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	NRM2011445697
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.381266 Longitude -103.884166
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU DI1 BS2A 7E 211H	Site Type Well Pad
Date Release Discovered 4/7/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	21	22S	30E	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 10	Volume Recovered (bbls) 9.8
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Sand cut a hole in a fitting on the circulation pump releasing 10 barrels of water to the lined containment. The containment had a hole which released 0.2bbl to the pad surface. A vacuum truck was dispatched and recovered 9.8 barrels from the containment. A third party contractor will be retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011445697
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
N/A

Initial Response

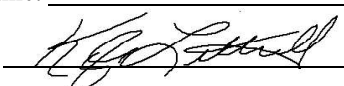
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

If all the actions described above have not been undertaken, explain why:
N/A

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: Kyle Littrell
Title: SH&E Supervisor
Signature: 
Date: 4-21-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 4/23/2020

NRM2011445697

Location:	JRU DI1 BS2A 7E 211H	
Spill Date:	4/7/2020	
Area 1		
Approximate Area =	227.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	0.20	bbls
Area 2		
Approximate Area =	54.90	cu. ft.
VOLUME RECOVERED		
Total Produced Water =	9.80	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**10.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**9.80**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011445697
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this 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 an 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 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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011445697
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 10/09/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011445697
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

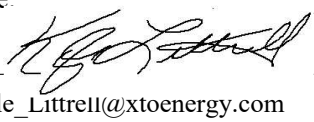
☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

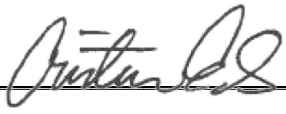
Signature:  Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: Cristina Eads Date: 10/09/2020

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

Signature:  Date: 12/10/2020

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	NRM2011535196
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.38126 Longitude -103.88416
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU DI1 BS2A 7W 212H	Site Type Well Pad
Date Release Discovered 04/09/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	21	22S	30E	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 10	Volume Recovered (bbls) 9.7
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: A fitting on the circulation pump experienced a sand cut, releasing 10 barrels of fluid. 8 barrels of produced water were captured within the lined containment. A hole in containment allowed 2 barrels to impact pad. Vacuum truck was dispatched and recovered all 8 barrels from the lined containment, and 1.7 barrels from the pad surface. A third party contractor will be retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
N/A

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:
N/A

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: Kyle Littrell
Title: SH&E Supervisor
Signature: 
Date: 4-23-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 4/24/2020

NRM2011535196

Location:	JRU DI 1 BS2A 7W 212H	
Spill Date:	4/9/2020	
Area 1		
Approximate Area =	342.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	2.00	bbls
Area 2		
Approximate Area =	44.78	cu. Ft.

VOLUME RECOVERED IN CONTAINMENT		
Total Produced Water =	8.00	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**10.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**9.70**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this 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 an 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 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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 10/09/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 10/09/2020

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

Signature: Date: 12/10/2020

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	NRM2011559899
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011559899
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Location:	JRU DI1 BS1 3E 213H	
Spill Date:	4/10/2020	

Area 1		
Approximate Area =	2242.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	6.00	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**6.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**4.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011559899
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this 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 an 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 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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011559899
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 10/09/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011559899
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

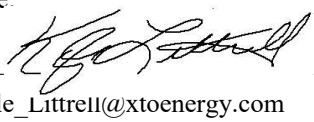
☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

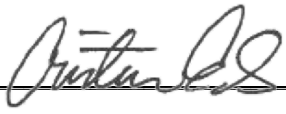
Signature:  Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: Cristina Eads Date: 10/09/2020

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

Signature:  Date: 12/10/2020

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	NRM2006432204
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.380774 Longitude -103.881894
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU DI 1 #211H	Site Type Well Pad
Date Release Discovered 02/18/2020	API# *(if applicable)* NA

Unit Letter	Section	Township	Range	County
H	21	22S	30E	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 4.95
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Sand cut caused a release of fluid from a low torque valve. Total volume released was 5 barrels of produced water. 2.5 barrels remained in containment and 2.5 barrels was released to the pad surface. Vacuum truck recovered 4.95 barrels. A third party contractor has been notified to complete remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2006
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:

N/A

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: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/3/2020

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Ramona Marcus Date: 3/4/2020

NRM2006432204

Location:	**JRU DI 1 211H**	
Spill Date:	**2/18/2020**	
Area 1		
Approximate Area =	27.80	cu. ft.
VOLUME RECOVERED		
Total Produced Water =	4.95	bbls
Area 2		
Approximate Area =	450.00	sq. ft.
Average Saturation (or depth) of spill =	0.25	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	0.05	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**5.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**4.95**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2006432204
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this 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 an 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 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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2006432204
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: Cristina Eads Date: 10/09/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2006432204
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 10/09/2020

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

Signature: Date: 12/10/2020

A proud member of WSP

LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

October 7, 2020

New Mexico Oil Conservation Division
District 2
811 South First Street
Artesia, New Mexico 88210

RE: Remediation Work Plan
James Ranch Unit Drilling Island -1
XTO Energy, Inc.
Incident Numbers NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899
Eddy County, New Mexico

To Whom it May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following remediation workplan detailing remediation activities to date and a proposed workplan to address residual impacted soil at the James Ranch Unit Drilling Island-1 (JRU DI-1) (Site) resulting from four separate events that caused the release of produced water and/or crude oil at the Site. The Site is located in Units G and H, Section 21, Township 22 South, Range 30 East, in Eddy County, New Mexico (Figure 1). This proposed workplan summarizes planned remediation activities and is designed to address potential remaining impacts to soil in the subsurface.

RELEASE BACKGROUND

Below is a summary of each release at the Site.

NRM2006432204 – JRU DI 1 #211H

On February 18, 2020, a sand cut caused a release of produced water from a low torque valve. The release consisted of approximately 5 barrels (bbls) of produced water, 2.5 bbls of produced water released to a temporary containment and the remaining 2.5 bbls was released to the pad surface. A vacuum truck was dispatched to the Site and recovered an estimated 4.95 bbls. The release impacted approximately 450 square feet of well pad. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on March 3, 2020 and was assigned Incident Number NRM2006432204.

A proud member of WSP

NRM2011445697 – JRU DI1 BS2A 7E 211H

On April 7, 2020 a hole in a fitting on the circulation pump formed due to sand, resulting in the release of approximately 10 bbls of produced water to a temporary lined containment. The temporary containment had a small hole which released 0.21 bbls of produced water to the pad surface. A vacuum truck was immediately dispatched to the Site and recovered 9.8 bbls of the produced water. The release impacted approximately 227 square feet of well pad. XTO reported the release to the NMOCD on a Form C-141 on April 21, 2020 and was assigned Incident Number NRM2011445697.

NRM2011535196 – JRU DI1 BS2A 7W 212H

On April 9, 2020 another hole formed in a fitting on the circulation pump due to sand, resulting in the release of an additional 10 bbls of produced water to a temporary lined containment. The temporary containment had a small hole which released an estimated 2 bbls of produced water to the pad surface. A vacuum truck was dispatched to the Site and recovered 9.7 bbls of the produced water. The release impacted approximately 342 square feet of well pad in the same area as Incident Number NRM2011445697. XTO reported the release to the NMOCD on a Form C-141 on April 23, 2020 and was assigned Incident Number NRM2011535196.

NRM2011559899– JRU DI1 BS1 3E 213H

On April 10, 2020, the liner on a sand bin began leaking during drill out operations resulting in the release of 6 bbls of produced water to the pad surface. A vacuum truck was dispatched to the Site and recovered 4 bbls of the produced water. The release impacted approximately 2,242 square feet of well pad. XTO reported the release to the NMOCD on a Form C-141 on April 24, 2020 and was assigned Incident Number NRM2011559899.

Delineation and remediation efforts were postponed due to the ongoing drilling, frac, and flowback operations at the Site. XTO provided regular operational updates ensuring remediation could begin as soon as all operations were complete at the Site. Per NMAC 19.15.29.12.B.(1), an extension for submission of a remediation plan or closure report was requested for all four releases, extending the deadline to October 9, 2020. In addition, XTO submitted a remediation work plan to NMOCD on April 23, 2020 detailing proposed remediation work on this pad for 12 legacy Remediation Permit Numbers (RPs) (2RP-2334, 2RP-2267, 2RP-2440, 2RP-2782, 2RP-3046, 2RP-3143, 2RP-3524, 2RP-3362, 2RP-3864, 2RP-4528, 2RP-4625, and 2RP-4756) and two Incident Numbers (NRM1935433078 and NRM2002747253). The work proposed in the April 23, 2020 Remediation Work Plan overlaps the release extents of the four incidents addressed in this Remediation Work Plan, and approval of the work plan from NMOCD is still pending.

A proud member of WSP

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet bgs based on the nearest groundwater well data. The nearest permitted water well with depth to groundwater data is C-03015, located approximately 0.73 miles southeast of the Site. The water well has a depth to groundwater of 262 feet and a total depth of 1,316 feet. Ground surface elevation at the water well location is 3,283 feet above mean sea level (AMSL), which is approximately 114 feet higher in elevation than the Site. Referenced well records are included in Attachment 1.

The closest continuously flowing water or significant watercourse to the Site is an intermittent wash located approximately 1,230 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is underlain by unstable geology (high potential karst designation area). The Site receptors and nearby water wells are identified on Figure 1.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg;
- Total petroleum hydrocarbons (TPH): 100 mg/kg; and
- Chloride: 600 mg/kg.

SITE ASSESSMENT ACTIVITIES

Site assessment visits were attempted multiple times from the date of the release. LTE personnel attempted to visit the site on April 20, 2020, however, ongoing operations prohibited unnecessary personnel from being onsite. On September 16, 2020, LTE personnel were able to inspect the Site during a short break in the drilling schedule to evaluate the release extents based on information provided on the Form C-141 and visual observations.

NRM2006432204 – JRU DI 1 #211H

LTE personnel collected one preliminary soil sample (SS01) at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. Preliminary soil sample SS01 was collected from within the release extent.

A proud member of WSP

NRM2011445697 – JRU DI1 BS2A 7E 211H AND NRM2011535196 – JRU DI1 BS2A 7W 212H

LTE personnel collected three preliminary soil samples (SS01 through SS03) at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. Preliminary soil samples SS01 through SS03 were collected from within the release extent.

NRM2011559899– JRU DI1 BS1 3E 213H

LTE personnel collected three preliminary soil samples (SS01 through SS04) at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. Preliminary soil samples SS01 through SS04 were collected from within the release extent.

Soil from all preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extents and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photo documentation of the releases was conducted, and a photographic log of the Site is included as Attachment 2.

Preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, TPH-oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil sample SS03 (NRM2011445697 and NRM2011535196), indicated TPH concentrations exceed Closure Criteria and will require additional remediation. In addition, laboratory analytical results for all preliminary soil samples collected at the Site indicate chloride concentrations exceed Closure Criteria and require additional remediation. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Attachment 3.

PROPOSED WORK PLAN

As depicted in Figure 3, the release extents of the four incidents overlap portions of the proposed excavation and liner installation activities proposed in the Remediation Work Plan submitted on April 23, 2020. The Remediation Work Plan submitted on April 23, 2020 addresses 14 releases on the pad that occurred from April 14, 2014 through November 27, 2019. An estimated 33,250 cubic yards of impacted soil are anticipated to be removed from several excavations on the pad. In addition, XTO and LTE propose to install two liners totaling approximately 77,450 square feet of pad. Due to the amount of work and location of the excavations and liner installations, XTO

and LTE believe it is prudent to complete the work needed for the 4 releases addressed in this work plan simultaneously with the scope outlined in the April 23, 2020 Remediation Work Plan. LTE proposes to remediate the chloride impacts in a single effort by following the April 23, 2020 Remediation Work Plan which includes the following:

- Full delineation of the Site to the strictest Table 1 Closure Criteria;
- Excavation of impacted soils in the proposed locations depicted on Figure 3;
- Installation of a liner at 4 feet bgs in the proposed locations depicted on Figure 3; and
- Backfill of the excavations with non-waste containing caliche or soil.

Some areas of the four incidents, NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899, are not covered by this proposed work. To address these areas, LTE and XTO propose to collect additional delineation soil samples at the locations indicated on Figure 3 to vertically delineate the impacted soil to the strictest Table 1 Closure Criteria. Following delineation activities, LTE will incorporate findings into the previously proposed excavation plan. LTE personnel will direct all excavations using field screenings and laboratory results until laboratory analytical results indicate confirmation samples are compliant with the applicable Closure Criteria. If impacted soil is identified greater than 4 feet bgs in depth, the proposed impermeable liner installation at 4 feet bgs will be extended to address residual chloride in the subsurface and the excavation will be backfilled with non-waste containing caliche or soil. The anticipated additional excavation extents are depicted on Figure 3.

XTO and LTE believe this work will address the impacts identified in the preliminary soil samples from Incident Numbers NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899 and will be more efficient than addressing these releases separately from the remediation plan outlined in the April 23, 2020 Remediation Work Plan.

CONFIRMATION SAMPLING VARIANCE REQUEST

The April 23, 2020 Remediation Work Plan includes a request for a variance of the 200-square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 378 floor samples within the estimated excavation extents with no liner. This estimation includes the twelve RP Numbers, two Incident Numbers addressed in the April 23, 2020 Remediation Work plan and the four Incident Numbers included in this work plan. These numbers do not include sidewalls. Due to the aerial extents of the affected areas, LTE proposes increasing the confirmation sampling size to a 1,000-square foot area for floor samples and a 500-square foot area for sidewall samples, utilizing a 5-point composite sample to represent each excavation confirmation sample. An estimated 76 samples would be collected from the excavation floor with no liner, to address the excavation extents.

A proud member of WSP

SCHEDULE

Delineation and excavation of impacted soil will begin immediately following the NMOCD approval of the April 23, 2020 Remediation Work Plan. Confirmation soil sampling will be conducted once excavation activities are completed as determined by ongoing field screening of soil. XTO will provide NMOCD with a report documenting delineation and remediation activities within three weeks of receipt of final laboratory analytical results.

LTE appreciates the opportunity to provide this remediation work plan request to the NMOCD. If you have any questions or comments, please do not hesitate to contact Ashley L. Ager at (970) 946-1093 or aager@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

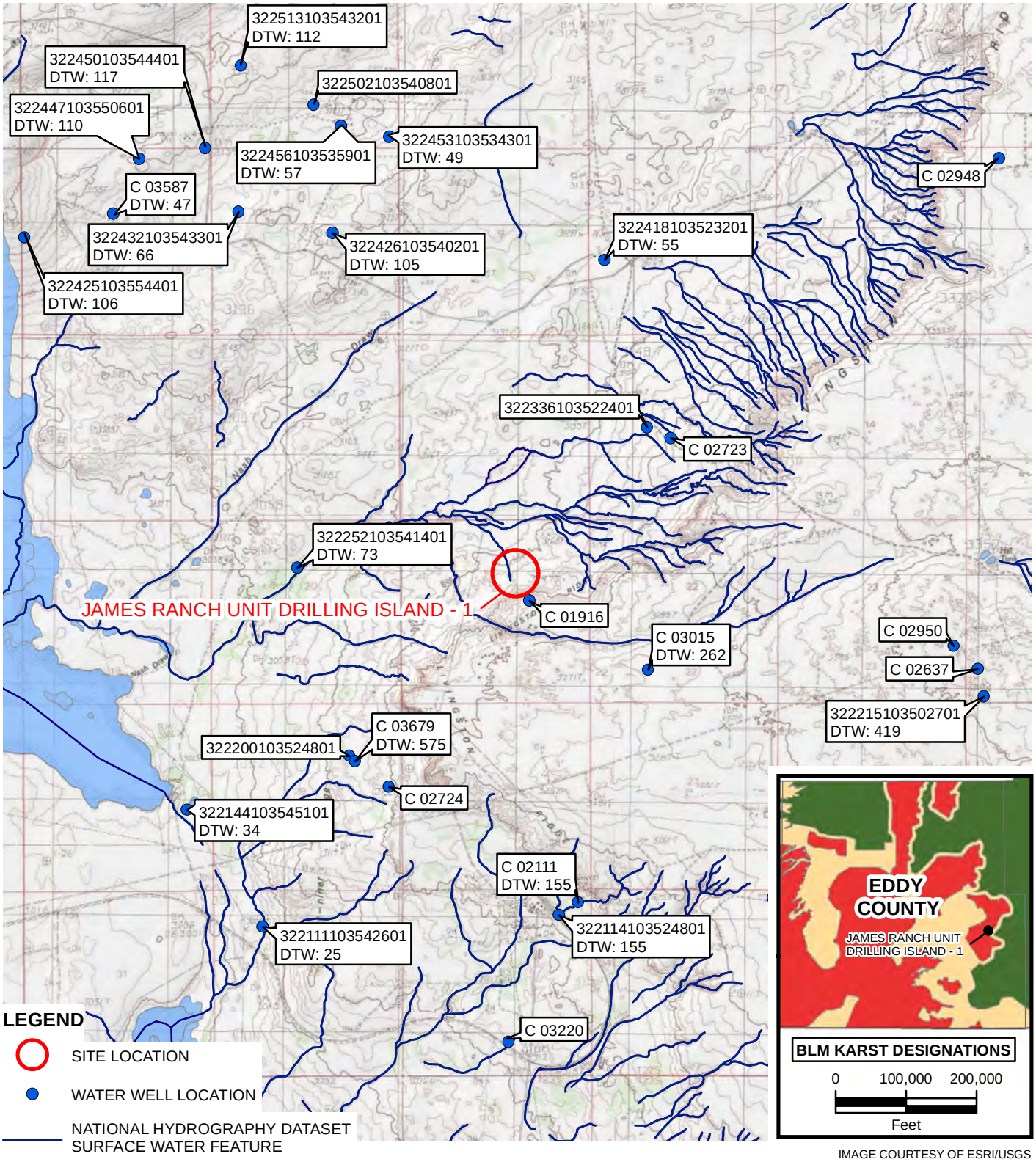
Tacoma Morrissey
Project Geologist

Ashley L. Ager, P.G.
Senior Geologist

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Proposed Excavation and Liner Extents
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Photographic Log
Attachment 3	Laboratory Analytical Reports

FIGURES



LEGEND

- SITE LOCATION
- WATER WELL LOCATION
- NATIONAL HYDROGRAPHY DATASET SURFACE WATER FEATURE
- NATIONAL WETLANDS INVENTORY SURFACE WATER FEATURE
- LOW KARST
- MEDIUM KARST
- HIGH KARST

NOTE: INCIDENT NUMBERS NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
JAMES RANCH UNIT DRILLING ISLAND - 1
UNIT G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

A proud member of WSP

P:\XTO Energy\GIS\MXD\012920067_JRU DI1 BS1 3E 213H\012920067_FIG01_SL_RECEPTOR_2020_081720.mxd

IMAGE COURTESY OF ESRI

LEGEND

- RELEASE LOCATION (NRM2006432204)
- RELEASE LOCATION (NRM2011445697/ NRM2011535196)
- RELEASE LOCATION (NRM2011559899)
- PRELIMINARY SOIL SAMPLE ASSOCIATED WITH INCIDENT NUMBER NRM2006432204
- PRELIMINARY SOIL SAMPLE ASSOCIATED WITH INCIDENT NUMBERS NRM2011445697 & NRM2011535196
- PRELIMINARY SOIL SAMPLE ASSOCIATED WITH INCIDENT NUMBER NRM2011559899
- RELEASE EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: INCIDENT NUMBERS NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899

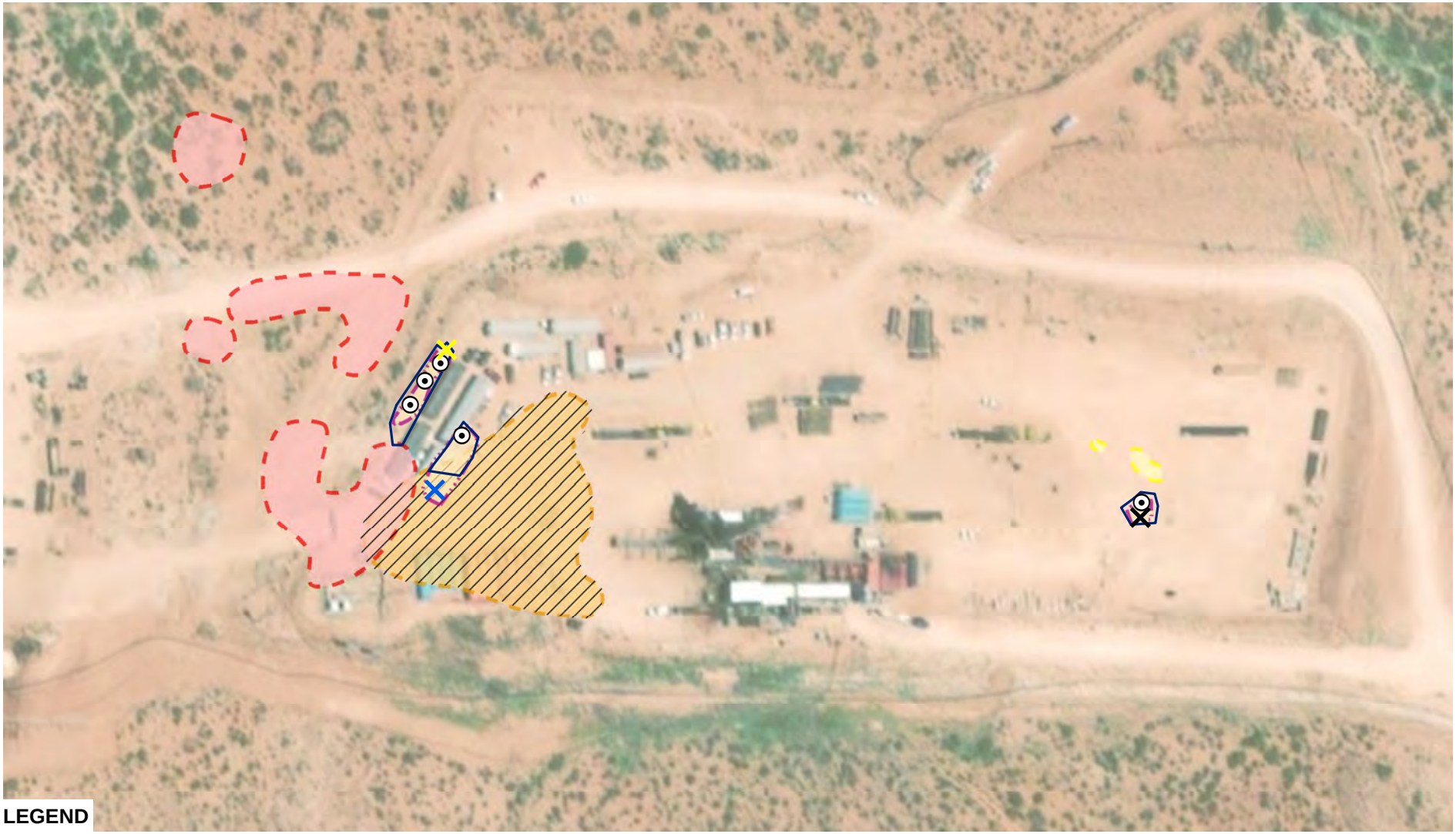
0 150 300
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT DRILLING ISLAND - 1
UNIT G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

LT E
A proud member of WSP

P:\XTO Energy\GIS\MXD\012920067_JRU DI1 BS1 3E 213H\012920067_FIG02_PRELIMINARY_2020.mxd



LEGEND

- RELEASE LOCATION (NRM2006432204)
- RELEASE LOCATION (NRM2011445697/ NRM2011535196)
- RELEASE LOCATION (NRM2011559899)
- PROPOSED DELINEATION SAMPLE
- RELEASE EXTENT
- PROPOSED 20-MIL POLY LINER INSTALLATION
- PROPOSED EXCAVATION EXTENT (2RP-2334)
- PROPOSED EXCAVATION EXTENT (2RP-2440)
- PROPOSED EXCAVATION EXTENT (2RP-3046, 2RP-3143, 2RP-3864, 2RP-4528)
- PROPOSED EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: INCIDENT NUMBERS NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899

IMAGE COURTESY OF ESRI

0 150 300
Feet

N

FIGURE 3
PROPOSED EXCAVATION AND LINER EXTENTS
JAMES RANCH UNIT DRILLING ISLAND - 1
UNIT G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

A proud member of WSP

P:\XTO Energy\GIS\MXD\012920067_JRU DI1 BS1 3E 213H\012920067_FIG03_PROPOSED_EXCAVATION_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT DRILLING ISLAND-1
INCIDENT NUMBERS NRM2006432204, NRM2011445697, NRM2011535196, NRM2011559899
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	NE	**100**	**600**
JRU DI 1 #211H (NRM2006432204)													
SS01	0.5	9/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	**3,920**
JRU DI1 BS2A 7E 211H and JRU DI1 BS2A 7W 212H (NRM2011445697 and NRM2011535196)													
SS01	0.5	9/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	**15,100**
SS02	0.5	9/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	66.3	<49.9	66.3	66.3	**8,060**
SS03	0.5	9/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	461	60.9	461	**522**	**11,600**
JRU DI1 BS1 3E 213H (NRM2011559899)													
SS01	0.5	9/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	**7,560**
SS02	0.5	9/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	**25,500**
SS03	0.5	9/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	**13,100**
SS04	0.5	9/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	83.3	<50.0	83.3	83.3	**16,300**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
ORO - oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

A proud member of WSP

ATTACHMENT 1: REFERENCED WELL RECORDS

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	Twn	Rng	X	Y
	C 02111	2	2	2	33	22S	30E	605505	3580336*

Driller License: **Driller Company:**

Driller Name: WINSTON BROS.

Drill Start Date:		**Drill Finish Date:**	11/30/1962	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	29 GPM
Casing Size:	8.75	**Depth Well:**	248 feet	**Depth Water:**	155 feet

Meter Number:	552	**Meter Make:**	SENSUS
Meter Serial Number:	1480245	**Meter Multiplier:**	100.0000
Number of Dials:	5	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
12/31/1998	1999	3519	A	ms		0	
06/30/1999	1999	10119	A	ms		2.025	
09/30/1999	1999	17046	A	ms		2.126	
01/12/2000	1999	23122	A	ms		1.865	
03/31/2000	2000	29277	A	mb		1.889	
06/30/2000	2000	38063	A	RPT		2.696	
09/30/2000	2000	45705	A	RPT		2.345	
12/31/2000	2000	53709	A	RPT		2.456	
03/31/2001	2001	61935	A	RPT		2.524	
06/30/2001	2001	63804	A	RPT		0.574	
10/01/2001	2001	63804	A	RPT		0	
01/01/2002	2001	3924	R	RPT	Meter Rollover	12.312	
04/23/2002	2002	12315	A	RPT		2.575	
07/01/2002	2002	12571	A	rm		0.079	
01/01/2003	2002	14740	A	RPT		0.666	
01/01/2004	2003	14740	A	ab		0	
04/01/2004	2004	14740	A	RPT		0	
10/30/2004	2004	14740	A	RPT		0	
03/31/2005	2005	14740	A	RPT		0	
10/30/2005	2005	14740	A	RPT		0	
12/31/2005	2005	14740	A	RPT		0	
07/07/2006	2006	14740	A	tw		0	
11/01/2006	2006	14740	A	RPT		0	
06/30/2007	2007	14740	A	RPT		0	
09/30/2007	2007	14740	A	RPT		0	

12/31/2007	2007	14740	A	RPT	0
03/31/2008	2008	14740	A	RPT	0
06/30/2008	2008	14740	A	RPT	0
09/30/2008	2008	14740	A	RPT	0
12/31/2008	2008	14740	A	RPT	0
03/31/2009	2009	14740	A	RPT	0
06/30/2009	2009	14740	A	RPT	0
09/30/2009	2009	14740	A	RPT	0
03/31/2010	2010	14740	A	tw	0
07/09/2010	2010	14740	A	RPT	0
10/01/2010	2010	14740	A	RPT	0
12/31/2010	2010	14740	A	RPT	0
03/30/2011	2011	14740	A	tw	0
06/30/2011	2011	14740	A	RPT	0
01/09/2012	2011	14740	A	RPT	0
03/31/2012	2012	14740	A	RPT	0
07/03/2012	2012	14740	A	RPT	0
01/10/2013	2012	14740	A	RPT	0
04/08/2013	2013	14740	A	RPT	0
07/11/2013	2013	14740	A	RPT	0

**YTD Meter Amounts:	Year	Amount
	1999	6.016
	2000	9.386
	2001	15.410
	2002	3.320
	2003	0
	2004	0
	2005	0
	2006	0
	2007	0
	2008	0
	2009	0
	2010	0
	2011	0
	2012	0
	2013	0

***UTM location was derived from PLSS - see Help**

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	Twn	Rng	X	Y
	C 03015	1	4	3	22	22S	30E	606099	3582353*

Driller License: 331 **Driller Company:** SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.

Driller Name:

Drill Start Date:	01/21/2004	**Drill Finish Date:**	01/25/2004	**Plug Date:**	
Log File Date:	03/04/2004	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.00	**Depth Well:**	1316 feet	**Depth Water:**	262 feet

Water Bearing Stratifications:	Top	Bottom	Description
	362	385	Other/Unknown

Casing Perforations:	Top	Bottom
	261	386

***UTM location was derived from PLSS - see Help**

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	Twn	Rng	X	Y
	C 03587 POD3	2	4	1	07	22S	29E	601447	3586271

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name: TAYLOR, CLINTON E. (LD)

Drill Start Date:	04/04/2013	**Drill Finish Date:**	04/04/2013	**Plug Date:**	
Log File Date:	05/07/2013	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	3 GPM
Casing Size:	2.00	**Depth Well:**	80 feet	**Depth Water:**	47 feet

Water Bearing Stratifications:	Top	Bottom	Description
	65	80	Other/Unknown

Casing Perforations:	Top	Bottom
	65	80

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twn	Rng	(NAD83 UTM in meters) X	Y
	C 03679 POD1	1	4	2	14	24S	33E	603567	3581547

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC

Driller Name:

Drill Start Date: 10/23/2013 **Drill Finish Date:** 10/29/2013 **Plug Date:**

Log File Date: 11/07/2013 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 20 GPM

Casing Size: 6.00 **Depth Well:** 700 feet **Depth Water:** 575 feet

Water Bearing Stratifications:

Top	Bottom	Description
565	665	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
560	620
660	700

Meter Number: 16576 **Meter Make:** MASTERMETER

Meter Serial Number: 8112524 **Meter Multiplier:** 100.0000

Number of Dials: 6 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
03/01/2014	2014	29030	A	RPT		0	
07/01/2014	2014	49261	A	RPT		6.209	
10/01/2014	2014	68901	A	RPT		6.027	
12/31/2014	2014	84036	A	RPT		4.645	
02/01/2015	2015	89806	A	RPT		1.771	
03/02/2015	2015	92350	A	RPT		0.781	
04/01/2015	2015	96582	A	RPT		1.299	
04/30/2015	2015	104711	A	RPT		2.495	
05/31/2015	2015	111086	A	RPT		1.956	
07/01/2015	2015	118700	A	RPT		2.337	
08/01/2015	2015	123816	A	RPT		1.570	
08/31/2015	2015	130025	A	RPT		1.905	
10/01/2015	2015	135622	A	RPT		1.718	

**YTD Meter Amounts:	Year	Amount
	2014	16.881
	2015	15.832

10/2/20 8:44 AM POINT OF DIVERSION SUMMARY

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322450103544401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

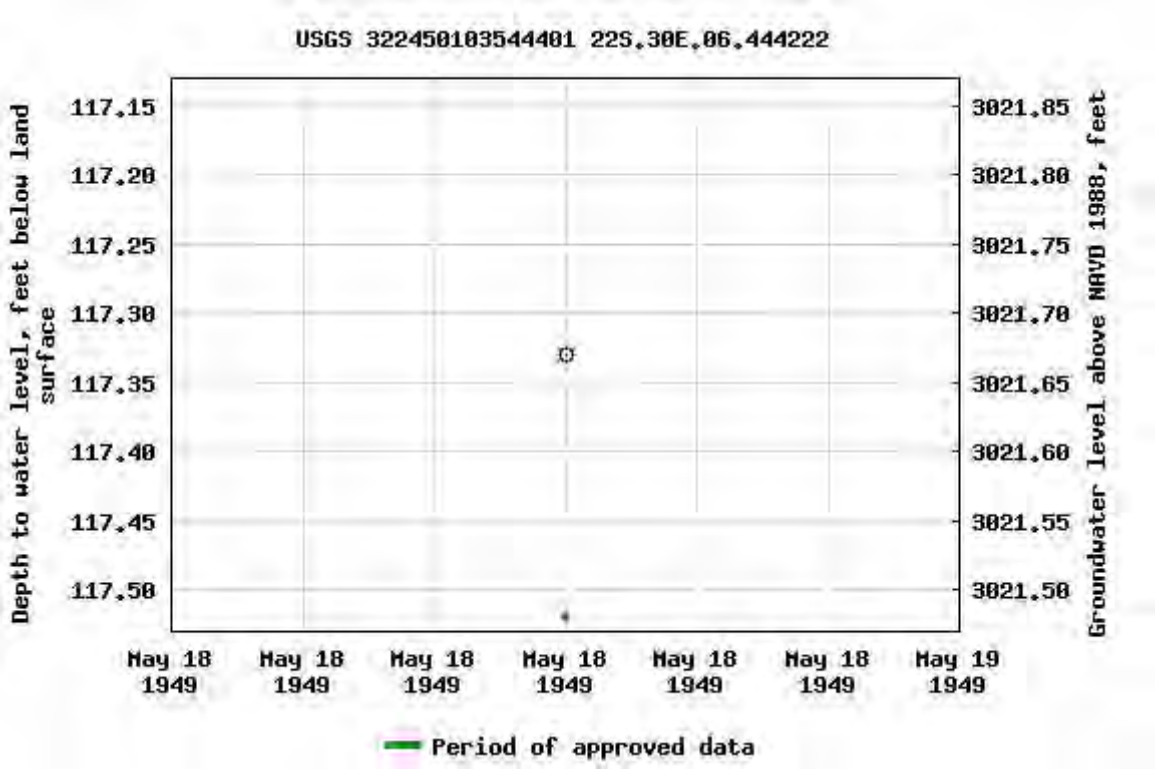
USGS 322450103544401 22S.30E.06.444222

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'50", Longitude 103°54'44" NAD27
Land-surface elevation 3,139 feet above NAVD88
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322453103534301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

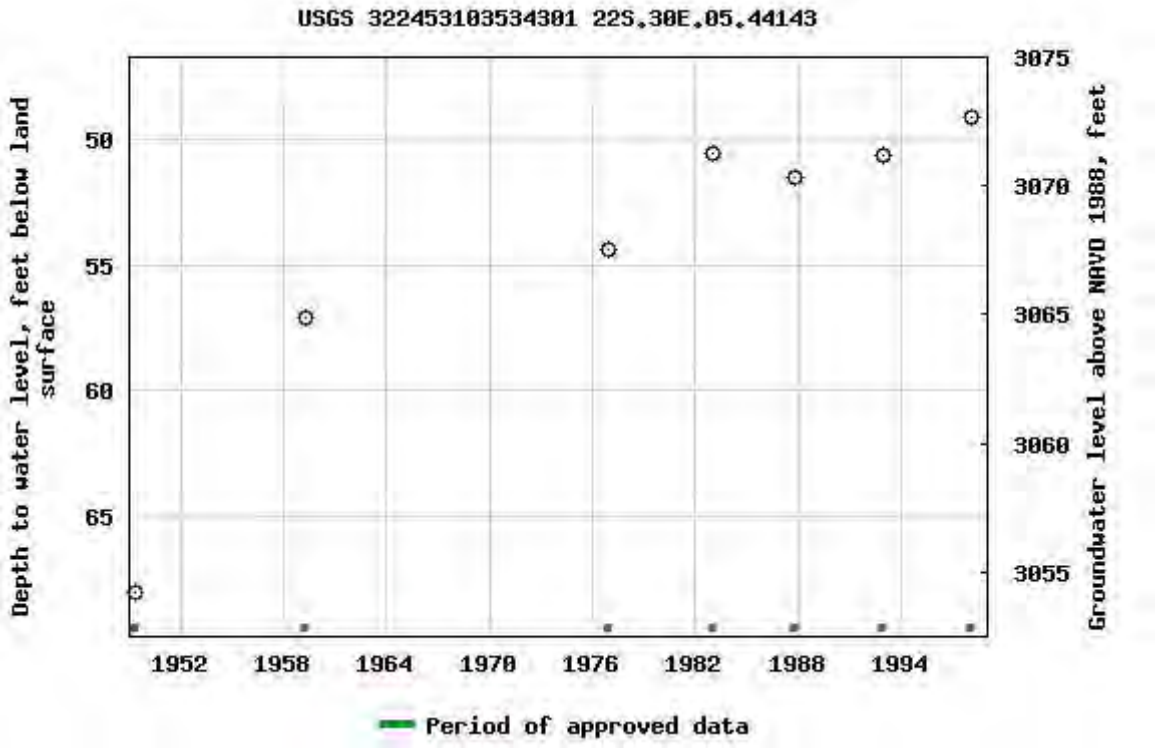
USGS 322453103534301 22S.30E.05.44143

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'53", Longitude 103°53'43" NAD27
Land-surface elevation 3,122 feet above NAVD88
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322456103535901

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

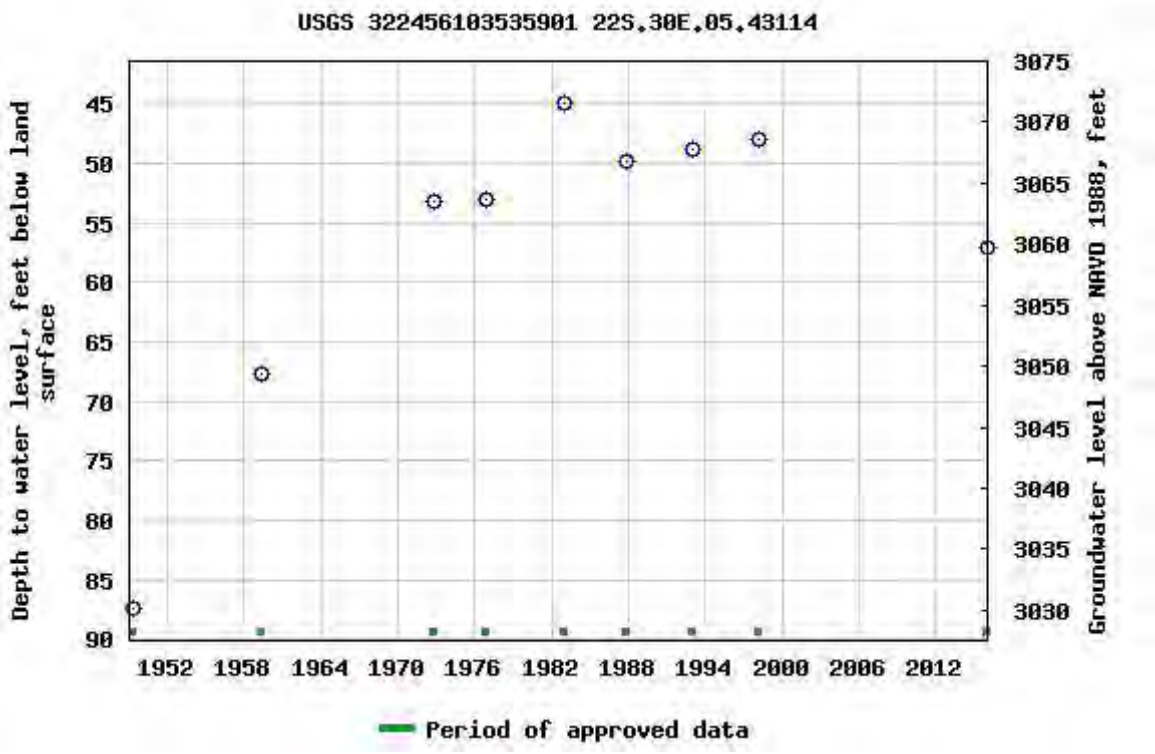
USGS 322456103535901 22S.30E.05.43114

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'56", Longitude 103°53'59" NAD27
Land-surface elevation 3,117 feet above NAVD88
The depth of the well is 225 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322513103543201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

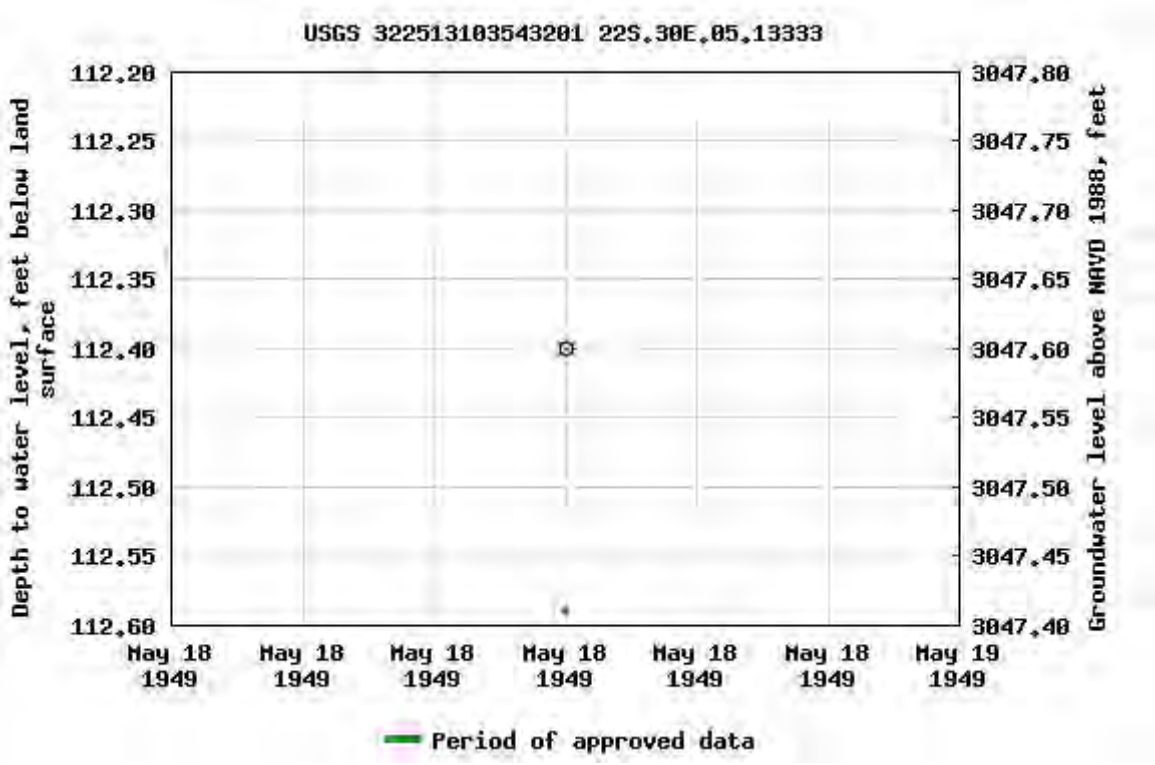
USGS 322513103543201 22S.30E.05.13333

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°25'13", Longitude 103°54'32" NAD27
Land-surface elevation 3,160 feet above NAVD88
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2020-10-02 10:59:55 EDT
0.67 0.55 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322425103554401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

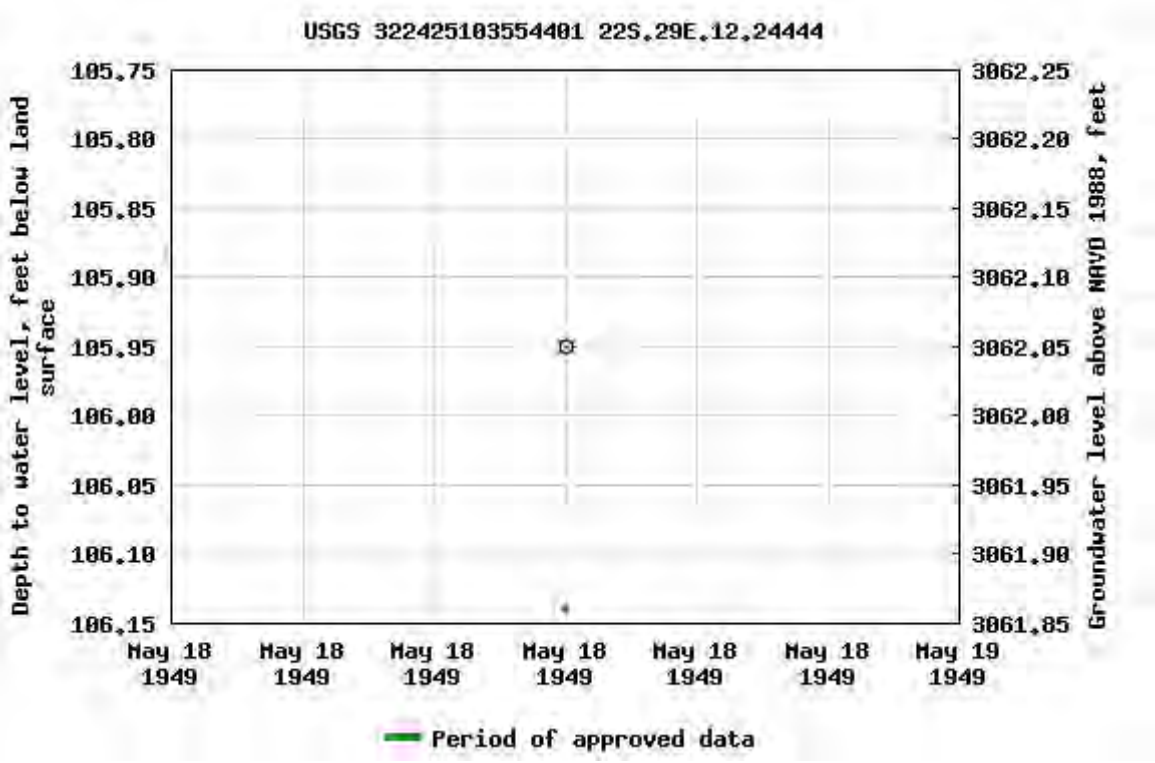
USGS 322425103554401 22S.29E.12.24444

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'25", Longitude 103°55'44" NAD27
Land-surface elevation 3,168 feet above NAVD88
The depth of the well is 250 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2020-10-02 11:00:42 EDT
0.61 0.56 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322426103540201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

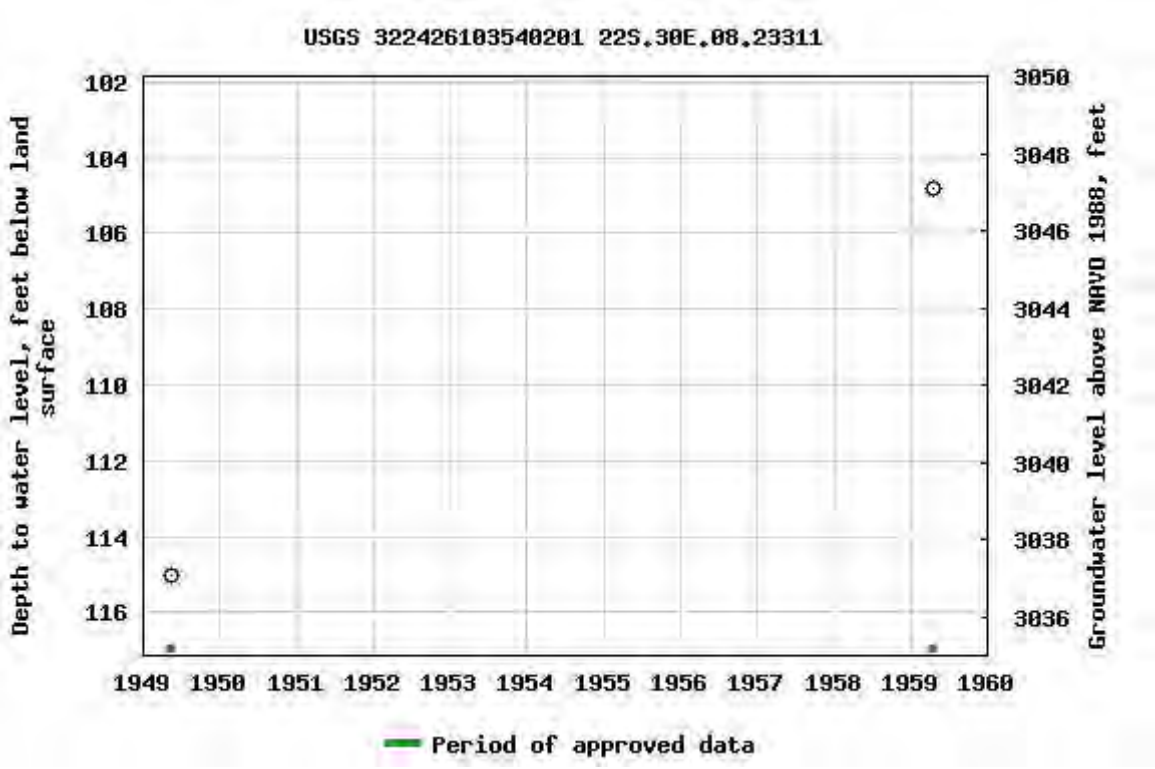
USGS 322426103540201 22S.30E.08.23311

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'26", Longitude 103°54'02" NAD27
Land-surface elevation 3,152 feet above NAVD88
The depth of the well is 181 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322432103543301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

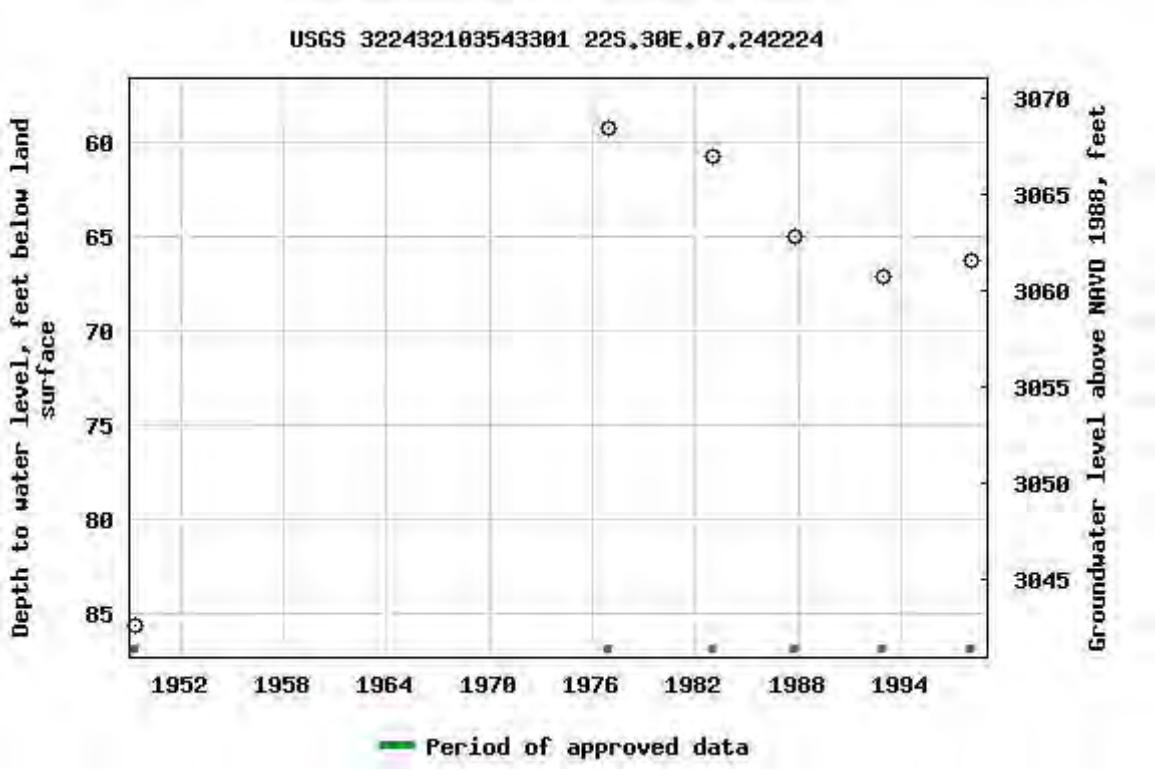
USGS 322432103543301 22S.30E.07.242224

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'32", Longitude 103°54'33" NAD27
Land-surface elevation 3,128 feet above NAVD88
The depth of the well is 176 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322447103550601

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

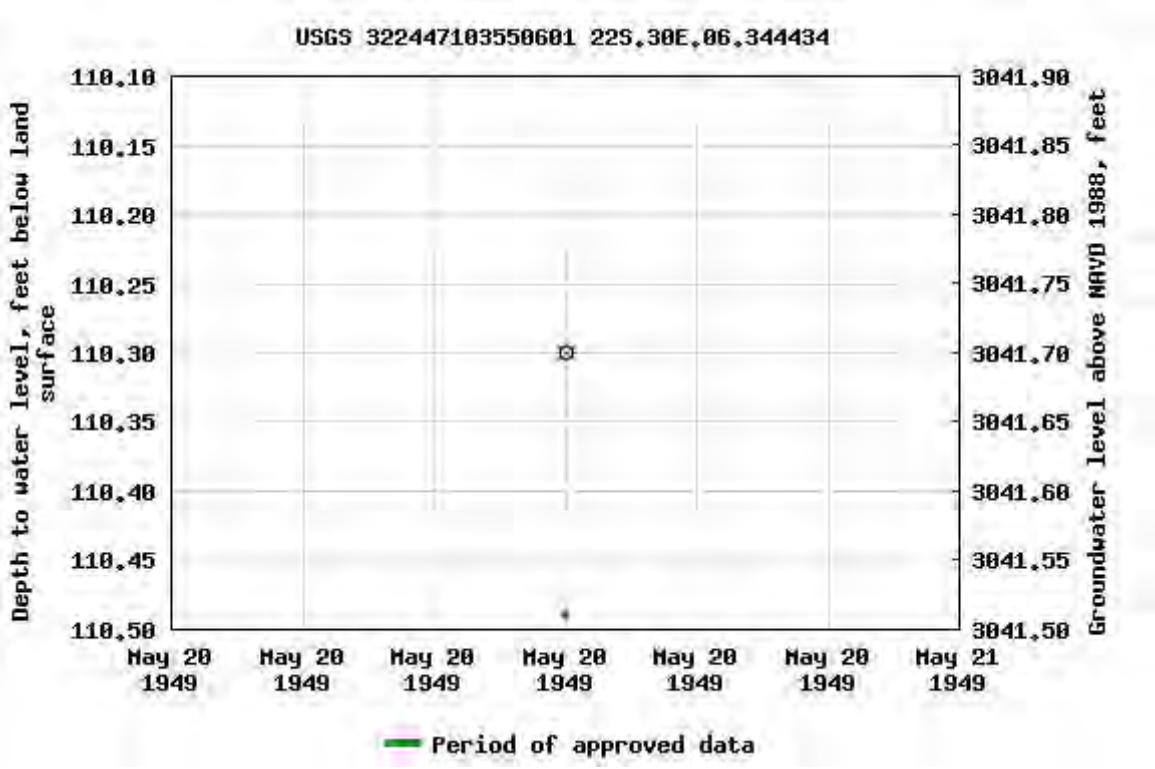
USGS 322447103550601 22S.30E.06.344434

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'47", Longitude 103°55'06" NAD27
Land-surface elevation 3,152 feet above NAVD88
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2020-10-02 11:00:20 EDT
0.62 0.57 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322111103542601

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

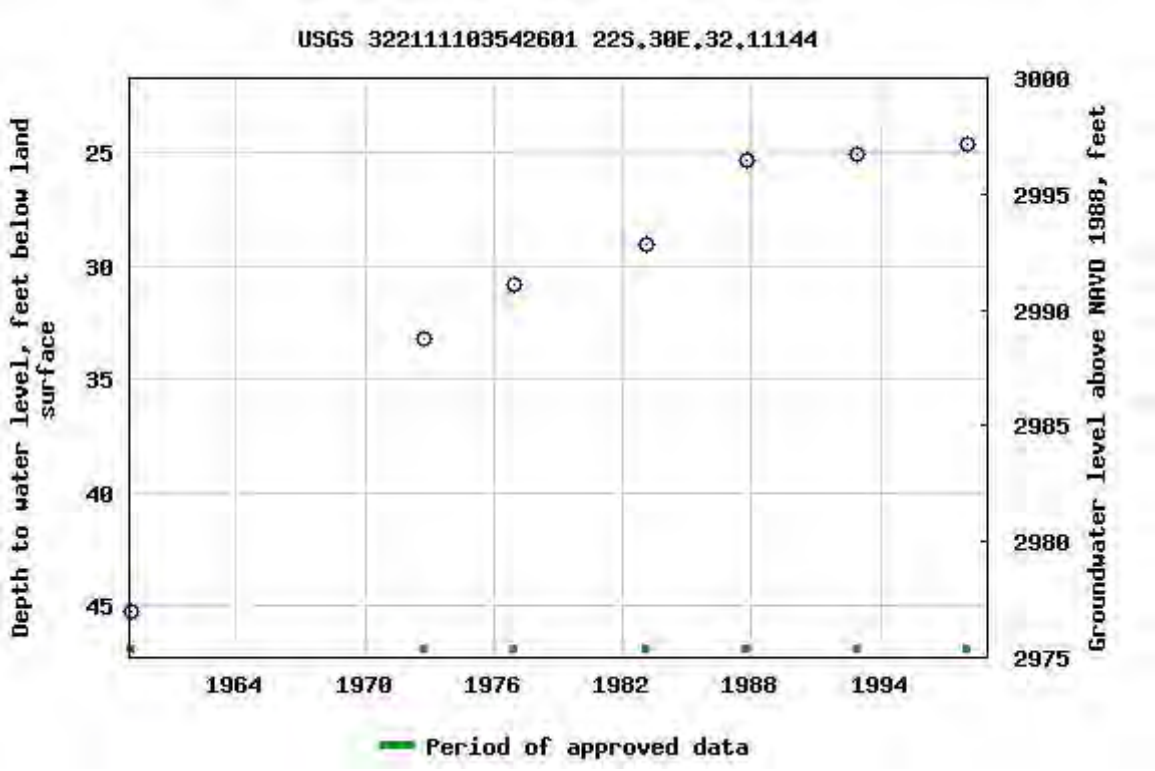
USGS 322111103542601 22S.30E.32.11144

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°21'11", Longitude 103°54'26" NAD27
Land-surface elevation 3,022 feet above NAVD88
The depth of the well is 107 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322114103524801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

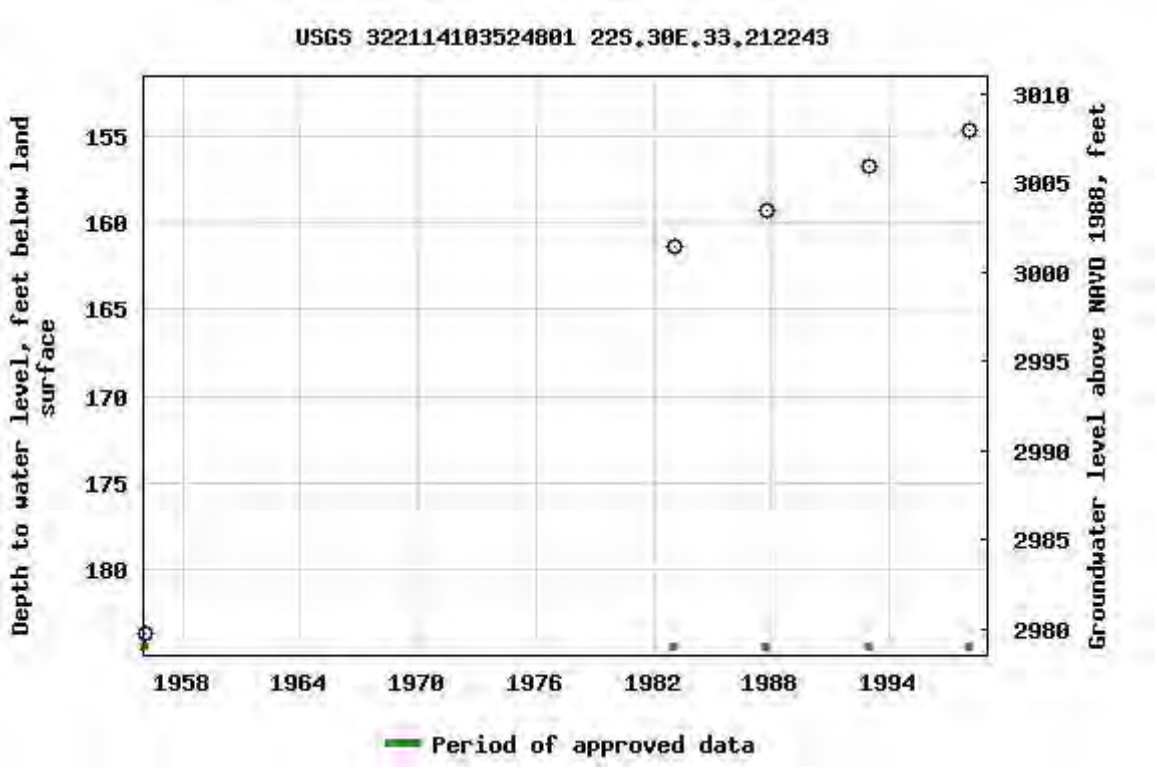
USGS 322114103524801 22S.30E.33.212243

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°21'14", Longitude 103°52'48" NAD27
Land-surface elevation 3,163 feet above NAVD88
The depth of the well is 248 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322144103545101

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

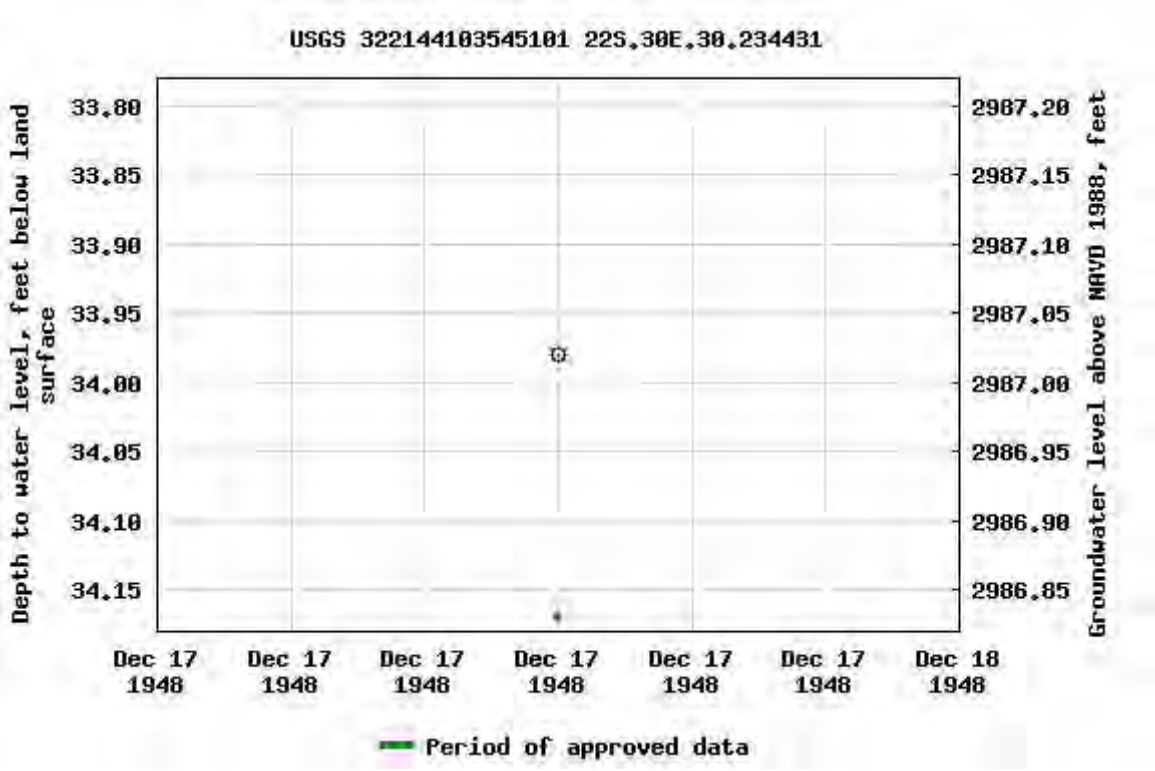
USGS 322144103545101 22S.30E.30.234431

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°21'44", Longitude 103°54'51" NAD27
Land-surface elevation 3,021 feet above NAVD88
The depth of the well is 75 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2020-10-02 10:54:07 EDT
0.65 0.56 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322215103502701

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

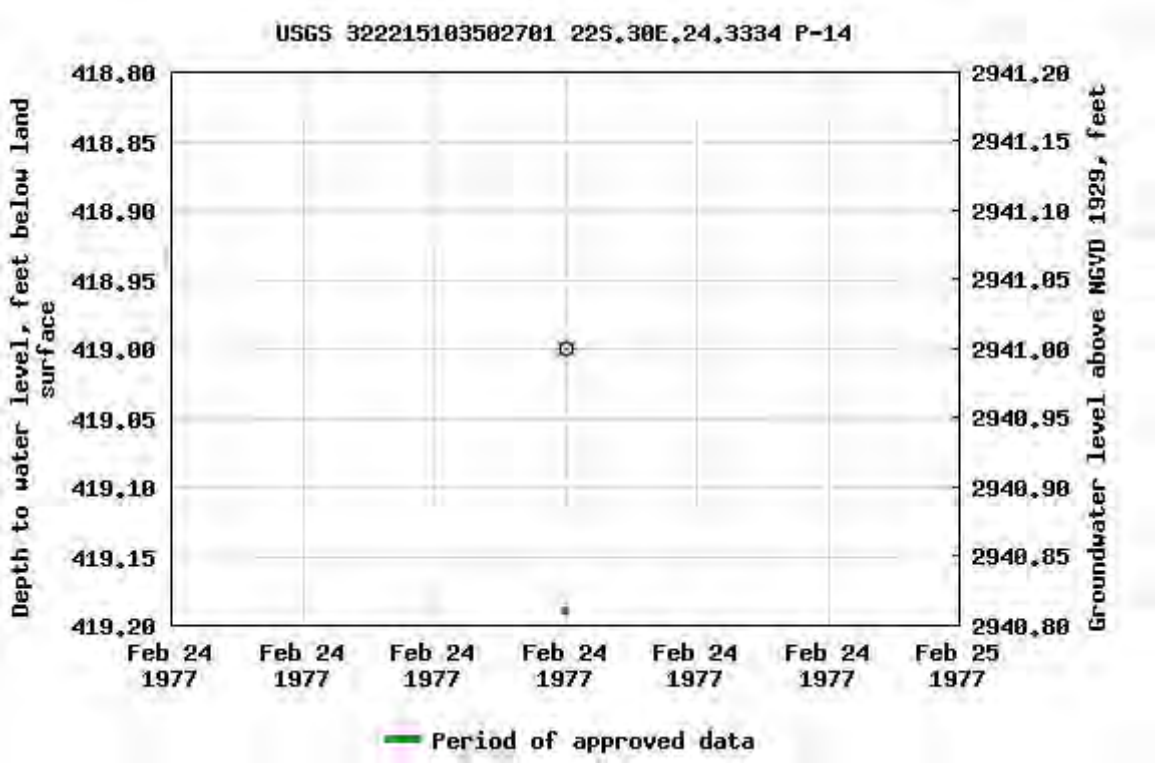
USGS 322215103502701 22S.30E.24.3334 P-14

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°22'15", Longitude 103°50'27" NAD27
Land-surface elevation 3,360 feet above NGVD29

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2020-10-02 10:53:20 EDT
0.75 0.6 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322252103541401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

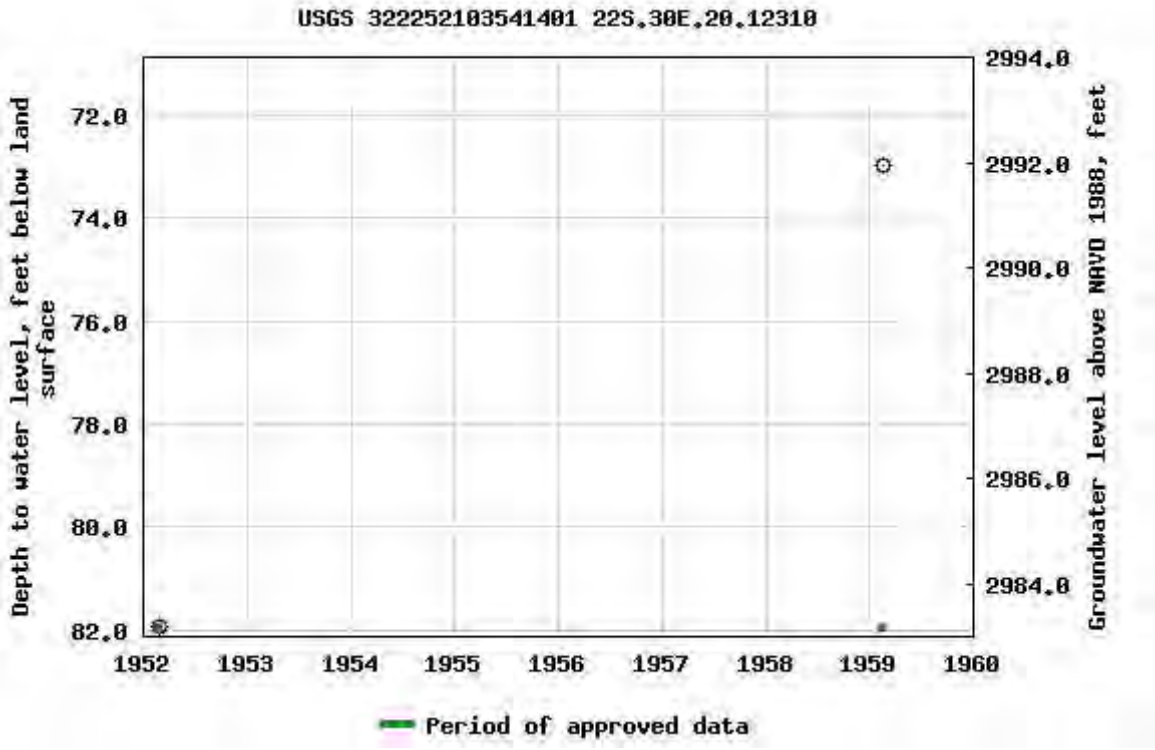
USGS 322252103541401 22S.30E.20.12310

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°22'52", Longitude 103°54'14" NAD27
Land-surface elevation 3,065 feet above NAVD88
The depth of the well is 129 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 322418103523201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

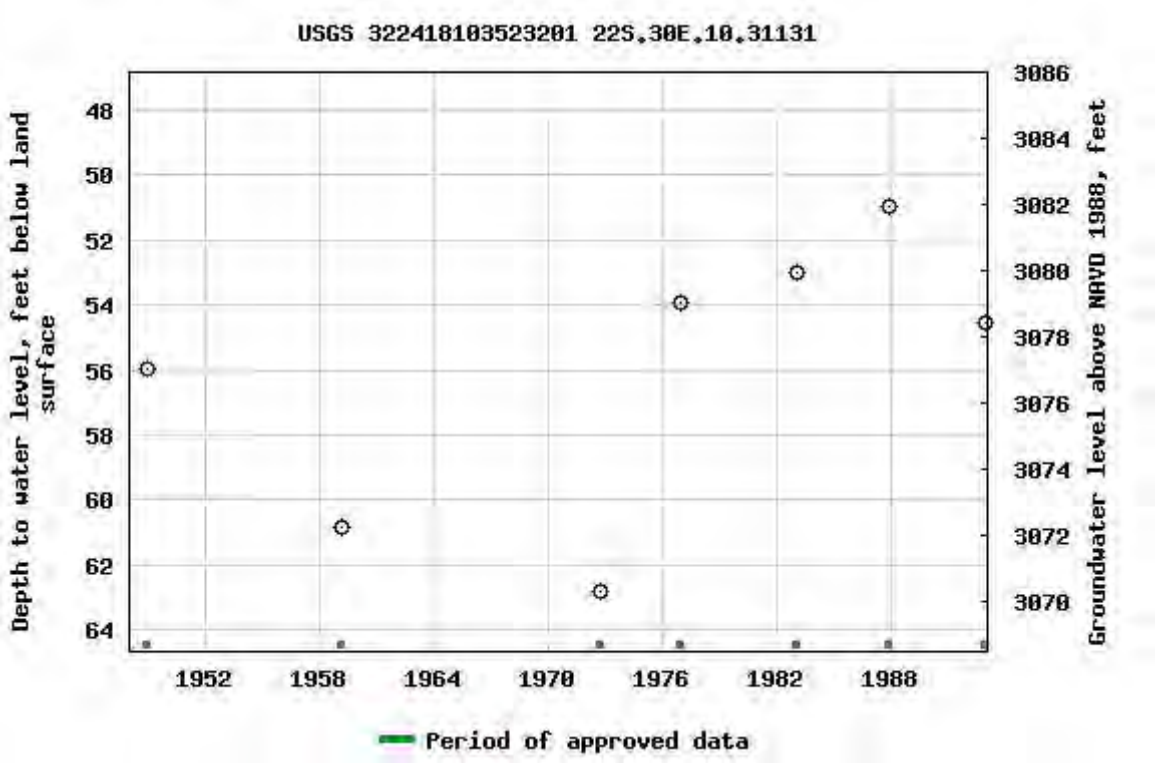
USGS 322418103523201 22S.30E.10.31131

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°24'18", Longitude 103°52'32" NAD27
Land-surface elevation 3,133 feet above NAVD88
The depth of the well is 77 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of JRU DI-1 BS1 3E 213H release along western edge of pad facing North.

Photograph 2: View of JRU DI-1 BS1 3E 213H release along western edge of pad facing Southwest.

Photograph 3: View of JUR DI1 211H release and preliminary sampling location facing North.

Photograph 4: View of JUR DI1 211H release and preliminary sampling location facing Northeast.

PHOTOGRAPHIC LOG

Photograph 5: View of JRU DI1 BS2A 7W 212H release along western edge of pad facing North.

Photograph 6: View of JRU DI1 BS2A 7W 212H release along western edge of pad facing West.

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 672768

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI1 211H

Project Id: 012920101
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 09.16.2020 16:15
Report Date: 09.17.2020 14:23
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	672768-001					
	Field Id:	SS01					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	09.16.2020 11:30					
BTEX by EPA 8021B	***Extracted:***	09.16.2020 18:19					
	Analyzed:	09.17.2020 01:20					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00401 0.00401					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	***Extracted:***	09.16.2020 17:00					
	Analyzed:	09.16.2020 20:25					
	Units/RL:	mg/kg RL					
Chloride		3920 200					
TPH by SW8015 Mod	***Extracted:***	09.16.2020 17:30					
	Analyzed:	09.17.2020 02:36					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1					
Diesel Range Organics (DRO)		<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1					
Total GRO-DRO		<50.1 50.1					
Total TPH		<50.1 50.1					

BRL - Below Reporting Limit

Jessica Kramer

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

eurofins | Environment Testing Xenco

Analytical Report 672768

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI1 211H

012920101

09.17.2020

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 (2019-058), 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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

09.17.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **672768**
JRU DI1 211H
Project Address: Eddy County

Dan Moir:

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) 672768. 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. 672768 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,

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

eurofins | Environment Testing Xenco

Sample Cross Reference 672768

LT Environmental, Inc., Arvada, CO

JRU DI1 211H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09.16.2020 11:30	0.5 ft	672768-001

CASE NARRATIVE

eurofins | Environment Testing Xenco

Client Name: LT Environmental, Inc.

Project Name: JRU DI1 211H

Project ID: *012920101*
Work Order Number(s): *672768*

Report Date: *09.17.2020*
Date Received: *09.16.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672768

LT Environmental, Inc., Arvada, CO

JRU DI1 211H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672768-001	Date Collected:	09.16.2020 11:30	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 17:00	Basis:	Wet Weight
Seq Number:	3137358				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3920**	200	mg/kg	09.16.2020 20:25		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.16.2020 17:30	Basis:	Wet Weight
Seq Number:	3137360				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.17.2020 02:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.17.2020 02:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.17.2020 02:36	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.17.2020 02:36	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.17.2020 02:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-135	09.17.2020 02:36	
o-Terphenyl	84-15-1	70	%	70-135	09.17.2020 02:36	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672768

LT Environmental, Inc., Arvada, CO

JRU DI1 211H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672768-001	Date Collected:	09.16.2020 11:30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.2020 01:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.2020 01:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.2020 01:20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.2020 01:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.2020 01:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.2020 01:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.2020 01:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 01:20	
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.17.2020 01:20	

eurofins | Environment Testing Xenco

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

eurofins | Environment Testing Xenco

QC Summary 672768

LT Environmental, Inc.

JRU DI1 211H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711443-1-BLK — LCS Sample Id: 7711443-1-BKS — LCSD Sample Id: 7711443-1-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	257	103	257	103	90-110	0	20	mg/kg	09.16.2020 18:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Soil — Date Prep: 09.16.2020
Parent Sample Id: 672664-011 — MS Sample Id: 672664-011 S — MSD Sample Id: 672664-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	207	104	206	104	90-110	0	20	mg/kg	09.16.2020 18:41	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Soil — Date Prep: 09.16.2020
Parent Sample Id: 672664-021 — MS Sample Id: 672664-021 S — MSD Sample Id: 672664-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	205	103	205	103	90-110	0	20	mg/kg	09.16.2020 19:57	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3137360 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711446-1-BLK — LCS Sample Id: 7711446-1-BKS — LCSD Sample Id: 7711446-1-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	795	80	798	80	70-135	0	35	mg/kg	09.16.2020 22:14	
Diesel Range Organics (DRO)	<50.0	1000	859	86	851	85	70-135	1	35	mg/kg	09.16.2020 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		98		98		70-135	%	09.16.2020 22:14
o-Terphenyl	110		87		86		70-135	%	09.16.2020 22:14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3137360 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711446-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.16.2020 21:54	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

eurofins | Environment Testing Xenco

QC Summary 672768

LT Environmental, Inc.

JRU DI1 211H

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3137360 Matrix: Soil Date Prep: 09.16.2020
Parent Sample Id: 672640-003 MS Sample Id: 672640-003 S MSD Sample Id: 672640-003 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)	<50.2	1000	733	73	717	72	70-135	2	35	mg/kg	09.16.2020 23:14	
Diesel Range Organics (DRO)	<50.2	1000	766	77	739	74	70-135	4	35	mg/kg	09.16.2020 23:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		117		70-135	%	09.16.2020 23:14
o-Terphenyl	108		105		70-135	%	09.16.2020 23:14

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3137354 Matrix: Solid Date Prep: 09.16.2020
MB Sample Id: 7711468-1-BLK LCS Sample Id: 7711468-1-BKS LCSD Sample Id: 7711468-1-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	0.116	116	0.115	115	70-130	1	35	mg/kg	09.16.2020 22:10	
Toluene	<0.00200	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	09.16.2020 22:10	
Ethylbenzene	<0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	09.16.2020 22:10	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.205	103	70-135	0	35	mg/kg	09.16.2020 22:10	
o-Xylene	<0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	09.16.2020 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		99		70-130	%	09.16.2020 22:10
4-Bromofluorobenzene	88		92		85		70-130	%	09.16.2020 22:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3137354 Matrix: Soil Date Prep: 09.16.2020
Parent Sample Id: 672769-001 MS Sample Id: 672769-001 S MSD Sample Id: 672769-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.106	105	70-130	4	35	mg/kg	09.16.2020 22:55	
Toluene	<0.00202	0.101	0.0970	96	0.102	101	70-130	5	35	mg/kg	09.16.2020 22:55	
Ethylbenzene	<0.00202	0.101	0.0857	85	0.0937	93	71-129	9	35	mg/kg	09.16.2020 22:55	
m,p-Xylenes	<0.00404	0.202	0.170	84	0.189	94	70-135	11	35	mg/kg	09.16.2020 22:55	
o-Xylene	<0.00202	0.101	0.0843	83	0.0937	93	71-133	11	35	mg/kg	09.16.2020 22:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.16.2020 22:55
4-Bromofluorobenzene	91		91		70-130	%	09.16.2020 22:55

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

Chain of Custody

Work Order No: 672768

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) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU DI1 211H	Turn Around	
Project Number:	12920101	Routine	☑
P.O. Number:	EDDY	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	5.2/5.0	Temp Blank:	(Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	T-NM.007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	s	9/16/2020	11:30	0.5'	1	x	x	x	Discrete

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

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 Tl 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 Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Cloe Crifton	9-16-20 16:15	2		
			4		
			6		

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.16.2020 04.15.00 PM

Work Order #: 672768

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)?	5	
#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**	Samples received in bulk containers.
#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**	

*** 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: 09.16.2020

Checklist reviewed by: Jessica Kramer Date: 09.17.2020

Jessica Kramer

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 672769

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI1 BS2A 7W 212H

Project Id: 012920068
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 09.16.2020 16:15
Report Date: 09.17.2020 14:25
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	672769-001		672769-002		672769-003					
	Field Id:	SS01		SS02		SS03					
	Depth:	0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	09.16.2020 12:20		09.16.2020 12:21		09.16.2020 12:23					
BTEX by EPA 8021B	***Extracted:***	09.16.2020 18:19		09.16.2020 18:19		09.16.2020 18:19					
	Analyzed:	09.17.2020 00:13		09.17.2020 00:35		09.17.2020 00:58					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202				
Toluene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202				
Ethylbenzene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202				
m,p-Xylenes		<0.00397	0.00397	<0.00403	0.00403	<0.00404	0.00404				
o-Xylene		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202				
Total Xylenes		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202				
Total BTEX		<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	09.16.2020 17:00		09.16.2020 17:00		09.16.2020 17:00					
	Analyzed:	09.16.2020 20:30		09.16.2020 20:35		09.16.2020 20:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		15100	992	8060	996	11600	1010				
TPH by SW8015 Mod	***Extracted:***	09.16.2020 17:30		09.16.2020 17:30		09.16.2020 17:30					
	Analyzed:	09.17.2020 02:56		09.17.2020 03:16		09.17.2020 03:37					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<50.2	50.2				
Diesel Range Organics (DRO)		<50.0	50.0	66.3	49.9	461	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	60.9	50.2				
Total GRO-DRO		<50.0	50.0	66.3	49.9	461	50.2				
Total TPH		<50.0	50.0	66.3	49.9	522	50.2				

BRL - Below Reporting Limit

Jessica Kramer

eurofins | Environment Testing Xenco

Analytical Report 672769

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI1 BS2A 7W 212H

012920068

09.17.2020

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 (2019-058), 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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

09.17.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **672769**
JRU DI1 BS2A 7W 212H
Project Address: Eddy County

Dan Moir:

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) 672769. 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. 672769 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,

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

eurofins | Environment Testing Xenco

Sample Cross Reference 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09.16.2020 12:20	0.5 ft	672769-001
SS02	S	09.16.2020 12:21	0.5 ft	672769-002
SS03	S	09.16.2020 12:23	0.5 ft	672769-003

eurofins | Environment Testing Xenco

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI1 BS2A 7W 212H

Project ID: *012920068*
Work Order Number(s): *672769*

Report Date: *09.17.2020*
Date Received: *09.16.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672769-001	Date Collected:	09.16.2020 12:20	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 17:00	Basis:	Wet Weight
Seq Number:	3137358				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15100**	992	mg/kg	09.16.2020 20:30		100

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.16.2020 17:30	Basis:	Wet Weight
Seq Number:	3137360				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 02:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.17.2020 02:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 02:56	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	09.17.2020 02:56	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.17.2020 02:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	09.17.2020 02:56	
o-Terphenyl	84-15-1	72	%	70-135	09.17.2020 02:56	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: **SS01**
Lab Sample Id: 672769-001
Matrix: Soil
Date Collected: 09.16.2020 12:20
Date Received: 09.16.2020 16:15
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B
Tech: MAB
Analyst: MAB
Seq Number: 3137354
Date Prep: 09.16.2020 18:19
Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.2020 00:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.2020 00:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.2020 00:13	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.2020 00:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.2020 00:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.2020 00:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.2020 00:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	09.17.2020 00:13	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.17.2020 00:13	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: **SS02** Matrix: Soil Date Received:09.16.2020 16:15
Lab Sample Id: 672769-002 Date Collected: 09.16.2020 12:21 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 09.16.2020 17:00 Basis: Wet Weight
Seq Number: 3137358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8060**	996	mg/kg	09.16.2020 20:35		100

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 09.16.2020 17:30 Basis: Wet Weight
Seq Number: 3137360

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.17.2020 03:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	**66.3**	49.9	mg/kg	09.17.2020 03:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.17.2020 03:16	U	1
Total GRO-DRO	PHC628	**66.3**	49.9	mg/kg	09.17.2020 03:16		1
Total TPH	PHC635	**66.3**	49.9	mg/kg	09.17.2020 03:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	09.17.2020 03:16	
o-Terphenyl	84-15-1	72	%	70-135	09.17.2020 03:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672769-002	Date Collected:	09.16.2020 12:21	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.17.2020 00:35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.17.2020 00:35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.17.2020 00:35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.17.2020 00:35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.17.2020 00:35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.17.2020 00:35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.17.2020 00:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.17.2020 00:35	
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.17.2020 00:35	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672769-003	Date Collected:	09.16.2020 12:23	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 17:00	Basis:	Wet Weight
Seq Number:	3137358				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11600**	1010	mg/kg	09.16.2020 20:41		100

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.16.2020 17:30	Basis:	Wet Weight
Seq Number:	3137360				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.17.2020 03:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	**461**	50.2	mg/kg	09.17.2020 03:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**60.9**	50.2	mg/kg	09.17.2020 03:37		1
Total GRO-DRO	PHC628	**461**	50.2	mg/kg	09.17.2020 03:37		1
Total TPH	PHC635	**522**	50.2	mg/kg	09.17.2020 03:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	09.17.2020 03:37	
o-Terphenyl	84-15-1	73	%	70-135	09.17.2020 03:37	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672769

LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672769-003	Date Collected:	09.16.2020 12:23	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.17.2020 00:58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.17.2020 00:58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.17.2020 00:58	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	09.17.2020 00:58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.17.2020 00:58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.17.2020 00:58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.17.2020 00:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.17.2020 00:58	
4-Bromofluorobenzene	460-00-4	86	%	70-130	09.17.2020 00:58	

eurofins | Environment Testing Xenco

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

eurofins | Environment Testing Xenco

QC Summary 672769

LT Environmental, Inc.

JRU DI1 BS2A 7W 212H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711443-1-BLK — LCS Sample Id: 7711443-1-BKS — LCSD Sample Id: 7711443-1-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	257	103	257	103	90-110	0	20	mg/kg	09.16.2020 18:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Soil — Date Prep: 09.16.2020
Parent Sample Id: 672664-011 — MS Sample Id: 672664-011 S — MSD Sample Id: 672664-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	207	104	206	104	90-110	0	20	mg/kg	09.16.2020 18:41	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Soil — Date Prep: 09.16.2020
Parent Sample Id: 672664-021 — MS Sample Id: 672664-021 S — MSD Sample Id: 672664-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	205	103	205	103	90-110	0	20	mg/kg	09.16.2020 19:57	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3137360 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711446-1-BLK — LCS Sample Id: 7711446-1-BKS — LCSD Sample Id: 7711446-1-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	795	80	798	80	70-135	0	35	mg/kg	09.16.2020 22:14	
Diesel Range Organics (DRO)	<50.0	1000	859	86	851	85	70-135	1	35	mg/kg	09.16.2020 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		98		98		70-135	%	09.16.2020 22:14
o-Terphenyl	110		87		86		70-135	%	09.16.2020 22:14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3137360 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711446-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.16.2020 21:54	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

eurofins | Environment Testing Xenco

QC Summary 672769

LT Environmental, Inc.

JRU DI1 BS2A 7W 212H

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3137360 Matrix: Soil Date Prep: 09.16.2020
Parent Sample Id: 672640-003 MS Sample Id: 672640-003 S MSD Sample Id: 672640-003 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)	<50.2	1000	733	73	717	72	70-135	2	35	mg/kg	09.16.2020 23:14	
Diesel Range Organics (DRO)	<50.2	1000	766	77	739	74	70-135	4	35	mg/kg	09.16.2020 23:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		117		70-135	%	09.16.2020 23:14
o-Terphenyl	108		105		70-135	%	09.16.2020 23:14

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3137354 Matrix: Solid Date Prep: 09.16.2020
MB Sample Id: 7711468-1-BLK LCS Sample Id: 7711468-1-BKS LCSD Sample Id: 7711468-1-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	0.116	116	0.115	115	70-130	1	35	mg/kg	09.16.2020 22:10	
Toluene	<0.00200	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	09.16.2020 22:10	
Ethylbenzene	<0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	09.16.2020 22:10	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.205	103	70-135	0	35	mg/kg	09.16.2020 22:10	
o-Xylene	<0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	09.16.2020 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		99		70-130	%	09.16.2020 22:10
4-Bromofluorobenzene	88		92		85		70-130	%	09.16.2020 22:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3137354 Matrix: Soil Date Prep: 09.16.2020
Parent Sample Id: 672769-001 MS Sample Id: 672769-001 S MSD Sample Id: 672769-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.106	105	70-130	4	35	mg/kg	09.16.2020 22:55	
Toluene	<0.00202	0.101	0.0970	96	0.102	101	70-130	5	35	mg/kg	09.16.2020 22:55	
Ethylbenzene	<0.00202	0.101	0.0857	85	0.0937	93	71-129	9	35	mg/kg	09.16.2020 22:55	
m,p-Xylenes	<0.00404	0.202	0.170	84	0.189	94	70-135	11	35	mg/kg	09.16.2020 22:55	
o-Xylene	<0.00202	0.101	0.0843	83	0.0937	93	71-133	11	35	mg/kg	09.16.2020 22:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.16.2020 22:55
4-Bromofluorobenzene	91		91		70-130	%	09.16.2020 22:55

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

Chain of Custody

Work Order No: 672769

XENCO LABORATORIES

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) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU DI1 BS2A 7W 212H	Turn Around	
Project Number:	12920066	Routine	☑
P.O. Number:	EDDY	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	5.2/5.0	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	3	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	s	9/16/2020	12:20	0.5'	1	x	x	x	Discrete
SS02	s	9/16/2020	12:21	0.5'	1	x	x	x	Discrete
SS03	s	9/16/2020	12:23	0.5'	1	x	x	x	Discrete

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

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 Tl 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 Tl 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
	Cloe Clifton	9.16.20 16:15	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.16.2020 04.15.00 PM

Work Order #: 672769

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)?	5	
#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**	Saples received in bulk containers.
#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**	

*** 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: 09.16.2020

Checklist reviewed by: Jessica Kramer Date: 09.17.2020

Jessica Kramer

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 672770

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI1 BS1 3E 213H

Project Id: 012920067
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 09.16.2020 16:15
Report Date: 09.18.2020 14:10
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	672770-001		672770-002		672770-003		672770-004					
	Field Id:	SS01		SS02		SS03		SS04					
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	09.16.2020 11:30		09.16.2020 11:31		09.16.2020 11:32		09.16.2020 11:35					
BTEX by EPA 8021B	***Extracted:***	09.16.2020 18:19		09.16.2020 18:19		09.16.2020 18:19		09.16.2020 18:19					
	Analyzed:	09.17.2020 01:43		09.17.2020 02:05		09.17.2020 02:28		09.17.2020 02:50					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200				
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401	<0.00397	0.00397	<0.00397	0.00397	<0.00399	0.00399				
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200				
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	09.16.2020 17:00		09.16.2020 17:00		09.16.2020 17:00		09.16.2020 17:00					
	Analyzed:	09.16.2020 20:46		09.16.2020 20:52		09.16.2020 20:57		09.16.2020 21:03					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		7560	1000	25500	990	13100	998	16300	1000				
TPH by SW8015 Mod	***Extracted:***	09.16.2020 17:30		09.17.2020 08:35		09.17.2020 08:35		09.17.2020 08:35					
	Analyzed:	09.17.2020 03:57		09.17.2020 12:07		09.17.2020 13:07		09.17.2020 13:27					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		<49.8	49.8	<49.9	49.9	<49.9	49.9	83.3	50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0				
Total GRO-DRO		<49.8	49.8	<49.9	49.9	<49.9	49.9	83.3	50.0				
Total TPH		<49.8	49.8	<49.9	49.9	<49.9	49.9	83.3	50.0				

BRL - Below Reporting Limit

Jessica Kramer

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

eurofins | Environment Testing Xenco

Analytical Report 672770

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI1 BS1 3E 213H

012920067

09.18.2020

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 (2019-058), 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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

09.18.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **672770**
JRU DI1 BS1 3E 213H
Project Address: Eddy County

Dan Moir:

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) 672770. 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. 672770 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,

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

eurofins | Environment Testing Xenco

Sample Cross Reference 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09.16.2020 11:30	0.5 ft	672770-001
SS02	S	09.16.2020 11:31	0.5 ft	672770-002
SS03	S	09.16.2020 11:32	0.5 ft	672770-003
SS04	S	09.16.2020 11:35	0.5 ft	672770-004

eurofins | Environment Testing Xenco

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI1 BS1 3E 213H

Project ID: *012920067*
Work Order Number(s): *672770*

Report Date: *09.18.2020*
Date Received: *09.16.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: **SS01** Matrix: Soil Date Received:09.16.2020 16:15
Lab Sample Id: 672770-001 Date Collected: 09.16.2020 11:30 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 09.16.2020 17:00 Basis: Wet Weight
Seq Number: 3137358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7560**	1000	mg/kg	09.16.2020 20:46		100

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 09.16.2020 17:30 Basis: Wet Weight
Seq Number: 3137360

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.17.2020 03:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.17.2020 03:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.17.2020 03:57	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.17.2020 03:57	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.17.2020 03:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	09.17.2020 03:57	
o-Terphenyl	84-15-1	90	%	70-135	09.17.2020 03:57	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672770-001	Date Collected:	09.16.2020 11:30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.2020 01:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.2020 01:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.2020 01:43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.2020 01:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.2020 01:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.2020 01:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.2020 01:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 01:43	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.17.2020 01:43	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672770-002	Date Collected:	09.16.2020 11:31	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 17:00	Basis:	Wet Weight
Seq Number:	3137358				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25500**	990	mg/kg	09.16.2020 20:52		100

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.17.2020 08:35	Basis:	Wet Weight
Seq Number:	3137402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.17.2020 12:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.17.2020 12:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.17.2020 12:07	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.17.2020 12:07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.17.2020 12:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	09.17.2020 12:07	
o-Terphenyl	84-15-1	82	%	70-135	09.17.2020 12:07	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672770-002	Date Collected:	09.16.2020 11:31	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.2020 02:05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.2020 02:05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.2020 02:05	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.2020 02:05	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.2020 02:05	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.2020 02:05	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.2020 02:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.17.2020 02:05	
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.17.2020 02:05	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: **SS03** Matrix: Soil Date Received:09.16.2020 16:15
Lab Sample Id: 672770-003 Date Collected: 09.16.2020 11:32 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 09.16.2020 17:00 Basis: Wet Weight
Seq Number: 3137358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13100**	998	mg/kg	09.16.2020 20:57		100

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 09.17.2020 08:35 Basis: Wet Weight
Seq Number: 3137402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.17.2020 13:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.17.2020 13:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.17.2020 13:07	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.17.2020 13:07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.17.2020 13:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.17.2020 13:07	
o-Terphenyl	84-15-1	88	%	70-135	09.17.2020 13:07	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672770-003	Date Collected:	09.16.2020 11:32	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.2020 02:28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.2020 02:28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.2020 02:28	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.2020 02:28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.2020 02:28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.2020 02:28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.2020 02:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.17.2020 02:28	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.17.2020 02:28	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672770-004	Date Collected:	09.16.2020 11:35	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 17:00	Basis:	Wet Weight
Seq Number:	3137358				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16300**	1000	mg/kg	09.16.2020 21:03		100

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.17.2020 08:35	Basis:	Wet Weight
Seq Number:	3137402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.17.2020 13:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	**83.3**	50.0	mg/kg	09.17.2020 13:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.17.2020 13:27	U	1
Total GRO-DRO	PHC628	**83.3**	50.0	mg/kg	09.17.2020 13:27		1
Total TPH	PHC635	**83.3**	50.0	mg/kg	09.17.2020 13:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	09.17.2020 13:27	
o-Terphenyl	84-15-1	87	%	70-135	09.17.2020 13:27	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 672770

LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.16.2020 16:15
Lab Sample Id:	672770-004	Date Collected:	09.16.2020 11:35	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.16.2020 18:19	Basis:	Wet Weight
Seq Number:	3137354				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.2020 02:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.2020 02:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.2020 02:50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.17.2020 02:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.2020 02:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.2020 02:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.2020 02:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.17.2020 02:50	
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.17.2020 02:50	

eurofins | Environment Testing Xenco

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

eurofins | Environment Testing Xenco

QC Summary 672770

LT Environmental, Inc.

JRU DI1 BS1 3E 213H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711443-1-BLK — LCS Sample Id: 7711443-1-BKS — LCSD Sample Id: 7711443-1-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	257	103	257	103	90-110	0	20	mg/kg	09.16.2020 18:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Soil — Date Prep: 09.16.2020
Parent Sample Id: 672664-011 — MS Sample Id: 672664-011 S — MSD Sample Id: 672664-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	207	104	206	104	90-110	0	20	mg/kg	09.16.2020 18:41	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3137358 — Matrix: Soil — Date Prep: 09.16.2020
Parent Sample Id: 672664-021 — MS Sample Id: 672664-021 S — MSD Sample Id: 672664-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	205	103	205	103	90-110	0	20	mg/kg	09.16.2020 19:57	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3137360 — Matrix: Solid — Date Prep: 09.16.2020
MB Sample Id: 7711446-1-BLK — LCS Sample Id: 7711446-1-BKS — LCSD Sample Id: 7711446-1-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	795	80	798	80	70-135	0	35	mg/kg	09.16.2020 22:14	
Diesel Range Organics (DRO)	<50.0	1000	859	86	851	85	70-135	1	35	mg/kg	09.16.2020 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		98		98		70-135	%	09.16.2020 22:14
o-Terphenyl	110		87		86		70-135	%	09.16.2020 22:14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3137402 — Matrix: Solid — Date Prep: 09.17.2020
MB Sample Id: 7711528-1-BLK — LCS Sample Id: 7711528-1-BKS — LCSD Sample Id: 7711528-1-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	805	81	809	81	70-135	0	35	mg/kg	09.17.2020 11:26	
Diesel Range Organics (DRO)	<50.0	1000	876	88	869	87	70-135	1	35	mg/kg	09.17.2020 11:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		99		99		70-135	%	09.17.2020 11:26
o-Terphenyl	111		89		90		70-135	%	09.17.2020 11:26

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

eurofins | Environment Testing Xenco

QC Summary 672770

LT Environmental, Inc.

JRU DI1 BS1 3E 213H

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137360
Prep Method: SW8015P
Date Prep: 09.16.2020
Matrix: Solid
MB Sample Id: 7711446-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.16.2020 21:54	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137402
Prep Method: SW8015P
Date Prep: 09.17.2020
Matrix: Solid
MB Sample Id: 7711528-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.17.2020 11:06	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137360
Prep Method: SW8015P
Date Prep: 09.16.2020
Matrix: Soil
Parent Sample Id: 672640-003
MS Sample Id: 672640-003 S
MSD Sample Id: 672640-003 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)	<50.2	1000	733	73	717	72	70-135	2	35	mg/kg	09.16.2020 23:14	
Diesel Range Organics (DRO)	<50.2	1000	766	77	739	74	70-135	4	35	mg/kg	09.16.2020 23:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		117		70-135	%	09.16.2020 23:14
o-Terphenyl	108		105		70-135	%	09.16.2020 23:14

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137402
Prep Method: SW8015P
Date Prep: 09.17.2020
Matrix: Soil
Parent Sample Id: 672770-002
MS Sample Id: 672770-002 S
MSD Sample Id: 672770-002 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)	<50.2	1000	767	77	770	77	70-135	0	35	mg/kg	09.17.2020 12:27	
Diesel Range Organics (DRO)	<50.2	1000	778	78	804	80	70-135	3	35	mg/kg	09.17.2020 12:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		85		70-135	%	09.17.2020 12:27
o-Terphenyl	71		76		70-135	%	09.17.2020 12:27

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

eurofins | Environment Testing Xenco

QC Summary 672770

LT Environmental, Inc.

JRU DI1 BS1 3E 213H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3137354 Matrix: Solid Date Prep: 09.16.2020

MB Sample Id: 7711468-1-BLK LCS Sample Id: 7711468-1-BKS LCSD Sample Id: 7711468-1-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	0.116	116	0.115	115	70-130	1	35	mg/kg	09.16.2020 22:10	
Toluene	<0.00200	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	09.16.2020 22:10	
Ethylbenzene	<0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	09.16.2020 22:10	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.205	103	70-135	0	35	mg/kg	09.16.2020 22:10	
o-Xylene	<0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	09.16.2020 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		99		70-130	%	09.16.2020 22:10
4-Bromofluorobenzene	88		92		85		70-130	%	09.16.2020 22:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3137354 Matrix: Soil Date Prep: 09.16.2020

Parent Sample Id: 672769-001 MS Sample Id: 672769-001 S MSD Sample Id: 672769-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.106	105	70-130	4	35	mg/kg	09.16.2020 22:55	
Toluene	<0.00202	0.101	0.0970	96	0.102	101	70-130	5	35	mg/kg	09.16.2020 22:55	
Ethylbenzene	<0.00202	0.101	0.0857	85	0.0937	93	71-129	9	35	mg/kg	09.16.2020 22:55	
m,p-Xylenes	<0.00404	0.202	0.170	84	0.189	94	70-135	11	35	mg/kg	09.16.2020 22:55	
o-Xylene	<0.00202	0.101	0.0843	83	0.0937	93	71-133	11	35	mg/kg	09.16.2020 22:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.16.2020 22:55
4-Bromofluorobenzene	91		91		70-130	%	09.16.2020 22:55

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

Chain of Custody

XENCO LABORATORIES
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) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 672770

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU DI1 BS1 3E 213H	Turn Around	
Project Number:	012920067	Routine	☑
P.O. Number:	EDDY	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	5.2/5.0	Thermometer ID	
Received Intact:	Yes No	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	s	9/16/2020	11:30	0.5'	1	x	x	x
SS02	s	9/16/2020	12:31	0.5'	1	x	x	x
SS03	s	9/16/2020	12:32	0.5'	1	x	x	x
SS04	s	9/16/2020	12:35	0.5'	1	x	x	x

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

SS01: Discrete
SS02: Discrete
SS03: Discrete
SS04: Discrete

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Cloe Cuffon	9.16.20 16:15	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.16.2020 04.15.00 PM

Work Order #: 672770

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)?	5	
#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**	Samples received in bulk containers.
#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**	

*** 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: 09.16.2020

Checklist reviewed by: Jessica Kramer Date: 09.17.2020

Jessica Kramer

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 10576

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	10576	C-141

OCD Reviewer	Condition
ceads	Groundwater is not encountered during delineation and/or excavation activities.
ceads	Each 5-point composite sample will represent an area of no greater than 500 square feet for floor and sidewall samples.