R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW 🛦 Suite F-142 🛦 Albuquerque, NM 87104 🛦 505.266.5004 🛦 Fax: 505.266-0745

December 5, 2013

Mr. Mike Bratcher NMOCD District 2 811 South First Street Artesia, New Mexico 88210



RE: Nash Draw #29 modular impoundment final spill report. API No: 30-015-29434 2RP-1674

Mr. Bratcher:

R.T. Hicks Consultants is pleased to submit the enclosed Form C-141 "Release Notification and Correction Action" final report on the behalf of XTO Energy.

On September 23 - 27th, 2013; we performed reclamation activities in accordance with our remediation plan outline in the March 15 report. The remediation plan states:

XTO Energy proposes to excavate and dispose of the western third (30%) of the caliche pad that was in contact with the modular impoundment. The 30% area includes the release area and out beyond to the edge of the caliche pad. Plate 2 identifies the area proposed for remediation. The excavated material will be transported to R360 or equivalent for proper disposal.

The remediated area will be contoured and seeded using BLM Seed Mixture Type 4 with Giant Sacaton seed added to the mixture. The excavated area is also subject to BLM's interim reclamation plan.

Appendix A contains the C-141 Initial Report, dated March 15, 2013; which includes our remediation plan. Appendix B is a discussion on sampling and analysis during remedial activites. Appendix C contains the laboratory Certificate of Analysis. Photo documentation of remedial activities is located in Appendix D.

If you have any questions please contact me at 970-570-9535.

Sincerely, R.T. Hicks Consultants Durango Field Office

Andrew Parker

Cc: David Luna, XTO Energy, via email

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19,15,29 NMAC.

Release Notification and Corrective Action

		OPERATO	Ŕ	🔲 Initia	al Report	X Final Rep
Name of Company XTO Energy, INC		Contact	David Luna			
Address 200 N. Loraine; Ste 800 Midland TX,	79701	Telephone No.	432-620-674	2		
Facility Name Nash Draw #29		Facility Type	Treated produc	ed water	modular	impoundment
Surface Owner BLM Minera	al Owner			API No	30-015	-29434

LOCATION OF RELEASE

LOCATION OF RELEASE												
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County				
j	13	23S	29E	1980	South	2310	East	Eddy				

Latitude N. 32.30322 Longitude W. 103.93719

NATURE OF RELEASE

Type of Release Treated and non-treated produced water	Volume of Release	Volume R	ecovered					
Source of Release Modular impoundment - western edge	Date and Hour of Occurrence	Date and I	lour of Discovery 08/27/2012					
Was Immediate Notice Given?	If YES, To Whom?		-					
🗌 Yes 🕱 No 🗋 Not Require	ad NA							
By Whom? NA	Date and Hour NA							
Was a Watercourse Reached?	If YES, Volume Impacting the V	Vatercourse.						
🗋 Yes 🚺 No	NA							
If à Watercourse was Impacted, Describe Fully.*								
NA								
Describe Cause of Problem and Remedial Action Taken.* On August 27th, 2012 the modular impoundment liner detached from the top of the tank along the western edge releasing approximately 3 barrels of treated produced water. Mr. Randy Green of XTO Energy mobilized water haul trucks to the site and lowered the water level to prevent further leakage and reattached the liner to the top of the tank. The water was transferred to Nash Draw 49 Hand Nash Draw Unit# 57 H for use in well stimulation. Soil sampling was conducted per C-144 closure requirements.								
The release affected the southwest comer of the production pad, adjacent to the mo approximately 15 X15 square feet. No cleanup action was taken due to limited acces of the production pad; beyond the modular impoundment heavy mesquite vegetation submitted on March 15; 2013 (Release ID: 2RP-1674). Appendix B discusses reme	dular impoundment. The area of impact was ss caused by the location of the modular im n exists. On October 23 - 27; 2013; remedia adial activities.	ooundment along I activities were pe	the edge erformed according to spill report					
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by a should their operations have failed to adequately investigate and remedi or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	the best of my knowledge and under notifications and perform corrective the NMOCD marked as "Final Report ate contamination that pose a threat to does not relieve the operator of respo	stand that pursu actions for relea " does not relie ground water, nsibility for cor	ant to NMOCD rules and uses which may endanger ve the operator of liability surface water, human health mpliance with any other					
Signature: Souther	OIL CONSER	VATION I	DIVISION					
Printed Name: David Luna	Approved by Environmental Specia	list:						
Title: Operations Engineer	Approval Date:	Expiration D	ale:					
E-mail Address: David_Luna@xtoenergy.com	Conditions of Approval: Attached		Attached					
Date: 12/05/2013 Phone: 432-620-6742								

* Attach Additional Sheets If Necessary

Plates

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104





Appendix A C-141 Initial Report

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

March 15, 2013

Mr. Mike Bratcher NMOCD District 2 811 South First Street Artesia, New Mexico 88210 Mr. Brad Jones NMOCD 1220 S. St. Francis Drive Santa Fe, NM

RE: Nash Draw Unit #29 modular impoundment spill report. API No: 30-015-29434

Dear Sirs:

R.T. Hicks Consultants is pleased to submit the enclosed Form C-141 Release Notification and Correction Action on the behalf of XTO Energy.

The release from the modular impoundment was brought to our attention during the submittal of the C-144 Closure Report submitted to Mr. Bratcher, via email, on December 17, 2012.

We will revise the C-144 closure report to include results of the remediation plan that is the subject of this spill report. Included in the revision, per request of Mr. Jones, will be the inclusion of the entire C-144 permit application and correction to applicable dates and signatures.

We will submit the report to Mr. Jones with a copy to Mr. Bratcher. Both submittals will be delivered via certified mail/return receipt.

If you have any questions please contact me at 970-570-9535.

Sincerely, R.T. Hicks Consultants Durango Field Office

(Adrew as

Andrew Parker

Cc: David Luna, XTO Energy, via email Jennifer Van Curen, BLM - Carlsbad Field Office, via certified mail/return receipt

District I 1625 N. French District II	District I State o 1625 N. French Dr., Hobbs, NM 88240 Energy Mineral District II Energy Mineral				ate of nerals	New Mexico F and Natural Resources Revised A				Form C-141 August 8, 2011	
District III	Pond Anta	6041U		··········· Oil O	Conse	rvation Div	vision	Submit I Copy to appropriate District Of			
District IV 1220 South St. Francis Dr.						v,=? 					
Santa Fe, NM 87505											
			Rel	ease Notific	catio	on and Co	orrective A	ction			
Norma - F.C.	OPERATOR Initial Report Final Rep									Final Report	
Address 20	ompany x ON. Loraine	Suite 800 M	lidland. TX	79701		Telephone 1	No. 432-620-6742	2	<u> </u>	· <u></u>	
Facility Nat	me Nash L	Jnit #29				Facility Typ	e Treated produc	ced water modular i	mpoundment		
Surface Ow	ner BLM			Mineral C	Dwner			API No	. 30-015-29434		
·				LOCA	4TIO	N OF REI	LEASE		<u> </u>		
Unit Letter	Section	Township	Range	Feet from the	North	h/South Line	Feet from the	East/West Line	County		
J	13	235	29E	1980		SOUTH	2310	EAST	EDDY		
L	1	J		titude N 32 3033		Longitur	1. W 103 93710))			
			La					<u> </u>			
Type of Rele	nse Troator	i and pop-treat	fad produc	NAT	URE	Volume of	Paleora o 5 bbla	Voluma F	acovered None		
Source of Re	lease Mod	dular impoundi	ment - wes	stern edge		Date and I	lour of Occurrence	eB/27/12 Date and	Hour of Discovery	8/27/12	
Was Immedi	ate Notice (Given?		No EN Not R	enuirer	IFYES, To	Whom?	NA			
By Whom?	NA		103		equiter	Date and F	Jour NA	*****			
Was a Water	course Read	ched?		_		If YES, Volume Impacting the Watercourse.					
			Yes 🛛] No		NA					
If a Watercou	irse was Im	pacted, Descr	ibe Fully.								
	NA										
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken.*							
On August 27th Mr. Randy Gree	1, 2012 the m en of XTO En	odular impoundr ierav mobilized v	πent liner di vater haul tr	etached from the top tacks to the site and	l of the ta lowered	ank along the we the water level to	stern edge releasing norevent further leal	epproximately 3 barre	els of treated produced	water. e taok The	
water was trans	sferred to Nas	sh Draw 49 H an	d Nash Dra	w Unit # 57 H. Soll s	ampling	was conducted	per C-144 closure re	quirements. The attac	ned document presents	s the sampling	
Describe Are	ooses a reme a Affected	diation plan. and Cleanup A	Action Tak	en.*							
The release a	fected the :	southwest corr	ner of the p	production pad, ad	ljacent	to the modular	impoundment. Ti	he area of impact w	as		
approximately	15 X15 sqi	uare feet. No o	cleanup ad	tion was taken du	ie to lin	nited access ca	used by the locati	ion of the modular it	mpoundment along t	the edge	
of the product	ion pad; bey	ond the modu	ilar impoui	ndment heavy me	squite v	vegetation exis	ts.	1 4 141 44			
regulations al	l operators	are required to	ven above o report ar	is true and comp id/or file certain r	elease	notifications a	knowledge and und und perform correct	tive actions for reli	uant to NMOCD ru ases which may en	danger	
public health	or the environment	ronment. The	acceptanc	e of a C-141 repo	ort by th	he NMOCD m	arked as "Final R	eport" does not reli	eve the operator of	liability	
or the enviror	ment. In a	ddition, NMO	CD accep	tance of a C-141	report (does not reliev	e the operator of the	responsibility for c	, surface water, nur ompliance with any	other	
federal, state, or local laws and/or regulations.											
						<u>UIL CON</u>	SEKVATION	DIVISION			
Signature: A torug Alen											
Printed Name: David Luna					Approved by	Environmental S	pecialist:				
Title: Operati	ons Engine	er				Approval Dat	le:	Expiration 1	Date:		
E mail A Id	se David I	una@vteener			İ	Condition		I I I	· · · · · · · · · · · · · · · · · · ·		
E-muit Adore			97.50IN 			Conditions of	Арргоча:		Attached		
Date:	$\gamma/1$	$\frac{1}{1}$	Phone:	432-620-6742							
	101101 21166	IS IT INCCESS	ai y								

Soil Chemistry

On November 13, 2012, Hicks Consultants collected two 5-point soil samples on location for closure of the modular impoundment employed for hydraulic fracturing of five wells in 2012. On February 11, 2013 Hicks Consultants performed additional characterization to determine the vertical extent of chloride in soil near the western edge of the former modular impoundment, near the area of the reported release.

The location and chloride chemistry of the samples are presented on Plate 1. The chemistry is summarized in Table 1, below. Table 2 shows the lithology of the "Trench Sample". The laboratory certificate of analysis is attached.

The point samples for the Tank Composite and BG Composite were collected approximately two inches below the caliche pad/soil interface at a depth of approximately 1-foot. The Trench Sample consisted of discrete samples at 2, 4, and 6 foot depths.

Sample ID	Date	Depth	Chloride	EC	Benzene	BTEX	ТРН	GRO/DRO
		(ft)	mg/kg	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg
NMAC 19.15.17.13.B(1).b			500 or background		0.2	50	2,500	500
Tank Composite	11/13/2012	1	7,500	NS	<0.49	ND	<20	<10
BG Composite	11/13/2012	1	3,000	NS	<0.49	ND	<20	<10
Trench Sample	2/11/2013	2	3,480	8,010	NS	NS	NS	NS
Trench Sample	2/11/2013	4	2,120	3,020	NS	NS	NS	NS
Trench Sample	2/11/2013	6	2,000	7,050	NS	NS	NS	NS

Figure 1: Summary of soil chemistry

Notes

1. ND = non-detect

2 NS = not sampled

Figure 2: Lithology of Trench Sample

Depth (ft)	Description						
0-1	Caliche pad						
1 - 4	Top soil (loamy sand), dark brown, moist						
4 - 6	Top soil, reddish brown, moist						
6	Medim sand w/caliche, hard, brown, moist						

Note: native hard caliche was observed below 6 feet.

The Tank Composite sample with a chloride concentration of 7,500 mg/kg indicates production activities have impacted the western half of the caliche pad. The BG Composite sample has a chloride concentration comparable to the Trench Sample at the 2 foot depth (3,480 mg/kg). Soil chloride concentrations at the Trench Sample that is within the area of the Tank Composite sample show chloride concentrations are decreasing with depth, from 3,480 mg/kg at 2 feet to 2,000 mg/kg at 6 feet and indicate that the majority of chloride impairment is limited to the production pad surface.

The chemistry and lithology of the Trench Sample suggests that:

- the moist soil at a depth of 6 feet, which exhibits 2,000 mg/kg chloride, is likely impacted by shallow groundwater wicking up from the underlying brine groundwater zone,
- the moist soil near the surface (Trench Sample) is likely from recent precipitation events and past releases at the site, and
- soil at depths from 1 to 5 feet below surface have chloride and EC concentrations that will support vegetation. Re-vegetating the impacted area is included in the remediation plan and also satisfies BLM's request for interim reclamation.

The remediation plan is presented below.

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Appendix B Discussion of Sampling Results

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104

SUMMARY OF BACKGROUND SAMPLING RESULTS

Between November 13, 2012 and June 24, 2013, soil samples were obtained to determine the magnitude, extent, and background hydrocarbon and chloride concentrations associated with the reported release. Table 1 summarizes the results of soil sampling. Plate 1 shows the locations of the soil samples.

Sample ID	Date	Depth	Chloride	ÊĈ	Benzene	BTEX	TPH	GRO/DRO
انها کارونه کارونه در اند ک	in the state of the	(ft)	mg/kg	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg
NMAC 19.15.17.13.B(1).b			500 or background		0.2	50	2,500	500
Tank Composite	11/13/2012	1.0	7,500	NS	<0.49	ND	<20	<10
BG Composite	11/13/2012	1.0	3,000	NS	<0.49	ND	<20	<10
Trench Sample	2/11/2013	2.0	3,480	8,010	NS	NS	NS	NS
Trench Sample	2/11/2013	4.0	2,120	3,020	NS	NS	NS	NS
Trench Sample	2/11/2013	6.0	2,000	7,050	NS	NS	NS	NS
Background Sample	6/24/2013	1.5	2,960	NS	NS	NS	NS	NS
Background Sample	6/24/2013	3.0	2,440	NS	NS	NS	NS	NS
Background Sample	6/24/2013	4.5	2,920	NS	NS	NS	NS	NS
Background Sample	6/24/2013	6.0	1,880	NS	NS	NS	NS	NS
Background Sample	6/24/2013	7.5	1,380	NS	NS	NS	NS	NS
Background Sample	6/24/2013	8.0	1,500	NS	NS	NS	NS	NS

 Table 1: Soil chemistry summary results

Notes

1. ND = non-detect

2 NS = not sampled

On November 13, 2012, Hicks Consultants collected two on-site 5-point composite soil samples for closure of the modular impoundment employed for hydraulic fracturing of five wells in 2012.

The point samples for the Tank Composite and BG Composite were collected approximately two inches below the caliche pad/soil interface at a depth of approximately 1-foot. The Trench Sample consisted of discrete samples at 2, 4, and 6 foot depths. Table 2 summarizes the lithology of the Trench Sample.

Depth (ft)	Description
0 - 1	Caliche pad
1-4	Top soil (loamy sand), dark brown, moist
4 - 6	Top soil, reddish brown, moist
6	Medim sand w/caliche, hard, brown, moist

 Table 2: Lithology of Trench Sample

Note: native hard caliche was observed below 6 feet.

December 2, 2013 Page 2

The Tank Composite sample with a chloride concentration of 7,500 mg/kg (see Table 1) indicates production activities have impacted the western half of the caliche pad. The BG Composite sample has a chloride concentration comparable to the Trench Sample at the 2 foot depth (3,480 mg/kg).

On February 11, 2013; in support of the C-141 initial report submission, Hicks Consultants performed additional characterization to determine the vertical extent of chloride in soil near the western edge of the former modular impoundment, in proximity of the reported release. The "Trench Sample" identified in Table 1 and on Plate 1 represents the February 2013 sample.

Soil chloride concentrations at the Trench Sample (collected within the area of the Tank Composite sample) show chloride concentrations are decreasing with depth, from 3,480 mg/kg at 2 feet to 2,000 mg/kg at 6 feet and indicate that the majority of chloride impairment is limited to the production pad surface.

On June 24, 2013 we sampled an off-site background location (Background Sample) per C-141/Part 29 approval conditions/stipulations for release event 2RP-1674. The background location was located in

an area not impacted by past or current production activities.

Comparing the on-site Trench Sample (Table 3) to the off-site Background Sample at depths below 2-feet bgs, the on-site chloride concentrations are either near or lower than off-site background concentrations.

Table 3: Chloride concentration comparison between an on-site and off-site (background)

Chloride (mg/kg)									
Depth (+/- 0.5 ft)	Trench Sample	Background Sample							
1.5 - 2	3,480	2,960							
4	2,120	2,920							
6	2,000	1,880							

The chemistry and lithology of the trench samples suggest that:

- the moist soil at a depth of 6 feet, which exhibits approximately 2,000 mg/kg chloride, is likely impacted by shallow groundwater wicking up from the underlying brine groundwater zone,
- the moist soil near the surface (Trench Sample) was likely from recent precipitation events and past releases at the site,
- soil at depths from 1 to 5 feet below surface have chloride and EC concentrations that will support vegetation. Re-vegetation of the impacted area is included in the C-141 remediation plan and also satisfies BLM's request for interim reclamation, and
- the eastern portion of the location is not measurably impaired by production activities as the BG sample result (3,000 mg/kg) is not different from the background samples

Removing the upper 2-feet of soil within the remediation area as shown on Plate 2 will remediate the observed higher chlorides and allow for vegetation.

Appendix C Certificate of Analyses

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

November 29, 2012

Andrew Parker R.T. Hicks Consultants, LTD 901 Rio Grande Blvd. NW Suite F-142 Albuquerque, NM 87104 TEL: (505) 266-5004 FAX (505) 266-0745

RE: XTO Energy Nash Unit 29

OrderNo.: 1211653

Dear Andrew Parker:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/14/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1211653

Date Reported: 11/29/2012

Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

CLIENT: R.T. Hicks Consultants, LTD

Project: XTO Energy Nash Unit 29

1211653-001

Lab ID:

Client Sample ID: Tank Composite Collection Date: 11/13/2012 Received Date: 11/14/2012 10:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/20/2012 6:22:22 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/20/2012 6:22:22 AM
Surr: DNOP	102	77.6-140	%REC	1	11/20/2012 6:22:22 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/16/2012 2:32:25 PM
Surr: BFB	108	84-116	%REC	1	11/16/2012 2:32:25 PM
EPA METHOD 300.0: ANIONS					Analyst: JRR
Chloride	7500	300	mg/Kg	200	11/20/2012 6:54:44 PM
EPA METHOD 8260B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Toluene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Methyl tert-butyl ether (MTBE)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2,4-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,3,5-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2-Dichloroethane (EDC)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2-Dibromoethane (EDB)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Naphthalene	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
1-Methylnaphthalene	ND	0.19	mg/Kg	1	11/21/2012 7:19:43 PM
2-Methylnaphthalene	ND	0.19	mg/Kg	1	11/21/2012 7:19:43 PM
Acetone	ND	0.73	mg/Kg	1	11/21/2012 7:19:43 PM
Bromobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Bromodichloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Bromoform	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Bromomethane	ND	0.15	mg/Kg	1	11/21/2012 7:19:43 PM
2-Butanone	ND	0.49	mg/Kg	1	11/21/2012 7:19:43 PM
Carbon disulfide	ND	0.49	mg/Kg	1	11/21/2012 7:19:43 PM
Carbon tetrachloride	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Chlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Chloroethane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Chloroform	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Chloromethane	ND	0.15	mg/Kg	1	11/21/2012 7:19:43 PM
2-Chlorotoluene	NÐ	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
4-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
cis-1,2-DCE	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
cis-1,3-Dichloropropene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2-Dibromo-3-chloropropane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Dibromochloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Dibromomethane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
1,2-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В
	Е	Value above quantitation range	Н

- J Analyte detected below quantitation limits
- Р Sample pH greater than 2
- RL Reporting Detection Limit

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S

Analytical Report Lab Order 1211653

Date Reported: 11/29/2012

Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

CLIENT: R.T. Hicks Consultants, LTD

Project: XTO Energy Nash Unit 29

1211653-001

Lab ID:

Client Sample ID: Tank Composite Collection Date: 11/13/2012 Received Date: 11/14/2012 10:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES			· · ·		Analyst: RAA
1,3-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,4-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Dichlorodifluoromethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,1-Dichloroethane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
1,1-Dichloroethene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2-Dichloropropane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,3-Dichloropropane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
2,2-Dichloropropane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
1,1-Dichloropropene	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Hexachlorobutadiene	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
2-Hexanone	ND	0.49	mg/Kg	1	11/21/2012 7:19:43 PM
lsopropylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
4-Isopropyltoluene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
4-Methyl-2-pentanone	ND	0.49	mg/Kg	1	11/21/2012 7:19:43 PM
Methylene chloride	ND	0.15	mg/Kg	1	11/21/2012 7:19:43 PM
n-Butylbenzene	ND	0.15	mg/Kg	1	11/21/2012 7:19:43 PM
n-Propylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
sec-Butylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Styrene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
tert-Butylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,1,1,2-Tetrachloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,1,2,2-Tetrachloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Tetrachloroethene (PCE)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
trans-1,2-DCE	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
trans-1,3-Dichloropropene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2,3-Trichlorobenzene	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
1,2,4-Trichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,1,1-Trichloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,1,2-Trichloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Trichloroethene (TCE)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Trichlorofluoromethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,2,3-Trichloropropane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Vinyl chloride	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Xylenes, Total	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Surr: 1,2-Dichloroethane-d4	93.2	70-130	%REC	1	11/21/2012 7:19:43 PM
Surr: 4-Bromofluorobenzene	92.4	70-130	%REC	1	11/21/2012 7:19:43 PM
Surr: Dibromofluoromethane	90.7	70-130	%REC	1	11/21/2012 7:19:43 PM
Surr: Toluene-d8	101	70-130	%REC	1	11/21/2012 7:19:43 PM
EPA METHOD 418.1: TPH					Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	11/21/2012

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	Р	Sample pH greater than 2	R	RPD outside accepted recovery limits

RL Reporting Detection Limit

very limits 4

Spike Recovery outside accepted recovery limits S

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1211653 Date Reported: 11/29/2012

CLIENT:	R.T. Hicks Consultants, LTD			С	lient Sampl	e ID: BG Co	mposite
Project:	XTO Energy Nash Unit 29				Collection]	Date: 11/13/2	2012
Lab ID:	1211653-002	Matrix:	SOIL		Received 1	Date: 11/14/2	2012 10:50:00 AM
Analyses		Result	RL	Qual	Units	DF	Date Analyzed
EPA MET	HOD 8015B: DIESEL RANGE	ORGANICS					Analyst: JMP
Diesel Ra	ange Organics (DRO)	ND	10)	ma/Ka	1	11/20/2012 8:28:08 AM
Motor Oil	Range Organics (MRO)	ND	51		mg/Kg	1	11/20/2012 8:28:08 AM
Surr: [DNOP	98.6	77.6-140	F	%REC	1	11/20/2012 8:28:08 AM
EPA MET	HOD 8015B: GASOLINE RANG	GE					Analyst: NSB
Gasoline	Range Organics (GRO)	ND	4.9	1	ma/Ka	1	11/16/2012 3:01:11 PM
Surr: E	BFB	101	84-116	i	%REC	1	11/16/2012 3:01:11 PM
EPA MET	HOD 300.0: ANIONS						Analyst: JRR
Chloride		3000	150	1	ma/Ka	100	11/20/2012 7:07:09 PM
			100			100	
	HOD 0200D. VOLATILLS		0.040				Analysi. NAA
Denzene		ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Thulber		ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Ethylden	zene	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
	ert-butyl ether (MIBE)	ND	0.049	1	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,4-1 rir	nethylbenzene	ND	0.049	ł	mg/Kg	1	11/21/2012 7:48:47 PM
1,3,5-1 rir	methylbenzene	ND	0.049	I	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichl	oroethane (EDC)	ND	0.049	I	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibro	pmoethane (EDB)	ND	0.049	I	mg/Kg	1	11/21/2012 7:48:47 PM
Naphthal	ene	ND	0.099		mg/Kg	1	11/21/2012 7:48:47 PM
1-Methylr	naphthalene	ND	0.20	I	mg/Kg	1	11/21/2012 7:48:47 PM
2-Methylr	naphthalene	ND	0.20	I	mg/Kg	1	11/21/2012 7:48:47 PM
Acetone		ND	0.74		mg/Kg	1	11/21/2012 7:48:47 PM
Bromobe	nzene	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Bromodic	chloromethane	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Bromofor	m	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Bromome	ethane	ND	0.15		mg/Kg	1	11/21/2012 7:48:47 PM
2-Butano	ne	ND	0.49		mg/Kg	1	11/21/2012 7:48:47 PM
Carbon d	lisulfide	ND	0.49		mg/Kg	1	11/21/2012 7:48:47 PM
Carbon te	etrachloride	ND	0.099		mg/Kg	1	11/21/2012 7:48:47 PM
Chlorobe	nzene	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Chloroeth	nane	ND	0.099		mg/Kg	1	11/21/2012 7:48:47 PM
Chlorofor	m	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
Chlorome	ethane	ND	0.15		mg/Kg	1	11/21/2012 7:48:47 PM
2-Chlorot	oluene	ND	0.049		mg/Kg	1	11/21/2012 7:48:47 PM
4-Chlorot	oluene	ND	0.049		ma/Ka	1	11/21/2012 7:48:47 PM
cis-1.2-D	CE	ND	0.049		ma/Ka	1	11/21/2012 7:48:47 PM
cis-1.3-Di	ichloropropene	ND	0.049		ma/Ka	1	11/21/2012 7:48:47 PM
1,2-Dibro	mo-3-chloropropane	ND	0.099		ma/Ka	1	11/21/2012 7·48·47 PM
Dibromoc	chloromethane	ND	0.049		ma/Ka	1	11/21/2012 7·48·47 PM
Dibromor	nethane		0.040 N NQQ		ma/Ka	1	11/21/2012 7·48·47 PM
1 2-Dichl	orobenzene		0.033		mg/Kg	1	11/21/2012 7.40.47 PM
1,2-DICHI	DIODGHZENE		0.049		ing/itg	I	11/21/2012 1.40.4/ PW

Qualifiers: * Value exceeds Maximum Contaminant Level.

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH greater than 2
- RL **Reporting Detection Limit**

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S

Analytical Report Lab Order 1211653

Date Reported: 11/29/2012

Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

CLIENT: R.T. Hicks Consultants, LTD Project: XTO Energy Nash Unit 29

1211653-002

Lab ID:

Client Sample ID: BG Composite Collection Date: 11/13/2012 Received Date: 11/14/2012 10:50:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES					Analyst: RAA
1,3-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,4-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Dichlorodifluoromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,1-Dichloroethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1,1-Dichloroethene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichloropropane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,3-Dichloropropane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
2,2-Dichloropropane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1,1-Dichloropropene	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Hexachlorobutadiene	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
2-Hexanone	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Isopropylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
4-Isopropyltoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
4-Methyl-2-pentanone	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Methylene chloride	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
n-Butylbenzene	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
n-Propylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
sec-Butylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Styrene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
tert-Butylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,1,1,2-Tetrachloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,1,2,2-Tetrachloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Tetrachloroethene (PCE)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
trans-1,2-DCE	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
trans-1,3-Dichloropropene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,3-Trichlorobenzene	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,4-Trichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,1,1-Trichloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,1,2-Trichloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Trichloroethene (TCE)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Trichlorofluoromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,3-Trichloropropane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Vinyl chloride	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Xylenes, Total	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Surr: 1,2-Dichloroethane-d4	94.2	70-130	%REC	1	11/21/2012 7:48:47 PM
Surr: 4-Bromofluorobenzene	87.7	70-130	%REC	1	11/21/2012 7:48:47 PM
Surr: Dibromofluoromethane	91.6	70-130	%REC	1	11/21/2012 7:48:47 PM
Surr: Toluene-d8	105	70-130	%REC	1	11/21/2012 7:48:47 PM
EPA METHOD 418.1: TPH					Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	11/21/2012

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	Р	Sample pH greater than 2	R	RPD outside accepted recovery limits

RL Reporting Detection Limit

- ry limits
- Spike Recovery outside accepted recovery limits S

14

1.5

15.00

Client: Project:	R.T. H XTO E	icks Consultants, LTD Energy Nash Unit 29				
Sample ID Client ID: Prep Date:	MB-4894 PBS 11/19/2012	SampType: MBLK Batch ID: 4894 Analysis Date: 11/19/2012	TestCode: EPA Method RunNo: 7001 SeqNo: 202928	300.0: Anions Units: mg/Kg		
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Sample ID	LCS-4894 LCSS	SampType: LCS Batch ID: 4894	TestCode: EPA Method RunNo: 7001	300.0: Anions		
l Prep Date:	11/19/2012	Analysis Date: 11/19/2012 Result PQL SPK value	SeqNo: 202929 SPK Ref Val %REC LowLimit	Units: mg/Kg HighLimit %RPD	RPDLimit	Qual

0

90.0

90

110

Chloride

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- Page 5 of 12

Client:	R.T. Hi	cks Consultar	nts, LT	D							
Project:	XTO E	nergy Nash U	nit 29								
Sample ID	MB-4901	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	PBS	Batch	ID: 49	01	F	RunNo: 7	021				
Prep Date:	11/19/2012	Analysis Da	ite: 11	1/21/2012	S	SeqNo: 2	03589	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	Irocarbons, TR	ND	20								
Sample ID	LCS-4901	SampTy	pe: LC	S	Tes	tCode: E	PA Method	418.1: TPH			
l Client ID:	LCSS	Batch	ID: 49 0	01	F	RunNo: 7	021				
Prep Date:	11/19/2012	Analysis Da	ite: 11	1/21/2012	S	GeqNo: 2	03590	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Detroleum Hyd	Irocarbons, TR	100	20	100.0	0	104	80	120			
Sample ID	LCSD-4901	SampTy	pe: LC	SD	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch	ID: 49 0	01	F	RunNo: 7	021				
Prep Date:	11/19/2012	Analysis Da	ıte: 11	1/21/2012	S	SeqNo: 2	03591	Units: mg/k	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	Irocarbons, TR	110	20	100.0	0	106	80	120	1.28	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Client: Project:	R.T. Hick XTO Ene	ts Consult rgy Nash	ants, LT Unit 29	ΓD							
		- <u> </u>			T	tCaday E					<u> </u>
Sample ID	MB-4900	Sampi	ype: wi		res		PA Methoa	SUISE: Dies	el Hange C	Jrganics	
Client ID:	PBS	Batcl	h ID: 49	00	F	RunNo: 6	989				
Prep Date:	11/19/2012	Analysis E	Date: 1	1/20/2012	S	SeqNo: 2	02423	Units: mg/ #	٢g		
^I Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Drganics (DRO)	ND	10								
Motor Oil Rang	je Organics (MRO)	ND	50								
Surr: DNOP		9.9		10.00		98.8	77.6	140		-	
Sample ID	LCS-4900	SampT	Гуре: LC	s	Tes	tCode: E	PA Method	8015B: Dies	el Range C	Organics	
Client ID:	LCSS	Batcl	h ID: 49	00	F	RunNo: 6	989				
Prep Date:	11/19/2012	Analysis [Date: 1	1/20/2012	S	SeqNo: 2	02424	Units: mg/k	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	51	10	50.00	0	102	47.4	122			
Surr: DNOP		4.0		5.000		80.2	77.6	140			
Sample ID	1211653-001AMS	SampT	Type: M	5	Tes	tCode: E	PA Method	8015B: Dies	el Range (Drganics	
Client ID:	Tank Composite	Batcl	h ID: 49	00	F	RunNo: 6	989				
^I Prep Date:	11/19/2012	Analysis E	Date: 1	1/20/2012	5	SeqNo: 2	02426	Units: mg/k	۲g		
^I Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	54	10	50.97	0	106	12.6	148			
Surr: DNOP		4.8		5.097		94.6	77.6	140			
Sample ID	1211653-001AMSI) Samp1	Type: M	SD	Tes	tCode: E	PA Method	8015B: Dies	el Range (Drganics	
Client ID:	Tank Composite	Batcl	h ID: 49	00	F	RunNo: 6	989				
Prep Date:	11/19/2012	Analysis D	Date: 1	1/20/2012	5	GeqNo: 2	02569	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	53	10	51.18	0	104	12.6	148	0.773	22.5	
Surr: DNOP		5.1		5.118		98.8	77.6	140	0	0	

Qualifiers:

Е

* Value exceeds Maximum Contaminant Level.

- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Client: Project:	R.T. Hick XTO Ene	cs Consult ergy Nash	ants, LT Unit 29	ſD							
Sample ID	 MB-4851	SampT	 Гуре: М !	BLK	Tes	tCode: El	PA Method	8015B: Gase	oline Rang	e	
I Client ID:	PBS	Batcl	h ID: 48	51	F	RunNo: 6	951				
Prep Date:	11/15/2012	Analysis [Date: 1	1/16/2012	5	SeqNo: 2	02014	Units: mg/ł	٢g		
^I Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	ge Organics (GRO)	ND 990	5.0	1000		99.3	84	116			·
Sample ID	LCS-4851	SampT	Гуре: L(Tes	tCode: El	PA Method	8015B: Gase	oline Rang	e	
Client ID:	LCSS	Batcl	h ID: 48	51	F	RunNo: 6	951				
Prep Date:	11/15/2012	Analysis [Date: 1	1/16/2012	5	SeqNo: 2	02015	Units: mg/l	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	24	5.0	25.00	0	97.3	74	117			
Surr: BFB		1000		1000	<u></u>	104	84	116			
Sample ID	1211653-001AMS	Samp	Type: M	s	Tes	tCode: E	PA Method	8015B: Gas	oline Rang	je	
Client ID:	Tank Composite	Batc	h ID: 48	51	F	RunNo: 6	951				
Prep Date:	11/15/2012	Analysis [Date: 1	1/16/2012	5	SeqNo: 2	02020	Units: mg/l	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	29	4.9	24.63	0	118	70	130			
Surr: BFB		1100		985.2		109	84	116			
Sample ID	1211653-001AMS	D Samp	Fype: M	SD	Tes	tCode: E	PA Method	8015B: Gase	oline Rang		
l Client ID:	Tank Composite	Batcl	h ID: 48	51	F	RunNo: 6	951				
Prep Date:	11/15/2012	Analysis [Date: 1	1/16/2012	5	SeqNo: 2	02021	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	29	5.0	24.75	0	118	70	130	0.0876	22.1	
Surr: BFB		1100		990.1		109	84	116	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Qual

Sample ID mb-4851	SampT	Type: MI	BLK	Tes	tCode: E	PA Method	8260B: VOL	ATILES	
Client ID: PBS	Batch	h ID: 48	51	F	RunNo: 7	060			
Prep Date: 11/15/2012	Analysis D	Date: 1	1/21/2012	S	SeqNo: 2	04634	Units: mg/k	(g	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Benzene	ND	0.050							
Toluene	ND	0.050							
Ethylbenzene	ND	0.050							
Methyl tert-butyl ether (MTBE)	ND	0.050							
1,2,4-Trimethylbenzene	ND	0.050							
1,3,5-Trimethylbenzene	ND	0.050							
1,2-Dichloroethane (EDC)	ND	0.050							
1,2-Dibromoethane (EDB)	ND	0.050							
Naphthalene	ND	0.10							
1-Methylnaphthalene	ND	0.20							
2-Methylnaphthalene	ND	0.20							
Acetone	ND	0.75							
Bromobenzene	ND	0.050							
Jromodichloromethane	ND	0.050							
Bromoform	ND	0.050							
Bromomethane	ND	0.15							
2-Butanone	ND	0.50							
Carbon disulfide	ND	0.50							
Carbon tetrachloride	ND	0.10							
Chlorobenzene	ND	0.050							
Chloroethane	ND	0.10							
Chloroform	ND	0.050							
Chloromethane	ND	0.15							
2-Chlorotoluene	ND	0.050							
4-Chlorotoluene	ND	0.050							
is-1.2-DCF	ND	0.050							
cis-1.3-Dichloropropene	ND	0.050							
1.2-Dibromo-3-chloropropane	NÐ	0.10							
)ibromochloromethane	ND	0.050							
Dibromomethane	ND	0.10							
1.2-Dichlorobenzene	ND	0.050							
1.3-Dichlorobenzene	ND	0.050							
1 4-Dichlorobenzene	ND	0.050							
Dichlorodifluoromethane	ND	0.050							
11-Dichloroethane	ND	0.10							
1 1-Dichloroethene	ND	0.050							
1 2-Dichloronronane	ND	0.050							
3-Dichloropropane	ND	0.050							
2.2 Dichloropropane		0.050							
.,2-Dichloropropane		0.10							
r, r-Dichloropropene		0.10							
iexachioroputagiene	ND	0.10							

Qualifiers:

* Value exceeds Maximum Contaminant Level.

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

WO#:	1211653
	29-Nov-12

Client: R.T. Hi	icks Consult	ants, LJ	D							
										<u></u>
Sample ID mb-4851	Samp	iype: Mit	SLK	les		PA Method	8260B: VOL	AIILES		
Client ID: PBS	Batc	h ID: 48	51	ŀ	RunNo:	7060				
Prep Date: 11/15/2012	Analysis [Date: 1	1/21/2012	ę	SeqNo:	204634	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50		_						
sopropylbenzene	ND	0.050								
l-Isopropyltoluene	ND	0.050								
-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0. 1 5								
1-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
ert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Fetrachloroethene (PCE)	ND	0.050								
rans-1,2-DCE	ND	0.050								
rans-1,3-Dichloropropene	ND	0.050								
,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
,1,1-Trichloroethane	ND	0.050								
,1,2-Trichloroethane	ND	0.050								
Frichloroethene (TCE)	ND	0.050								
richlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
/inyl chloride	ND	0.050								
kylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.2	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.4	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.3	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			
Sample ID Ics-4851	Samp	Type: LC	s	Tes	stCode: E	EPA Method	8260B: VOL	ATILES		
Client ID: LCSS	Batc	h ID: 48	51	F	RunNo:	7060				
Prep Date: 11/15/2012	Analysis [Date: 1	1/21/2012	5	SeqNo:	204635	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Senzene	1.0	0.050	1.000	0	101	70	130			
oluene	1.1	0.050	1.000	0	108	80	120			
Chlorobenzene	1.0	0.050	1.000	0	101	70	130			
,1-Dichloroethene	1.1	0.050	1.000	0	110	74	124			
richloroethene (TCE)	0.88	0.050	1.000	0	87.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.4	70	130			
Surr: A-Bromofluorobenzene	0.43		0.5000		86.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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Client: R.I. Hic	ks Consult									
Project: XTO En	ergy Nash	Unit 29								
Sample ID Ics-4851	Samn	Type: LC	<u> </u>	Test	Code: El	PA Method	8260B: VOL			
	Bate	h ID · 48	51	F	unNo: 7	060	02000. 401	ANEEO		
Dreat Data: 11/15/0010		Dete: 11				000	linite, marth			
Prep Date: 11/15/2012	Analysis L	Jale.	/21/2012	3	eqino: 2	04635	Units: mg/r	~g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.47		0.5000		93.7	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			
Sample ID 1211653-002ams	Samp	Type: MS		Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: BG Composite	Batc	h ID: 48	51	F	lunNo: 7	060				
Prep Date: 11/15/2012	Analysis [Date: 1 1	/21/2012	S	eqNo: 2	04638	Units: mg/H	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.049	0.9804	0	92.9	80.9	118			
Toluene	0.95	0.049	0.9804	0	97.4	69.5	119			
Chlorobenzene	0.87	0.049	0.9804	0	88.9	75.7	115			
1,1-Dichloroethene	0.99	0.049	0.9804	0.01122	100	68.6	126			
Trichloroethene (TCE)	0.81	0.049	0.9804	0	82.4	68.7	115			
Surr: 1,2-Dichloroethane-d4	0.47		0.4902		96.4	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.4902		85.6	70	130			
	0.47		0 4000		05.4	70	120			
Surr: Dibromofluoromethane	0.47		0.4902		95.4	70	130			
Surr: Dibromofluoromethane Surr: Toluene-d8	0.47		0.4902		95.4 102	70	130			
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams	0.47 0.50 d Samp	Type: MS	0.4902 0.4902	Tes	95.4 102 tCode: E	70 70 PA Method	130 130 8260B: VOL	ATILES		
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite	0.47 0.50 d Samp Batc	Type: M \$ h ID: 48	0.4902 0.4902 SD 51	Tes	95.4 102 tCode: E	70 70 PA Method 060	130 130 8260B: VOL	ATILES		<u></u>
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012	0.47 0.50 d Samp Batc Analysis [Type: M\$ h ID: 48 Date: 1 *	0.4902 0.4902 SD 51 1/21/2012	Tes F S	95.4 102 tCode: E tunNo: 7 SeqNo: 2	70 70 PA Method 060 04639	130 130 8260B: VOL	ATILES		<u> </u>
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte	0.47 0.50 d Samp Batc Analysis [Result	Type: M\$ h ID: 48 Date: 1 ⁻ PQL	0.4902 0.4902 5D 51 1/21/2012 SPK value	Tes F S SPK Ref Val	95.4 102 tCode: E RunNo: 7 SeqNo: 2 %REC	70 70 PA Method 060 04639 LowLimit	130 130 8260B: VOL Units: mg/k HighLimit	ATILES (g %RPD	RPDLimit	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene	0.47 0.50 d Samp Batc Analysis [<u>Result</u> 0.92	Type: M\$ h ID: 48 Date: 1 * PQL 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891	Tes F S SPK Ref Val 0	95.4 102 tCode: E RunNo: 7 SeqNo: 2 <u>%REC</u> 93.3	70 70 PA Method 060 04639 LowLimit 80.9	130 130 8260B: VOL Units: mg/H HighLimit 118	ATILES Sg %RPD 1.30	RPDLimit 20	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene	0.47 0.50 d Samp Batc Analysis [Result 0.92 0.98	Type: MS h ID: 48 Date: 1 ⁻¹ PQL 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891	Tes F SPK Ref Val 0 0	95.4 102 tCode: E RunNo: 7 SeqNo: 2 %REC 93.3 98.8	70 70 PA Method 060 04639 LowLimit 80.9 69.5	130 130 8260B: VOL Units: mg/k HighLimit 118 119	ATILES (g 1.30 2.28	RPDLimit 20 20	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene	d Samp Batc Analysis [Result 0.92 0.98 0.88	Type: MS h ID: 48 Date: 1 ⁻¹ 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891	Tes F SPK Ref Val 0 0 0	95.4 102 tCode: E: RunNo: 7 SeqNo: 2 %REC 93.3 98.8 89.3	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7	130 130 8260B: VOL Units: mg/k HighLimit 118 119 115	ATILES 59 %RPD 1.30 2.28 1.32	RPDLimit 20 20 20	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene	0.47 0.50 d Samp Batc Analysis [Result 0.92 0.98 0.88 1.0	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891	Tes F SPK Ref Val 0 0 0 0.01122	95.4 102 tCode: E RunNo: 7 SeqNo: 2 %REC 93.3 98.8 89.3 99.6	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6	130 130 8260B: VOL Units: mg/k HighLimit 118 119 115 126	ATILES (g %RPD 1.30 2.28 1.32 0.357	RPDLimit 20 20 20 24.8	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE)	0.47 0.50 Batc Analysis [Result 0.92 0.98 0.88 1.0 0.82	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891	Tes F S SPK Ref Val 0 0 0 0.01122 0	95.4 102 tCode: E RunNo: 7 SeqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7	130 130 8260B: VOL Units: mg/H HighLimit 118 119 115 126 115	ATILES (g %RPD 1.30 2.28 1.32 0.357 1.99	RPDLimit 20 20 20 24.8 20	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891	Tes F S SPK Ref Val 0 0 0 0.01122 0	95.4 102 tCode: El RunNo: 7 SeqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3 95.9	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70	130 130 8260B: VOL Units: mg/F HighLimit 118 119 115 126 115 130	ATILES 59 %RPD 1.30 2.28 1.32 0.357 1.99 0	RPDLimit 20 20 20 24.8 20 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.4946 0.4946	Tes F SPK Ref Val 0 0 0 0 0.01122 0	95.4 102 tCode: E kunNo: 7 SeqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3 95.9 83.4	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130	ATILES (g %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0	RPDLimit 20 20 20 24.8 20 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48	Type: MS h ID: 48 Date: 1* PQL 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.4946 0.4946 0.4946	Tes F SPK Ref Val 0 0 0 0 0.01122 0	95.4 102 tCode: E 3eqNo: 7 3eqNo: 7 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130 130	ATILES (9 %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0	RPDLimit 20 20 20 24.8 20 0 0 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane Surr: Toluene-d8	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48 0.51	Type: MS h ID: 48 Date: 1 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.4946 0.4946 0.4946	Tes F S SPK Ref Val 0 0 0 0.01122 0	95.4 102 tCode: E kunNo: 7 seqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70	130 130 8260B: VOL HighLimit 118 119 115 126 115 130 130 130 130	ATILES (g %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 0 0 0	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID mb-4881	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.43 0.41 0.48 0.51	Type: MS h ID: 48 Date: 1 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.98946 0.4946 0.4946 0.4946	Tes F SPK Ref Val 0 0 0 0.01122 0 Tes	95.4 102 tCode: E 3eqNo: 7 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104	70 70 PA Method 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130	ATILES (9 %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 0 0 0	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID mb-4881 Client ID: PBS	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48 0.51 Samp Batc	Type: MS h ID: 48 Date: 1 * PQL 0.049 0.049 0.049 0.049 0.049 0.049 h ID: 48	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.4946 0.4946 0.4946 0.4946 8LK 81	Tes F S SPK Ref Val 0 0 0.01122 0 Tes F	95.4 102 tCode: E 3eqNo: 7 3eqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104 tCode: E tunNo: 7	70 70 70 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70 70 70	130 8260B: VOL. Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130 130	ATILES (g %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 0 0 0	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluorobenzene Surr: Toluene-d8 Sample ID mb-4881 Client ID: PBS Prep Date: 11/19/2012	0.47 0.50 d Samp Batc Analysis [Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48 0.51 Samp Batc Analysis [Type: MS h ID: 48 Date: 1 ⁻¹ 0.049 0.049 0.049 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.9891 0.98946 0.4946	Tes F S SPK Ref Val 0 0 0.01122 0 Tes F S	95.4 102 tCode: E 3eqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104 tCode: E tunNo: 7 3eqNo: 2	70 70 70 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70 70 70 70 70 70 70	130 8260B: VOL. Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130 130	ATILES (9 % RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 ATILES C	RPDLimit 20 20 20 24.8 20 0 0 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluorobenzene Surr: Toluene-d8 Sample ID mb-4881 Client ID: PBS Prep Date: 11/19/2012 Analyte	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48 0.51 Samp Batc Analysis I Result	Type: MS h ID: 48 Date: 1* PQL 0.049 0.049 0.049 0.049 0.049 0.049 0.049 h ID: 48 Date: 1*	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.4946	Tes F SPK Ref Val 0 0 0 0.01122 0 Tes F SPK Ref Val	95.4 102 tCode: E 3eqNo: 2 %REC 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104 tCode: E tunNo: 7 SeqNo: 2 %REC	70 70 70 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70 70 70 70 70 70 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130 130 130 130 130 130	ATILES (9 %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 0 ATILES C %RPD	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 2-Dichloroethane-d4 Surr: Toluene-d8 Sample ID mb-4881 Client ID: PBS Prep Date: 11/19/2012 Analyte Surr: 1,2-Dichloroethane-d4	0.47 0.50 Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48 0.51 Samp Batc Analysis I Result 0.47	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049 0.049 0.049 h ID: 48 Date: 1 PQL	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.5950 0.5000 0.5000	Tes F SPK Ref Val 0 0 0.01122 0 Tes SPK Ref Val	95.4 102 tCode: E 3eqNo: 2 3cREC 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104 tCode: E tode: E 3cqNo: 2 %REC 93.5	70 70 70 060 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70 70 70 70 70 70 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130 130 130 130 Units: %RE HighLimit 130	ATILES (g %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 ATILES C %RPD	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0 0 0 0 8 PDLimit	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID mb-4881 Client ID: PBS Prep Date: 11/19/2012 Analyte Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	0.47 0.50 d Samp Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.43 0.51 Samp Batc Analysis I Result 0.47 0.44	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049 0.049 0.049 h ID: 48 Date: 1 PQL	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.4946 0.4946 0.4946 0.4946 0.4946 0.4946 0.5000 0.5000 0.5000	Tes F SPK Ref Val 0 0 0.01122 0 Tes F SPK Ref Val	95.4 102 tCode: E 3eqNo: 7 3eqNo: 7 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104 tCode: E 3eqNo: 7 3eqNo: 7 3eqNo: 2 %REC 93.5 88.8	70 70 70 04639 04639 LowLimit 80.9 69.5 75.7 68.6 68.7 70 70 70 70 70 70 70 70 70 70 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130 130 130 Units: %RE HighLimit 130 130	ATILES (9 %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 ATILES C %RPD	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0 0 0 8 PDLimit	Qual
Surr: Dibromofluoromethane Surr: Toluene-d8 Sample ID 1211653-002ams Client ID: BG Composite Prep Date: 11/15/2012 Analyte Benzene Foluene Chlorobenzene 1,1-Dichloroethene Frichloroethene (TCE) Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID mb-4881 Client ID: PBS Prep Date: 11/19/2012 Analyte Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluorobenzene Surr: Dibromofluoromethane	0.47 0.50 d Samp Batc Analysis I Result 0.92 0.98 0.88 1.0 0.82 0.47 0.41 0.48 0.51 Samp Batc Analysis I Result 0.47 0.44 0.47 0.44 0.46	Type: MS h ID: 48 Date: 1 PQL 0.049 0.049 0.049 0.049 0.049 0.049 0.049 0.049 0.049 0.049	0.4902 0.4902 5D 51 1/21/2012 SPK value 0.9891 0.5900 0.5000 0.5000 0.5000 0.5000	Tes F SPK Ref Val 0 0 0.01122 0 Tes F SPK Ref Val	95.4 102 tCode: E 3eqNo: 7 3eqNo: 7 93.3 98.8 89.3 99.6 83.3 95.9 83.4 96.6 104 tCode: E 3eqNo: 7 3eqNo: 7 3eqNo: 7 3eqNo: 7 3eqNo: 2 3eqNo: 2 3eqNo: 2 3eqNo: 2 3eqNo: 2	70 70 70 04639 04639 04639 09.5 75.7 68.6 68.7 70 70 70 70 70 70 70 70 70 70 70 70 70	130 8260B: VOL Units: mg/k HighLimit 118 119 115 126 115 130 130 130 130 130 130 130 130 130 130	ATILES (9 %RPD 1.30 2.28 1.32 0.357 1.99 0 0 0 0 0 ATILES C %RPD	RPDLimit 20 20 20 24.8 20 0 0 0 0 0 0 8 PDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 11 of 12

Client:R.T. Hicks Consultants, LTDProject:XTO Energy Nash Unit 29

Sample ID Ics-4881	SampT	ype: LC	s	Tes	tCode: El	ATILES				
Client ID: LCSS	Batch	ID: 48	81	F	lunNo: 7	060				
Prep Date: 11/19/2012	Analysis D	ate: 1	1/21/2012	S	SeqNo: 2	04641	Units: %RE	с		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.6	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.8		130			
Surr: Toluene-d8	0.53		0.5000		106	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENV DNMENTAL ANALYSIS LABORATORY Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuguerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.com

Sample Log-In Check List

	Professional Constant of Profession Street											1 1 1 + Jak H			1.00
Clier	nt Name:	RT HICKS			Wo	rk Oro	ler N	umb	per: 1	2116	53				
Rece	eived by/date	:M(- 11/14	//2_											
Logg	ged By:	Anne Thorr	e	11/14/2012 10:50	0:00 AM				Am.	Am					
Com	pleted By:	Anne Thorr	ie	11/19/2012					От.	Am					
Revi	ewed By:	A-	11/ 19/12	2											
Cha	in of Cust	ody													
1.	Were seals i	ntact?				Yes		No		Not	Present				
2.	Is Chain of C	Sustody comp	lete?			Yes	✓	No		Not	Present				
3.	How was the	sample deliv	ered?			<u>Clien</u>	t								
Log	In														
4.	Coolers are	present? (see	19. for cooler spe	ecific information)		Yes		No			NA				
5.	Was an atter	mpt made to	cool the samples?			Yes		No			NA				
6.	Were all sam	nples received	l at a temperature	e of >0° C to 6.0°0	0	Yes		No			NA				
7.	Sample(s) in	proper conta	iner(s)?			Yes		No							
8.	Sufficient sa	mple volume	for indicated test(s)?		Yes	\checkmark	No							
9.	Are samples	(except VOA	and ONG) prope	rly preserved?		Yes		No							
10.	Was preserv	ative added to	o bottles?			Yes		No	✓		NA				
11.	VOA vials ha	ive zero head	space?			Yes		No		No V(DA Vials				
12.	Were any sa	mple contain	ers received broke	en?		Yes		No	✓						
13.	Does paperw (Note discrep	vork match bo pancies on ch	ttle labels? ain of custody)			Yes	✓	No			# of pre- bottles of for pH:	served checked			
14.	Are matrices	correctly ide	ntified on Chain of	Custody?		Yes	✓	No			· - · F · · ·	(<2	2 or >12	2 unless	noted)
15.	Is it clear wh	at analyses w	ere requested?			Yes	\checkmark	No			A	djusted?			
16 .	Were all hold (If no, notify o	ling times abl customer for a	e to be met? authorization.)			Yes		No			Ch	ecked by	:		
Spe	cial Handl	ing (if app	<u>licable)</u>							L]
17.	Was client no	otified of all d	screpancies with	this order?		Yes		No			NA				
	Person	Notified:		D	ate	Di Rigitani i s									
	By Who	om: Ē		v	ia: 🗖	eMai] Ph	ione [Fa	x 🗍 In	Person			
	Regardi	ing:									<u> </u>				
	Client Ir	structions:	<u></u>		·					<u> </u>				1	
		F					_					···		1	

18. Additional remarks:

19. Cooler Information

Co	oler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1	.0	Good	Not Present			

C	Chain-of-Custody Record				Turn-Around Time:																	
Client:	R.T. I	ficks (Consulfants	Standard	🗆 Rush	۱				r A	1a Nn	LL Al	L VS	NV SIS	/ F 5 L	() .Ai	nr 30	7e R/	NI I VTC	AL JR	Y	
				Project Name	e:			asie. Nati		-	MANA	n hal	llenv	viron	ment	tal.co	 วm				-	
Mailing	Address	s:	<u>ci</u>	VTA FA	can Maci	h 110,7 \$ 09		49	01 H	lawk	ins N	VF -		ามตย	erau	e N	M 87	109				
		00		Project #:	<u>197 - 10</u> 031) $(\lambda u) = \alpha \cdot i$	1	Te	کا ا	15-34	15_3	975	7 u.c. F	- Fax	505-	345-	-4107	7				
Phone	#: .54	5 266	SMU	-									nal	ysis	Req	ues						
email o	or Fax#:	ndrow6	Orthicks Consult. Com	Project Mana	iger:	· · · · · · · · ·		ly)	sel)			12 e e)_4)	3. * Par	and an are			1943. (212)0			
QA/QC	Package:								Dies					⁴ .SC	CB's							
🗆 Star	ndard		Level 4 (Full Validation)	Andrew Parker					3as/					PO ⁴	2 P(
Accred	itation .AP	Othe	er	Sampler: Andrew Parker					15B ((8.1)	14.1)	4H)		3, NO	/ 808:		7				Î	
) (Type)			Sample Tem	perature:	1.0	ш÷	ЗE +	1 80 [.]	d 41	d 50	or P/	tals	Z	des	4	0 N				۱ĉ	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALING:	BTEX + MTI	BTEX + MTI	TPH Methoc	TPH (Metho	EDB (Metho	8310 (PNA 6	RCRA 8 Me	Anions (F(C	8081 Pestici	8260B (*64	8270 (Semi-				Air Bubbles	
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	1256	1 ^e	tank # 2 @ 8"),	11				($\left \right $		(
11	1259	11	tank # 3 @8"	11	11																	
11	1303	11	tank # 4 @ 8"	"	11				$\left(\right)$	7				7		7			\neg			
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Date: Time: Relinquished by: R			Received by:	/	/ Date Time	** 1	0 ر	not	a	nal1	ZC	p	oiat	Sa	mple	eS	ßь	#1	-> _	5		
		<u> </u>					Lo	15	(or	00	sile	Ţ	ank	<u>_ </u> #	1-	<u>5 †</u> 1	Lab	tom	12051	e B	641	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



February 18, 2013

ANDREW PARKER R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE, NM 87104

RE: XTO NASH UNIT 29

Enclosed are the results of analyses for samples received by the laboratory on 02/13/13 7:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celez D. Kune

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	02/13/2013	Sampling Date:	02/11/2013
Reported:	02/18/2013	Sampling Type:	Soil
Project Name:	XTO NASH UNIT 29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UNIT 'J', SEC. 13, T23S, R29E		

Sample ID: SAMPLE TRENCH @ 2' BGS (H300404-01)

Chloride, SM4500Cl-B	Analyze	d By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	02/18/2013	ND	448	112	400	0.00	
Conductivity 120.1	uS/	'cm	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity* 8010 1.0		1.00	02/15/2013		476	95.2	500	0.752	

Sample ID: SAMPLE TRENCH @ 4' BGS (H300404-02)

Chloride, SM4500Cl-B mg/kg			Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2120	16.0	02/18/2013	ND	416	104	400	3.77	
Conductivity 120.1	uS/	cm	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity*	6020	1.00	02/15/2013		476	95.2	500	0.752	

Sample ID: SAMPLE TRENCH @ 6' BGS (H300404-03)

Chloride, SM4500Cl-B	hloride, SM4500Cl-B mg/kg				,				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	02/18/2013	ND	416	104	400	3.77	
Conductivity 120.1	uS/	'cm	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity* 7050 1.00		02/15/2013		476	95.2	500	0.752		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.

Chloride by SM4500CI-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or bort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits and use in subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims based upon any of the above stated receives. Results related roly to the sample identified above. This report shall not be reprodued except in full with writen approval of Cardinal Liboratores.

Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 4



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Company Name: R.T. HICKS Consultants					ANALYSIS REQUEST																				
Project Manage	Andrew P	acker						P.O. #					[ſ	T	1			Γ						
Address:			-					00	mpa	ny: F	<u>Z. T. 1</u>	11	cks				1								
City:		State:	Zip					Ati	n:							1	1		1		ł				
Phone #:	·	Fax #:					men han	Address:				[l								
Froject #:		Project Owner	π (Ύ	Juri	ch.	sor		Cit	<u>y:</u>	بيمورب-جي	_:						}			{					
Project Name:	oject Name: XTO Nash Unit 29					Sta	ite:		Zip:							i i									
Project Location	Project Location: Unit 'J' Sec. 13, T235, R29E				· . .	Ph	one	#:	• :				ſ				[
Sampler Name:	ampler Name: Kristin Pope					Fax #:					1	1		1		{									
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June 28, 2013

KRISTIN POPE R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE, NM 87104

RE: XTO NASH UNIT 29

Enclosed are the results of analyses for samples received by the laboratory on 06/26/13 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celez D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

R T HICKS CONSULTANTS KRISTIN POPE 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	06/26/2013	Sampling Date:	06/24/2013
Reported:	06/28/2013	Sampling Type:	Soil
Project Name:	XTO NASH UNIT 29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UNIT 'J', SEC. 13, T23S, R29E		

Sample ID: BACKGROUND @ 1.5' (H301491-01)

Chloride, SM4500Cl-B	mg/	kg	Analyzed	By: DW					
Analyte	Analyte Result Repo		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	06/28/2013	ND	448	112	400	3.64	

Sample ID: BACKGROUND @ 3' (H301491-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Reporting Limit Analyzed		BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	06/28/2013	ND	448	112	400	3.64	

Sample ID: BACKGROUND @ 4.5' (H301491-03)

Chloride, SM4500Cl-B	mg/l	(g	Analyzed	By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	06/28/2013	ND	448	112	400	3.64	

Sample ID: BACKGROUND @ 6' (H301491-04)

Chloride, SM4500Cl-B	mg/l	kg	Analyzed	By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	06/28/2013	ND	448	112	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

R T HICKS CONSULTANTS KRISTIN POPE 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received:	06/26/2013	Sampling Date:	06/24/2013
Reported:	06/28/2013	Sampling Type:	Soil
Project Name:	XTO NASH UNIT 29	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UNIT 'J', SEC. 13, T23S, R29E		

Sample ID: BACKGROUND @ 7.5' (H301491-05)

Chloride, SM4500CI-B	mg/	kg	Analyzed	By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1380	16.0	06/28/2013	ND	448	112	400	3.64	

Sample ID: BACKGROUND @ 8' (H301491-06)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	06/28/2013	ND	448	112	400	3.64	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Appendix D Photo Documentation

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104



Figure 1: Stockpiling chloride impacted caliche near western 1/3 of location pad.



Figure 2: Stockpiled imapcted caclihe (two right soil piles) waiting transport to R360. The far left soil pile (background) is clean soil to be used for BLM interim reclamation activities.



Figure 3: Stockpiled chloride impacted caliche being loaded for trasnport to R360.



Figure 4: Western 1/3 of caliche pad removed and ready for ripping and seeding. Portions of the caliche pad were included in BLM interim reclamation activities.



Figure 5: Photo of remediated western 1/3 of caliche pad, viewing north. Area was ripped and seeded with BLM seed mixture #4 and Alkali Sacaton.