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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2011445697
District RP	
Facility ID	
Application ID	

# **Release Notification**

## **Responsible Party**

Responsible	Party XTC	) Energy		OGRID :	5380	
Contact Name Kyle Littrell				Contact Telephone 432-221-7331		
Contact email Kyle_Littrell@xtoenergy.com				(assigned by OCD)		
Contact mail			, Carlsbad, NM 88	3220		
			Location	of Release So	ource	
Latitude 32.3	881266		(NAD 83 in dec	Longitude _ imal degrees to 5 decim	-103.884166 nal places)	
Site Name J	RU DI1 BS:	2A 7E 211H		Site Type	Well Pad	
Date Release				API# (if app		
Unit Letter	Section	Township	Range	Coun	ity	]
G	21	22S	30E	Edd	y	
	Materia	l(s) Released (Select a	II that apply and attach	l Volume of I	justification for the	e volumes provided below)
Crude Oil		Volume Release	ed (bbls)		Volume Reco	
➤ Produced	Water	Volume Release	ed (bbls) 10		Volume Reco	overed (bbls) 9.8
			tion of total dissolv water >10,000 mg/	· /	Yes N	lo
Condensa	te	Volume Release	ed (bbls)		Volume Reco	overed (bbls)
☐ Natural G	as	Volume Release	ed (Mcf)		Volume Reco	overed (Mcf)
Other (des	scribe)	Volume/Weight	Released (provide	units)	Volume/Weig	ght Recovered (provide units)
Cause of Rele	contain	ment nad a note w	mich refeased 0.26	n pump releasing 10 bl to the pad surfac contractor will be r	e. A vacuum tr	er to the lined containment. The uck was dispatched and recovered 9.8 ediation activities.

Page 2

State of New Mexico
Oil Conservation Division

	I ugu woj I
Incident ID	NRM2011445697
District RP	
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  ☐ Yes ☐ No	If YES, for what reason(s) does the respon N/A	
N/A	once given to the OCD? By whom? To who	om? When and by what means (phone, email, etc)?
	Initial Re	sponse
The responsible p	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
Released materials ha  All free liquids and re	s been secured to protect human health and t	kes, absorbent pads, or other containment devices. managed appropriately.
has begun, please attach	a narrative of actions to date. If remedial e	mediation immediately after discovery of a release. If remediation fforts have been successfully completed or if the release occurred ease attach all information needed for closure evaluation.
regulations all operators are public health or the environment failed to adequately investigated addition, OCD acceptance of and/or regulations.	required to report and/or file certain release notifient. The acceptance of a C-141 report by the Otate and remediate contamination that pose a threat a C-141 report does not relieve the operator of	est of my knowledge and understand that pursuant to OCD rules and cations and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have to groundwater, surface water, human health or the environment. In esponsibility for compliance with any other federal, state, or local laws
Printed Name: Kyle Littr	ell	Title: SH&E Supervisor
Signature:	SHI	Date:
email: Kyle_Littrell@xto	penergy.com	Telephone: 432-221-7331
OCD Only		
Received by: Ramona	Marcus	Date: 4/23/2020

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

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

Received by OCD: 12/10/2020 1346516 PM Form C-141 State of New Mexico Oil Conservation Division Page 3

Page 4 of 123 NRM2011445697 Incident ID District RP Facility ID Application ID

# Site Assessment/Characterization

This information must be provided to the appropriate district office no taler than 90 days after the release discovery date.				
What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes 🛛 No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🔀 No			
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes 🛛 No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes 🛛 No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes 🛛 No			
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes 🛛 No			
Are the lateral extents of the release overlying an unstable area such as karst geology?	X Yes  ∑  No			
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes 🛛 No			
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes 🛛 No			
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.				

cacterization 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.  Sield data Outa table of soil contaminant concentration data Outate table of soil contaminant concentrati
500

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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Page 4 Oil Conservation Division

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Incident ID	NRM2011445697
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: Kyle Littrell	Title: SH&E Supervisor	
Signature:	Date:10/7/20	
email:Kyle_Littrell@xtoenergy.com	Telephone:	
OCD Only		
Received by: Cristina Eads	Date: 10/09/2020	

Received by OCD: 12/10/2020 1:46516 PM State of New Mexico
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Incident ID NRM2011445697

District RP
Facility ID
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# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be inc	luded in the plan.			
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation points</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>				
<u>Deferral Requests Only</u> : Each of the following items must be confirm	ed as part of any request for deferral of remediation.			
⊠ Contamination must be in areas immediately under or around product deconstruction.	tion equipment where remediation could cause a major facility			
Extents of contamination must be fully delineated.				
☑ Contamination does not cause an imminent risk to human health, the	environment, or groundwater.			
Signature:	n release notifications and perform corrective actions for releases of a C-141 report by the OCD does not relieve the operator of remediate contamination that pose a threat to groundwater, otance of a C-141 report does not relieve the operator of			
OCD Only				
Received by: Cristina Eads Da	te:			
Approved With Attached Conditions of App	roval			
Signature: Date	: 12/10/2020			

<u>District I</u>
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<u>District IV</u>
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State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

# **Release Notification**

## **Responsible Party**

	9,			OGRID :	5380
Contact Name Kyle Littrell		Contact Te	Contact Telephone 432-221-7331		
Contact email Kyle_Littrell@xtoenergy.com			(assigned by OCD)		
Contact mailin	ng address	522 W. Mermod	, Carlsbad, NM 88220	)	
			Location of	Release So	nurce
Latitude 32.38126 Longitude -103.88416					
Latitude	0120		(NAD 83 in decima	Longitude _ l degrees to 5 decin	nal places)
Site Name III				Site Type	WIID
Date Release I		2A 7W 212H		API# (if app	
Date Release I	Discovered	04/09/2020		Al I# (ij app	nicavie
Unit Letter	Section	Township	Range	Coun	nty
G	21	22S 30E Eddy		у	
C - C	. 🗆 🗸		that Det at (No.		
Surface Owner:		rederal 1	ribal Private (Nam	e:	)
			Nature and V	olume of I	Release
Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)					
Crude Oil Volume Released (bbls)			ll that apply and attach calc	ulations or specific	justification for the volumes provided below)
				ulations or specific	justification for the volumes provided below)  Volume Recovered (bbls)
× Produced	Water		ed (bbls)	ulations or specific	
× Produced	Water	Volume Release Volume Release Is the concentra	ed (bbls)		Volume Recovered (bbls)
✓ Produced Condensat		Volume Release Volume Release Is the concentra	ed (bbls) ed (bbls) 10 tion of total dissolved water >10,000 mg/l?		Volume Recovered (bbls)  Volume Recovered (bbls) 9.7
	e	Volume Release Volume Release Is the concentra in the produced	ed (bbls) ed (bbls) 10 tion of total dissolved water >10,000 mg/l? ed (bbls)		Volume Recovered (bbls)  Volume Recovered (bbls) 9.7  Yes No
Condensat	e	Volume Release  Volume Release  Is the concentra in the produced  Volume Release  Volume Release	ed (bbls) ed (bbls) 10 tion of total dissolved water >10,000 mg/l? ed (bbls)	solids (TDS)	Volume Recovered (bbls)  Volume Recovered (bbls) 9.7  Yes No  Volume Recovered (bbls)
Condensat  Natural Ga  Other (des	e as cribe)	Volume Release  Volume Release  Is the concentra in the produced  Volume Release  Volume Release  Volume/Weight	ed (bbls) ed (bbls) 10 tion of total dissolved water >10,000 mg/l? ed (bbls) ed (Mcf) Released (provide un	solids (TDS)	Volume Recovered (bbls)  Volume Recovered (bbls) 9.7  Yes No  Volume Recovered (bbls)  Volume Recovered (Mcf)  Volume/Weight Recovered (provide units)
☐ Condensat	e as cribe) ase A fitting	Volume Release  Volume Release  Is the concentra in the produced  Volume Release  Volume Release  Volume/Weight  g on the circulatio	ed (bbls) ed (bbls) tion of total dissolved water >10,000 mg/l? ed (bbls) ed (Mcf) Released (provide un n pump experienced a	solids (TDS) its) sand cut, releas	Volume Recovered (bbls)  Volume Recovered (bbls) 9.7  Yes No  Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (Mcf)  Volume/Weight Recovered (provide units)  sing 10 barrels of fluid. 8 barrels of produced water were
Condensat  Natural Ga  Other (des	e as cribe) ase A fitting captured	Volume Release  Volume Release  Is the concentra in the produced  Volume Release  Volume Release  Volume/Weight  g on the circulation d within the lined ned and recovered	ed (bbls) ed (bbls) 10 tion of total dissolved water >10,000 mg/l? ed (bbls) ed (Mcf) Released (provide un pump experienced a containment. A hole all 8 barrels from the	its) sand cut, releasin containment lined containm	Volume Recovered (bbls)  Volume Recovered (bbls) 9.7  Yes No  Volume Recovered (bbls)  Volume Recovered (Mcf)  Volume/Weight Recovered (provide units)  sing 10 barrels of fluid. 8 barrels of produced water were allowed 2 barrels to impact pad. Vacuum truck was ent, and 1.7 barrels from the pad
Condensat  Natural Ga  Other (des	e as cribe) ase A fitting captured	Volume Release  Volume Release  Is the concentra in the produced  Volume Release  Volume Release  Volume/Weight  g on the circulation d within the lined ned and recovered	ed (bbls) ed (bbls) 10 tion of total dissolved water >10,000 mg/l? ed (bbls) ed (Mcf) Released (provide un pump experienced a containment. A hole	its) sand cut, releasin containment lined containm	Volume Recovered (bbls)  Volume Recovered (bbls) 9.7  Yes No  Volume Recovered (bbls)  Volume Recovered (Mcf)  Volume/Weight Recovered (provide units)  sing 10 barrels of fluid. 8 barrels of produced water were allowed 2 barrels to impact pad. Vacuum truck was ent, and 1.7 barrels from the pad

Page 2

State of New Mexico
Oil Conservation Division

	I uge o of I
Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respor	sible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	N/A	
☐ Yes ☐ No		
·	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
N/A		
	Initial Re	esponse
The responsible	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
▼ The source of the rele	ease has been stopped.	
	as been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
★ All free liquids and re	ecoverable materials have been removed and	l managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain v	vhy:
N/A		
has begun, please attach	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
regulations all operators are public health or the environ failed to adequately investig addition, OCD acceptance o and/or regulations.	required to report and/or file certain release notifient. The acceptance of a C-141 report by the O gate and remediate contamination that pose a threaf a C-141 report does not relieve the operator of	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name: Kyle Littr	rell	Title: SH&E Supervisor
Signature:	Letter II	Date: 4-23-20
email: Kyle_Littre#@xto	penergy.com	Telephone: 432-221-7331
email:		l elephone:
OCD Only		
Received by: Ramona	a Marcus	Date: 4/24/2020

#### NRM2011535196

Location:	JRU DI 1 BS2A 7W 212H			
Spill Date:	4/9/2020			
	Area 1			
Approximate A	rea =	342.00	sq. ft.	
Average Satura	Average Saturation (or depth) of spill = 2.00 inches			
Average Porosi	Average Porosity Factor = 0.03			
VOLUME OF LEAK				
Total Produced	Total Produced Water = 2.00 bbls			
Area 2				
Approximate Area = 44.78 cu. Ft.				
VOLUME RECOVERED IN CONTAINMENT				
Total Produced Water = 8.00 bbls			bbls	
TOTAL VOLUME OF LEAK				
Total Produced	Fotal Produced Water = 10.00 bbls		bbls	
	<b>TOTAL VOLUME RECOVERED</b>			
Total Produced	Water =	9.70	bbls	

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Page 10 of 123 Incident ID NRM2011535196 District RP Facility ID Application ID

# **Site Assessment/Characterization**

This information must be provided to the appropriate district office no taler man 20 days after the release discovery date.		
What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)	
Did this release impact groundwater or surface water?	☐ Yes ☒ No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🏻 No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes 🏻 No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes 🏻 No	
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes 🛛 No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	X Yes  ∑  No	
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes 🛛 No	
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes 🛛 No	
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.		
Characterization Report Checklist: Each of the following items must be included in the report.		
Scaled site man showing impacted area, surface features, subsurface features, delineation points, and monitoring well	le	

Comann	nation associated with the release have been determined. Refer to 19.13.29.11 NWAC for specifics.
Chara	cterization Report Checklist: Each of the following items must be included in the report.
▼ Fie	aled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  eld data ta table of soil contaminant concentration data
	pth to water determination
	etermination of water sources and significant watercourses within ½-mile of the lateral extents of the release aring or excavation logs
N Ph	otographs including date and GIS information
	pographic/Aerial maps boratory 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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Incident ID	NRM2011535196
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: Kyle Littrell	Title: SH&E Supervisor	
Signature:	Date:10/7/20	
email:Kyle_Littrell@xtoenergy.com	Telephone:	
OCD O-1-		
OCD Only		
Received by: Cristina Eads	Date: 10/09/2020	

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Incident ID NRM2011535196

District RP
Facility ID
Application ID

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	included in the plan.
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation points</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.1</li> <li>☑ Proposed schedule for remediation (note if remediation plan times)</li> </ul>	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con	firmed as part of any request for deferral of remediation.
⊠ Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
☑ Contamination does not cause an imminent risk to human health	, the environment, or groundwater.
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptant liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local later.	ertain release notifications and perform corrective actions for releases nce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Kyle Littrell Printed Name:	SH&E Supervisor Title:
Signature:	Date:10/7/20
email:Kyle_Littrell@xtoenergy.com	Telephone:
OCD Only	
Received by: Cristina Eads	Date: 10/09/2020
☐ Approved with Attached Conditions of A	Approval
Signature: Junta 2	Date: 12/10/2020

District I
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811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Responsible Party

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2011559899
District RP	
Facility ID	
Application ID	

# **Release Notification**

## **Responsible Party**

OGRID

Contact Name			Contact Te	elephone			
Contact email				Incident #	(assigned by OCD)		
Contact mail	ing address			1			
			Location	of Release So	ource		
Latitude			(NAD 83 in deci	Longitude _ imal degrees to 5 decin	nal places)		
Site Name				Site Type	Site Type		
Date Release	Discovered			API# (if app	olicable)		
Unit Letter	Section	Township	Range	Cour	nty		
Crude Oil		l(s) Released (Select all Volume Released	that apply and attach c	Volume of l	Release  justification for the volu  Volume Recovere		
Produced		Volume Released			Volume Recovere		
Is the concentration of total dissolved sin the produced water >10,000 mg/l?			Yes No	()			
Condensa	ite		Volume Released (bbls)		Volume Recovered (bbls)		
Natural G	ias	Volume Released (Mcf)		Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide		units)	Volume/Weight R	Recovered (provide units)			
Cause of Rel	ease	<u>I</u>			ı		

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Incident ID	NRM2011559899
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?			
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?			
	Initial Response			
The responsible p	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury			
☐ The source of the rele	ase has been stopped.			
☐ The impacted area ha	s been secured to protect human health and the environment.			
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.			
All free liquids and re	ecoverable materials have been removed and managed appropriately.			
If all the actions described	l above have <u>not</u> been undertaken, explain why:			
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.			
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.				
Printed Name:	Title:			
Signature:	Date:			
email:	Telephone:			
OCD Only				
Received by:	Date:			

Location:	JRU DI1 BS1 3E 213H			
Spill Date:	4/10/2020			
	Area 1			
Approximate A	rea =	2242.00	sq. ft.	
Average Saturation (or depth) of spill = 2.00		inches		
Average Porosity Factor = 0.03				
VOLUME OF LEAK				
Total Produced Water = 6.00 l			bbls	

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

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Topographic/Aerial maps

■ Laboratory data including chain of custody

	Page 16 of 12	3
Incident ID	NRM2011559899	
District RP		
Facility ID		
Application ID		

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)		
Did this release impact groundwater or surface water?	☐ Yes 🛛 No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🏻 No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes 🛛 No		
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes 🏻 No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No		
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No		
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No		
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes  ∑  No		
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No		
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ☒ No		
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vercontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil		
Characterization Report Checklist: Each of the following items must be included in the report.			
<ul> <li>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> <li>Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li>Boring or excavation logs</li> </ul>			
Photographs including date and GIS information			

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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	1 180 1 10 1
Incident ID	NRM2011559899
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Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.				
Printed Name: Kyle Littrell	Title: SH&E Supervisor			
Signature:	Date:10/7/20			
email:Kyle_Littrell@xtoenergy.com	Telephone:			
OCD Only				
Received by: Cristina Eads	Date: 10/09/2020			

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Incident ID NRM2011559899
District RP
Facility ID
Application ID

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be included in the plan.					
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation points</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>					
Deferral Requests Only: Each of the following items must be confi	irmed as part of any request for deformal of remediation				
Deterral requests only. Each of the following tiems must be confi	rmea as part of any request for aeferral of remediation.				
$\boxtimes$ Contamination must be in areas immediately under or around prodeconstruction.	luction equipment where remediation could cause a major facility				
Extents of contamination must be fully delineated.					
Contamination does not cause an imminent risk to human health,	the environment, or groundwater.				
I hereby certify that the information given above is true and complete rules and regulations all operators are required to report and/or file ce which may endanger public health or the environment. The acceptance liability should their operations have failed to adequately investigate a surface water, human health or the environment. In addition, OCD acceptance with any other federal, state, or local law Kyle Littrell  Printed Name:  Signature:  Kyle Littrell(@xtoenergy.com email:	rtain release notifications and perform corrective actions for releases ce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, receptance of a C-141 report does not relieve the operator of				
OCD Only					
Received by: Cristina Eads	Date: 10/09/2020				
☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved					
Signature: Juliu 2	Date: 12/10/2020				

### Received by OCD: 12/10/2020/13/46516/PM

District III
1000 Río 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 Page 19 of 123
Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2006432204
District RP	
Facility ID	
Application ID	

# **Release Notification**

## **Responsible Party**

			2100 P 012					
Responsible Part	ty XTC	Energy		OGRID	OGRID 5380			
Contact Name Kyle Littrell				Contact Te	Contact Telephone 432-221-7331			
Contact email Kyle_Littrell@xtoenergy.com			com	Incident #	(assigned by OCD)			
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220				0				
			Location of	Release So	ource			
Latitude	32	2.380774		Longitude	-103.881894			
			(NAD 83 in decima	degrees to 5 decin	nal places)			
Site Name JRU	DI 1 #21	1H		Site Type	Well Pad			
Date Release Disc	covered	02/18/2020		API# (if app	licable) NA			
	ection	Township	Range	Coun	ty			
H 21	l l	22S	30E	Eddy				
		s) Released (Scicct al		olume of l	justification for the volumes provided below)			
Crude Oil		Volume Release	d (bbls)		Volume Recovered (bbls)			
Produced Wa	iter	Volume Release	d (bbls) 5		Volume Recovered (bbls) 4.95			
		Is the concentrate produced water	ion of dissolved chlor >10,000 mg/l?	ide in the	☐ Yes ☐ No			
Condensate		Volume Release	d (bbls)		Volume Recovered (bbls)			
☐ Natural Gas		Volume Release	d (Mcf)		Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide units)			Released (provide un	its)	Volume/Weight Recovered (provide units)			
2.5 barrels remain	ned in co	ntainment and 2.5			otal volume released was 5 barrels of produced water. ace. Vacuum truck recovered 4.95 barrels. A third party			

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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) doe	s the responsible party consider this a major release?
☐ Yes ⊠ No		
If YES, was immediate r	notice given to the OCD? By who	om? To whom? When and by what means (phone, email, etc)?
	I	nitial Response
The responsible	party must undertake the following actio	ons immediately unless they could create a safety hazard that would result in injury
☐ The source of the rel	ease has been stopped.	
The impacted area ha	as been secured to protect human	health and the environment.
Released materials h	ave been contained via the use of	f berms or dikes, absorbent pads, or other containment devices.
All free liquids and t	recoverable materials have been r	removed and managed appropriately.
If all the actions describe	1 1 1 1 1 1 1 1	
If all the actions describe	ed above have not been undertake	en, explain why:
N/A	ed above have <u>not</u> been undertake	en, explain why:
	ed above have <u>not</u> been undertake	en, explain why:
	ed above have <u>not</u> been undertake	en, explain why:
	ed above have <u>not</u> been undertake	en, explain why:
N/A  Per 19.15.29.8 B. (4) NN has begun, please attach	MAC the responsible party may c a narrative of actions to date. I	ommence remediation immediately after discovery of a release. If remediation
N/A  Per 19.15.29.8 B. (4) NN has begun, please attach within a lined containme  I hereby certify that the inforegulations all operators are public health or the environ failed to adequately investigations.	MAC the responsible party may c a narrative of actions to date. I ent area (see 19.15.29.11(A)(5)(a) commation given above is true and con e required to report and/or file certain ment. The acceptance of a C-141 re gate and remediate contamination tha	ommence remediation immediately after discovery of a release. If remediation if remedial efforts have been successfully completed or if the release occurred
N/A  Per 19.15.29.8 B. (4) NN has begun, please attach within a lined containme  I hereby certify that the inforcegulations all operators are public health or the environ failed to adequately investiguaddition, OCD acceptance and/or regulations.	MAC the responsible party may c a narrative of actions to date. I ent area (see 19.15.29.11(A)(5)(a) commation given above is true and con e required to report and/or file certain ment. The acceptance of a C-141 re gate and remediate contamination tha	commence remediation immediately after discovery of a release. If remediation if remedial efforts have been successfully completed or if the release occurred NMAC), please attach all information needed for closure evaluation.  Inplete to the best of my knowledge and understand that pursuant to OCD rules and in release notifications and perform corrective actions for releases which may endanger uport by the OCD does not relieve the operator of liability should their operations have at pose a threat to groundwater, surface water, human health or the environment. In
N/A  Per 19.15.29.8 B. (4) NN has begun, please attach within a lined containme  I hereby certify that the inforcegulations all operators are public health or the environ failed to adequately investigaddition, OCD acceptance and/or regulations.	MAC the responsible party may c a narrative of actions to date. I ent area (see 19.15.29.11(A)(5)(a) commation given above is true and conce required to report and/or file certain ment. The acceptance of a C-141 regate and remediate contamination that of a C-141 report does not relieve the	commence remediation immediately after discovery of a release. If remediation if remedial efforts have been successfully completed or if the release occurred NMAC), please attach all information needed for closure evaluation.  Inplete to the best of my knowledge and understand that pursuant to OCD rules and a release notifications and perform corrective actions for releases which may endanger port by the OCD does not relieve the operator of liability should their operations have at pose a threat to groundwater, surface water, human health or the environment. In the operator of responsibility for compliance with any other federal, state, or local laws
N/A  Per 19.15.29.8 B. (4) NM has begun, please attach within a lined containme  I hereby certify that the inferegulations all operators are public health or the environ failed to adequately investiguaddition, OCD acceptance and/or regulations.  Printed Name: Kyle  Signature:	MAC the responsible party may can arrative of actions to date. It are a (see 19.15.29.11(A)(5)(a) commation given above is true and concerequired to report and/or file certain ament. The acceptance of a C-141 regate and remediate contamination that of a C-141 report does not relieve the	commence remediation immediately after discovery of a release. If remediation if remedial efforts have been successfully completed or if the release occurred NMAC), please attach all information needed for closure evaluation.  Implete to the best of my knowledge and understand that pursuant to OCD rules and a release notifications and perform corrective actions for releases which may endanger export by the OCD does not relieve the operator of liability should their operations have at pose a threat to groundwater, surface water, human health or the environment. In the operator of responsibility for compliance with any other federal, state, or local laws  Title: SH&E Supervisor
N/A  Per 19.15.29.8 B. (4) NM has begun, please attach within a lined containme  I hereby certify that the inferegulations all operators are public health or the environ failed to adequately investiguaddition, OCD acceptance and/or regulations.  Printed Name: Kyle  Signature:	MAC the responsible party may c a narrative of actions to date. I ent area (see 19.15.29.11(A)(5)(a) commation given above is true and conce required to report and/or file certain ment. The acceptance of a C-141 regate and remediate contamination that of a C-141 report does not relieve the	commence remediation immediately after discovery of a release. If remediation if remedial efforts have been successfully completed or if the release occurred NMAC), please attach all information needed for closure evaluation.  Inplete to the best of my knowledge and understand that pursuant to OCD rules and a release notifications and perform corrective actions for releases which may endanger port by the OCD does not relieve the operator of liability should their operations have at pose a threat to groundwater, surface water, human health or the environment. In the operator of responsibility for compliance with any other federal, state, or local laws  Title: SH&E Supervisor  Date:3/3/2020

Total Produced Water =

#### NRM2006432204

4.95 bbls

Location:	JRU DI 1 211H		
Spill Date:	2/18/2020		
	Area 1		
Approximate A	rea =	27.80	cu. ft.
	VOLUME RECOVERED		
Total Produced	Water =	4.95	bbls
	Area 2		
Approximate A	rea =	450.00	sq. ft.
Average Satura	tion (or depth) of spill =	0.25	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Produced	Water =	0.05	bbls
	TOTAL VOLUME OF LEAK		
Total Produced	Water =	5.00	bbls

**TOTAL VOLUME RECOVERED** 

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## **Site Assessment/Characterization**

This information must be provided to the appropriate district office to taler than 20 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🏻 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	X Yes I∑l No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes 🛛 No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil

Com	amination associated with the release have been determined. Refer to 19.13.29.11 NWAC for specifics.
<u>Ch</u>	aracterization Report Checklist: Each of the following items must be included in the report.
$\overline{\boxtimes}$	Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  Field data  Data table of soil contaminant concentration data
$\boxtimes$	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
$\boxtimes$	Photographs including date and GIS information
$\boxtimes$	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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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.					
Printed Name: Kyle Littrell	Title: SH&E Supervisor				
Signature:	Date:10/7/20				
email:Kyle_Littrell@xtoenergy.com	Telephone:				
OCD Only					
Received by: Cristina Eads	Date:10/09/2020				

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**Page 24 of 123** NRM2006432204

Incident ID District RP Facility ID Application ID

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	included in the plan.
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation point</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.1</li> <li>☑ Proposed schedule for remediation (note if remediation plan times)</li> </ul>	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be com-	firmed as part of any request for deferral of remediation.
⊠ Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptantiability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local latest the state of the state	ertain release notifications and perform corrective actions for releases are of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Kyle Littrell Printed Name:	SH&E Supervisor Title:
Signature:	Date:10/7/20
email: Kyle_Littrell@xtoenergy.com	Telephone:
OCD Only	
<u>oco only</u>	
Received by: Cristina Eads	Date: 10/09/2020
☐ Approved With Attached Conditions of Approved	Approval Denied Deferral Approved
Signature: Juntan 2	Date: 12/10/2020



LT Environmental, Inc.

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

October 7, 2020

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

RE: Remediation Work Plan

James Ranch Unit Drilling Island -1

XTO Energy, Inc.

Incident Numbers NRM2006432204, NRM2011445697, NRM2011535196,

NRM2011559899

**Eddy County, New Mexico** 

To Whom it May Concern:

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

#### **RELEASE BACKGROUND**

Below is a summary of each release at the Site.

#### NRM2006432204 - JRU DI 1 #211H

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



#### NRM2011445697 – JRU DI1 BS2A 7E 211H

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

#### NRM2011535196 – JRU DI1 BS2A 7W 212H

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

#### NRM2011559899- JRU DI1 BS1 3E 213H

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

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



#### SITE CHARACTERIZATION

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

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

#### **CLOSURE CRITERIA**

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

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

#### **SITE ASSESSMENT ACTIVITIES**

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

#### NRM2006432204 - JRU DI 1 #211H

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



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

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

#### NRM2011559899- JRU DI1 BS1 3E 213H

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

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

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

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

#### **PROPOSED WORK PLAN**

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



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

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

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

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

#### **CONFIRMATION SAMPLING VARIANCE REQUEST**

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



#### **SCHEDULE**

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

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

Sincerely,

LT ENVIRONMENTAL, INC.

Moursey

Tacoma Morrissey

**Project Geologist** 

Ashley L. Ager, P.G.

ashley L. ager

Senior Geologist

Attachments:

Figure 1 Site Location Map

Figure 2 Preliminary Soil Sample Locations

Figure 3 Proposed Excavation and Liner Extents

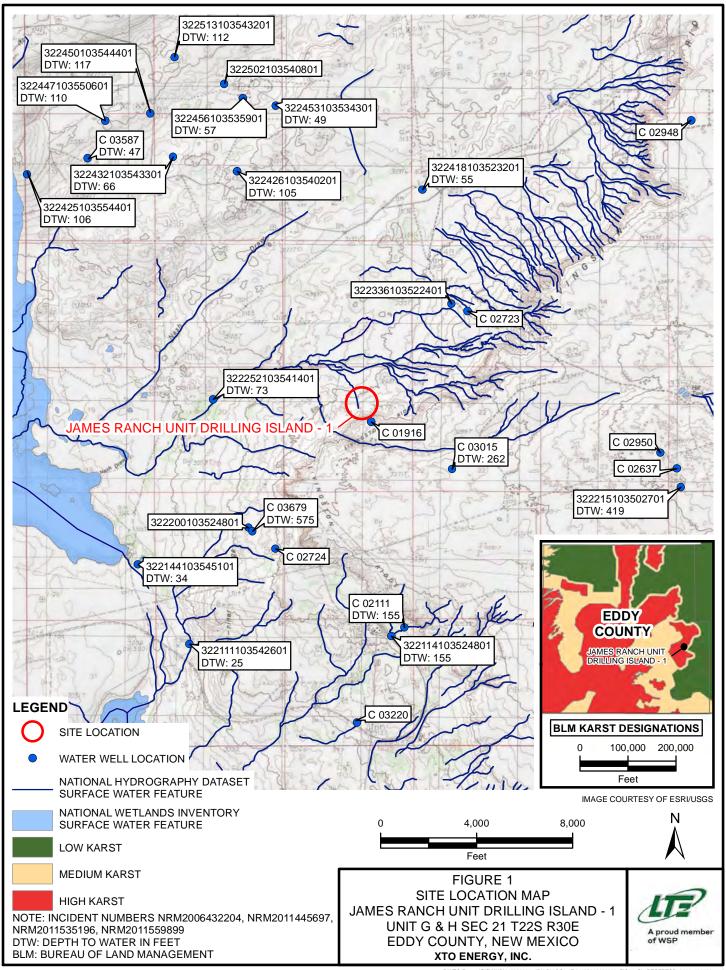
Table 1 Soil Analytical Results

Attachment 1 Referenced Well Records

Attachment 2 Photographic Log

Attachment 3 Laboratory Analytical Reports







RELEASE LOCATION (NRM2006432204)

RELEASE LOCATION (NRM2011445697/ NRM2011535196)

RELEASE LOCATION (NRM2011559899)

- PRELIMINARY SOIL SAMPLE ASSOCIATED WITH INCIDENT NUMBER NRM2006432204
- PRELIMINARY SOIL SAMPLE ASSOCIATED WITH INCIDENT NUMBERS NRM2011445697 & NRM2011535196
- PRELIMINARY SOIL SAMPLE ASSOCIATED WITH INCIDENT NUMBER NRM2011559899

RELEASE EXTENT

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

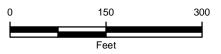
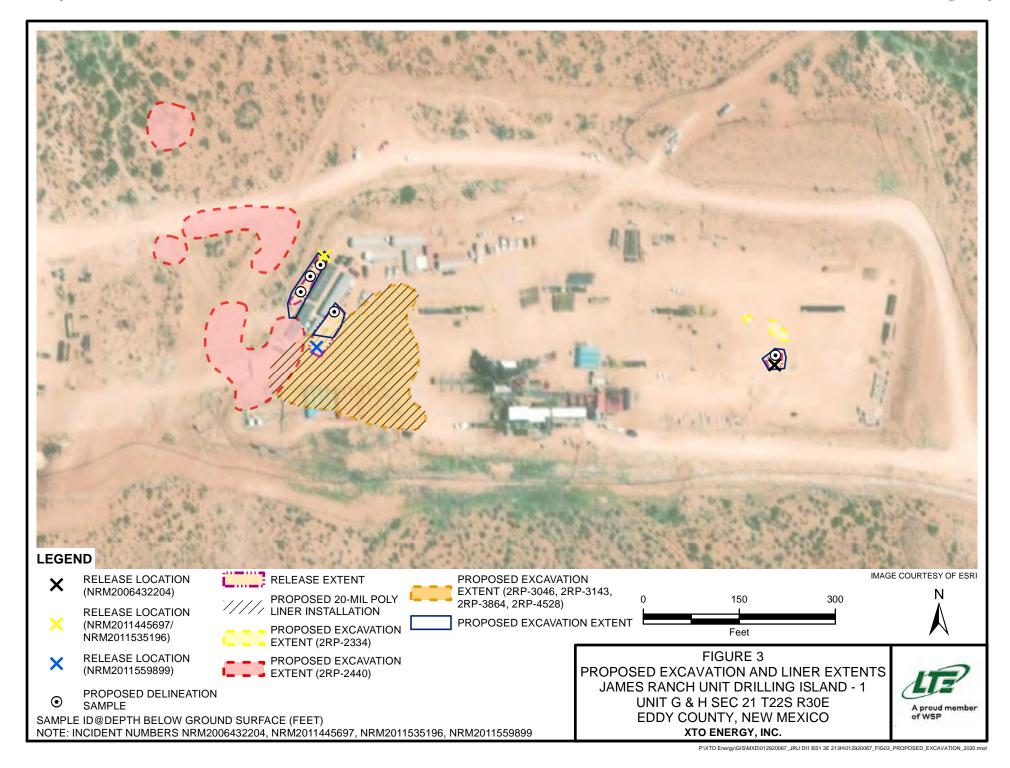




FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT DRILLING ISLAND - 1
UNIT G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



P:\XTO Energy\GIS\MXD\012920067\_JRU DI1 BS1 3E 213H\012920067\_FIG02\_PRELIMINARY\_2020.mx





# TABLE 1 SOIL ANALYTICAL RESULTS

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

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD	NMOCD Table 1 Closure Criteria		10	NE	NE	NE	50	NE	NE	NE	NE	100	600
					JRU	J DI 1 #211H (I	NRM20064322	04)					
SS01	0.5	9/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	3,920
			JRU	U DI1 BS2A 7E	211H and JRU	DI1 BS2A 7W 2	12H (NRM201	1445697 and N	IRM201153519	96)			
SS01	0.5	9/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	15,100
SS02	0.5	9/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	66.3	<49.9	66.3	66.3	8,060
SS03	0.5	9/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	461	60.9	461	522	11,600
					JRU D	I1 BS1 3E 213F	l (NRM201155	9899)					
SS01	0.5	9/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	7,560
SS02	0.5	9/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	25,500
SS03	0.5	9/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	13,100
SS04	0.5	9/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	83.3	<50.0	83.3	83.3	16,300

#### Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

ORO - oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

**Bold** - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018





# **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

 POD Number
 Q64 Q16 Q4 Sec Tws Rng

 C 02111
 2 2 2 33 22S 30E

X Y

2 2 2 33 22S 30E 605505 3580336\*

**Driller License: Driller Company:** 

**Driller Name:** WINSTON BROS.

**Drill Start Date:** Drill Finish Date: 11/30/1962 Plug Date:

Log File Date:PCW Rev Date:Source:ShallowPump Type:Pipe Discharge Size:Estimated Yield:29 GPMCasing Size:8.75Depth Well:248 feetDepth Water:155 feet

Meter Number:552Meter Make:SENSUSMeter Serial Number:1480245Meter Multiplier:100.0000Number of Dials:5Meter Type:Diversion

Unit of Measure: Gallons Return Flow Percent:
Usage Multiplier: Reading Frequency:

#### Meter Readings (in Acre-Feet)

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

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10/2/20 8:46 AM

POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng X

C 03015 22S 606099 22

3582353\*

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

**Driller Name:** 

01/21/2004 **Drill Finish Date:** 01/25/2004 Plug Date:

**Drill Start Date:** 03/04/2004 PCW Rcv Date: Source:

Log File Date: Artesian **Pump Type:** Pipe Discharge Size: **Estimated Yield:** 

**Casing Size:** 6.00 Depth Well: 1316 feet Depth Water: 262 feet

Water Bearing Stratifications: **Top Bottom Description** 

362 385 Other/Unknown

**Casing Perforations:** Top **Bottom** 

261 386

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POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

X

22S 29E 07

C 03587 POD3

601447 3586271

**Driller License:** 

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

**Driller Name:** 

**Drill Start Date:** 

TAYLOR, CLINTON E. (LD)

04/04/2013

**Drill Finish Date:** 

04/04/2013

**Plug Date:** 

Shallow

Log File Date:

05/07/2013

PCW Rcv Date:

Source:

**Pump Type:** 

Pipe Discharge Size:

**Estimated Yield:** 

3 GPM

**Casing Size:** 

2.00

Depth Well:

Depth Water:

47 feet

Water Bearing Stratifications:

**Top Bottom Description** 

65 80 Other/Unknown

80 feet

**Casing Perforations:** 

Top **Bottom** 

65 80

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POINT OF DIVERSION SUMMARY



# **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

Q64 Q16 Q4 Sec Tws Rng

 $\mathbf{X}$ 

C 03679 POD1

2 14 24S 33E

603567 3581547

**Driller License:** 

1654

**Driller Company:** 

NOT WORKING FOR HIRE--SIRMAN DRILLING

AND CONSTRUC

**Driller Name: Drill Start Date:** 

10/23/2013

**Drill Finish Date:** 

10/29/2013

Plug Date:

Log File Date:

11/07/2013

**PCW Rcv Date:** 

Shallow

**Pump Type:** 

**Pipe Discharge Size:** 

Source:

Estimated Yield: 20 GPM

**Casing Size:** 

6.00

Depth Well:

700 feet

Depth Water:

575 feet

Water Bearing Stratifications:

Top Bottom Description

565

Sandstone/Gravel/Conglomerate

**Casing Perforations:** 

Top Bottom 560

620 700 660

**MASTERMETER** 

Meter Serial Number: 8112524

16576

**Meter Multiplier:** 

100.0000

**Number of Dials:** 

**Meter Number:** 

6

**Meter Type:** 

Meter Make:

Diversion

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

**Reading Frequency:** 

#### Meter Readings (in Acre-Feet)

Read Date	Year N	Atr Reading	Flac	Rdr Comment	Mtr Amount (
03/01/2014		Ü	`	RPT	0
	2014	29030	A		
07/01/2014	2014	49261	A	RPT	6.209
10/01/2014	2014	68901	A	RPT	6.027
12/31/2014	2014	84036	A	RPT	4.645
02/01/2015	2015	89806	A	RPT	1.771
03/02/2015	2015	92350	A	RPT	0.781
04/01/2015	2015	96582	A	RPT	1.299
04/30/2015	2015	104711	A	RPT	2.495
05/31/2015	2015	111086	A	RPT	1.956
07/01/2015	2015	118700	A	RPT	2.337
08/01/2015	2015	123816	A	RPT	1.570
08/31/2015	2015	130025	A	RPT	1.905
10/01/2015	2015	135622	A	RPT	1.718
**YTD Met	er Amounts	s: Year		Amount	
		2014		16.881	
		2015		15.832	

Received by OCD: 12/10/2020/13/46/16 PM ortDispatcher?type=PODGHTML&name=PodGroundSummaryHTML.jrxml&basin=C&nbr=0367 Page 43 of 123

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• 322450103544401

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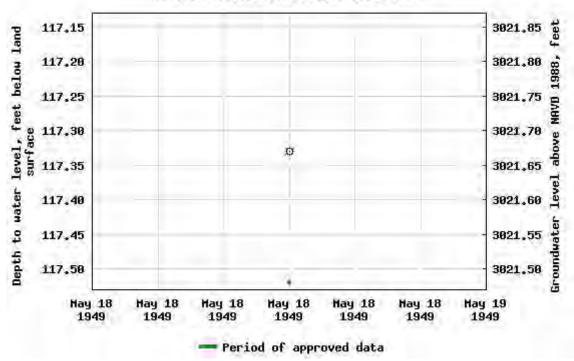
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### USGS 322450103544401 22S.30E.06.444222

		=: 1:	1		
Available data for this site	Groundwater:	Field measurements		GO	
Eddy County, New Mexico					
Hydrologic Unit Code 1306	0011				
Latitude  32°24'50", Longi	tude 103°5	4'44" NAD27			
Land-surface elevation 3,1	39 feet abo	ve NAVD88			
This well is completed in th	ne Rust <mark>l</mark> er F	ormation (312RS	LR) I	ocal aqı	ıifer.

Table of data
Tab-separated data
Graph of data
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#### USGS 322450103544401 225,30E,06,444222



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

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0.6 0.55 nadww01





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• 322453103534301

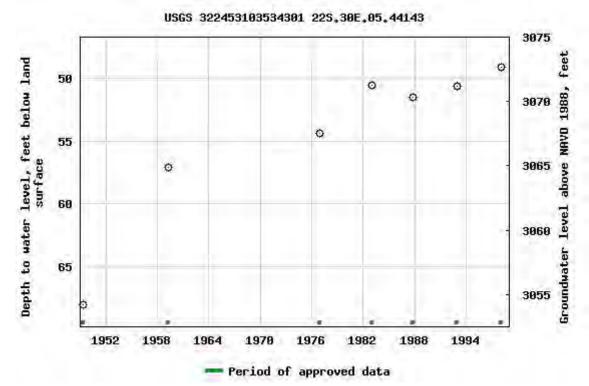
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### USGS 322453103534301 22S.30E.05.44143

Available data for this site	Groundwater:	Field measurements	V GO
Available data for tills site	Olouliuwater.	i leid illeasurements	¥ 00
Eddy County, New Mexico			
Hydrologic Unit Code 1306	50011		
Latitude 32°24'53", Longi	tude 103°5	3'43" NAD27	
Land-surface elevation 3,1	.22 feet abo	ve NAVD88	
This well is completed in tl	he Rust <mark>l</mark> er F	ormation (312RS	SLR) local aquifer.

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0.67 0.57 nadww01





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site\_no list =

322456103535901

#### Minimum number of levels = 1

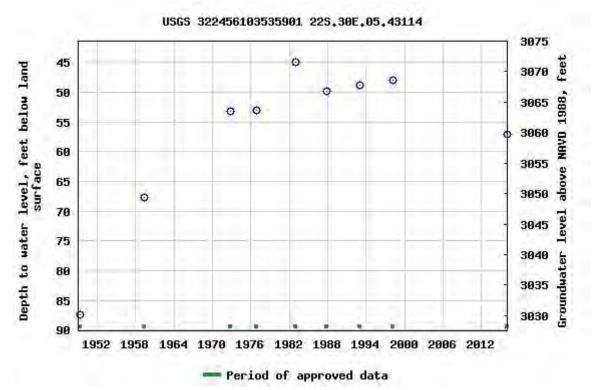
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### USGS 322456103535901 22S.30E.05.43114

Available data for this site Groundwater: Field measurements GO

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

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Tab-separated data
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0.79 0.57 nadww01





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site\_no list =

• 322513103543201

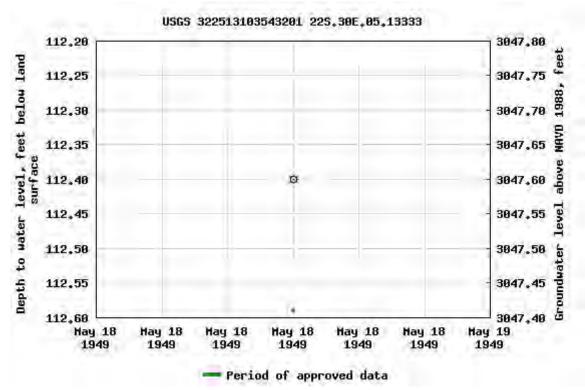
#### Minimum number of levels = 1

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### USGS 322513103543201 22S.30E.05.13333

Available data for this site	Groundwater:	Field measurements	<b>∨</b> GO
Eddy County, New Mexico			
Hydrologic Unit Code 1306	50011		
Latitude 32°25'13", Longi	tude 103°5	4'32" NAD27	
Land-surface elevation 3,1	.60 feet abo	ve NAVD88	
This well is completed in tl	he Rustler F	ormation (312RS	LR) local aquifer.
	_	_	

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



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0.67 0.55 nadww01





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site\_no list =

• 322425103554401

#### Minimum number of levels = 1

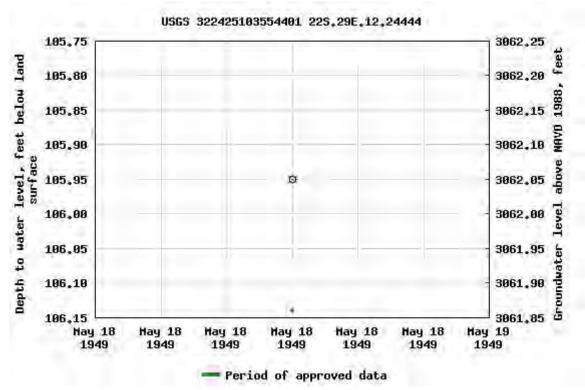
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### USGS 322425103554401 22S.29E.12.24444

Available data for this site Groundwater: Field measurements GO

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

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



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

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

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-10-02 11:00:42 EDT

0.61 0.56 nadww01





## **National Water Information System: Web Interface**

**USGS Water Resources** 

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

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- Introducing The Next Generation of USGS Water Data for the Nation
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Groundwater levels for the Nation

## **Search Results -- 1 sites found**

site\_no list =

• 322426103540201

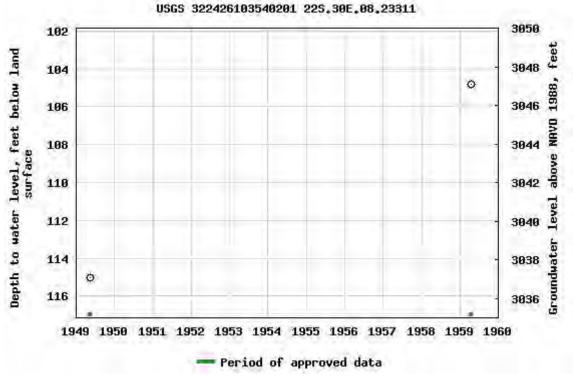
#### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

### USGS 322426103540201 22S.30E.08.23311

Available data for this site	Groundwater:	Field measurements	<b>✓</b> GO	
Eddy County, New Mexico				
Hydrologic Unit Code 1306	50011			
Latitude  32°24'26", Longi	tude 103°5	4'02" NAD27		
Land-surface elevation 3,1	.52 feet abo	ve NAVD88		
The depth of the well is $18$	31 feet belov	w land surface.		
This well is completed in t	he Rustler F	ormation (312RS	LR) local aqu	ifeı

Table of data
Tab-separated data
Graph of data
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**Title: Groundwater for USA: Water Levels** 

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Page Contact Information: <u>USGS Water Data Support Team</u>

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0.65 0.6 nadww01





# **National Water Information System: Web Interface**

**USGS** Water Resources

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Groundwater	~	United States	~	GO

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## **Search Results -- 1 sites found**

site\_no list =

• 322432103543301

### Minimum number of levels = 1

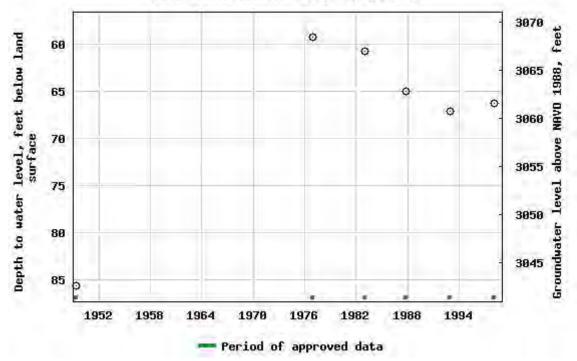
Save file of selected sites to local disk for future upload

# USGS 322432103543301 22S.30E.07.242224

<b>Available data for this site</b>	Groundwater:	Field measurements	~][	GO
Eddy County, New Mexico			·	
Hydrologic Unit Code 1306	50011			
Latitude 32°24'32", Longi	itude 103°5	4'33" NAD27		
Land-surface elevation 3,1	L28 feet abo	ve NAVD88		
The depth of the well is $17$	76 feet belov	w land surface.		
This well is completed in t	he Rustler F	formation (312RS	LR) l	ocal aquife

<u>Table of data</u>
<u>Tab-separated data</u>
<u>Graph of data</u>
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#### USGS 322432103543301 225,30E,07,242224



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

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

Page Contact Information: <u>USGS Water Data Support Team</u>

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0.66 0.57 nadww01





## **National Water Information System: Web Interface**

**USGS Water Resources** 

Data Category:		Geographic Area:		
Groundwater \	/	United States	~	GO

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Groundwater levels for the Nation

## **Search Results -- 1 sites found**

site\_no list =

• 322447103550601

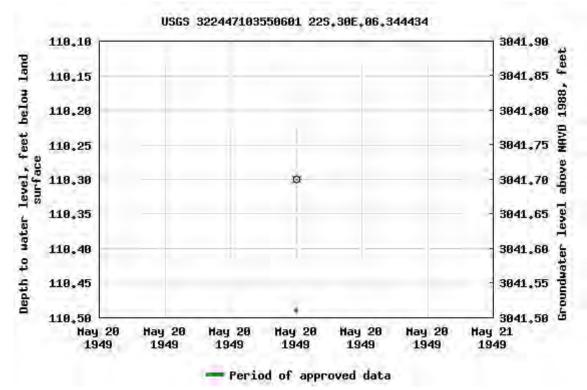
#### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

### USGS 322447103550601 22S.30E.06.344434

Available data for this site	Groundwater:	Field measurements	~	GO	
Eddy County, New Mexico					
Hydrologic Unit Code 1306	50011				
Latitude 32°24'47", Longi	tude 103°5	5'06" NAD27			
Land-surface elevation 3,1	.52 feet abo	ve NAVD88			
This well is completed in tl	ne Rustler F	ormation (312RS	LR) I	local a	quifer.
	_	_			

Table of data
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Graph of data
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URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-10-02 11:00:20 EDT

0.62 0.57 nadww01





### **National Water Information System: Web Interface**

**USGS** Water Resources

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Groundwater	~	United States	~	GO

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### **Search Results -- 1 sites found**

site\_no list =

• 322111103542601

#### Minimum number of levels = 1

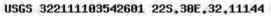
Save file of selected sites to local disk for future upload

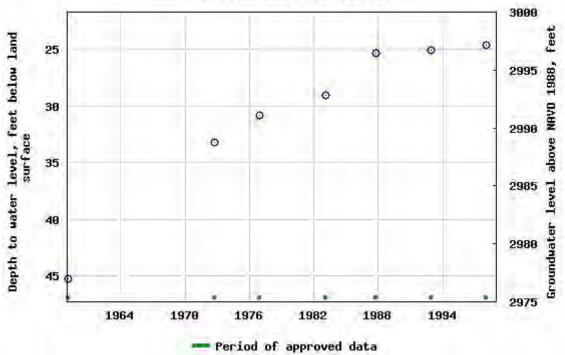
### USGS 322111103542601 22S.30E.32.11144

Available data for this site Groundwater: Field measurements 
GO

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

Table of data
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**Title: Groundwater for USA: Water Levels** 

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

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-10-02 10:56:10 EDT

0.63 0.57 nadww01





### **National Water Information System: Web Interface**

**USGS** Water Resources

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

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## **Search Results -- 1 sites found**

site\_no list =

• 322114103524801

#### Minimum number of levels = 1

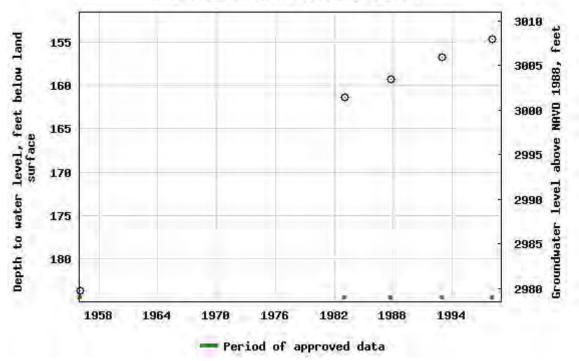
Save file of selected sites to local disk for future upload

# USGS 322114103524801 22S.30E.33.212243

Available data for this site	Groundwater:	Field measurements	~	GO ]	
Eddy County, New Mexico					
Hydrologic Unit Code 1306	50011				
Latitude 32°21'14", Longi	tude 103°5	2'48" NAD27			
Land-surface elevation 3,1	.63 feet abo	ve NAVD88			
The depth of the well is 24	8 feet belov	w land surface.			
This well is completed in tl	ne Rustler F	ormation (312RS	LR) I	local a	aquifer.

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Tab-separated data
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#### USGS 322114103524801 225,30E,33,212243



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

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1.5 0.6 nadww01





## **National Water Information System: Web Interface**

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## **Search Results -- 1 sites found**

site\_no list =

• 322144103545101

#### Minimum number of levels = 1

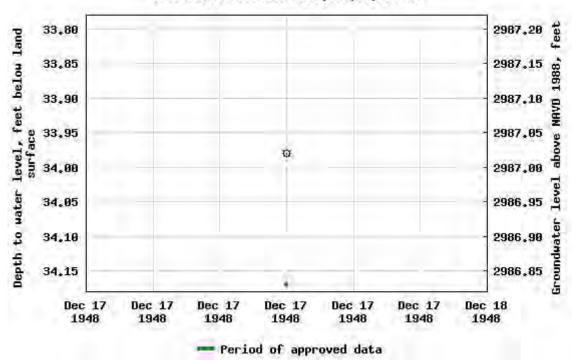
Save file of selected sites to local disk for future upload

# USGS 322144103545101 22S.30E.30.234431

Available data for this site	Groundwater:	Field measurements	~]	GO	
Eddy County, New Mexico			·		
Hydrologic Unit Code 1306	0011				
Latitude 32°21'44", Longi	tude 103°5	4'51" NAD27			
Land-surface elevation 3,0	21 feet abo	ve NAVD88			
The depth of the well is 75	feet below	land surface.			
This well is completed in tl	าe Rustler F	formation (312RS	LR) l	ocal aquife	er.

Table of data	
<u>Tab-separated data</u>	
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#### USGS 322144103545101 225,30E,30,234431



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

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0.65 0.56 nadww01





## **National Water Information System: Web Interface**

<b>USGS</b> Water	Resources
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Data Category:		Geographic Area:		
Groundwater	~	United States	~	GO

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## **Search Results -- 1 sites found**

site\_no list =

• 322215103502701

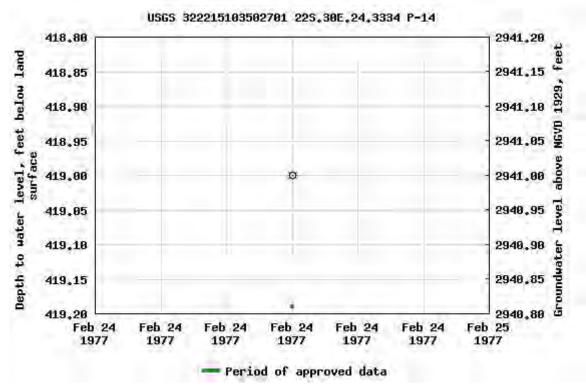
#### Minimum number of levels = 1

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

Available data for this site	Groundwater:	Field measurements	~	GO ]
Eddy County, New Mexico				
Hydrologic Unit Code 13060	0011			
Latitude 32°22'15", Longiti	ude 103°50	0'27" NAD27		
Land-surface elevation 3,36	50 feet abo	ve NGVD29		
	0	utput formats		

Table of data			
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**Title: Groundwater for USA: Water Levels** 

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

Page Contact Information: <u>USGS Water Data Support Team</u>

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0.75 0.6 nadww01





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**USGS** Water Resources

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

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## **Search Results -- 1 sites found**

site\_no list =

• 322252103541401

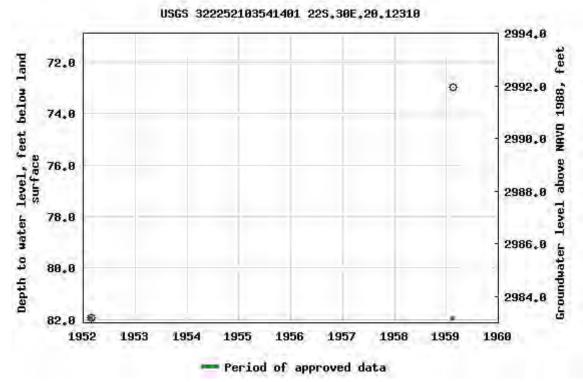
#### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

# USGS 322252103541401 22S.30E.20.12310

Available data for this site	Groundwater:	Field measurements	<b>∨</b> GO	
Eddy County, New Mexico				
Hydrologic Unit Code 1306	0011			
Latitude 32°22'52", Longi	tude 103°5	4'14" NAD27		
Land-surface elevation 3,0	65 feet abo	ve NAVD88		
The depth of the well is 12	9 feet belov	w land surface.		
This well is completed in the	ne Rustler F	formation (312RS	SLR) local aquife	r.

Table of data
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**Title: Groundwater for USA: Water Levels** 

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

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-10-02 10:52:25 EDT

0.8 0.58 nadww01





### **National Water Information System: Web Interface**

**USGS** Water Resources

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Groundwater	~	United States	~	GO

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### **Search Results -- 1 sites found**

site\_no list =

322418103523201

#### Minimum number of levels = 1

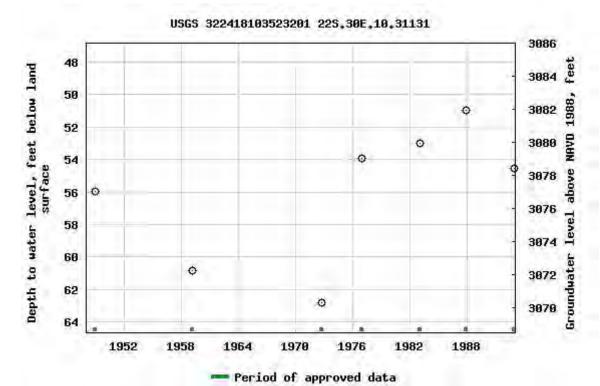
Save file of selected sites to local disk for future upload

# USGS 322418103523201 22S.30E.10.31131

Available data for this site Groundwater: Field measurements GO

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

Table of data	
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**Title: Groundwater for USA: Water Levels** 

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Page Contact Information: <u>USGS Water Data Support Team</u>

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0.68 0.57 nadww01





#### PHOTOGRAPHIC LOG



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



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



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



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

James Ranch Unit Drilling Island - 1
Remediation Work Plan
Incident Numbers NRM2006432204, NRM2011445697,
NRM2011535196, NRM2011559899
Photographs Taken: April 20, 2020 through September 16, 20202

Page 1 of 2



Received by OCD: 12/10/2020/13/465164PM

#### PHOTOGRAPHIC LOG



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



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

James Ranch Unit Drilling Island - 1
Remediation Work Plan
Incident Numbers NRM2006432204, NRM2011445697,
NRM2011535196, NRM2011559899
Photographs Taken: April 20, 2020 through September 16, 20202





eurofins Environment Testing

# **Certificate of Analysis Summary 672768**

LT Environmental, Inc., Arvada, CO

**Project Id: Contact:** 

012920101 Dan Moir

**Project Name: JRU DI1 211H** 

**Date Received in Lab:** Wed 09.16.2020 16:15

**Report Date:** 09.17.2020 14:23

**Project Location:** 

**Eddy County** 

Project Manager: Jessica Kramer

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

BRL - Below Reporting Limit

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

Jessica Weamer

# **Analytical Report 672768**

for

#### LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI1 211H 012920101 09.17.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.17.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 672768

**JRU DI1 211H** 

Project Address: Eddy County

#### Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672768. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672768 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Veramer

Project Manager

A Small Business and Minority Company

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

# **Sample Cross Reference 672768**

#### LT Environmental, Inc., Arvada, CO

JRU DI1 211H

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

#### **CASE NARRATIVE**

Client Name: LT Environmental, Inc.

Project Name: JRU DI1 211H

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

**Environment Testing** 

Report Date: 09.17.2020 Date Received: 09.16.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



#### LT Environmental, Inc., Arvada, CO

JRU DI1 211H

Sample Id: **SS01** 

Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672768-001

Date Collected: 09.16.2020 11:30

Sample Depth: 0.5 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

Analyst:

MAB

MAB

Date Prep:

09.16.2020 17:00

% Moisture: Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH

Date Prep:

09.16.2020 17:30

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	09.17.2020 02:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	09.17.2020 02:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	09.17.2020 02:36	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	09.17.2020 02:36	U	1
Total TPH	PHC635	<50.1	50.1		mg/kg	09.17.2020 02:36	U	1
Surrogate	C	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1.011		11.05.0	7.4	0.7	70.105	00 17 2020 02 26		

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

#### **Certificate of Analytical Results 672768**

#### LT Environmental, Inc., Arvada, CO

JRU DI1 211H

Sample Id: **SS01** Lab Sample Id: 672768-001

Matrix:

Soil

Date Received:09.16.2020 16:15

Date Collected: 09.16.2020 11:30 Sample Depth: 0.5 ft

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

Tech: MAB

% Moisture:

Seq Number: 3137354

Analyst:

MAB

Date Prep: 09.16.2020 18:19 Basis: Wet Weight

Parameter	Cas Number	r Result	RL		Units	<b>Analysis Date</b>	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.17.2020 01:20	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.17.2020 01:20	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.17.2020 01:20	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	09.17.2020 01:20	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.17.2020 01:20	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.17.2020 01:20	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.17.2020 01:20	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	91	%	70-130	09.17.2020 01:20		
1,4-Difluorobenzene		540-36-3	104	%	70-130	09.17.2020 01:20		

Page 83 of 123



#### **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.

**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

<sup>\*\*</sup> Surrogate recovered outside laboratory control limit.

#### **QC Summary** 672768

#### LT Environmental, Inc.

JRU DI1 211H

Result

257

Analytical Method: Chloride by EPA 300

Seq Number: 3137358

7711443-1-BLK

Matrix: Solid

103

E300P Prep Method:

Date Prep: 09.16.2020

LCSD Sample Id: 7711443-1-BSD

**Parameter** 

Chloride

MB Sample Id:

MB

LCS Sample Id: 7711443-1-BKS LCS LCS LCSD %Rec

Result

257

LCSD %Rec

103

Limits %RPD

0

90-110

RPD Units Analysis Limit

mg/kg

Flag Date 09.16.2020 18:24

Analytical Method: Chloride by EPA 300

Seq Number:

3137358

Matrix: Soil

206

Prep Method: Date Prep: 09.16.2020

20

E300P

Parent Sample Id:

672664-011

672664-011 S MS Sample Id:

MSD Sample Id: 672664-011 SD

**Parameter** 

Parent Result

Result

<10.0

MS MS Result %Rec

MSD MSD Result %Rec Limits %RPD RPD Limit Units Analysis

Flag Date

Chloride

Amount <9.96

207 104

104 90-110

20 0

mg/kg

09.16.2020 18:41

Analytical Method: Chloride by EPA 300

Seq Number:

3137358

Matrix: Soil

%Rec

103

Prep Method:

E300P

Date Prep: 09.16.2020 MSD Sample Id: 672664-021 SD

mg/kg

Parent Sample Id: **Parameter** 

672664-021 **Parent** Result MS Sample Id: 672664-021 S MS MS Result

205

MSD Result

205

**MSD** Limite %Rec

90-110

103

**RPD** %RPD Limit Units

Analysis Flag Date

Chloride

<9.98

Analytical Method: TPH by SW8015 Mod

3137360

Spike

250

Spike

199

Spike

200

Amount

Amount

Matrix: Solid

Prep Method:

0

SW8015P

Seq Number: MB Sample Id:

7711446-1-BLK

LCS Sample Id: 7711446-1-BKS

Date Prep: 09.16.2020 LCSD Sample Id: 7711446-1-BSD

**Parameter** Gasoline Range Hydrocarbons (GRO)

MB Spike Result Amount < 50.0 1000 < 50.0

LCS LCS Result %Rec

LCSD LCSD Limits

Result

RPD %RPD Limit

20

Units Analysis Flag Date

Diesel Range Organics (DRO)

MB%Rec

1000 MB

795 80 859 86 LCS LCS

798 80 851 85

98

86

%Rec

70-135 70-135

35 0 35 1

70-135

70-135

mg/kg

09.16.2020 22:14 09.16.2020 22:14

09.16.2020 19:57

**Surrogate** 1-Chlorooctane 117

Flag 110

%Rec Flag 98

87

LCSD %Rec

LCSD

Limits Flag

Units

mg/kg

%

%

Analysis Date 09.16.2020 22:14 09.16.2020 22:14

Analytical Method: TPH by SW8015 Mod

3137360

Matrix: Solid

SW8015P

**Parameter** 

Seq Number:

o-Terphenyl

MBResult

MB Sample Id: 7711446-1-BLK

Date Prep:

Prep Method:

09.16.2020

Flag

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

Analysis Date 09.16.2020 21:54

Flag

Flag

#### **QC Summary** 672768

#### LT Environmental, Inc.

JRU DI1 211H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137360

SW8015P Prep Method:

09.16.2020 Matrix: Soil Date Prep: Parent Sample Id: 672640-003 MS Sample Id: 672640-003 S MSD Sample Id: 672640-003 SD

Parameter	Result	Amount	Result	%Rec	Result	MSD %Rec	Limits	%KPD	Limit	Units	Date 1	
Gasoline Range Hydrocarbons (GRO)	< 50.2	1000	733	73	717	72	70-135	2	35	mg/kg	09.16.2020 23:14	
Diesel Range Organics (DRO)	< 50.2	1000	766	77	739	74	70-135	4	35	mg/kg	09.16.2020 23:14	

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

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137354 Matrix: Solid

Prep Method:

SW5035A

Date Prep: 09.16.2020

MB Sample Id: 7711468-1-BLK LCS Sample Id: 7711468-1-BKS LCSD Sample Id: 7711468-1-BSD Snika I imite

Donomoton	MB	Spike	LCS	LCS	LCSD	LCSD	Limits	%KPD	KPD	Units	Anaiysis	٠
Parameter	Result	Amount	Result	%Rec	Result	%Rec			Limit		Date	
Benzene	< 0.00200	0.100	0.116	116	0.115	115	70-130	1	35	mg/kg	09.16.2020 22:10	
Toluene	< 0.00200	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	09.16.2020 22:10	
Ethylbenzene	< 0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	09.16.2020 22:10	
m,p-Xylenes	< 0.00400	0.200	0.205	103	0.205	103	70-135	0	35	mg/kg	09.16.2020 22:10	
o-Xylene	< 0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	09.16.2020 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene 4-Bromofluorobenzene	100 88		99 92		99 85		70-130 70-130	%	09.16.2020 22:10 09.16.2020 22:10
4-Biomondoloctizene	88		)2		0.5		70-130	70	

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

Seq Number: 3137354 Matrix: Soil Date Prep: 09.16.2020 MS Sample Id: 672769-001 S Parent Sample Id: 672769-001 MSD Sample Id: 672769-001 SD

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

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

Dan Moir

Received by OCD: 12/10/2020 1:46:16 PM Company Name: Project Manager:

# Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Bill to: (if different)

Kyle Littrell

Work Order No: 672768

www.xenco.com

Page

	W. My	Relinquished by: (Signature)	service. Xenco will be liable (cenco. A minimum charge of	Circle Method(s) an	Total 200 7 / 6040						1	SS01	Sample Identification	cample custody seals:	Sample Created Could	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	Sampler's Name:	P.O. Number:	Project Number:	Project Name:		ate ZIP:		y rainc.	Į
	Close Cathor	Received by: (Signature)	ill be applied to e	Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA: Signature of this document and relinquishment of samples constitutes a valid purchase and control of samples.					0.1			s 9/16/2020 11:30 0.5	cation Matrix Sampled Sampled	Yes NA Total Containers:	No N/A Correction Factor:	NO NO	iner	5.2/50	Temp Blank: Page No West Ico:	William Mather Due Date:	EDDY Rush:	Û12920101 Routine	JRU DI1 211H Tur	(432) 236-3849 Email:	705	et	nc., Permian office	
	9-16-20		nsibility for any losses	1 Texas 11 Al 3010: 8RCRA			_	1	0				Depth	er of	000	onta		G NO		ate:		9	Turn Around	vmather@ltenv.co	City, State ZIP:	Address:	Company Name:	
	21:01 06:15	Date/Time	s or expenses incurred ad to Xenco, but not ar	Al Sb As Ba Be							,	×	TPH (E BTEX (	EPA (	)=8	021)	)							Email: wmather@ltenv.com, dmoir@ltenv.com			XTO Energy	ryio Limon
0 4		Relinquished by: (Signature)	affiliates and subcontractors. It assigns starting by the client if such losses are due to circu by the Client if such losses are due to circu by the Client if such losses are due to circu by the client in the control of the contro	B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo I Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U				/															ANALYSIS REQUEST					
		Received by: (Signature)	ndard terms and conditions mstances beyond the control previously negotiated.	Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Mn Mo Ni Se Ag Tl U	/	/																	T		Reporting:Level II   Devel III	Ę	Program: UST/PST TRP T	Work
		nature) Date/Time		02 Na Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg							Discrete		Sample Comments	TAT starts the day recevied by the lab, if received by 4:30pm								ANOIN Older Notes	Work Order Name	ADaPT []	TRP IIIV	Commence To Abendua	'	Work Order Comments

Revised Date 051418 Rev. 2018.1

#### **Eurofins Xenco, LLC**

#### Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Work Order #: 672768

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Date/ Time Received: 09.16.2020 04.15.00 PM

Temperature Measuring device used: T\_NM\_007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		5	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated t	rest(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headsp	ace?	N/A	

Must	be complet	ted for	after-hours	s delivery o	f sampl	es prior t	o placing in t	the refrigerator
------	------------	---------	-------------	--------------	---------	------------	----------------	------------------

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: 09.16.2020

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: 09.17.2020

# Received by OCD: 12/10/2020 1346516 PM the eurofins | Environment Testing

# Certificate of Analysis Summary 672769

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI1 BS2A 7W 212H

Project Id: Contact: 012920068

Dan Moir

**Project Location:** 

**Eddy County** 

**Date Received in Lab:** Wed 09.16.2020 16:15

**Report Date:** 09.17.2020 14:25

Project Manager: Jessica Kramer

	1 1				-			1	1
	Lab Id:	672769-0	001	672769-0	02	672769-0	003		
Analysis Requested	Field Id:	SS01		SS02		SS03			
mulysis Requesieu	Depth:	0.5- ft	t	0.5- ft		0.5- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	09.16.2020	12:20	09.16.2020	12:21	09.16.2020	12:23		
BTEX by EPA 8021B	Extracted:	09.16.2020	18:19	09.16.2020	18:19	09.16.2020	18:19		
	Analyzed:	09.17.2020	00:13	09.17.2020	00:35	09.17.2020	00:58		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202		
Toluene		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202		
Ethylbenzene		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202		
m,p-Xylenes		< 0.00397	0.00397	< 0.00403	0.00403	< 0.00404	0.00404		
o-Xylene		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202		
Total Xylenes		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202		
Total BTEX		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202		
Chloride by EPA 300	Extracted:	09.16.2020	17:00	09.16.2020	17:00	09.16.2020	17:00		
	Analyzed:	09.16.2020	20:30	09.16.2020	20:35	09.16.2020	20:41		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		15100	992	8060	996	11600	1010		
TPH by SW8015 Mod	Extracted:	09.16.2020	17:30	09.16.2020	17:30	09.16.2020	17:30		
	Analyzed:	09.17.2020	02:56	09.17.2020	03:16	09.17.2020	03:37		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)	'	<50.0	50.0	<49.9	49.9	<50.2	50.2		
Diesel Range Organics (DRO)		< 50.0	50.0	66.3	49.9	461	50.2		
Motor Oil Range Hydrocarbons (MRO)		< 50.0	50.0	<49.9	49.9	60.9	50.2		
Total GRO-DRO		< 50.0	50.0	66.3	49.9	461	50.2		
Total TPH		< 50.0	50.0	66.3	49.9	522	50.2		

BRL - Below Reporting Limit

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

Jessica Vramer



# **Analytical Report 672769**

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI1 BS2A 7W 212H 012920068 09.17.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.17.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 672769

JRU DI1 BS2A 7W 212H Project Address: Eddy County

#### Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672769. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672769 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Veramer

Project Manager

A Small Business and Minority Company

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

# **Sample Cross Reference 672769**

#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

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

**Environment Testing** 

#### **CASE NARRATIVE**

09.17.2020

Client Name: LT Environmental, Inc. Project Name: JRU DI1 BS2A 7W 212H

Project ID: Report Date: 012920068 Work Order Number(s): 672769 Date Received: 09.16.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



#### **Certificate of Analytical Results 672769**

#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: **SS01**  Matrix:

Date Received:09.16.2020 16:15

Lab Sample Id: 672769-001

Soil Date Collected: 09.16.2020 12:20

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

% Moisture:

Analyst:

MAB MAB

Date Prep:

09.16.2020 17:00

Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

DTH

% Moisture:

Analyst: DTH

Tech:

Date Prep: 09.16.2020 17:30 Basis:

Wet Weight

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

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

#### **Certificate of Analytical Results 672769**

#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: **SS01**  Matrix:

Date Received:09.16.2020 16:15

Lab Sample Id: 672769-001

Soil Date Collected: 09.16.2020 12:20

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep: 09.16.2020 18:19 Basis:

Wet Weight

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

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



#### **Certificate of Analytical Results 672769**

### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: **SS02** 

Matrix:

Date Received:09.16.2020 16:15

Lab Sample Id: 672769-002

Soil Date Collected: 09.16.2020 12:21

Sample Depth: 0.5 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB

Date Prep: 09.16.2020 17:00 % Moisture: Basis:

Wet Weight

Seq Number: 3137358

Tech:

Analyst:

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

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

Analyst: DTH Date Prep:

09.16.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

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

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



#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: **SS02** 

Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672769-002

Date Collected: 09.16.2020 12:21

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

Analyst:

MAB MAB

Date Prep: 09.16.2020 18:19 % Moisture: Basis:

Wet Weight

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

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



#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: SS03

Matrix:

Soil

Date Received:09.16.2020 16:15

Lab Sample Id: 672769-003

Date Collected: 09.16.2020 12:23

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

09.16.2020 17:00 E

Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:
Analyst:

DTH DTH

Date Prep:

09.16.2020 17:30

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	2 50.2		mg/kg	09.17.2020 03:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	461	50.2		mg/kg	09.17.2020 03:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	60.9	50.2		mg/kg	09.17.2020 03:37		1
Total GRO-DRO	PHC628	461	50.2		mg/kg	09.17.2020 03:37		1
Total TPH	PHC635	522	50.2		mg/kg	09.17.2020 03:37		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	76	%	70-135	09.17.2020 03:37		
o-Terphenyl		84-15-1	73	%	70-135	09.17.2020 03:37		

#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS2A 7W 212H

Sample Id: SS03

Matrix:

Soil

Date Received:09.16.2020 16:15

Lab Sample Id: 672769-003

Date Collected: 09.16.2020 12:23

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Basis:

Wet Weight

Analyst: MAB

MAB

Date Prep: 09.16.2020 18:19

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

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



#### 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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

RLReporting 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

DLMethod Detection Limit

NC Non-Calculable

**SMP** Client Sample

**BLK** 

MS

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD

Method Duplicate/Sample Duplicate

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

Flag

Flag

Flag

Flag

#### **QC Summary** 672769

#### LT Environmental, Inc. JRU DI1 BS2A 7W 212H

Analytical Method: Chloride by EPA 300

Seq Number: 3137358

7711443-1-BLK

Matrix: Solid

LCS Sample Id: 7711443-1-BKS

E300P Prep Method:

Date Prep: 09.16.2020

LCSD Sample Id: 7711443-1-BSD

LCS RPD MB Spike LCS Limits %RPD Units Analysis LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 257 103 257 103 90-110 0 20 09.16.2020 18:24 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

**Parameter** 

MB Sample Id:

3137358

Matrix: Soil

Prep Method: Date Prep:

Limite

E300P

09.16.2020 MSD Sample Id: 672664-011 SD

672664-011 S MS Sample Id: Parent Sample Id: 672664-011 Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis

Result Amount Result %Rec Result %Rec Limit Date 20 09.16.2020 18:41 Chloride <9.96 199 207 104 206 104 90-110 0 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3137358

Matrix: Soil

Prep Method:

E300P 09.16.2020

Date Prep: 672664-021 S MSD Sample Id: 672664-021 SD Parent Sample Id:

MS Sample Id: 672664-021 MS

**RPD** %RPD Units Analysis

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

MS

Analytical Method: TPH by SW8015 Mod

Seq Number:

3137360

Matrix: Solid

Prep Method: Date Prep: SW8015P

09.16.2020

MB Sample Id: 7711446-1-BLK LCS Sample Id: 7711446-1-BKS LCSD Sample Id: 7711446-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 09.16.2020 22:14 795 798 35 < 50.0 1000 80 80 70-135 0 mg/kg 09.16.2020 22:14 Diesel Range Organics (DRO) 859 851 85 70-135 35 < 50.0 1000 86 1 mg/kg

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

Analytical Method: TPH by SW8015 Mod

Seq Number:

3137360

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 09.16.2020

MB Sample Id: 7711446-1-BLK

**Parameter** 

MBResult < 50.0 Units

Analysis Date

09.16.2020 21:54 mg/kg

Motor Oil Range Hydrocarbons (MRO)

Flag

Flag

Flag

#### **QC Summary** 672769

# LT Environmental, Inc.

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137360

Parent Sample Id: 672640-003 JRU DI1 BS2A 7W 212H

SW8015P Prep Method: Date Prep: Matrix: Soil 09.16.2020 MS Sample Id: 672640-003 S MSD Sample Id: 672640-003 SD

MS RPD **Parent** Spike MS MSD MSD Limits %RPD Units Analysis **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.2 1000 733 73 717 35 09.16.2020 23:14 72. 70-135 2 mg/kg 09.16.2020 23:14 <50.2 70-135 mg/kg Diesel Range Organics (DRO) 1000 766 77 739 74 4 35

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

Analytical Method: BTEX by EPA 8021B

3137354 Seq Number:

7711468-1-BLK MB Sample Id:

Matrix: Solid

LCS Sample Id: 7711468-1-BKS

SW5035A Prep Method:

Date Prep: 09.16.2020

LCSD Sample Id: 7711468-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.116	116	0.115	115	70-130	1	35	mg/kg	09.16.2020 22:10
Toluene	< 0.00200	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	09.16.2020 22:10
Ethylbenzene	< 0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	09.16.2020 22:10
m,p-Xylenes	< 0.00400	0.200	0.205	103	0.205	103	70-135	0	35	mg/kg	09.16.2020 22:10
o-Xylene	< 0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	09.16.2020 22:10

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

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137354 Parent Sample Id:

672769-001

Matrix: Soil

MS Sample Id: 672769-001 S

SW5035A Prep Method: Date Prep:

09.16.2020

MSD Sample Id: 672769-001 SD

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

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

# Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334 Chain of Custody

Work Order No: (272769

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 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. Sample Custody Seals: ratice: 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 Relinquished by: (Signature) cooler Custody Seals: emperature (°C): SAMPLE RECEIPT Company Name: Project Manager: Total 200.7 / 6010 Circle Method(s) and Metal(s) to be analyzed Sample Identification SS03 SS02 SS01 Dan Moir Midland, Tx 79705 (432) 236-3849 3300 North A Street LT Environmental, Inc., Permian office Yes 200.8 / 6020: 5.2/5.0 Yes JRU DI1 BS2A 7W 212H (NO Temp Blank: William Mather /12920066 Matrix No. N/A EDDY N/A Ce 9/16/2020 9/16/2020 9/16/2020 Received by: (Signature) Sampled 6 Date TOO HIS Correction Factor: No Total Containers: Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) Lucy 8RCRA 13PPM Texas 11 Al Sb As Ba Be TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Thermometer ID Sampled 12:23 12:20 12:21 Time Wet Ice: Cyes Routine Rush: Email: wmather@ltenv.com, dmoir@ltenv.com Due Date: Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Turn Around 0 0.5 0.5 0.5 City, State ZIP Company Name: Bill to: (if different) Address: Depth W No 9-16:30 16:15 **Number of Containers** Date/Time XTO Energy Kyle Littrell × **TPH (EPA 8015)** × BTEX (EPA 0=8021) × × Chloride (EPA 300.0) B Cd Ca Cr Co Cu Fe Pb Relinquished by: (Signature) ANALYSIS REQUEST Mg Deliverables: EDD Program: UST/PST Mn Mo Ni State of Project Received by: (Signature) ス Se www.xenco.com □RP □rownfields □RC Work Order Comments Ag SiO2 Na Sr TI Sn U V ADaPT | 1631 / 245.1 / 7470 / 7471 : Hg TAT starts the day recevied by the lab, if received by 4:30pm Page Sample Comments DRP (Evel IV Work Order Notes Other: Discrete Discrete Discrete Date/Time { | perfund Zn Q,

Revised Date 051418 Rev. 2018:

#### **Eurofins Xenco, LLC**

#### Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 09.16.2020 04.15.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 672769

Temperature Measuring device used: T\_NM\_007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		5	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Saples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated to	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headsp	ace?	N/A	

Must be completed fo	r after-hours deliver	y of samples	prior to placin	g in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Cloe Clifton

Date: 09.16.2020

Checklist reviewed by: Jessica Vramer

Date: 09.17.2020

eurofins Environment Testing

### Certificate of Analysis Summary 672770

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI1 BS1 3E 213H

Project Id: Contact: 012920067

Dan Moir

**Project Location:** Eddy County

**Date Received in Lab:** Wed 09.16.2020 16:15

**Report Date:** 09.18.2020 14:10

Project Manager: Jessica Kramer

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

BRL - Below Reporting Limit

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

Jessica Vramer

# **Analytical Report 672770**

for

#### LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI1 BS1 3E 213H 012920067 09.18.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.18.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 672770

JRU DI1 BS1 3E 213H Project Address: Eddy County

#### Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672770. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672770 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Veramer

Project Manager

A Small Business and Minority Company

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

# **Sample Cross Reference 672770**

#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

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

**Environment Testing** 

#### **CASE NARRATIVE**

Client Name: LT Environmental, Inc. Project Name: JRU DI1 BS1 3E 213H

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

Report Date: 09.18.2020 Date Received: 09.16.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Xenco

#### **Certificate of Analytical Results 672770**

## LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: SS01

Matrix: Soil

Date Received:09.16.2020 16:15

Lab Sample Id: 672770-001 Date Collected: 09.16.2020 11:30

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

09.16.2020 17:00

Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 09

09.16.2020 17:30

Basis:

Wet Weight

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

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



#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:

**SS01** 

Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672770-001

Date Collected: 09.16.2020 11:30

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep:

09.16.2020 18:19

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.17.2020 01:43	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.17.2020 01:43	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.17.2020 01:43	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	09.17.2020 01:43	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.17.2020 01:43	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.17.2020 01:43	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.17.2020 01:43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	4	460-00-4	91	%	70-130	09.17.2020 01:43		
1,4-Difluorobenzene	:	540-36-3	103	%	70-130	09.17.2020 01:43		



Xenco

#### **Certificate of Analytical Results 672770**

## LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Soil

Sample Id: **SS02**  Matrix:

Date Received:09.16.2020 16:15

Lab Sample Id: 672770-002

Date Collected: 09.16.2020 11:31

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep: 09.16.2020 17:00 Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: Analyst: DTH

% Moisture:

DTH

Date Prep: 09.17.2020 08:35

Basis:

Wet Weight

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

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



#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: **SS02**  Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672770-002

Date Collected: 09.16.2020 11:31

09.16.2020 18:19

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

MAB

% Moisture:

Tech: MAB Analyst:

Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	<b>Analysis Date</b>	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	09.17.2020 02:05	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	09.17.2020 02:05	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	09.17.2020 02:05	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	09.17.2020 02:05	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	09.17.2020 02:05	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	09.17.2020 02:05	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	09.17.2020 02:05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	09.17.2020 02:05		
4-Bromofluorobenzene		460-00-4	87	%	70-130	09.17.2020 02:05		



Xenco

#### **Certificate of Analytical Results 672770**

## LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: **SS03**  Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672770-003

Date Collected: 09.16.2020 11:32

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

09.16.2020 17:00

Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep:

09.17.2020 08:35

Basis:

Wet Weight

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

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



#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: **SS03** Lab Sample Id: 672770-003

Matrix:

Soil

Date Received:09.16.2020 16:15

Date Collected: 09.16.2020 11:32

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

Analyst:

MAB MAB

Date Prep: 09.16.2020 18:19 % Moisture: Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	09.17.2020 02:28	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	09.17.2020 02:28	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	09.17.2020 02:28	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	09.17.2020 02:28	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	09.17.2020 02:28	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	09.17.2020 02:28	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	09.17.2020 02:28	U	1
Surrogate	•	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1 4 Diffuorahangana	4	540.26.2	00	0/	70 120	00 17 2020 02:29		

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



## LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id:

**SS04** 

Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672770-004

Date Collected: 09.16.2020 11:35

Sample Depth: 0.5 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

% Moisture:

Tech:

Analyst:

MAB

Date Prep: 09.16.2020 17:00 Basis:

Wet Weight

Seq Number: 3137358

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

Analytical Method: TPH by SW8015 Mod

DTH

Tech:

Analyst: DTH Date Prep:

09.17.2020 08:35

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	09.17.2020 13:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.3	50.0		mg/kg	09.17.2020 13:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	09.17.2020 13:27	U	1
Total GRO-DRO	PHC628	83.3	50.0		mg/kg	09.17.2020 13:27		1
Total TPH	PHC635	83.3	50.0		mg/kg	09.17.2020 13:27		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	83	%	70-135	09.17.2020 13:27		
o-Terphenyl		84-15-1	87	%	70-135	09.17.2020 13:27		



#### LT Environmental, Inc., Arvada, CO

JRU DI1 BS1 3E 213H

Sample Id: **SS04**  Matrix: Soil Date Received:09.16.2020 16:15

Lab Sample Id: 672770-004

Date Collected: 09.16.2020 11:35

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 09.16.2020 18:19 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.17.2020 02:50	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.17.2020 02:50	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.17.2020 02:50	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	09.17.2020 02:50	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.17.2020 02:50	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.17.2020 02:50	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.17.2020 02:50	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	09.17.2020 02:50		
4-Bromofluorobenzene		460-00-4	91	%	70-130	09.17.2020 02:50		



#### 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.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- Analyte was not detected.
- 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.

RLReporting 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

DLMethod Detection Limit

NC Non-Calculable

**SMP** Client Sample

**BLK** 

Method Blank

Matrix Spike

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS

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

Flag

#### **QC Summary** 672770

#### LT Environmental, Inc.

JRU DI1 BS1 3E 213H

LCSD

Analytical Method: Chloride by EPA 300

Seq Number: 3137358

Matrix: Solid

E300P Prep Method:

RPD

Date Prep: 09.16.2020

7711443-1-BLK LCS Sample Id: 7711443-1-BKS MB Sample Id:

LCSD Sample Id: 7711443-1-BSD

Units

LCS %RPD MB Spike LCS Limits Analysis **Parameter** Result Amount Result %Rec Result %Rec Limit Date Chloride <10.0 250 257 103 257 103 90-110 0 20 09.16.2020 18:24 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number:

3137358

Matrix: Soil

Prep Method: Date Prep:

E300P 09.16.2020

Parent Sample Id:

672664-011

672664-011 S MS Sample Id:

MSD Sample Id: 672664-011 SD

**Parameter** 

Parent Spike Result Amount

MS MS Result %Rec MSD MSD %Rec

104

LCSD

%RPD RPD Units Limit

20

Analysis

Chloride

<9.96 199 207 104 Result 206

90-110

Limits

09.16.2020 18:41 mg/kg

Flag Date

Analytical Method: Chloride by EPA 300

Seq Number: Parent Sample Id: 3137358

Matrix: Soil

Prep Method:

0

E300P

Date Prep: 09.16.2020

MSD Sample Id: 672664-021 SD

09.16.2020 19:57

**Parameter** 

Chloride

672664-021

Spike **Parent** Result Amount

200

<9.98

MS MS Result %Rec 205 103

MS Sample Id:

MSD Result 205

672664-021 S

**MSD** Limite %Rec

90-110

103

**RPD** %RPD Limit 0

Units

Analysis Flag Date

Flag

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number:

3137360

Matrix: Solid

Prep Method:

20

SW8015P

Date Prep: 09.16.2020

mg/kg

MB Sample Id:

7711446-1-BLK

LCS Sample Id: 7711446-1-BKS

LCSD Sample Id: 7711446-1-BSD

RPD MB Spike LCS LCS LCSD LCSD Limits %RPD Units Analysis **Parameter** Result Limit Date Result Amount %Rec %Rec Result Gasoline Range Hydrocarbons (GRO) 09.16.2020 22:14 798 35 < 50.0 1000 795 80 80 70-135 0 mg/kg 09.16.2020 22:14 Diesel Range Organics (DRO) 859 851 85 70-135 35 < 50.0 1000 86 1 mg/kg

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137402 Matrix: Solid

Prep Method:

SW8015P

MB Sample Id:

7711528-1-BLK

LCS Sample Id: 7711528-1-BKS Date Prep:

09.17.2020 LCSD Sample Id: 7711528-1-BSD

MB Spike LCS LCS Limits %RPD RPD Units Analysis LCSD LCSD **Parameter** Limit Result Amount Result %Rec Date Result %Rec Gasoline Range Hydrocarbons (GRO) 09.17.2020 11:26 1000 805 81 809 81 70-135 35 < 50.0 0 mg/kg 09.17.2020 11:26 Diesel Range Organics (DRO) 70-135 < 50.0 1000 876 88 869 87 1 35 mg/kg

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

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

[D] = 100\*(C-A) / BRPD = 200\* | (C-E) / (C+E) | [D] = 100 \* (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result

= MSD/LCSD Result

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

# Received by OCD: 12/10/2020/1346516/PM the curofins | Environment Testing | Xenco

#### QC Summary 672770

# LT Environmental, Inc. JRU DI1 BS1 3E 213H

Analytical Method: TPH by SW8015 Mod

Seg Number: 3137360

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.16.2020

MB Sample Id: 7711446-1-BLK

MB Result •

Units

**Date**0.0 mg/kg 09.16.2020 21:54

Motor Oil Range Hydrocarbons (MRO) <50.0 mg/kg 09.16.2020 21:54

Analytical Method: TPH by SW8015 Mod

Seq Number:

**Parameter** 

3137402

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.17.2020

MB Sample Id: 7711528-1-BLK

**Parameter** 

Motor Oil Range Hydrocarbons (MRO)

MB Result <50.0 Units Analysis Date

Analysis

Flag

Flag

Flag

Flag

mg/kg 09.17.2020 11:06

Analytical Method: TPH by SW8015 Mod

Seq Number: Parent Sample Id: 3137360

1137300

Prep Method: SW8015P

Date Prep: 09.16.2020

672640-003 MS Sample Id: 672640-003 S MSD Sample Id: 672640-003 SD

Spike %RPD **RPD** MS MS Units Parent MSD **MSD** Limits Analysis **Parameter** Result Result %Rec Limit Date Amount Result %Rec Gasoline Range Hydrocarbons (GRO) <50.2 1000 2 35 09.16.2020 23:14 733 73 717 72 70-135 mg/kg Diesel Range Organics (DRO) < 50.2 1000 766 77 739 70-135 4 35 09.16.2020 23:14 74 mg/kg

Matrix: Soil

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 313

3137402

Matrix: Soil

Prep Method:

SW8015P

Parent Sample Id:

672770-002

MS Sample Id: 672770-002 S

Date Prep: 09.17.2020 MSD Sample Id: 672770-002 SD

%RPD RPD **Parent** Spike MS MS **MSD MSD** Limits Units Analysis **Parameter** Result Result Limit %Rec Date Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 35 09.17.2020 12:27 < 50.2 1000 767 77 770 77 70-135 0 mg/kg 70-135 09.17.2020 12:27 < 50.2 1000 778 78 804 3 Diesel Range Organics (DRO) 80 35 mg/kg

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

Flag

Flag

MB Sample Id:

#### **QC Summary** 672770

#### LT Environmental, Inc.

JRU DI1 BS1 3E 213H

Analytical Method: BTEX by EPA 8021B SW5035A Prep Method: 3137354 Seq Number: Matrix: Solid Date Prep: 09.16.2020 LCS Sample Id: 7711468-1-BKS LCSD Sample Id: 7711468-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.116	116	0.115	115	70-130	1	35	mg/kg	09.16.2020 22:10
Toluene	< 0.00200	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	09.16.2020 22:10
Ethylbenzene	< 0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	09.16.2020 22:10
m,p-Xylenes	< 0.00400	0.200	0.205	103	0.205	103	70-135	0	35	mg/kg	09.16.2020 22:10
o-Xylene	< 0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	09.16.2020 22:10
Surrogate	MB	MB			LCS	LCSI	) LCS		mits	Units	Analysis

%Rec Flag %Rec Flag %Rec Flag Date 09.16.2020 22:10 99 99 70-130 1,4-Difluorobenzene 100 % 09.16.2020 22:10 4-Bromofluorobenzene 88 92 85 70-130 %

Analytical Method: BTEX by EPA 8021B

7711468-1-BLK

Prep Method: Seq Number: 3137354 Matrix: Soil Date Prep: 09.16.2020 MS Sample Id: 672769-001 S MSD Sample Id: 672769-001 SD Parent Sample Id: 672769-001

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

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

SW5035A

Address: City, State ZIP:

(432) 236-3849 Midland, Tx 79705 3300 North A Street Company Name:

Dan Moir

LT Environmental, Inc., Permian office

Address: City, State ZIP:

Company Name: Bill to: (if different)

XTO Energy Kyle Littrell

# Chain of Custody

Work Order No: 672770

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000) 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

(402) 200-0048	#8		Email: wmather@ltenv.com, dmoir@ltenv.com	@ltenv.com,	dmoir@lten	w.com		Deliverables: EDD	ADaPT	Other
	JRU DI1 BS1 3E 213H	13H	Turn Around	ā			ANAI YSIS REQUEST	DIEST	1	Wat Out W
Project Number:	Ø12920067		Routine 1				- AMARI OIO NEW	YOE'S!		Work Order Notes
P.O. Number:	EDDY		Rush:							
Sampler's Name:	William Mather		Due Date:							
SAMPLE RECEIPT Ter	Temp Blank: Yes	No	7	5						
Temperature (°C): 5-2 /5		Ther								
₩ ₩	No	TO MIST	Silication in	aine	1)	.0)				
Cooler Custody Seals: Yes N	-		actor 10		-	300				
Sample Custody Seals: Yes (No		Total Containers:	ainers:		-	EPA			TATs	TAT starts the day recevied by the
Sample Identification	Matrix D	Date Ti		nber	(EPA	ride (			la la	lab, if received by 4:30pm
	CIBC	Sampled Sampled	pied	Nu		Chi			s	Sample Comments
5501	s 9/16	9/16/2020 11:	11:30 0.5'	۲.	×	×				
5802	s 9/16	9/16/2020 12:31	31 0.5'	_	×	×				Discrete
	s 9/16/	9/16/2020 12:32	32 0.5'		×	×				Discrete
SS04	s 9/16/	9/16/2020 12:35	35 0.5	_		<				Discrete
						;				Discrete
	1	1								
,	1	1	1							
		1	Q.							
Total 200.7 / 6010 200.8 / 6020:	)20:	8RCRA	13PPM Toyas 11						1	
Circle Method(s) and Metal(s) to be analyzed	be analyzed	TCLP,	TCLP / SPLP 6010: 8RCRA	RCRA Sb	Sb As Ba Be	Be Cd Cr Co	Co Cu Pb Mn Mo I	/in MoNiSeAgTI∪	g SiO2	Na Sr Tl Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg
ervice. 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 entrol. 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 indeed to the control.	of samples and si	hall not assume ject and a charg	and purchase order to any responsibility for each sam	from client com or any losses or ple submitted to	pany to Xenco expenses incu Xenco, but n	o, its affiliates a urred by the cli tot analyzed. The	and subcontractors. It assigned in the such losses are due the set terms will be enforced.	ns standard terms and condition or circumstances beyond the co	ons	
Relinquished by: (Signature)	Rece	Received by: (Signature)	inature)	Da	Date/Time	Reli	Relinquished by: (Signature)	ure) Received	Received by: (Signature)	DatoTimo
921	live	the safe		9.162	21:01 06:01.6	2				Date
		-				4				
						6				
						-				

Received by OCD: 12/10/2020 1:46:16 PM

Revised Date 051418 Rev. 2018.1

Program: UST/PST ☐RP ☐rownfields ☐RC

**\***□perfund

www.xenco.com

Page

of.

Work Order Comments

State of Project:

#### **Eurofins Xenco, LLC**

#### Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 09.16.2020 04.15.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 672770

Temperature Measuring device used: T\_NM\_007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		5	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headsp	ace?	N/A	

* Must be completed for	after-hours deliver	v of samples prior t	o placing in the	refrigerator
Must be combleted for	alter-mours acriver	V OI SAIIIDIGS DITOI I	o biacilia ili tile	i eli idei atoi

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: <u>09.16.2020</u>

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: <u>09.17.2020</u>

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

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

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 10575

#### **CONDITIONS OF APPROVAL**

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road	5380	10575	C-141
Building #5 Midland, TX79707			

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