Time Samples Removed From Cooler 1643 Time Samples Placed In Storage 1655 (2 Hour Window)

1. Tracking # 9010 (last 4 digits, FedEx) Courier: Fedex

IR Gun ID 31470366 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.3 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ALB

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) ADH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ADH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ADH

I certify that I attached a label with the unique LIMS number to each container (initial) ADH

21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES NO...# \_\_\_\_\_

# Midland #264

TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

## Chain of Custody Record

TestAmerica Nashville  
2960 Foster Creighton Drive  
Nashville, TN 37204-3719  
phone 615.726.0177 fax 615.726.3404

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCKA ☐ Other: ☐   
Project Manager: Deborah S. Moore   
Tel/Fax: (432) 683-1100   
Analysis Turnaround Time   
CALENDAR DAYS ☒ WORKING DAYS   
TAT if different from Below \_\_\_\_\_ 5 days \_\_\_\_\_   
2 weeks \_\_\_\_\_   
1 week \_\_\_\_\_   
2 days \_\_\_\_\_   
1 day \_\_\_\_\_

Client Contact	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	300_ORGMS - Chloride	8015B_DRO - DRO/MRO	8015B_GRO	8260B_BTEX	Other:	Site Contact: Deborah S. Moore	Lab Contact: Jennifer Gambill	Date: 02/20/2019	Carrier:	COC No: 1 of 2 COCs
Sport Environmental Services, LLC	SB1-001 @ 0-1'bg	2/20/19	1136	G	S	1			X	X	X	X						
502 N. Big Spring St.	SB1-001 @ 1-2'bg	2/20/19	1136	G	S	1			X	X	X	X						
Midland, TX 797101	SB1-001 @ 2-3'bg	2/20/19	1136	G	S	1			X	X	X	X						
(432) 683-1100 Phone	SB1-001 @ 5-6'bg	2/20/19	1154	G	S	1			X	X	X	X						
(888) 500-0622 FAX	SB2-001 @ 0-1'bg	2/20/19	1215	G	S	1			X	X	X	X						
Project Name: Longfellow - State 20B Release (1RP-3158)	SB2-001 @ 1-2'bg	2/20/19	1215	G	S	1			X	X	X	X						
Site: State 20B (32.824229, -104.089222)	SB2-001 @ 2-3'bg	2/20/19	1215	G	S	1			X	X	X	X						
P O # Purchase Order Not Required	SB3-001 @ 0-1'bg	2/20/19	1231	G	S	1			X	X	X	X						
	SB3-001 @ 1-2'bg	2/20/19	1231	G	S	1			X	X	X	X						
	SB3-001 @ 2-3'bg	2/20/19	1231	G	S	1			X	X	X	X						
	SB3-001 @ 5-6'bg	2/20/19	1243	G	S	1			X	X	X	X						
	SB3-001 @ 7-8'bg	2/20/19	1243	G	S	1			X	X	X	X						
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other																		
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.																		
Special Instructions/QC Requirements & Comments:																		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No																		
Relinquished by: <i>Deborah S. Moore</i> Company: Sport Env. Date/Time: 2-22-19 1302																		
Relinquished by: <i>Deborah S. Moore</i> Company: Sport Env. Date/Time: 2-22-19 1347																		
Relinquished by: <i>Deborah S. Moore</i> Company: Sport Env. Date/Time: 2-22-19 1348																		

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018

**TestAmerica Nashville**  
2960 Foster Creighton Drive

Nashville, TN 37204-3719  
phone 615.726.0177 fax 615.726.3404

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

**TestAmerica Laboratories, Inc.**

[illegible]

Form No. CA-C-WJ-002, Rev. 4.18, dated 9/5/2018