

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	NRM1935840155
District RP	
Facility ID	
Application ID	

## Release Notification

Responsible Party

WPIJ6-191106-C-1410

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 32.277111 Longitude -103.935915  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	REMUDA SOUTH 25 STATE 126H	Site Type	Well Location
Date Release Discovered	10/22/2019	API# (if applicable)	30-015-44392 (REMUDA SOUTH 25 STATE 126H)

Unit Letter	Section	Township	Range	County
G	25	23S	29E	EDDY

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

## Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls) 0.0	Volume Recovered (bbls) 0.0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 8.8	Volume Recovered (bbls) 8.0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: During drilling operations a returns flow line was parted at a slip joint. Approximately 8.8 bbls of produced water was released to pad surface, a vacuum truck recovered 8 bbls. Additional third party resources have been retained to assist in the remediation.

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Oil Conservation Division


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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  There were no fluids released to be contained via the use of berms or dikes, absorbent pads, or other containment devices.	
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: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>11/6/2019</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>12/24/2019</u>

Incident ID	NRM1935840155
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Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

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Oil Conservation Division

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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 SupervisorSignature:  Date: 01/18/2021email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331**OCD Only**

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

Incident ID	NRM1935840155
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 01/18/2021

email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: Karen Collins Date: 4/7/2021

Printed Name: Karen Collins Title: Environmental Scientist & Specialist

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  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	NRM2000235975
District RP	
Facility ID	
Application ID	

## Release Notification

Responsible Party Y17V0-191108-C-1410

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 32.277111 Longitude -103.935915  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name REMUDA SOUTH 25 STATE 126H	Site Type Well Location
Date Release Discovered 10/25/2019	API# (if applicable) 30-015-44392

Unit Letter	Section	Township	Range	County
G	25	23S	29E	EDDY

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

## Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls) 0.0	Volume Recovered (bbls) 0.0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 10.0	Volume Recovered (bbls) 8.5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: During drilling operations a returns flow line was parted at a slip joint. Approximately 10 bbls of produced water was released to pad surface, a vacuum truck recovered 8.5 bbls. Additional third party resources have been retained to assist in the remediation.



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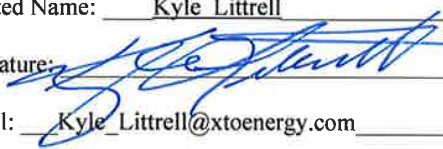
State of New Mexico  
Oil Conservation Division

Incident ID	NRM2000235975
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Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  There were no fluids released to be contained via the use of berms or dikes, absorbent pads, or other containment devices.	
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: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>11/8/2019</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: _____
<b><u>OCD Only</u></b>  Received by: <u>Ramona Marcus</u>	
Date: <u>01/02/2020</u>	

Incident ID	NRM2000235975
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## Site Assessment/Characterization

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

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

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

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

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

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



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Oil Conservation Division

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Incident ID	NRM2000235975
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Printed Name: Kyle Littrell Title: SH&E SupervisorSignature:  Date: 01/18/2021email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331**OCD Only**

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

Incident ID	NNRM2000235975
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 01/18/2021

email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: Karen Collins Date: 4/7/2021

Printed Name: Karen Collins Title: Environmental Scientist & Specialist

District I  
1625 N. French Dr., Hobbs, NM 88240  
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811 S. First St., Artesia, NM 88210  
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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	NRM2000237294
District RP	
Facility ID	
Application ID	

## Release Notification

Responsible Party

N949D-191108-C-1410

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 32.277111 Longitude -103.935915  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	REMUDA SOUTH 25 STATE 126H	Site Type	Well Location
Date Release Discovered	10/25/2019	API# (if applicable)	30-015-44392

Unit Letter	Section	Township	Range	County
G	25	23S	29E	EDDY

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

## Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	0.0	Volume Recovered (bbls)	0.0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	5.0	Volume Recovered (bbls)	4.0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

Cause of Release: During drilling operations a returns flow line was parted at a slip joint. Approximately 5 bbls of produced water was released to pad surface, a vacuum truck recovered 4 bbls. Additional third party resources have been retained to assist in the remediation.

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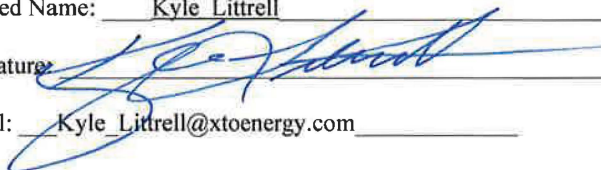
State of New Mexico  
Oil Conservation Division

Incident ID	NRM2000237294
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  There were no fluids released to be contained via the use of berms or dikes, absorbent pads, or other containment devices.	
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: <u>Kyle Littrell</u> Signature:  email: <u>Kyle.Littrell@xtoenergy.com</u>	Title: <u>SH&amp;E Supervisor</u> Date: <u>11-8-19</u> Telephone: _____
<b><u>OCD Only</u></b> Received by: <u>Ramona Marcus</u> Date: <u>1/2/2020</u>	

Incident ID	NRM2000237294
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	NRM2000237294
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 SupervisorSignature:  Date: 01/18/2021email: Kyle\_Littrell@xtoenergy.com Telephone: (432)-221-7331**OCD Only**

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



Incident ID	NRM2000237294
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 01/18/2021

email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

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

Closure Approved by: Karen Collins Date: 4/7/2021

Printed Name: Karen Collins Title: Environmental Scientist & Specialist



WSP USA

3300 North "A" Street  
Building 1, Unit 222  
Midland, Texas 79705  
432.704.5178

January 19, 2021

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

**Re: Closure Request**  
**Remuda South 25 State 126H**  
**Incident Numbers: NRM1935840155, NRM2000235975, and NRM2000237294**  
**Eddy County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP, formerly LT Environmental, Inc.), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Remuda South 25 State 126H (Site) in Unit G, Section 25, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following three produced water release events at the Site. Based on field observations, excavation activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Numbers NRM1935840155, NRM2000235975, and NRM2000237294.

## RELEASE BACKGROUND

On October 22, 2019, during drilling operations, a returns flow line was parted at a slip joint, resulting in the release of approximately 8.80 barrels (bbls) of produced water onto the well pad surface. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 8.0 bbls were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on Release Notification and Corrective Action Form C-141 (Form C-141) on November 6, 2019. The release was assigned Incident Number NRM1935840155.

On October 25, 2019, during drilling operations, a returns flow line was parted at a slip joint, resulting in the release of approximately 10 bbls of produced water onto the well pad surface. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 8.5 bbls were recovered. XTO reported the release to the NMOCD on a Form C-141 on November 8, 2019. The release was assigned Incident Number NRM2000235975.

On October 25, 2019, during drilling operations, a returns flow line was parted at a slip joint, resulting in the release of approximately 5.0 bbls of produced water onto the well pad surface. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 4.0 bbls



were recovered. XTO reported the release to the NMOCD on a Form C-141 on November 8, 2019. The release was assigned Incident Number NRM2000237294.

## **SITE CHARACTERIZATION**

WSP 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 greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321717103561001, located approximately 4,005 feet north of the Site. The water well has a depth to groundwater of approximately 50 feet bgs. The total depth of the well could not be determined. Ground surface elevation at the water well location is 3,033 feet above mean seal level (AMSL), which is approximately 31 feet lower in elevation than the Site. The associated referenced well records are included in Attachment 1.

In an effort to confirm depth to water in the area, a borehole (C-04494) was advanced 0.29 miles southwest of the Site to a depth of 105 feet bgs via sonic drill rig. The location of the borehole is provided on Figure 1. A WSP geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 2. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. On January 8, 2021, after the 72-hour waiting period ended without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 105 feet bgs. The borehole was properly abandoned utilizing hydrated bentonite chips.

The closest continuously flowing water or significant watercourse to the Site is a dry wash, located approximately 529 feet southeast 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 not underlain by unstable geology (medium potential karst designation area). The Site receptors 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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg



- Chloride: 20,000 mg/kg

## **SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES**

On February 10, 2020, WSP personnel visited the Site to evaluate the release extents based on information provided on the Form C-141s and visual observations. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are presented on Figure 2. The release extents overlapped, and the final mapped extent shown on Figure 2 is the outer boundary of all releases combined. WSP personnel collected six preliminary soil samples (SS01 through SS06) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of the releases. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively.

The 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, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS06 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. However, additional assessment activities were warranted to further confirm the absence of impacted soil within the subsurface. Photographic documentation was conducted during the Site visit. Photographic log is included in Attachment 3.

## **DELINEATION SOIL SAMPLING ACTIVITIES**

Further delineation and remediation efforts were postponed due to ongoing drilling operations at the well pad near the release, resulting in activity restrictions at the Site due to safety concerns. Per 19.15.29.12.B.(1) NMAC, four extensions for submission of a remediation plan or closure report were requested and approved by the NMOCD. The initial extension was requested and approved on January 16, 2020, the second was approved April 29, 2020, the third was approved September 14, 2020, and the final extension was approved November 24, 2020, extending the deadline to January 20, 2021.

On September 21, 2020, during a brief break in drilling operations, WSP personnel returned to the Site to oversee additional soil assessment activities. Five potholes (PH01 through PH05) were advanced using a track-mounted backhoe to an approximate depth of 3 feet bgs at the SS02 through SS06 preliminary soil sample locations to confirm the absence of impacted soil. One delineation soil sample was collected from each pothole PH01 through PH05, from a depth of 3



feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 1.

Additionally, WSP collected four lateral delineation soil samples (SS07 through SS10) from a depth of 0.5 feet bgs around the release area, to confirm the lateral extent of the release. The potholes and delineation soil sample locations are depicted on Figure 3. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

### **EXCAVATION ACTIVITIES**

Based on observed staining and field screening results, WSP directed excavation activities to remove discolored soil in the area around preliminary soil sample SS01. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The final excavation measured approximately 200 square feet and was completed to a depth of 1-foot bgs. Following removal of impacted soil, LTE collected a 5-point composite soil sample from the floor of the excavation. The 5-point composite sample was collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the sample by thoroughly mixing. One composite floor soil sample (FS01) was collected from the excavation at a depth of approximately 1-foot bgs. The excavation soil sample was collected, handled, and analyzed as described above. The excavation extent and excavation soil sample location are presented on Figure 4.

The excavation measured approximately 200 square feet in area. A total of approximately 7.5 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was backfilled immediately.

### **ANALYTICAL RESULTS**

Laboratory analytical results for preliminary soil samples SS01 through SS06 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for delineation soil samples PH01 through PH05 and SS07 through SS10 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provide lateral and vertical delineation to below the most stringent Table 1 Closure Criteria.

Laboratory analytical results for excavation floor sample FS01 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

District II  
Page 5

Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the October 22, 2019 and October 25, 2019, produced water releases. Laboratory analytical results for the preliminary, delineation, and excavation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and no further remediation was required.

Based on laboratory analytical results compliant with the Closure Criteria and confirmed depth to groundwater greater than 105 feet bgs, XTO respectfully requests NFA for Incident Numbers NRM1935840155, NRM2000235975, and NRM2000237294.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096.

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads 'Kalei Jennings'.

Kalei Jennings  
Associate Consultant, Environmental Scientist

A handwritten signature in black ink that reads 'Ashley L. Ager'.

Ashley L. Ager, P.G.  
Managing Director, Geologist

cc: Kyle Littrell, XTO  
Ryan Mann, New Mexico State Land Office

## Attachments:

Figure 1 Site Location Map  
Figure 2 Preliminary Soil Sample Locations  
Figure 3 Delineation Soil Sample Locations  
Figure 4 Excavation Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Referenced Well Records  
Attachment 2 Lithologic/Soil Sampling Log  
Attachment 3 Photographic Log





District II  
Page 6

Attachment 4 Laboratory Analytical Reports

FIGURES

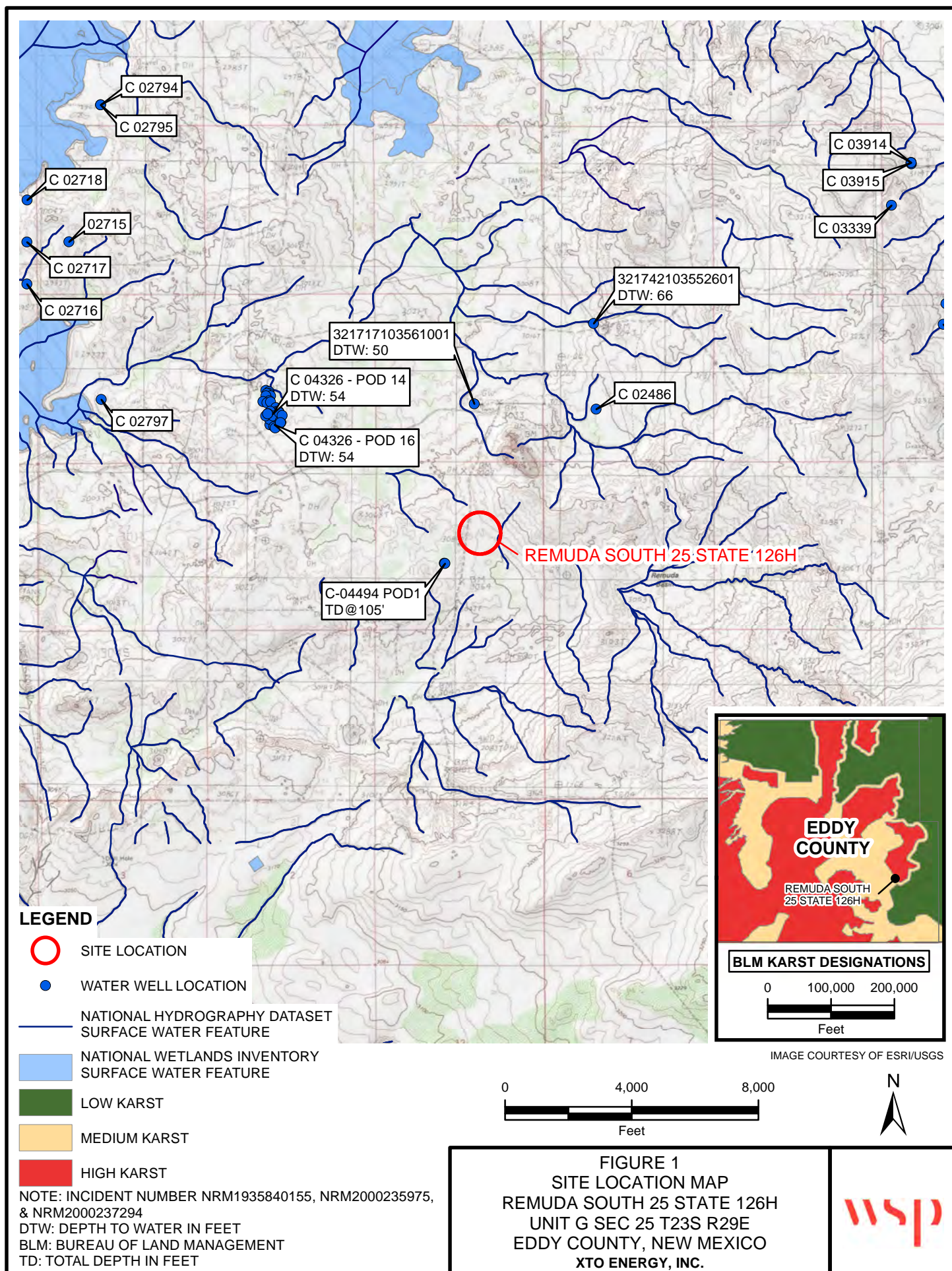




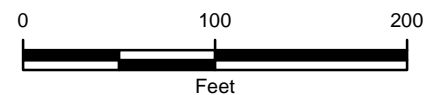


IMAGE COURTESY OF ESRI

**LEGEND**

- WELLHEAD
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

  RELEASE EXTENT



**FIGURE 2**  
**PRELIMINARY SOIL SAMPLE LOCATIONS**  
 REMUDA SOUTH 25 STATE 126H  
 UNIT G SEC 25 T23S R29E  
 EDDY COUNTY, NEW MEXICO  
**XTO ENERGY, INC.**



SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

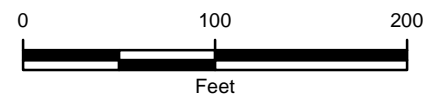


IMAGE COURTESY OF ESRI

**LEGEND**

- WELLHEAD
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

  RELEASE EXTENT



SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 3**  
**DELINEATION SOIL SAMPLE LOCATIONS**  
 REMUDA SOUTH 25 STATE 126H  
 UNIT G SEC 25 T23S R29E  
 EDDY COUNTY, NEW MEXICO  
**XTO ENERGY, INC.**





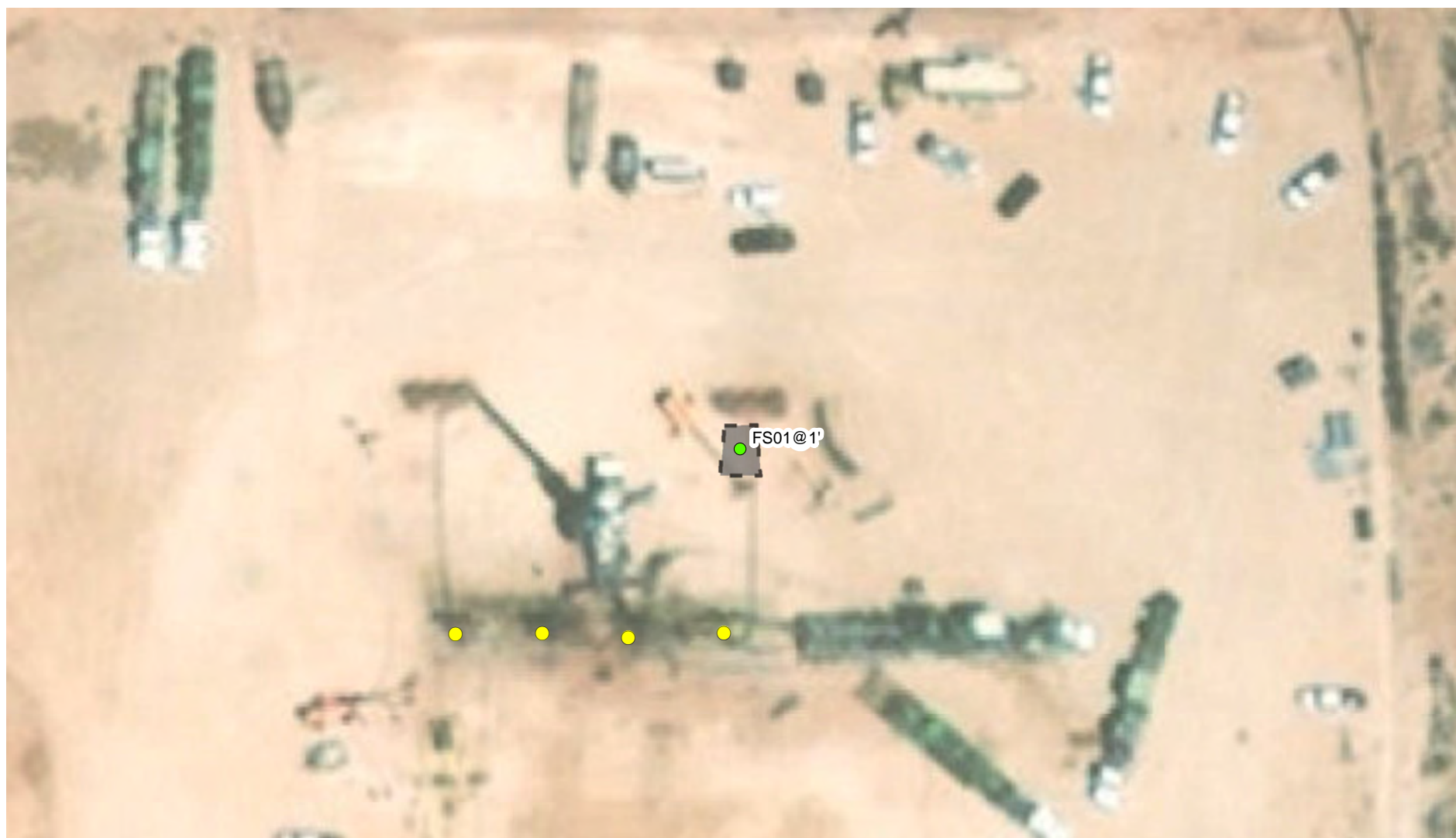
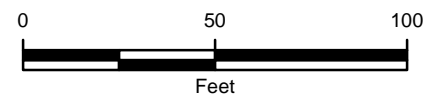


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**LEGEND**

- WELLHEAD
- FLOOR SAMPLE IN COMPLIANCE  
WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)



**FIGURE 4**  
**EXCAVATION SOIL SAMPLE LOCATIONS**  
 REMUDA SOUTH 25 STATE 126H  
 UNIT G SEC 25 T23S R29E  
 EDDY COUNTY, NEW MEXICO  
**XTO ENERGY, INC.**





TABLES

Table 1

Soil Analytical Results  
Remuda South 25 State 126H  
Incident Numbers: NRM1935840155, NRM2000235975, and NRM2000237294  
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Surface Samples										
SS01	02/10/2020	0.5	<0.000182	<0.000182	83.0	<50.1	<50.1	83.0	83.0	14,700
SS02	02/10/2020	0.5	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	4,770
SS03	02/10/2020	0.5	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	4,030
SS04	02/10/2020	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	4,580
SS05	02/10/2020	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	4,380
SS06	02/10/2020	0.5	<0.00200	<0.00200	76.0	<50.2	<50.2	76.0	76.0	1,950
Delineation Samples										
PH01	09/21/2020	3	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	30.5
PH02	09/21/2020	3	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	<10.0
PH03	09/21/2020	3	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	416
PH04	09/21/2020	3	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
PH05	09/21/2020	3	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	20.7
SS07	09/21/2020	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	96.2
SS08	09/22/2020	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	205
SS09	09/22/2020	0.5	<0.00200	<0.00200	57.1	<49.9	<49.9	57.1	57.1	494
SS10	09/21/2020	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	480
Excavation Samples										
FS01	09/21/2020	1	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	217

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

&lt; - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

**BOLD** - indicates results exceed the higher of the background sample result or applicable regulatory standard

ATTACHMENT 1: REFERENCED WELL RECORDS



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National Water Information System: Web Interface

USGS Water Resources

Data Category:Groundwater

Geographic Area:United States

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- 321717103561001

Minimum number of levels = 1  
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USGS 321717103561001 23S.29E.24.41321

Eddy County, New Mexico  
Latitude 32°17'17", Longitude 103°56'10" NAD27  
Land-surface elevation 3,034 feet above NAVD88  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measurement
1983-02-02			D	72019	52.17				U	
1987-10-14			D	72019	50.54				U	
1992-11-16			D	72019	54.14				S	
2003-01-29			D	72019	50.26				S	USGS

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	72019	Depth to water level, feet below land surface
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

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



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

Page Last Modified: 2021-01-18 10:45:17 EST

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USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

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- 321717103561001

Minimum number of levels = 1

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## USGS 321717103561001 23S.29E.24.41321

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°17'17", Longitude 103°56'10" NAD27

Land-surface elevation 3,034 feet above NAVD88

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

### Output formats

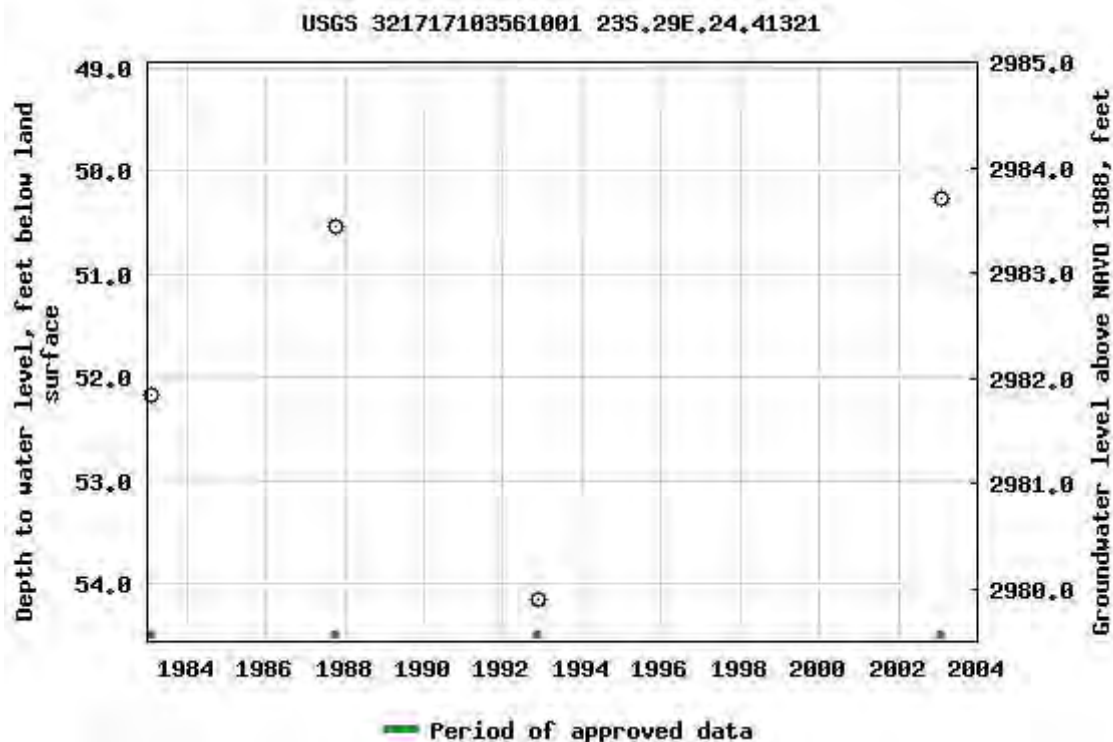
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Breaks in the plot represent a gap of at least one year between field measurements.

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**Title: Groundwater for USA: Water Levels**

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

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0.76 0.54 nadww01





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National Water Information System: Web Interface

USGS Water Resources

Data Category:Groundwater

Geographic Area:United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 321742103552601

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 321742103552601 23S.30E.19.123421

Eddy County, New Mexico  
Latitude 32°17'42", Longitude 103°55'26" NAD27  
Land-surface elevation 3,034 feet above NAVD88  
The depth of the well is 100 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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1959-02-06			D	72019	78.10		P		U	
1959-04-07			D	72019	69.30				U	
1972-09-20			D	72019	68.75				U	
1975-12-09			D	72019	68.99				U	
1976-01-15			D	72019	70.10				U	
1977-01-19			D	72019	68.40				U	
1987-10-14			D	72019	67.32				U	
1993-05-06			D	72019	66.10				S	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	72019	Depth to water level, feet below land surface
Status		The reported water-level measurement represents a static level
Status	P	Water level was affected by pumping at the time of the measurement
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined

Section	Code	Description
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

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



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0.32 0.29 nadww01



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## National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

## Search Results -- 1 sites found

site\_no list =

- 321742103552601

Minimum number of levels = 1

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

## USGS 321742103552601 23S.30E.19.123421

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°17'42", Longitude 103°55'26" NAD27

Land-surface elevation 3,034 feet above NAVD88

The depth of the well is 100 feet below land surface.

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

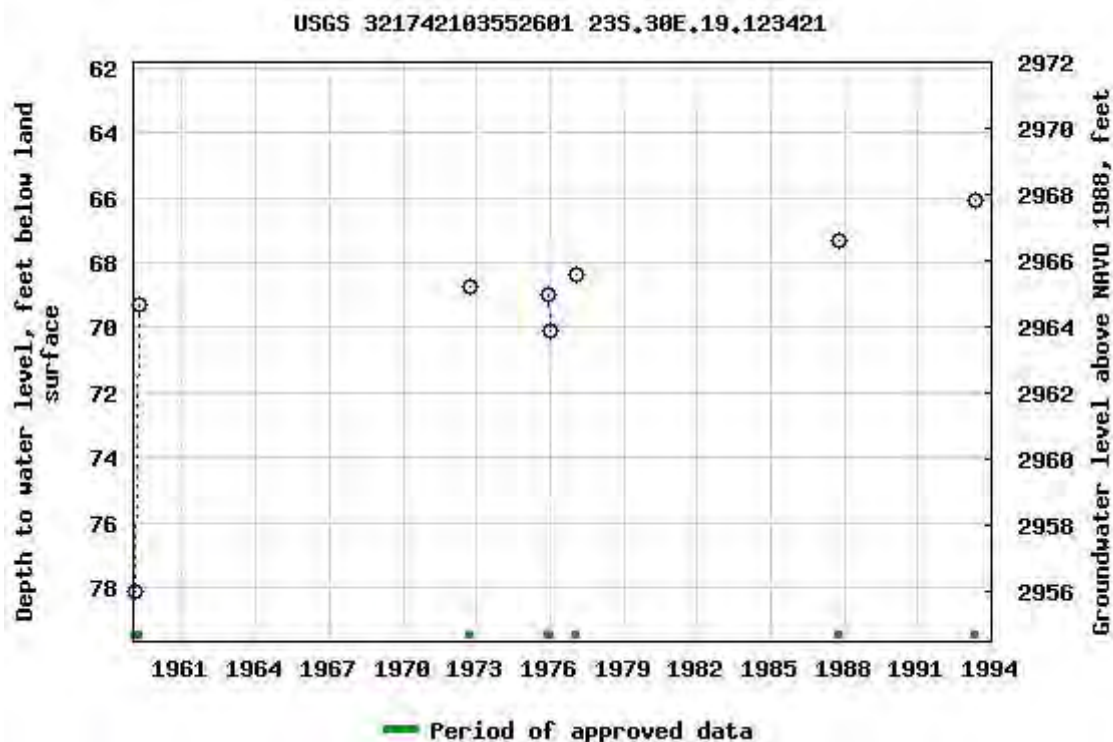
### Output formats

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Breaks in the plot represent a gap of at least one year between field measurements.

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**Title: Groundwater for USA: Water Levels**

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

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0.7 0.6 nadww01





# 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	Tw	Rng	X	Y
NA	C 04326 POD14	4	2	3	23	23S	29E	598191	3572765 


Driller License:	1664	Driller Company:	CASCADE DRILLING, LP							
Driller Name:	CAIN, SHAWN N.NJR.L.NER									
Drill Start Date:	05/11/2019	Drill Finish Date:	05/11/2019				Plug Date:			
Log File Date:	08/28/2019	PCW Rev Date:					Source:	Shallow		
Pump Type:			Pipe Discharge Size:					Estimated Yield:		
Casing Size:	2.06	Depth Well:	58 feet				Depth Water:	54 feet		


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



# 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	Tw	Rng	X	Y		
NA	C 04326 POD16	2	4	3	23	23S	29E	598209	3572664		
x											
Driller License:		1664		Driller Company:		CASCADE DRILLING, LP					
Driller Name:		CAIN, SHAWN N.NJR.L.NER									
Drill Start Date:		05/14/2019		Drill Finish Date:		05/14/2019		Plug Date:			
Log File Date:		08/28/2019		PCW Rev Date:				Source:		Shallow	
Pump Type:				Pipe Discharge Size:				Estimated Yield:			
Casing Size:		2.07		Depth Well:		64 feet		Depth Water:		54 feet	
x											
Water Bearing Stratifications:				Top	Bottom	Description					
				52	60	Limestone/Dolomite/Chalk					
x											
Casing Perforations:				Top	Bottom						
				54	64						
x											


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




ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOG


 <div style="text-align: center;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>						BH or MW Name:		Date:	
						BH01 (POD 1, C-4494)		11/18/2020-12/02/2020	
						Site Name: Remuda Frac Pond Facility			
						RP or Incident Number: NAB1927332462			
WSP Job Number: TE012919195						Logged By: BB, LD, FS		Method: Hollow Stem Auger	
LITHOLOGIC / SOIL SAMPLING LOG				Lat/Long: 32.274194,-103.939575		Field Screening: N/A		Hole Diameter: 6.25", 4.25"	
Backfill or Well Construction Materials / Comments:						Total Depth: 56.1			
Lithology and descriptions only, no field screening. Borehole backfilled with drill cuttings from 56.1' to 10', hydrated bentonite from 10' to surface.						Depth to Water: DRY			
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
						1	SP-SC	0-4', SAND w/ clay, dry brown, poorly graded, fine grained, 10% clay, some roots, no stain, no odor.	Hydrated Bentonite Chips from 10' to surface
						10	CCHE	4'-24', CALICHE, dry, light brown-tan, poorly consolidated, some sub-round caliche pebble and gravel, very silty, gradational transition, no stain, no odor.	
						20		19', moderately consolidated.	
						30	CL-S	24'-39', MUDSTONE, dry, reddish-brown, low plasticity, cohesive, well consolidated, trace sub-angular caliche pebbles, sharp transition, no stain, no odor.	Drill Cuttings backfilled from 56.1' to 10'
						40	LS	34', tan-light brown sub-angular calcium carbonate gravel with dissolution features (1-3mm).  39'-56.1', air rotary, hole diameter to 4.25".	
						50	DOLO	39'-48', DOLOMITIC LIMESTONE, dry, tan-light brown, well consolidated, some dissolution features (1-3 mm), sharp transition, light reaction to HCL, no stain, no odor.  11/18/2020: air rotary refusal, TD@48' bgs. 12/02/2020: Continue drilling @ 48'bgs	
						60		48'-56.1', DOLOMITE, dry, off white, moderately consolidated, thin dark gray laminations, no stain, no odor.	
								TD @ 56.1 feet bgs.	


 <b>WSP USA</b> 500 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: <b>BH01 (cont)</b>		Date: <b>1-5-2021</b>				
		Site Name: <b>Remuda N 25 State</b>						
RP or Incident Number:								
WSP Job Number: <b>TE02919260 TE012919195, TE02919039</b>								
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Lat/Long: <b>32.274194, -103.939575</b>		Field Screening: <b>NH</b>		Logged By: <b>BB F.S</b>				
				Method: <b>Soil</b>				
		Hole Diameter: <b>6"</b>		Total Depth: <b>105'</b>				
Comments: <b>Bore hole backfilled w/ drill cuttings from 105'-10', hydrated bentonite chips from 10' surface, lithology descriptions only, no field screening.</b>								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						51	DOL	
						52		
						53		
						54		
						55		
						56		<b>1/5/2021</b>
						57		<b>55'-65' DOLOMITE, dry, light gray-gray, well consolidated, some calcite crystalline veins (&lt;1mm), some dissolution features (2mm) with fine calcite crystalline, trace orange oxidation staining within dissolution features, no stain, no odor.</b>
						58		
						59		
						60		
						61		
						62		<b>62', brown-pale yellow coarse crystalline dolomitic limestone stringer (2cm).</b>
						63		
						64		<b>63'-65' Abundant calcite crystalline veins (&lt;1mm)</b>
						65		<b>65'-65' Pale green-gray, poorly consolidated.</b>
						66	CH-S	<b>65'-69' MUDSTONE, moist, reddish brown, poorly consolidated, high plasticity, cohesive, abundant coarse crystalline gypsum, few pale green-gray mottling, no stain, no odor.</b>
						67		
						68		
						69	GYP	<b>69'-81' GYPSUM w/ Anhydrite, dry, greenish gray, some pale yellow, well consolidated, fine crystalline, 20% anhydrite, no stain, no odor.</b>
						70		
						71		
						72		
						73		
						74		
						75		


 <b>WSP USA</b> 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name:	B1401 (mt) 1-5-2021					
		Site Name:	Re- <sup>222</sup> da N 25 State					
		RP or Incident Number:						
		WSP Job Number:	TE012919220, TE012919145, TE012919039					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>		Logged By: B.B. F.S.	Method: Split					
Lat/Long: 32.274194, -105.939575		Field Screening: NA	Hole Diameter: 6"					
Total Depth: 105'								
Comments: Lithology descriptions only, no field screening. Borehole backfilled with old cuttings from 105'-10', hydrated bentonite chips from 10'- surface.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						76	GYP	81'-98' Mudstone, moist, dark reddish brown, moderately consolidated, high plasticity, cohesive, trace coarse crystalline gypsum inclusions, no stain, no odor.
						77		
						78		
						79		
						80		
						81		
						82	CH-S	
						83		
						84		
						85		
						86		85'-86.5' greenish-gray well consolidated coarse crystalline gypsum / anhydrite stringer.
						87		90'-98' some fine grain brown sand.
						88		97' dark gray-gray gypsum stringer (4cm).
						89		98'-95.5' GYPSUM, dark gray-gray, some brown, dry, well consolidated, fine-coarse crystalline, no stain, no odor.
						90		95.5'-105' sandy SILTSTONE, moist, brown, some gray-dark gray, poorly consolidated, 20% very fine grain sand, no stain, no odor.
						91		102' thin (mm) laminated gray well consolidated shale stringer.
						92		
						93		
						94		
						95		
						96		
						97		
						98		
						99	GYP	
						100	ML-S	




 <b>WSP USA</b> 100 West Stevens Street Cambridge, New Mexico 86402		BH or PH Name:		Date:				
		BHD1 (cont)		1-5-2021				
Site Name: Remuda N25 State								
RP or Incident Number:								
WSP Job Number: TE02911260, TE012914195, TE02914029								
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Lat/Long:		Field Screening:		Logged By:				
52.2741194, -107.939575		N/A		FS				
		Hole Diameter:		Method:				
		6"		Sonic				
				Total Depth:				
				105'				
Comments: Lithology descriptions only, no field screening. Borehole backfilled with drill cuttings from 105'-10', hydrated bentonite chips from 10'-surface.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						101	ML-S	102', thin (1mm) laminated black/gray well consolidated shale stringer (4cm thick)  TDC 105' bgs.
						102		
						103		
						103		
						104		
						105		
						106	TD @ 105'	
						107		
						108		
						109		
						110		
						112		
						113		
						114		
						115		
						116		
						117		
						118		
						119		
						120		
						121		
						122		
						123		
						124		
						125		


 <div style="text-align: center;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>					BH or PH Name:		Date:		
					PH01		9/21/2020		
					Site Name:		Remuda S 25 126H		
					Incident Number:		NRM1935840155, NRM2000235975, and NRM2000235976		
LTE Job Number:									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By Will Mather		Method: Backhoe	
Lat/Long:				Field Screening: Chloride, PID		Hole Diameter:		Total Depth:	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
	2,004	0.3	N		1'	1		sand, fine grain, poorly graded, Br/Rd, some silt, no stain, no odor	
	800	0.4	N		2'	2		Same as Above (SAA)	
	<168	0.4	N	PH01	3'	3		SAA	
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

 <div style="text-align: center;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>					BH or PH Name:		Date:		
					PH02		9/21/2020		
					Site Name:		Remuda S 25 126H		
					Incident Number:		NRM1935840155, NRM2000235975, and NRM2000235976		
LTE Job Number:									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By Will Mather		Method: Backhoe	
Lat/Long:				Field Screening:		Hole Diameter:		Total Depth:	
				Chloride, PID					
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
	2,004	0.6	N		1'	1		sand, fine grain, poorly graded, Br/Rd, some silt, no stain, no odor	
	1,752	0.1	N		2'	2		Same as Above (SAA)	
	<168	0.2	N	PH02	3'	3		SAA	
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

 <div style="text-align: center;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>					BH or PH Name:		Date:		
					PH03		9/21/2020		
					Site Name:		Remuda S 25 126H		
					Incident Number:				NRM1935840155, NRM2000235975, and NRM2000235976
LTE Job Number:									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By Will Mather		Method: Backhoe	
Lat/Long:				Field Screening:		Hole Diameter:		Total Depth:	
				Chloride, PID					
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
	1,752	0.1	N		1'	1		sand, fine grain, poorly graded, Br/Rd, some silt, no stain, no odor	
	1,640	0.3	N		2'	2		Same as Above (SAA)	
	509	0.1	N	PH03	3'	3		SAA	
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			



 <div style="text-align: center;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>					BH or PH Name:		Date:		
					PH04		9/21/2020		
					Site Name:		Remuda S 25 126H		
					Incident Number:				NRM1935840155, NRM2000235975, and NRM2000235976
LTE Job Number:									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By Will Mather		Method: Backhoe	
Lat/Long:				Field Screening:		Hole Diameter:		Total Depth:	
				Chloride, PID					
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
	207	0.4	N		1'	1		sand, fine grain, poorly graded, Br/Rd, some silt, no stain, no odor	
	<168	0.4	N		2'	2		Same as Above (SAA)	
	<168	0.3	N	PH04	3'	3		SAA	
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

 <div style="text-align: center;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>					BH or PH Name:		Date:		
					PH05		9/21/2020		
					Site Name:		Remuda S 25 126H		
					Incident Number:				NRM1935840155, NRM2000235975, and NRM2000235976
LTE Job Number:									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By Will Mather		Method: Backhoe	
Lat/Long:				Field Screening:		Hole Diameter:		Total Depth:	
				Chloride, PID					
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
	207	0.6	N		1'	1		sand, fine grain, poorly graded, Br/Rd, some silt, no stain, no odor	
	257	0.5	N		2'	2		Same as Above (SAA)	
	<168	0.2	N	PH05	3'	3		SAA	
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			


ATTACHMENT 3: PHOTOGRAPHIC LOG



# PHOTOGRAPHIC LOG

XTO Energy	Remuda South 25 State 126H Eddy County, New Mexico	NRM1935840155 NRM2000235975 NRM2000237294
------------	---	---


Photo No.	Date	
1	October 22, 2019	
View of release on pad.		


Photo No.	Date	
2	February 10, 2020	
View of staining remaining on pad.		



**PHOTOGRAPHIC LOG**

<b>XTO Energy</b>	<b>Remuda South 25 State 126H</b> <b>Eddy County, New Mexico</b>	<b>NRM1935840155</b> <b>NRM2000235975</b> <b>NRM2000237294</b>
-------------------	---	--

<b>Photo No.</b>	<b>Date</b>	
3	September 21, 2020	
View of excavation facing East		 A photograph showing a large, rectangular excavation pit filled with reddish-brown soil and rocks. The pit is situated in a flat, sandy area. In the background, there are some green bushes and a clear sky. A yellow survey pole is visible on the right side of the excavation.

<b>Photo No.</b>	<b>Date</b>	
4	September 22, 2020	
View of backfill on pad.		 A photograph showing a wide, flat area of reddish-brown soil, likely a backfill pad. In the background, there are some industrial structures, including a yellow crane and a blue crane, under a clear blue sky. A yellow survey pole is visible on the left side of the pad.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS



# **Analytical Report 652122**

**for  
LT Environmental, Inc.**

**Project Manager: Dan Moir**

**Remuda South 25 #126H**

**13-FEB-20**

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



13-FEB-20

Project Manager: **Dan Moir**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **652122**

**Remuda South 25 #126H**

Project Address:

**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 XENCO Report Number(s) 652122. 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 XENCO Laboratories. 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. 652122 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

---

**Jessica Kramer**

Project Assistant

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 652122****LT Environmental, Inc., Arvada, CO**

Remuda South 25 #126H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	02-10-20 12:25	0.5 ft	652122-001
SS02	S	02-10-20 12:30	0.5 ft	652122-002
SS03	S	02-10-20 12:35	0.5 ft	652122-003
SS04	S	02-10-20 12:40	0.5 ft	652122-004
SS05	S	02-10-20 12:45	0.5 ft	652122-005
SS06	S	02-10-20 13:05	0.5 ft	652122-006



## CASE NARRATIVE

**Client Name:** *LT Environmental, Inc.*

**Project Name:** *Remuda South 25 #126H*

Project ID:

Work Order Number(s): 652122

Report Date: 13-FEB-20

Date Received: 02/12/2020

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3116351 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



# Certificate of Analysis Summary 652122

LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 #126H

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Feb-12-20 11:57 am

Report Date: 13-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	652122-001	652122-002	652122-003	652122-004	652122-005	652122-006
	<i>Field Id:</i>	SS01	SS02	SS03	SS04	SS05	SS06
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-10-20 12:25	Feb-10-20 12:30	Feb-10-20 12:35	Feb-10-20 12:40	Feb-10-20 12:45	Feb-10-20 13:05
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30
	<i>Analyzed:</i>	Feb-12-20 16:46	Feb-12-20 17:06	Feb-12-20 18:08	Feb-12-20 18:28	Feb-12-20 18:48	Feb-12-20 19:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000182 0.000182	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.000182 0.000182	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.000182 0.000182	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.000364 0.000364	<0.00402 0.00402	<0.00402 0.00402	<0.00402 0.00402	<0.00404 0.00404	<0.00401 0.00401
o-Xylene		<0.000182 0.000182	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.000182 0.000182	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.000182 0.000182	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30	Feb-12-20 12:30
	<i>Analyzed:</i>	Feb-12-20 14:15	Feb-12-20 14:21	Feb-12-20 14:27	Feb-12-20 14:32	Feb-12-20 14:38	Feb-12-20 14:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		14700 504	4770 503	4030 499	4580 497	4380 502	1950 200
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Feb-12-20 13:00	Feb-12-20 13:00	Feb-12-20 13:00	Feb-12-20 13:00	Feb-12-20 13:00	Feb-12-20 13:00
	<i>Analyzed:</i>	Feb-12-20 13:35	Feb-12-20 13:55	Feb-12-20 14:15	Feb-12-20 14:15	Feb-12-20 14:35	Feb-12-20 14:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		83.0 50.1	<50.3 50.3	<50.1 50.1	<50.2 50.2	<50.0 50.0	76.0 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total GRO-DRO		83.0 50.1	<50.3 50.3	<50.1 50.1	<50.2 50.2	<50.0 50.0	76.0 50.2
Total TPH		83.0 50.1	<50.3 50.3	<50.1 50.1	<50.2 50.2	<50.0 50.0	76.0 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.9%

Jessica Kramer  
Project Assistant



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS01**  
Lab Sample Id: 652122-001

Matrix: Soil  
Date Collected: 02.10.20 12.25

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3116355

Date Prep: 02.12.20 12.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>14700</b>	504	mg/kg	02.12.20 14.15		50

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3116314

Date Prep: 02.12.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.12.20 13.35	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>83.0</b>	50.1	mg/kg	02.12.20 13.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.12.20 13.35	U	1
<b>Total GRO-DRO</b>	PHC628	<b>83.0</b>	50.1	mg/kg	02.12.20 13.35		1
<b>Total TPH</b>	PHC635	<b>83.0</b>	50.1	mg/kg	02.12.20 13.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.12.20 13.35	
o-Terphenyl	84-15-1	99	%	70-135	02.12.20 13.35	





# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS01**  
Lab Sample Id: 652122-001

Matrix: Soil  
Date Collected: 02.10.20 12.25

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.12.20 12.30

Basis: Wet Weight

Seq Number: 3116351

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000182	0.000182	mg/kg	02.12.20 16.46	U	1
Toluene	108-88-3	<0.000182	0.000182	mg/kg	02.12.20 16.46	U	1
Ethylbenzene	100-41-4	<0.000182	0.000182	mg/kg	02.12.20 16.46	U	1
m,p-Xylenes	179601-23-1	<0.000364	0.000364	mg/kg	02.12.20 16.46	U	1
o-Xylene	95-47-6	<0.000182	0.000182	mg/kg	02.12.20 16.46	U	1
Total Xylenes	1330-20-7	<0.000182	0.000182	mg/kg	02.12.20 16.46	U	1
Total BTEX		<0.000182	0.000182	mg/kg	02.12.20 16.46	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	110	%	70-130	02.12.20 16.46		
4-Bromofluorobenzene	460-00-4	96	%	70-130	02.12.20 16.46		



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS02**  
Lab Sample Id: 652122-002

Matrix: Soil  
Date Collected: 02.10.20 12.30

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3116355

Date Prep: 02.12.20 12.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4770	503	mg/kg	02.12.20 14.21		50

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3116314

Date Prep: 02.12.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.12.20 13.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.12.20 13.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.12.20 13.55	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.12.20 13.55	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.12.20 13.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.12.20 13.55	
o-Terphenyl	84-15-1	97	%	70-135	02.12.20 13.55	



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS02**  
Lab Sample Id: 652122-002

Matrix: Soil  
Date Collected: 02.10.20 12.30

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.12.20 12.30

Basis: Wet Weight

Seq Number: 3116351

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.12.20 17.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.12.20 17.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.12.20 17.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.12.20 17.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.12.20 17.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.12.20 17.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.12.20 17.06	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.12.20 17.06		
4-Bromofluorobenzene	460-00-4	98	%	70-130	02.12.20 17.06		



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS03**  
Lab Sample Id: 652122-003

Matrix: Soil  
Date Collected: 02.10.20 12.35

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3116355

Date Prep: 02.12.20 12.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>4030</b>	499	mg/kg	02.12.20 14.27		50

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3116314

Date Prep: 02.12.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.12.20 14.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.12.20 14.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.12.20 14.15	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.12.20 14.15	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.12.20 14.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	02.12.20 14.15	
o-Terphenyl	84-15-1	90	%	70-135	02.12.20 14.15	



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS03**  
Lab Sample Id: 652122-003

Matrix: Soil  
Date Collected: 02.10.20 12.35

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.12.20 12.30

Basis: Wet Weight

Seq Number: 3116351

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.12.20 18.08	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.12.20 18.08	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.12.20 18.08	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.12.20 18.08	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.12.20 18.08	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.12.20 18.08	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.12.20 18.08	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.12.20 18.08		
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.12.20 18.08		



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS04**  
Lab Sample Id: 652122-004

Matrix: Soil  
Date Collected: 02.10.20 12.40

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3116355

Date Prep: 02.12.20 12.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4580	497	mg/kg	02.12.20 14.32		50

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3116314

Date Prep: 02.12.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.12.20 14.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.12.20 14.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.12.20 14.15	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.12.20 14.15	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.12.20 14.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.12.20 14.15	
o-Terphenyl	84-15-1	98	%	70-135	02.12.20 14.15	





# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS04**  
Lab Sample Id: 652122-004

Matrix: Soil  
Date Collected: 02.10.20 12.40

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.12.20 12.30

Basis: Wet Weight

Seq Number: 3116351

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.12.20 18.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.12.20 18.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.12.20 18.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.12.20 18.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.12.20 18.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.12.20 18.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.12.20 18.28	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.12.20 18.28		
4-Bromofluorobenzene	460-00-4	98	%	70-130	02.12.20 18.28		



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS05**  
Lab Sample Id: 652122-005

Matrix: Soil  
Date Collected: 02.10.20 12.45

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3116355

Date Prep: 02.12.20 12.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4380	502	mg/kg	02.12.20 14.38		50

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3116314

Date Prep: 02.12.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.12.20 14.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.12.20 14.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.12.20 14.35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.12.20 14.35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.12.20 14.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.12.20 14.35	
o-Terphenyl	84-15-1	97	%	70-135	02.12.20 14.35	



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS05**  
Lab Sample Id: 652122-005

Matrix: Soil  
Date Collected: 02.10.20 12.45

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.12.20 12.30

Basis: Wet Weight

Seq Number: 3116351

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.12.20 18.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.12.20 18.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.12.20 18.48	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.12.20 18.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.12.20 18.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.12.20 18.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.12.20 18.48	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.12.20 18.48		
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.12.20 18.48		



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS06**  
Lab Sample Id: 652122-006

Matrix: Soil  
Date Collected: 02.10.20 13.05

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3116355

Date Prep: 02.12.20 12.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1950	200	mg/kg	02.12.20 14.44		20

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3116314

Date Prep: 02.12.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.12.20 14.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	76.0	50.2	mg/kg	02.12.20 14.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.12.20 14.35	U	1
Total GRO-DRO	PHC628	76.0	50.2	mg/kg	02.12.20 14.35		1
Total TPH	PHC635	76.0	50.2	mg/kg	02.12.20 14.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.12.20 14.35	
o-Terphenyl	84-15-1	97	%	70-135	02.12.20 14.35	



# Certificate of Analytical Results 652122

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS06**  
Lab Sample Id: 652122-006

Matrix: Soil  
Date Collected: 02.10.20 13.05

Date Received: 02.12.20 11.57  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.12.20 12.30

Basis: Wet Weight

Seq Number: 3116351

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.20 19.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.20 19.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.20 19.09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.12.20 19.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.20 19.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.20 19.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.20 19.09	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.12.20 19.09		
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.12.20 19.09		



## 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.

**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





**LT Environmental, Inc.**  
Remuda South 25 #126H

**Analytical Method: Chloride by EPA 300**

Seq Number: 3116355

MB Sample Id: 7696487-1-BLK

Matrix: Solid

LCS Sample Id: 7696487-1-BKS

Prep Method: E300P

Date Prep: 02.12.20

LCSD Sample Id: 7696487-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0	20	mg/kg	02.12.20 11:58	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3116355

Parent Sample Id: 652094-001

Matrix: Soil

MS Sample Id: 652094-001 S

Prep Method: E300P

Date Prep: 02.12.20

MSD Sample Id: 652094-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9040	200	9250	105	9220	90	90-110	0	20	mg/kg	02.12.20 12:15	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3116355

Parent Sample Id: 652112-004

Matrix: Soil

MS Sample Id: 652112-004 S

Prep Method: E300P

Date Prep: 02.12.20

MSD Sample Id: 652112-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	565	200	763	99	764	100	90-110	0	20	mg/kg	02.12.20 13:47	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3116314

MB Sample Id: 7696489-1-BLK

Matrix: Solid

LCS Sample Id: 7696489-1-BKS

Prep Method: SW8015P

Date Prep: 02.12.20

LCSD Sample Id: 7696489-1-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	834	83	70-135	5	35	mg/kg	02.12.20 11:36	
Diesel Range Organics (DRO)	<50.0	1000	707	71	747	75	70-135	6	35	mg/kg	02.12.20 11:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	132		117		112		70-135	%	02.12.20 11:36
o-Terphenyl	130		100		100		70-135	%	02.12.20 11:36

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3116314

Matrix: Solid

MB Sample Id: 7696489-1-BLK

Prep Method: SW8015P

Date Prep: 02.12.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.12.20 11:16	

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



## LT Environmental, Inc.

Remuda South 25 #126H

## Analytical Method: TPH by SW8015 Mod

Seq Number: 3116314

Parent Sample Id: 652094-001

Matrix: Soil

MS Sample Id: 652094-001 S

Prep Method: SW8015P

Date Prep: 02.12.20

MSD Sample Id: 652094-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	883	88	932	93	70-135	5	35	mg/kg	02.12.20 11:56	
Diesel Range Organics (DRO)	<50.2	1000	967	97	1020	102	70-135	5	35	mg/kg	02.12.20 11:56	

## Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		112		70-135	%	02.12.20 11:56
o-Terphenyl	101		108		70-135	%	02.12.20 11:56

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3116351

MB Sample Id: 7696486-1-BLK

Matrix: Solid

LCS Sample Id: 7696486-1-BKS

Prep Method: SW5030B

Date Prep: 02.12.20

LCSD Sample Id: 7696486-1-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	0.118	118	0.125	125	70-130	6	35	mg/kg	02.12.20 12:21	
Toluene	<0.00200	0.100	0.110	110	0.116	116	70-130	5	35	mg/kg	02.12.20 12:21	
Ethylbenzene	<0.00200	0.100	0.106	106	0.112	112	71-129	6	35	mg/kg	02.12.20 12:21	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.220	110	70-135	5	35	mg/kg	02.12.20 12:21	
o-Xylene	<0.00200	0.100	0.104	104	0.110	110	71-133	6	35	mg/kg	02.12.20 12:21	

## Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		108		108		70-130	%	02.12.20 12:21
4-Bromofluorobenzene	96		93		94		70-130	%	02.12.20 12:21

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3116351

Parent Sample Id: 652094-001

Matrix: Soil

MS Sample Id: 652094-001 S

Prep Method: SW5030B

Date Prep: 02.12.20

MSD Sample Id: 652094-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.106	106	0.125	125	70-130	16	35	mg/kg	02.12.20 13:02	
Toluene	<0.00199	0.0996	0.111	111	0.116	116	70-130	4	35	mg/kg	02.12.20 13:02	
Ethylbenzene	<0.00199	0.0996	0.108	108	0.112	112	71-129	4	35	mg/kg	02.12.20 13:02	
m,p-Xylenes	<0.00398	0.199	0.190	95	0.219	110	70-135	14	35	mg/kg	02.12.20 13:02	
o-Xylene	<0.00199	0.0996	0.102	102	0.110	110	71-133	8	35	mg/kg	02.12.20 13:02	

## Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	02.12.20 13:02
4-Bromofluorobenzene	95		94		70-130	%	02.12.20 13:02

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

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

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

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





## XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02.12.2020 11.57.00 AM

Work Order #: 652122

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 02.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 02.12.2020



## Certificate of Analysis Summary 673152



LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 #126H

Project Id: 012919260

Date Received in Lab: Mon 09.21.2020 16:31

Contact: Dan Moir

Report Date: 09.23.2020 14:07

Project Location: Eddy County

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	673152-001	673152-002	673152-003	673152-004	673152-005	673152-006
	<i>Field Id:</i>	PH01	PH02	PH03	PH04	PH05	FS01
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.21.2020 13:20	09.21.2020 13:29	09.21.2020 10:59	09.21.2020 12:10	09.21.2020 12:29	09.21.2020 14:46
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06
	<i>Analyzed:</i>	09.21.2020 18:43	09.21.2020 19:05	09.21.2020 19:28	09.21.2020 19:50	09.21.2020 20:13	09.21.2020 20:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00396 0.00396	<0.00396 0.00396
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23
	<i>Analyzed:</i>	09.22.2020 11:55	09.22.2020 12:22	09.22.2020 12:28	09.22.2020 12:33	09.22.2020 12:39	09.22.2020 12:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		30.5 9.92	<10.0 10.0	416 10.0	<10.0 10.0	20.7 9.98	217 9.94
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50
	<i>Analyzed:</i>	09.21.2020 18:39	09.21.2020 18:59	09.21.2020 19:19	09.21.2020 19:40	09.21.2020 20:00	09.21.2020 20:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1

BRL - Below Reporting Limit

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



# Analytical Report 673152

for

**LT Environmental, Inc.**

**Project Manager: Dan Moir**

**Remuda South 25 #126H**

**012919260**

**09.23.2020**

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)





09.23.2020

Project Manager: **Dan Moir**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **673152**

**Remuda South 25 #126H**

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) 673152. 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. 673152 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**

Project Manager

*A Small Business and Minority Company*

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

**Sample Cross Reference 673152****LT Environmental, Inc., Arvada, CO**

Remuda South 25 #126H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	09.21.2020 13:20	3 ft	673152-001
PH02	S	09.21.2020 13:29	3 ft	673152-002
PH03	S	09.21.2020 10:59	3 ft	673152-003
PH04	S	09.21.2020 12:10	3 ft	673152-004
PH05	S	09.21.2020 12:29	3 ft	673152-005
FS01	S	09.21.2020 14:46	3 ft	673152-006



## CASE NARRATIVE

***Client Name: LT Environmental, Inc.***

***Project Name: Remuda South 25 #126H***

Project ID: 012919260  
Work Order Number(s): 673152

Report Date: 09.23.2020  
Date Received: 09.21.2020

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH01** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-001 Date Collected: 09.21.2020 13:20 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.5	9.92	mg/kg	09.22.2020 11:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	09.21.2020 18:39	
o-Terphenyl	84-15-1	93	%	70-135	09.21.2020 18:39	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH01**  
Lab Sample Id: 673152-001

Matrix: Soil  
Date Collected: 09.21.2020 13:20

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.21.2020 18:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.21.2020 18:43	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.21.2020 18:43	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH02** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-002 Date Collected: 09.21.2020 13:29 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	09.22.2020 12:22	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.21.2020 18:59	
o-Terphenyl	84-15-1	92	%	70-135	09.21.2020 18:59	





# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH02**  
Lab Sample Id: 673152-002

Matrix: Soil  
Date Collected: 09.21.2020 13:29

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.2020 19:05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 19:05	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.21.2020 19:05	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH03**  
Lab Sample Id: 673152-003

Matrix: Soil  
Date Collected: 09.21.2020 10:59

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3137776

Date Prep: 09.22.2020 09:23

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	416	10.0	mg/kg	09.22.2020 12:28		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3137717

Date Prep: 09.21.2020 16:50

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.21.2020 19:19	
o-Terphenyl	84-15-1	93	%	70-135	09.21.2020 19:19	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH03**  
Lab Sample Id: 673152-003

Matrix: Soil  
Date Collected: 09.21.2020 10:59

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.21.2020 19:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.21.2020 19:28		
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.21.2020 19:28		



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH04** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-004 Date Collected: 09.21.2020 12:10 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	09.22.2020 12:33	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	09.21.2020 19:40	
o-Terphenyl	84-15-1	89	%	70-135	09.21.2020 19:40	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH04**  
Lab Sample Id: 673152-004

Matrix: Soil  
Date Collected: 09.21.2020 12:10

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.2020 19:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 19:50		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.21.2020 19:50		



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH05** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-005 Date Collected: 09.21.2020 12:29 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.7	9.98	mg/kg	09.22.2020 12:39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	09.21.2020 20:00	
o-Terphenyl	84-15-1	90	%	70-135	09.21.2020 20:00	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH05**  
Lab Sample Id: 673152-005

Matrix: Soil  
Date Collected: 09.21.2020 12:29

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.21.2020 20:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.21.2020 20:13	
1,4-Difluorobenzene	540-36-3	88	%	70-130	09.21.2020 20:13	





# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **FS01** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-006 Date Collected: 09.21.2020 14:46 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	217	9.94	mg/kg	09.22.2020 12:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	09.21.2020 20:20	
o-Terphenyl	84-15-1	86	%	70-135	09.21.2020 20:20	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **FS01**  
Lab Sample Id: 673152-006

Matrix: Soil  
Date Collected: 09.21.2020 14:46

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.21.2020 20:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.21.2020 20:35	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.21.2020 20:35	



## 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



**LT Environmental, Inc.**  
Remuda South 25 #126H

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137776

MB Sample Id: 7711799-1-BLK

Matrix: Solid

LCS Sample Id: 7711799-1-BKS

Prep Method: E300P

Date Prep: 09.22.2020

LCSD Sample Id: 7711799-1-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	252	101	253	101	90-110	0	20	mg/kg	09.22.2020 10:01	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137776

Parent Sample Id: 673152-001

Matrix: Soil

MS Sample Id: 673152-001 S

Prep Method: E300P

Date Prep: 09.22.2020

MSD Sample Id: 673152-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.5	199	231	101	234	102	90-110	1	20	mg/kg	09.22.2020 12:00	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137776

Parent Sample Id: 673161-001

Matrix: Soil

MS Sample Id: 673161-001 S

Prep Method: E300P

Date Prep: 09.22.2020

MSD Sample Id: 673161-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	385	198	602	110	587	100	90-110	3	20	mg/kg	09.22.2020 10:20	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3137717

MB Sample Id: 7711777-1-BLK

Matrix: Solid

LCS Sample Id: 7711777-1-BKS

Prep Method: SW8015P

Date Prep: 09.21.2020

LCSD Sample Id: 7711777-1-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	848	85	811	81	70-135	4	35	mg/kg	09.21.2020 12:16	
Diesel Range Organics (DRO)	<50.0	1000	872	87	832	83	70-135	5	35	mg/kg	09.21.2020 12:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		94		93		70-135	%	09.21.2020 12:16
o-Terphenyl	84		83		80		70-135	%	09.21.2020 12:16

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3137717

Matrix: Solid

MB Sample Id: 7711777-1-BLK

Prep Method: SW8015P

Date Prep: 09.21.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.21.2020 11:56	

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



## LT Environmental, Inc.

Remuda South 25 #126H

## Analytical Method: TPH by SW8015 Mod

Seq Number: 3137717

Parent Sample Id: 673097-001

Matrix: Soil

MS Sample Id: 673097-001 S

Prep Method: SW8015P

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	852	85	846	85	70-135	1	35	mg/kg	09.21.2020 13:17	
Diesel Range Organics (DRO)	68.8	1000	948	88	964	90	70-135	2	35	mg/kg	09.21.2020 13:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		107		70-135	%	09.21.2020 13:17
o-Terphenyl	93		93		70-135	%	09.21.2020 13:17

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3137712

MB Sample Id: 7711754-1-BLK

Matrix: Solid

LCS Sample Id: 7711754-1-BKS

Prep Method: SW5035A

Date Prep: 09.21.2020

LCSD Sample Id: 7711754-1-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	0.0978	98	0.104	104	70-130	6	35	mg/kg	09.21.2020 11:38	
Toluene	<0.00200	0.100	0.0948	95	0.101	101	70-130	6	35	mg/kg	09.21.2020 11:38	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0941	94	71-129	6	35	mg/kg	09.21.2020 11:38	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.191	96	70-135	6	35	mg/kg	09.21.2020 11:38	
o-Xylene	<0.00200	0.100	0.0873	87	0.0933	93	71-133	7	35	mg/kg	09.21.2020 11:38	

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	%	09.21.2020 11:38
4-Bromofluorobenzene	86		89		93		70-130	%	09.21.2020 11:38

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3137712

Parent Sample Id: 673097-001

Matrix: Soil

MS Sample Id: 673097-001 S

Prep Method: SW5035A

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.121	120	0.122	121	70-130	1	35	mg/kg	09.21.2020 12:23	
Toluene	<0.00201	0.101	0.111	110	0.127	126	70-130	13	35	mg/kg	09.21.2020 12:23	
Ethylbenzene	<0.00201	0.101	0.0935	93	0.118	117	71-129	23	35	mg/kg	09.21.2020 12:23	
m,p-Xylenes	<0.00402	0.201	0.187	93	0.238	118	70-135	24	35	mg/kg	09.21.2020 12:23	
o-Xylene	<0.00201	0.101	0.0916	91	0.116	115	71-133	24	35	mg/kg	09.21.2020 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	09.21.2020 12:23
4-Bromofluorobenzene	92		85		70-130	%	09.21.2020 12:23

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





# Chain of Custody

Work Order No: 673152

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)

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
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:	<a href="mailto:wmather@ltenv.com">wmather@ltenv.com</a> , <a href="mailto:dmoir@ltenv.com">dmoir@ltenv.com</a>

Program: <input checked="" type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Groundfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:	Remuda South 25 #126H	Turn Around	<input checked="" type="checkbox"/>
Project Number:	012919260	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	7.6 / 7.4	Thermometer ID				
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:			
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Total Containers:				
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	-0.2				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST											Work Order Notes
					Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)								
PH01	S	9/21/2020	13:20	3'	1	X	X	X								Discrete
PH02	S	9/21/2020	13:29	3'	1	X	X	X								Discrete
PH03	S	9/21/2020	10:59	3'	1	X	X	X								Discrete
PH04	S	9/21/2020	12:10	3'	1	X	X	X								Discrete
PH05	S	9/21/2020	12:29	3'	1	X	X	X								Discrete
FS01	S	9/21/2020	14:46	1'	1	X	X	X								Composite

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	9-21-20 16:31			

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.21.2020 04.31.00 PM

Work Order #: 673152

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)?	7.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.21.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.23.2020



## Certificate of Analysis Summary 673152



LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 #126H

Project Id: 012919260

Date Received in Lab: Mon 09.21.2020 16:31

Contact: Dan Moir

Report Date: 09.24.2020 08:02

Project Location: Eddy County

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	673152-001	673152-002	673152-003	673152-004	673152-005	673152-006
	<i>Field Id:</i>	PH01	PH02	PH03	PH04	PH05	FS01
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.21.2020 13:20	09.21.2020 13:29	09.21.2020 10:59	09.21.2020 12:10	09.21.2020 12:29	09.21.2020 14:46
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06	09.21.2020 17:06
	<i>Analyzed:</i>	09.21.2020 18:43	09.21.2020 19:05	09.21.2020 19:28	09.21.2020 19:50	09.21.2020 20:13	09.21.2020 20:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00396 0.00396	<0.00396 0.00396
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23	09.22.2020 09:23
	<i>Analyzed:</i>	09.22.2020 11:55	09.22.2020 12:22	09.22.2020 12:28	09.22.2020 12:33	09.22.2020 12:39	09.22.2020 12:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		30.5 9.92	<10.0 10.0	416 10.0	<10.0 10.0	20.7 9.98	217 9.94
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50	09.21.2020 16:50
	<i>Analyzed:</i>	09.21.2020 18:39	09.21.2020 18:59	09.21.2020 19:19	09.21.2020 19:40	09.21.2020 20:00	09.21.2020 20:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.1 50.1

BRL - Below Reporting Limit

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



# Analytical Report 673152

for

**LT Environmental, Inc.**

**Project Manager: Dan Moir**

**Remuda South 25 #126H**

**012919260**

**09.24.2020**

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.24.2020

Project Manager: **Dan Moir**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **673152**

**Remuda South 25 #126H**

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) 673152. 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. 673152 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

**Jessica Kramer**

Project Manager

*A Small Business and Minority Company*

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

**Sample Cross Reference 673152****LT Environmental, Inc., Arvada, CO**

Remuda South 25 #126H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	09.21.2020 13:20	3 ft	673152-001
PH02	S	09.21.2020 13:29	3 ft	673152-002
PH03	S	09.21.2020 10:59	3 ft	673152-003
PH04	S	09.21.2020 12:10	3 ft	673152-004
PH05	S	09.21.2020 12:29	3 ft	673152-005
FS01	S	09.21.2020 14:46	1 ft	673152-006



## CASE NARRATIVE

**Client Name: LT Environmental, Inc.**

**Project Name: Remuda South 25 #126H**

Project ID: 012919260  
Work Order Number(s): 673152

Report Date: 09.24.2020  
Date Received: 09.21.2020

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**Sample receipt non conformances and comments:**

V1.001 Revision - Corrected sample depth on FS01 to 1'

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH01** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-001 Date Collected: 09.21.2020 13:20 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.5	9.92	mg/kg	09.22.2020 11:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.21.2020 18:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	09.21.2020 18:39	
o-Terphenyl	84-15-1	93	%	70-135	09.21.2020 18:39	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH01**  
Lab Sample Id: 673152-001

Matrix: Soil  
Date Collected: 09.21.2020 13:20

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.21.2020 18:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.21.2020 18:43	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.21.2020 18:43	





# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH02** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-002 Date Collected: 09.21.2020 13:29 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	09.22.2020 12:22	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 18:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.21.2020 18:59	
o-Terphenyl	84-15-1	92	%	70-135	09.21.2020 18:59	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH02**  
Lab Sample Id: 673152-002

Matrix: Soil  
Date Collected: 09.21.2020 13:29

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.2020 19:05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 19:05	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.21.2020 19:05	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH03** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-003 Date Collected: 09.21.2020 10:59 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	416	10.0	mg/kg	09.22.2020 12:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 19:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.21.2020 19:19	
o-Terphenyl	84-15-1	93	%	70-135	09.21.2020 19:19	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH03**  
Lab Sample Id: 673152-003

Matrix: Soil  
Date Collected: 09.21.2020 10:59

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.21.2020 19:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 19:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.21.2020 19:28	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.21.2020 19:28	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH04** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-004 Date Collected: 09.21.2020 12:10 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	09.22.2020 12:33	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.21.2020 19:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	09.21.2020 19:40	
o-Terphenyl	84-15-1	89	%	70-135	09.21.2020 19:40	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH04**  
Lab Sample Id: 673152-004

Matrix: Soil  
Date Collected: 09.21.2020 12:10

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.2020 19:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.2020 19:50	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 19:50		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.21.2020 19:50		



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH05** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-005 Date Collected: 09.21.2020 12:29 Sample Depth: 3 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.7	9.98	mg/kg	09.22.2020 12:39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 20:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	09.21.2020 20:00	
o-Terphenyl	84-15-1	90	%	70-135	09.21.2020 20:00	





# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **PH05**  
Lab Sample Id: 673152-005

Matrix: Soil  
Date Collected: 09.21.2020 12:29

Date Received: 09.21.2020 16:31  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.21.2020 20:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.2020 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.21.2020 20:13	
1,4-Difluorobenzene	540-36-3	88	%	70-130	09.21.2020 20:13	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **FS01** Matrix: Soil Date Received: 09.21.2020 16:31  
 Lab Sample Id: 673152-006 Date Collected: 09.21.2020 14:46 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 09:23 Basis: Wet Weight  
 Seq Number: 3137776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	217	9.94	mg/kg	09.22.2020 12:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.21.2020 16:50 Basis: Wet Weight  
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 20:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	09.21.2020 20:20	
o-Terphenyl	84-15-1	86	%	70-135	09.21.2020 20:20	



# Certificate of Analytical Results 673152

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **FS01**  
Lab Sample Id: 673152-006

Matrix: Soil  
Date Collected: 09.21.2020 14:46

Date Received: 09.21.2020 16:31  
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 17:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.21.2020 20:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.2020 20:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.21.2020 20:35	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.21.2020 20:35	



## 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



**LT Environmental, Inc.**  
Remuda South 25 #126H

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137776

MB Sample Id: 7711799-1-BLK

Matrix: Solid

LCS Sample Id: 7711799-1-BKS

Prep Method: E300P

Date Prep: 09.22.2020

LCSD Sample Id: 7711799-1-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	252	101	253	101	90-110	0	20	mg/kg	09.22.2020 10:01	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137776

Parent Sample Id: 673152-001

Matrix: Soil

MS Sample Id: 673152-001 S

Prep Method: E300P

Date Prep: 09.22.2020

MSD Sample Id: 673152-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.5	199	231	101	234	102	90-110	1	20	mg/kg	09.22.2020 12:00	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137776

Parent Sample Id: 673161-001

Matrix: Soil

MS Sample Id: 673161-001 S

Prep Method: E300P

Date Prep: 09.22.2020

MSD Sample Id: 673161-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	385	198	602	110	587	100	90-110	3	20	mg/kg	09.22.2020 10:20	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3137717

MB Sample Id: 7711777-1-BLK

Matrix: Solid

LCS Sample Id: 7711777-1-BKS

Prep Method: SW8015P

Date Prep: 09.21.2020

LCSD Sample Id: 7711777-1-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	848	85	811	81	70-135	4	35	mg/kg	09.21.2020 12:16	
Diesel Range Organics (DRO)	<50.0	1000	872	87	832	83	70-135	5	35	mg/kg	09.21.2020 12:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		94		93		70-135	%	09.21.2020 12:16
o-Terphenyl	84		83		80		70-135	%	09.21.2020 12:16

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3137717

Matrix: Solid

MB Sample Id: 7711777-1-BLK

Prep Method: SW8015P

Date Prep: 09.21.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.21.2020 11:56	

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



## LT Environmental, Inc.

Remuda South 25 #126H

## Analytical Method: TPH by SW8015 Mod

Seq Number: 3137717

Parent Sample Id: 673097-001

Matrix: Soil

MS Sample Id: 673097-001 S

Prep Method: SW8015P

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	852	85	846	85	70-135	1	35	mg/kg	09.21.2020 13:17	
Diesel Range Organics (DRO)	68.8	1000	948	88	964	90	70-135	2	35	mg/kg	09.21.2020 13:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		107		70-135	%	09.21.2020 13:17
o-Terphenyl	93		93		70-135	%	09.21.2020 13:17

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3137712

MB Sample Id: 7711754-1-BLK

Matrix: Solid

LCS Sample Id: 7711754-1-BKS

Prep Method: SW5035A

Date Prep: 09.21.2020

LCSD Sample Id: 7711754-1-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	0.0978	98	0.104	104	70-130	6	35	mg/kg	09.21.2020 11:38	
Toluene	<0.00200	0.100	0.0948	95	0.101	101	70-130	6	35	mg/kg	09.21.2020 11:38	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0941	94	71-129	6	35	mg/kg	09.21.2020 11:38	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.191	96	70-135	6	35	mg/kg	09.21.2020 11:38	
o-Xylene	<0.00200	0.100	0.0873	87	0.0933	93	71-133	7	35	mg/kg	09.21.2020 11:38	

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	%	09.21.2020 11:38
4-Bromofluorobenzene	86		89		93		70-130	%	09.21.2020 11:38

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3137712

Parent Sample Id: 673097-001

Matrix: Soil

MS Sample Id: 673097-001 S

Prep Method: SW5035A

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.121	120	0.122	121	70-130	1	35	mg/kg	09.21.2020 12:23	
Toluene	<0.00201	0.101	0.111	110	0.127	126	70-130	13	35	mg/kg	09.21.2020 12:23	
Ethylbenzene	<0.00201	0.101	0.0935	93	0.118	117	71-129	23	35	mg/kg	09.21.2020 12:23	
m,p-Xylenes	<0.00402	0.201	0.187	93	0.238	118	70-135	24	35	mg/kg	09.21.2020 12:23	
o-Xylene	<0.00201	0.101	0.0916	91	0.116	115	71-133	24	35	mg/kg	09.21.2020 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	09.21.2020 12:23
4-Bromofluorobenzene	92		85		70-130	%	09.21.2020 12:23

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





## Chain of Custody

Work Order No: 673152

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 Littlell
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

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Growfields	<input type="checkbox"/> RC	<input type="checkbox"/> \$perfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/> ADAPT	<input type="checkbox"/> Other:		

Project Name:	Remuda South 25 #126H	Turn Around	<input checked="" type="checkbox"/>
Project Number:	012919260	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	7.6 / 7.4	Thermometer ID				
Received In tact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A			

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	9-21-20 16:31			



# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.21.2020 04.31.00 PM

Work Order #: 673152

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)?	7.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.21.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.23.2020

## Certificate of Analysis Summary 673230

LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 #126H

Project Id: 012919260

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Tue 09.22.2020 13:25


Report Date: 09.23.2020 14:07

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	673230-001	673230-002	673230-003	673230-004		
	<i>Field Id:</i>	SS07	SS08	SS09	SS010		
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	09.21.2020 12:01	09.22.2020 10:22	09.22.2020 11:22	09.21.2020 14:05		
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	09.22.2020 14:30	09.22.2020 14:30	09.22.2020 14:30	09.22.2020 14:30		
	<i>Analyzed:</i>	09.22.2020 18:19	09.22.2020 18:42	09.22.2020 19:04	09.22.2020 19:27		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
m,p-Xylenes		<0.00400 0.00400	<0.00399 0.00399	<0.00401 0.00401	<0.00401 0.00401		
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	09.22.2020 16:30	09.22.2020 16:30	09.22.2020 16:30	09.22.2020 16:30		
	<i>Analyzed:</i>	** * * * *	09.22.2020 16:43	09.22.2020 16:51	09.22.2020 16:58		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		96.2 49.9	205 10.0	494 50.5	480 49.5		
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	09.22.2020 14:10	09.22.2020 14:10	09.22.2020 14:10	09.22.2020 14:10		
	<i>Analyzed:</i>	09.22.2020 14:53	09.22.2020 15:13	09.22.2020 15:33	09.22.2020 15:53		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.1 50.1	<49.9 49.9	<49.8 49.8		
Diesel Range Organics (DRO)		<49.8 49.8	<50.1 50.1	57.1 49.9	<49.8 49.8		
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.1 50.1	<49.9 49.9	<49.8 49.8		
Total GRO-DRO		<49.8 49.8	<50.1 50.1	57.1 49.9	<49.8 49.8		
Total TPH		<49.8 49.8	<50.1 50.1	57.1 49.9	<49.8 49.8		

BRL - Below Reporting Limit

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





# Analytical Report 673230

for

**LT Environmental, Inc.**

**Project Manager: Dan Moir**

**Remuda South 25 #126H**

**012919260**

**09.23.2020**

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.23.2020

Project Manager: **Dan Moir**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **673230**

**Remuda South 25 #126H**

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) 673230. 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. 673230 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

---

**Jessica Kramer**

Project Manager

*A Small Business and Minority Company*

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



## Sample Cross Reference 673230

**LT Environmental, Inc., Arvada, CO**

Remuda South 25 #126H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS07	S	09.21.2020 12:01	0.5 ft	673230-001
SS08	S	09.22.2020 10:22	0.5 ft	673230-002
SS09	S	09.22.2020 11:22	0.5 ft	673230-003
SS010	S	09.21.2020 14:05	0.5 ft	673230-004



## CASE NARRATIVE

***Client Name: LT Environmental, Inc.***

***Project Name: Remuda South 25 #126H***

Project ID: 012919260  
Work Order Number(s): 673230

Report Date: 09.23.2020  
Date Received: 09.22.2020

---

**Sample receipt non conformances and comments:**

---

**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS07** Matrix: Soil Date Received: 09.22.2020 13:25  
 Lab Sample Id: 673230-001 Date Collected: 09.21.2020 12:01 Sample Depth: 0.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 16:30 Basis: Wet Weight  
 Seq Number: 3137842

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.2	49.9	mg/kg	09.22.2020 16:21		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.22.2020 14:10 Basis: Wet Weight  
 Seq Number: 3137782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.22.2020 14:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.22.2020 14:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.22.2020 14:53	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.22.2020 14:53	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.22.2020 14:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	09.22.2020 14:53	
o-Terphenyl	84-15-1	100	%	70-135	09.22.2020 14:53	





# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS07**  
Lab Sample Id: 673230-001

Matrix: Soil  
Date Collected: 09.21.2020 12:01

Date Received: 09.22.2020 13:25  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.22.2020 14:30

Basis: Wet Weight

Seq Number: 3137826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.22.2020 18:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.22.2020 18:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.22.2020 18:19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.22.2020 18:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.22.2020 18:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.22.2020 18:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.22.2020 18:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.22.2020 18:19	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.22.2020 18:19	



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS08** Matrix: Soil Date Received: 09.22.2020 13:25  
 Lab Sample Id: 673230-002 Date Collected: 09.22.2020 10:22 Sample Depth: 0.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 16:30 Basis: Wet Weight  
 Seq Number: 3137842

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	205	10.0	mg/kg	09.22.2020 16:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.22.2020 14:10 Basis: Wet Weight  
 Seq Number: 3137782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.22.2020 15:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.22.2020 15:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.22.2020 15:13	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.22.2020 15:13	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.22.2020 15:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	09.22.2020 15:13	
o-Terphenyl	84-15-1	98	%	70-135	09.22.2020 15:13	



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS08**  
Lab Sample Id: 673230-002

Matrix: Soil  
Date Collected: 09.22.2020 10:22

Date Received: 09.22.2020 13:25  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.22.2020 14:30

Basis: Wet Weight

Seq Number: 3137826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.22.2020 18:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.22.2020 18:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.22.2020 18:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.22.2020 18:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.22.2020 18:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.22.2020 18:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.22.2020 18:42	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.22.2020 18:42		
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.22.2020 18:42		



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS09** Matrix: Soil Date Received: 09.22.2020 13:25  
 Lab Sample Id: 673230-003 Date Collected: 09.22.2020 11:22 Sample Depth: 0.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 16:30 Basis: Wet Weight  
 Seq Number: 3137842

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	494	50.5	mg/kg	09.22.2020 16:51		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.22.2020 14:10 Basis: Wet Weight  
 Seq Number: 3137782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.22.2020 15:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	57.1	49.9	mg/kg	09.22.2020 15:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.22.2020 15:33	U	1
Total GRO-DRO	PHC628	57.1	49.9	mg/kg	09.22.2020 15:33		1
Total TPH	PHC635	57.1	49.9	mg/kg	09.22.2020 15:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.22.2020 15:33	
o-Terphenyl	84-15-1	95	%	70-135	09.22.2020 15:33	



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS09**  
Lab Sample Id: 673230-003

Matrix: Soil  
Date Collected: 09.22.2020 11:22

Date Received: 09.22.2020 13:25  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.22.2020 14:30

Basis: Wet Weight

Seq Number: 3137826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.22.2020 19:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.22.2020 19:04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.22.2020 19:04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.22.2020 19:04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.22.2020 19:04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.22.2020 19:04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.22.2020 19:04	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.22.2020 19:04		
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.22.2020 19:04		



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS010** Matrix: Soil Date Received: 09.22.2020 13:25  
 Lab Sample Id: 673230-004 Date Collected: 09.21.2020 14:05 Sample Depth: 0.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.22.2020 16:30 Basis: Wet Weight  
 Seq Number: 3137842

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	480	49.5	mg/kg	09.22.2020 16:58		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.22.2020 14:10 Basis: Wet Weight  
 Seq Number: 3137782

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.22.2020 15:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.22.2020 15:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.22.2020 15:53	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.22.2020 15:53	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.22.2020 15:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.22.2020 15:53	
o-Terphenyl	84-15-1	94	%	70-135	09.22.2020 15:53	



# Certificate of Analytical Results 673230

## LT Environmental, Inc., Arvada, CO

Remuda South 25 #126H

Sample Id: **SS010**  
Lab Sample Id: 673230-004

Matrix: Soil  
Date Collected: 09.21.2020 14:05

Date Received: 09.22.2020 13:25  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.22.2020 14:30

Basis: Wet Weight

Seq Number: 3137826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.22.2020 19:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.22.2020 19:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.22.2020 19:27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.22.2020 19:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.22.2020 19:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.22.2020 19:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.22.2020 19:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.22.2020 19:27	
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.22.2020 19:27	





## 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



**LT Environmental, Inc.**  
Remuda South 25 #126H

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137842

MB Sample Id: 7711862-1-BLK

Matrix: Solid

LCS Sample Id: 7711862-1-BKS

Prep Method: E300P

Date Prep: 09.22.2020

LCSD Sample Id: 7711862-1-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	252	101	252	101	90-110	0	20	mg/kg	09.22.2020 16:10	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137842

Parent Sample Id: 673230-001

Matrix: Soil

MS Sample Id: 673230-001 S

Prep Method: E300P

Date Prep: 09.22.2020

MSD Sample Id: 673230-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	96.2	200	295	99	290	98	90-110	2	20	mg/kg	09.22.2020 16:27	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3137842

Parent Sample Id: 673274-003

Matrix: Soil

MS Sample Id: 673274-003 S

Prep Method: E300P

Date Prep: 09.22.2020

MSD Sample Id: 673274-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	861	198	1050	95	1040	90	90-110	1	20	mg/kg	09.22.2020 18:06	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3137782

MB Sample Id: 7711834-1-BLK

Matrix: Solid

LCS Sample Id: 7711834-1-BKS

Prep Method: SW8015P

Date Prep: 09.22.2020

LCSD Sample Id: 7711834-1-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	913	91	912	91	70-135	0	35	mg/kg	09.22.2020 10:15	
Diesel Range Organics (DRO)	<50.0	1000	918	92	926	93	70-135	1	35	mg/kg	09.22.2020 10:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		101		104		70-135	%	09.22.2020 10:15
o-Terphenyl	91		86		90		70-135	%	09.22.2020 10:15

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3137782

Matrix: Solid

MB Sample Id: 7711834-1-BLK

Prep Method: SW8015P

Date Prep: 09.22.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.22.2020 09:54	

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



## LT Environmental, Inc.

Remuda South 25 #126H

## Analytical Method: TPH by SW8015 Mod

Seq Number: 3137782

Parent Sample Id: 673161-001

Matrix: Soil

MS Sample Id: 673161-001 S

Prep Method: SW8015P

Date Prep: 09.22.2020

MSD Sample Id: 673161-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	838	84	859	86	70-135	2	35	mg/kg	09.22.2020 11:15	
Diesel Range Organics (DRO)	<50.2	1000	856	86	874	88	70-135	2	35	mg/kg	09.22.2020 11:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		111		70-135	%	09.22.2020 11:15
o-Terphenyl	94		96		70-135	%	09.22.2020 11:15

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3137826

MB Sample Id: 7711823-1-BLK

Matrix: Solid

LCS Sample Id: 7711823-1-BKS

Prep Method: SW5035A

Date Prep: 09.22.2020

LCSD Sample Id: 7711823-1-BSL

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	0.112	112	0.103	103	70-130	8	35	mg/kg	09.22.2020 10:52	
Toluene	<0.00200	0.100	0.108	108	0.0992	99	70-130	8	35	mg/kg	09.22.2020 10:52	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0923	92	71-129	9	35	mg/kg	09.22.2020 10:52	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.186	93	70-135	8	35	mg/kg	09.22.2020 10:52	
o-Xylene	<0.00200	0.100	0.100	100	0.0922	92	71-133	8	35	mg/kg	09.22.2020 10:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		99		70-130	%	09.22.2020 10:52
4-Bromofluorobenzene	87		86		92		70-130	%	09.22.2020 10:52

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3137826

Parent Sample Id: 673161-001

Matrix: Soil

MS Sample Id: 673161-001 S

Prep Method: SW5035A

Date Prep: 09.22.2020

MSD Sample Id: 673161-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.123	123	0.104	104	70-130	17	35	mg/kg	09.22.2020 11:37	
Toluene	<0.00200	0.100	0.127	127	0.0993	99	70-130	24	35	mg/kg	09.22.2020 11:37	
Ethylbenzene	<0.00200	0.100	0.117	117	0.0895	90	71-129	27	35	mg/kg	09.22.2020 11:37	
m,p-Xylenes	<0.00400	0.200	0.237	119	0.181	90	70-135	27	35	mg/kg	09.22.2020 11:37	
o-Xylene	<0.00200	0.100	0.116	116	0.0885	89	71-133	27	35	mg/kg	09.22.2020 11:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.22.2020 11:37
4-Bromofluorobenzene	89		89		70-130	%	09.22.2020 11:37

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





## Chain of Custody

Work Order No: 1633030

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) 565-3443 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)

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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:	lwmather@ltenv.com, dmoir@ltenv.com

Project Name:	Rennuda South 25 #126H	Turn Around	
Project Number:	0 12919260	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

<b>SAMPLE RECEIPT</b>	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	3.6/3.4	Thermometer ID				
Received Intact:	Yes	No	+NM007			
Cooler Custody Seals:	Yes	No	Correction Factor: -0.2			
Sample Custody Seals:	Yes	No	Total Containers: 4			

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)											Sample Comments
SS07					s	9/21/2020	12:01	0.5'	1	x	x	x									Discrete		
SS08					s	9/22/2020	10:22	0.5'	1	x	x	x									Discrete		
SS09					s	9/22/2020	11:22	0.5'	1	x	x	x									Discrete		
SS10					s	9/21/2020	14:05	0.5'	1	x	x	x									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 Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9/21/20 13:35			

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.22.2020 01.25.00 PM

Work Order #: 673230

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)?	3.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

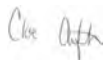
Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.22.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.23.2020

**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 14934

**CONDITIONS OF APPROVAL**

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	14934	C-141

OCD Reviewer	Condition
kcollins	When submitting future reports please submit each incident individually. Each should be submitted with a separate fee for each.