

Incident ID	nRM2005560297
District RP	
Facility ID	
Application ID	

Closure

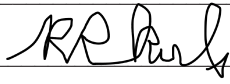
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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: Rob Kirk Title: General Manager, HSE & Compliance

Signature:  Date: 05/12/21

email: rob.kirk@solarismidstream.com Telephone: (432)203-9020

OCD Only

Received by: Chad Hensley Date: 06/29/2021

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: 06/29/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

Remediation Summary & Soil Closure Request

Solaris Water Midstream, LLC

Berry SWD

Eddy County, New Mexico

Unit Letter "D", Section 20, Township 24 South, Range 29 East

Latitude 32.20896 North, Longitude 104.01385 West

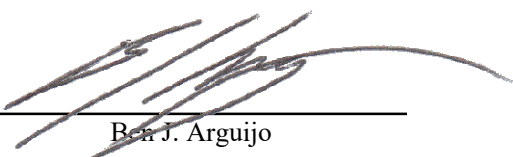
NMOCD Reference No. nRM2005560297

Prepared By:

Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway

Lovington, New Mexico 88260



Ben J. Arguijo

Joel W. Lowry

Midland • San Antonio • Lubbock • Lovington • Lafayette

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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Solaris Water Midstream, LLC, has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the Berry SWD (henceforth, "Site"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.20896 Longitude: -104.01385
 Provided GPS are in WGS84 format.

Site Name:	Berry SWD	Site Type:	SWD
Date Release Discovered:	2/22/2020	API # (if applicable):	30-015-45367

Unit Letter	Section	Township	Range	County
"D"	20	24S	29E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name Berry, Chester Kent & Berry, Barbara Jean)

Nature & Volume of Release

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 52	Volume Recovered (bbls) 22
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	☒ Yes ☐ No ☐ N/A
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:

At our Berry SWD, we had increased pressure on our lines as a customer turned on an extra pump, increasing volume and pressure, without alerting our operations team. This increase caused a separation of the fitting on a flange at a riser entering the facility and on our operation pad, inside our perimeter diking. Upon discovery, the line was turned-in, we alerted our customer to turn off the additional volume, and we tightened the valve flange, stopping the release.

Initial Response

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. Groundwater gauging data from the nearest USGS well (321234104005401) within a half-mile radius suggests the depth to groundwater was 35.48 feet, as measured in 1975. USGS groundwater sampling data suggests USGS Well 321234104005401 exhibited chloride concentrations ranging from 19,900 to 26,000 mg/L during the six (6) most recent groundwater sampling events. It should be noted that USGS Well 321234104005401 is either incorrectly geolocated within the USGS National Water Information System or has since been plugged and abandoned, as there is no evidence of a water well in the vicinity of the reported location.

Additional USGS wells within a half-mile radius were utilized to determine the probable minimum depth below any point within the horizontal boundary of the release to groundwater containing less than 10,000 mg/L TDS. Groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>61'</u>	
Did the release impact groundwater or surface water?	☐ Yes	☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes	☒ 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)?	☐ Yes	☒ No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	☐ Yes	☒ 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?	☐ Yes	☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes	☒ No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes	☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes	☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes	☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes	☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes	☒ No
Did the release impact areas not on an exploration, development, production or storage site?	☐ Yes	☒ No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish & Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
>61'	Chloride (Cl ⁻)	EPA 300.0 or SM4500 Cl B	10,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	1,000	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 INITIAL SITE ASSESSMENT

On July 6, 2020, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores were advanced within the release margins in an effort to determine the vertical extent of impacted soil. In addition, hand-augered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of Volatile Organic Compounds (VOCs) utilizing olfactory/visual senses and/or concentrations of chloride utilizing a Hach Quantab® chloride test kit.

Based on field observations and field test data, fourteen (14) delineation soil samples (NH @ Surface, NH @ 1', EH @ Surface, EH @ 1', SH @ Surface, SH @ 1', WH @ Surface, WH @ 1', FL1 @ Surface, FL1 @ 4'-R, FL2 @ Surface, FL2 @ 1', FL3 @ Surface, and FL3 @ 4'-R) were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples. Based on laboratory analytical results, additional vertical delineation of the release was required. However, further advancement of the hand-augered soil bores was precluded due to the presence of an impenetrable rock layer.

On September 24, 2020, Etech revisited the Site. During the site visit, two (2) test trenches (NTT and STT) were advanced within the release margins in an effort to further investigate the vertical extent of impacted soil. During the advancement of the test trenches, two (2) soil samples (NTT @ 5' and STT @ 5') were collected and submitted to the laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, soil within the release margins was not affected above the NMOCD Closure Criteria, and the vertical and horizontal extent of impacted soil was adequately defined.

5.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, Solaris Water Midstream, LLC, proposed the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted material on the caliche well pad to an estimated depth of one (1) foot bgs, or until laboratory analytical results from confirmation soil samples collected from the floor of the excavation indicate BTEX, TPH, and chloride concentrations are below the NMOCD Closure Criteria, whichever is greater.
- Advance excavation sidewalls until laboratory analytical results from confirmation soil samples indicate BTEX, TPH, and chloride concentrations are below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard, as necessary.
- Transport excavated soil to an NMOCD-permitted surface waste facility for disposal.

- Upon receiving laboratory analytical results from confirmation soil samples, backfill the excavated area with locally sourced, non-impacted, "like" material.
- Upon completion of remediation activities, prepare a *Remediation Summary & Soil Closure Request* detailing field activities and laboratory analytical results from confirmation soil samples.

6.0 REGULATORY APPROVALS & STIPULATIONS

On December 11, 2020, a *Site Assessment Report and Proposed Remediation Workplan* was submitted to the NMOCD proposing remediation activities designed to advance the Site toward regulatory closure. The workplan was subsequently approved by the NMOCD.

Please reference the *Site Assessment Report and Proposed Remediation Workplan* for additional details regarding site characterization and proposed remediation activities.

7.0 REMEDIATION ACTIVITIES SUMMARY

On April 12, 2021, remediation activities commenced at the Site. In accordance with the NMOCD-approved workplan, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and a Hach Quantab® chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The floor and sidewalls of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Etech collected six (6) confirmation soil samples (F1, F2, F3, F4, F5, and F6) from the floor of the excavation. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On April 13, 2021, Etech collected ten (10) confirmation soil samples (NW, EW, SW, WW, and F7 through F12) from the sidewalls and floor of the excavation. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

The final dimensions of the excavated area were approximately 100 feet in length, 20 to 40 feet in width, and two (2) to four (4) inches in depth. During the course of remediation activities, approximately 40 cubic yards of impacted soil was transported to an NMOCD-permitted surface waste facility for disposal.

Soil sample locations and the extent of the excavated area are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the Site are provided in Appendix D.

8.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

The release was limited to the production pad of an active salt water disposal facility. Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions. The affected area was contoured and compacted to fit the needs of the facility. Final reclamation and re-vegetation will be conducted in accordance with Section 19.15.29.13 NMAC upon decommissioning and abandonment of the facility.

9.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with an NMOCD-approved workplan. Impacted soil affected above the NMOCD Closure Criteria was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Solaris Water Midstream, LLC, provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the Site.

10.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Solaris Water Midstream, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or Solaris Water Midstream, LLC.

11.0 DISTRIBUTION

Solaris Water Midstream, LLC

907 Tradewinds Blvd

Ste B

Midland, TX 79706

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 2

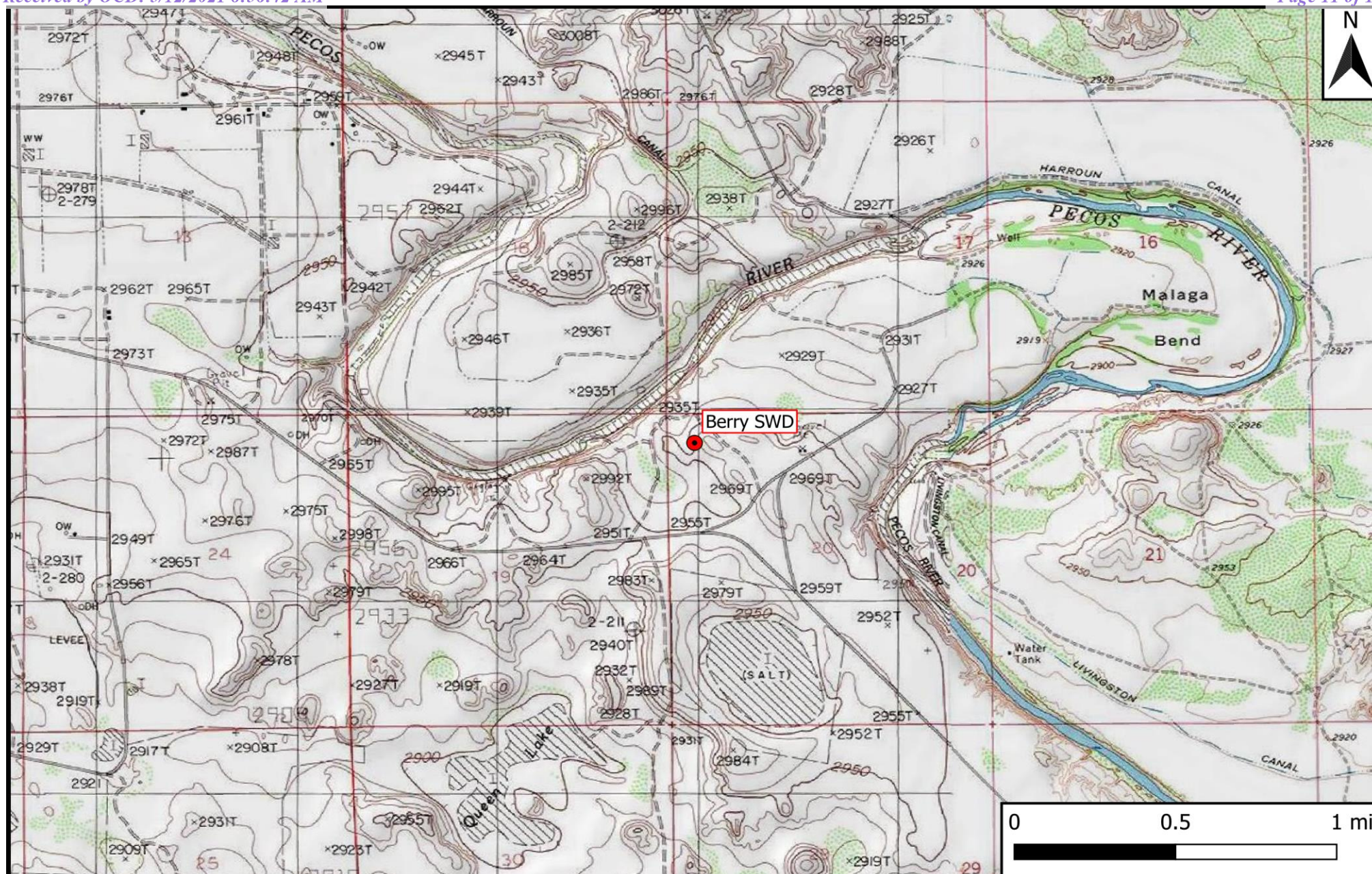
811 S. First Street

Artesia, NM 88210

(Electronic Submission)

Figure 1

Topographic Map



Legend

- Site Location

Figure 1

Topographic Map
 Solaris Water Midstream, LLC
 Berry SWD
 GPS: 32.20896, -104.01385
 Eddy County

ETECH
 Environmental & Safety Solutions, Inc.

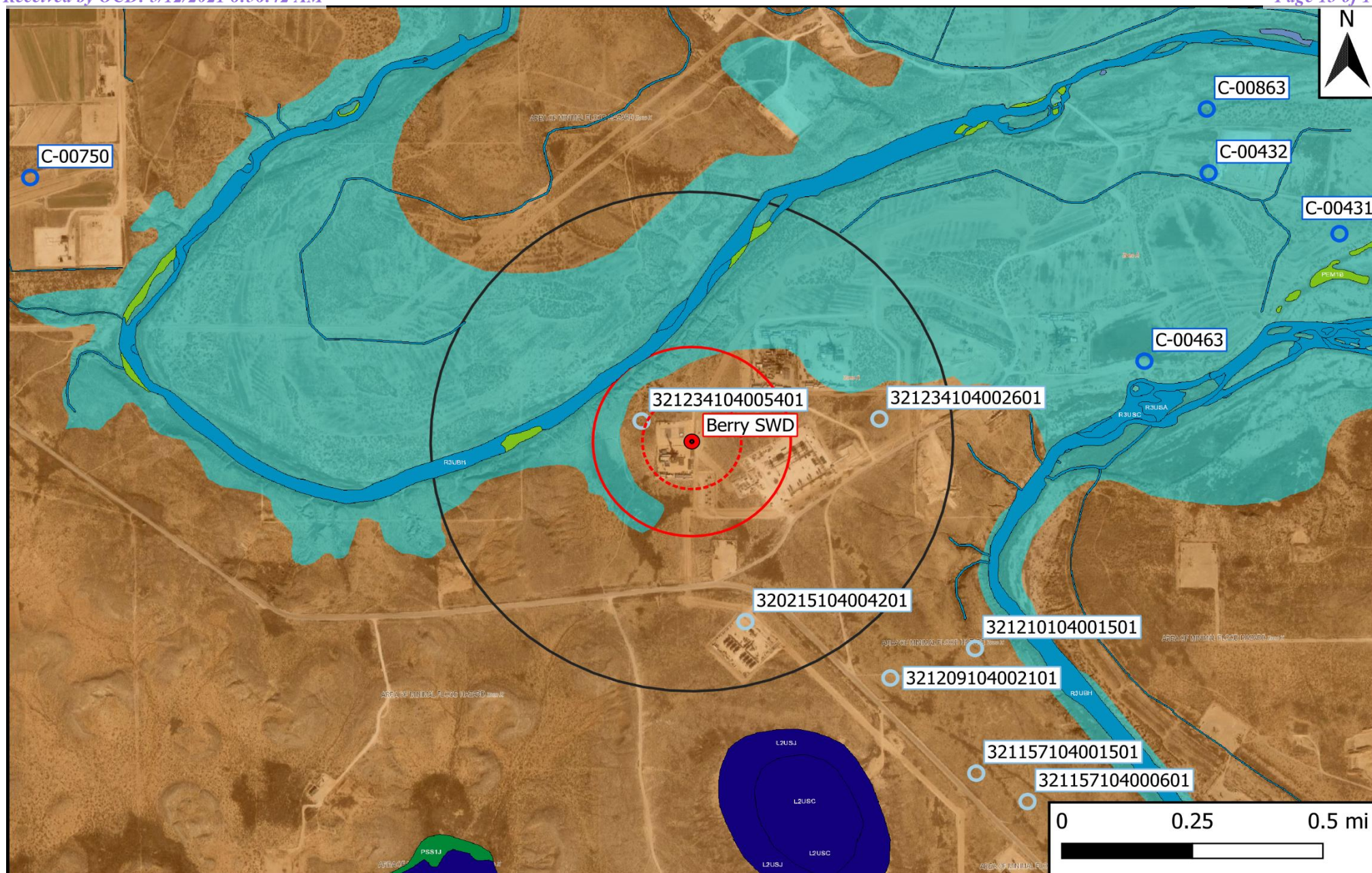
Drafted: bja

Checked: jwl

Date: 5/4/21

Figure 2

Aerial Proximity Map



Legend

- | | | |
|--------------------------------|----------------------------|-----------------|
| ● Site Location | 1% Annual Flood Chance | 500-Ft Radius |
| ○ Well - Investigative/Monitor | Emergent/Forested Wetlands | 1,000-Ft Radius |
| ○ Well - NMOSE | Freshwater Pond/Lake | 0.5-Mi Radius |
| ○ Well - USGS | Medium/High Karst | |
| — Potash Mine Workings | Riverine | |

Figure 2
 Aerial Proximity Map
 Solaris Water Midstream, LLC
 Berry SWD
 GPS: 32.20896, -104.01385
 Eddy County

ETECH
 Environmental & Safety Solutions, Inc.

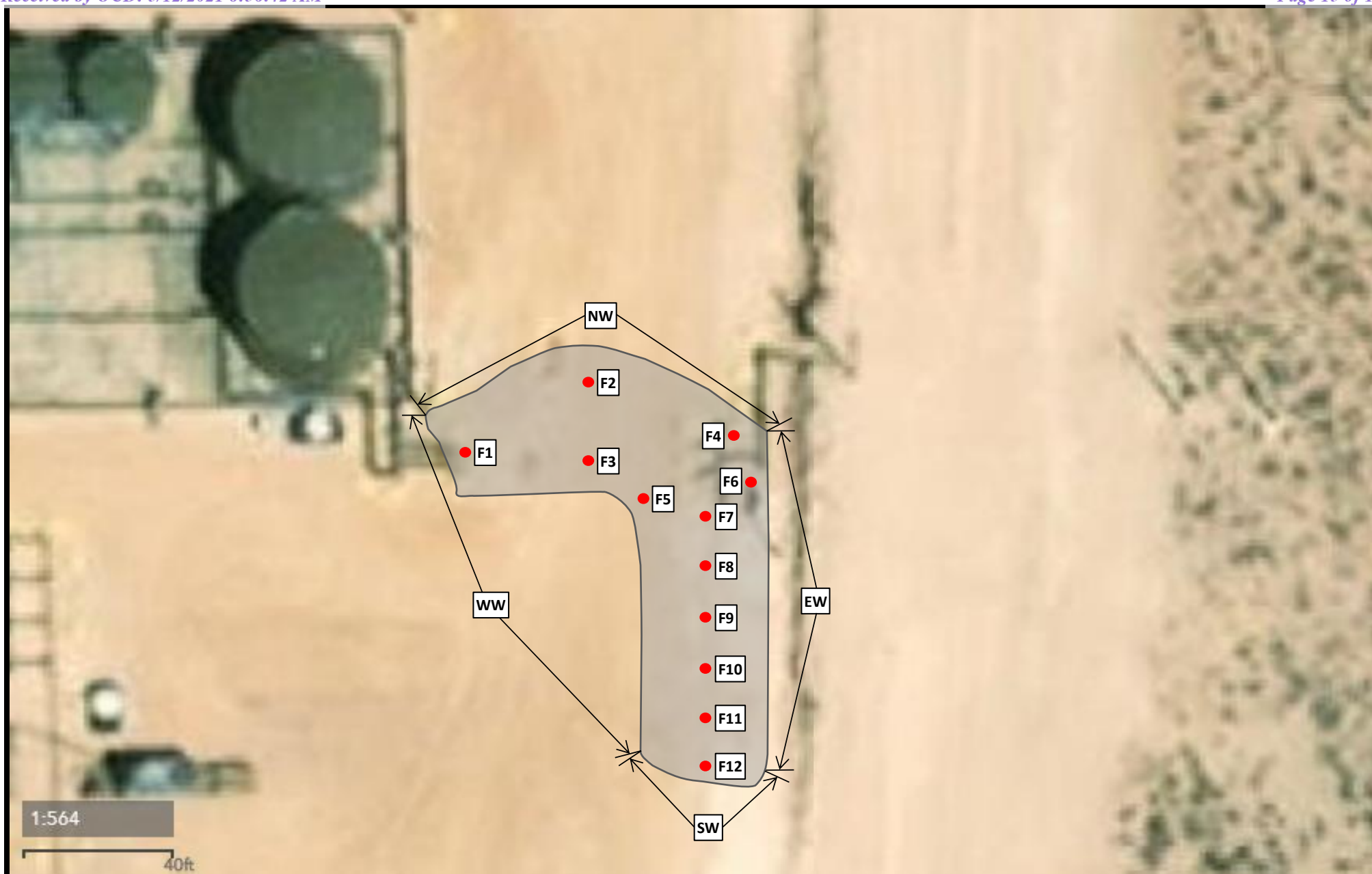
Drafted: bja

Checked: jwl

Date: 5/4/21

Figure 3

Site & Sample Location Map

**Legend:**

-  Excavation Extent
-  Composite Floor Sample
-  Composite Wall Sample

Figure 3

Site & Sample Location Map
 Solaris Water Midstream, LLC
 Berry SWD
 GPS: 32.20896, -104.01385
 Eddy County



Drafted: bja

Checked: jwl

Date: 5/5/21

Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Solaris Water Midstream, LLC Berry SWD NMOCD Ref. #: nRM2005560297											
NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	10,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
NH @ Surface	7/6/2020	0'	In-Situ	0.00666	0.0300	<50.0	<50.0	<50.0	<50.0	<50.0	126
NH @ 1'	7/6/2020	1'	In-Situ	<0.00199	0.00218	<49.9	<49.9	<49.9	<49.9	<49.9	58.1
EH @ Surface	7/6/2020	0'	In-Situ	0.00662	0.0297	<49.8	<49.8	<49.8	<49.8	<49.8	111
EH @ 1'	7/6/2020	1'	In-Situ	0.00574	0.0237	<49.9	<49.9	<49.9	<49.9	<49.9	175
SH @ Surface	7/6/2020	0'	In-Situ	0.00707	0.0275	<50.0	<50.0	<50.0	<50.0	<50.0	118
SH @ 1'	7/6/2020	1'	In-Situ	0.00547	0.0228	<49.9	<49.9	<49.9	<49.9	<49.9	58.9
WH @ Surface	7/6/2020	0'	In-Situ	<0.00200	0.00455	<49.8	<49.8	<49.8	<49.8	<49.8	116
WH @ 1'	7/6/2020	1'	In-Situ	0.00411	0.0161	<50.0	<50.0	<50.0	<50.0	<50.0	65.6
FL1 @ Surface	7/6/2020	0'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	3,300
FL1 @ 4'-R	7/6/2020	4'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	1,590
FL2 @ Surface	7/6/2020	0'	In-Situ	0.00869	0.0323	<49.8	238	238	81.2	319	1,570
FL2 @ 1'	7/6/2020	1'	In-Situ	0.00621	0.0235	<50.0	<50.0	<50.0	<50.0	<50.0	364
FL3 @ Surface	7/6/2020	0'	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	6,110
FL3 @ 4'-R	7/6/2020	4'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,710
NTT @5'	9/24/2020	5'	In-Situ	<0.00196	<0.00196	<49.9	<49.9	<49.9	<49.9	<49.9	362
STT @5'	9/24/2020	5'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	158
NW	4/13/2021	0"-4"	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,180
EW	4/13/2021	0"-4"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	562
SW	4/13/2021	0"-4"	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	723
WW	4/13/2021	0"-4"	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	870
F1	4/12/2021	4"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	4,090
F2	4/12/2021	2"	In-Situ	0.00204	0.00204	<49.9	<49.9	<49.9	<49.9	<49.9	7,200
F3	4/12/2021	4"	In-Situ	0.00304	0.00680	<49.8	<49.8	<49.8	<49.8	<49.8	3,800
F4	4/12/2021	2"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	6,300
F5	4/12/2021	2"	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	7,200
F6	4/12/2021	2"	In-Situ	<0.00199	<0.00199	<50.0	55.8	55.8	<50.0	55.8	6,390
F7	4/13/2021	4"	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	4,360
F8	4/13/2021	4"	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,940
F9	4/13/2021	4"	In-Situ	<0.00198	<0.00198	<50.0	115	115	<50.0	115	6,770
F10	4/13/2021	4"	In-Situ	<0.00199	<0.00199	<50.1	67.3	67.3	<50.1	67.3	894
F11	4/13/2021	4"	In-Situ	<0.00199	<0.00199	<50.0	72.2	72.2	<50.0	72.2	5,720
F12	4/13/2021	4"	In-Situ	<0.00198	<0.00198	<50.0	102	102	<50.0	102	2,040

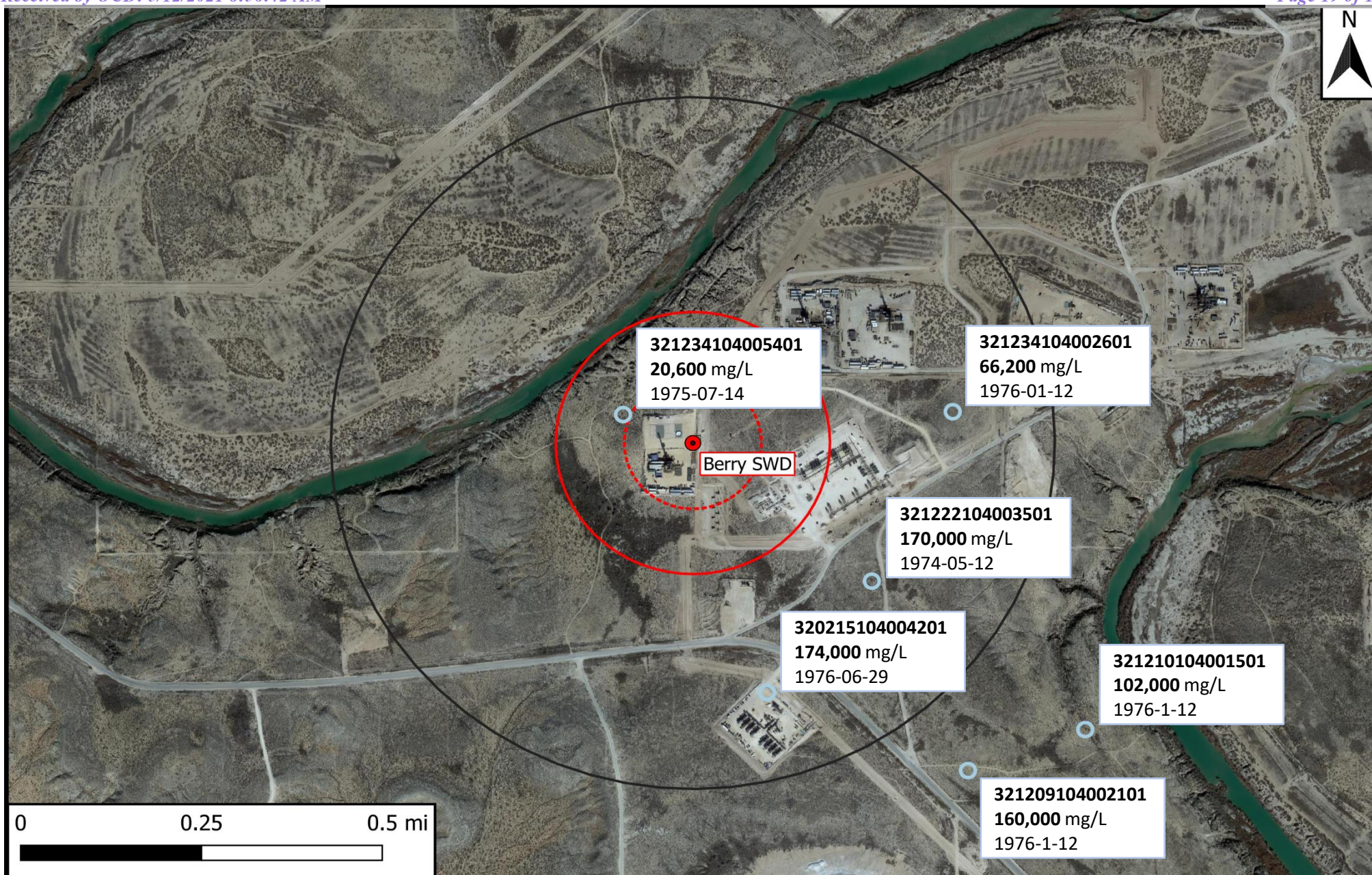
NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A

Groundwater Information



Legend

- Site Location
- Well - USGS
- ⋯ 500-Ft Radius
- ▭ 1,000-Ft Radius
- ▭ 0.5-Mi Radius

Figure 4

USGS Well Water Quality Map
 Solaris Water Midstream, LLC
 Berry SWD
 GPS: 32.20896, -104.01385
 Eddy County

eTECH
 Environmental & Safety Solutions, Inc.

Drafted: bja

Checked: jwl

Date: 5/6/21



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

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Water Quality Samples for the Nation

To view additional data-quality attributes, output the results using these options: one result per row, expanded attributes. Additional precautions are [here](#).

USGS 321234104005401 24S.29E.19.222

Available data for this site

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°12'34", Longitude 104°00'54" NAD27

Land-surface elevation 2,940 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval
Tab-separated data, one result per row
Tab-separated data one sample per row with remark codes combined with values
Tab-separated data one sample per row with tab-delimiter for remark codes
Reselect output format

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, water unf uS/cm @ 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)
1970-06-05 14:30	MDT	T	WG	20.5	61000	22800	1.0
1972-05-12 13:35	MDT	T	WG		55700	20900	1.0
1972-11-14 15:35	MST	T	WG		54800	19900	1.0
1974-07-23 11:05	MDT	T	WG	20.0	69700	26600	1.0

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temper- ature, water, deg C (00010)	Specif- ic conduc- tance, wat unf uS/cm @ 25 degC (00095)	Chlor- ide, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)
1974-12-17 12:15	MST	T	WG	19.0	58200	21000	1.0
1975-07-14 15:25	MDT	T	WG	20.5	58000	20600	1.0

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0.44 0.37 nadww02



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USGS 321222104003501 24S.29E.20.141

Available data for this site

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°12'22", Longitude 104°00'35" NAD27

Land-surface elevation 2,970 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval
Tab-separated data, one result per row
Tab-separated data one sample per row with remark codes combined with values
Tab-separated data one sample per row with tab-delimiter for remark codes
Reselect output format

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)
1970-01-23 14:20	MST	T	WG	21.5	228000	181000	1.2
1970-06-05 15:30	MDT	T	WG	22.0	229000	181000	1.2
1972-05-12 11:35	MDT	T	WG		226000	170000	1.2

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USGS 321234104002601 24S.29E.20.122

Available data for this site Water-Quality: Field/Lab samples GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°12'34", Longitude 104°00'26" NAD27

Land-surface elevation 2,950 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval
Tab-separated data, one result per row
Tab-separated data one sample per row with remark codes combined with values
Tab-separated data one sample per row with tab-delimiter for remark codes
Reselect output format

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Chloride, water, filtrd, mg/L (00940)	Density water unfiltrd 20 degC g/mL (71820)
1970-06-05 14:10	MDT	T	WG	22.0	134000	62500	1.1
1972-05-12 11:55	MDT	T	WG		94400	38200	1.0
1972-11-14 13:50	MST	T	WG		97200	41000	1.0
1974-07-18 13:05	MDT	T	WG	21.5	114000	49800	1.1
1974-12-17 10:55	MST	T	WG	19.5	116000	53500	1.1

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)
1975-07-14 14:15	MDT	T	WG	22.0	120000	27800	1.1
1976-01-12 14:30	MST	T	WG	20.0	127000	66200	

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USGS 320215104004201 24S.29E.20.134

Available data for this site

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°12'13", Longitude 104°00'42" NAD27

Land-surface elevation 2,960 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Culebra Dolomite Member of Rustler Formation (312CLBR) local aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval
Tab-separated data, one result per row
Tab-separated data one sample per row with remark codes combined with values
Tab-separated data one sample per row with tab-delimiter for remark codes
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Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Hydrogen ion, water, unfiltrd calcd, mg/L (00191)	pH, water, unfiltrd field, std units (00400)	Chloride, water, filtrd, mg/L (00940)	Density water unfiltrd 20 degC g/mL (71820)	Depth of hole, feet below LSD (72001)
1970-01-23 15:40	MST	T	WG	21.5	225000			171000	1.2	93
1970-06-05 15:15	MDT	T	WG	22.0	229000			175000	1.2	93
1972-05-08 14:35	MDT	T	WG		223000			166000	1.2	
1972-11-13 11:55	MST	T	WG		223000			169000	1.2	
1974-07-18 14:15	MDT	T	WG	21.0	230000			173000	1.2	

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Hydrogen ion, water, unfiltrd calcd, mg/L (00191)	pH, water, unfiltrd field, std units (00400)	Chloride, water, filtrd, mg/L (00940)	Density water unfiltrd 20 degC g/mL (71820)	Depth of hole, feet below LSD (72001)
1974-12-16 09:40	MST	T	WG	19.0	223000			173000	1.2	
1975-07-14 14:00	MDT	T	WG	22.0	225000			172000	1.2	
1976-01-12 11:35	MST	T	WG	21.0	224000			177000		
1976-06-29 09:45	MDT	T	WG	21.0	225000	0.00006	7.2	174000		

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USGS 321209104002101 24S.29E.20.322

Available data for this site

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°12'07", Longitude 104°00'25" NAD27

Land-surface elevation 2,955 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Culebra Dolomite Member of Rustler Formation (312CLBR) local aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval
Tab-separated data, one result per row
Tab-separated data one sample per row with remark codes combined with values
Tab-separated data one sample per row with tab-delimiter for remark codes
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Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)	Depth of hole, feet below LSD (72001)
1970-01-23 14:35	MST	T	WG	21.5	217000	153000	1.2	96
1970-06-05 13:30	MDT	T	WG	22.0	220000	154000	1.2	96
1972-05-12 11:25	MDT	T	WG		214000	144000	1.2	
1972-11-14 11:15	MST	T	WG		216000	149000	1.2	

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)	Depth of hole, feet below LSD (72001)
1974-07-18 13:25	MDT	T	WG	21.0	222000	149000	1.2	
1974-12-17 11:10	MST	T	WG	19.5	217000	152000	1.2	
1975-07-14 14:35	MDT	T	WG	21.5	219000	157000	1.2	
1976-01-12 14:45	MST	T	WG	19.5	219000	160000		

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USGS 321210104001501 24S.29E.20.412

Available data for this site

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°12'10", Longitude 104°00'15" NAD27

Land-surface elevation 2,949 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval
Tab-separated data, one result per row
Tab-separated data one sample per row with remark codes combined with values
Tab-separated data one sample per row with tab-delimiter for remark codes
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Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)	Depth of hole, feet below LSD (72001)
1970-01-23 14:55	MST	T	WG	21.5	188000	106000	1.1	102
1970-06-05 13:15	MDT	T	WG	22.0	187000	105000	1.1	102
1972-05-12 11:05	MDT	T	WG		182000	101000	1.1	
1972-11-14 10:55	MST	T	WG		178000	98000	1.1	

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Temperature, water, deg C (00010)	Specific conductance, wat unf uS/cm @ 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Density water unfltrd 20 degC g/mL (71820)	Depth of hole, feet below LSD (72001)
1974-07-18 13:30	MDT	T	WG	21.5	182000	103000	1.1	
1974-12-17 11:25	MST	T	WG	19.5	181000	102000	1.1	
1975-07-14 14:50	MDT	T	WG		179000	99000	1.1	
1976-01-12 15:00	MST	T	WG	19.5	182000	102000		

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Legend

- Site Location
- Well - USGS
- ⋯ 500-Ft Radius
- ⬜ 1,000-Ft Radius
- ⬜ 0.5-Mi Radius

Figure 5

USGS Well Proximity Map
Solaris Water Midstream, LLC
Berry SWD
GPS: 32.20896, -104.01385
Eddy County



Drafted: bja

Checked: jwl

Date: 5/6/21



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Eddy County, New Mexico

Latitude 32°12'34", Longitude 104°00'54" NAD27

Land-surface elevation 2,940 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1974-12-17			D	72019	34.04		1	O	USGS	S	A
1975-07-14			D	72019	35.48		1	O	USGS	S	A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	O	Observed.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Eddy County, New Mexico

Latitude 32°12'34", Longitude 104°00'26" NAD27

Land-surface elevation 2,950 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1974-12-17			D	72019	57.11		1	O	USGS	S	A
1975-07-14			D	72019	57.55		1	O	USGS	S	A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	O	Observed.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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- 320215104004201

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USGS 320215104004201 24S.29E.20.134

Eddy County, New Mexico

Latitude 32°12'13", Longitude 104°00'42" NAD27

Land-surface elevation 2,960 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Culebra Dolomite Member of Rustler Formation (312CLBR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1975-07-14			D	72019	61.80		1	O	USGS	S	A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	O	Observed.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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USGS 321209104002101 24S.29E.20.322

Eddy County, New Mexico

Latitude 32°12'07", Longitude 104°00'25" NAD27

Land-surface elevation 2,955 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Culebra Dolomite Member of Rustler Formation (312CLBR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1975-07-14			D	72019	59.90		1	O	USGS	S	A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	O	Observed.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-05-05 14:50:38 EDT

0.47 0.38 nadww01





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National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

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Groundwater levels for the Nation

* IMPORTANT: [Next Generation Station Page](#)

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321210104001501

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321210104001501 24S.29E.20.412

Eddy County, New Mexico

Latitude 32°12'10", Longitude 104°00'15" NAD27

Land-surface elevation 2,949 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1974-12-17			D	72019	59.66		1	O	USGS	S	A
1975-07-14			D	72019	60.33		1	O	USGS	S	A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	O	Observed.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels

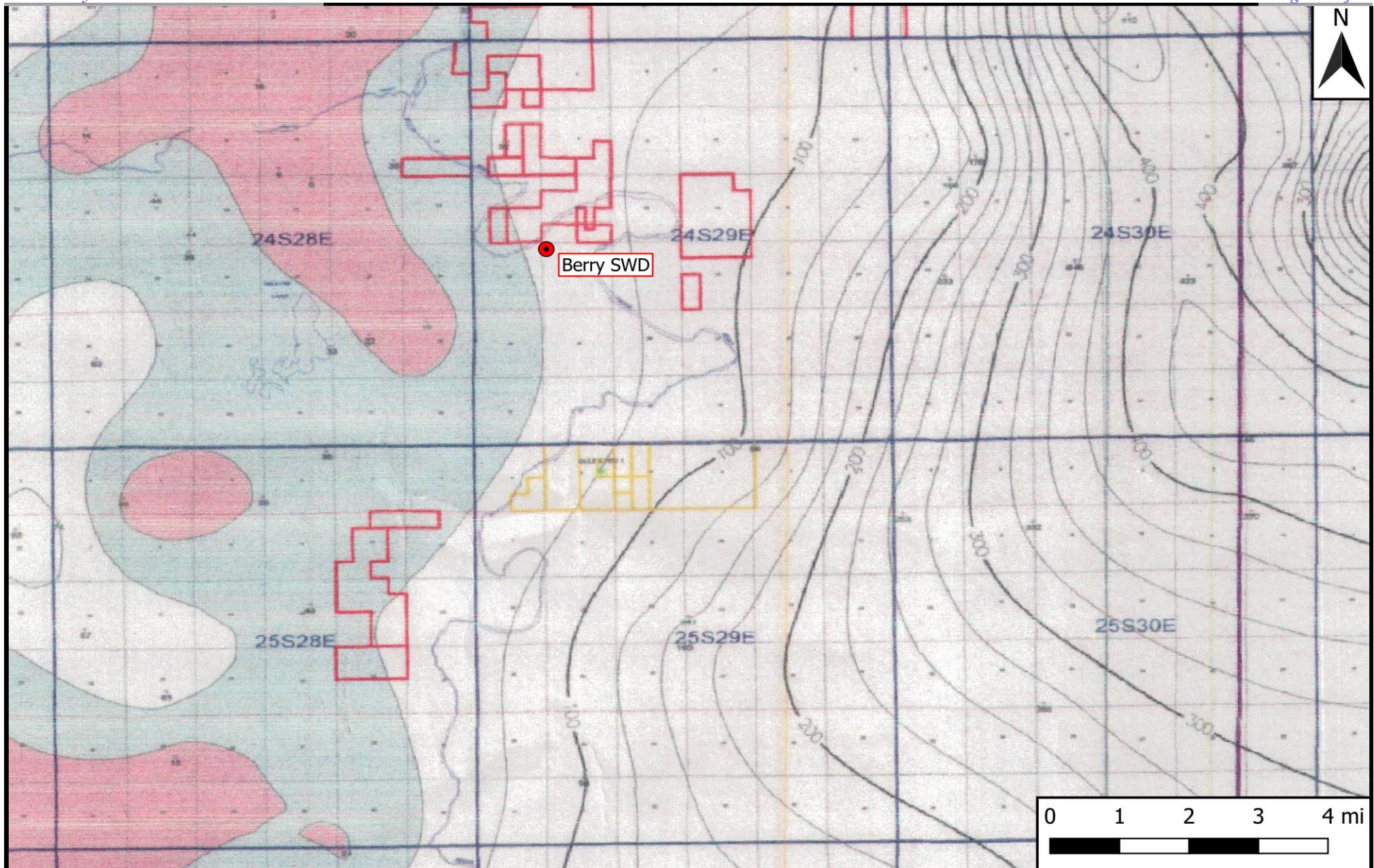
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-05-05 14:51:37 EDT

0.33 0.29 nadww01





Legend

- Site Location

Figure 6

Inferred Depth to Groundwater Trend Map
 Solaris Water Midstream, LLC
 Berry SWD
 GPS: 32.20896, -104.01385
 Eddy County



Drafted: bja

Checked: jwl

Date: 5/6/21



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C_00463		C	ED	4	4	4	17	24S	29E	594332	3564282*	1418	260	4	256

Average Depth to Water: 4 feet

Minimum Depth: 4 feet

Maximum Depth: 4 feet

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 592937.26

Northing (Y): 3564024

Radius: 1610

*UTM location was derived from PLSS - see Help

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.

5/6/21 11:16 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	00463	4	4	4	17	24S	29E	594332	3564282*

x

Driller License: 75 **Driller Company:** DONOWHO, JOE

Driller Name: DONOWHO, JOE

Drill Start Date: 09/19/1953

Drill Finish Date: 11/07/1953

Plug Date:
Log File Date: 11/18/1953

PCW Rcv Date:
Source: Shallow

Pump Type:
Pipe Discharge Size:
Estimated Yield:
Casing Size: 8.00

Depth Well: 260 feet

Depth Water: 4 feet

x

Water Bearing Stratifications:

Top	Bottom	Description
15	25	Sandstone/Gravel/Conglomerate
72	74	Sandstone/Gravel/Conglomerate
79	80	Sandstone/Gravel/Conglomerate
219	260	Other/Unknown

x

Casing Perforations:

Top	Bottom
155	235

x

*UTM location was derived from PLSS - see Help

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.

6/30/20 1:50 PM

POINT OF DIVERSION SUMMARY

Appendix B

Field Data & Soil Profile Logs

Sample Log

Date: 7.6.20

Project: Berry SWD

Project Number:	Pending	Latitude:	32.20896	Longitude:	-104.01385
-----------------	---------	-----------	----------	------------	------------

[illegible]

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

* Did NOT Go To LAB



Soil Profile

Date: 7/6/20

Project: Berry SWD
Project Number: Pending Latitude: 32.20896 Longitude: -104.01385

Depth (ft. bgs)

Description

1	Caliche Pat
2	red / Brown dirt
3	" " "
4	" " "
5	Caliche soil
6	
7	
8	
9	
10	
11	
12	
13	
14	
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39	
40	



Soil Profile

Date: _____

Project: Berry SWD

Project Number: 12700 Latitude: 32.20896 Longitude: -104.01385

Depth (ft. bgs)	Description
1 <i>hr</i>	<i>Surface - 4" caliche</i>
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
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Appendix C

Laboratory Analytical Reports



Xenco

Certificate of Analysis Summary 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Berry SWD

Project Id: 12700
Contact: PM
Project Location: Eddy County (Loving, NM)

Date Received in Lab: Wed 07.08.2020 11:15

Report Date: 07.10.2020 16:31

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666538-001	666538-002	666538-003	666538-004	666538-005	666538-006
	<i>Field Id:</i>	NH @ Surface	NH @ 1'	EH @ Surface	EH @ 1'	SH @ Surface	SH @ 1'
	<i>Depth:</i>		1- ft		1- ft		1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00
	<i>Analyzed:</i>	07.08.2020 16:32	07.08.2020 16:52	07.08.2020 17:13	07.08.2020 17:33	07.08.2020 17:54	07.08.2020 18:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.00666 0.00199	<0.00199 0.00199	0.00662 0.00200	0.00574 0.00200	0.00707 0.00201	0.00547 0.00200
Toluene		0.0233 0.00199	0.00218 0.00199	0.0231 0.00200	0.0180 0.00200	0.0204 0.00201	0.0173 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00400 0.00400	<0.00400 0.00400	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		0.0300 0.00199	0.00218 0.00199	0.0297 0.00200	0.0237 0.00200	0.0275 0.00201	0.0228 0.00200
Chloride by EPA 300	<i>Extracted:</i>	07.09.2020 08:15	07.09.2020 08:15	07.09.2020 08:15	07.09.2020 08:15	07.09.2020 08:15	07.09.2020 08:15
	<i>Analyzed:</i>	07.09.2020 10:28	07.09.2020 10:33	07.09.2020 10:48	07.09.2020 10:53	07.09.2020 10:58	07.09.2020 11:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		126 25.2	58.1 24.8	111 25.3	175 25.3	118 25.3	58.9 25.0
TPH By SW8015 Mod	<i>Extracted:</i>	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30
	<i>Analyzed:</i>	07.09.2020 01:51	07.09.2020 02:48	07.09.2020 03:06	07.09.2020 03:25	07.09.2020 03:44	07.09.2020 04:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Certificate of Analysis Summary 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Berry SWD

Project Id: 12700
Contact: PM
Project Location: Eddy County (Loving, NM)

Date Received in Lab: Wed 07.08.2020 11:15
Report Date: 07.10.2020 16:31
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666538-007	666538-008	666538-009	666538-010	666538-011	666538-012
	<i>Field Id:</i>	WH @ Surface	WH @ 1'	FL1 @ Surface	FL1 @ 4'-R	FL2 @ Surface	FL2 @ 1'
	<i>Depth:</i>		1- ft		4- ft		1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00	07.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00	07.08.2020 14:00
	<i>Analyzed:</i>	07.08.2020 18:35	07.08.2020 18:55	07.08.2020 19:16	07.08.2020 19:37	07.08.2020 20:59	07.08.2020 21:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	0.00411 0.00202	<0.00199 0.00199	<0.00201 0.00201	0.00869 0.00201	0.00621 0.00201
Toluene		0.00455 0.00200	0.0120 0.00202	<0.00199 0.00199	<0.00201 0.00201	0.0236 0.00201	0.0173 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00404 0.00404	<0.00398 0.00398	<0.00402 0.00402	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		0.00455 0.00200	0.0161 0.00202	<0.00199 0.00199	<0.00201 0.00201	0.0323 0.00201	0.0235 0.00201
Chloride by EPA 300	<i>Extracted:</i>	07.09.2020 08:15	07.09.2020 08:15	07.09.2020 08:15	07.09.2020 08:30	07.09.2020 08:30	07.09.2020 08:30
	<i>Analyzed:</i>	07.09.2020 11:08	07.09.2020 11:13	07.09.2020 11:18	07.09.2020 10:46	07.09.2020 11:05	07.09.2020 11:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		116 25.0	65.6 25.2	3300 24.9	1590 25.0	1570 50.2	364 25.0
TPH By SW8015 Mod	<i>Extracted:</i>	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30	07.08.2020 16:30
	<i>Analyzed:</i>	07.09.2020 04:21	07.09.2020 04:40	07.09.2020 04:58	07.09.2020 05:17	07.09.2020 05:54	07.09.2020 06:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	238 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	81.2 49.8	<50.0 50.0
Total TPH		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	319 49.8	<50.0 50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Certificate of Analysis Summary 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Berry SWD

Project Id: 12700
Contact: PM
Project Location: Eddy County (Loving, NM)

Date Received in Lab: Wed 07.08.2020 11:15
Report Date: 07.10.2020 16:31
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	666538-013	666538-014				
	Field Id:	FL3 @ Surface	FL3 @ 4'-R				
	Depth:		4- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	07.06.2020 00:00	07.06.2020 00:00				
BTEX by EPA 8021B	Extracted:	07.08.2020 14:00	07.08.2020 14:00				
	Analyzed:	07.08.2020 21:40	07.08.2020 22:00				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00200 0.00200				
Toluene		<0.00198 0.00198	<0.00200 0.00200				
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200				
m,p-Xylenes		<0.00396 0.00396	<0.00399 0.00399				
o-Xylene		<0.00198 0.00198	<0.00200 0.00200				
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200				
Total BTEX		<0.00198 0.00198	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	07.09.2020 08:30	07.09.2020 08:30				
	Analyzed:	07.09.2020 11:17	07.09.2020 11:24				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		6110 49.6	3710 50.5				
TPH By SW8015 Mod	Extracted:	07.08.2020 16:30	07.08.2020 16:30				
	Analyzed:	07.09.2020 06:30	07.09.2020 06:49				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0				
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0				
Total TPH		<49.9 49.9	<50.0 50.0				

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Analytical Report 666538

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Berry SWD

12700

07.10.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.10.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **666538**

Berry SWD

Project Address: Eddy County (Loving, NM)

PM :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 666538. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 666538 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 666538****Etech Environmental & Safety Solution, Inc, Midland, TX**

Berry SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NH @ Surface	S	07.06.2020 00:00		666538-001
NH @ 1'	S	07.06.2020 00:00	1 ft	666538-002
EH @ Surface	S	07.06.2020 00:00		666538-003
EH @ 1'	S	07.06.2020 00:00	1 ft	666538-004
SH @ Surface	S	07.06.2020 00:00		666538-005
SH @ 1'	S	07.06.2020 00:00	1 ft	666538-006
WH @ Surface	S	07.06.2020 00:00		666538-007
WH @ 1'	S	07.06.2020 00:00	1 ft	666538-008
FL1 @ Surface	S	07.06.2020 00:00		666538-009
FL1 @ 4'-R	S	07.06.2020 00:00	4 ft	666538-010
FL2 @ Surface	S	07.06.2020 00:00		666538-011
FL2 @ 1'	S	07.06.2020 00:00	1 ft	666538-012
FL3 @ Surface	S	07.06.2020 00:00		666538-013
FL3 @ 4'-R	S	07.06.2020 00:00	4 ft	666538-014



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Berry SWD

Project ID: 12700
Work Order Number(s): 666538

Report Date: 07.10.2020
Date Received: 07.08.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **NH @ Surface** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-001 Date Collected: 07.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	126	25.2	mg/kg	07.09.2020 10:28		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 01:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 01:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 01:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 01:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	07.09.2020 01:51	
o-Terphenyl	84-15-1	103	%	70-130	07.09.2020 01:51	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **NH @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-001

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00666	0.00199	mg/kg	07.08.2020 16:32		1
Toluene	108-88-3	0.0233	0.00199	mg/kg	07.08.2020 16:32		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.08.2020 16:32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.08.2020 16:32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.08.2020 16:32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.08.2020 16:32	U	1
Total BTEX		0.0300	0.00199	mg/kg	07.08.2020 16:32		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	07.08.2020 16:32		
1,4-Difluorobenzene	540-36-3	122	%	70-130	07.08.2020 16:32		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **NH @ 1'** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-002 Date Collected: 07.06.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.1	24.8	mg/kg	07.09.2020 10:33		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.09.2020 02:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.09.2020 02:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.09.2020 02:48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.09.2020 02:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	07.09.2020 02:48	
o-Terphenyl	84-15-1	118	%	70-130	07.09.2020 02:48	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **NH @ 1'** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-002 Date Collected: 07.06.2020 00:00 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: AMF Date Prep: 07.08.2020 14:00 Basis: Wet Weight
 Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.08.2020 16:52	U	1
Toluene	108-88-3	0.00218	0.00199	mg/kg	07.08.2020 16:52		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.08.2020 16:52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.08.2020 16:52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.08.2020 16:52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.08.2020 16:52	U	1
Total BTEX		0.00218	0.00199	mg/kg	07.08.2020 16:52		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.08.2020 16:52		
1,4-Difluorobenzene	540-36-3	116	%	70-130	07.08.2020 16:52		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **EH @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-003

Date Collected: 07.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.09.2020 08:15

Basis: Wet Weight

Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	25.3	mg/kg	07.09.2020 10:48		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.08.2020 16:30

Basis: Wet Weight

Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.09.2020 03:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.09.2020 03:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.09.2020 03:06	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.09.2020 03:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	07.09.2020 03:06	
o-Terphenyl	84-15-1	113	%	70-130	07.09.2020 03:06	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **EH @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-003

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00662	0.00200	mg/kg	07.08.2020 17:13		1
Toluene	108-88-3	0.0231	0.00200	mg/kg	07.08.2020 17:13		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.2020 17:13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.08.2020 17:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.2020 17:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.2020 17:13	U	1
Total BTEX		0.0297	0.00200	mg/kg	07.08.2020 17:13		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	07.08.2020 17:13		
4-Bromofluorobenzene	460-00-4	97	%	70-130	07.08.2020 17:13		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **EH @ 1'** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-004 Date Collected: 07.06.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	175	25.3	mg/kg	07.09.2020 10:53		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.09.2020 03:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.09.2020 03:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.09.2020 03:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.09.2020 03:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	07.09.2020 03:25	
o-Terphenyl	84-15-1	111	%	70-130	07.09.2020 03:25	



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Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **EH @ 1'**
Lab Sample Id: 666538-004

Matrix: Soil
Date Collected: 07.06.2020 00:00

Date Received: 07.08.2020 11:15
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00574	0.00200	mg/kg	07.08.2020 17:33		1
Toluene	108-88-3	0.0180	0.00200	mg/kg	07.08.2020 17:33		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.2020 17:33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.08.2020 17:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.2020 17:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.2020 17:33	U	1
Total BTEX		0.0237	0.00200	mg/kg	07.08.2020 17:33		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	07.08.2020 17:33		
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.08.2020 17:33		



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Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **SH @ Surface** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-005 Date Collected: 07.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	25.3	mg/kg	07.09.2020 10:58		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 03:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 03:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 03:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 03:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	07.09.2020 03:44	
o-Terphenyl	84-15-1	115	%	70-130	07.09.2020 03:44	



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Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **SH @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-005

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00707	0.00201	mg/kg	07.08.2020 17:54		1
Toluene	108-88-3	0.0204	0.00201	mg/kg	07.08.2020 17:54		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.08.2020 17:54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.08.2020 17:54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.08.2020 17:54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.08.2020 17:54	U	1
Total BTEX		0.0275	0.00201	mg/kg	07.08.2020 17:54		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.08.2020 17:54		
1,4-Difluorobenzene	540-36-3	113	%	70-130	07.08.2020 17:54		



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Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **SH @ 1'** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-006 Date Collected: 07.06.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.9	25.0	mg/kg	07.09.2020 11:03		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.09.2020 04:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.09.2020 04:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.09.2020 04:03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.09.2020 04:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-130	07.09.2020 04:03	
o-Terphenyl	84-15-1	128	%	70-130	07.09.2020 04:03	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **SH @ 1'**
Lab Sample Id: 666538-006

Matrix: Soil
Date Collected: 07.06.2020 00:00

Date Received: 07.08.2020 11:15
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: AMF

Seq Number: 3131097

Date Prep: 07.08.2020 14:00

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00547	0.00200	mg/kg	07.08.2020 18:14		1
Toluene	108-88-3	0.0173	0.00200	mg/kg	07.08.2020 18:14		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.2020 18:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.08.2020 18:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.2020 18:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.2020 18:14	U	1
Total BTEX		0.0228	0.00200	mg/kg	07.08.2020 18:14		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	07.08.2020 18:14		
1,4-Difluorobenzene	540-36-3	110	%	70-130	07.08.2020 18:14		



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Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **WH @ Surface** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-007 Date Collected: 07.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	25.0	mg/kg	07.09.2020 11:08		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.09.2020 04:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.09.2020 04:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.09.2020 04:21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.09.2020 04:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	07.09.2020 04:21	
o-Terphenyl	84-15-1	109	%	70-130	07.09.2020 04:21	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **WH @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-007

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.08.2020 18:35	U	1
Toluene	108-88-3	0.00455	0.00200	mg/kg	07.08.2020 18:35		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.2020 18:35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.08.2020 18:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.2020 18:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.2020 18:35	U	1
Total BTEX		0.00455	0.00200	mg/kg	07.08.2020 18:35		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	07.08.2020 18:35		
1,4-Difluorobenzene	540-36-3	110	%	70-130	07.08.2020 18:35		



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Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **WH @ 1'** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-008 Date Collected: 07.06.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.6	25.2	mg/kg	07.09.2020 11:13		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 04:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 04:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 04:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 04:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	07.09.2020 04:40	
o-Terphenyl	84-15-1	117	%	70-130	07.09.2020 04:40	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **WH @ 1'**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-008

Date Collected: 07.06.2020 00:00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00411	0.00202	mg/kg	07.08.2020 18:55		1
Toluene	108-88-3	0.0120	0.00202	mg/kg	07.08.2020 18:55		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.08.2020 18:55	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.08.2020 18:55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.08.2020 18:55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.08.2020 18:55	U	1
Total BTEX		0.0161	0.00202	mg/kg	07.08.2020 18:55		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	07.08.2020 18:55		
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.08.2020 18:55		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL1 @ Surface** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-009 Date Collected: 07.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:15 Basis: Wet Weight
 Seq Number: 3131210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3300	24.9	mg/kg	07.09.2020 11:18		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 04:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 04:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 04:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 04:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	07.09.2020 04:58	
o-Terphenyl	84-15-1	119	%	70-130	07.09.2020 04:58	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **FL1 @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-009

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.08.2020 19:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.08.2020 19:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.08.2020 19:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.08.2020 19:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.08.2020 19:16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.08.2020 19:16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.08.2020 19:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	07.08.2020 19:16		
4-Bromofluorobenzene	460-00-4	100	%	70-130	07.08.2020 19:16		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **FL1 @ 4'-R** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-010 Date Collected: 07.06.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:30 Basis: Wet Weight
 Seq Number: 3131215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1590	25.0	mg/kg	07.09.2020 10:46		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 05:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 05:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 05:17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 05:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	07.09.2020 05:17	
o-Terphenyl	84-15-1	117	%	70-130	07.09.2020 05:17	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL1 @ 4'-R**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-010

Date Collected: 07.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.08.2020 19:37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.08.2020 19:37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.08.2020 19:37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.08.2020 19:37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.08.2020 19:37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.08.2020 19:37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.08.2020 19:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.08.2020 19:37		
4-Bromofluorobenzene	460-00-4	98	%	70-130	07.08.2020 19:37		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL2 @ Surface** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-011 Date Collected: 07.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:30 Basis: Wet Weight
 Seq Number: 3131215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1570	50.2	mg/kg	07.09.2020 11:05		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.09.2020 05:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	238	49.8	mg/kg	07.09.2020 05:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	81.2	49.8	mg/kg	07.09.2020 05:54		1
Total TPH	PHC635	319	49.8	mg/kg	07.09.2020 05:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	07.09.2020 05:54	
o-Terphenyl	84-15-1	118	%	70-130	07.09.2020 05:54	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **FL2 @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-011

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00869	0.00201	mg/kg	07.08.2020 20:59		1
Toluene	108-88-3	0.0236	0.00201	mg/kg	07.08.2020 20:59		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.08.2020 20:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.08.2020 20:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.08.2020 20:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.08.2020 20:59	U	1
Total BTEX		0.0323	0.00201	mg/kg	07.08.2020 20:59		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	07.08.2020 20:59		
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.08.2020 20:59		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL2 @ 1'** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-012 Date Collected: 07.06.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:30 Basis: Wet Weight
 Seq Number: 3131215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	364	25.0	mg/kg	07.09.2020 11:11		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 06:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 06:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 06:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 06:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	07.09.2020 06:12	
o-Terphenyl	84-15-1	105	%	70-130	07.09.2020 06:12	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **FL2 @ 1'**
Lab Sample Id: 666538-012

Matrix: Soil
Date Collected: 07.06.2020 00:00

Date Received: 07.08.2020 11:15
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00621	0.00201	mg/kg	07.08.2020 21:19		1
Toluene	108-88-3	0.0173	0.00201	mg/kg	07.08.2020 21:19		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.08.2020 21:19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.08.2020 21:19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.08.2020 21:19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.08.2020 21:19	U	1
Total BTEX		0.0235	0.00201	mg/kg	07.08.2020 21:19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	07.08.2020 21:19		
1,4-Difluorobenzene	540-36-3	111	%	70-130	07.08.2020 21:19		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL3 @ Surface** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-013 Date Collected: 07.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:30 Basis: Wet Weight
 Seq Number: 3131215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6110	49.6	mg/kg	07.09.2020 11:17		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.09.2020 06:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.09.2020 06:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.09.2020 06:30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.09.2020 06:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	07.09.2020 06:30	
o-Terphenyl	84-15-1	115	%	70-130	07.09.2020 06:30	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL3 @ Surface**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-013

Date Collected: 07.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.08.2020 21:40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.08.2020 21:40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.08.2020 21:40	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.08.2020 21:40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.08.2020 21:40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.08.2020 21:40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.08.2020 21:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.08.2020 21:40		
1,4-Difluorobenzene	540-36-3	113	%	70-130	07.08.2020 21:40		



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **FL3 @ 4'-R** Matrix: Soil Date Received: 07.08.2020 11:15
 Lab Sample Id: 666538-014 Date Collected: 07.06.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.09.2020 08:30 Basis: Wet Weight
 Seq Number: 3131215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3710	50.5	mg/kg	07.09.2020 11:24		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.08.2020 16:30 Basis: Wet Weight
 Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.09.2020 06:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.09.2020 06:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.09.2020 06:49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.09.2020 06:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	07.09.2020 06:49	
o-Terphenyl	84-15-1	119	%	70-130	07.09.2020 06:49	



Certificate of Analytical Results 666538

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id: **FL3 @ 4'-R**

Matrix: Soil

Date Received: 07.08.2020 11:15

Lab Sample Id: 666538-014

Date Collected: 07.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: AMF

Date Prep: 07.08.2020 14:00

Basis: Wet Weight

Seq Number: 3131097

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.08.2020 22:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.08.2020 22:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.08.2020 22:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.08.2020 22:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.08.2020 22:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.08.2020 22:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.08.2020 22:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.08.2020 22:00		
1,4-Difluorobenzene	540-36-3	116	%	70-130	07.08.2020 22:00		

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Etech Environmental & Safety Solution, Inc

Berry SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3131210

MB Sample Id: 7706987-1-BLK

Matrix: Solid

LCS Sample Id: 7706987-1-BKS

Prep Method: E300P

Date Prep: 07.09.2020

LCSD Sample Id: 7706987-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	258	103	258	103	90-110	0	20	mg/kg	07.09.2020 08:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3131215

MB Sample Id: 7706988-1-BLK

Matrix: Solid

LCS Sample Id: 7706988-1-BKS

Prep Method: E300P

Date Prep: 07.09.2020

LCSD Sample Id: 7706988-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	246	98	90-110	0	20	mg/kg	07.09.2020 10:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3131210

Parent Sample Id: 666529-012

Matrix: Soil

MS Sample Id: 666529-012 S

Prep Method: E300P

Date Prep: 07.09.2020

MSD Sample Id: 666529-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	161	248	427	107	421	105	90-110	1	20	mg/kg	07.09.2020 09:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3131210

Parent Sample Id: 666529-022

Matrix: Soil

MS Sample Id: 666529-022 S

Prep Method: E300P

Date Prep: 07.09.2020

MSD Sample Id: 666529-022 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	224	250	486	105	487	105	90-110	0	20	mg/kg	07.09.2020 10:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3131215

Parent Sample Id: 666538-010

Matrix: Soil

MS Sample Id: 666538-010 S

Prep Method: E300P

Date Prep: 07.09.2020

MSD Sample Id: 666538-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1590	1250	2960	110	2950	109	90-110	0	20	mg/kg	07.09.2020 10:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3131215

Parent Sample Id: 666539-006

Matrix: Soil

MS Sample Id: 666539-006 S

Prep Method: E300P

Date Prep: 07.09.2020

MSD Sample Id: 666539-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.27	248	263	104	263	104	90-110	0	20	mg/kg	07.09.2020 12:21	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Etech Environmental & Safety Solution, Inc Berry SWD

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131136

MB Sample Id: 7706973-1-BLK

Matrix: Solid

LCS Sample Id: 7706973-1-BKS

Prep Method: SW8015P

Date Prep: 07.08.2020

LCSD Sample Id: 7706973-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	1100	110	70-130	1	20	mg/kg	07.09.2020 01:13	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1110	111	70-130	0	20	mg/kg	07.09.2020 01:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		126		127		70-130	%	07.09.2020 01:13
o-Terphenyl	115		120		121		70-130	%	07.09.2020 01:13

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131136

Matrix: Solid

MB Sample Id: 7706973-1-BLK

Prep Method: SW8015P

Date Prep: 07.08.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.09.2020 00:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3131136

Matrix: Soil

Parent Sample Id: 666538-001

MS Sample Id: 666538-001 S

Prep Method: SW8015P

Date Prep: 07.08.2020

MSD Sample Id: 666538-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	975	98	954	95	70-130	2	20	mg/kg	07.09.2020 02:10	
Diesel Range Organics (DRO)	<49.8	996	997	100	987	99	70-130	1	20	mg/kg	07.09.2020 02:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		125		70-130	%	07.09.2020 02:10
o-Terphenyl	120		117		70-130	%	07.09.2020 02:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131097

Matrix: Solid

MB Sample Id: 7706926-1-BLK

LCS Sample Id: 7706926-1-BKS

Prep Method: SW5035A

Date Prep: 07.08.2020

LCSD Sample Id: 7706926-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.119	119	0.114	114	70-130	4	35	mg/kg	07.08.2020 14:28	
Toluene	<0.00200	0.100	0.101	101	0.0992	99	70-130	2	35	mg/kg	07.08.2020 14:28	
Ethylbenzene	<0.00200	0.100	0.0956	96	0.0935	94	70-130	2	35	mg/kg	07.08.2020 14:28	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.177	89	70-130	2	35	mg/kg	07.08.2020 14:28	
o-Xylene	<0.00200	0.100	0.0888	89	0.0886	89	70-130	0	35	mg/kg	07.08.2020 14:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		101		99		70-130	%	07.08.2020 14:28
4-Bromofluorobenzene	87		83		85		70-130	%	07.08.2020 14:28

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Etech Environmental & Safety Solution, Inc

Berry SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3131097

Parent Sample Id: 666538-001

Matrix: Soil

MS Sample Id: 666538-001 S

Prep Method: SW5035A

Date Prep: 07.08.2020

MSD Sample Id: 666538-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00666	0.0996	0.127	121	0.132	125	70-130	4	35	mg/kg	07.08.2020 15:09	
Toluene	0.0233	0.0996	0.111	88	0.119	96	70-130	7	35	mg/kg	07.08.2020 15:09	
Ethylbenzene	<0.00199	0.0996	0.0859	86	0.0880	88	70-130	2	35	mg/kg	07.08.2020 15:09	
m,p-Xylenes	<0.00398	0.199	0.164	82	0.165	82	70-130	1	35	mg/kg	07.08.2020 15:09	
o-Xylene	<0.00199	0.0996	0.0813	82	0.0822	82	70-130	1	35	mg/kg	07.08.2020 15:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		104		70-130	%	07.08.2020 15:09
4-Bromofluorobenzene	84		82		70-130	%	07.08.2020 15:09

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Ref: Date: 07Jul20 SHIPPING: 0.00
 Dep: Wgt: 36.00 LBS SPECIAL: 0.00
 DV: 0.00 HANDLING: 0.00
 TOTAL: 0.00

Svcs: STANDARD OVERNIGHT HLD
 TRCK: 4705 2523 9423

in of Custody

Work Order No:

100538



El Paso, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

www.xenco.com

Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Etech Environmental & Safety	Company Name:	Solaris
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@etechenv.com + Client

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level I ☐ Level II ☐ PST/US ☐ TRR ☐ Level I ☐
Deliverables:	EDD ☐ ADaPT ☐ Other:

Project Name:		Berry SWD		Turn Around		ANALYSIS REQUEST										Preservative Codes	
Project Number:		12700		Routine:												HN03: HN	
Project Location:		Eddy County (Lovin, NM)		Rush:												H2S04: H2	
Sampler's Name:		Miguel Rios		Due Date:												HCL: HL	
PO #:																None: NO	
SAMPLE RECEIPT		Temp Blank: Yes ☒ No ☐		Wet Ice: Yes ☒ No ☐												NaOH: Na	
Temperature (°C):		2.019		Thermometer ID:												MeOH: Me	
Received Intact:		Yes ☒ No ☐														Zn Acetate+ NaOH: Zn	
Cooler Custody Seals:		Yes ☐ No ☒ N/A		Correction Factor:												TAT starts the day received by the lab, if received by 4:30pm	
Sample Custody Seals:		Yes ☐ No ☒ N/A		Total Containers:													
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005						Sample Comments	
NH @ Surface		Soil	7-6-20			1	X	X	X	X							
NH @ 1'		Soil	7-6-20		1'	1	X	X	X	X							
EH @ Surface		Soil	7-6-20			1	X	X	X	X							
EH @ 1'		Soil	7-6-20		1'	1	X	X	X	X							
SH @ Surface		Soil	7-6-20			1	X	X	X	X							
SH @ 1'		Soil	7-6-20		1'	1	X	X	X	X							
WH @ Surface		Soil	7-6-20			1	X	X	X	X							
WH @ 1'		Soil	7-6-20		1'	1	X	X	X	X							
FL 1 @ Surface		Soil	7-6-20			1	X	X	X	X							
FL 1 @ 4'-R		Soil	7-6-20		4'-R	1	X	X	X	X							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	A. R.	7-6-20	2		7/8/20
3			4		115
5			6		

ORIGIN ID: H0BA (c/c)
** MAIL SERVICES ETC, LLC
4008 N GRIMES
H0985 N 88240
UNITED STATES US
TO XENCO LABORATORIES HOLD FOR PICK UP
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH
MIDLAND TX 79711
REF: (432) 563-1800

DATE: 07 JUL 20
ACTWGT: 36.00 LB MAN
CAD: 0909328/CAF3211
DIMS: 15x15x11 IN
BILL RECIPIENT

551C217871184C



WED - 08 JUL HOLD
STANDARD OVERNIGHT HLD
MAFA
TX-US LBB

TRK# 4705 2523 9423
0201
41 MAFA



Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 07.08.2020 11.15.00 AM

Work Order #: 666538

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes BTEX was in bulk container
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 07.08.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.09.2020

Certificate of Analysis Summary 673500

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Berry SWD

Project Id: 12700
Contact: PM
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 09.24.2020 13:12
Report Date: 09.28.2020 13:42
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 673500-001 Field Id: STT @5' Depth: 5- ft Matrix: SOIL Sampled: 09.24.2020 00:00	Lab Id: 673500-002 Field Id: NTT @5' Depth: 5- ft Matrix: SOIL Sampled: 09.24.2020 00:00				
BTEX by EPA 8021B	Extracted: 09.25.2020 15:39 Analyzed: 09.26.2020 10:38 Units/RL: mg/kg RL	Extracted: 09.25.2020 15:39 Analyzed: 09.26.2020 11:01 Units/RL: mg/kg RL				
Benzene	<0.00200 0.00200	<0.00196 0.00196				
Toluene	<0.00200 0.00200	<0.00196 0.00196				
Ethylbenzene	<0.00200 0.00200	<0.00196 0.00196				
m,p-Xylenes	<0.00399 0.00399	<0.00392 0.00392				
o-Xylene	<0.00200 0.00200	<0.00196 0.00196				
Total Xylenes	<0.00200 0.00200	<0.00196 0.00196				
Total BTEX	<0.00200 0.00200	<0.00196 0.00196				
Inorganic Anions by EPA 300	Extracted: 09.25.2020 11:13 Analyzed: 09.25.2020 14:40 Units/RL: mg/kg RL	Extracted: 09.25.2020 11:13 Analyzed: 09.25.2020 14:45 Units/RL: mg/kg RL				
Chloride	158 10.0	362 9.98				
TPH by SW8015 Mod	Extracted: 09.25.2020 12:00 Analyzed: 09.25.2020 15:42 Units/RL: mg/kg RL	Extracted: 09.25.2020 12:00 Analyzed: 09.25.2020 16:02 Units/RL: mg/kg RL				
Gasoline Range Hydrocarbons (GRO)	<49.8 49.8	<49.9 49.9				
Diesel Range Organics (DRO)	<49.8 49.8	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)	<49.8 49.8	<49.9 49.9				
Total TPH	<49.8 49.8	<49.9 49.9				

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 673500

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Berry SWD

12700

09.28.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.28.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **673500**

Berry SWD

Project Address: Eddy County, New Mexico

PM :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673500. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 673500 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 673500

Etech Environmental & Safety Solution, Inc, Midland, TX

Berry SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
STT @5'	S	09.24.2020 00:00	5 ft	673500-001
NTT @5'	S	09.24.2020 00:00	5 ft	673500-002



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Berry SWD

Project ID: 12700
Work Order Number(s): 673500

Report Date: 09.28.2020
Date Received: 09.24.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 673500

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: STT @5' Matrix: Soil Date Received: 09.24.2020 13:12
 Lab Sample Id: 673500-001 Date Collected: 09.24.2020 00:00 Sample Depth: 5 ft
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.25.2020 11:13 Basis: Wet Weight
 Seq Number: 3138166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	158	10.0	mg/kg	09.25.2020 14:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.25.2020 12:00 Basis: Wet Weight
 Seq Number: 3138163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.25.2020 15:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.25.2020 15:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.25.2020 15:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.25.2020 15:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	09.25.2020 15:42	
o-Terphenyl	84-15-1	113	%	70-135	09.25.2020 15:42	



Certificate of Analytical Results 673500

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **STT @5'** Matrix: **Soil** Date Received: 09.24.2020 13:12
 Lab Sample Id: 673500-001 Date Collected: 09.24.2020 00:00 Sample Depth: 5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 09.25.2020 15:39 Basis: **Wet Weight**
 Seq Number: 3138238

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.26.2020 10:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.26.2020 10:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.26.2020 10:38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.26.2020 10:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.26.2020 10:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.26.2020 10:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.26.2020 10:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	09.26.2020 10:38		
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.26.2020 10:38		



Certificate of Analytical Results 673500

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **NTT @5'** Matrix: Soil Date Received: 09.24.2020 13:12
 Lab Sample Id: 673500-002 Date Collected: 09.24.2020 00:00 Sample Depth: 5 ft
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.25.2020 11:13 Basis: Wet Weight
 Seq Number: 3138166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	362	9.98	mg/kg	09.25.2020 14:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.25.2020 12:00 Basis: Wet Weight
 Seq Number: 3138163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 16:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 16:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 16:02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 16:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	09.25.2020 16:02	
o-Terphenyl	84-15-1	115	%	70-135	09.25.2020 16:02	



Certificate of Analytical Results 673500

Etech Environmental & Safety Solution, Inc, Midland, TX Berry SWD

Sample Id: **NTT @5'** Matrix: **Soil** Date Received: 09.24.2020 13:12
 Lab Sample Id: 673500-002 Date Collected: 09.24.2020 00:00 Sample Depth: 5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 09.25.2020 15:39 Basis: **Wet Weight**
 Seq Number: 3138238

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00196	0.00196	mg/kg	09.26.2020 11:01	U	1
Toluene	108-88-3	<0.00196	0.00196	mg/kg	09.26.2020 11:01	U	1
Ethylbenzene	100-41-4	<0.00196	0.00196	mg/kg	09.26.2020 11:01	U	1
m,p-Xylenes	179601-23-1	<0.00392	0.00392	mg/kg	09.26.2020 11:01	U	1
o-Xylene	95-47-6	<0.00196	0.00196	mg/kg	09.26.2020 11:01	U	1
Total Xylenes	1330-20-7	<0.00196	0.00196	mg/kg	09.26.2020 11:01	U	1
Total BTEX		<0.00196	0.00196	mg/kg	09.26.2020 11:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.26.2020 11:01		
4-Bromofluorobenzene	460-00-4	121	%	70-130	09.26.2020 11:01		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Etech Environmental & Safety Solution, Inc

Berry SWD

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3138166

Matrix: Solid

Prep Method: E300P

Date Prep: 09.25.2020

MB Sample Id: 7712105-1-BLK

LCS Sample Id: 7712105-1-BKS

LCSD Sample Id: 7712105-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	255	102	90-110	0	20	mg/kg	09.25.2020 10:39	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3138166

Matrix: Soil

Prep Method: E300P

Date Prep: 09.25.2020

Parent Sample Id: 673561-011

MS Sample Id: 673561-011 S

MSD Sample Id: 673561-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	223	200	418	98	422	100	90-110	1	20	mg/kg	09.25.2020 13:55	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3138166

Matrix: Soil

Prep Method: E300P

Date Prep: 09.25.2020

Parent Sample Id: 673561-001

MS Sample Id: 673561-001 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Chloride	264	200	471	104	90-110	mg/kg	09.25.2020 12:37	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138163

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.25.2020

MB Sample Id: 7712083-1-BLK

LCS Sample Id: 7712083-1-BKS

LCSD Sample Id: 7712083-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1250	125	974	97	70-135	25	35	mg/kg	09.25.2020 10:19	
Diesel Range Organics (DRO)	<50.0	1000	913	91	956	96	70-135	5	35	mg/kg	09.25.2020 10:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		134		133		70-135	%	09.25.2020 10:19
o-Terphenyl	92		126		123		70-135	%	09.25.2020 10:19

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138163

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.25.2020

MB Sample Id: 7712083-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.25.2020 09:59	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Etech Environmental & Safety Solution, Inc

Berry SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138163

Parent Sample Id: 673493-001

Matrix: Soil

MS Sample Id: 673493-001 S

Prep Method: SW8015P

Date Prep: 09.25.2020

MSD Sample Id: 673493-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	998	100	981	98	70-135	2	35	mg/kg	09.25.2020 11:19	
Diesel Range Organics (DRO)	<49.8	996	992	100	955	96	70-135	4	35	mg/kg	09.25.2020 11:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		130		70-135	%	09.25.2020 11:19
o-Terphenyl	130		125		70-135	%	09.25.2020 11:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138238

MB Sample Id: 7712176-1-BLK

Matrix: Solid

LCS Sample Id: 7712176-1-BKS

Prep Method: SW5035A

Date Prep: 09.25.2020

LCSD Sample Id: 7712176-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0987	99	0.103	103	70-130	4	35	mg/kg	09.26.2020 02:44	
Toluene	<0.00200	0.100	0.0947	95	0.0973	97	70-130	3	35	mg/kg	09.26.2020 02:44	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.101	101	71-129	3	35	mg/kg	09.26.2020 02:44	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.201	101	70-135	2	35	mg/kg	09.26.2020 02:44	
o-Xylene	<0.00200	0.100	0.0986	99	0.0988	99	71-133	0	35	mg/kg	09.26.2020 02:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		102		70-130	%	09.26.2020 02:44
4-Bromofluorobenzene	115		109		109		70-130	%	09.26.2020 02:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138238

Parent Sample Id: 673428-008

Matrix: Soil

MS Sample Id: 673428-008 S

Prep Method: SW5035A

Date Prep: 09.25.2020

MSD Sample Id: 673428-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.105	105	0.0983	98	70-130	7	35	mg/kg	09.26.2020 03:29	
Toluene	<0.00201	0.100	0.0978	98	0.0878	88	70-130	11	35	mg/kg	09.26.2020 03:29	
Ethylbenzene	<0.00201	0.100	0.105	105	0.0900	90	71-129	15	35	mg/kg	09.26.2020 03:29	
m,p-Xylenes	<0.00402	0.201	0.210	104	0.180	90	70-135	15	35	mg/kg	09.26.2020 03:29	
o-Xylene	<0.00201	0.100	0.104	104	0.0904	90	71-133	14	35	mg/kg	09.26.2020 03:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		96		70-130	%	09.26.2020 03:29
4-Bromofluorobenzene	114		111		70-130	%	09.26.2020 03:29

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

XENCO**Chain of Custody**Work Order No: 673500

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1206
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

www.xenco.com

Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Etech Environmental & Safety	Company Name:	Solaris Water Midstream
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@etechnv.com + Client

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level I ☐ Level II ☐ - PST/US ☐ TRR ☐ Level I ☐
Deliverables:	EDD ☐ ADaPT ☐ Other:

Project Name:		Berry SWD		Turn Around		ANALYSIS REQUEST										Preservative Codes						
Project Number:		12700		Routine:												HNO3: HN						
Project Location:		Eddy County, NM		Rush:												H2SO4: H2						
Sampler's Name:		Miguel Ramirez		Due Date:												HCL: HL						
PO #:																None: NO						
SAMPLE RECEIPT		Temp Blank:		Yes ☒ No ☐		Wet Ice:		Yes ☒ No ☐												NaOH: Na		
Temperature (°C):		2.8/2.6		Thermometer ID												MeOH: Me						
Received Intact:		Yes ☒ No ☐		Correction Factor:												Zn Acetate+ NaOH: Zn						
Cooler Custody Seals:		Yes ☒ N/A		Total Containers:												TAT starts the day received by the lab, if received by 4:30pm						
Sample Custody Seals:		Yes ☒ N/A		Total Containers:																		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E200	BTEX 8021	TPH Modified Ext	TPH TX1005											Sample Comments	
STTS5'		Soil	9-24-20		5'	1	X	X	X													
NTTS5'		Soil	9-24-20		5'	1	X	X	X													

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
			1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9-24-20 13:12			

Revised Date 10/14/13 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 09.24.2020 01.12.00 PM

Work Order #: 673500

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.24.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.25.2020



Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-515-1

Laboratory Sample Delivery Group: 12700

Client Project/Site: Berry SWD - Solaris Water Midstream

For:

Etech Environmental & Safety Solutions
PO BOX 62228
Midland, Texas 79711

Attn: PM List

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
4/15/2021 8:19:26 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

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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.

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Laboratory Job ID: 890-515-1
SDG: 12700

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Definitions/Glossary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Job ID: 890-515-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-515-1

Receipt

The samples were received on 4/13/2021 12:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: F1 (890-515-1), F2 (890-515-2), F3 (890-515-3), F4 (890-515-4), F5 (890-515-5), F6 (890-515-6), F7 (890-515-7), F8 (890-515-8), F9 (890-515-9), F10 (890-515-10), F11 (890-515-11), F12 (890-515-12), NW (890-515-13), SW (890-515-14), EW (890-515-15) and WW (890-515-16).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: F3 (890-515-3) and F4 (890-515-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F1

Lab Sample ID: 890-515-1

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 14:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 14:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 14:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/14/21 08:56	04/14/21 14:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 14:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/14/21 08:56	04/14/21 14:53	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	04/14/21 08:56	04/14/21 14:53	1
1,4-Difluorobenzene (Surr)	118		70 - 130	04/14/21 08:56	04/14/21 14:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	49.9		mg/Kg		04/14/21 13:20	04/14/21 22:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 22:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 22:08	1
Total TPH	<49.9	U F1	49.9		mg/Kg		04/14/21 13:20	04/14/21 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/14/21 13:20	04/14/21 22:08	1
o-Terphenyl	92		70 - 130	04/14/21 13:20	04/14/21 22:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4090		99.8		mg/Kg			04/15/21 16:33	20

Client Sample ID: F2

Lab Sample ID: 890-515-2

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00204		0.00198		mg/Kg		04/14/21 08:56	04/14/21 15:14	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 15:14	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 15:14	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/14/21 08:56	04/14/21 15:14	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 15:14	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/14/21 08:56	04/14/21 15:14	1
Total BTEX	0.00204		0.00198		mg/Kg		04/14/21 08:56	04/14/21 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/14/21 08:56	04/14/21 15:14	1
1,4-Difluorobenzene (Surr)	116		70 - 130	04/14/21 08:56	04/14/21 15:14	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F2

Lab Sample ID: 890-515-2

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:12	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	04/14/21 13:20	04/14/21 23:12	1
o-Terphenyl	94		70 - 130	04/14/21 13:20	04/14/21 23:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7200		99.0		mg/Kg			04/15/21 16:48	20

Client Sample ID: F3

Lab Sample ID: 890-515-3

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00304		0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:35	1
Toluene	0.00376		0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/14/21 08:56	04/14/21 15:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/14/21 08:56	04/14/21 15:35	1
Total BTEX	0.00680		0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	175	S1+	70 - 130	04/14/21 08:56	04/14/21 15:35	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/14/21 08:56	04/14/21 15:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 09:05	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 09:05	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 09:05	1
Total TPH	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 09:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	04/14/21 13:20	04/15/21 09:05	1
o-Terphenyl	112		70 - 130	04/14/21 13:20	04/15/21 09:05	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800		100		mg/Kg			04/15/21 16:53	20

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F4

Lab Sample ID: 890-515-4

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/14/21 08:56	04/14/21 15:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:55	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/14/21 08:56	04/14/21 15:55	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/14/21 08:56	04/14/21 15:55	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/14/21 08:56	04/14/21 15:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:54	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/14/21 23:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	04/14/21 13:20	04/14/21 23:54	1
o-Terphenyl	97		70 - 130	04/14/21 13:20	04/14/21 23:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6300		101		mg/Kg			04/15/21 18:13	20

Client Sample ID: F5

Lab Sample ID: 890-515-5

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 16:16	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 16:16	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 16:16	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/14/21 08:56	04/14/21 16:16	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 16:16	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/14/21 08:56	04/14/21 16:16	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	04/14/21 08:56	04/14/21 16:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130	04/14/21 08:56	04/14/21 16:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F5

Lab Sample ID: 890-515-5

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:15	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	04/14/21 13:20	04/15/21 00:15	1
o-Terphenyl	94		70 - 130	04/14/21 13:20	04/15/21 00:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7200		101		mg/Kg			04/15/21 18:18	20

Client Sample ID: F6

Lab Sample ID: 890-515-6

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 16:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 16:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 16:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 16:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 16:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 16:37	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/14/21 08:56	04/14/21 16:37	1
1,4-Difluorobenzene (Surr)	111		70 - 130	04/14/21 08:56	04/14/21 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:36	1
Diesel Range Organics (Over C10-C28)	55.8		50.0		mg/Kg		04/14/21 13:20	04/15/21 00:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:36	1
Total TPH	55.8		50.0		mg/Kg		04/14/21 13:20	04/15/21 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/14/21 13:20	04/15/21 00:36	1
o-Terphenyl	90		70 - 130	04/14/21 13:20	04/15/21 00:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6390		99.4		mg/Kg			04/15/21 18:23	20

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F7

Lab Sample ID: 890-515-7

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:00	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:00	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:00	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/14/21 08:56	04/14/21 18:00	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:00	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/14/21 08:56	04/14/21 18:00	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/14/21 08:56	04/14/21 18:00	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/14/21 08:56	04/14/21 18:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:56	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/14/21 13:20	04/15/21 00:56	1
o-Terphenyl	91		70 - 130	04/14/21 13:20	04/15/21 00:56	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4360		99.0		mg/Kg			04/15/21 18:28	20

Client Sample ID: F8

Lab Sample ID: 890-515-8

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 18:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 18:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 18:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/14/21 08:56	04/14/21 18:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 18:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/14/21 08:56	04/14/21 18:21	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 18:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	04/14/21 08:56	04/14/21 18:21	1
1,4-Difluorobenzene (Surr)	115		70 - 130	04/14/21 08:56	04/14/21 18:21	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F8

Lab Sample ID: 890-515-8

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 01:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 01:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 01:17	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	04/14/21 13:20	04/15/21 01:17	1
o-Terphenyl	94		70 - 130	04/14/21 13:20	04/15/21 01:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3940		50.3		mg/Kg			04/15/21 18:33	10

Client Sample ID: F9

Lab Sample ID: 890-515-9

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:42	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:42	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:42	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/14/21 08:56	04/14/21 18:42	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:42	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/14/21 08:56	04/14/21 18:42	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/14/21 08:56	04/14/21 18:42	1
1,4-Difluorobenzene (Surr)	118		70 - 130	04/14/21 08:56	04/14/21 18:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 01:38	1
Diesel Range Organics (Over C10-C28)	115		50.0		mg/Kg		04/14/21 13:20	04/15/21 01:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 01:38	1
Total TPH	115		50.0		mg/Kg		04/14/21 13:20	04/15/21 01:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/14/21 13:20	04/15/21 01:38	1
o-Terphenyl	91		70 - 130	04/14/21 13:20	04/15/21 01:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6770		100		mg/Kg			04/15/21 18:38	20

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F10

Lab Sample ID: 890-515-10

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 19:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 19:02	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/14/21 08:56	04/14/21 19:02	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/14/21 08:56	04/14/21 19:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		04/14/21 13:20	04/15/21 01:59	1
Diesel Range Organics (Over C10-C28)	67.3		50.1		mg/Kg		04/14/21 13:20	04/15/21 01:59	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		04/14/21 13:20	04/15/21 01:59	1
Total TPH	67.3		50.1		mg/Kg		04/14/21 13:20	04/15/21 01:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/14/21 13:20	04/15/21 01:59	1
o-Terphenyl	91		70 - 130	04/14/21 13:20	04/15/21 01:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	894		50.5		mg/Kg			04/15/21 18:43	10

Client Sample ID: F11

Lab Sample ID: 890-515-11

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 19:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 19:23	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/14/21 08:56	04/14/21 19:23	1
1,4-Difluorobenzene (Surr)	111		70 - 130	04/14/21 08:56	04/14/21 19:23	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F11

Lab Sample ID: 890-515-11

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 02:41	1
Diesel Range Organics (Over C10-C28)	72.2		50.0		mg/Kg		04/14/21 13:20	04/15/21 02:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 02:41	1
Total TPH	72.2		50.0		mg/Kg		04/14/21 13:20	04/15/21 02:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	04/14/21 13:20	04/15/21 02:41	1
o-Terphenyl	95		70 - 130	04/14/21 13:20	04/15/21 02:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5720		101		mg/Kg			04/14/21 18:34	20

Client Sample ID: F12

Lab Sample ID: 890-515-12

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 19:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 19:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 19:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/14/21 08:56	04/14/21 19:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 19:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/14/21 08:56	04/14/21 19:44	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	04/14/21 08:56	04/14/21 19:44	1
1,4-Difluorobenzene (Surr)	120		70 - 130	04/14/21 08:56	04/14/21 19:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 03:02	1
Diesel Range Organics (Over C10-C28)	102		50.0		mg/Kg		04/14/21 13:20	04/15/21 03:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/15/21 03:02	1
Total TPH	102		50.0		mg/Kg		04/14/21 13:20	04/15/21 03:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	04/14/21 13:20	04/15/21 03:02	1
o-Terphenyl	91		70 - 130	04/14/21 13:20	04/15/21 03:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2040		50.5		mg/Kg			04/14/21 18:39	10

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: NW

Lab Sample ID: 890-515-13

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 20:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 20:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 20:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 20:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 20:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/14/21 08:56	04/14/21 20:04	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		04/14/21 08:56	04/14/21 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/14/21 08:56	04/14/21 20:04	1
1,4-Difluorobenzene (Surr)	119		70 - 130	04/14/21 08:56	04/14/21 20:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 03:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 03:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 03:23	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 03:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	04/14/21 13:20	04/15/21 03:23	1
o-Terphenyl	90		70 - 130	04/14/21 13:20	04/15/21 03:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1180		25.0		mg/Kg			04/14/21 18:45	5

Client Sample ID: SW

Lab Sample ID: 890-515-14

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 20:25	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 20:25	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 20:25	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		04/14/21 08:56	04/14/21 20:25	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 20:25	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		04/14/21 08:56	04/14/21 20:25	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		04/14/21 08:56	04/14/21 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/14/21 08:56	04/14/21 20:25	1
1,4-Difluorobenzene (Surr)	115		70 - 130	04/14/21 08:56	04/14/21 20:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 03:44	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: SW

Lab Sample ID: 890-515-14

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 03:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 03:44	1
Total TPH	<49.8	U	49.8		mg/Kg		04/14/21 13:20	04/15/21 03:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130				04/14/21 13:20	04/15/21 03:44	1
o-Terphenyl	102		70 - 130				04/14/21 13:20	04/15/21 03:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	723		49.8		mg/Kg			04/14/21 18:50	10

Client Sample ID: EW

Lab Sample ID: 890-515-15

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 20:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130				04/14/21 08:56	04/14/21 20:46	1
1,4-Difluorobenzene (Surr)	117		70 - 130				04/14/21 08:56	04/14/21 20:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:05	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130				04/14/21 13:20	04/15/21 04:05	1
o-Terphenyl	102		70 - 130				04/14/21 13:20	04/15/21 04:05	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	562		49.7		mg/Kg			04/14/21 18:56	10

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: WW

Lab Sample ID: 890-515-16

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 21:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 21:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 21:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/14/21 08:56	04/14/21 21:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 21:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/14/21 08:56	04/14/21 21:06	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		04/14/21 08:56	04/14/21 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	04/14/21 08:56	04/14/21 21:06	1
1,4-Difluorobenzene (Surr)	106		70 - 130	04/14/21 08:56	04/14/21 21:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:27	1
Total TPH	<49.9	U	49.9		mg/Kg		04/14/21 13:20	04/15/21 04:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	04/14/21 13:20	04/15/21 04:27	1
o-Terphenyl	91		70 - 130	04/14/21 13:20	04/15/21 04:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	870		49.5		mg/Kg			04/14/21 19:01	10

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-515-1	F1	94	118
890-515-2	F2	102	116
890-515-3	F3	175 S1+	96
890-515-4	F4	101	95
890-515-5	F5	95	104
890-515-6	F6	105	111
890-515-7	F7	96	108
890-515-8	F8	104	115
890-515-9	F9	101	118
890-515-10	F10	90	107
890-515-11	F11	98	111
890-515-12	F12	104	120
890-515-13	NW	103	119
890-515-14	SW	99	115
890-515-15	EW	99	117
890-515-16	WW	93	106
LCS 880-1766/1-A	Lab Control Sample	87	104
LCSD 880-1766/2-A	Lab Control Sample Dup	86	103
MB 880-1766/5-A	Method Blank	123	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-515-1	F1	101	92
890-515-1 MS	F1	117	89
890-515-1 MSD	F1	109	89
890-515-2	F2	103	94
890-515-3	F3	109	112
890-515-4	F4	105	97
890-515-5	F5	103	94
890-515-6	F6	99	90
890-515-7	F7	101	91
890-515-8	F8	103	94
890-515-9	F9	100	91
890-515-10	F10	99	91
890-515-11	F11	105	95
890-515-12	F12	102	91
890-515-13	NW	100	90
890-515-14	SW	117	102
890-515-15	EW	110	102
890-515-16	WW	102	91
LCS 880-1794/2-A	Lab Control Sample	104	94
LCSD 880-1794/3-A	Lab Control Sample Dup	101	89

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**Matrix: Solid****Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
MB 880-1794/1-A	Method Blank	107	103
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-1766/5-A

Matrix: Solid

Analysis Batch: 1767

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1766

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/14/21 08:56	04/14/21 13:09	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		04/14/21 08:56	04/14/21 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	04/14/21 08:56	04/14/21 13:09	1
1,4-Difluorobenzene (Surr)	110		70 - 130	04/14/21 08:56	04/14/21 13:09	1

Lab Sample ID: LCS 880-1766/1-A

Matrix: Solid

Analysis Batch: 1767

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08492		mg/Kg		85	70 - 130
Toluene	0.100	0.09259		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.08966		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1808		mg/Kg		90	70 - 130
o-Xylene	0.100	0.08828		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-1766/2-A

Matrix: Solid

Analysis Batch: 1767

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1766

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09048		mg/Kg		90	70 - 130	6	35
Toluene	0.100	0.1019		mg/Kg		102	70 - 130	10	35
Ethylbenzene	0.100	0.09675		mg/Kg		97	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1923		mg/Kg		96	70 - 130	6	35
o-Xylene	0.100	0.09779		mg/Kg		98	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

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

Lab Sample ID: MB 880-1794/1-A

Matrix: Solid

Analysis Batch: 1773

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1
Total TPH	<50.0	U	50.0		mg/Kg		04/14/21 13:20	04/14/21 21:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	04/14/21 13:20	04/14/21 21:04	1
o-Terphenyl	103		70 - 130	04/14/21 13:20	04/14/21 21:04	1

Lab Sample ID: LCS 880-1794/2-A

Matrix: Solid

Analysis Batch: 1773

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1153		mg/Kg		115	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1031		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: LCSD 880-1794/3-A

Matrix: Solid

Analysis Batch: 1773

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1794

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1282		mg/Kg		128	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	975.5		mg/Kg		98	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-515-1 MS

Matrix: Solid

Analysis Batch: 1773

Client Sample ID: F1

Prep Type: Total/NA

Prep Batch: 1794

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1475	F1	mg/Kg		148	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1169		mg/Kg		114	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

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

Lab Sample ID: 890-515-1 MS

Matrix: Solid

Analysis Batch: 1773

Client Sample ID: F1

Prep Type: Total/NA

Prep Batch: 1794

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-515-1 MSD

Matrix: Solid

Analysis Batch: 1773

Client Sample ID: F1

Prep Type: Total/NA

Prep Batch: 1794

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1207		mg/Kg		121	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1093		mg/Kg		106	70 - 130	7	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	89		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1755/1-A

Matrix: Solid

Analysis Batch: 1800

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/14/21 16:20	1

Lab Sample ID: LCS 880-1755/2-A

Matrix: Solid

Analysis Batch: 1800

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.5		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-1755/3-A

Matrix: Solid

Analysis Batch: 1800

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	250	249.5		mg/Kg		100	90 - 110	0	20

Lab Sample ID: MB 880-1754/1-A

Matrix: Solid

Analysis Batch: 1804

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/15/21 15:08	1

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QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-1754/3-A

Matrix: Solid

Analysis Batch: 1804

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	244.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-1754/2-A

Matrix: Solid

Analysis Batch: 1804

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			250	261.1		mg/Kg		104	90 - 110	7	20

Lab Sample ID: 890-515-1 MS

Matrix: Solid

Analysis Batch: 1804

Client Sample ID: F1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	4090		250	8508	4	mg/Kg		1772	90 - 110		

Lab Sample ID: 890-515-1 MSD

Matrix: Solid

Analysis Batch: 1804

Client Sample ID: F1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4090		250	9450	4	mg/Kg		2149	90 - 110	10	20

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

GC VOA

Prep Batch: 1766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-1	F1	Total/NA	Solid	5035	
890-515-2	F2	Total/NA	Solid	5035	
890-515-3	F3	Total/NA	Solid	5035	
890-515-4	F4	Total/NA	Solid	5035	
890-515-5	F5	Total/NA	Solid	5035	
890-515-6	F6	Total/NA	Solid	5035	
890-515-7	F7	Total/NA	Solid	5035	
890-515-8	F8	Total/NA	Solid	5035	
890-515-9	F9	Total/NA	Solid	5035	
890-515-10	F10	Total/NA	Solid	5035	
890-515-11	F11	Total/NA	Solid	5035	
890-515-12	F12	Total/NA	Solid	5035	
890-515-13	NW	Total/NA	Solid	5035	
890-515-14	SW	Total/NA	Solid	5035	
890-515-15	EW	Total/NA	Solid	5035	
890-515-16	WW	Total/NA	Solid	5035	
MB 880-1766/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1766/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1766/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 1767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-1	F1	Total/NA	Solid	8021B	1766
890-515-2	F2	Total/NA	Solid	8021B	1766
890-515-3	F3	Total/NA	Solid	8021B	1766
890-515-4	F4	Total/NA	Solid	8021B	1766
890-515-5	F5	Total/NA	Solid	8021B	1766
890-515-6	F6	Total/NA	Solid	8021B	1766
890-515-7	F7	Total/NA	Solid	8021B	1766
890-515-8	F8	Total/NA	Solid	8021B	1766
890-515-9	F9	Total/NA	Solid	8021B	1766
890-515-10	F10	Total/NA	Solid	8021B	1766
890-515-11	F11	Total/NA	Solid	8021B	1766
890-515-12	F12	Total/NA	Solid	8021B	1766
890-515-13	NW	Total/NA	Solid	8021B	1766
890-515-14	SW	Total/NA	Solid	8021B	1766
890-515-15	EW	Total/NA	Solid	8021B	1766
890-515-16	WW	Total/NA	Solid	8021B	1766
MB 880-1766/5-A	Method Blank	Total/NA	Solid	8021B	1766
LCS 880-1766/1-A	Lab Control Sample	Total/NA	Solid	8021B	1766
LCSD 880-1766/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1766

GC Semi VOA

Analysis Batch: 1773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-1	F1	Total/NA	Solid	8015B NM	1794
890-515-2	F2	Total/NA	Solid	8015B NM	1794
890-515-3	F3	Total/NA	Solid	8015B NM	1794
890-515-4	F4	Total/NA	Solid	8015B NM	1794
890-515-5	F5	Total/NA	Solid	8015B NM	1794

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QC Association Summary

Client: Etech Environmental & Safety Solutions
 Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
 SDG: 12700

GC Semi VOA (Continued)

Analysis Batch: 1773 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-6	F6	Total/NA	Solid	8015B NM	1794
890-515-7	F7	Total/NA	Solid	8015B NM	1794
890-515-8	F8	Total/NA	Solid	8015B NM	1794
890-515-9	F9	Total/NA	Solid	8015B NM	1794
890-515-10	F10	Total/NA	Solid	8015B NM	1794
890-515-11	F11	Total/NA	Solid	8015B NM	1794
890-515-12	F12	Total/NA	Solid	8015B NM	1794
890-515-13	NW	Total/NA	Solid	8015B NM	1794
890-515-14	SW	Total/NA	Solid	8015B NM	1794
890-515-15	EW	Total/NA	Solid	8015B NM	1794
890-515-16	WW	Total/NA	Solid	8015B NM	1794
MB 880-1794/1-A	Method Blank	Total/NA	Solid	8015B NM	1794
LCS 880-1794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1794
LCSD 880-1794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1794
890-515-1 MS	F1	Total/NA	Solid	8015B NM	1794
890-515-1 MSD	F1	Total/NA	Solid	8015B NM	1794

Prep Batch: 1794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-1	F1	Total/NA	Solid	8015NM Prep	
890-515-2	F2	Total/NA	Solid	8015NM Prep	
890-515-3	F3	Total/NA	Solid	8015NM Prep	
890-515-4	F4	Total/NA	Solid	8015NM Prep	
890-515-5	F5	Total/NA	Solid	8015NM Prep	
890-515-6	F6	Total/NA	Solid	8015NM Prep	
890-515-7	F7	Total/NA	Solid	8015NM Prep	
890-515-8	F8	Total/NA	Solid	8015NM Prep	
890-515-9	F9	Total/NA	Solid	8015NM Prep	
890-515-10	F10	Total/NA	Solid	8015NM Prep	
890-515-11	F11	Total/NA	Solid	8015NM Prep	
890-515-12	F12	Total/NA	Solid	8015NM Prep	
890-515-13	NW	Total/NA	Solid	8015NM Prep	
890-515-14	SW	Total/NA	Solid	8015NM Prep	
890-515-15	EW	Total/NA	Solid	8015NM Prep	
890-515-16	WW	Total/NA	Solid	8015NM Prep	
MB 880-1794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-515-1 MS	F1	Total/NA	Solid	8015NM Prep	
890-515-1 MSD	F1	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 1754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-1	F1	Soluble	Solid	DI Leach	
890-515-2	F2	Soluble	Solid	DI Leach	
890-515-3	F3	Soluble	Solid	DI Leach	
890-515-4	F4	Soluble	Solid	DI Leach	
890-515-5	F5	Soluble	Solid	DI Leach	
890-515-6	F6	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Etech Environmental & Safety Solutions
 Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
 SDG: 12700

HPLC/IC (Continued)

Leach Batch: 1754 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-7	F7	Soluble	Solid	DI Leach	
890-515-8	F8	Soluble	Solid	DI Leach	
890-515-9	F9	Soluble	Solid	DI Leach	
890-515-10	F10	Soluble	Solid	DI Leach	
MB 880-1754/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1754/3-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1754/2-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-515-1 MS	F1	Soluble	Solid	DI Leach	
890-515-1 MSD	F1	Soluble	Solid	DI Leach	

Leach Batch: 1755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-11	F11	Soluble	Solid	DI Leach	
890-515-12	F12	Soluble	Solid	DI Leach	
890-515-13	NW	Soluble	Solid	DI Leach	
890-515-14	SW	Soluble	Solid	DI Leach	
890-515-15	EW	Soluble	Solid	DI Leach	
890-515-16	WW	Soluble	Solid	DI Leach	
MB 880-1755/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1755/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1755/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 1800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-11	F11	Soluble	Solid	300.0	1755
890-515-12	F12	Soluble	Solid	300.0	1755
890-515-13	NW	Soluble	Solid	300.0	1755
890-515-14	SW	Soluble	Solid	300.0	1755
890-515-15	EW	Soluble	Solid	300.0	1755
890-515-16	WW	Soluble	Solid	300.0	1755
MB 880-1755/1-A	Method Blank	Soluble	Solid	300.0	1755
LCS 880-1755/2-A	Lab Control Sample	Soluble	Solid	300.0	1755
LCSD 880-1755/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1755

Analysis Batch: 1804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-515-1	F1	Soluble	Solid	300.0	1754
890-515-2	F2	Soluble	Solid	300.0	1754
890-515-3	F3	Soluble	Solid	300.0	1754
890-515-4	F4	Soluble	Solid	300.0	1754
890-515-5	F5	Soluble	Solid	300.0	1754
890-515-6	F6	Soluble	Solid	300.0	1754
890-515-7	F7	Soluble	Solid	300.0	1754
890-515-8	F8	Soluble	Solid	300.0	1754
890-515-9	F9	Soluble	Solid	300.0	1754
890-515-10	F10	Soluble	Solid	300.0	1754
MB 880-1754/1-A	Method Blank	Soluble	Solid	300.0	1754
LCS 880-1754/3-A	Lab Control Sample	Soluble	Solid	300.0	1754
LCSD 880-1754/2-A	Lab Control Sample Dup	Soluble	Solid	300.0	1754
890-515-1 MS	F1	Soluble	Solid	300.0	1754
890-515-1 MSD	F1	Soluble	Solid	300.0	1754

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Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F1

Lab Sample ID: 890-515-1

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 14:53	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/14/21 22:08	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 16:33	SC	XM

Client Sample ID: F2

Lab Sample ID: 890-515-2

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 15:14	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/14/21 23:12	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 16:48	SC	XM

Client Sample ID: F3

Lab Sample ID: 890-515-3

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 15:35	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 09:05	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 16:53	SC	XM

Client Sample ID: F4

Lab Sample ID: 890-515-4

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 15:55	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/14/21 23:54	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 18:13	SC	XM

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Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F5

Lab Sample ID: 890-515-5

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 16:16	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 00:15	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 18:18	SC	XM

Client Sample ID: F6

Lab Sample ID: 890-515-6

Date Collected: 04/12/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 16:37	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 00:36	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 18:23	SC	XM

Client Sample ID: F7

Lab Sample ID: 890-515-7

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 18:00	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 00:56	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 18:28	SC	XM

Client Sample ID: F8

Lab Sample ID: 890-515-8

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 18:21	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 01:17	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		10	1804	04/15/21 18:33	SC	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Client Sample ID: F9

Lab Sample ID: 890-515-9

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 18:42	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 01:38	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		20	1804	04/15/21 18:38	SC	XM

Client Sample ID: F10

Lab Sample ID: 890-515-10

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 19:02	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 01:59	AJ	XM
Soluble	Leach	DI Leach			1754	04/14/21 08:27	CH	XM
Soluble	Analysis	300.0		10	1804	04/15/21 18:43	SC	XM

Client Sample ID: F11

Lab Sample ID: 890-515-11

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 19:23	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 02:41	AJ	XM
Soluble	Leach	DI Leach			1755	04/14/21 12:00	CH	XM
Soluble	Analysis	300.0		20	1800	04/14/21 18:34	CH	XM

Client Sample ID: F12

Lab Sample ID: 890-515-12

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 19:44	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 03:02	AJ	XM
Soluble	Leach	DI Leach			1755	04/14/21 12:00	CH	XM
Soluble	Analysis	300.0		10	1800	04/14/21 18:39	CH	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Etech Environmental & Safety Solutions
 Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
 SDG: 12700

Client Sample ID: NW

Lab Sample ID: 890-515-13

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 20:04	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 03:23	AJ	XM
Soluble	Leach	DI Leach			1755	04/14/21 12:00	CH	XM
Soluble	Analysis	300.0		5	1800	04/14/21 18:45	CH	XM

Client Sample ID: SW

Lab Sample ID: 890-515-14

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 20:25	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 03:44	AJ	XM
Soluble	Leach	DI Leach			1755	04/14/21 12:00	CH	XM
Soluble	Analysis	300.0		10	1800	04/14/21 18:50	CH	XM

Client Sample ID: EW

Lab Sample ID: 890-515-15

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 20:46	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 04:05	AJ	XM
Soluble	Leach	DI Leach			1755	04/14/21 12:00	CH	XM
Soluble	Analysis	300.0		10	1800	04/14/21 18:56	CH	XM

Client Sample ID: WW

Lab Sample ID: 890-515-16

Date Collected: 04/13/21 00:00

Matrix: Solid

Date Received: 04/13/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1766	04/14/21 08:56	KL	XM
Total/NA	Analysis	8021B		1	1767	04/14/21 21:06	KL	XM
Total/NA	Prep	8015NM Prep			1794	04/14/21 13:20	DM	XM
Total/NA	Analysis	8015B NM		1	1773	04/15/21 04:27	AJ	XM
Soluble	Leach	DI Leach			1755	04/14/21 12:00	CH	XM
Soluble	Analysis	300.0		10	1800	04/14/21 19:01	CH	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

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:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Berry SWD - Solaris Water Midstream

Job ID: 890-515-1
SDG: 12700

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-515-1	F1	Solid	04/12/21 00:00	04/13/21 12:33	- 4
890-515-2	F2	Solid	04/12/21 00:00	04/13/21 12:33	- 2
890-515-3	F3	Solid	04/12/21 00:00	04/13/21 12:33	- 4
890-515-4	F4	Solid	04/12/21 00:00	04/13/21 12:33	- 2
890-515-5	F5	Solid	04/12/21 00:00	04/13/21 12:33	- 2
890-515-6	F6	Solid	04/12/21 00:00	04/13/21 12:33	- 2
890-515-7	F7	Solid	04/13/21 00:00	04/13/21 12:33	- 4
890-515-8	F8	Solid	04/13/21 00:00	04/13/21 12:33	- 4
890-515-9	F9	Solid	04/13/21 00:00	04/13/21 12:33	- 4
890-515-10	F10	Solid	04/13/21 00:00	04/13/21 12:33	- 4
890-515-11	F11	Solid	04/13/21 00:00	04/13/21 12:33	- 4
890-515-12	F12	Solid	04/13/21 00:00	04/13/21 12:33	- 4
890-515-13	NW	Solid	04/13/21 00:00	04/13/21 12:33	
890-515-14	SW	Solid	04/13/21 00:00	04/13/21 12:33	
890-515-15	EW	Solid	04/13/21 00:00	04/13/21 12:33	
890-515-16	WW	Solid	04/13/21 00:00	04/13/21 12:33	



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No: _____

 www.xenco.com Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Solaris co Bob Kirk
Company Name:	Etech Environmental & Safety	Company Name:	Solaris water Midstream
Address:	3100 Plains Highway	Address:	907 Tradewinds Blvd
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	Midland, TX 79706
Phone:	575-396-2378	Email:	Email Results to PM@etechenv.com + Client

Work Order Comments	
Program:	UST/PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐
State of Project:	
Reporting: Level	☐ Level ☐ PST/US ☐ TRF ☐ Level ☐
Deliverables:	EDD ☐ ADaPT ☐ Other:

Project Name:		Solaris water Midstream		Turn Around		ANALYSIS REQUEST										Preservative Codes					
Project Number:		12700		Routine:		☐										HNO3: HN					
Project Location:		Berry SWD		Rush:		☒ 2 Days										H2S04: H2					
Sampler's Name:		Spencer Blackwood		Due Date:												HCL: HL					
PO #:																None: NO					
SAMPLE RECEIPT		Temp Blank:		Yes ☐ No ☒		Wet Ice:		Yes ☐ No ☒												NaOH: Na	
Temperature (°C):		5.8 / 5.6		Thermometer ID												MeOH: Me					
Received Intact:		Yes ☒ No ☐		Correction Factor:												Zn Acetate+ NaOH: Zn					
Cooler Custody Seals:		Yes ☒ No ☐ N/A		Total Containers:												TAT starts the day received by the lab, if received by 4:30pm					
Sample Custody Seals:		Yes ☒ No ☐ N/A																			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005											Sample Comments	
F1	S	4/12/21		4"		☒	☒	☒	☒												
F2		4/12/21		2"		☒	☒	☒	☒												
F3		4/12/21		4"		☒	☒	☒	☒												
F4		4/12/21		2"		☒	☒	☒	☒												
F5		4/12/21		2"		☒	☒	☒	☒												
F6		4/12/21		2"		☒	☒	☒	☒												
F7		4/13/21		4"		☒	☒	☒	☒												
F8		4/13/21		4"		☒	☒	☒	☒												
F9		4/13/21		4"		☒	☒	☒	☒												
F10		4/13/21		4"		☒	☒	☒	☒												

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Spencer Blackwood	Care Cuts	4/13/21 1233			

Revised Date 10/14/19 Rev. 2019.1

Ver 11/01/2020

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-515-1

SDG Number: 12700

Login Number: 515

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions

Job Number: 890-515-1

SDG Number: 12700

Login Number: 515

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/14/21 11:37 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

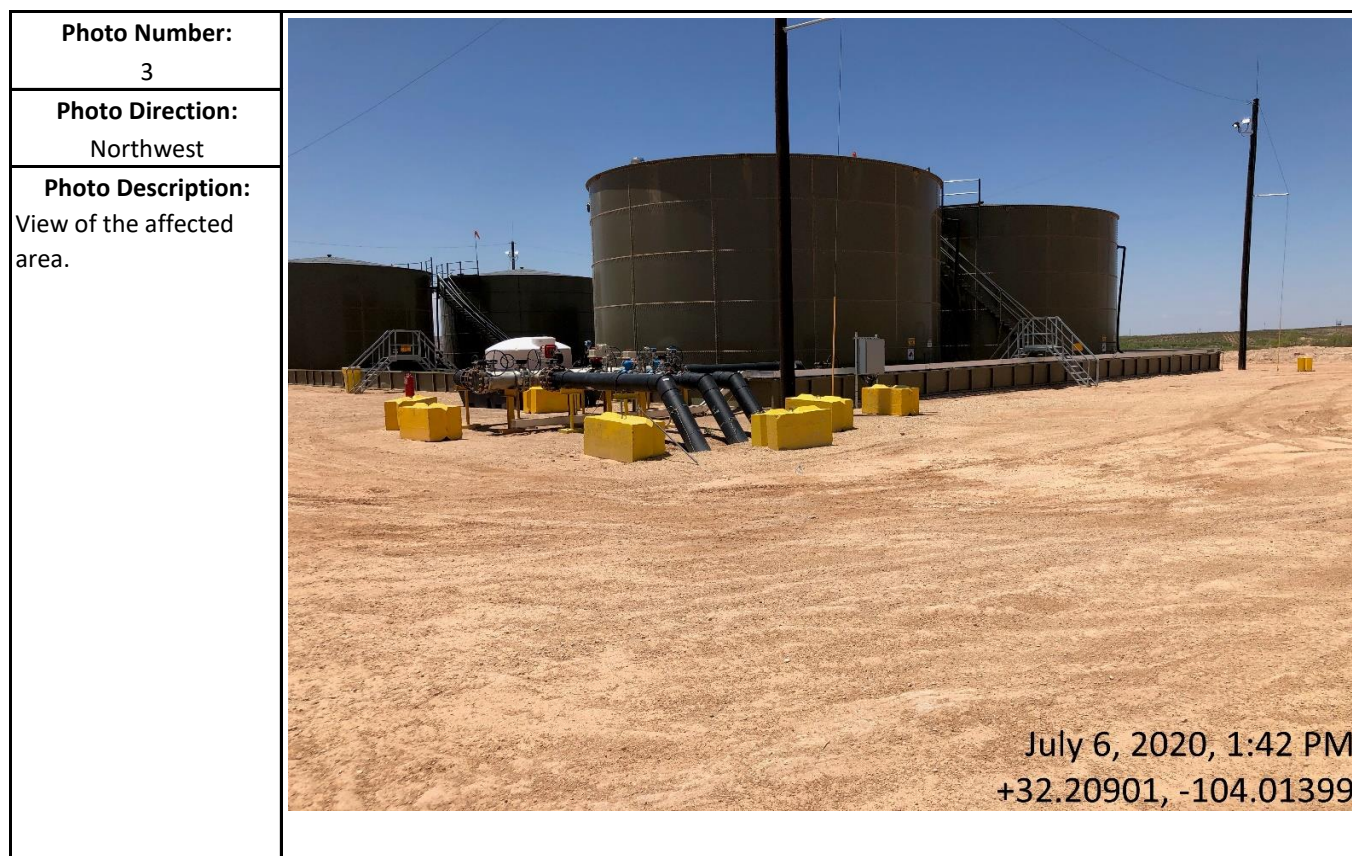
Appendix D

Photographic Log

Photographic Log



Photographic Log



Photographic Log

Photo Number: 5	 Apr 13, 2021 at 11:19:17 AM +32.209029,-104.014042
Photo Direction: North	
Photo Description: View of the western portion of the excavated area.	

Photo Number: 6	 Apr 13, 2021 at 11:19:20 AM +32.209029,-104.014042
Photo Direction: North-Northeast	
Photo Description: View of the northern and central portions of the excavated area.	

Photographic Log

Photo Number: 7	
Photo Direction: East	
Photo Description: View of the central and eastern portions of the excavated area.	

Photo Number: 8	
Photo Direction: South-Southeast	
Photo Description: View of the western and southern portions of the excavated area.	

Photographic Log

Photo Number: 9	 Apr 13, 2021 at 11:20:53 AM +32.209064,-104.013861
Photo Direction: South	
Photo Description: View of the southern portion of the excavated area.	

Photo Number: 10	 Apr 19, 2021 at 11:20:32 AM +32.208970,-104.014071
Photo Direction: North-Northwest	
Photo Description: View of the remediated area after backfilling and regrading.	

Photographic Log

Photo Number: 11	
Photo Direction: North-Northeast	
Photo Description: View of the remediated area after backfilling and regrading.	

Photo Number: 12	
Photo Direction: East-Northeast	
Photo Description: View of the remediated area after backfilling and regrading.	

Photographic Log

Photo Number: 13	 A photograph showing a remediated area with large black pipes and yellow blocks. The ground is sandy and uneven. In the background, there are power lines and a clear sky. The photo is dated Apr 19, 2021 at 11:21:45 AM with coordinates +32.209134, -104.013914.
Photo Direction: South-Southeast	
Photo Description: View of the remediated area after backfilling and regrading.	

Photo Number: 14	 A photograph showing a wide, sandy remediated area. The ground is sandy and uneven. In the background, there are power lines and a clear sky. The photo is dated Apr 19, 2021 at 11:21:43 AM with coordinates +32.209030, -104.013928.
Photo Direction: South-Southeast	
Photo Description: View of the remediated area after backfilling and regrading.	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 27918

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 907 Tradewinds Blvd, Suite B Midland, TX 79706	OGRID: 371643
	Action Number: 27918
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	6/29/2021