

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification KLHSL-190906-C-1410

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Deborah Watson	Contact Telephone: 575-885-7561
Contact email: deborah.watson@wpxenergy.com	Incident # 2RP-5502
Contact mailing address: 5315 Buena Vista Drive, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.32517 Longitude -104.03750
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Longview Federal 12 #002H	Site Type: Well Pad
Date Release Discovered: June 7, 2019	API# (if applicable) 30-015-42236

Unit Letter	Section	Township	Range	County
B	12	23S	28E	Eddy

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input checked="" type="checkbox"/> Other (describe) Production Fluids (Crude and PW)	Volume/Weight Released (provide units) 120 bbls	Volume/Weight Recovered (provide units) 0 bbls

Cause of Release


Unauthorized dumping of production fluids on pad. Impacted soils on- and off- location.

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Unauthorized release of fluids greater than 25 bbl. Impacted soils on- and off- location.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Deborah Watson contacted Mike Bratcher (NMOCD) and Jim Amos (BLM) via phone call on June 7, 2019 between 2:30 and 2:45 PM. Email notification was sent to Mike Bratcher, Jim Amos, and Jim Griswold.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why: No free liquids upon discovery. Remediation is underway.
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Deborah Watson Title: Environmental Specialist <div style="display: flex; justify-content: space-between;"> <div> Signature:  </div> <div>Date: September 6, 2019</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>email: deborah.watson@wpenergy.com</div> <div>Telephone: 575-885-7561</div> </div>
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Deborah Watson

Title: HSE Specialist

Signature:



Date: September 6, 2019

email: deborah.watson@wpenergy.com

Telephone: 575-885-7561

OCD Only

Received by: _____

Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____

Title: _____



September 6, 2019

Deborah Watson
Environmental Specialist - Permian Basin
5315 Buena Vista Dr.
Carlsbad, NM 88220

KLHSL-190906-C-1410

Closure Report
Longview Federal 12 #002H
2RP-5502
API #: 30-015-42236
Eddy County, New Mexico

Mrs. Watson:

On behalf of WPX Energy Permian, LLC, HRL Compliance Solutions, Inc. (HRL) is pleased to submit the attached closure report summarizing the closure actions taken in regards to the Longview Federal 12 #002H release. The purpose of the report is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for the remediation and closure of the release that occurred on June 7, 2019. Table 1 below summarizes information regarding the release.

Table 1: Release Summary

Site Name	Longview Federal 12 #002H		
Location	Lat.	Long.	Unit Letter, Section, Township, Range
	32.325550°	-104.038435°	Unit Letter B, Section 12, Township 23S, Range 28E
District RP	2RP-5502		
Estimated Date of Release	6/7/2019		
Date Reported	6/7/2019		
Reported By	Deborah Watson		
Reported To	NMOCD and BLM		
Surface Owner	Federal		
Cause of Release	Unauthorized dumping of production fluids on pad		
Released Material	Production Fluids		



Volume Release	120 bbls
Volume Recovered	0 bbls
Net Release	120 bbls
Depth to Groundwater	<50 feet
Nearest Waterway	Pecos River, 1.1 miles West of Release

1.0 Initial Response & Notification

A release was discovered on June 7th, 2019 at the Longview Federal 12 #002H well site, as a result of unauthorized dumping of production fluids onto the well pad. Mike Bratcher of NMOCD and Jim Amos of BLM were notified of the release by Deborah Watson on June 7, 2019 via phone call. An estimated 120 bbls of production fluids impacted soils on the northwest portion of the well pad as well as the adjacent pasture area located to the west of the well pad. No free-liquids were present upon discovery.

2.0 Site Assessment and Characterization

The site location is approximately 5 miles northeast of Loving, New Mexico with an elevation of approximately 3,025 feet above sea level. The well site and the adjacent pasture area are both located on federal land. A site location map is provided on Figure 1. The nearest surface water, Pecos River, is located approximately 1.1 miles west of the release (Figure 2).

Depth-to-groundwater at the release site is estimated to be less than 50 feet below ground surface as determined by review of the New Mexico State Engineer's Office (NMOSE) water column report and United States Geological Survey (USGS) National Water Information System. The NMOSE water column report for a radius of 2 miles from the origin of release shows average depth to groundwater of 43 feet. A 3 mile radius search of the USGS National Water Information System revealed 6 water wells with an average depth to groundwater of 19 feet. Figure 2 presents a site location map of water wells relevant to the depth-to-groundwater determination.



An assessment of wetlands and springs was conducted using a 2010 USGS topographical 7.5-minute map of Loving, New Mexico. No wetlands were identified within 300 feet of the release location. There are no springs within 1000 feet of this location. Figure 3 shows the topographic map of the pertinent area.

The release location is not within an area identified as unstable karst geology. An area map generated with data from the USGS displaying geologic units and structural features is shown on Figure 4.

Based on the assessments outlined above the following closure criteria was implemented to remediate the site.

Table 2: Closure Criteria

Closure Criteria		
Depth to Ground Water	Constituent	Limit
Less than 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

3.0 Soil Remediation

Remedial activity at the Longview Federal 12 #002H consisted of the following actions:

- June 10, 2019- HRL personnel were present at the release location, to assess the impacted areas and conduct initial site delineation. GPS data was collected for the impacted area and the resulting spill map is shown on Figure 5.
- June 20, 2019- Kelley Oilfield Services began remediation activity by excavating material from the well pad and pasture areas.
- HRL personnel were onsite to collect field screens, using an electrical conductivity (EC) meter and a photoionization detector (PID) unit.
- A PID unit was used to approximate soil concentrations of volatile organic compounds or VOC's such as benzene and lighter end hydrocarbon chains. The EC meter was utilized to approximate soil chloride concentrations. A field screen location map is attached on Figure 6.
- A total of thirty-four (34) soil field screens were collected throughout the excavation footprint from depths ranging from six inches to two feet below ground surface. The field screen data results were utilized to guide the excavation to soil concentration



below the limits outlined in the NMOCD closure criteria. A summary of the field screen data results are attached in Table A.

- Excavation of the impacted soil on the well pad surface was completed to a depth of one foot below ground surface for all areas on the well pad.
- Excavation of the impacted area in the pasture was completed to depth of two feet below ground surface.
- In the pasture area a hardpan layer was encountered at approximately 1 foot. A hammer hoe was utilized to break through the hardpan and extend the excavation to the final depth of two feet.
- An estimated 160 cubic yards of impacted soil was removed from the location and transported to R360 waste management facility located in Hobbs, New Mexico. Disposal was conducted by Kelley Oilfield Services and took place continuously throughout the excavation period.
- Upon receipt of confirmatory soil samples to verify the excavated area was below NMOCD closure criteria concentrations, Kelley Oilfield Services backfilled and compacted the well pad excavation area with approximately 60 yards of clean caliche. The pasture area was backfilled with 100 yards of clean topsoil. Backfilling of both areas took place on July 8th, 2019.
- The backfilled pasture was subsequently reseeded with BLM #2 seed mix by Kelley Oilfield Services on July, 17th 2019.

4.0 Soil Sampling and Analytical Results

Confirmation sampling took place on June 25, 2019. A confirmation sample plan was implemented where 5 point composite samples were collected such that they represented areas less than 200 square feet, in accordance with Subparagraph (c) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC. Confirmation sample locations are depicted on Figures 7A, 7B, and 7C. A total of 22 confirmation samples were collected, including 17 excavation footprint samples and 5 sidewall samples. The confirmation samples were submitted to Hall Environmental Analysis Laboratory, a National Environmental Laboratory Accreditation Program (NELAP) laboratory, in accordance with NMOCD soil sampling procedures. The samples were analyzed for chlorides by EPA Method 300.0, volatile organics (BTEX) by EPA Method 8021B, and DRO, GRO and MRO by EPA Method 8015D. A summary of the laboratory results are attached as Table B with the raw analytical reports included as Appendix A.



5.0 Summary

A release of 120 bbls of production fluids was discovered on June 7th, 2019 at the Longview Federal 12 #002H production facility. The cause of the release was due to unauthorized dumping of production fluid onto the well pad surface which migrated into the adjacent pasture area. BLM and NMOCD were both notified on the day of discovery. The well pad and pasture are both located on federal property. Soil remediation activities involved excavating the impacted areas to a depth of approximately one foot below ground surface on the well pad and approximately 2 feet below ground surface within the pasture field. An estimated 160 cubic yards of impacted soil was transported for disposal to R360 waste management facility located in Hobbs, New Mexico.

A total of twenty-two (22) confirmation samples were collected from within the excavation to verify cleanup at the location. Analytical results for all twenty-two samples were reported below the concentration limits outlined in Table 1 of Subsection E of NMAC 19.15.29.12. Following analytical confirmation, the excavation on the well pad was backfilled and compacted with roughly 60 cubic yards of caliche. The pasture was backfilled with approximately 100 cubic yards of clean topsoil and reseeded with BLM #2 seed mix. No further remedial action is recommended.

6.0 Scope and Limitations

The scope of HRL's services consists of conducting site delineation, verification of release stabilization, regulatory liaison, guiding remediation activity, collecting confirmation soil samples, and preparation of this closure report. All work has been performed in accordance with 19.15.29 NMAC.

If there are any questions regarding this report, please contact Kevin Smith at 575-616-7398 Ext. 435.

Prepared by:
HRL Compliance Solutions, Inc.

Kevin Smith
Environmental Scientist – Permian



Attachments:

Figure 1: Site Location Map

Figure 2: Depth to Groundwater Map

Figure 3: Site Topographic Assessment

Figure 4: Karst Assessment Map

Figure 5: Spill Area Map

Figure 6: Field Screen Sample Location Map

Figure 7A: Confirmation Sample Location Map - Footprint

Figure 7B: Confirmation Sample Location Map – Footprint with Sample Labels

Figure 7C: Confirmation Sample Location Map – Sidewalls

Table A: Field Screen Data Summary

Table B: Analytical Results Summary

Appendix A: C-141 Release Notification

Appendix B: Confirmation Sampling Notification

Appendix C: Laboratory Analytical Reports

Appendix D: Site Photographs



WPXENERGY

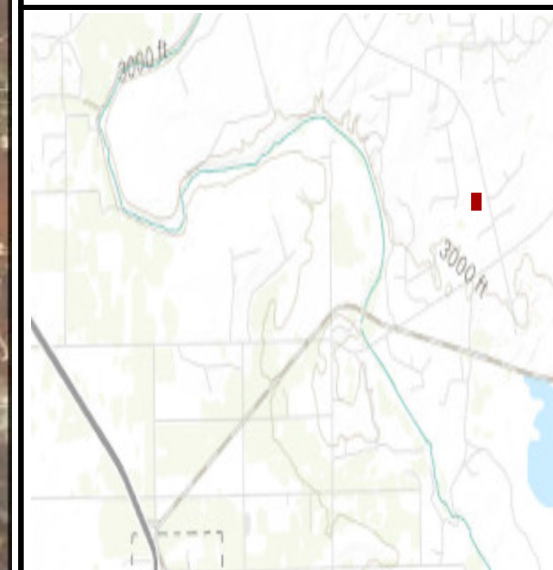
**Figure 1: Site
Location Map**
Longview Federal 12-2H
32.325171° -104.037494°
Section 12, Township 23 South, Range 28 East

Mapped Features



Point of Release

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



HRL
COMPLIANCE
SOLUTIONS

Author: K. Smith

Rev: 0

Date: 7/16/2019

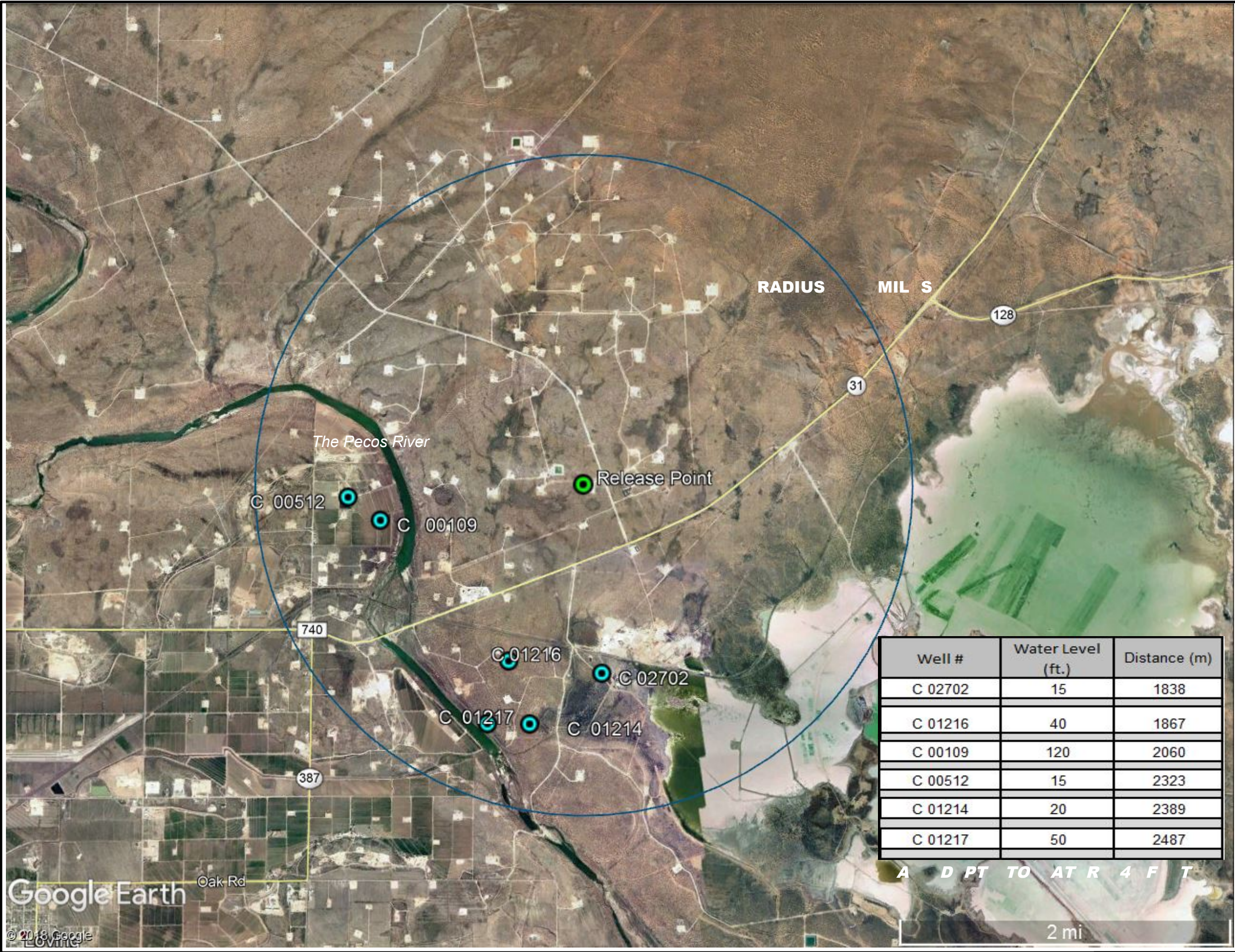





Figure : Depth to round ater

Longview Federal 12 #002
32.325171° -104.037494°
Section 12, Township 23 South, Range 28 East

Mapped Features

-  NMOSE Water Well Locations
-  Location of Release
-  Well Search Radius

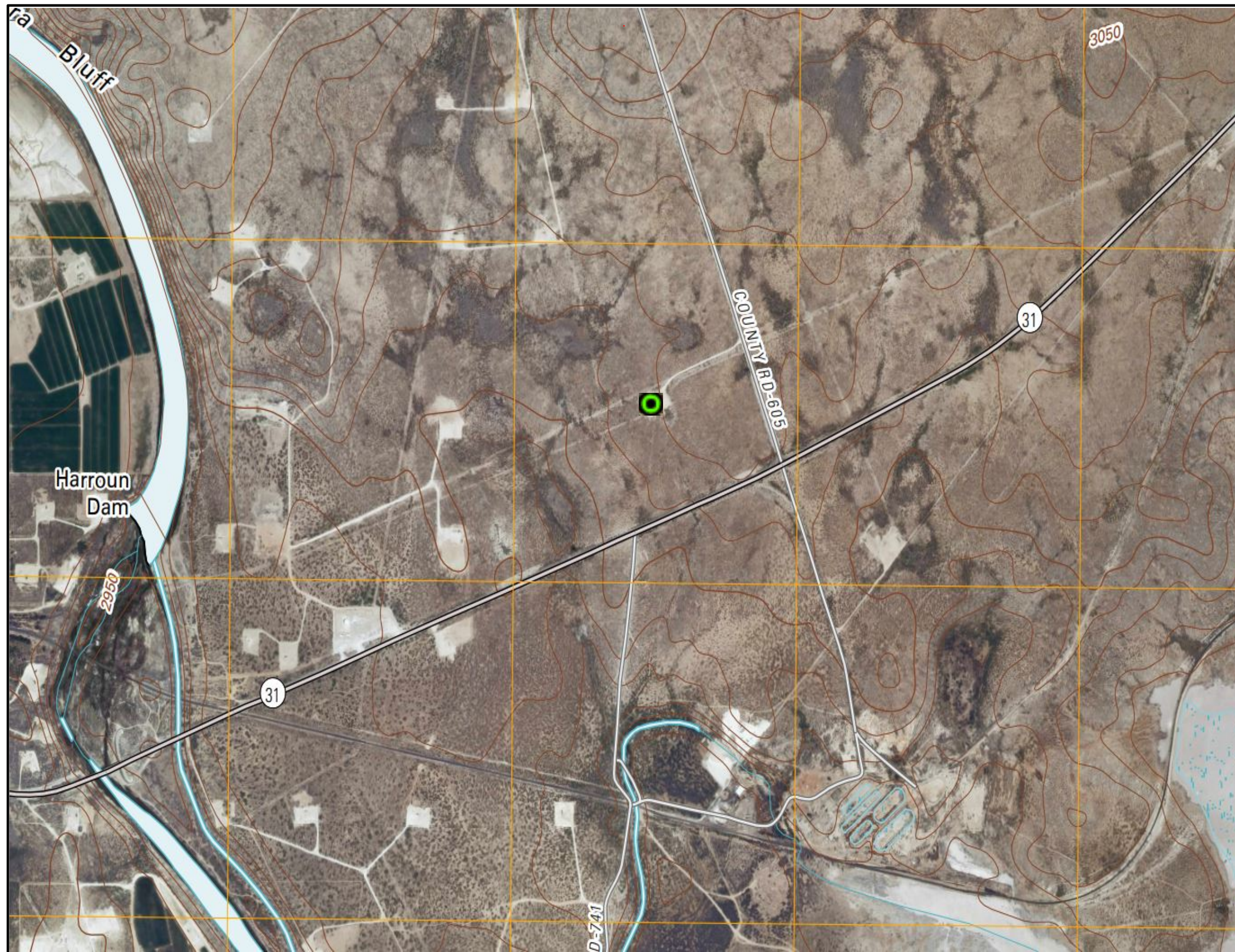
DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.

Well #	Water Level (ft.)	Distance (m)
C 02702	15	1838
C 01216	40	1867
C 00109	120	2060
C 00512	15	2323
C 01214	20	2389
C 01217	50	2487

A D P T TO A T R 4 F T



Author: K. Smith
Rev: 0
Date: 7/30/2019



WPXENERGY



Figure : Topographic Map

Longview Federal 12 #002H

32.325171°, -104.037494°

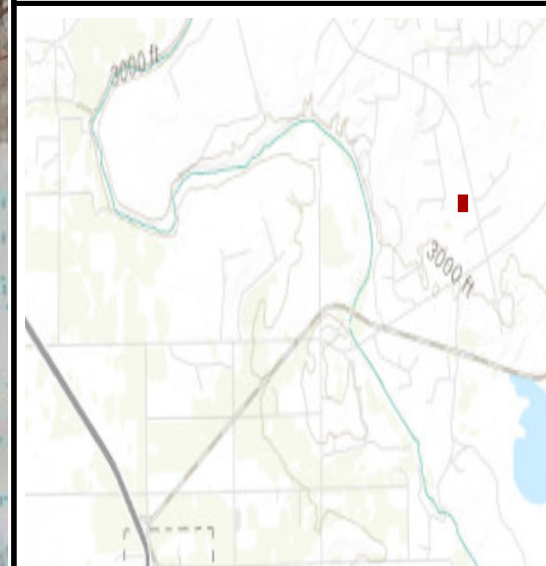
Section 12, Township 23 South, Range 28 East

Mapped Features



Point of Release

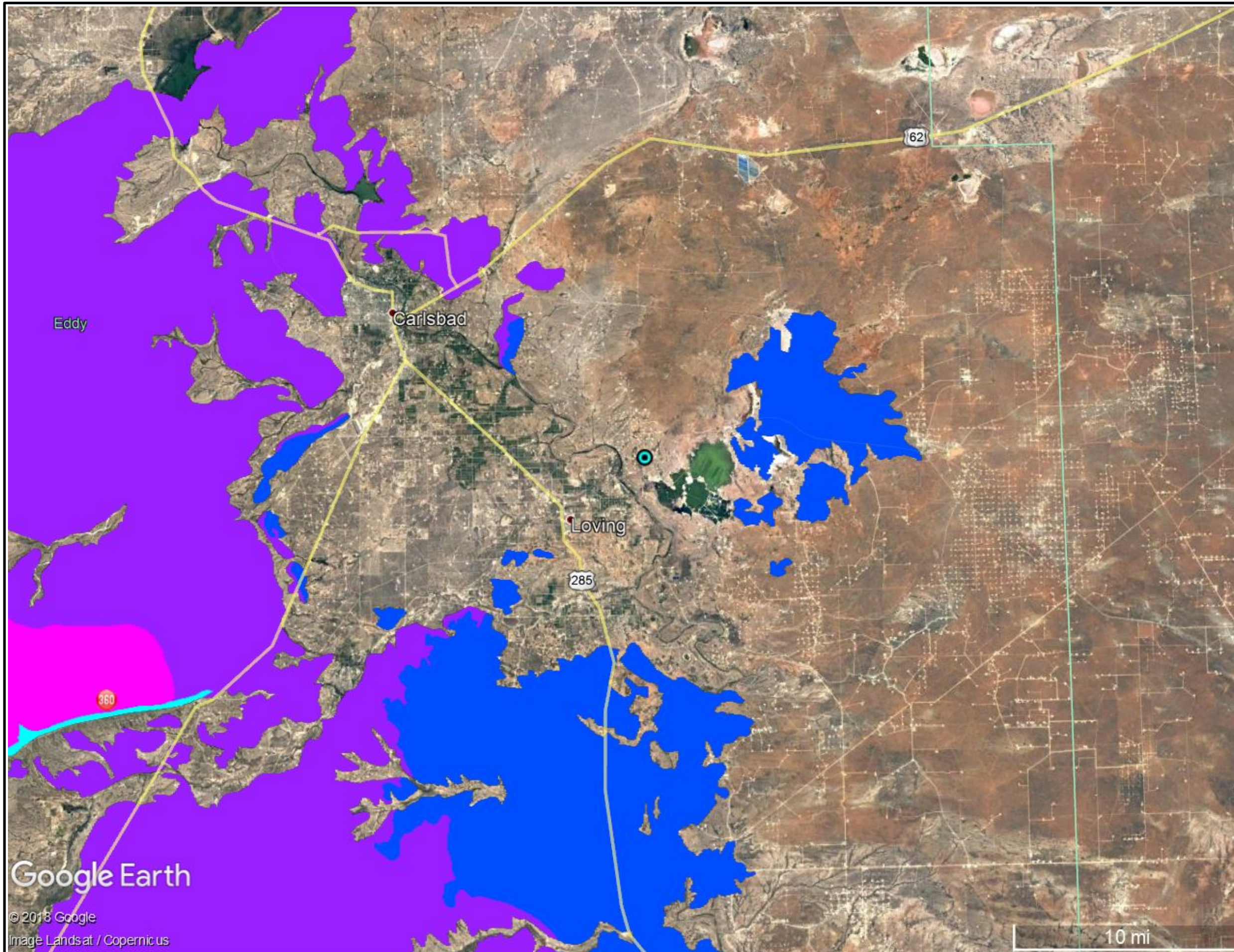
DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: K. Smith

Rev: 0

Date: 8/2/2019



WPXENERGY.

**Figure 4: arst
Assessment Map**

Longview Federal 12 #002H
32.325171° -104.037494°
Section 12, Township 23 South, Range 28 East

Mapped Features



Point of Release

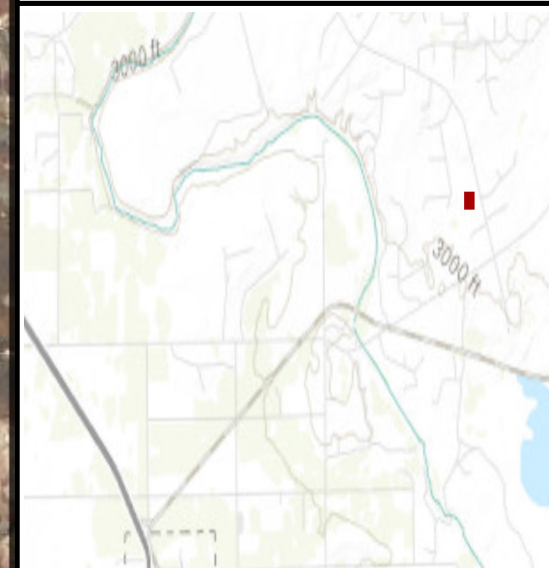


Carbonate Karst Type



Evaporite Karst Type

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



**HRL
COMPLIANCE
SOLUTIONS**

Author: K. Smith

Rev: 0

Date: 8/2/2019

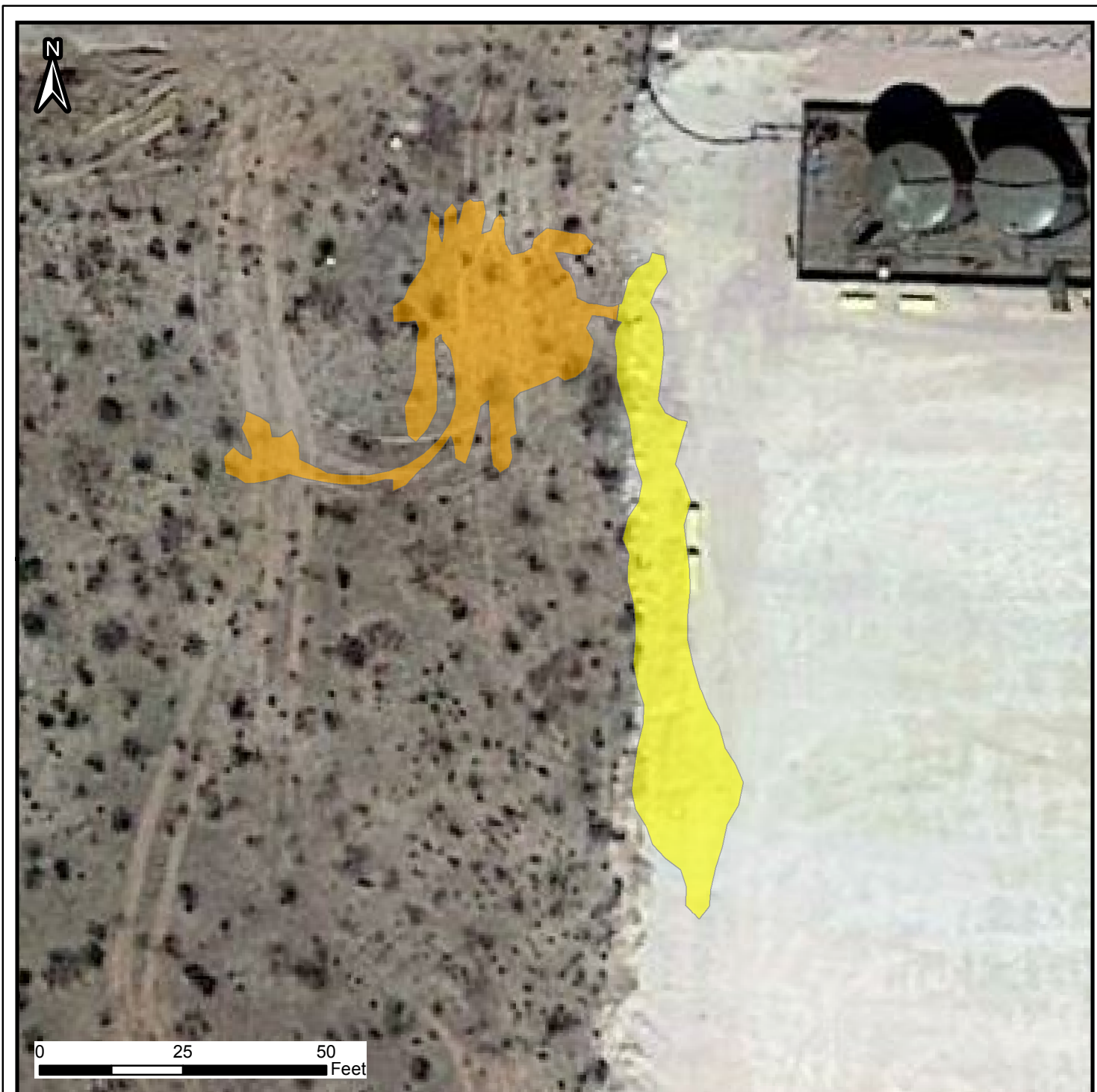


Figure : Spill Areas Map

Longview Federal 12 #002H

32.325171 -104.037494
Section 12, Township 23 South, Range 28 East

Mapped Features

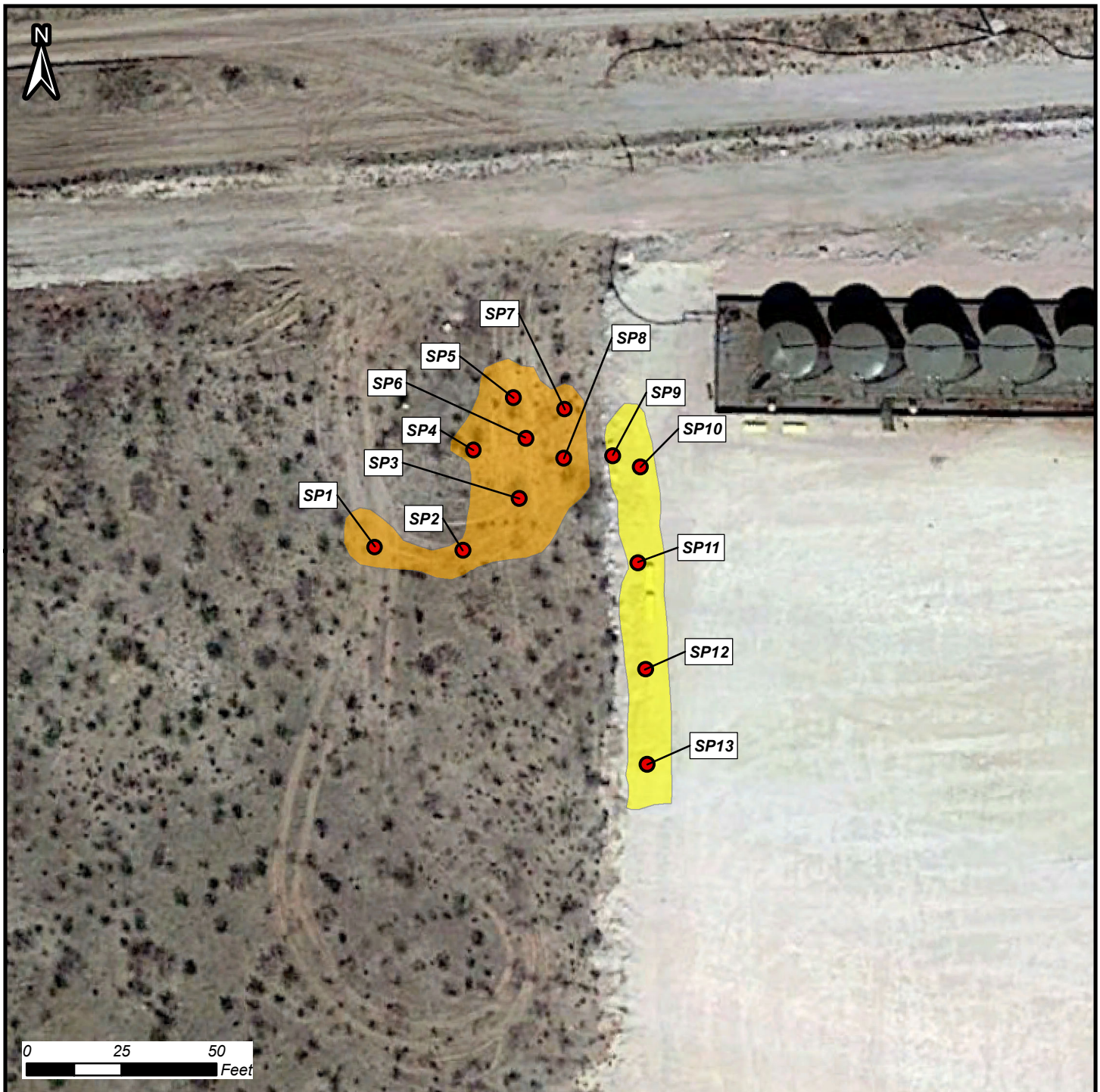
- On-Pad Spill Area
- Off-Pad Spill Area

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



HRL
COMPLIANCE
SOLUTIONS

Author: A. Asay
Revision: 0
Date: 8/5/2019



Longview Federal 12-002H			Field Screen Results	
Sample ID	Depth (ft)	Sampling Date	EC (S/cm)	VOCs (PPM)
SP1	0.5	6/20/2019	1,100	950
	1		700	220
	2		450	95
SP2	0.5	6/20/2019	1,400	1,400
	1		900	750
	2		520	30
SP3	0.5	6/20/2019	1,800	400
	1		400	200
	2		300	25
SP4	0.5	6/20/2019	990	600
	1		430	110
	2		300	20
SP5	0.5	6/20/2019	1,400	1,400
	1		900	750
	2		230	25
SP6	0.5	6/20/2019	1,200	610
	1		500	110
	2		300	30
SP7	0.5	6/20/2019	800	1,300
	1		420	160
	2		200	10
SP8	0.5	6/20/2019	800	800
	1		510	120
	2		270	20
SP9	0.5	6/20/2019	1,100	200
	1		515	65
SP10	0.5	6/20/2019	1,200	120
	1		590	70
SP11	0.5	6/20/2019	975	75
	1		300	20
SP12	0.5	6/20/2019	960	95
	1		200	30
SP13	0.5	6/20/2019	1,200	115
	1		430	60



Figure 6: Field Screen Location Map
 Longview Federal 12-2H
 Excavation Footprint
 32.325171 -104.037494
 Section 12, Township 23 South, Range 28 East

Mapped Features

- Sample Location
- On-Pad Excavation Area
- Off-Pad Excavation Area

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: A. Asay
 Revision: 0
 Date: 8/5/2019

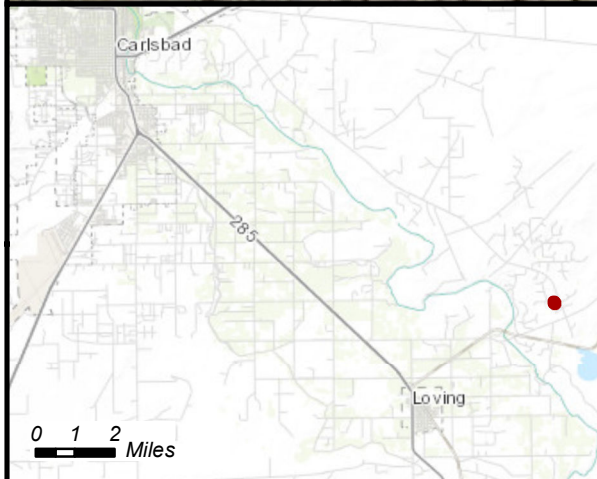
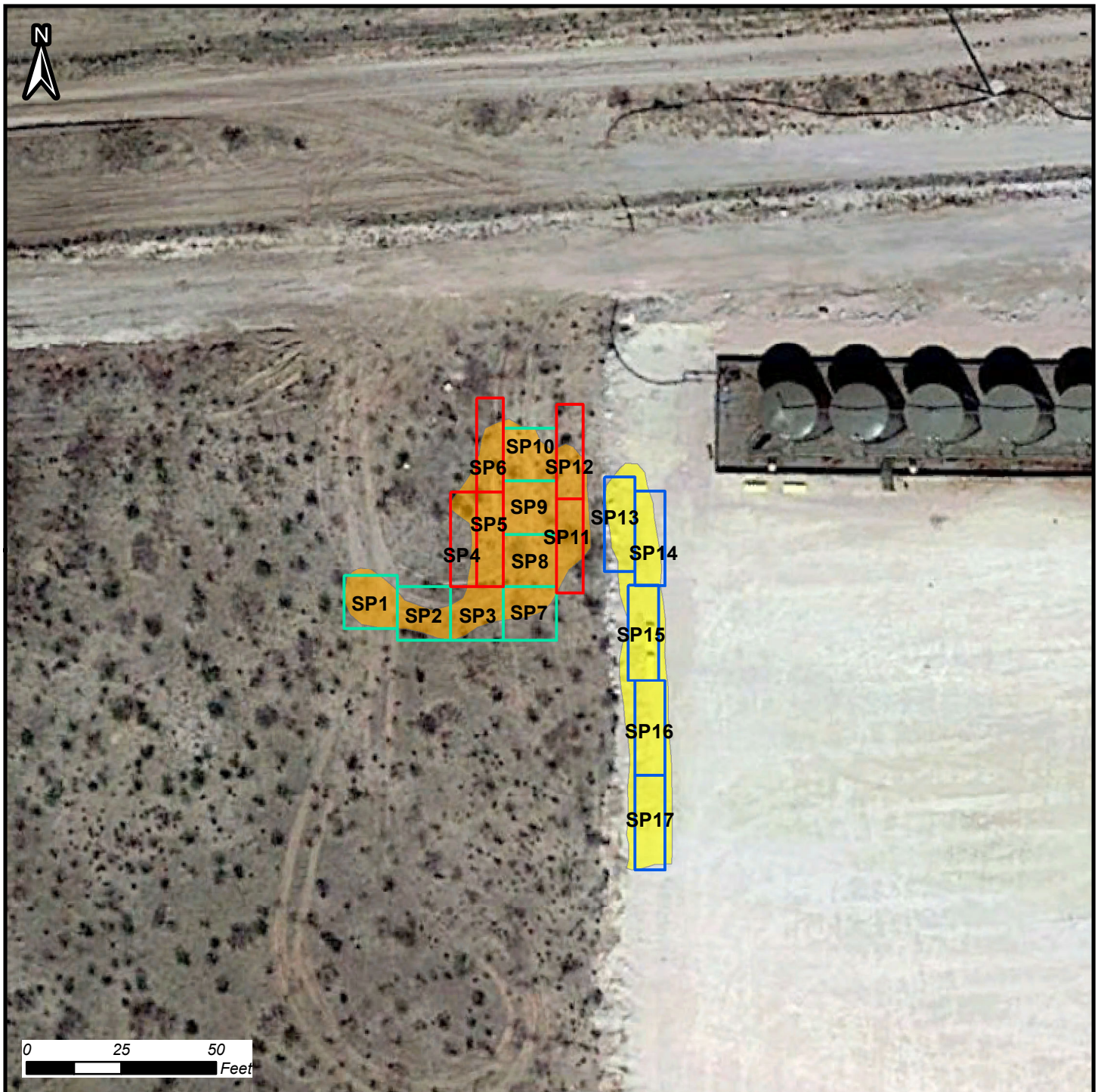


Figure A: Confirmation Sample Location Map

Longview Federal 12 #002H
Excavation Footprint

32.325171 -104.037494
Section 12, Township 23 South, Range 28 East

Mapped Features

7' X 25' Grid

8' X 25' Grid

14' X 14' Grid

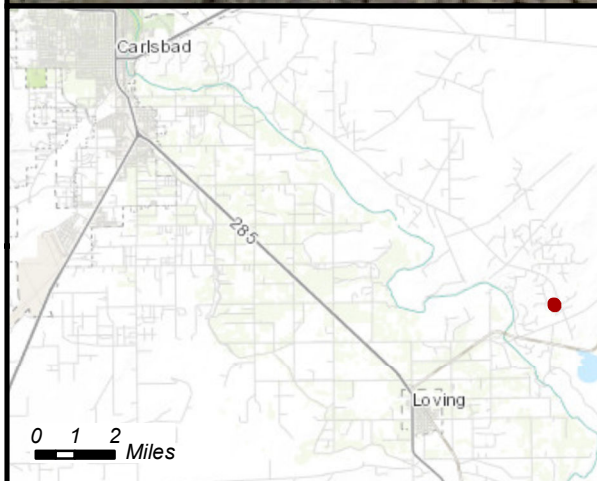
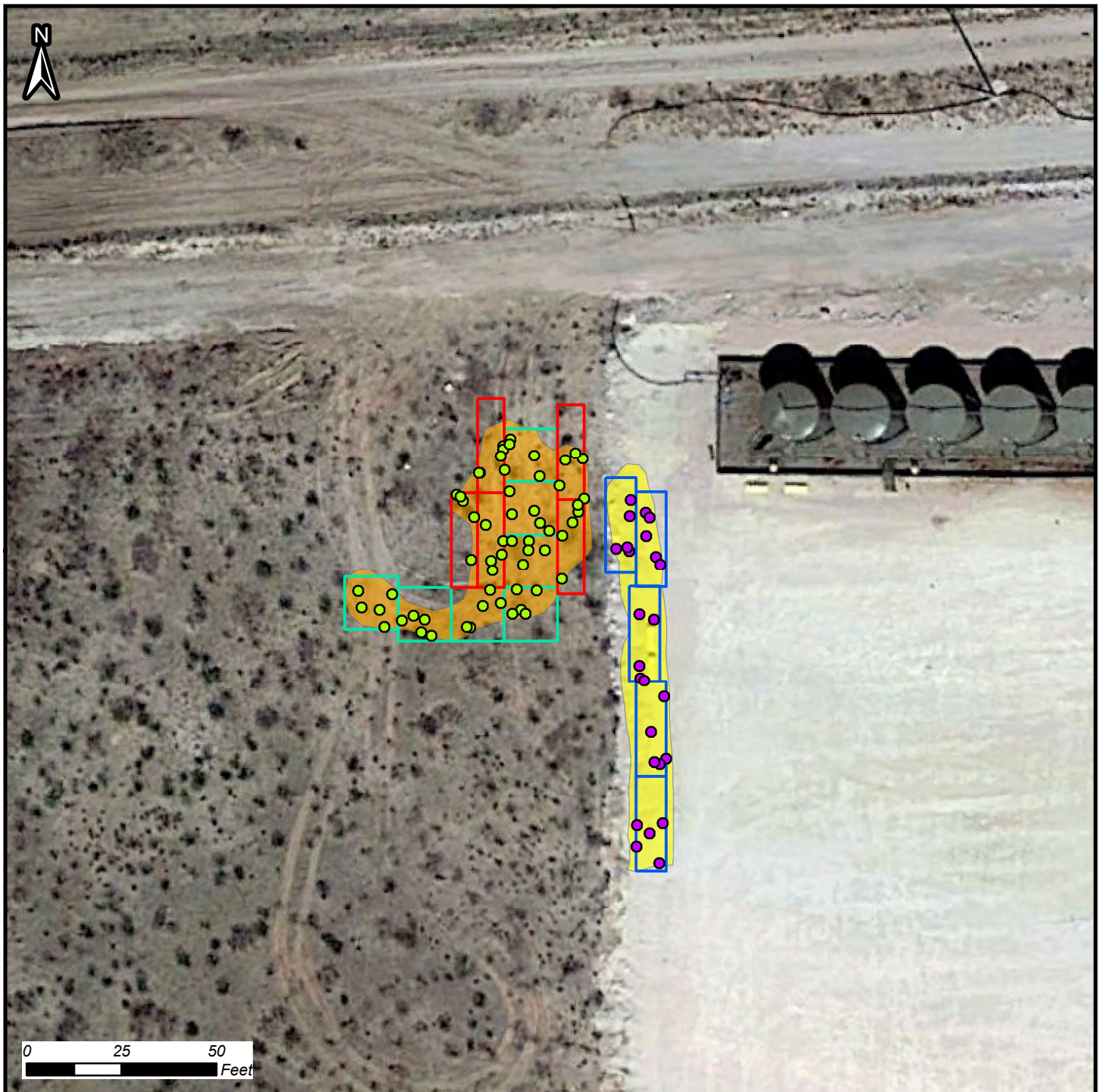
On-Pad
Excavation Area

Off-Pad
Excavation Area

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: A. Asay
Revision: 0
Date: 7/3/2019



**Figure B: Confirmation
Sample Location Map**

Longview Federal 12 #002H

Excavation Footprint

32.325171 -104.037494
Section 12, Township 23 South, Range 28 East

Mapped Features

- On-Pad Excavation Composite Sample Location
- Off-Pad Excavation Composite Sample Location

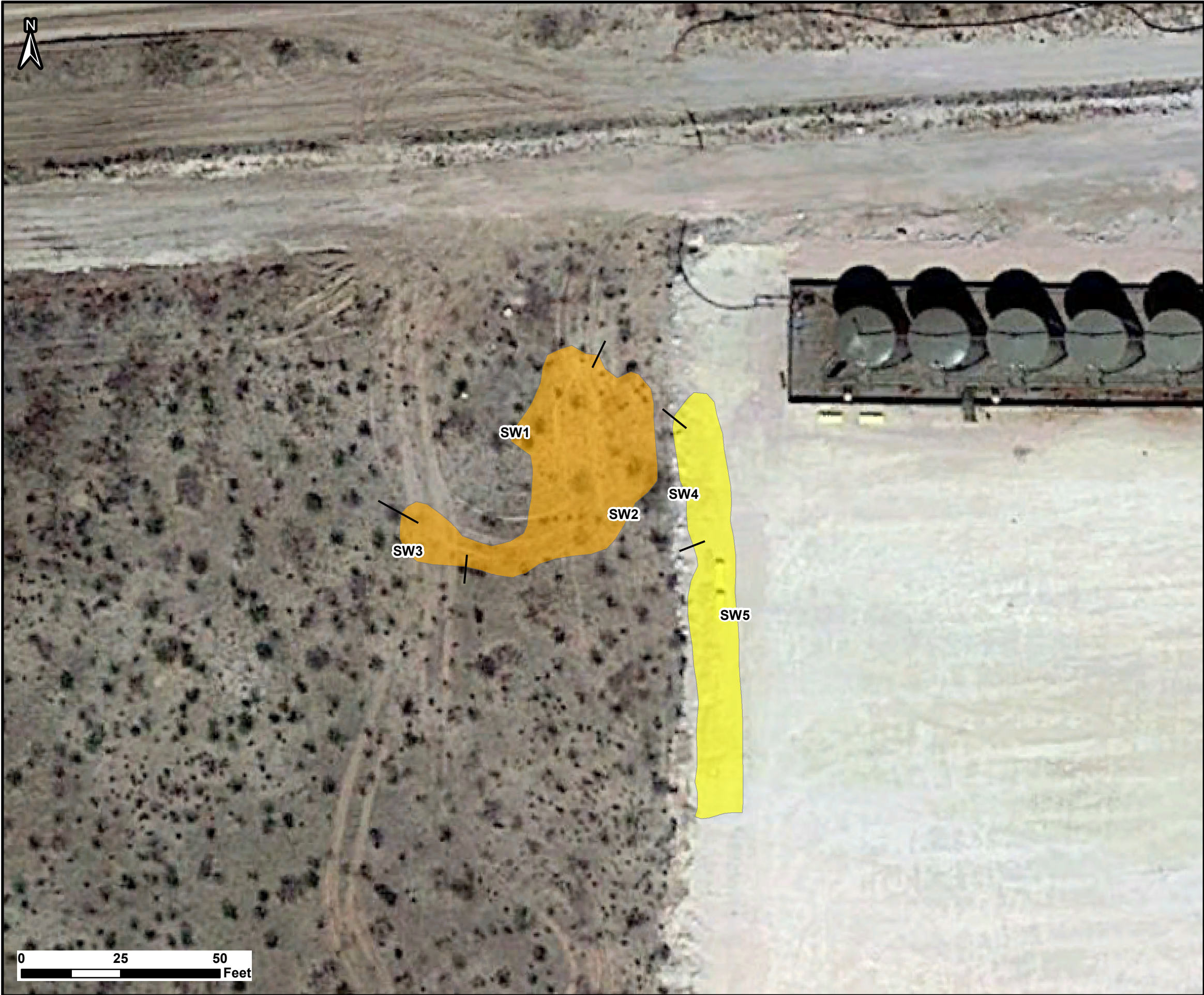
- 7' X 25' Grid
- 8' X 25' Grid
- 14' X 14' Grid

- On-Pad Excavation Area
- Off-Pad Excavation Area

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: A. Asay
Revision: 0
Date: 7/3/2019



Composite Sample Diagrams

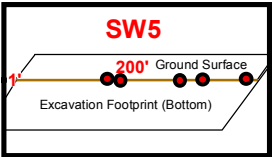
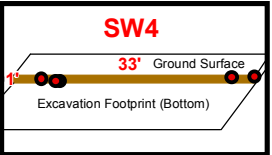
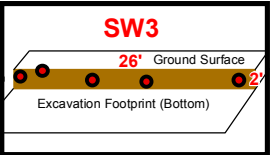
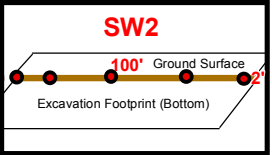
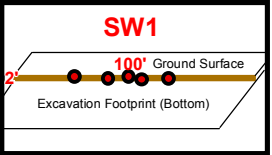


Figure C: Confirmation Sample Map

Longview Federal 12 #002H

Sidewalls

32.325171 -104.037494

Section 12, Township 23 South, Range 28 East

Mapped Features

● Sidewall Sample Location	On-Pad Excavation Area	Off-Pad Excavation Area
----------------------------	------------------------	-------------------------

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.

Author: A. Asay

Revision: 0

Date: 7/3/2019

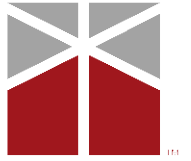


Table A: Field Screen Data Summary

Table A:
Field Screen Summary

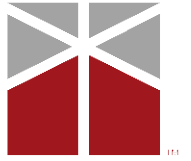
Longview Federal 12 #002H			Field	Screen Results
Sample ID	Depth(ft)	Sampling Date	EC (μS/cm)	VOC's (PPM)
SP1	0.5	6/20/2019	1,100	950
	1		790	220
	2		450	35
SP2	0.5	6/20/2019	1,400	1,600
	1		980	750
	2	6/20/2019	320	30
SP3	0.5	6/20/2019	1,800	400
	1	6/20/2019	655	200
	2		360	55
SP4	0.5	6/20/2019	990	660
	1		410	110
	2		300	20
SP5	0.5	6/20/2019	1,350	210
	1		600	30
	2		210	25
SP6	0.5	6/20/2019	1,260	810
	1		640	410
	2		490	36
SP7	0.5	6/20/2019	850	530
	1		620	160
	2		265	59
SP8	0.5	6/20/2019	855	805
	1		510	120
	2		270	26
SP9	0.5	6/20/2019	1,150	200
	1		515	65
SP10	0.5	6/20/2019	1,200	120
	1		590	79
SP11	0.5	6/20/2019	975	75
	1		380	20
SP12	0.5	6/20/2019	860	95
	1		200	38
SP13	0.5	6/20/2019	1,200	115
	1		410	60



Table B: Laboratory Analytical Results Summary

Table B:
Analytical Results Summary

WPX Energy, Inc.			Sample Results						
Longview Federal 12-2H								Reported in mg/kg	
NM OCD Table 1 Thresholds (GW <50')			600	10	50	100			
Sample ID	Depth (bgs)	Sampling Date	Chloride	Benzene	BTEX	GRO	DRO	MRO	Total TPH
FP1	2	6/25/2019	<60	<0.025	<0.224	<5.0	<9.3	<46	<60.3
FP2	2	6/25/2019	<60	<0.025	<0.225	<5.0	<9.6	<48	<62.6
FP3	2	6/25/2019	<60	<0.025	<0.224	<5.0	10	<49	<63.8
FP4	2	6/25/2019	<60	<0.025	<0.225	<5.0	21	<50	<76
FP5	2	6/25/2019	<60	<0.025	<0.225	<5.0	<9.8	<49	<63.8
FP6	2	6/25/2019	<60	<0.025	<0.225	<5.0	24	<48	<77
FP7	2	6/25/2019	<60	<0.025	<0.224	<5.0	<9.7	<49	<63.7
FP8	2	6/25/2019	<60	<0.025	<0.224	<5.0	<9.3	<47	<61.3
FP9	2	6/25/2019	<60	<0.025	<0.225	<5.0	28	<49	<82
FP10	2	6/25/2019	<60	<0.025	<0.224	<5.0	<9.4	<47	<61.4
FP11	2	6/25/2019	<60	<0.025	<0.225	<5.0	<9.3	<47	<61.3
FP12	2	6/25/2019	<60	<0.025	<0.225	<5.0	<9.4	<47	<61.4
FP13	1	6/25/2019	<60	<0.025	<0.222	<4.9	<9.6	<48	<62.5
FP14	1	6/25/2019	<60	<0.025	<0.225	<5.0	<9.9	<49	<63.9
FP15	1	6/25/2019	61	<0.025	<0.222	<4.9	<9.5	<47	<61.4
FP16	1	6/25/2019	<60	<0.025	<0.225	<5.0	29	<46	<80
FP17	1	6/25/2019	<60	<0.025	<0.222	<4.9	<9.4	<47	<61.3
SW1	Composite	6/25/2019	<60	<0.025	<0.222	<4.9	<9.7	<49	<63.6
SW2	Composite	6/25/2019	<60	<0.025	<0.222	<4.9	<10	<50	<64.9
SW3	Composite	6/25/2019	<60	<0.025	<0.225	<5.0	<10	<50	<65
SW4	Composite	6/25/2019	<60	<0.024	<0.219	<4.9	<9.9	<49	<63.8
SW5	Composite	6/25/2019	<60	<0.025	<0.225	<5.0	<9.7	<49	<63.7



Appendix A: C-141 - Release Notification

NAB1917738478
2RP-5502

pAB1917737940

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Deborah Watson	Contact Telephone: 575-885-7561
Contact email: deborah.watson@wpxenergy.com	Incident # (assigned by OCD) NAB1917738478
Contact mailing address: 5315 Buena Vista Drive, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.32517 Longitude -104.03750
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Longview Federal 12 #002H	Site Type: Well Pad
Date Release Discovered: June 7, 2019	API# (if applicable) 30-015-42236

Unit Letter	Section	Township	Range	County
B	12	23S	28E	Eddy

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input checked="" type="checkbox"/> Other (describe) Production Fluids (Crude and PW)	Volume/Weight Released (provide units) 120 bbls	Volume/Weight Recovered (provide units) 0 bbls


Cause of Release

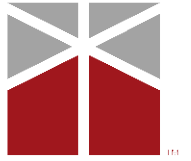
Unauthorized dumping of production fluids on pad. Impacted soils on- and off- location.

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Unauthorized release of fluids greater than 25 bbl. Impacted soils on- and off- location.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Deborah Watson contacted Mike Bratcher (NMOCD) and Jim Amos (BLM) via phone call on June 7, 2019 between 2:30 and 2:45 PM. Email notification was sent to Mike Bratcher, Jim Amos, and Jim Griswold.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: No free liquids upon discovery. Remediation is underway.	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Deborah Watson Title: Environmental Specialist	
Signature: 	Date: 6/21/2019
email: deborah.watson@wpenergy.com	Telephone: 575-885-7561
<u>OCD Only</u>	
Received by: <u>Amalia Bustamante</u> Date: <u>6/26/2019</u>	



Appendix B: **Confirmation Sampling Notification**

From: [Watson, Debbie](#)
To: ["Mike Bratcher"](#); [Venegas, Victoria, EMNRD](#); [Hamlet, Robert, EMNRD](#); [Amos, James](#)
Cc: [Kevin Smith](#); [Lori O'Brien](#)
Subject: Confirmation Sampling Notification-Longview Federal 12-2H
Date: Friday, June 21, 2019 8:02:00 AM

Good Morning,

This email serves as notification of confirmation sample collection for the recent spill at the Longview Federal 12-2H (API 30-015-42236). HRL will be onsite to collect samples on Tuesday, June 25 at 8:30 AM.

Please contact me with any questions. Thank you.

Have a great weekend,

Debbie

Deborah Watson
Environmental Specialist
5315 Buena Vista Drive | Carlsbad, NM 88220
office 575.885.7561 | cell 505.386.9693
deborah.watson@wpxenergy.com



If you have received this message in error, please reply to advise the sender of the error and then immediately delete this message. Thank you.



Appendix C: Laboratory Analytical Results

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP1

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-001

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 6:12:24 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/29/2019 2:58:52 AM	45871
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/29/2019 2:58:52 AM	45871
Surr: DNOP	88.3	70-130		%Rec	1	6/29/2019 2:58:52 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2019 11:43:27 PM	45844
Surr: BFB	106	73.8-119		%Rec	1	6/27/2019 11:43:27 PM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/27/2019 11:43:27 PM	45844
Toluene	ND	0.050		mg/Kg	1	6/27/2019 11:43:27 PM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2019 11:43:27 PM	45844
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2019 11:43:27 PM	45844
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	6/27/2019 11:43:27 PM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP2

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-002

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 7:14:26 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/29/2019 4:12:05 AM	45871
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2019 4:12:05 AM	45871
Surr: DNOP	89.7	70-130		%Rec	1	6/29/2019 4:12:05 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 12:06:08 AM	45844
Surr: BFB	103	73.8-119		%Rec	1	6/28/2019 12:06:08 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 12:06:08 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 12:06:08 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 12:06:08 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 12:06:08 AM	45844
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	6/28/2019 12:06:08 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy**Client Sample ID:** FP3**Project:** Longview Federal 12 2H**Collection Date:** 6/25/2019 11:00:00 AM**Lab ID:** 1906E39-003**Matrix:** SOIL**Received Date:** 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 7:26:51 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	10	9.8		mg/Kg	1	6/29/2019 4:36:29 AM	45871
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 4:36:29 AM	45871
Surr: DNOP	85.3	70-130		%Rec	1	6/29/2019 4:36:29 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 12:28:55 AM	45844
Surr: BFB	104	73.8-119		%Rec	1	6/28/2019 12:28:55 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 12:28:55 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 12:28:55 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 12:28:55 AM	45844
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 12:28:55 AM	45844
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	6/28/2019 12:28:55 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 3 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP4

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-004

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 7:39:15 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	21	10		mg/Kg	1	6/29/2019 5:00:57 AM	45871
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2019 5:00:57 AM	45871
Surr: DNOP	79.6	70-130		%Rec	1	6/29/2019 5:00:57 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 12:51:46 AM	45844
Surr: BFB	103	73.8-119		%Rec	1	6/28/2019 12:51:46 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 12:51:46 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 12:51:46 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 12:51:46 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 12:51:46 AM	45844
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	6/28/2019 12:51:46 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 4 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP5

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-005

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 7:51:40 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/29/2019 5:25:23 AM	45871
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 5:25:23 AM	45871
Surr: DNOP	91.8	70-130		%Rec	1	6/29/2019 5:25:23 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 1:37:31 AM	45844
Surr: BFB	102	73.8-119		%Rec	1	6/28/2019 1:37:31 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 1:37:31 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 1:37:31 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 1:37:31 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 1:37:31 AM	45844
Surr: 4-Bromofluorobenzene	94.0	80-120		%Rec	1	6/28/2019 1:37:31 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 5 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP6

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-006

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 8:04:04 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	24	9.6		mg/Kg	1	6/29/2019 5:49:49 AM	45871
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2019 5:49:49 AM	45871
Surr: DNOP	82.4	70-130		%Rec	1	6/29/2019 5:49:49 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 2:00:13 AM	45844
Surr: BFB	110	73.8-119		%Rec	1	6/28/2019 2:00:13 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 2:00:13 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 2:00:13 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 2:00:13 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 2:00:13 AM	45844
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/28/2019 2:00:13 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 6 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP7

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-007

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 8:16:29 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/29/2019 6:14:16 AM	45871
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 6:14:16 AM	45871
Surr: DNOP	74.0	70-130		%Rec	1	6/29/2019 6:14:16 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 2:22:59 AM	45844
Surr: BFB	106	73.8-119		%Rec	1	6/28/2019 2:22:59 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 2:22:59 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 2:22:59 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 2:22:59 AM	45844
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 2:22:59 AM	45844
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	6/28/2019 2:22:59 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 7 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP8

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-008

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 8:28:54 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	24	9.3		mg/Kg	1	6/29/2019 6:38:42 AM	45871
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2019 6:38:42 AM	45871
Surr: DNOP	99.1	70-130		%Rec	1	6/29/2019 6:38:42 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 2:45:42 AM	45844
Surr: BFB	107	73.8-119		%Rec	1	6/28/2019 2:45:42 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 2:45:42 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 2:45:42 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 2:45:42 AM	45844
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 2:45:42 AM	45844
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	6/28/2019 2:45:42 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 8 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP9

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-009

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 8:41:19 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	28	9.8		mg/Kg	1	6/29/2019 7:02:49 AM	45871
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 7:02:49 AM	45871
Surr: DNOP	95.7	70-130		%Rec	1	6/29/2019 7:02:49 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 3:08:28 AM	45844
Surr: BFB	105	73.8-119		%Rec	1	6/28/2019 3:08:28 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 3:08:28 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 3:08:28 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 3:08:28 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 3:08:28 AM	45844
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	6/28/2019 3:08:28 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 9 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP10

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-010

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 9:18:32 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/29/2019 7:27:00 AM	45871
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2019 7:27:00 AM	45871
Surr: DNOP	91.0	70-130		%Rec	1	6/29/2019 7:27:00 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 3:31:27 AM	45844
Surr: BFB	106	73.8-119		%Rec	1	6/28/2019 3:31:27 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 3:31:27 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 3:31:27 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 3:31:27 AM	45844
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 3:31:27 AM	45844
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	6/28/2019 3:31:27 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 10 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP11

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-011

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 9:30:57 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/29/2019 7:51:08 AM	45871
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2019 7:51:08 AM	45871
Surr: DNOP	92.4	70-130		%Rec	1	6/29/2019 7:51:08 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 3:54:31 AM	45844
Surr: BFB	104	73.8-119		%Rec	1	6/28/2019 3:54:31 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 3:54:31 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 3:54:31 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 3:54:31 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 3:54:31 AM	45844
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	6/28/2019 3:54:31 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 11 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP12

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:00:00 AM

Lab ID: 1906E39-012

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 9:43:21 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	9.6	9.4		mg/Kg	1	6/29/2019 8:15:13 AM	45871
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2019 8:15:13 AM	45871
Surr: DNOP	96.0	70-130		%Rec	1	6/29/2019 8:15:13 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 4:17:31 AM	45844
Surr: BFB	104	73.8-119		%Rec	1	6/28/2019 4:17:31 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 4:17:31 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 4:17:31 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 4:17:31 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 4:17:31 AM	45844
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	6/28/2019 4:17:31 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 12 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP13

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-013

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 9:55:45 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	12	9.6		mg/Kg	1	6/29/2019 8:39:17 AM	45871
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2019 8:39:17 AM	45871
Surr: DNOP	82.5	70-130		%Rec	1	6/29/2019 8:39:17 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2019 4:40:27 AM	45844
Surr: BFB	105	73.8-119		%Rec	1	6/28/2019 4:40:27 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 4:40:27 AM	45844
Toluene	ND	0.049		mg/Kg	1	6/28/2019 4:40:27 AM	45844
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2019 4:40:27 AM	45844
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 4:40:27 AM	45844
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	6/28/2019 4:40:27 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 13 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP14

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-014

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	59		mg/Kg	20	6/30/2019 10:08:10 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2019 9:03:24 AM	45871
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 9:03:24 AM	45871
Surr: DNOP	81.1	70-130		%Rec	1	6/29/2019 9:03:24 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 5:03:16 AM	45844
Surr: BFB	107	73.8-119		%Rec	1	6/28/2019 5:03:16 AM	45844
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/28/2019 5:03:16 AM	45844
Toluene	ND	0.050		mg/Kg	1	6/28/2019 5:03:16 AM	45844
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 5:03:16 AM	45844
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 5:03:16 AM	45844
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	6/28/2019 5:03:16 AM	45844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 14 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP15

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-015

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	61	60		mg/Kg	20	6/30/2019 10:20:35 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/29/2019 9:27:29 AM	45871
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2019 9:27:29 AM	45871
Surr: DNOP	90.8	70-130		%Rec	1	6/29/2019 9:27:29 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2019 6:26:37 PM	45847
Surr: BFB	91.4	73.8-119		%Rec	1	6/28/2019 6:26:37 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 6:26:37 PM	45847
Toluene	ND	0.049		mg/Kg	1	6/28/2019 6:26:37 PM	45847
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2019 6:26:37 PM	45847
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 6:26:37 PM	45847
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	6/28/2019 6:26:37 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 15 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP16

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-016

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 10:33:00 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	29	9.2		mg/Kg	1	6/29/2019 9:51:34 AM	45871
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/29/2019 9:51:34 AM	45871
Surr: DNOP	83.6	70-130		%Rec	1	6/29/2019 9:51:34 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 7:37:47 PM	45847
Surr: BFB	87.5	73.8-119		%Rec	1	6/28/2019 7:37:47 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 7:37:47 PM	45847
Toluene	ND	0.050		mg/Kg	1	6/28/2019 7:37:47 PM	45847
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 7:37:47 PM	45847
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 7:37:47 PM	45847
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	6/28/2019 7:37:47 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 16 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: FP17

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-017

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 10:45:24 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	15	9.4		mg/Kg	1	6/29/2019 10:17:00 AM	45871
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2019 10:17:00 AM	45871
Surr: DNOP	91.9	70-130		%Rec	1	6/29/2019 10:17:00 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2019 8:48:14 PM	45847
Surr: BFB	88.3	73.8-119		%Rec	1	6/28/2019 8:48:14 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 8:48:14 PM	45847
Toluene	ND	0.049		mg/Kg	1	6/28/2019 8:48:14 PM	45847
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2019 8:48:14 PM	45847
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 8:48:14 PM	45847
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	6/28/2019 8:48:14 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 17 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: SW1

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-018

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 10:57:49 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/29/2019 10:41:05 AM	45871
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 10:41:05 AM	45871
Surr: DNOP	85.9	70-130		%Rec	1	6/29/2019 10:41:05 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2019 9:11:36 PM	45847
Surr: BFB	85.0	73.8-119		%Rec	1	6/28/2019 9:11:36 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 9:11:36 PM	45847
Toluene	ND	0.049		mg/Kg	1	6/28/2019 9:11:36 PM	45847
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2019 9:11:36 PM	45847
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 9:11:36 PM	45847
Surr: 4-Bromofluorobenzene	92.2	80-120		%Rec	1	6/28/2019 9:11:36 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 18 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: SW2

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-019

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 11:10:13 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2019 11:05:18 AM	45871
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2019 11:05:18 AM	45871
Surr: DNOP	78.4	70-130		%Rec	1	6/29/2019 11:05:18 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2019 9:35:02 PM	45847
Surr: BFB	85.5	73.8-119		%Rec	1	6/28/2019 9:35:02 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 9:35:02 PM	45847
Toluene	ND	0.049		mg/Kg	1	6/28/2019 9:35:02 PM	45847
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2019 9:35:02 PM	45847
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2019 9:35:02 PM	45847
Surr: 4-Bromofluorobenzene	93.1	80-120		%Rec	1	6/28/2019 9:35:02 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 19 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: SW3

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-020

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	6/30/2019 11:47:28 PM	45920
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2019 11:29:41 AM	45871
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2019 11:29:41 AM	45871
Surr: DNOP	79.8	70-130		%Rec	1	6/29/2019 11:29:41 AM	45871
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 9:58:33 PM	45847
Surr: BFB	85.2	73.8-119		%Rec	1	6/28/2019 9:58:33 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 9:58:33 PM	45847
Toluene	ND	0.050		mg/Kg	1	6/28/2019 9:58:33 PM	45847
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 9:58:33 PM	45847
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 9:58:33 PM	45847
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	6/28/2019 9:58:33 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 20 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: SW4

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-021

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	7/1/2019 12:19:22 PM	45930
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2019 9:12:51 PM	45906
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 9:12:51 PM	45906
Surr: DNOP	37.0	70-130	S	%Rec	1	6/29/2019 9:12:51 PM	45906
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2019 10:22:20 PM	45847
Surr: BFB	91.1	73.8-119		%Rec	1	6/28/2019 10:22:20 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/28/2019 10:22:20 PM	45847
Toluene	ND	0.049		mg/Kg	1	6/28/2019 10:22:20 PM	45847
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2019 10:22:20 PM	45847
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2019 10:22:20 PM	45847
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	6/28/2019 10:22:20 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 21 of 0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1906E39**

Date Reported:

CLIENT: WPX Energy

Client Sample ID: SW5

Project: Longview Federal 12 2H

Collection Date: 6/25/2019 11:30:00 AM

Lab ID: 1906E39-022

Matrix: SOIL

Received Date: 6/26/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	7/1/2019 12:31:47 PM	45930
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/29/2019 10:26:46 PM	45906
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2019 10:26:46 PM	45906
Surr: DNOP	52.7	70-130	S	%Rec	1	6/29/2019 10:26:46 PM	45906
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2019 11:33:44 PM	45847
Surr: BFB	84.7	73.8-119		%Rec	1	6/28/2019 11:33:44 PM	45847
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/28/2019 11:33:44 PM	45847
Toluene	ND	0.050		mg/Kg	1	6/28/2019 11:33:44 PM	45847
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2019 11:33:44 PM	45847
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2019 11:33:44 PM	45847
Surr: 4-Bromofluorobenzene	90.9	80-120		%Rec	1	6/28/2019 11:33:44 PM	45847

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 22 of 0



Appendix D: Site Photographs



Appendix D:
Site Photos
Impacted Area
June 10, 2019





Impacted Area

June 10, 2019





Impacted Area

June 10, 2019





Impacted Area

June 10, 2019





Remediated Area

July 2, 2019





Remediated Area

July 2, 2019





Remediated Area

July 2, 2019





Remediated Area

July 2, 2019





Site Following Backfill

July 17, 2019





Site Following Backfill

July 17, 2019

