EPWM - 010

FINAL CLOSURE REPORT

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

RECEIVED OCD

2014 APR -3 P 1:55

Mr. Brad Jones NMOCD 1220 South St. Francis Drive Santa Fe, NM 87505

RE:

C-144 Closure Report for the Poseidon Modular Impoundment.

Operator: XTO Energy. API #: 30-015-29434.

Unit Letter J Section 13 T23S R29E.

Dear Mr. Jones:

R.T. Hicks consultants is pleased to submit this Closure Report for the above referenced location on the behalf of XTO Energy. Closure activities were performed in accordance with the approved C-144 application "Nash Draw Unit #29 modular impoundment (Atlantis system) for temporary storage of treated produced water" dated June 13, 2012. The location of the modular impoundment is on Plate 1. Plate 2 is a plat of the location.

On June 20th, 2012, XTO Energy began sending treated water from Halliburton's CleanWave system, located at Nash Unit #53 SWD, to the Poseidon Modular Impoundment (Poseidon tank). On June 25, 2012, the first well, Nash Unit 39H, was hydraulically fractured using treated water from the Poseidon tank. On September 26th, 2012, the last well, Nash Unit 49, was fractured using treated water from the Poseidon tank. The transfer completion date, in lieu of rig release date, was October 5, 2012 as noted on Form C-105 per approved C-144 plan.

CLOSURE NOTIFICATIONS

Closure activities for the Poseidon tank began on October 15, 2012. Notification of closure activities were sent to Mr. Bratcher (NMOCD), Mr. Jones (NMOCD), and Mr. Jim Amos (BLM) via email on October 12, 2012. Closure notification to the surface owner (BLM) was sent via certified mail return receipt. A copy of the receipt is presented in Appendix A.

MODULAR IMPOUND CLOSURE On October 15, 2012 Poseidon Concepts began the disassembly of the Poseidon tank. Due to the oily nature of remaining fluid in the



Figure 1: One of the four roll-offs containing liner material that was transported to R360.

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Poseidon tank, the fluid was removed using a vacuum truck and transported to R360 (formerly CRI) in Lea County, NM. The closure plan originally stated that remaining fluid would be injected into the Nash Unit 53 SWD (API#: 3001539400) well.

Poseidon Concepts transported all reusable pipes, pumps, and tank walls to their field yard. The tank liner was deposited into four 20-cu. yrd. roll-offs (Figure 1) and transported to R360 for proper disposal.

OPERATION LOGS

Operation logs for the Poseidon tank and the CleanWave system are presented in Appendix B. As noted in Tables B-1 and B-2, on August 27th, 2012 the Poseidon tank liner seam split slightly 1-foot from the top of the tank and approximately 3 barrels of fluid escaped. Mr. Randy Green of XTO Energy mobilized water haul trucks to the site and lowered the water level to prevent further leakage. The water was transferred to Nash Draw 49 H and Nash Draw Unit # 57 H for use in well stimulation. Water levels in the tank were kept below the split and the seam was repaired to prevent further leakage. The release was reported on Form 141 and submitted to NMOCD District 2 on March 15, 2013.

C-144 CLOSURE SAMPLING AND C-141 SPILL RELEASE NOTIFICATION & CORRECTION ACTION

Submissions and Approvals

On October 12, 2012, Hicks Consultants provided a 72-hour closure notice to Mr. Bratcher of District 2 NMOCD. On November 8, 2012, Hicks Consultants provided District 2 NMOCD a 72-hour closure sampling notice. These notices were submitted via email. A copy of the emails and subsequent email correspondence is provided in Attachment E.

On November 13, 2012, Hicks Consultants collected two on-site 5-point composite soil samples (Plate 3) per the approved C-144 for the modular impoundment employed for hydraulic fracturing of five wells in 2012.

On February 11, 2013, in support of an interim reclamation ordered by the BLM-Carlsbad Office, Hicks Consultants performed soil characterization to determine whether chloride and EC concentrations would support vegetation for interim reclamation. The Trench Sample was referenced in the initial Release Notification and Corrective Action plan (discussed below) and assisted with defining the vertical and horizontal extend of chloride impacted soil.

After confirmation of a release from the Tank Composite, BG Composite, and Trench Sample, a spill "Release Notification and Corrective Action" Form C-141 was submitted to NMOCD District 2 on March 15, 2013 (see Appendix C). District 2 NMOCD approved the C-141 Initial Report on May 31, 2013. Hicks Consultants received notice of approval via email on June 5, 2013. The approval included conditions and stipulations as presented in Appendix E. Plate 4 shows the Corrective Action remediation area.

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

After completion of reclamation, Hicks Consultants submitted the Final Report for the C-141 to NMOCD District 2 on December 5, 2013. The Final Report was approved by District 2 NMOCD on January 14, 2014. A copy of the Final Report is located in Appendix C.

Sampling Results

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 below ground surface. The Tank Composite sample exhibits a chloride concentration of 7,500 mg/kg (see Table 1); indicating production activities have impacted the western half of the caliche pad. The BG Composite sample exhibited a chloride concentration comparable to the Trench Sample (discussed below) at the 2 foot depth (3,480 mg/kg) interval.

Table 1: Soil chemistry summary results

Sample ID	Date	Depth	Chloride	EC	Benzene	ВТЕХ	TPH	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	1.0	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

Notes

1. ND = non-detect

2 NS = not sampled

The Trench Sample consisted of discrete samples at 2, 4, and 6 foot depths. 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 2,120 mg/kg at 4 feet. At 4 feet, the concentration is less than that encountered in the Background Sample trench at comparable depths (3.0 and 4.5 feet). We conclude that the majority of chloride impairment is contained in the production pad surface. Table 2 summarizes the lithology of the Trench Sample.

Table 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.

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.

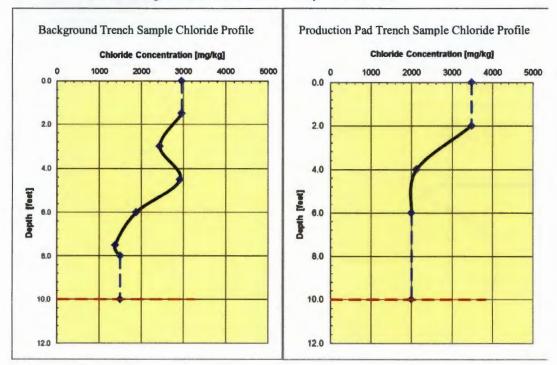
Table 1: Chloride concentration comparison between an on-site and off-site (background)

	Chloric	de (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 Background Sample (per condition of the C-141) was located in an area not impacted by past or current production activities.

Graphic 1, below, shows the chloride concentration data from Table 1 plotted at the appropriate depth for both the Background Sample trench and the Trench Sample located on the production pad (locations shown on Plate 3). From the ground surface to the depth of 10-feet, the mass of chloride per unit area can be calculated from these chloride concentration profiles.

Graphic 1 : Concentrations for samples closest to the surface and at greatest depth are assumed as constant to both the ground surface and to a depth of 10 feet



Multiplying each sample concentration by a moist soil density and a centered depth interval for each sample depth yields a chloride mass per area for that depth interval. The calculation is shown below:

Conc(z) [mg/kg] * rho [kg/m^3] * delta z [m] = Chloride Mass [kg/m^2]

where:

Conc is the chloride concentration from a particular depth (z) rho is a moist soil density and assumed as constant from the surface to 10 feet delta z is the depth interval for which a chloride concentration is taken as constant

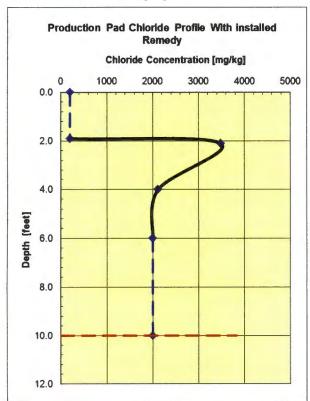
(We used a rho (moist soil density) of 1780 kg/m³ calculated by using a porosity of 0.4 and a volumetric moisture content of 0.19 to reflect the moist conditions.)

Adding up the Chloride Mass per m^2 calculated for each depth interval yields a total chloride mass per m^2 for each profile. This sum represents the chloride mass between ground surface and a depth of 10 feet per square meter of surface area.

The Background Trench Sample Chloride Profile has a total chloride mass per m^2 of 12.09 kg/m^2. The Production Pad Trench Sample Chloride Profile has a total chloride mass/m^2 of 13.4 kg/m^2, a mass about 11% more than the Background Trench Sample Chloride Profile.

Graphic 2 presents the Production Pad Chloride Profile with the installed remedy.

Graphic 2: The uppermost 2 feet of soil have been replaced with soil having an assumed chloride \ concentration of 200 mg/kg



Performing the same calculations yields a total chloride mass per m^2 of 9.87 kg/m^2, a mass about 18% less than the Background Trench Chloride Profile.

Note that changing the assumed values within the calculation does not change the relative chloride mass/m^2 for the chloride concentration profiles. That is, while it does increase or decrease the calculated chloride mass/m^2 for each profile, their relative magnitudes are not changed.

The chemistry, lithology, and calculated chloride mass of the trench samples suggest that:

- 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,
- the eastern portion of the location is not measurably impaired by production activities as the BG Composite sample result (3,000 mg/kg) is not different from the Background Sample at 1.5 feet below ground surface.
- The selected remedy lowered the chloride mass per m^2 in the upper 10-feet of the soil profile to less than that of the background trench location.

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The removal of the upper 2-feet of soil within the remediation area as shown on Plate 2 remediated the observed higher chlorides and allowed for vegetation.

Current Status

The location is currently an active well site. To return the site to pre-existing conditions, the three "Y" shaped trenches associated with the modular impoundment were backfilled with caliche (Figure 2) and graded even with the existing production pad (Figure 3).



Figure 2: Backfilling a "Y" shaped trench with caliche.



Figure 3: Location reclaimed to pre-existing conditions graded even with the active production pad.

Please contact us at 505-266-5004 if you have any questions or comments.

Sincerely,

R.T. Hicks Consultants

Andrew Parker

Durango Field Office Ph: 970-570-9535

Copy: David Luna, XTO Energy

Mike Bratcher, District 2 NMOCD

Submit To Appropr Two Copies	iate Distri	ct Office				State of Ne								Form C-105			
District I 1625 N. French Dr.	, Hobbs, N	M 88240		En	ergy, l	Minerals and	d Na	tura	l Re	sources		Revised August 1, 2011 1. WELL API NO.					
District II 811 S. First St., Art	esin, NM	88210			Oil	Conservat	tion	Div	isic	n		30-0	15	-294	34		
District III 1000 Rio Brazos Ro	d., Aztec, l	NM 87410				20 South S						2. Type of Le		☐ FEE	ズ FED/IN	DIAN	
District IV 1220 S. St. Francis	Dr., Santa	Fe, NM 87	505			Santa Fe, N	MI	8750	05			3. State Oil &					
		LETIO	N OR	RECC	MPL	ETION RE	POF	RT A	NE	LOG					***************************************		
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☐ COMPLETI					_							6. Well Number:					
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7. Type of Completion: NEW WELL WORKOVER DEEPENING PLUGBACK DIFFERENT RESERVOIR OTHER C-144 Closure Report 8. Name of Operator 9. OGRID									Report								
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BH:																	
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District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

Proposed Alternative Method Permit or Closure Plan Application
Type of action: Z Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: XTO Energy,Inc OGRID #: 5380
Address: 200 N. Loraine, Suite 800 Midland, TX 79701
Facility or well name: Nash Unit #29
API Number: 30-015-29434 OCD Permit Number:
U/L or Qtr/Qtr J Section 13 Township 23S Range 29E County: Eddy
Center of Proposed Design: Latitude N 32.30322 Longitude W 103.93719 NAD: 1927 🛛 1983
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC Temporary: Drilling Workover Permanent Emergency Cavitation P&A X Other: Modular impoundment for temporary storage of treated produced water Vertical steel foam-insulated panels Vertical st
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thicknessmil
5. Alternative Method:

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify Modular impoundment walls are 12 feet high; no fencing necessary.	hospital,
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other Monthly inspections (If netting or screening is not physically feasible)	
8. Signs: Subsection C of 19.15.17.11 NMAC □ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers □ Signed in compliance with 19.15.16.8 NMAC See photos in Appendix SSI-1	
Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	ppriate district approval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes 🔀 No EE FIGURES 1a,1b
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes No SEE FIGURE 2
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No NA SEE FIGURE 3
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes X No SEE FIGURE 4
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes X No SEE FIGURE 5
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes X No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	Yes X No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes No SEE FIGURE 8
Within a 100-year floodplain FEMA map	Yes X No

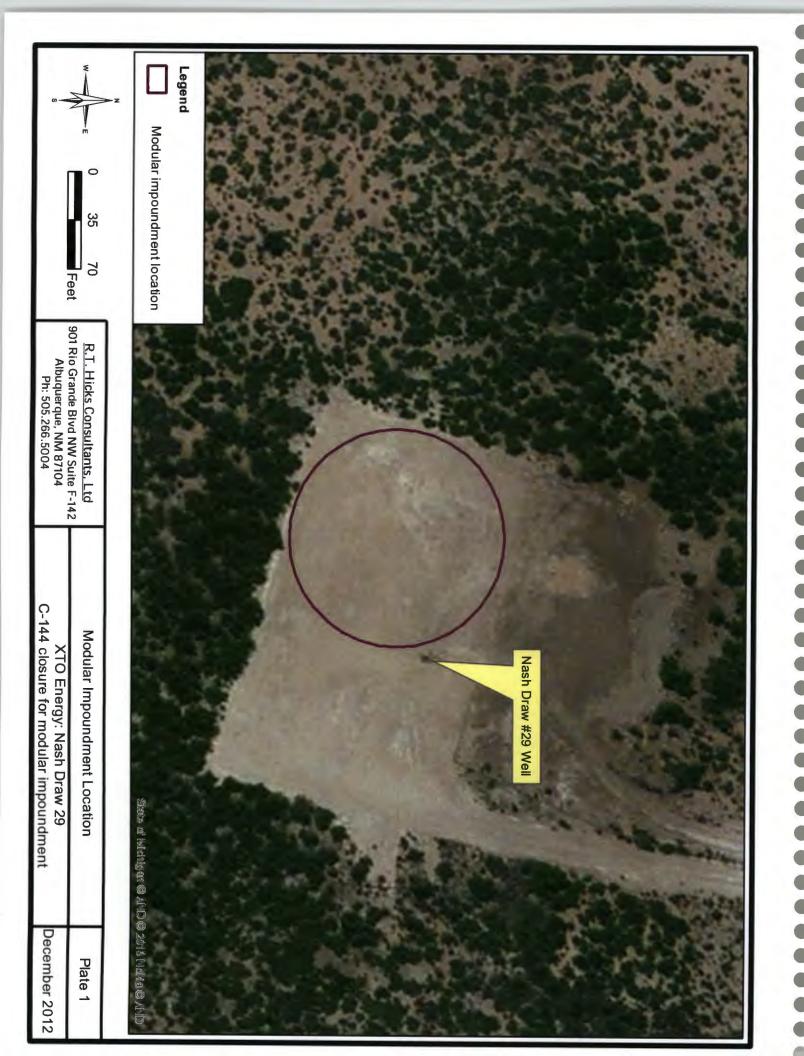
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached. ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:
12. Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached. ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Modular impoundment for temporary storage of treated produced water Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Torry C+144 Oil Conservation Division

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, facilities are required.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities of Yes (If yes, please provide the information below) No	occur on or in areas that will not be used for future serv	vice and operations?
Required for impacted areas which will not be used for future service and operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	te requirements of Subsection H of 19.15.17.13 NMAC in 1 of 19.15.17.13 NMAC	2
17. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may required considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	ire administrative approval from the appropriate disti al Bureau office for consideration of approval. Justi	rict office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other si lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	gnificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or churc - Visual inspection (certification) of the proposed site; Aerial photo; Satelli		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that le watering purposes, or within 1000 horizontal feet of any other fresh water well or NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh wa adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written appro		☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visa	ual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Minim	g and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map	gy & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate re Waste Material Sampling Plan - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	quirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC pad) - based upon the appropriate requirements of 19. 15.17.13 NMAC quirements of Subsection F of 19.15.17.13 NMAC of Subsection F of 19.15.17.13 NMAC drill cuttings or in case on-site closure standards cann of H of 19.15.17.13 NMAC of 10 of 19.15.17.13 NMAC	15.17.11 NMAC

19.
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): David Luna Title: Operations Engineer
Signature: Date: 06/13/2012
e-mail address: David_Luna@xtoenergy.com Telephone: 432-620-6742
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: U/14/(7
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an opproved closure plan has been obtained and the closure activities have been completed. Closure Completion Date: November 13, 2012
n. Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain. Modular impoundment closure - hauled off-site
23. Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tunks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
Disposal Facility Name: R360 Disposal Facility Permit Number: R-9166
Disposal Facility Name: Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) \(\sumsymbol{\substack}\) No
Yes (If yes, please demonstrate compliance to the items below) No Required for Impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique
Yes (If yes, please demonstrate compliance to the items below) No Required for Impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Re-vegetation Application Rates and Seeding Technique Closure Report Attachment Checklist: Instructions: Each of the following Items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (If applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation
Yes (If yes, please demonstrate compliance to the items below) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Yes (If yes, please demonstrate compliance to the items below) No Required for Impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique 11. Closure Report Attachment Checktist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (If applicable) Waste Moterial Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique
Yes (If yes, please demonstrate compliance to the items below) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Yes (If yes, please demonstrate compliance to the items below) No Required for Impacted areax which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique St. Closure Report Attachment Checktist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Lutitude
Yes (If yes, please demonstrate compliance to the items below) No Required for Impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique 14. Closure Report Attachment Checklist: Instructions: Each of the fallowing Items must be attached to the closure report. Please indicate, by a check wark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporury pits) Confirmation Sampling Analytical Results (If applicable) Waste Moteriol Sampling Analytical Results (If applicable) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Lutitude

PLATES



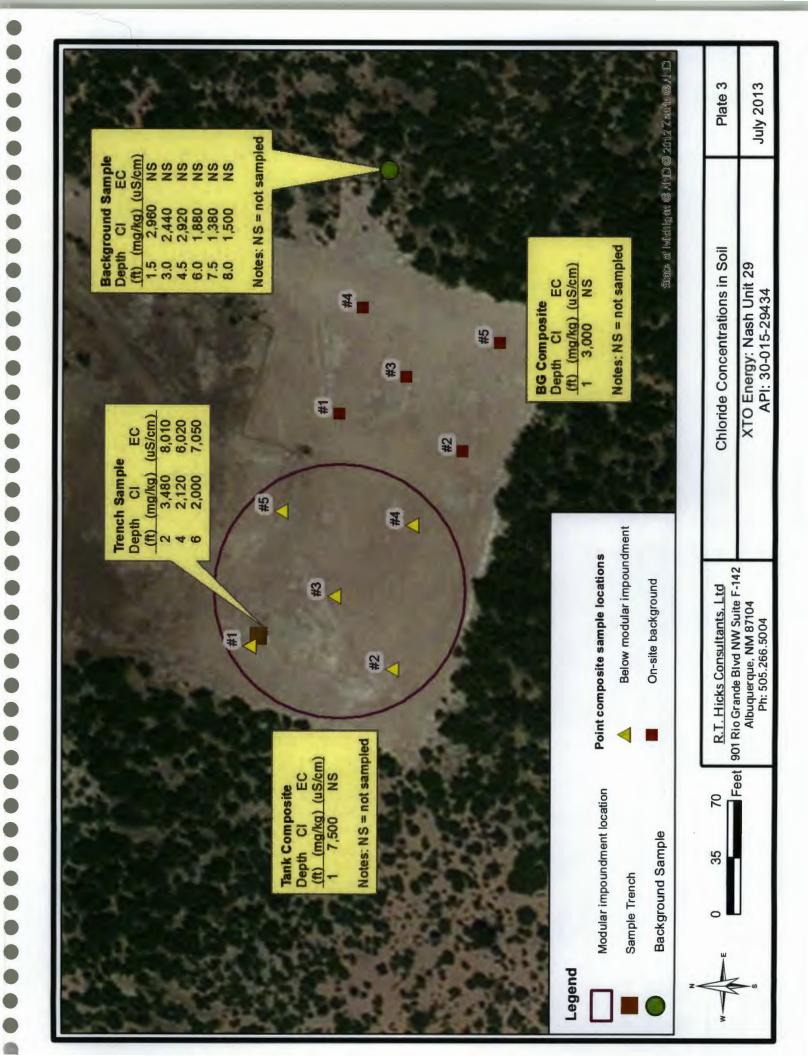
District I PO Box 1980, Hobbs, NM 88241-1980 District II 811 South First, Artesia, NM 88210 District III

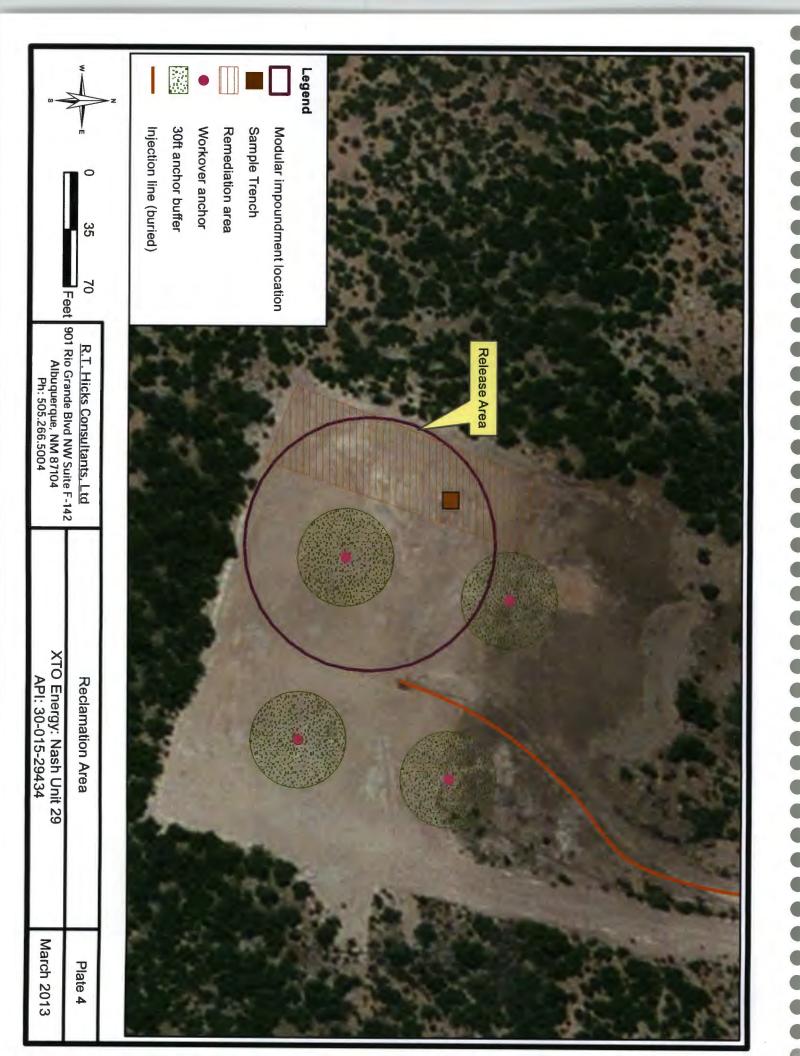
State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

Form C-102 Revised October 18, 1994 Instructions on back Submit to Appropriate District Office

	NM 87410			Santa Fe, N	Pacheco IM 87505				Lease - 4 Copies Lease - 3 Copies	
District IV 2040 South Pacheco, Santa Fe	r, NM 87505							AME	NDED REPORT	
	WF	ELL LO	CATION	N AND ACE	REAGE DEDIC	CATION PL	АТ			
30-015-2°			² Pool Code 47545		NASI	Pool Na H DRAW BRUS	HY CAN	IYON O	IL POOL	
Property Code 010735	NASH	UNIT		⁵ Property	Name				Well Number 29	
'OGRID No. 021712		A PRODU	CTTON	¹ Operator	Name			'Elevation 2991.		
021112	Ullula	A IRODO	CITOM	10 Surface	Location			L	2371.	
UL or lot no. Section J 13	Township 23-S	Range 29-E	Lot Idn	Feet from the North/South line Feet from the 1980 SOUTH 2310			East/Wes		County EDDY	
			om Hol	e Location I	f Different Fro	m Surface				
UL or lot no. Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West	t line	County	
12 Dedicated Acres 13 Joint 40.00 N		Consolidation U		order No.						
NO ALLOWABLE WI					UNTIL ALL INT N APPROVED BY			CONSOI	LIDATED OR A	
16						I hereby certif	y that the inj	formation c	TFICATION contained herein is nowledge and belief	





APPENDIX A

SENDER: COMPLETE THIS SECTION	٧	COMPLE	TË THIS	SECTION	ON DELIV	/ERY
■ Complete items 1, 2, and 3. Also conitem 4 if Restricted Delivery is desired. ■ Print your name and address on the so that we can return the card to you. ■ Attach this card to the back of the mor on the front if space permits. 1. Article Addressed to: Tim Amos BLM- Carlsbal 620 E. Green St Carlsbal, NM 88220	d. reverse I.	D: Is deliving a service of the serv	rery addresses and the second	☐ Re	oress Mail turn Receipo.D.	Dagent Date of Defiv. Date of Defiv. Date of Defiv. No Pres No
Article Number (Transfer from service label)	7004	1350 0		9663	5615	:
PS Form 3811, February 2004	Domestic Re	turn Receint				102595-02-M-1

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Date	Processing Hrs	Bbls Processed	Comments
4-Jun	0	0	Arrive & check out location
5-Jun			RU Unit & 2 Weir Tanks
6-Jun			Continue RU Unit & Weir Tanks
7-Jun			RU Setteling Tanks, Electricity, Acid
8-Jun			Wait on Caustic
9-Jun	7	2900	Receive Caustic, fill weir & set tanks
10-Jun	6		Clean tanks full
11-Jun			Wait on Poseidon Tank
12-Jun			Wait on Poseidon Tank
13-Jun			Wait on Poseidon Tank
14-Jun			Wait on Poseidon Tank
15-Jun	-		Wait on Poseidon Tank
16-Jun			Wait on Poseidon Tank
17-Jun			Wait on Poseidon Tank
18-Jun		-	Wait on Poseidon Tank
19-Jun			Wait on Poseidon Tank
20-Jun			Hook up H-Pump: send water to Poseidon at 7PM
21-Jun	13	4000	1st full day of processing
22-Jun		3600	250 (21) (22)
23-Jun	23	7500	
24-Jun	8	3800	
25-Jun	11		Frac Nash 39H: used 10,000 bbls
26-Jun	0		Wait until closer to frac date to process
27-Jun	0	0	"
28-Jun			п
29-Jun			п
30-Jun			11
1-Jul	6	1650	Pull down "dirty tanks" to make room
2-Jul			Wait until closer to frac date to process
3-Jul			"
4-Jul			п
5-Jul			11
6-Jul			II.
7-Jul	·····		11
8-Jul			II II
9-Jul	4	1573	Start back up
10-Jul	8	3363	
11-Jul	4	1980	
12-Jul	8	3362	
13-Jul	10	4704	
14-Jul	10	4321	
15-Jul	9	4273	
16-Jul	7	3852	
17-Jul	6		Tank full. Wait on frac
18-Jul	- 0	2332	I I I I I I I I I I I I I I I I I I I
19-Jul	3	11/1	Pull down "dirty tanks" to work on valve

			Table 6-1
Date	Processing Hrs		Comments
20-Jul	7	2136	Tank full. Wait on frac
21-Jul			II .
22-Jul	_		ti .
23-Jul			11
24-Jul			II
25-Jul			Frac Nash 40 JITP: 13,000 BBL
26-Jul			Frac nash 41 JITP: 19,000 BBL
27-Jul			
28-Jul			
29-Jul			
30-Jul			
31-Jul			
1-Aug			
2-Aug	3	1392	Start back up
3-Aug	6	3351	
4-Aug	9	4903	
5-Aug		3263	
6-Aug		5060	
7-Aug		5560	
8-Aug		4126	
9-Aug		3441	
10-Aug		3990	Frac Nash 56: 33,000 BBL
11-Aug		4279	The state of the s
12-Aug		3359	
13-Aug	+	4735	
14-Aug		6008	
15-Aug		7282	
16-Aug		3056	Screened out 1st Stage of Nash 49
17-Aug			
18-Aug	T -		
19-Aug	ļ		
20-Aug	+	0	
21-Aug		3208	Poseidon Tank Full. Top off XTO tanks.
22-Aug	· · · · · · · · · · · · · · · · · · ·		
23-Aug		2648	"
24-Aug	 		All Tanks full. Oil found on top of Poseidon tank.
25-Aug			All Tanks are full.
26-Aug		0	п
27-Aug		0	Poseidon Tank started leaking from seams.
28-Aug			Hauling water from Poseidon to frac tanks.
29-Aug		0	
30-Aug	1	0	Frac Nash 57
31-Aug	•	5125	and the second s
1-Sep		6101	
2-Sep		4483	The state of the s
3-Sep		4394	
3.300	1	1 7334	I

Date	Processing Hrs	Bbis Processed	Comments
4-Sep		4844	
5-Sep		5113	
6-Sep		2786	Frac Nash 58
7-Sep		6480	Brown Bear went down/hauling water
8-Sep		6480	Tanks full from hauling all night
9-Sep		1230	Filled holding tanks
10-Sep			Frac Nash 51/Pulled sludge & cleaned tanks
11-Sep		935	Replaced Suction riser on Poseidon Tank
12-Sep		2513	
13-Sep		2206	
14-Sep		2206	
15-Sep		0	Maintenance & Repair
16-Sep		0	XTO Transfer pump is down
17-Sep		0	
18-Sep		3005	Transfer pump is working
19-Sep		1366	
20-Sep		4476	
21-Sep		1967	
22-Sep		2982	
23-Sep		1441	
24-Sep		1156	
25-Sep		0	Maintenance & Repair
26-Sep		2970	
27-Sep		1045	Frac Nash 49/Done with Treating water

Detail.		/4/2012	1	Banan	Number		1
Date:	6/	/4/2012			Number: Number:		8
				Unit	Tumper.		0
Client:		XTO	1	S	hift Onsite Time:	NA	am/pm
Location:		NASH		S	hift Offsite Time:	NA	am/pm
Site Contact:	во	JACKSON]	S	ystem Run Time:	1	Total hrs.
Site Contact:]	Present	Onsite Activities:	Treating Pr	oduced Water
RIG UP							
Processing H	rs Today:	1 hrs	Cumulativ	e Processing	Hrs:	1	hrs
BBLS Processe	ed Today:	1 bbls	Cumulative	e BBLS Proce	ssed:	1	bbls
BBLS/Hr Pro	cessed:	1	Cumulative	BBLS/Hr Proc	essed:	1.0	bbl/hr
Lead Operator:	Pau	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidity
Crew:			NA NA		NA NA	NA	NA NA
			NA NA		NA NA	NA	NA
			NA NA		NA NA	NA	NA
		-	NA NA		NA NA	NA NA	NA NA
			NA NA		NA NA	NA NA	NA NA
			l INA		IVA	IVA	IVA
	1		Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	0	0	YES
'			Sodium Hydroxide	0	0	0	YES
Visitors:]				
Visitors:							
Visitors:							
Were there any ab	normal opera	tional issues onsi	ite?				
NO							
A - 41	411		1 1017				
NO	tional supplie	es/equipment need	ded? If so, what items and	when?			
110							
Have there been a	ny changes to	the current sche	dule, including volumes n	eeded by clier	nt?		
NO	,						
Man allows ware date	d					_	
Person:	u any operati	OHAH RESUDACK (PO	ositive or negative)? Company:	I	I	OXY	
NO			Company.	L		0.11	
			· ········				111
Additional Co						.=	
	NT TO LOCA	TION CUSTOME	R SAID IT WOULD TAKE 3	DAYS BEFOR	E HE COULD HA	VE ANY WAT	ER FOR US
TO PROCESS.							

Date:	6	/5/2012		Report	Number:		2
Date.		3/2012			Number:		8
				<u> </u>	tunibur.		
Client:		XTO		S	hift Onsite Time:	7:00 AM	am/pm
Location:	N	lash 29			hift Offsite Time:	4:00 PM	am/pm
Site Contact:	Во	Jackson		S	ystem Run Time:		Total hrs.
Site Contact:				Present	Onsite Activities:	Rig Up E	quipment
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	0	hrs
BBLS Processe		0 bbls		e BBLS Proces		0	bbls
BBLS/Hr Prod		#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	#D	IV/0!
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			06:00				
Crew			08:00				
	Kev	rin Wilson	10:00				
	Special	Service hands	12:00				
			14:00				
			16:00				
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,000	4,000	NO
			Sodium Hydroxide	0	3,800	3,800	NO
Visitors:	В	o Wells					
Visitors:							
Visitors:				L	<u> </u>		
							
	ormal opera	tional issues onsite	?				
None							
A 41	lanal avanlla	-1	10 lf an order than and				· · · · · · · · · · · · · · · · · · ·
2 frac tanks will be d			i? If so, what items and	whenr			
2 Hac talks will be d	envered to lo	cation tomorrow.					
					-		
Have there been an	v changes to	the current schedu	le, including volumes ne	eded by client	12		
			of the week. Could be a				
				,,,			
	any operation	onal feedback (posit					
Person:			Company:	,		XTO	
N/A							
Additional Co	mmente		···				
		along with 2 ea weir	tanks.Will complete rig up	when the 2 fra	c tanks arrives ton	orrow Need	to contact the
			units Will return to locati				

Client: Location: Site Contact: Site Contact: Processing Hrs Tod BBLS Processed Tod BBLS/Hr Processe Lead Supervisor: Lead Operator Crew	Na Bo J lay: day: d: Paul Chad Kevir Reginald	/2012 (TO sh 29 ackson 0 hrs 0 bbls #DIV/0! Worley Edwards Wilson	Cumulative	Unit N	ssed:	0	am/pm am/pm Total hrs Equipment hrs bbls
Location: Site Contact: Site Contact: Processing Hrs Tod BBLS Processed Too BBLS/Hr Processed Lead Supervisor: Lead Operator Crew	Na Bo J lay: day: d: Paul Chad Kevir Reginald Reginald	o hrs o bbls #DIV/0! Worley Edwards	Cumulative Cumulative Readings:	Present Present Present Present Present Present	hift Offsite Time: ystem Run Time: Onsite Activities: Hrs: ssed:	6:00 PM Rig Up E	am/pm Total hrs Equipment hrs bbls
Location: Site Contact: Site Contact: Processing Hrs Tod BBLS Processed Tot BBLS/Hr Processed Lead Supervisor: Lead Operator Crew	Bo J lay: day: Chad Kevir Reginald Reginald	0 hrs 0 bbls #DIV/0! Worley Edwards	Cumulative Cumulative Readings:	Present Present Present Present Present Present	hift Offsite Time: ystem Run Time: Onsite Activities: Hrs: ssed:	Rig Up E	am/pm Total hrs Equipment hrs bbls
Site Contact: Site Contact: Processing Hrs Tod BBLS Processed Too BBLS/Hr Processed Lead Supervisor: Lead Operator Crew	lay: day: d: Paul Chad Kevir Reginald	0 hrs 0 bbls #DIV/0! Worley Edwards	Cumulative Cumulative Readings:	Present	Onsite Activities: Hrs:	0	hrs bbls
Processing Hrs Tod BBLS Processed Too BBLS/Hr Processed Lead Supervisor: Lead Operator Crew	Paul Chad Kevir Reginald	0 bbls #DIV/0! Worley Edwards Wilson	Cumulative Cumulative Readings:	e Processing	Hrs:	0	hrs bbls
BBLS/Hr Processed BBLS/Hr Processed Lead Supervisor: Lead Operator Crew	Paul Chad Kevir Reginald	0 bbls #DIV/0! Worley Edwards Wilson	Cumulative Cumulative Readings:	BBLS Proces	ssed:	0	bbls
BBLS/Hr Processed BBLS/Hr Processed Lead Supervisor: Lead Operator Crew	Paul Chad Kevir Reginald	0 bbls #DIV/0! Worley Edwards Wilson	Cumulative Cumulative Readings:	BBLS Proces	ssed:	0	bbls
Lead Supervisor: Lead Operator Crew	Paul Chad Kevir Reginald	#DIV/0! Worley Edwards	Cumulative Readings:				
Lead Supervisor: Lead Operator Crew	Paul Chad Kevir Reginald Reginald	Worley Edwards	Readings:	BBLS/Hr Proc	essed:	#D	IV/nt
Lead Operator Crew	Chad Kevir Reginald Reginald	Edwards Wilson					1770:
Lead Operator Crew	Chad Kevir Reginald Reginald	Edwards Wilson		flow back	Volts/Amps	pH	Turbidit
Crew	Kevir Reginald Reginal	Wilson	1 00.00				
	Reginald Reginald		08:00				
	Reginal	White S.S.	10:00	1			
		Neal S.S.	12:00				
	O. III OLOPII	er Perry S.S.	14:00				
	John La	arson S.S.	16:00				
			Chemical	Usage	Start Inv.	End Inv.	On Ord
			HcL Acid	0	2,000	2,000	NO
			Sodium Hydroxide	0	3,800	3,800	NO
Visitors:	Во	Wells	,				
Visitors:	Bo J	ackson					
Visitors:	-						
ttling tanks arrived arou	supplies nd 5:30 p	equipment neede m he current sched	ule, including volumes ne	eded by client			
as client provided any of Person:	operation	al feedback (pos	itive or negative)? Company:			хто	
Additional Commen	nts						

	6/	/7/2012		Report	Number:		4
					Number:		8
Client:		хто			hift Onsite Time:	6:00 AM	am/p
Location:		ash 29			hift Offsite Time:	6:00 PM	am/p
Site Contact:	Во	Jackson			ystem Run Time:		Total
Site Contact:		<u></u>		Present	Onsite Activities:	Rig Up I	Equipmen
Processing Hrs	Today:	0 hrs	Cumulativ	e Processing	Hrs:	0	hrs
BBLS Processed		0 bbls		BBLS Proce			bbls
BBLS/Hr Proce		#DIV/0!		BBLS/Hr Proc			IV/0!
Lead Supervisor:		ıl Worley	Readings:	flow back	Volts/Amps	pН	Turbio
Lead Operator		d Edwards	06:00				
Crew		d White S.S.	08:00				
<u></u>		ld Neal S.S.	10:00		<u> </u>		
_	Christop	her Perry S.S.	12:00				
L			14:00				
-		_	16:00				
Ļ			Chaminal		Characterist I	F	0-0-
-			Chemical	Usage	Start Inv.	End Inv.	On Or
L			HcL Acid	0	2,000	2,000	NO
			Sodium Hydroxide	0	3,800	3,800	NO
Visitors:		o Wells					
Visitors:	Во	Jackson			ļļ.		
10.11							
Visitors:				L	<u> </u>		
Visitors:							· · · · · · · · · · · · · · · · · · ·
ere there any abno	rmal operat	ional issues onsite	?				
re there any abno	rmal operat	ional issues onsite	?				
ere there any abno				whom?			
ere there any abno			d? If so, what items and v	when?			
ere there any abno				when?			
ere there any abno				when?			
e there any abno	nal supplies	s/equipment neede	d? If so, what items and v		2		
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Chemical Usage Start Inv. End Inv. On Ord Hct Acid 140 1,900 1,760 NO Sodium Hydroxide 190 2,500 2,310 NO Visitors:	ļ					110	6.91	0.346
Hct Acid 140 1,900 1,760 NO Visitors: BO JACKSON Visitors: Visitors: Visitors: Visitors: The are there any abnormal operational issues onsite? The are there any additional supplies/equipment needed? If so, what items and when? The are there been any changes to the current schedule, including volumes needed by client? Section tank did not show up today but want to get a head start on the frac Water was looking very clean. Section tank did not show up today but want to get a head start on the frac Water was looking very clean. Section tank did not show up today but want to get a head start on the frac Water was looking very clean.				16:00		<u> </u>		
Sodium Hydroxide 190 2,500 2,310 NO Visitors: Visitors: Visitors: Visitors: Interest there any abnormal operational issues onsite? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment n				Chemical	Usage	Start Inv.	End Inv.	On Ord
Visitors: BO JACKSON Visitors: Visitors: Visitors: Visitors: Visitors: Interest there any abnormal operational issues onsite? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there been any changes to the current schedule, including volumes needed by client? Secidon tank did not show up today but want to get a head start on the frac Water was looking very clean. Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equipment needed? If so, what items and when? Interest there are any additional supplies/equ				HcL Acid		1,900	1,760	NO
Visitors: Visitors: Visitors: The there any abnormal operational issues onsite? The after any additional supplies/equipment needed? If so, what items and when? The after been any changes to the current schedule, including volumes needed by client? Seidon tank did not show up today but want to get a head start on the frac Water was looking very clean. Seclient provided any operational feedback (positive or negative)? Person: Company: XTO	<u> </u>			Sodium Hydroxide	190			NO
ve there any additional supplies/equipment needed? If so, what items and when? ne ve there been any changes to the current schedule, including volumes needed by client? seidon tank did not show up today but want to get a head start on the frac Water was looking very clean. s client provided any operational feedback (positive or negative)? Person: Company: XTO	Visitors:	во	JACKSON					
a there any additional supplies/equipment needed? If so, what items and when? ne ve there been any changes to the current schedule, including volumes needed by client? seidon tank did not show up today but want to get a head start on the frac Water was looking very clean. s client provided any operational feedback (positive or negative)? Person: Company: XTO	Visitors:							
a there any additional supplies/equipment needed? If so, what items and when? ne ve there been any changes to the current schedule, including volumes needed by client? seidon tank did not show up today but want to get a head start on the frac Water was looking very clean. s client provided any operational feedback (positive or negative)? Person: Company: XTO	Visitors:							
Person: Company: XTO	ne	ormai operat	ional issues onsite	<i>?</i>		<u> </u>		
	ne ve there been an	y changes to	the current schedu	le, including volumes ne	eded by clien			
	ve there been an seidon tank did no	y changes to	the current schedu day but want to get a l	le, including volumes net head start on the frac W	eded by clien		VIO.	
Additional Comments	ve there been an seidon tank did no s client provided Person:	y changes to	the current schedu day but want to get a l	le, including volumes net head start on the frac W	eded by clien		ХТО	
Arrived on location at 3:00 am, completed and reviewed JSA Driver with Brentag called me at 1:30 am said he had his 10 hour break	ve there been an seidon tank did no	y changes to	the current schedu day but want to get a l	le, including volumes net head start on the frac W	eded by clien		ХТО	

N Bo	XTO lash 29 Jackson ul Worley 6 hrs 2.544 bbls		Unit N S S S	Number: Number: hift Onsite Time: hift Offsite Time: ystem Run Time:		6 8
Bo Pau Today: d Today:	Jackson Jackson ul Worley		S S	hift Offsite Time: ystem Run Time:	4:00 AM	
Bo Pau Today: d Today:	Jackson Jackson ul Worley		S S	hift Offsite Time: ystem Run Time:		am/pm
Bo Pau Today: d Today:	Jackson ul Worley 6 hrs				1:00 PM	am/pm
Today:	6 hrs		Present		6	Total hr
d Today:				Onsite Activities:	PROCES	S WATER
d Today:						
	2544 bblc	Cumulative	Processing	Hrs:	13	hrs
ssed:	2,344 0015	Cumulative	BBLS Proces	ssed:	5,45	2 bbls
	424	Cumulative B	BLS/Hr Proc	essed:	419.4	bbl/hr
D	114/	One din any	flow book	Valte/Amne	pН	Turbidit
Pai	ul Worley	Readings:	flow back	Volts/Amps		1.3
						0.876
						0.876
			***			0.557
				120	0.00	0.942
·						
		16:00				Sea. T
		Chemical	Usage	Start Inv.	End Inv.	On Orde
		HcL Acid	175	1,900	1,725	NO
		Sodium Hydroxide	220	2,500	2,280	NO
ВО .	JACKSON					
ormal operat	tional issues onsite	?				
onal supplie	s/equipment neede	d? If so, what items and w	vhen?			
y changes to	o the current schedu	d? If so, what items and water the state of		17		
y changes to	o the current schedu	ile, including volumes ned		17		
y changes to	o the current schedu	ule, including volumes nea nursday of next week.		17		
		BO JACKSON presentional issues onsite	HcL Acid Sodium Hydroxide	08:00 10:00 12:00 14:00 16:00	08:00	08:00

	6/	11/2012		Report	Number:		7
					Number:		8
Client:	_	хто		9	hift Onsite Time:	N/A	am/pm
Location:	N	Nash 29			hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson		System Run Time:		0	Total hrs
Site Contact:		ul Worley			Onsite Activities:		SS WATER
			1				
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	13	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proces	ssed:	5,45	2 bbls
BBLS/Hr Prod	cessed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	419.4	bbl/hr
Lead Supervisor:		ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator			06:00				
Crew			08:00				
			10:00				
			12:00		ļ		
			14:00				
			16:00				L
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	1,725	1,725	NO
			5odium Hydroxide	0	2,280	2,280	NO
Visitors:	BO	JACKSON	Sociali Hydroxide	, , , , , , , , , , , , , , , , , , ,	2,200	2,200	
Visitors:							-
Visitors:			-				
one							-
one ave there been an	y changes to	o the current sched	ule, including volumes ne		17		
ave there been ar oseidon tank is su	ny changes to be he	o the current sched	ule, including volumes ne hursday of next week.		17	хто	

Date:	6/:	12/2012		Report	Number:		7
					Number:		8
Client:		хто		S	hift Onsite Time:	N/A	am/pm
Location:		ash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:	Во	Jackson		S	ystem Run Time:	0	Total hrs.
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCE	SS WATER
Processing Hr		0 hrs	Cumulativ	e Processing	Hrs:	13	hrs
BBLS Processe	d Today:	0 bbls	Cumulativ	e BBLS Proces	ssed:	5,45	2 bbls
BBLS/Hr Prod	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	419.4	bbl/hr
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			06:00				
Crew			08:00				
			10:00				
			12:00				
			14:00				
			16:00				
			Chemical	Usage	Start Inv.	End Inv.	On Order
Į			HcL Acid	0	1,725	1,725	NO
			Sodium Hydroxide	0	2,280	2,280	NO
Visitors:	ВО	JACKSON					
Visitors:							
Visitors:				L	<u></u>		
Were there any abn None	ormal operat	ional issues onsite	97				
re there any addit	onal supplie	s/equipment neede	ed? If so, what items and	when?			
lone							
			ule, including volumes ne	eded by clien	t7		
oseidon tank is sup	pose to be ne	ere vvednesday or I	hursday of next week.				
las client provided	any operation	onal feedback (posi	itive or negative)?		<u></u> .		
Person:			Company:			XTO	
N/A							
				<u> </u>			
Additional Cor	nments						
	aiting on Pose	eidon tanks Filled a	ıll dirty tanks Bo Jackson si	howed me whe	re to get more wat	er to fill dirty t	anks and I fill

Date: 6/13/2012				Report Number: Unit Number:			8
						8	
Client: XTO		XTO		9	Shift Onsite Time:	N/A	am/pm
Location:	Location: Nash 29			S	hift Offsite Time:	N/A	am/pm
Site Contact:	Site Contact: Bo Jackson			System Run Time:		0	Total hrs.
Site Contact: Paul Worley			Present Onsite Activities:		PROCESS WATER		
Processing Hrs Today: 0 hrs		0 hrs	Cumulative Processing Hrs:			13 hrs	
BBLS Processed Today:		0 bbls	Cumulative BBLS Processed:			5,452 bbls	
BBLS/Hr Prod	cessed:	#DIV/0!	Cumulative BBLS/Hr Processed:		419.4 bbl/hr		
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			06:00				
Crew			08:00				
			10:00				
			12:00				
			14:00				
			16:00		<u> </u>		
			Chemical	Usage	Start Inv.	End Inv.	On Order
	L		HcL Acid	0	1,725	1,725	NO
			Sodium Hydroxide	0	2,280	2,280	NO
Visitors:	BO JACKSON						
Visitors:							
Visitors:					<u> </u>		
			_				
Were there any abn None	iormai operat	ional issues onsite	<u> </u>				
None							
							
Are there any addit	ional augalia	n/ograinmont moods	d2 If an unbet items and				
None	ional supplies	srequipment neede	d? If so, what items and	whenr			
140116							
Have there been an	v changes to	the current eched	ule, including volumes ne	adad by client	12		
Poseidon tank is sup			ne, including volumes ne	seded by Chern			
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
		-					
Has client provided	any operatio	nal feedback (posi	tive or negative)?				
Person:			Company:			хто	
N/A							
Additional Cor						·	
			alled customer and let him		location this morni	ing everything	wass good
			lackson said that all is goo				

5.1		14/2012		Bancat	Number		9
Date:	6/	14/2012			Number: lumber:		8
				Unit 1	dumber.		
Client:		ХТО		s	hift Onsite Time:	N/A	am/pm
Location:	N	lash 29			hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson			ystem Run Time:	0	Total hrs.
Site Contact:		ul Worley			Onsite Activities:	PROCES	SS WATER
					•		
Processing Hr	e Today:	0 hrs	Cumulativ	e Processing	Hre.	13	hrs
BBLS Processe		0 bbls		BBLS Proces			2 bbls
BBLS/Hr Prod		#DIV/0!		BBLS/Hr Proc			bbl/hr
- BBEOMIN TO	,00000	#21070.	- Camalauve		1		
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		,	06:00			· · · · · · · · · · · · · · · · · · ·	
Crew			08:00				
			10:00				
1			12:00				
			14:00				
i			16:00				
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	1,725	1,725	NO
	r		Sodium Hydroxide	0	2,280	2,280	NO
Visitors:							
Visitors:							
Visitors:				<u> </u>			
						-	
144							
Were there any abr	iormai opera	tional issues onsite	e r				
None							
Are there any addit	ional supplie	s/equipment need	ed? If so, what items and v	when?			
None							-
Have there been ar	y changes to	the current sched	lule, including volumes ne	eded by client	17		
Poseidon tank is su	opose to be he	ere maybe on Mond	ay.				
Has client provided	any operation	onal feedback (pos	itive or negative)?				
Person:			Company:			XTO	
N/A							
		1					
Additional Co		iden tenk					
All tanks are full ,w	alang on Pose	eluon tank					

			-	-			
Date:	6/	/15/2012		Report	Number:		10
					Number:		8
STAND BY WA	ITING	ON TANK					
Client:		XTO		S	hift Onsite Time:	N/A	am/pm
Location:		Nash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:	Вс	Jackson		S	ystem Run Time:	0	Total hrs.
Site Contact:	Pa	ul Worley			Onsite Activities:	PROCES	SS WATER
			•				
Processing Hrs T	oday:	0 hrs	Cumulativ	ve Processing	Hrs:	13	hrs
BBLS Processed		0 bbls		e BBLS Proce			2 bbls
BBLS/Hr Proces		#DIV/0!		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			06:00			F	
Crew			08:00	1	-		
0,00			10:00				-
			12:00	 			
<u> </u>			14:00				
<u> </u>			16:00				
<u> </u>			10.00			-	
			Chamian	Henre	Chart Inv	Cod Inc.	On Order
<u> </u>			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	1,725	1,725	NO
3/7 14			Sodium Hydroxide	0	2,280	2,280	NO
Visitors:							
Visitors:				ļ			
Visitors:				Ĺ			<u> </u>
Were there any abnor	nal opera	tional issues onsit	e?				
None							
Are there any addition	al supplie	s/equipment need	ed? If so, what items and	when?			
None							
-							
Have there been any c	hanges to	the current sched	lule, including volumes ne	eded by client	?		
Poseidon tank is suppo							
			•				
Has client provided an	v operation	onal feedback (nos	itive or negative)?				
Person:	, epolati	pos	Company:	T		хто	
N/A			- Company.		L		
Additional Comm	onto	T					
All tanks are full ,waitin		eidon tank					
All taliks ale luli ,Waltii	ig on Fost	oldoli talik					

Date:	6/1	16/2012	[Report	Number:		11
					lumber:		8
TAND BY WA	ITING	ON TANK					
Client:		XTO	[hift Onsite Time:	N/A	am/pm
Location:	N	ash 29	I	S	hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson				0	Total hr
Site Contact:	Pau	ıl Worley	l	Present	Onsite Activities:	PROCES	S WATER
Processing Hrs T	oday:	0 hrs	Cumulativ	e Processing	Hrs:	13	hrs
BBLS Processed		0 bbls	Cumulative	BBLS Proces	ssed:	5,45	2 bbls
BBLS/Hr Proces	sed:	#DIV/0!	Cumulative I	BBLS/Hr Proc	essed:	419.4	bbl/hr
Lead Supervisor:	Pau	al Worley	Readings:	flow back	Volts/Amps	pH	Turbidit
Lead Operator			06:00				
Crew			08:00 10:00				
<u> </u>			12:00				
			14:00				
			16:00	₩			
<u> </u>			10.00		L		
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	1,725	1,725	NO
			Sodium Hydroxide	0	2,280	2,280	NO
Visitors:							
Visitors:							
Visitors:							
ere there any abnor	nal operat	ional issues onsite	?				
one							
41	al supplies	s/equipment neede	d? If so, what items and v	vhen?			
one							
one							
one ave there been any o			ile, including volumes ne				
one ave there been any o			ile, including volumes ne e are suppose to start fillin				
one ave there been any o							
ave there been any coseidon tank is suppo	se to be he	ere on Monday and w	e are suppose to start fillin				
ave there been any coseidon tank is suppo	se to be he	ere on Monday and w	e are suppose to start filling			VIO	
ave there been any coseidon tank is supposed as client provided an Person:	se to be he	ere on Monday and w	e are suppose to start fillin			хто	
ave there been any coseidon tank is supposed as client provided an Person:	se to be he	ere on Monday and w	e are suppose to start filling			хто	
ave there been any coseidon tank is supposed as client provided ar Person:	se to be he	ere on Monday and w	e are suppose to start filling			хто	
ave there been any coseidon tank is supposed as client provided an Person:	se to be he	ere on Monday and w	e are suppose to start filling			хто	

Date:	6/	17/2012		Report	Number:		12
	- · · · ·				Number:		8
STAND BY W	AITING	ON TANK					
Client:		XTO		S	hift Onsite Time:	N/A	am/pm
Location:	1	lash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:	Во	Jackson				0	Total hrs.
Site Contact:	Pa	ul Worley		Present	Onsite Activities:	PROCES	SS WATER
Processing Hrs	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	13	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proces	ssed:	5,45	2 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	419.4	bbl/hr
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator			06:00				
Crew		"	08:00				
		**	10:00				
			12:00				
			14:00				
Ì			16:00				
ŀ						-	
ļ			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	1,725	1,725	NO
L			Sodium Hydroxide	0	2,280	2,280	NO
Visitors:			333131111111111111111111111111111111111			2,200	
Visitors:							
Visitors:							
					<u> </u>		
,			-				
Were there any abn	ormal operation	tional issues onsite	2				
None							
Are there any additi	onal supplie	e/aguinment paeds	ed? If so, what items and v	whon?			
None	onar supplie	s/equipment neede	or il so, what itellis and t	MURIT			
Have there been an	y changes to	the current sched	ule, including volumes ne	eded by client			
Poseidon tank should	arrive on M	onday.					<u> </u>
Has client provided	any operation	onal feedback (posi	itive or negative)?				
Person:			Company:			XTO	
N/A							
Additional Con	nments	<u> </u>					
All tanks are full ,wa		eidon tank					

Date:	6/1	18/2012		Report	Number:	·	13
Dute.	0,3	10, 2012			Number:		8
STAND BY W	VAITING	ON TANK	'				
Client:		XTO		S	hift Onsite Time:	N/A	am/pm
Location:	N	ash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:	Во	Jackson				0	Total hrs
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCES	SS WATER
December 11	- Today	0 6	Completion	- Proceeding	U I	13	- her
Processing Hr		0 hrs 0 bbls		e Processing			hrs 2 bbls
BBLS Processe BBLS/Hr Proc		#DIV/0!		BBLS/Hr Proc			bbl/hr
BBL5/Hr Proc	cessed:	#DIV/0!	Cumulative	BBLS/HI PIOC	essed:	415.4	DDI/III
Lead Supervisor:	Pau	ıl Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator	Ke	en Erler	06:00				
Crew	Ada	m Pollard	08:00				
			10:00				
			12:00				
			14:00				
			16:00			-	<u> </u>
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	1,725	1,725	NO
_			Sodium Hydroxide	0	2,280	2,280	NO
Visitors:		-7-11					
Visitors:							
Visitors:	L						
W							
vere there any abr	ormal operat	ional issues onsite)?				
ione							
re there any addit	ional supplies	s/equipment neede	d? If so, what items and v	when?			
lone	ional supplies	orequipment neede	at it so, what items and t				
			ule, including volumes ne		?		
			ule, including volumes ne until 8:00,walls were not up		?		
					1?		
Poseidon tank arrive	ed around 3:00	PM and we waited	until 8:00,walls were not up		?		
oseidon tank arrive	ed around 3:00		until 8:00,walls were not up		1	XTO	
oseidon tank arrive las client provided Person:	ed around 3:00	PM and we waited	until 8:00,walls were not up			хто	
oseidon tank arrive	ed around 3:00	PM and we waited	until 8:00,walls were not up			хто	

{								
Date:	6/19/	2012	1		Report	Number:		14
	-,,,		,			umber:		8
CTANIC	BY WA	NITING	ONITA	NIZ				
			ON IA	ININ				
Client:	XT		ł			Insite Time:	6:00	am/pm
Location:	Nasi		4		Shift C	ffsite Time:	N/A	am/pm
e Contact:			1			A -41 -141	0	Total hrs.
e Contact:	Paul V	voney	J		esent Onsit	e Activities:	PROCES	S WATER
rocessing	Hrs Today	0 hrs	1	Cumulat	ive Proces	eina Hre	13	hrs
	ssed Toda	0 bbls	i		ve BBLS P			2 bbls
	rocessed:	#DIV/0!	1			Processed:		bbl/hr
			j	- dimandi	00201111		710.7	DOM
Supervisor:	Paul V	Vorley	1	Readings:	flow back	Volts/Amps	pH	Turbidity
d Operator	Adam I		1	06:00		,,		
Crew			1	08:00				
			1	10:00				
			1	12:00				
				14:00				
			Ī	16:00				
:								
			}	Chemical	Usage	Start Inv.	End Inv.	On Order
				HcL Acid	0	1,725	1,725	NO
	-		So	dium Hydrox	0	2,280	2,280	NO
Visitors:								
Visitors:								
Visitors:								
	any abnor	mal operat	ional issue	es onsite?				
None								
	ny addition	al supplie	s/equipme	nt needed?	If so, what	items and v	when?	
None								
Harra Manua	h		41	1 1 - 1 - 1 -				
	Poseidon ta			it schedule,	including	volumes ne	eded by ci	ient?
VVailing on	r oscidon la	ink to be co	nipietely					
Has client	provided ar	w operation	nal foodba	ck (neeither	or negativ	(a)?		
Person:	Pi Ovideu al	y operation	mai isanga	Company	or negativ	, e) :	хто	
. 6,3011.				;			λIU	
N/A								-
Additional	Comments						_	
All tanks a	are full-waiti	ng on Posc	udor tank ti	r he comple	te			

Date:	6/3	20/2012		Report	Number:		15
	<u> </u>				lumber:		8
			'				
Client:		OTX		S	hift Onsite Time:	5:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	9:00 PM	am/pm
Site Contact:	Во	Jackson				0	Total hrs.
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	s Today:	0 hrs		e Processing		13	hrs
BBLS Processe	ed Today:	0 bbls		BBLS Proces			2 bbls
BBLS/Hr Prod	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	419.4	bbl/hr
		111111111111111111111111111111111111111	B. B.				To add to the co
Lead Supervisor:		ul Worley m Pollard	Readings: 06:00	flow back	Volts/Amps	рН	Turbidity
Lead Operator Crew	Ada	in Poliard	08:00				
crew			10:00				
			12:00				
			14:00	<u> </u>			-
			16:00	<u> </u>		-	-
			10.00	l			L
	-		Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	1,725	1,725	YES
		****	Sodium Hydroxide	0	2,280	2,280	YES
Visitors:	BO.	JACKSON	30diani riyaroxiae	— <u> </u>	2,200	2,200	123
Visitors:		, tortoon					-
Visitors:							
					·		L
			100				77
Were there any abr	ormal operat	ional issues onsite	7				
YES TRIED PUM JACKSON AND HE			D PRESSURED UP ON LI	NES TOO FAF	R TO PUMP WITH	OUR PUMP.	. CALLED BO
		s/equipment neede CID AND CAUSTIC 1	d? If so, what items and w	wnen7			
TES FITTINGS FOR	OSOU GAL.A	DID AND CAUSTIC	IANNO.				
Have there been an	y changes to	the current schedu	ıle, including volumes ne	eded by client	17		
NO							
Has client provided	l any operation	nal feedback (posit	tive or negative)?				
Person:			Company:			хто	
N/A							
Additional Co	mments						
		O AM REVIEWED J	SA WAITED ON POSEIDO	ON TANK FIN.	ALLY READY FO	R WATER BU	T OUR PUMP
WOULD NOT PUSH BIG PUMP COMING			O HOOK UP OTHER PUN	IP XTO CALL	ED OUT ELECTF	RICIAN AND H	IOOKED UP

	6/	21/2012		Report	Number:		16
					Number:		8
Client:	··-	хто		S	hift Onsite Time:	5:30	am/pr
Location:	N	lash 29			hift Offsite Time:	5:00 PM	am/pr
Site Contact:		Jackson				9	Total h
Site Contact:	Pa	ul Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hr	s Today:	9 hrs	Cumulativ	re Processing	Hre.	13	hrs
BBLS Processe		3,828 bbls		BBLS Proces			2 bbls
BBLS/Hr Proc		425.3333333		BBLS/Hr Proc			bbl/hr
BBEOMITTO		420.000000	Cultiviative	BBEO/III 1 TOC	esseu	710.7	DDIJIII
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidi
Lead Operator		m Pollard	07:30		100	7.23	1.36
Crew		en Erler	09:30		100	6.98	1.23
			11:30		100	6.43	1.05
		.400	13:30		100	6.23	0.98
	***		15:30		100	6.76	1.31
ĺ			16:30		100	6.81	1.03
[
			Chemical	Usage	Start Inv.	End Inv.	On Ord
			HcL Acid	213	1,725	1,512	YES
			Sodium Hydroxide	295	2,280	1,985	YES
Visitors:	BO .	JACKSON			ļ		
Visitors:							
Visitors:					<u> </u>		
)		tional issues onsite	? d? If so, what items and v	when?			
	y changes to	the current schedu	ile, including volumes ne	eded by client	?		-
Ae miere neem wil							-
)							
) s client provided	any operation	onal feedback (posit					
s client provided Person:	any operation	onal feedback (posit	ive or negative)? Company:			хто	
s client provided	any operation	onal feedback (posit				хто	

Date:	6/	22/2012		Report	Number:		17
2010.		22/2012			Number:		8
Client:	···	XTO		S	hift Onsite Time:	5:30	am/pn
Location:		lash 29		S	hift Offsite Time:	12:00 AM	am/pn
Site Contact:		Jackson				11	Total hr
Site Contact:	Pai	ul Worley		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	s Today:	11 hrs	Cumulativ	e Processing	Hrs:	33	hrs
BBLS Processe	d Today:	3,555 bbls	Cumulative	e BBLS Proces	ssed:	12,83	35 bbls
BBLS/Hr Proc	essed:	323.1818182	Cumulative	BBLS/Hr Proc	essed:	388.9 bbl/hr	
Lead Supervisor:	Pai	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidi
Lead Operator		m Pollard	07:30		100	6.57	1.63
Crew	K	en Erler	09:30		100	6.87	1.87
	R	lay Lee	11:30		100	6.43	1.19
[Eddy	McGruder	13:30		100	7.02	1.98
			15:30		100	7.1	1.32
			16:30		100	6.79	1.27
			Chemical	Usage	Start Inv.	End Inv.	On Ord
Į			HcL Acid	197	1,512	1,315	YES
			Sodium Hydroxide	262	1,985	1,723	YES
Visitors:	во.	JACKSON					
Visitors: Visitors:							
AD TO REPLACE	ACID PUMP	tional issues onsite	? d? If so, what items and v	when?			
ave there been an			le, including volumes ne	eded by client	17		
	any operation	Mai reedback (posit					
s client provided Person:	any operation	Mai reedback (posit	Company:			хто	

					Number:		
				Unit I	Number:		8
Client:		XTO			hift Onsite Time:	5:00	am/pr
Location:		lash 29			hift Offsite Time:	5:00 AM	
Site Contact:		Jackson		3	min Offsite Time:	23	am/pr Total h
Site Contact:		ul Worley		Present	Onsite Activities:		S WATER
Site Contact.		ul vvolley		Fresent	Olisite Activities.	PROCEC	S WATER
Processing Hrs	Today:	23 hrs	Cumulativ	e Processing	Hrs:	56	hrs
BBLS Processed		7,541 bbls		BBLS Proces		20,37	6 bbls
BBLS/Hr Proce		327.8695652	Cumulative	BBLS/Hr Proc	essed:	363.9 bbl/hr	
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidi
Lead Operator	Ada	m Pollard	07:00		100	7.23	1.98
Crew	K	en Erler	13:00		100	6.97	1.76
		Ray Lee	19:00		100	6.72	1.56
	Eddy	McGruder	23:00		100	7.15	1.87
			2:00		100	6.45	1.45
L			4:00		100	6.81	1.51
L							
L			Chemical	Usage	Start Inv.	End Inv.	On Ord
L			HcL Acid	416	1,315	899	YES
			Sodium Hydroxide	590	1,723	1,133	YES
Visitors:	BO .	JACKSON					
Visitors:							
Visitors:					<u> </u>		
)		tional issues onsite					
e there any additio	nal supplie	s/equipment needed	1? If so, what items and v	when?			
ve there been any	changes to	the current schedu	le, including volumes ne	eded by client	2		
)	onanges to	the current solicut	ie, moldang volumes ne	dued by chem			
e client provided :	ny operatie	onal feedback (posit	ivo or pogativo)?				
Person:	illy operation	onai leeuback (posit	Company:			XTO	
A			Company.				
Additional Com	monte		·				

Date:	r 1.	24/2012		Donor	Number:		19
	b/2	24/2012			Number:		8
				<u> </u>	tulliper.		
Client:	Γ	хто		S	hift Onsite Time:	5:00	am/pm
Location:		lash 29			hift Offsite Time:	1:30 PM	am/pm
Site Contact:	Во	Jackson				8	Total hrs.
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hr	s Today:	8 hrs	Cumulativ	e Processing	Hrs:	64	hrs
BBLS Processe	ed Today:	3,806 bbls	Cumulative	BBLS Proces	ssed:	24,18	2 bbls
BBLS/Hr Pro	cessed:	475.75	Cumulative	BBLS/Hr Proc	essed:	377.8 bbl/hr	
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		m Pollard	07:00		100	6.89	1.89
Crew		en Erler	09:00		100	7.03	1.45
		lay Lee	11:00		100	7.09	1.76
	Eddy	McGruder	13:00		100	6.97	1.94
	-		N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	213	899	686	YES
		1401/0011	Sodium Hydroxide	295	1,133	838	YES
Visitors:	BOJ	JACKSON		-			
Visitors:							
VISICOIS.							
			H	7900		*-	-
Voro thoro any aby	ormal operat	tional issues onsite	2				
lO	iormai operat	IOIIAI ISSUES UIISILE	<u> </u>				
			<u>.</u>				
re there any addit	ional supplie	s/equipment needed	d? If so, what items and v	when?			
10	топат саррио	broquipinont noodo	ar ir oo, what home and				
		10,11		*****			
			ıle, including volumes ne	eded by client	17	-	
	y changes to	the current schedu					
lave there been ar	y changes to	the current schedu					
	ıy changes to	the current schedu					
lave there been ar					- 17		· · · · · · · · · · · · · · · · · · ·
lave there been an		onal feedback (posit	tive or negative)?				V-11
lave there been and to last client provided Person:						хто	· · · · · · · · · · · · · · · · · · ·
lave there been ar			tive or negative)?			хто	

Date:	6/	25/2012		Report	Number:		20
					Number:		8
C!!4		VTO			tin o. ii. Ti	5.00	
Client: Location:		XTO lash 29			hift Onsite Time: hift Offsite Time:	6:00	am/pm
Site Contact:		Jackson			niit Onsite Time:	5:00 PM 11	am/pm Total hrs.
Site Contact:		ul Worley		Present	Onsite Activities:		ROCESS WATER
One Contact.		ul vvolley		riesent	Offsite Activities.		NOCESS WATER
Processing Hrs	Today:	4 hrs	Cumulativ	e Processing	Hrs:		75 hrs
BBLS Processed	Today:	1,450 bbls	Cumulativ	BBLS Proces	ssed:		25,632 bbls
BBLS/Hr Proce	ssed:	362.5	Cumulative	BBLS/Hr Proc	essed:		341.8 bbl/hr
ead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		m Pollard	07:00		100	6.97	1.67
Crew	K	en Erler	09:00		100	7.13	1.89
	R	Ray Lee	11:00		100	6.89	1.45
	Eddy	McGruder	12:30		100	6.57	1.72
			N/A		N/A	N/A	N/A
-			N/A		N/A	N/A	N/A
<u> </u>			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	115	5,686	5,571	RECEIVED 5000 GAL
			Sodium Hydroxide	150	220	70	YES
Visitors:	во	JACKSON					
Visitors:							
Visitors:							
	•	tional issues onsite					
there any addition	niai supplie	s/equipment neede	d? If so, what items and	whellr			
	changes to	the current schedu	ule, including volumes ne	eded by clien	17		
e there been any		. <u> </u>					
e there been any							
client provided	any operation	onal feedback (posi	tive or negative)?				
	any operatio	onal feedback (posi	tive or negative)? Company:			хт	0
client provided a	any operatio	onal feedback (posi				ХТ	0

Dota	c I	26/2012	I	Penort	Number:		21
Date:	6/4	26/2012			Number:		8
			'			····	
Client:		хто		S	hift Onsite Time:	6:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	5:00 PM	am/pm
Site Contact:	Во	Jackson				0	Total hrs.
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCE	SS WATER
MAINTENA	NCE						
Processing Hr		0 hrs		e Processing		75	hrs
BBLS Processe		1,450 bbls		BBLS Proces			32 bbls
BBLS/Hr Proc	cessed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.	B bbl/hr
Lead Supervisor:	Pau	ıl Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	5,686	5,686	CEIVED 5000
			Sodium Hydroxide	0	1,000	1,000	YES
Visitors:	BO.	JACKSON					
Visitors:							ļ
Visitors:	<u> </u>			<u></u>			<u>i </u>
	normal operat	ional issues onsite	?				
0							
					• • •		
re there any addit	ional sunnile	s/equinment needs	d? If so, what items and	when?			
O	ional supplic	srequipment neede	a. II oo, miat itomo ana			**	
	ny changes to	the current sched	ule, including volumes ne	eded by clien	t?		
0							
as client provider	l any oneratio	onal feedback (posi	tive or negative)?				
Person:	any operation	ioodbaon (posi	Company:	<u> </u>		хто	
/A					<u> </u>		

Date:	6/:	27/2012		Report	Number:		22	
					lumber:		8	
			,					
Client:		XTO			hift Onsite Time:	6:00	am/pm	
Location:		lash 29		S	hift Offsite Time:	5:00 PM 0	am/pm	
Site Contact: Site Contact:		Jackson ul Worley		Drecent	Onsite Activities:	-	Total hrs. SS WATER	
Site Contact.	Fat	il Worley		Fresent	Olisite Activities.	FROCE	33 WAILK	
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	75	hrs	
BBLS Processe		1,450 bbls	Cumulative BBLS Processed: 25,632 bb					
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8 bbl/hr		
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	pH	Turbidity	
Lead Operator			N/A		N/A	N/A	N/A	
Crew			N/A		N/A	N/A	N/A	
			N/A		N/A	N/A	N/A	
			N/A		N/A	N/A	N/A	
ļ			N/A		N/A	N/A	N/A	
			N/A		N/A	N/A	N/A	
1			Chemical	Usage	Start Inv.	End Inv.	On Order	
Į			HcL Acid	0	5,686	5,686	CEIVED 5000	
			Sodium Hydroxide	0	1,000	1,000	YES	
Visitors:	во.	JACKSON						
Visitors: Visitors:	<u></u>							
Vere there any abn	ormal operat	tional issues onsite	7					
re there any additi	onal supplie	s/equipment needed	d? If so, what items and v	vhen?				
		the current schedu	le, including volumes ne	eded by client	?			
THE RESERVE TO THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	y changes to							
O as client provided		onal feedback (posit						
0			ive or negative)? Company:			хто		

Date:	6.1	28/2012		Panori	Number:		23
Date.	0/	28/2012			Number:		8
			·				·-
Client:		XTO		S	hift Onsite Time:	N/A	am/pm
Location:		lash 29		S	hift Offsite Time:	N/A_	am/pm
Site Contact:	Bo	Jackson				0	Total hrs.
Site Contact:		ul Worley		Present	Onsite Activities:	PROCE	SS WATER
STAND BY	′						
Processing Hrs	Today:	0 hrs	Cumulativ	e Processing	Hrs:	75	hrs
BBLS Processe	d Today:	1,450 bbls	Cumulative	BBLS Proce	ssed:	25,6	32 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.	8 bbl/hr
Lead Supervisor:	Pa	ui Worley	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		, , , , , , , , , , , , , , , , , , , ,	N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
[N/A		N/A	N/A	N/A
ļ							
			Chemical	Usage	Start Inv.	End Inv.	On Order
Į.			HcL Acid	0	5,686	5,686	CEIVED 5000
			Sodium Hydroxide	0	1,000	1,000	YES
Visitors:	BO	JACKSON					
Visitors:							
VISILOIS.			****				
			1977	. 77.	140		
Vere there any ahn	ormal opera	tional issues onsite	.2				
	ormai opera	tional issues offsite	· · · · · · · · · · · · · · · · · · ·				
10							
10							
10							
NO							
	onal supplie	s/equipment neede	d? If so, what items and v	when?			-
Are there any additi	onal supplie	s/equipment neede	d? If so, what items and v	when?			
Are there any additi	onal supplie	s/equipment neede	d? If so, what items and v	when?			
Are there any additi	onal supplie	s/equipment neede	d? If so, what items and v	when?			
ve there any additi			d? If so, what items and v		1?		
Are there any additi					17		
Are there any additi					17		
Are there any additi	/ changes to	o the current sched	ule, including volumes ne		17		
ave there any additi	/ changes to		ule, including volumes ne		17		
Are there any addition of the second of the	/ changes to	o the current sched	ule, including volumes ne		1?	хто	
ave there any additi	/ changes to	o the current sched	ule, including volumes ne		1?	хто	

Date:	6/	29/2012		Report	Number:		24
					lumber:		8
Client:		XTO		S	hift Onsite Time:	N/A	am/pm
Location:		lash 29		SI	hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson		Description	Oit- A-ti-iti	0	Total hrs.
STAND B		ul Worley		Present	Onsite Activities:	PROCE	SS WATER
Processing Hr		0 hrs	Cumulativ	e Processing	Hrs:	75	hrs
BBLS Processe		1,450 bbls		BBLS Proces		25,6	32 bbls
BBLS/Hr Prod	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.	8 bbl/hr
Lead Supervisor:	Pai	ul Worley	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	5,686	5,686	CEIVED 5000
			Sodium Hydroxide	0	1,000	1,000	YES
Visitors:	во .	JACKSON	<u> </u>				
Visitors:							-
VISILOIS.							
		1000					
	ormal operat	tional issues onsite	?				
10							
	ional supplies	s/equipment neede	d? If so, what items and v	vhen?			
Are there any addit	ional supplie:	s/equipment neede	d? If so, what items and v	vhen?			
NO							
lave there been an			d? if so, what items and v		?		
lO lave there been an					?		
lave there been an	y changes to	the current schedu	ıle, including volumes ne		?		
lave there been an	y changes to		ile, including volumes ne		?	VIO.	
lave there been an	y changes to	the current schedu	ıle, including volumes ne		?	хто	

Date:	6/	30/2012		Report	Number:		25
<u> </u>		30, 2022			lumber:		8
Client:		XTO		S	hift Onsite Time:	N/A	am/pm
Location:	N	lash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:	Во	Jackson				0	Total hrs.
Site Contact:		ul Worley		Present	Onsite Activities:	PROCE	SS WATER
STAND B	Y						
Processing Hr		0 hrs		e Processing		75	hrs
BBLS Processe		0 bbls		BBLS Proces			32 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8 bbl/hr	
Lead Supervisor:	Pa	Il Worley Readings: flow back Volts/		Volts/Amps	рН	Turbidity	
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
	****		N/A		N/A	N/A	N/A
ŀ			Chemical	Usage	Start Inv.	End Inv.	On Order
Ţ			HcL Acid	120	5,686	5,566	CEIVED 5000
			Sodium Hydroxide	100	1,000	900	YES
Visitors:	ВО	JACKSON					
Visitors:							
Visitors:			The same				
Vere there any abn		tional issues onsite	o? od? If so, what items and v	when?			
0							
O ave there been an		o the current sched	ule, including volumes ne itive or negative)? Company:	eded by client	?	хто	
O ave there been an O as client provided			itive or negative)?	eded by client	?	хто	

Date:	7/	1/2012			Number:		26
				Unit I	Number:		8
Client:		XTO			hift Onsite Time:	3:00	1 am/am
Location:		ash 29			hift Offsite Time:	9:30 PM	am/pm
Site Contact:		Jackson			niit Offsite Time:	9:30 PIVI 6	am/pm
Site Contact:		Il Worley		Present	Onsite Activities:		Total hrs.
One Cornact.	7 20	ar vvoiley		riesent	Offsite Activities.	PROCE	JOS WATER
Processing Hr	s Today:	6 hrs	Cumulativ	ve Processing	Hrs:	81	hrs
BBLS Processe		1,650 bbls		e BBLS Proces		28,9	32 bbls
BBLS/Hr Proc		275	Cumulative	BBLS/Hr Proc	essed:	357.	2 bbi/hr
		1		1	I s 7.		T = 1755
Lead Supervisor:		Il Worley	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		AY LEE	0500		100	6.67	0.87
Crew	EDDIE	MCGRUBER	0700		100	6.73	0.98
			0900		100	6.91	1.03
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A	L	N/A	N/A	N/A
			Chemical	Usago	Start Inv.	End Inv.	On Order
			HcL Acid	Usage 120	5,686	5,566	On Order CEIVED 5000 G
			Sodium Hydroxide	100	1,000	900	YES
Visitors:			30dium nydroxide	100	1,000	900	1 153
Visitors:							
Visitors:						-	-
Violetic.	_				L		
				- V- V-			
Were there any ahn	ormal operat	ional issues onsite?	· · · · · · · · · · · · · · · · · · ·				
NO	ormar operat	ional lagues offsite i		· · · · · · · · · · · · · · · · · · ·			
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			-V		
Are there any addit	ional supplies	/equipment needed	1? If so, what items and	when?			
NO							
	-		· · · · · · · · · · · · · · · · · · ·				
Have there been an	y changes to	the current schedu	le, including volumes ne	eded by client	?		
NO							
Has client provided	any operation	nal feedback (posit	ive or negative)?				
Person:			Company:			хто	
N/A							-
Additional Cor	mments						
			A DAVID LUNA CALLED				
			NKS DOWN. AFTER INV				
			S WE GOT THE DIRTY				
WOULD HOLD THE TO CHEMICAL.	M UVER UNI	IL BU JACKSON GE	TS BACK TO FIX VALVE	. EVERYTHING	O WENI WELL W	ITH MINOR I	ADJUSTMENTS
TO CHEWICAL.							

Date:	7,	/2/2012		Report	Number:		27
5010.	<u> </u>	2,2012			lumber:		8
			·				
Client:		XTO	1	S	hift Onsite Time:	N/A	am/pm
Location:	N	lash 29		SI	hift Offsite Time:	N/A	am/pm
Site Contact:	Во	Jackson				0	Total hrs
Site Contact:	Pa	ul Worley		Present	Onsite Activities:	PROCES	SS WATER
STAND B	Υ						
Processing H	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	75	hrs
BBLS Process	ed Today:	0 bbls	Cumulative	BBLS Proces	ssed:	25,63	32 bbls
BBLS/Hr Pro	cessed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8	bbl/hr
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
CIEW			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
	-		N/A		N/A	N/A	N/A
			1.47.1		1 19::- 1	.,,	1 .,
			Chemical	Usage	Start Inv.	End Inv.	On Orde
		***	HcL Acid	0	5,556	5,556	<u> </u>
	L		Sodium Hydroxide	0	900	900	
Visitors:	во	JACKSON	****				
Visitors:		<u> </u>					
Visitors:							
	normal opera	tional issues onsite	97				
10							
			10.15		- 		
	tional supplie	s/equipment needs	ed? If so, what items and	wnen			
10							
		46	ula la alcalia e colores	المسلمان المسلمان			
	ny changes to	the current sched	ule, including volumes ne	eaea by clien	tr		
10							
	d a		ither or possible 20				
1	a any operation	onai teedback (pos		1	T	VTO	
			Company:	l	<u> </u>	XTO	
las client provide Person:	L						
	<u> </u>						

Date:	7/	3/2012		Report	Number:	_	28
					lumber:		8
Client:		XTO			hift Onsite Time:	N/A	am/pm
Location:		ash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson				0	Total hrs
Site Contact:		i Worley		Present	Onsite Activities:	PROCES	S WATER
STAND BY							
Processing Hrs		0 hrs		e Processing		75	hrs
BBLS Processe		0 bbis		BBLS Proces			2 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8	bbl/hr
Lead Supervisor:	Pau	l Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
[N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
}			N/A		N/A	N/A	N/A
İ			Chemical	Usage	Start Inv.	End Inv.	On Orde
Ţ			HcL Acid	0	5,566	5,566	
			Sodium Hydroxide	0	900	900	
Visitors:	BO J	ACKSON					
Visitors:							
Visitors:							
	ormal operat	ional issues onsite	?			7.5	
0							
	onal supplies	s/equipment neede	d? If so, what items and v	vhen?			
re there any additi	onal supplies	s/equipment neede	d? If so, what items and v	vhen?			
	onal supplies	s/equipment neede	d? If so, what items and v	vhen?			
0			d? If so, what items and v		?		
O ave there been any					?		
ave there been any	y changes to		ule, including volumes ne		?		
ave there been any	y changes to	the current sched	ule, including volumes ne		?	хто	
ave there been any	y changes to	the current sched	ule, including volumes ne tive or negative)?		?	хто	

Date:	7/	4/2012			Number:		29
				Unit	Number:		8
Client:		хто		<u> </u>	Shift Onsite Time:	N/A	am/pm
Location:	N	lash 29			hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson				0	Total hrs
Site Contact:		ul Worley		Present	Onsite Activities:	PROCES	S WATER
STAND B	Y						
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	75	hrs
BBLS Processe		0 bbls		BBLS Proce		·	32 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8	bbl/hr
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	5,566	5,566	00
'			Sodium Hydroxide	0	900	900	
Visitors:	во	JACKSON					
Visitors:							
Visitors:							
		. 324 35 1					
	ormal operat	tional issues onsite	?				
10							
\	anal aumulia	-/	d2 If an unbat items and u	uhan?			
ve there any additi	onai supplie	s/equipment neede	d? If so, what items and v	wnenr			
iave there been an	y cnanges to	tne current scheal	ule, including volumes ne	eaea by clien	τ,		
las client provided	any operation	onal feedback (posi	tive or negative)?				
Person:		(Pool	Company:			XTO	
I/A							
Additional Cor	nments						

Date:	7/	5/2012		Report	Number:		30
	<u> </u>				Number:		8
Client:		XTO			hift Onsite Time:	N/A	am/pm
Location:		ash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact: Site Contact:		Jackson ul Worley		Brocent	Onsite Activities:	0	Total hrs
STAND B		il vvolley		Flesent	Onsite Activities.	PROCE	35 WATER
Processing Hr		0 hrs	Cumulativ	e Processing	Hrs:	75	hrs
BBLS Processe	d Today:	0 bbls		BBLS Proces		25,63	32 bbls
BBLS/Hr Prod	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8	bbl/hr
Lead Supervisor:	Pau	ıl Worley	Readings:	flow back	Volts/Amps	pH	Turbidit
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	<u> N/A</u>	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	5,566	5,566	
			Sodium Hydroxide	0	900	900	
Visitors:	BO J	ACKSON					
Visitors:			-				 -
ere there any abn	ormal operat	ional issues onsite	97			(B) (1)	
0							
re there any addit	ional supplies	s/equipment neede	d? If so, what items and v	when?			
	y changes to	the current sched	ule, including volumes ne	eded by client	?		
0							
	any operatio	nal feedback (posi					
			Company:			XTO	
Person:			Company.				
			Company.				

Date:	7.	/6/2012	i	Renort	Number:		31
Date.		0,2012			lumber:		8
			'	-			
Client:		XTO			hift Onsite Time:	N/A	am/pr
Location:		lash 29		S	hift Offsite Time:	N/A	am/pr
Site Contact:		Jackson				0	Total hi
Site Contact:		ul Worley		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr		0 hrs	Cumulativ	e Processing	Hre.	75	hrs
BBLS Processe		0 bbls		BBLS Proces			32 bbls
BBLS/Hr Prod		#DIV/0!		BBLS/Hr Proc		341.8 bbl/hr	
Lead Supervisor:	Pai	ul Worley	Readings:	flow back	Volts/Amps	pH	Turbidi
Lead Operator	. 80	2. 1.0110)	N/A	11017 DUCK	N/A	N/A	N/A
Crew			N/A	*	N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
		*****	N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
		-	Chemical	Usage	Start Inv.	End Inv.	On Ord
			HcL Acid	0	5,566	5,566	
			Sodium Hydroxide	0	900	900	
Visitors:	во	JACKSON					
Visitors:							
Visitors:							
	ormal operat	tional issues onsite	9?				
10							
	ional supplie	s/equipment neede	ed? If so, what items and v	when?			
re there any addit							
0							
O ave there been an	y changes to	the current sched	ule, including volumes ne	eded by client	?		
O ave there been an	y changes to	the current sched	ule, including volumes ne	eded by client	?		
O ave there been an	y changes to	the current sched	ule, including volumes ne	eded by client	?		
lave there been an				eded by client	?		
ave there been an			itive or negative)?	eded by client	?	NT2	
ave there been an				eded by client	?	хто	
ave there been an			itive or negative)?	eded by client	?	хто	

Date:	7.	/7/2012		Report	Number:		32
					lumber:		8
Client:		XTO	1	S	hift Onsite Time:	N/A	am/pm
Location:		Vash 29			hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson		3.	int offsite rime.	0	Total hrs
Site Contact:		ul Worley		Present	Onsite Activities:		S WATER
STAND B			'				
Processing Hr		0 hrs	Cumulativ	e Processing	Hrs:	75	hrs
BBLS Processe		0 bbls	Cumulative	BBLS Proces	ssed:	25,63	2 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8 bbl/hr	
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	5,566	5,566	
			Sodium Hydroxide	0	900	900	
Visitors:	ВО	JACKSON					
Visitors:							
Visitors:							
Vere there any abr	ormal opera	tional issues onsite	?				
	ional supplie	es/equipment neede	d? If so, what items and v	when?			
ve there any addit			d? If so, what items and v		.?		
Are there any addit					?	1	
Are there any addit NO Have there been an	ny changes to		ule, including volumes ne		?	1	
ve there any addit	ny changes to	o the current schedu	ule, including volumes ne		?	хто	
Are there any addit	ny changes to	o the current schedu	ule, including volumes ne tive or negative)?		?	хто	

Date:	7/	/8/2012	í	Report	Number:		33
Date.		6/2012			lumber:		8
			•			.,	
Client:		XTO	[hift Onsite Time:	N/A	am/pm
Location:	N	lash 29		S	hift Offsite Time:	N/A	am/pm
Site Contact:		Jackson				0	Total hr
Site Contact:		ul Worley		Present	Onsite Activities:	PROCES	SS WATER
STAND B	Υ						
Processing Hr	s Today:	0 hrs		e Processing		75	hrs
BBLS Processe	ed Today:	O bbls	Cumulative	BBLS Proce	ssed:	25,632 bbls	
BBLS/Hr Prod	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	341.8	bbl/hr
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator			N/A		N/A	N/A	N/A
Crew			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	5,566	5,566	
			Sodium Hydroxide	0	900	900	
Visitors:	во.	JACKSON					
Visitors:							
Visitors:							
						<u></u>	
Vere there any abr	ormal operat	tional issues onsite	∍?				
10							
re there any addit	ional supplie	s/equipment neede	ed? If so, what items and v	when?			
	ional supplie	s/equipment neede	ed? If so, what items and v	when?			
Are there any addit	ional supplie	s/equipment needs	ed? If so, what items and w	when?			
10			ed? If so, what items and v		1?		
10					17		
O lave there been ar					17		
ave there been an	ny changes to		ule, including volumes ne		17		
lave there been and to last client provided Person:	ny changes to	the current sched	ule, including volumes ne		1?	хто	
lave there been an	ny changes to	the current sched	ule, including volumes ne		17	XTO	

Date:	7/	/9/2012			Number:		34
				Unit	Number:		8
Client:		хто			hift Onsite Time:	6:00	am/pm
Location:		lash 29		<u>S</u>	hift Offsite Time:	6:00 PM	am/pm
Site Contact:		Jackson		Property	Oneite Anticities	4 PROCES	Total hrs.
Site Contact:	Pac	ul Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hr	s Today:	4 hrs	Cumulativ	ve Processing	Hrs:	85	hrs
BBLS Processe		1,650 bbls		e BBLS Proces			5 bbis
BBLS/Hr Prod		412.5		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator	ADAM	POLLARD	0200		100	6.35	1.16
Crew		GIE WHITE	0400		100	6.65	0.57
	CHR	IS ONEAL	0500		100	6.9	0.78
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A	L	N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	150	5,566	5,416	On Older
	· · ·		Sodium Hydroxide	130	900	770	YES
Visitors:	ВО	JACKSON	- Soulain Hydroxida				
Visitors:		WELLS	W				
Visitors:							
					2.00		
	ormal operat	ional issues onsite	?				
NO							
	···						
Are there any addit	ional supplie	s/equipment needed	1? If so, what items and	when?			
NO							
	y changes to	the current schedu	le, including volumes ne	eded by client	17	···	
NO							
UP4data	1		b				
Person:	any operation	onal feedback (posit	Company:		1	XTO	
N/A			Joinpany.	<u></u>		λ10	
Additional Co	mments				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
ARRIVED ON LOCA OUR WAY UP FROI UNTIL WE ARRIVEI VALVES EVERYTH	ATION AT 6:00 M KILGORE T D. WE GOT V ING WENT W	RIED TO FIX OVER ALVE PROBLEMS F ELL AND WE MADE	A EMPLOYEES HAD SC THE PHONE AND COUL IXED AND STARTED PR MINOR ADJUSTMENTS ANK WE WILL TREAT	D NOT EMPI OCESSING AR TO CHEMICAL	LOYEES WERE I ROUND 1:30 PM A LS THERE IS A I	NSTRUCTED AFTER PROBI LITTLE OVER	TO WAIT LEM WITH 11,000 BBLS

Date:	7/1	0/2012		Report	Number:		35
Date.		.0/2012			lumber:		8
			Ī				
Client:		XTO			hift Onsite Time:	6:00	am/pm
Location:		ash 29		SI	hift Offsite Time:	6:00 PM 8	am/pm
Site Contact:		Jackson		Brosont (Onsite Activities:		Total hrs. S WATER
Site Contact:	Pau	l Worley		Present	Offsite Activities.]	FROOES	SWATER
Processing Hr	s Todav:	8 hrs	Cumulativ	re Processing	Hrs:	93	hrs
BBLS Processe		3,363 bbls		BBLS Proces		33,86	8 bbls
BBLS/Hr Prod		420.375	Cumulative	BBLS/Hr Proc	essed:	364.2	bbl/hr
Lead Supervisor:	Pau	i Worley	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		POLLARD	800		100	7.1	1.34
Crew	REGO	SIE WHITE	1000		100	6.89	1.22
	CHR	S ONEAL	1200		100	6.65	0.98
			1400		100	6.65	1.35
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
!			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	200	5,416	5,216	
	•		Sodium Hydroxide	185	770	585	YES
Visitors:							
Visitors:	во	WELLS			ļ		
Visitors:				<u>1</u>	<u> </u>		
184							
Were there any abr	iornai operac	ioriai issues orisita					
A 41			10.15 1 -4.15 1				
NO	ionai suppiie	s/equipment needec	I? If so, what items and v	wiienr			
							.
Have there been an	v changes to	the current schedu	le, including volumes ne	eded by client	17		
NO	.,						
Has client provided	any operation	nal feedback (posit					
Person:			Company:			хто	
N/A							
Additional Co							
WAITED FOR SOM EVERYTHING WEN	E IMPROVEM IT WELL AND	ENTS TO THE PUM WE MADE SMALL A	ASTARTED PROCESSII P THAT GOES TO POISII ADJUSTMENTS TO CHEM	DEN TANK. WE	ELET SMALL PU	MP RUN WAT	ER TO IT
SAMPLES FOR HO	USTON AND	HOBBS LAB.					·

Date:	7/:	11/2012		Report	Number:		36	
					Number:		8	
Client:		хто]	s	hift Onsite Time:	6:00	am/pn	
Location:		lash 29			hift Offsite Time:	6:00 PM	am/pn	
Site Contact:	Во	Jackson				4	Total hr	
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	S WATER	
Processing Hrs	Todayı	4 hrs	Cumulatin	e Processing	Uro:	97	hrs	
BBLS Processed		1,980 bbls		BBLS Proces				
BBLS/Hr Proce		495		BBLS/Hr Proc		35,848 bbls 369.6 bbl/hr		
DDL3/III F100e	536u.	433	Cumulative	DDES/III FIOC	e356u.	303.0	001/111	
Lead Supervisor:	Pai	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidi	
Lead Operator		POLLARD	800	HOW BUCK	100	6.85	1.67	
Crew		IS ONEAL	1000		100	6.76	1.55	
	J(1200		100	6.9	1.89	
F			1400		100	6.85	1.66	
<u></u>			0:00		N/A	N/A	N/A	
	4		0:00		N/A	N/A	N/A	
			Chemical	Usage	Start Inv.	End Inv.	On Ord	
			HcL Acid	235	5,416	5,181		
			Sodium Hydroxide	205	3,800	3,595		
Visitors:								
Visitors:	ВО	WELLS						
Visitors:								
ere there any abno	rmal operat	tional issues onsite	?					
there any additio	nal supplie	s/equipment needer	d? If so, what items and v	when?				
)				-				
		the current schedu	ile, including volumes ne	eded by client	?			
ve there been any	changes to							
ve there been any	changes to							
	changes to							
	changes to							
		onal feedback (posit	ive or negative)?					
s client provided a			ive or negative)? Company:			хто		
s client provided a						хто		
s client provided a	iny operatio					хто		

Date:	7/	12/2012		Report	Number:		37
Dute.		12/2012			lumber:		8
Client:		XTO		S	hift Onsite Time:	6:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	8:00 PM	am/pm
Site Contact:	Во	Jackson				8	Total hrs.
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	_	8 hrs		ve Processing		105	hrs
BBLS Processe		3,362 bbls		e BBLS Proces		39,21	10 bbls
BBLS/Hr Proc	essed:	420.25	Cumulative	BBLS/Hr Proc	essed:	373.4	bbl/hr
Lead Supervisor:	DΔIII	WORLEY	Poodings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		POLLARD	Readings: 800	HOW DACK	110	7.1	2.56
Crew						7.43	1.89
crew		IS ONEAL	1000	-	110		
	REGO	GIE WHITE	1200		110	6.67	0.98
			1400		110	6.63	1.45
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	355	5,181	4,826	On Order
ı			Sodium Hydroxide	420	3,595	3,175	
Visitors:			Souldin Hydroxide	420	3,393	3,173	
Visitors:	ВО	WELLS					
Visitors:							
			·				
1112							
Were there any abn	ormal operat	ional issues onsite	?				
NO	отпат орога:						
Are there any additi NO	onal supplies	s/equipment needed	d? If so, what items and	when?			
10							
	y changes to	the current schedu	le, including volumes ne	eded by client	?		
NO							
					~		
	any operatio	nal feedback (posit		1	1		
Person:			Company:			XTO	
N/A							
Additional Cor							
HAD SOME BACK F WE HAD TO WAIT F AND BLEW SOME (RESSURE O FOR CLEAN T OF THE GASK	N SAND FILTERS B TANKS TO GO DOW KETS WE HAD TO	ASTARTED PROCESSII ECAUSE THE SMALL PU N TO KEEP FILLING. THE REPAIR THEMXTO CO	IMPE WENT DO ERE WAS TO M MPANY MAN N	OWN ONXTO TR MUCH BACK PRE WAS CALLED AN	ANFER PUMF ESSURE ON S ID THEY ARE	P WENT DOWN SAND FILTERS GOING TO
			SINGLE PUMP ON XTO S ENT WELL AND WE MAL				OTHER THAN

Date:	7/	13/2012		Report	Number:		38
				Unit I	lumber:		8
Client:		XTO		S	hift Onsite Time:	2:00	am/pn
Location:	N	lash 29		S	hift Offsite Time:	7:00 PM	am/pn
Site Contact:	Во	Jackson				10	Total hi
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hrs	Today:	10 hrs	Cumulativ	re Processing	Hrs:	107	hrs
BBLS Processed		4,704 bbls		BBLS Proces			2 bbls
BBLS/Hr Proce		470.4		BBLS/Hr Proc		379.0 bbl/hr	
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	pН	Turbidi
Lead Operator	ADAM	POLLARD	800		110	7.21	0.76
Crew		IS ONEAL	1000		110	6.87	0.87
	REGO	GIE WHITE	1200		110	6.95	1.24
			1400		110	6.34	2.34
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
L							
Ĺ			Chemical	Usage	Start Inv.	End Inv.	On Ord
L			HcL Acid	345	5,181	4,836	
			Sodium Hydroxide	380	3,595	3,215	
Visitors:							
Visitors:							
Visitors:							
					¥		
41	1	tional issues onsite					
				<u> </u>			
	nal sunnlie	s/equipment neede	12 If so, what items and s	when?			
e there any addition	nal supplie	s/equipment neede	d? If so, what items and v	when?			
	nal supplie	s/equipment neede	d? If so, what items and v	when?			
e there any addition	nal supplie	s/equipment needed	d? If so, what items and v	when?			
re there any addition				-	7		
re there any addition			d? If so, what items and v	-	?		
e there any addition				-	?		
e there any addition				-	?		
e there any addition	changes to		ile, including volumes ne	-	?		
e there any addition	changes to	the current schedu	ile, including volumes ne	-	?	хто	
e there any addition ave there been any	changes to	the current schedu	ile, including volumes ne	-	?	хто	
ave there been any	changes to	the current schedu	ile, including volumes ne	-	?	хто	
ave there been any	changes to	the current schedu	ile, including volumes ne	-	?	хто	

Date:	7/	14/2012		Report	Number:	:	39
2010.		1,2012	:		Number:		8
Client:		XTO			hift Onsite Time:	5:00	am/pn
Location:		ash 29		S	hift Offsite Time:	7:00 PM	am/pn
Site Contact:		Jackson				10	Total hr
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hrs	Today:	10 hrs	Cumulativ	e Processing	Hrs:	117	hrs
BBLS Processed		4,321 bbls		BBLS Proce			3 bbls
BBLS/Hr Proce		432.1		BBLS/Hr Proc		383.3	bbl/hr
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	pН	Turbidi
Lead Operator		POLLARD	800		100	7.24	0.89
Crew	CHR	IS ONEAL	1000		100	6.98	1.31
	REG	SIE WHITE	1200		100	6.54	1.87
			1400		100	6.88	1.63
			0:00		N/A	N/A	N/A
-			0:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Ord
[HcL Acid	380	5,181	4,801	
			Sodium Hydroxide	410	3,595	3,185	
Visitors:	LARF	RY ONEAL					
Visitors:							
Visitors:							
ere there any abno	ormal operat	ional issues onsite	?				
e there any addition	onal supplie	s/equipment neede	d? If so, what items and v	when?			
ve there been any			d? If so, what items and v		17		
ve there been any					17		H - 17 - 17 - 17 - 17 - 17 - 17 - 17 - 1
ve there been any	changes to		ule, including volumes ne		17		
ve there been any	changes to	the current schedu	ule, including volumes ne		1?	хто	
ve there been any) s client provided Person:	changes to	the current schedu	ule, including volumes ne		17	хто	

Date:	7/	15/2012	1	Banca	Number:		10
Date:	//	15/2012			Number:		8 8
			'				
Client:		XTO		S	hift Onsite Time:	6:00	am/pm
Location:	N	lash 29		S	hift Offsite Time:	6:00 PM	am/pm
Site Contact:		Jackson				9	Total hrs
Site Contact:	Pai	ul Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hrs	Today:	9 hrs	Cumulativ	e Processing	Hrs:	126	hrs
BBLS Processes		4,273 bbls		BBLS Proces		49,11	6 bbls
BBLS/Hr Proc		474.7777778		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	PAUI	L WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		/ POLLARD	800		100	6.75	1.65
Crew		RIS ONEAL	1000		100	6.56	1.97
		GIE WHITE	1200		100	6.87	1.88
Ī		1	1400		100	6.93	1.53
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
Ī		-					
1			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	320	4,801	4,481	
L			Sodium Hydroxide	385	3,185	2,800	
Visitors:	LARI	RY ONEAL			5,200		
Visitors:		0112/12					
Visitors:							
					<u></u>		
			N 100 100	-			
lere there any abno	rmal operat	tional issues onsite?)				
O	milai opera	donar issues orisite i					
·							
	anal aumalia						
re there any addition		eleguinment needed	17 If en what iteme and v				
re there any addition	mai supplie	s/equipment needed	1? If so, what items and v	vnen r			
re there any addition	эпат ѕиррпе	s/equipment needed	? If so, what items and v	wnen r			
	эпат ѕиррпе	s/equipment needed	7 If so, what items and v	wnen r			
0					2		
O lave there been any			17 If so, what items and v		?		
0					?		
O lave there been any					?		
O lave there been any O	r changes to	the current schedu	le, including volumes ne		?		
ave there been any	r changes to		le, including volumes ne		?	XTO	
ave there been any	r changes to	the current schedu	le, including volumes ne		?	хто	
ave there been any	r changes to	the current schedu	le, including volumes ne		?	хто	
lave there been any	r changes to	the current schedu	le, including volumes ne		?	хто	
lave there been any	r changes to any operation	o the current schedu	le, including volumes ne ive or negative)? Company:	eded by client			SEVERAL
ave there been any O as client provided Person: //A Additional Com	any operation	o the current schedu	le, including volumes ne	eded by client	6:15 AM WE H.	AD TO WAIT	

Date:	7/	16/2012		Report	Number:		41
Date.	//-	10/2012			Number:		8
			'				
Client:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	хто		S	hift Onsite Time:	6:00	am/pm
Location:		ash 29			hift Offsite Time:	4:00 PM	am/pm
Site Contact:	Во	Jackson				7	Total hrs.
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hr	s Today:	7 hrs	Cumulativ	e Processing	Hrs:	133	hrs
BBLS Processe	ed Today:	3,852 bbls	Cumulative	BBLS Proces	ssed:	52,96	8 bbls
BBLS/Hr Proc	cessed:	550.2857143	Cumulative	BBLS/Hr Proc	essed:	398.3	bbl/hr
Lead Supervisor:		WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		IS ONEAL	800		100	6.35	0.87
Crew		SIE WHITE	1000		100	6.43	1.23
	REGO	SIE WHITE	1200		100	7.12	2.1
			1400		100	6.97	1.87
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
ļ			Chaminal	11	Chart Inv.	5-41	On Order
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid Sodium Hydroxide	260	4,481	4,221	· · · · · · · · · · · · · · · · · · ·
Visitors:	LABE	RY ONEAL	Soulum Hydroxide	285	2,800	2,515	
Visitors:	LAN	TONEAL					
Visitors:					-		
1,0,15,5,		***					
	**2					~	
Were there any abn	ormal operat	ional issues onsite	?				
NO							
Are there only additi	ianal aunalia	ologista mantina ada	12 If an author Home and				
NO	ionai supplies	s/equipment needed	d? If so, what items and v	when r			
Have there been	w observed to	the ourrent asks do	le including velumes	adad by elicat			
NO	y crianges to	the current schedu	le, including volumes ne	edea by client			
				-			
Has client provided	l any operatio	nal feedback (posit	ive or negative)?			-	
Person:		TTTTTTT (POOR	Company:			XTO	
N/A							
Additional Cor	mments		#				
ARRIVED ON LOCA	TION AT 6:00		ASTARTED PROCESSIN IING ELSE WENT WELL I				
POISIDEN TANK HA	AS APPROX.3	85,000 BBLS. IN IT A	S OF TODAY.				

Client: XTO Location: Nash 29 Site Contact: Bo Jackson Site Contact: Paul Worley Present Onsite Activities: PROCESS WATER Processing Hrs Today: 6 hrs BBLS Processed Today: 2,352 bbls BBLS Processed: 392 Lead Supervisor: PAUL WORLEY Lead Operator CHRIS ONEAL Crew REGGIE WHITE Crew REGGIE WHITE LOCO 100 6.75 1.32 LOCO 100 6.88 0.98 N/A	Date:	7/	17/2012		Report	Number:	-	42
Shift Offsite Time: 2:00 PM am/pi					Unit I	lumber:		8
Shift Offsite Time: 2:00 PM am/p Site Contact: Bo Jackson 6 Total h Site Contact: Paul Worley Present Onsite Activities: PROCESS WATER Processing Hrs Today: 6 hrs BBLS Processed Today: 2,352 bbls BBLS Processed: 392 Cumulative BBLS Processed: 55,320 bbls BBLS/Hr Processed: 392 Cumulative BBLS Processed: 55,320 bbls Cumulative BBLS Processed: 398.0 bbl/hr Cumulative BBLS/Hr Processed: 398.0 bbl/hr Solid Processed: 398.0 b	Client:		XTO	1		hift Onsite Time:	6:00	am/nn
Site Contact: Bo Jackson Site Contact: Paul Worley Processing Hrs Today: 6 hrs BBLS Processed Today: 2,352 bbis BBLS Processed Today: 2,352 bbis BBLS/Hr Processed: 392 Lead Supervisor: PAUL WORLEY Lead Operator CHRIS ONEAL Crew REGGIE WHITE Crew REGGIE WHITE Wisitors: LARRY ONEAL Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN Visitors: STEVEN TIPDEN Present Onsite Activities: PROCESS WATER Cumulative Processing Hrs: 139 hrs Cumulative BBLS/Hr Processed: 55,320 bbis Cumulative BBLS/Hr Processed: 398.0 bbi/hr Readings: flow back Volts/Amps pH Turbid 800 100 6.75 1.32 1000 100 6.75 1.32 1000 100 6.88 0.98 N/A								
Processing Hrs Today: 6 hrs BBLS Processed Today: 2,352 bbls BBLS Processed: 55,320 bbls SBLS/Hr Processed: 55,320 bbls Cumulative BBLS/Hr Processed: 55,200 bbls Cumulative BBLS/Hr Proce						mir Offsite Time.		
Processing Hrs Today: 6 hrs BBLS Processed Today: 2,352 bbls BBLS Processed: 392 Cumulative BBLS Processed: 55,320 bbls BBLS Processed: 392 Cumulative BBLS Processed: 55,320 bbls Cumulative BBLS Processed: 398.0 bbl/hr Cumulative BBLS Processed: 55,320 bbls Cumulative BBLS Processed: 55,320 bbl/hr Cumulative BBLS Processed: 50,400 bbl/hr Cumulative BBLS Processed: 50,400 bbl/hr Cumulative BBLS Processed: 50,400 bbl/hr					Present	Onsite Activities:		
Cumulative BBLS/Hr Processed: 55,320 bbls Cumulative BBLS/Hr Processed: 55,320 bbls Cumulative BBLS/Hr Processed: 398.0 bbl/hr				'	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Lead Supervisor:	Processing Hrs	Today:	6 hrs	Cumulativ	e Processing	Hrs:	139	hrs
Readings: flow back Volts/Amps pH Turbid			2,352 bbis				55,32	0 bbls
Reggie WHITE	BBLS/Hr Proce	ssed:	392	Cumulative I	BBLS/Hr Proc	essed:	398.0	bbl/hr
Reggie WHITE								
1000	Lead Supervisor:	PAU	WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidi
1200	Lead Operator	CHR	IS ONEAL	800		100	6.75	1.32
N/A	Crew	REG	GIE WHITE	1000		100	7.12	1.45
O:00 N/A				1200		100	6.88	0.98
O:00 N/A				N/A		N/A	N/A	N/A
Chemical Usage Start Inv. End Inv. On Ord Hct Acid 205 4,221 4,016 Sodium Hydroxide 180 2,515 2,335 Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN There any abnormal operational issues onsite? There any additional supplies/equipment needed? If so, what items and when? There there any additional supplies/equipment needed? If so, what items and when? There are there any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?				0:00		N/A	N/A	N/A
Wisitors: LARRY ONEAL Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN There any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when?				0:00		N/A	N/A	N/A
Wisitors: LARRY ONEAL Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN There any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when? There are any additional supplies/equipment needed? If so, what items and when?								
Visitors: LARRY ONEAL Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN Tree there any abnormal operational issues onsite? There there any additional supplies/equipment needed? If so, what items and when? There there been any changes to the current schedule, including volumes needed by client? The there been any changes to the current schedule, including volumes needed by client? The company: The compa	L				Usage	Start Inv.	End Inv.	On Ord
Visitors: LARRY ONEAL Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN The there any abnormal operational issues onsite? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?	L						4,016	
Visitors: JAMIE HARRIS Visitors: STEVEN TIPDEN The there any abnormal operational issues onsite? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?				Sodium Hydroxide	180	2,515	2,335	
ve there been any changes to the current schedule, including volumes needed by client? se client provided any operational feedback (positive or negative)? Person: Company: Additional Comments								
re there any abnormal operational issues onsite? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?								
there any additional supplies/equipment needed? If so, what items and when? we there been any changes to the current schedule, including volumes needed by client? s client provided any operational feedback (positive or negative)? Person: Company: XTO	Visitors:	STEV	EN TIPDEN			L		
we there been any changes to the current schedule, including volumes needed by client? s client provided any operational feedback (positive or negative)? Person: Company: Additional Comments			tional issues onsite	?				
s client provided any operational feedback (positive or negative)? Person: Company: XTO Additional Comments	ere there any abno	rmal opera						
s client provided any operational feedback (positive or negative)? Person: Company: XTO Additional Comments				I? If so, what items and w	vhen?			
Person: Company: XTO Additional Comments	e there any additio	nal supplie	s/equipment needec					
Person: Company: XTO Additional Comments	e there any additio	nal supplie	s/equipment needec			?		
Additional Comments	e there any additio	nal supplie changes to	s/equipment needed	le, including volumes ne		?		
Additional Comments	e there any additio	nal supplie changes to	s/equipment needed	le, including volumes ned		?		
	e there any addition ive there been any is client provided a Person:	nal supplie changes to	s/equipment needed	le, including volumes ned		?	хто	
	e there any additio	nal supplie changes to	s/equipment needed	le, including volumes ned		?	хто	
	e there any addition ve there been any s client provided a Person:	nal supplie changes to iny operatio	s/equipment needed	le, including volumes ned		?	хто	

Date:	7/1	8/2012		Report	Number:		43
Date.		.6/2012			lumber:		8
			'			-	
Client:		ХТО		S	hift Onsite Time:	6:00	am/pm
Location:	Na	ash 29		SI	hift Offsite Time:	6:00 PM	am/pm
Site Contact:		Jackson				0	Total hrs
Site Contact:		l Worley		Present	Onsite Activities:	PROCES	S WATER
STAND BY	/ WAI	ring on					
Processing Hrs	Today:	0 hrs	Cumulativ	e Processing	Hrs:	139	hrs
BBLS Processed	d Today:	0 bbls	Cumulative	BBLS Proces	ssed:	55,32	0 bbls
BBLS/Hr Proce	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	398.0	bbl/hr
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator			800		N/A	N/A	N/A
Crew			1000		N/A	N/A	N/A
			1200		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
Ī		,,,,,	0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
							0.04
	·····		Chemical	Usage	Start Inv.	End Inv.	On Orde
L			HcL Acid Sodium Hydroxide	0	4,016 2,335	4,016 2,335	
Visitors:			Socialii Hydroxide		2,333	_2,333	
Visitors:							
Visitors:							
					· · · · · · · · · · · · · · · · · · ·		
			1-1-2-1-1-1	Ti over			
Vere there any abno	ormal operati	innal issues onsite	?			-	
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re there any addition	onal supplies	s/equipment neede	d? If so, what items and v	vhen?			
we there any addition	onal supplies	s/equipment neede	d? If so, what items and v	when?			
	onal supplies	s/equipment neede	d? If so, what items and v	when?			
IO			d? If so, what items and v		?		
IO					?		
lave there been any	y changes to	the current schedu	ule, including volumes ne		?		
ave there been any	y changes to	the current schedu	ule, including volumes ne		?	VTO	
ave there been any	y changes to	the current schedu	ule, including volumes ne		?	хто	

Date:	7/	19/2012					
				Report Number: Unit Number:		44	
				Unit I	lumber:		8
Client:		хто			hift Onsite Time:	16:00	am/pm
Location:		lash 29			hift Offsite Time:	9:00 PM	am/pm
Site Contact:		Jackson		<u> </u>	int Onsite Time.	3	Total hr
Site Contact:		ul Worley		Present	Onsite Activities:		S WATER
Olte Contact.		divioney		Tresent	Offsite Activities.	FROCE	JO WATER
Processing Hrs	s Today:	3 hrs	Cumulativ	e Processing	Hrs:	142	hrs
BBLS Processe	d Today:	1,141 bbls	Cumulative	BBLS Proces	ssed:	56,46	o1 bbls
BBLS/Hr Proc	essed:	380.3333333	Cumulative	BBLS/Hr Proc	essed:	397.6	bbl/hr
Lead Supervisor:	PAUI	L WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator		RIS PERRY	800		100	7.2	2.34
Crew			1000		N/A	N/A	N/A
			1200		N/A	N/A	N/A
•		**	N/A		N/A	N/A	N/A
ŀ			0:00		N/A	N/A	N/A
ŀ			0:00		N/A	N/A	N/A
 			0.00		14/7	14/7	11/1
ŀ			Chemical	Usage	Start Inv.	End Inv.	On Orde
}			HcL Acid				On Orus
L				145	4,016 2,335	3,871 2,215	
Visitors:			Sodium Hydroxide	120	2,333	2,215	
			<u> </u>				
Visitors:			-	·	· · · · · · · · · · · · · · · · · · ·		
Visitors:							
				-/			_
O	ormai opera	tional issues onsite?					
	onal supplie	s/equipment needed	? If so, what items and v	when?			
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	y changes to	the current schedul	e, including volumes ne	eded by client	7		
0							
as client provided	any operation	onal feedback (positi	ve or negative)?				
Person:			Company:			XTO	
/A							
Additional Con		AL THAT THE DIDE	TANKO WEDE ELLI	TOL 5	WE WOULD BE S	UT TO OFF	
			TANKS WERE FULL AND I AND GOT TANKS DOV				

Date:	7/	20/2012		Panart	Number:		45
Date.		20/2012			Number:		8
Client:		хто		S	hift Onsite Time:	9:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	5:00 PM	am/pm
Site Contact:	Во	Jackson				7	Total hrs.
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hr		7 hrs	Cumulativ	e Processing	Нгв:	149	hrs
BBLS Processe	d Today:	2,136 bbls	Cumulativ	e BBLS Proces	ssed:	58,59	7 bbls
BBLS/Hr Prod	essed:	305.1428571	Cumulative	BBLS/Hr Proc	essed:	393.3	bbl/hr
				T			
Lead Supervisor:		WORLEY	Readings:	flow back	Volts/Amps	pH C 02	Turbidity
Lead Operator	CHR	IS PERRY	1200		100	6.82	1.43
Crew			1400 1600		100	6.66	1.65
			1600 N/A		100	6.54	N/A N/A
}					N/A	N/A	
}			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
-			Chemical	Lisago	Start Inv	End Inv	On Order
-			HcL Acid	Usage	Start Inv.	End Inv.	Oll Order
ι			Sodium Hydroxide	220 180	3,871 2,215	3,651 2,035	
Visitors:			Sodium Hydroxide	180	2,215	2,035	
Visitors:							
Visitors:							
VISILOIS.			<u> </u>				
Nore there any abo		ional issues onsite?	<u> </u>				
NO							
are there any additi	onal supplies	S/equipment needed	l? If so, what items and	when?			-
NO	опат оприно	этоцигринент посасс	ir ii so, what itoms and	Wilchit		10.000	
lave there been an	y changes to	the current schedul	le, including volumes ne	eded by client	?		
NO							
las client provided	any operatio	nal feedback (positi	ive or negative)?				
Person:	sporutio	IOUUDUN (POSICI	Company:	I		XTO	
N/A							
Additional Cor		· · · · · · · · · · · · · · · · · · ·					
ON LOCATION ARO	UND 6 AM AI	ND GOT TANKS DON	TANKS LOW ENOUGH TO WN SO THEY WOULD NO	OT OVER FLO	W ANYMORE. EV	ERYTHING W	VENT
WELL GOT I OIL.HE SAID FOR U			ALLED BO JACKSON TO	LET HIM KNC	W IHAI WE WE	RE GETTING	10 IHE

Date:	7/:	21/2012		Report	Number:		46
					lumber:		8
							
Client:		XTO			hift Onsite Time:	9:00	am/pm
Location:		ash 29		S	hift Offsite Time:	5:00 PM	am/pm
Site Contact:		Jackson		Persont	Oneite Anti-italian	0	Total hrs
Site Contact:		ıl Worley	l	Present	Onsite Activities:	PROCES	S WATER
Processing Hrs		0 hrs	Cumulativ	e Processing	Hrs:	149	hrs
BBLS Processed		0 bbls		BBLS Proces			7 bbls
BBLS/Hr Proc		#DIV/0!		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator			1200		N/A	N/A	N/A
Crew			1400		N/A	N/A	N/A
			1600		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			0:00	744-1	N/A	N/A	N/A
			0:00		N/A	N/A	N/A
-			Chemical	Usage	Start Inv.	End Inv.	On Orde
L			HcL Acid	0	3,651	3,651	
Visitors:			Sodium Hydroxide	0	2,035	2,035	
Visitors:							
Visitors:							
Vere there any abno	ormal operat	ional issues onsite	?				
re there any addition	onal supplie	s/equipment neede	d? If so, what items and v	vhen?			
	changes to	the current schedu	lle, including volumes ne	eded by client	?		
O as client provided	any operatio	nal feedback (posit					
10	any operatio	nal feedback (posit	tive or negative)? Company:			хто	

Date:	7/2	22/2012		Report	Number:		47
- 191 0	.,,				Number:		8
			ı				
Client:		XTO			hift Onsite Time:	9:00	am/pm
Location:		ash 29		S	hift Offsite Time:	5:00 PM	am/pm
Site Contact:		Jackson				0	Total hrs
Site Contact:		ıl Worley		Present	Onsite Activities:	PROCES	S WATER
STAND B	Υ						
Processing Hr		0 hrs		e Processing		149	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	e BBLS Proces	ssed:	58,59	7 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	393.3	bbl/hr
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator			1200		N/A	N/A	N/A
Crew			1400		N/A	N/A	N/A
			1600		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
i							
	-		Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	3,651	3,651	
•			Sodium Hydroxide	0	2,035	2,035	
Visitors:							
Visitors:							
Visitors:							
ere there any abn	ormal operati	ional issues onsite	?				
0							

re there any additi	onal supplies	s/equipment neede	d? If so, what items and v	when?			
10	опа: оаррнос	arequipment needs	a. II oo, what home and t				
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IO	y changes to	the current sched	ne, molading volumes ne	eded by chern			
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		nal foodback (noci	tive or negative)?				
las client provided	any operation		SITE OF HEMOLIAE)				
	any operatio	mai reeuback (posi			I .	YTO.	
as client provided Person:	any operatio	mai reedback (posi	Company:			хто	
	any operatio	mai readback (posi				XTO	

Date:	7/:	23/2012		Report	Number:	· · · · · · · · · · · · · · · · · · ·	48
Date:	.,,,	25,2022			lumber:		8
Client:		ХТО		S	hift Onsite Time:	9:00	am/pm
Location:	N	ash 29		SI	hift Offsite Time:	5:00 PM	am/pm
Site Contact:		Jackson				0	Total hrs.
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCES	SS WATER
STAND BY	•						
Processing Hrs		0 hrs		e Processing		149	hrs
BBLS Processed		0 bbls		BBLS Proces			7 bbls
BBLS/Hr Proce	ssed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	393.3	bbl/hr
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			1200		N/A	N/A	N/A
Crew			1400		N/A	N/A	N/A
			1600		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
	-		0:00		N/A	N/A	N/A
 			Chemical	Hengo	Start Inv.	End Inv.	On Order
			HcL Acid	Usage 0	3,651	3,651	On Order
L			Sodium Hydroxide	0	2,035	2,035	
Visitors:			,				
Visitors:							
Visitors:							
	. 200	-10	~				g
4/ 4h		in allianus analia	2				
Were there any abno	rmai operat	ionai issues onsite) [
••							
	nal supplies	s/equipment neede	d? If so, what items and v	when?			
NO							
		the current schedu	ule. including volumes ne	eded by client	?		
lave there been any	changes to		,				
	changes to	the current series					
	changes to	the carrent solicat					
NO							
Have there been any							
Has client provided a			itive or negative)? Company:			хто	
NO						хто	
las client provided a	any operatio					хто	

Date:	7/	24/2012		Poner	Number:		49
Date.	//-	24/2012			Number:		8
			1	Olik	tumber.		
Client:		хто			hift Onsite Time:	9:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	5:00 PM	am/pm
Site Contact:		Jackson				0	Total hrs
Site Contact:		ıl Worley		Present	Onsite Activities:	PROCES	S WATER
STAND B							
Processing Hr		0 hrs		e Processing		149	hrs
BBLS Processe		0 bbls		BBLS Proces			7 bbls
BBLS/Hr Prod	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	393.3	bbl/hr
Lead Supervisor:	PAUL	WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			1200		N/A	N/A	N/A
Crew			1400		N/A	N/A	N/A
			1600		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	3,651	3,651	
'			Sodium Hydroxide	0	2,035	2,035	
Visitors:							
Visitors:							
Visitors:							
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Vere there any abn	ormal operat	ional issues onsite	?				
10							
							
ve there any additi	ional supplies	s/equipment neede	d? If so, what items and v	when?			
10			-				
	y changes to	the current schedu	ule, including volumes ne	eded by client	17		
10							
las client provided Person:	any operation	onal feedback (posi	tive or negative)? Company:		1	VTO	
			Company:			XTO	
/A							

Client: XTO Location: Nash 29 Site Contact: Bo Jackson Site Contact: Paul Worley TAND BY Processing Hrs Today: 0 hrs BBLS Processed: #DIV/01 Lead Supervisor: PAUL WORLEY Lead Operator Crew Tand Description of the Company: 1000 N/A	Date:	7/2	25/2012		Report	Number:		50
Shift Offsite Time: S:00 PM am/y								
Site Contact: Bo Jackson Site Contact: Paul Worley								
Site Contact:							9:00	am/pm
Site Contact:					S	hift Offsite Time:		am/pm
Processing Hrs Today: 0 hrs BBLS Processed: 0 bbls BBLS/Hr Processed: #DIV/0! Lead Supervisor: PAUL WORLEY Lead Operator Crew 11000 N/A								
Processing Hrs Today:			il Worley		Present	Onsite Activities:	PROCES	S WATER
BBLS/Hr Processed: #DIV/0! Lead Supervisor: PAUL WORLEY Lead Operator Crew Paul			0 hrs	Cumulativ	Processing	Hre:	149	hrs
BBLS/Hr Processed: #DIV/0! Lead Supervisor: PAUL WORLEY Lead Operator Crew 1200 N/A N/A N/A N/A 1400 N/A N/A N/A N/A 1600 N/A N/A 1600 N/A N/A N/A 1600 N/A N/A N/A 1600								
1200								
1200	Lead Supervisor:	PAU	WORLEY	Readings:	flow back	Volts/Amps	рН	Turbidity
1400					HOW DUCK			N/A
1600 N/A								N/A
N/A								N/A
O:00 N/A								N/A
Chemical Usage Start Inv. End Inv. On Or HcL Acid 0 3,651 3,651 Sodium Hydroxide 0 2,035 2,035 Visitors: Visitors: Visitors: Visitors: Visito	-		·					N/A
HcL Acid 0 3,651 3,651 Sodium Hydroxide 0 2,035 2,035 Visitors: Visitors: Visitors: Visitors: Pere there any abnormal operational issues onsite? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?								N/A
HcL Acid 0 3,651 3,651 Sodium Hydroxide 0 2,035 2,035 Visitors: Visitors: Visitors: Visitors: Pere there any abnormal operational issues onsite? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?								
Sodium Hydroxide 0 2,035 2,035 Visitors: Visitors: Visitors: Visitors: Visi	⊢							On Orde
Visitors: Visitors: Visitors: Visitors: Visitors: Visitors: ere there any abnormal operational issues onsite? The there any additional supplies/equipment needed? If so, what items and when? The there been any changes to the current schedule, including volumes needed by client? The there been any changes to the current schedule, including volumes needed by client? The there been any changes to the current schedule, including volumes needed by client? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when? The there are any additional supplies/equipment needed? If so, what items and when?	_							
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re there any additional supplies/equipment needed? If so, what items and when? ave there been any changes to the current schedule, including volumes needed by client? as client provided any operational feedback (positive or negative)? Person: Company: XTO	Visitors:							
as client provided any operational feedback (positive or negative)? Person: XTO		***						
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re there any additional supplies/equipment needed? If so, what items and when? ave there been any changes to the current schedule, including volumes needed by client? as client provided any operational feedback (positive or negative)? Person: Company: XTO		mal operat	ional issues onsite	?				
ave there been any changes to the current schedule, including volumes needed by client? as client provided any operational feedback (positive or negative)? Person: Company: XTO	0							
ave there been any changes to the current schedule, including volumes needed by client? as client provided any operational feedback (positive or negative)? Person: Company: XTO								
ave there been any changes to the current schedule, including volumes needed by client? as client provided any operational feedback (positive or negative)? Person: Company: XTO		-1		10 16				
ave there been any changes to the current schedule, including volumes needed by client? O as client provided any operational feedback (positive or negative)? Person: Company: XTO		iai supplies	s/equipment neede	d r if so, what items and v	vnen?			
as client provided any operational feedback (positive or negative)? Person: Company: XTO								
as client provided any operational feedback (positive or negative)? Person: Company: XTO								
as client provided any operational feedback (positive or negative)? Person: Company: XTO /A	ave there been any o	hanges to	the current schedu	ile, including volumes ne	eded by client	?		
Person: Company: XTO	0				-			
Person: Company: XTO								
Person: Company: XTO	as client provided a	operatio	nal feedback (posi	tive or negative)?				
		.,	issuada (posi				XTO	
							7.10	
Additional Comments								

Date:	7/:	26/2012		Report	Number:		51
	1	10/2012			lumber:	8	
Client:		XTO		S	hift Onsite Time:	9:00	am/pm
Location:	N	lash 29		S	hift Offsite Time:	5:00 PM	am/pm
Site Contact:	Во	Jackson				0	Total hrs
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	S WATER
STAND B	Υ						
Processing H	rs Today:	0 hrs	Cumulativ	e Processing	Hrs:	149	hrs
BBLS Process		0 bbls		BBLS Proces		58,59	7 bbls
BBLS/Hr Pro		#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	393.3	bbl/hr
Lead Supervisor:		WORLEY	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator			1200		N/A	N/A	N/A
Crew			1400		N/A	N/A	N/A
			1600		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	_N/A
			Ct			5.4.	0-0-1
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	0	3,651	3,651	
Visitors:			Sodium Hydroxide	0	2,035	2,035	
Visitors:							
Visitors:			***				-
VISILOIS.				<u> </u>			
						**	
	normal operat	tional issues onsite	?				
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	tional supplie	s/equipment needed	d? If so, what items and v	when?			
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		4	In the should be a seed to see				
	nv changes to	the current schedu	ile, including volumes ne	eaea by clien			
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10		anal feedback (nocit	tive or negative)?				
IO		onal feedback (posit				XTO	
Person:		onal feedback (posit	tive or negative)? Company:			хто	
O		onal feedback (posit				хто	

							7
Date:	8/	/1/2012	7	Penor	Number:		52
Date.	- 6/	1/2012	j		Number:		8
				Unit i	Aumber.		0
Client:		XTO]	S	hift Onsite Time:	11:00	am/pm
Location:	N	lash 29]	S	hift Offsite Time:	4:00 PM	am/pm
Site Contact:	Во	Jackson				0	Total hrs.
Site Contact:	Jas	on Distall		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	149	hrs
BBLS Processe		0 bbls		e BBLS Proce		58,59	97 bbls
BBLS/Hr Prod		#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	393.3	bbl/hr
Lead Supervisor:	Jas	on Distall	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator			1200		N/A	N/A	N/A
Crew	Eddie	McGruder	1400		N/A	N/A	N/A
	Sam	nmy Dean	1600		N/A	N/A	N/A
1		lay Lee	N/A		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	3,651	3,651	
'		-	Sodium Hydroxide	67	2,035	1,968	
Visitors:			1				
Visitors:			1				-
Visitors:							
	-						
Were there any abn	ormal operat	ional issues onsi	te?				
NO	•						
Are there any additi	onal supplies	s/equipment need	led? If so, what items and v	when?			
NO						-	
	y changes to	the current sche	dule, including volumes ne	eded by client			
NO							
Has client provided	any operation	nal feedback (pos	sitive or negative)?				
Person:	, p		Company:			XTO	
N/A							
Additional Cor							
Filled weir and settlin	ng tanks to res	sume recycle opera	ations 8-02-2012				

Date:	0.	/2/2012		Renort	Number:	-	53
Date.	- 0/	2/2012			Number:		8
			'				
Client:		XTO		S	hift Onsite Time:	5:30	am/pm
Location:	N	lash 29		S	hift Offsite Time:	4:00 PM	am/pm
Site Contact:	Bo	Jackson				10.5 Total hi	
Site Contact:	Jas	on Distall		Present	Onsite Activities:	PROCES	S WATER
Processing Hr	s Today:	3 hrs	Cumulativ	e Processing	Hrs:	152	hrs
BBLS Processe		1,392 bbls		e BBLS Proce			9 bbls
BBLS/Hr Prod		464		BBLS/Hr Proc			bbl/hr
DDEO/III 1 100		404	Guinalative	DDEG/III 1 100	1		220111
Lead Supervisor:	Jas	on Distall	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator			1200		20v 100a	7.05	3.32
Crew	Eddie	McGruder	1400		N/A	N/A	N/A
		nmy Dean	1600		20v 100a	7.03	3.27
	R	lay Lee	N/A		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	143	3,651	3,508	
'			Sodium Hydroxide	117	1,968	1,851	
Visitors:							
Visitors:							
Visitors:							
		tional issues onsite? ting, the lost power.					
ro those any additi	anal cumplia	s/squipment peeded	l? If so, what items and v	uban?			
O	onai suppile	s/equipment needed	ir if so, what items and v	wnen?			
		4000					
ave there been an	y changes to	the current schedu	le, including volumes ne	eded by clien	17		
0							
	any operation	nal foodback (nosit	ivo or pogativo\?				
as client provided	with Abeland	mai ideanack (hositi	Company:	* ***	T	хто	
as client provided				I			
Person:	nmonto						

Date:	8/	/3/2012		Report	Number:		54
					lumber:		8
			,				
Client:		XTO			hift Onsite Time:	5:30	am/pm
Location:	-	lash 29		S	hift Offsite Time:	4:00 PM	am/pm
Site Contact:		Jackson				10.5	Total hr
Site Contact:	Chac	d Edwards	l	Present	Onsite Activities:	PROCES	S WATER
Processing Hr	s Today:	6 hrs	Cumulativ	e Processing	Hrs:	158	hrs
BBLS Processe		3,351 bbls		BBLS Proces			0 bbls
BBLS/Hr Proc		558.5		BBLS/Hr Proc			bbl/hr
DD20//// 1100		000.0	- Canadavo I	5520//// 1100		- 400.0	DDIA
Lead Supervisor:	Cha	d Edwards	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator	Jas	on Distall	1200		20v 100a	6.99	3.29
Crew	Eddie	McGruder	1400	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	N/A	N/A	N/A
		nmy Dean	1500		20v 100a	7.03	3.18
		lay Lee	N/A		N/A	N/A	N/A
		-	0:00		N/A	N/A	N/A
			0:00		N/A	N/A	N/A
l		-	Chemical	Usage	Start Inv.	End Inv.	On Orde
1	-		HcL Acid	345	3,508	3,163	
,		ma-r	Sodium Hydroxide	361	1,851	1,490	
Visitors:	Во	Jackson				-	
Visitors:							
Visitors:							
Vere there any ahn	ormal operat	tional issues onsite	?				
lo							
	onal supplie	-1	d? If so, what items and v	vhen?			
re there any additi		s/eauidment needei	, , , , , , , , , , , , , , , , , , , ,				
re there any additi es, supply list will b	e complete to						
es, supply list will b		morrow.	ile, including volumes ne	eded by client	?		
es, supply list will b	y changes to	the current schedu	ale, including volumes ne		?		
es, supply list will b ave there been an le are limited to app	y changes to proximately 2,	the current schedu	ng produced water do to po		?		
es, supply list will b ave there been an le are limited to app	y changes to proximately 2,	the current schedu	ng produced water do to po		?	хто	
ave there been and we are limited to apply as client provided Person:	y changes to proximately 2,	the current schedu	ng produced water do to po		?	хто	
lave there been and we are limited to applicate client provided Person: O Additional Core	y changes to proximately 2, any operation	the current schedu 000 bbls/day incomir onal feedback (posit	ng produced water do to po	ower outages.			

	8,	/4/2012			Number:	<u> </u>	55
				Unit I	lumber:		8
Client:		XTO			hift Onsite Time:	2:30	am/pm
Location:		lash 29			hift Offsite Time:	2:00 PM	am/pm
Site Contact:		Jackson			int Onsite Time.	11.5	Total hrs.
Site Contact:		d Edwards		Present	Onsite Activities:		S WATER
Processing Hr	s Today:	8.75 hrs	Cumulativ	e Processing	Hrs:	166.7	5 hrs
BBLS Processe	d Today:	4,903 bbls	Cumulative	BBLS Proces	ssed:	68,24	13 bbls
BBLS/Hr Proc	essed:	560.3428571	Cumulative	Cumulative BBLS/Hr Processed:			bbl/hr
Lead Supervisor:	Cha	d Edwards	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		on Distall	06:00		20v 100a	7.1	4.25
Crew		e McGruder	10:00		20v 100a	7.08	4.03
7. 7.7		nmy Dean	12:30	-	20v 100a	7.03	3.25
		Ray Lee	N/A		N/A	N/A	N/A
		en Ehler	N/A		N/A	N/A	N/A
	Ada	m Pollard	N/A		N/A	N/A	N/A
	Eli	Tangura					
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	505	3,163	2,658	
			Sodium Hydroxide	508	1,490	982	
Visitors:	Во	Jackson					
141 - 14							
Visitors:	_						
Visitors: Visitors:							
							
Visitors:							
Visitors: Vere there any abn	normal opera	tional issues onsite	7				
Visitors:	ormal opera	tional issues onsite	97				
Visitors: Were there any abn							
Visitors: Were there any abn No Are there any addit	ional supplie		od? If so, what items and	when?			
Visitors: Were there any abn	ional supplie			when?			
Visitors: Were there any abn No Are there any addit No, supplies on orde	ional supplie er	s/equipment neede	d? If so, what items and		17		
Visitors: Were there any abn No Are there any addit No, supplies on orde	ional supplie	s/equipment neede	od? If so, what items and v	eded by client		son expects th	nat to change
Visitors: Were there any abn No Are there any addit No, supplies on orde	ional supplie er ny changes to proximately 2.	s/equipment neede	d? If so, what items and	eded by client		son expects th	nat to change
Visitors: Were there any abn No Are there any addit No, supplies on orde Have there been an We are limited to ap and hopes to have to	ional supplie er by changes to proximately 2 anks full by 2:	s/equipment neede	ule, including volumes ne	eded by client		son expects th	nat to change
Visitors: Were there any abnown and the supplies on order there been any additional and the supplies on order there been and the supplies on the supplies on the supplies of	ional supplie er ny changes to proximately 2 anks full by 2:	the current schedi 0,000 bbls/day incomi 30 am.	ule, including volumes neighbor or negative)? Company:	neded by client ower outages, h	nowever, Bo Jacks	хто	
Visitors: Were there any abnown and the supplies on order there been any additional and the supplies on order there been and the supplies on the supplies on the supplies of	ional supplie er ny changes to proximately 2 anks full by 2:	the current schedi 0,000 bbls/day incomi 30 am. conal feedback (posi Bo Jackson and understands that	ule, including volumes neighbor produced water do to positive or negative)?	neded by client ower outages, h	nowever, Bo Jacks	хто	
Visitors: Were there any abnown and the supplies on order there been any additional and the supplies on order the supplies on the supplies on the supplies of	ional supplie or or or changes to proximately 2 anks full by 2: I any operation ur operation a to a possible	the current schedi 0,000 bbls/day incomi 30 am. conal feedback (posi Bo Jackson and understands that	ule, including volumes neighbor or negative)? Company:	neded by client ower outages, h	nowever, Bo Jacks	хто	

water rate returns.

Date:	8,	/5/2012		Report	Number:		56
					lumber:		8
Client:		хто			hift Onsite Time:	6:00	
Location:		Vash 29			hift Offsite Time:	6:00 4:00 PM	am/pm am/pm
Site Contact:		Jackson			mit Offsite Time.	11.5	Total hr
Site Contact:		d Edwards		Present	Onsite Activities:		S WATER
					Choice Flouvilles.	TROOLS	JO TUNCTER
Processing Hr		6 hrs		e Processing		172.75	hrs
BBLS Processe		3,263 bbls	Cumulative	BBLS Proces	ssed:	71,50	6 bbls
BBLS/Hr Proc	essed:	543.8333333	Cumulative	BBLS/Hr Proc	essed:	413.9	bbl/hr
Lead Supervisor:	Cha	d Edwards	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator			08:00		20v 100a	7.1	5.12
Crew		e McGruder	10:00		20v 100a	7.09	4.03
		nmy Dean	12:30		20v 100a	7.11	4.05
		Ray Lee	N/A		N/A	N/A	N/A
		en Ehler	N/A		N/A	N/A	N/A
	Ada	m Pollard	N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	326	2,658	2,332	
	_		Sodium Hydroxide	331	982	651	
Visitors:	Во	Jackson					
Visitors: Visitors:	-						
VISILOIS.						v .	
				_			
Vere there any abn	ormal operat	tional issues onsite?)				
lo							
re there any addit	onal eupplio	s/aguinment needed	12 If ea, what itame and y	whom?			
re there any addit	onal supplie	s/equipment needed	l? If so, what items and v	vhen?			
re there any addition to supplies on orde	onal supplie	s/equipment needed	17 If so, what items and v	vhen?			
lo, supplies on orde	r				2		
lo, supplies on orde	r		I? If so, what items and v		?		
o, supplies on orde	r				?		
lo, supplies on orde lave there been an	y changes to	the current schedu	le, including volumes ne		?		
lo, supplies on orde	y changes to		le, including volumes ne		?	XTO	
lo, supplies on orde lave there been an	y changes to	the current schedu	le, including volumes ne		?	хто	
ave there been an	y changes to any operatio	the current schedu	le, including volumes ne		?	хто	

· · · · · ·			<u> </u>						
Date:	8/	6/2012	[Report	Number:		57		
Date.	_0,	0,2012			lumber:		8		
			,						
Client:		XTO			hift Onsite Time:	5:30	am/pm		
Location:		ash 29		SI	hift Offsite Time:	7:30 PM	am/pm Total hrs		
Site Contact:		Jackson		Present Onsite Activities: PROCESS WATE					
Site Contact:	Cha	d Edwards		Present	Onsite Activities:	PROCES	S WATER		
Processing Hrs	e Today:	10.5 hrs	Cumulativ	re Processing	Hre.	183.25	5 hrs		
BBLS Processe		5,060 bbls		BBLS Proces			6 bbls		
BBLS/Hr Proc		481.9047619		imulative BBLS/Hr Processed: 417.8 bbl.					
BBLS/HI PIOC	esseu.	401.3047013	Cumulative	DDLO//II F TOC		711.0	DD1/111		
Lead Supervisor:	Cha	d Edwards	Readings:	flow back	Volts/Amps	рН	Turbidity		
Lead Operator		nmy Dean	08:00		20v 100a	7.1	2.58		
Crew		McGruder	10:00		20v 100a	7.01	2.25		
-:- -:		Ray Lee	14:00		20v 100a	7.05	2.06		
ľ		hris Ray	16:00		20v 100a	7.09	1.89		
ľ	Regi	nald White	N/A		20v 100a	7	1.92		
			N/A		N/A	N/A	N/A		
			Chemical	Usage	Start Inv.	End Inv.	On Orde		
			HcL Acid	512	2,332	1,820			
•			Sodium Hydroxide	379	651	272			
Visitors:	Во	Jackson							
Visitors:									
Visitors:									
Vere there any abn	ormal opera	tional issues onsite?)						
									
re there any addit	ional supplie	s/equipment needed	l? If so, what items and t	when?					
Supplies have been	ordered and	will begin receiving to	morrow						
lave there been an	y changes to	the current schedu	le, including volumes ne	eded by clien	t?				
		a trial basis tomorrow evening shifts at his s	. Bo Jackson will be out F suggestion.	Friday-Monday;	so in order to cap	ture as much	water as		
					~~~~				
las client provided	any operation	onal feedback (posit	ive or negative)?						
Person:			Company:			хто			
	-								
Additional Co									
Ve have a total of 2 ve will continue to π	8,100 bbls tre un after reach	ated to date for the up	ocoming frac on the 9th. Seeded until all tanks are fu	Should have no Ill. This should	trouble completing the trouble completing the trouble completed to the trouble complete the trouble complete co	ng the needed tart on the follo	volume. Alsowing frac		
		coming produced water							

Date:	8	/7/2012		Report	Number:		58
		_			lumber:		8
Client:		хто		<u> </u>	hift Onsite Time:	6:00	am/pn
Location:		Nash 29			nift Offsite Time:	12:00 PM	am/pn
Site Contact:		Jackson			int Offsite Time.	18	Total hr
Site Contact:		ul Worley		Present	Onsite Activities:		S WATER
			'				
Processing Hrs	s Today:	11 hrs	Cumulativ	e Processing	Hrs:	194	hrs
<b>BBLS Processe</b>	d Today:	5,560 bbls	Cumulative	BBLS Proces	sed:	82,12	26 bbls
BBLS/Hr Proc	essed:	505.4545455	Cumulative	BBLS/Hr Proc	essed:	423.3	bbl/hr
Lead Supervisor:	Pa	ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidit
Lead Operator		nmy Dean	08:00		100	6.89	1.43
Crew	Eddie	e McGruder	10:00		100	6.93	0.89
	F	Ray Lee	14:00		100	7.12	0.93
	С	hris Ray	16:00		100	7.24	1.23
	Regi	inald White	18:00		100	7.1	1.56
[			N/A		N/A	N/A	N/A
L			Chemical	Usage	Start Inv.	End Inv.	On Ord
Ĺ			HcL Acid	375	3,750	3,375	eceived 400
			Sodium Hydroxide	420	1,200	780	Yes
Visitors:	Во	Jackson					
Visitors:							
Visitors:							<u> </u>
ro thoro any ohn	ormal anara	tional incurs analta'					
re there any abn	ormai opera	tional issues onsite?	<u></u>				
those any addisi			12 lf as what there and				
there any additi	onal supplie	s/equipment needed	17 If so, what items and v	vhen?			
there any additi	onal supplie	s/equipment needed	1? If so, what items and v	vhen?			
there any additi	onal supplie	s/equipment needed	l? If so, what items and v	vhen?			
					2		
ve there been any	y changes to	the current schedu	le, including volumes ne		?		
ve there been any	y changes to		le, including volumes ne		?		
ve there been any	y changes to	the current schedu	le, including volumes ne		?		
ve there been an	y changes to	o the current schedu NKS FILL IN BETWE	le, including volumes ne EN SHIFTS.		?		
ve there been an LIT SHIFTS TO LI s client provided	y changes to	the current schedu	le, including volumes ne EN SHIFTS. ive or negative)?		?	XIO	
ve there been an	y changes to	o the current schedu NKS FILL IN BETWE	le, including volumes ne EN SHIFTS.		?	XTO	
ve there been an LIT SHIFTS TO LI s client provided	y changes to	o the current schedu NKS FILL IN BETWE	le, including volumes ne EN SHIFTS. ive or negative)?		?	хто	
ve there been an LIT SHIFTS TO LI s client provided	y changes to ET DIRTY TA any operation	o the current schedu NKS FILL IN BETWE	le, including volumes ne EN SHIFTS. ive or negative)?		?	хто	

Date:	8/	8/2012		Report	Number:		59		
		-,			Number:		8		
011-4		VTO	1		1 '6 0 " <b>=</b> 1				
Client:		XTO			hift Onsite Time:	6:00	am/pm		
Location: Site Contact:		ash 29 Jackson		3	hift Offsite Time:	1:00 AM 19	am/pm Total hrs.		
Site Contact:		Jackson Il Worley		Present	Onsite Activities:				
One Contact.	1 20	a vvolley	1	riesent	Offsite Activities.	TROOL	OO WATER		
Processing Hr	s Today:	12 hrs	Cumulativ	e Processing	Hrs:	206	hrs		
BBLS Processe	d Today:	4,126 bbls		BBLS Proce		86,2	52 bbls		
BBLS/Hr Proc	essed:	343.8333333	Cumulative	BBLS/Hr Proc	essed:	418.7 bbl/hr			
Lead Supervisor:	Pau	ıl Worley	Readings:	flow back	Volts/Amps	pH	Turbidity		
Lead Operator		en Erler	08:00		100	7.21	1.87		
Crew	Eddie	McGruder	10:00		100	7.45	0.78		
		ay Lee	14:00		100	6.89	0.69		
		ris Perry	16:00		100	7.33	0.56		
	Regir	nald White	18:00		100	7.1	1.34		
1			N/A		N/A	N/A	N/A		
			Chemical	Usage	Start Inv.	End Inv.	On Order		
[			HcL Acid	300	3,750	3,450	eceived 4000		
		-	Sodium Hydroxide	335	3,280_	2,945	ceived 2500		
Visitors:	Во	Jackson							
Visitors:									
Visitors:							I		
0		ional issues onsite	? d? If so, what items and v	when?					
	ET DIRTY TA	NKS FILL IN BETWE		eded by client	?				
as client provided	any operatio	mai reedback (posit	Commoniii			VT-0			
as client provided Person:	any operatio	nai leedback (posit	Company:		L	хто	- 4		

Date:	8/	/9/2012		Report	Number:		60	
					Number:		8	
Client:		хто			hift Onsite Time:	6:00	am/pr	
Location:		lash 29			hift Offsite Time:	1:00 AM	am/pr	
Site Contact:	Во	Jackson				12	Total h	
Site Contact:	Pau	ul Worley		Present	Onsite Activities:	PROCES	S WATER	
Processing Hr	s Today:	8 hrs	Cumulativ	re Processing	Hre:	214	hrs	
BBLS Processe		3,441 bbls		BBLS Proces			93 bbls	
BBLS/Hr Proc		430.125		cumulative BBLS/Hr Processed: 419.1 bbl				
							2201111	
Lead Supervisor:	Pau	ul Worley	Readings:	flow back	Voits/Amps	pH	Turbidi	
Lead Operator		McGruder	08:00		100	6.97	1.87	
Crew	R	ay Lee	10:00		100	6.78	0.78	
	Ch	ris Perry	19:00		100	7.23	0.69	
ĺ	Regii	nald White	21:00		100	6.89	0.56	
			22:00		100	6.76	1.23	
			N/A		N/A	N/A	N/A	
ļ								
			Chemical	Usage	Start Inv.	End Inv.	On Ord	
l			HcL Acid	351	3,450	3,099	no	
10.00			Sodium Hydroxide	374	2,945	2,571	no	
Visitors:	В0	Jackson	<u> </u>					
Visitors: Visitors:								
VISILOIS.					L			
e there any additi	onal supplie		d? If so, what items and v		?			
s client provided Person:	any operation	onal feedback (posit	tive or negative)?  Company:			XTO		

Date:	64	10/2012	ı	Done	Number:		51
Date:	l	10/2012			lumber:		8
				O I II I	tullibor.		<u> </u>
Client:		хто		S	hift Onsite Time:	6:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	4:00 PM	am/pm
Site Contact:	Во	Jackson				9	Total hrs
Site Contact:	Pau	ıl Worley		Present	Onsite Activities:	PROCES	S WATER
Processing Hr		9 hrs		e Processing		223	hrs
BBLS Processe		3,990 bbls		BBLS Proce			3 bbls
BBLS/Hr Pro	cessed:	443.3333333	Cumulative I	BBLS/Hr Proc	essed:	420.1	bb!/hr
Lead Supervisor:	Pau	ıl Worley	Readings:	flow back	Volts/Amps	pН	Turbidit
Lead Operator		McGruder	08:00		100	6.76	1.35
Crew		ay Lee	10:00		100	6.23	1.67
		ris Perry	12:00	Annie	100	7.12	1.98
	Regi	nald White	14:00		100	6.52	1.32
			N/A		N/A	N/A	N/A
			N/A	Live	N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
			HcL Acid	359	2,748	2,389	no
			Sodium Hydroxide	403	2,197	1,794	no
Visitors:	Во	Jackson	30drum Trydroxide	- 403	2,157	1,734	110
Visitors:		Business .					
Visitors:			1.71				
ere there any abr	normal operat	ional issues onsite	?				
e there any addit	ional supplie	s/equipment needed	d? If so, what items and v	vhen?			
- and addition							
	y changes to	the current schedu	ile, including volumes ne	eded by client	?		
ave there been ar				eded by client	17		
ave there been ar		the current schedu		eded by client	17	хто	

Date:	8/:	11/2012		Report	Number:		62
				Unit Number:			8
Client:		XTO			hift Onsite Time:	6:00	am/pn
Location:	N	ash 29			hift Offsite Time:	6:00 PM	am/pr
Site Contact:		Jackson			mire Orisine Time.	10	Total h
Site Contact:		ul Worley		Present	Onsite Activities:		S WATER
Processing Hrs		10 hrs		e Processing		233	hrs
BBLS Processed	Today:	4,279 bbls		mulative BBLS Processed: 97,962			
BBLS/Hr Proce	ssed:	427.9	Cumulative	BBLS/Hr Proc	essed:	420.4	bbl/hr
Lead Supervisor:	Pau	ıl Worley	Readings:	flow back	Volts/Amps	рН	Turbidi
Lead Operator		McGruder	08:00		100	6.87	1.97
Crew	R	ay Lee	10:00		100	6.43	1.89
		ris Perry	12:00		100	6.97	1.78
	Regir	nald White	14:00		100	6.89	1.43
			16:00		100	6.76	1.56
-			N/A		N/A	N/A	N/A
<u> </u>			Chemical	Usage	Start Inv.	End Inv.	On Ord
			HcL Acid	385	2,389	2,004	no
			Sodium Hydroxide	411	1,794	1,383	no
Visitors:	Во	Jackson					
Visitors:							
Visitors:							
		ional issues onsite	? 1? If so, what items and v	vhen?			
	changes to	the current schedu	le, including volumes ne	eded by client	?		
re there been any							
s client provided a	any operatio	nal feedback (posit		,			
	any operatio	nal feedback (posit	ive or negative)?  Company:			хто	

Date:	9/1	2/2012		Report	Number:		63		
Date.	- 0/ 1	2,2012			Number:		8		
Client:		хто		s	hift Onsite Time:	6:00	am/pm		
Location:		ash 29			hift Offsite Time:	6:00 PM	am/pm		
Site Contact:		Jackson		16 hrs Total hrs.					
Site Contact:	Pau	l Worley		Present	Onsite Activities:	PROCES	S WATER		
Processing Hr	s Today:	16 hrs	Cumulativ	e Processing	Hrs:	239	hrs		
BBLS Processe	d Today:	3,359 bbls	Cumulative	e BBLS Proces	ssed:	101,3	21 bbls		
BBLS/Hr Proc	essed:	209.9375	Cumulative	BBLS/Hr Proc	essed:	423.9	bbl/hr		
Lead Supervisor:		l Worley	Readings:	flow back	Volts/Amps	pH	Turbidity		
Lead Operator		McGruder	08:00		100	6.87	1.97		
Crew		ay Lee	10:00		100	6.43	1.89		
		ris Perry	12:00		100	6.97	1.78		
	Regir	nald White	14:00 16:00	-	100	6.89	1.43 1.56		
			N/A		N/A	N/A	N/A		
			N/A	l	I N/A	IV/A	N/A		
			Chemical	Usage	Start Inv.	End inv.	On Order		
			HcL Acid	350	2,004	1,654	no		
			Sodium Hydroxide	411	1,794	1,383	no		
Visitors:	Во	Jackson	Boardin Hydroxide						
Visitors:									
Visitors:									
				37/4	-327	***			
Were there any abn	ormal operat	ional issues onsite?	?						
No									
A				1 0					
Are there any addit	ional supplies	s/equipment needed	i? If so, what items and v	when?					
Have there been an	y changes to	the current schedu	le, including volumes ne	eded by clien	1?				
	any operatio	nal feedback (posit		1	1				
Person:			Company:			хто			
Additional Co	mments 1								
Additional Cor		t of trins falls 2 nois	nt contact when climbing	un and down c	one and laddore	Make sure we	use proper DDE		
	_		plenty of fluids if feel weak						
nousekeeping.									

Date:	8/	13/2012		Report	Number:		64	
Duto.	- 0/	13/2012			Number:		8	
				<u> </u>	tumber.		<u> </u>	
Client:		XTO		S	hift Onsite Time:	6:00	am/pm	
Location:	N	lash 29		S	hift Offsite Time:	6:00 PM	am/pm	
Site Contact:	Во	Jackson				12 hrs	Total hrs.	
Site Contact:	Pa	ul Worley		Present	Onsite Activities:	PROCES	PROCESS WATER	
Processing Hr	s Today:	12 hrs	Cumulativ	e Processing	Hrs:	235 hrs		
BBLS Processe	d Today:	4,735 bbls	Cumulative	BBLS Proces	ssed:	106,056 bbls		
BBLS/Hr Proc	essed:	394.5833333	Cumulative	BBLS/Hr Proc	essed:	451.3	bbl/hr	
Lead Supervisor:		ul Worley	Readings:	flow back	Volts/Amps	pН	Turbidity	
Lead Operator	Eddie	McGruder	08:00		100	6.87	1.97	
Crew	F	lay Lee	10:00		100	6.43	1.89	
Ì		ris Perry	12:00		100	6.97	1.78	
ļ	Regi	nald White	14:00		100	6.89	1.43	
			16:00		100	6.76	1.56	
			N/A		N/A	N/A	N/A	
					· · · · · · · · · · · · · · · · · · ·			
,			Chemical	Usage	Start Inv.	End Inv.	On Order	
į			HcL Acid	405	2,004	1,599	no	
		·	Sodium Hydroxide	411	1,794	1,383	no	
Visitors:	Во	Jackson				/		
Visitors:								
Visitors:			<u></u>	L				
		***						
Mara than any aba		land incurs andita		<del></del>				
No	ormai opera	ional issues onsite?						
140								
Are there any additi	onal eunnlie	s/equipment needed	l? If so, what items and	whon?				
Are there any additi	onai supplie	srequipment needed	ir ii so, what items and i	Wilelli				
Have there been an	v changes to	the current schedu	le, including volumes ne	eded by client	?			
Has client provided	any operation	onal feedback (posit	ive or negative)?					
Person:			Company:			XTO		
Additional Cor	nments							
Performed our morn	ing JSA. Weat	her conditions some	rain, slippery and muddy.	Proper PPE wh	en handling chem	icals. Watch o	out for your co-	
			keep going down, have a					

Date:	۸/	14/2012		Report	Number:		65
Duto.		14,2012			Number:		8
Client:		XTO			hift Onsite Time:	6:00	am/pm
Location:		lash 29		S	hift Offsite Time:	6:00 PM	am/pm
Site Contact:		Jackson				14 hrs	Total hrs
Site Contact:	Sam	nmy Deam		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	s Today:	14 hrs	Cumulativ	e Processing	Hrs:	251	hrs
BBLS Processe		6,008 bbls		BBLS Proces		112,0	64 bbls
BBLS/Hr Prod		429.1428571		BBLS/Hr Proc			bbl/hr
Lead Supervisor:		nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidit
Lead Operator		McGruder	08:00		100	6.87	1.97
Crew		Ray Lee	10:00		100	6.43	1.89
		ris Perry	12:00		100	6.97	1.78
	Regi	nald White	14:00		100	6.89	1.43
			16:00		100	6.76	1.56
-			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Orde
[			HcL Acid	525	2,004	1,479	no
			Sodium Hydroxide	598	1,794	1,196	no
Visitors:	Во	Jackson					
Visitors:							
Visitors:							
							1.80
	ormal operat	tional issues onsite	?				
0							
			****				-
re there any additi	onal supplie	s/equipment needed	1? If so, what items and v	vhen?			
ave there been an	y changes to	the current schedu	le, including volumes ne	eded by client	17		
	any operation	anal foodback (nocit	ivo or negative\2				
ae client arouided	any operation	mai reeuback (posit	Company:		1	VTO	
as client provided			Company:			хто	
as client provided Person:							
			4				

trying to get wells back up and online. Placed an order for Caustic will not be here till Friday morning.

Date:	8/:	15/2012		Report	t Number:		66	
	<u> </u>				Number:		8	
						·		
Client:		XTO		S	hift Onsite Time:	6:00	am/pr	
Location:	N	ash 29		S	hift Offsite Time:	6:00 PM	am/pr	
Site Contact:		Jackson				16 hrs	Total h	
Site Contact:	Sam	my Deam		Present	Onsite Activities:	PROCES	SS WATER	
Processing Hr	s Today:	16 hrs	Cumulativ	e Processing	Hrs:	267	hrs	
BBLS Processe		7,282 bbls		BBLS Proce			46 bbls	
BBLS/Hr Proc		455.125		ulative BBLS/Hr Processed: 447.0 bbl/				
						447.0	55,711	
Lead Supervisor:	Sam	ımy Dean	Readings:	flow back	Volts/Amps	рН	Turbidi	
Lead Operator		McGruder	08:00		100	6.87	1.97	
Crew	R	ay Lee	10:00		100	6.43	1.89	
		ris Perry	12:00		100	6.97	1.78	
[	Regir	nald White	14:00		100	6.89	1.43	
[			16:00		100	6.76	1.56	
-			N/A		N/A	N/A	N/A	
-	<u> </u>		Chemical	Usage	Start Inv.	End Inv.	On Ord	
	<u>'</u>		HcL Acid	525	2,004	1,479	no	
•			Sodium Hydroxide	598	1,794	1,196	no	
Visitors:	Во	Jackson						
Visitors:								
Visitors:								
ere there any abn	ormal operati	ional issues onsite	7					
					·· .			
there any additi	onal supplies	s/equipment needed	1? If so, what items and v	vhen?				
ve there been any	v changes to	the current schedu	le, including volumes ne	eded by client	?			
Person:	any operatio	nal feedback (posit	ive or negative)?  Company:			VTO		
			company.			XTO		

RT Hicks Consultants

Date:	8/:	16/2012		Report	Number:		67
			Ì	Unit N	lumber:		8
T		VTO	ſ		hift Onsite Time:	6:00	am/pm
Client:		XTO lash 29			hift Offsite Time:	6:00 PM	am/pm
Location: Site Contact:		Jackson			mit Offsite Time.	11 hrs	Total hr.
Site Contact:		imy Deam		Present	Onsite Activities:		S WATER
One Contact.	Guin	mily Dealin	'			***	<del></del>
Processing Hrs	Today:	11 hrs	Cumulativ	e Processing	Hrs:	278	hrs
BBLS Processed		3,056 bbls	Cumulative	BBLS Proces	ssed:	121,4	02 bbls
BBLS/Hr Proce	ssed:	277.8181818	Cumulative	BBLS/Hr Proc	essed:	436.7	bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator		McGruder	08:00		100	6.87	1.97
Crew	R	lay Lee	10:00		100	6.43	1.89
	Ch	ris Perry	12:00		100	6.97	1.78
	Regi	nald White	14:00		100	6.89	1.43
			16:00		100	6.76	1.56
-			N/A		N/A	N/A	N/A
		-	Chemical	Usage	Start Inv.	End Inv.	On Orde
Ĺ			HcL Acid	355	1,479	1,124	no
			Sodium Hydroxide	266	1,196	930	Yes
Visitors:	Во	Jackson	* ***				
Visitors:							
Visitors:			L	L			
re there any abno	ormal opera	tional issues onsite	?				
there any addition	onal supplie	s/equipment needed	d? If so, what items and v	when?			
ve there been any	changes to	the current schedu	ile, including volumes ne	eded by clien	t?		
	any operation	onal feedback (posit					
Person:			Company:			XTO	

				-			
Date:	8/	17/2012		Report	Number:		68
		.,,			Number:		8
Client:		XTO		S	hift Onsite Time:	6:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	6:00 PM	am/pm
Site Contact:	Во	Jackson				4 hrs	Total hrs.
Site Contact:	Sam	my Deam		Present	Onsite Activities:	PROCES	S WATER
Processing Hrs	s Today:	4 hrs	Cumulativ	e Processing	Hrs:	282	hrs
BBLS Processe		1,009 bbls		BBLS Proce		122,4	11 bbls
BBLS/Hr Proc		252.25	Cumulative	BBLS/Hr Proc	essed:	434.1	bbl/hr
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator	Eddie	McGruder	08:00		100	6.87	1.97
Crew	R	ay Lee	10:00		100	6.43	1.89
	Ch	ris Perry	12:00		100	6.97	1.78
	Regi	nald White	14:00		100	6.89	1.43
			16:00		100	6.76	1.56
Ì			N/A	Ŷ.	N/A	N/A	N/A
ľ							
İ			Chemical	Usage	Start Inv.	End Inv.	On Order
ľ			HcL Acid	150	1,124	974	no
			Sodium Hydroxide	130	3,930	3,800	Yes
Visitors:	Во	Jackson					
Visitors:							
Visitors:							
					<u> </u>		
		**					
Were there any abn	ormal operat	ional issues onsite?					
No							
Are there any additi	onal supplie	s/equipment needed	? If so, what items and v	when?			
			,				
Have there been an	y changes to	the current schedu	le, including volumes ne	eded by client	17		
Hos elient provided	any ar	nol foodbook (no - '4'	lue or negative\2				
Person:	any operation	nal feedback (positi		r	T	VTC	
reison:			Company:	<u> </u>	L	хто	
Additional Con	nmente						
		·~	<del></del>				
Performed our morn	ing JSA, Prope	er PPE when handling	chemicals. Caustic will no	t show up until	Monday 08-20-20	12. Replace t	ne Yardney

Media Filter box on the Brown Bear. Raining watch walking area muddy and slippery

Date:	8/:	18/2012			Number:		<u> </u>
			l	Unit P	lumber:		8
Client		XTO	!	c	hift Onsite Time:	6:00	am/pm
Client: Location:		ash 29			hift Offsite Time:	6:00 PM	am/pm
Site Contact:		Jackson			int Onsite vinie.	6 hrs	Total hrs.
Site Contact:		my Deam		Present	Onsite Activities:		S WATER
Processing Hr	s Today:	6 hrs	Cumulativ	e Processing	Hrs:	288	hrs
BBLS Processe	d Today:	2,885 bbls	Cumulative	lative BBLS Processed: 12			96 bbls
BBLS/Hr Proc	essed:	480.8333333	Cumulative	BBLS/Hr Proc	essed:	435.1	bbl/hr
Lead Supervisor:	San	ımy Dean	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		McGruder	08:00		100	6.87	1.97
Crew		ay Lee	10:00		100	6.43	1.89
		ris Perry	12:00		100	6.97	1.78
		nald White	14:00		100	6.89	1.43
			16:00		100	6.76	1.56
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	305	974	669	yes
'			Sodium Hydroxide	250	3,800	3,550	No
Visitors:	Во	Jackson					
Visitors:							
Visitors:				<u></u>			
lo .		consider	? d? If so, what items and v	uhan?			
, , , , , , , , , , , , , , , , , , , ,			,				
ave there been an	y changes to	the current schedu	ile, including volumes ne	eded by clien	1?		
		··					
			ive as pagethra)?				
as client provided	any operation	nal feedback (posit	ave or negative)?				
as client provided Person:	any operation	onal feedback (posit	Company:			хто	
	any operation	onal feedback (posit	T			хто	
		onal feedback (posit	T			хто	

D-4		0/2012						
Date:	8/1	19/2012			Number:		70	
				Unit	lumber:		8	
Client:		хто		S	hift Onsite Time:	6:00	am/pm	
Location:		ash 29			hift Offsite Time:	6:00 PM	am/pm	
Site Contact:		Jackson		4 hrs Total hr				
Site Contact:	Sam	my Deam		Present	Onsite Activities:		S WATER	
Processing Hrs		4 hrs		e Processing		292	hrs	
BBLS Processed		1,009 bbls	Cumulative	BBLS Proces	ssed:		05 bbls	
BBLS/Hr Proce	essed:	252.25	Cumulative	BBLS/Hr Proc	essed:	432.6	bbl/hr	
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	pH	Turbidity	
Lead Operator		McGruder	08:00		100	6.87	1.97	
Crew		ay Lee	10:00	-	100	6.43	1.89	
		is Perry	12:00		100	6.97	1.78	
	Regir	ald White	14:00		100	6.89	1.43	
			16:00		100	6.76	1.56	
-			N/A		N/A	N/A	N/A	
E			Chemical	Usage	Start Inv.	End Inv.	On Orde	
			HcL Acid	125	3,669	3,544	yes	
	-		Sodium Hydroxide	150	3,550	3,400	No	
Visitors:	Во	Jackson						
Visitors:								
Visitors:	***		.,,					
re there any abno	rmal operat	onal issues onsite?						
	nal supplies	/equipment needed	1? If so, what items and v	vhen?				
there any addition			I? If so, what items and v		?			
e there any addition	changes to		le, including volumes ne		?	хто		
e there any addition we there been any as client provided	changes to	the current schedu	le, including volumes ne		?	хто		

		<del></del>		· · · · · · · · · · · · · · · · · · ·			100
D-tail	0./	20/2012		Banant	Number	<del></del>	71
Date:	- 8/	20/2012			Number: lumber:		8
			1	Onici	tumper.		
Client:		хто		S	hift Onsite Time:	6:00	am/pm
Location:	N	lash 29			hift Offsite Time:	6:00 PM	am/pm
Site Contact:		Jackson				12 hrs	Total hrs.
Site Contact:	Sam	nmy Deam		Present	Onsite Activities:	Maint	enance
Maint on Unit							
Processing Hrs	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	292	hrs
BBLS Processe		0 bbls	Cumulative	BBLS Proces	ssed:	126,3	05 bbls
BBLS/Hr Proc	essed:	#DIV/0!	Cumulative	BBLS/Hr Proc	essed:	432.6	bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		McGruder	08:00	HOT DUCK	100	6.87	1.97
Crew		lay Lee	10:00		100	6.43	1.89
10.20		ris Perry	12:00		100	6.97	1.78
		nald White	14:00		100	6.89	1.43
			16:00		100	6.76	1.56
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End inv.	On Order
l			HcL Acid	0	3,544	3,544	yes
\0.14		1. 1	Sodium Hydroxide	0	3,400	3,400	No
Visitors: Visitors:	80	Jackson					
Visitors:	***************************************				***		
Violetia.							
		3 - XX-101	1000			1	
Were there any abn	ormal operat	tional issues onsite	?				
No							
Are there any additi	onal supplie	s/equipment neede	d? If so, what items and v	when?			
			,				
						****	
Have there been an	y changes to	the current schedu	ıle, including volumes ne	eded by client	?		
Has client provided	any operation	nal feedback (noeit	tive or negative\?				
Person:	any operation	recubility (positi	Company:			XTO	
			1				
Additional Con	nments						
				<del></del>			
Replace 4 " line on Bi	rown bear wa	iting for glue to cure	. Continue operations 8/21				

Date:	8/7	21/2012		Report	Number:		72
Date.	- 0/2	21/2012			Number:		8
				O.IIIC I	Adiliber.		<u> </u>
Client:		XTO			hift Onsite Time:	5:00	am/pm
Location:		ash 29		S	hift Offsite Time:	11:00 PM	am/pm
Site Contact:		Jackson			0 - 1 - 4 - 1 - 11 -	18 hrs	Total hrs.
Site Contact:	Sam	my Dean		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	s Today:	8 hrs	Cumulativ	e Processing	Hrs:	300	hrs
BBLS Processe	d Today:	3,208 bbls	Cumulative	BBLS Proces	ssed:	129,5	13 bbls
BBLS/Hr Proc	essed:	401	Cumulative	BBLS/Hr Proc	essed:	431.7	bbl/hr
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		ris Perry	16:30		110	7.54	0.64
Crew	Regir	nald White	18:30		110	7	1.67
			20:30		110	7.02	1.67
			22:30		110	7.34	1.25
<b>,</b>			N/A		N/A	N/A	N/A
			N/A	L	N/A	N/A	N/A
ļ							
			Chemical	Usage	Start Inv.	End Inv.	On Order
l			HcL Acid	400	5,300	4,900	No
Visitors:		laskson	Sodium Hydroxide	350	2,980	2,630	No
Visitors:	ВО	Jackson					
Visitors:							
Visitors.			L		L		
-							<del></del>
Were there any abn	ormal operati	ional issues onsite?	)		-		
No							
Are there any additi	onal supplies	s/equipment needed	17 If so, what items and v	when?			
No							
	-		***				
	y changes to	the current schedul	le, including volumes ne	eded by client	17		
NO							
Hee ellent		mal familia al- ( 14)	h.s no10				
Has client provided Person:	any operatio	пат теепраск (розіті	Company:		Γ	VTO	
No			Company.			XTO	
Additional Cor	nments						
Accident Out							
Presiding tank is full,	will not send	nomore water to this	tank till date of frac job. S	Started filling h	olding tanks.		

	0/	22/2012	ſ	Report	Number:	-	73
Date:	0/	22/2012	ŀ		lumber:		8
			ı				
Client:		хто	[	S	hift Onsite Time:	9:00	am/pn
Location:	N	lash 29		Si	nift Offsite Time:	4:00 PM	am/pn
Site Contact:	Во	Jackson				7 hrs	Total h
Site Contact:	San	nmy Dean	[	Present	Onsite Activities:	PROCES	S WATER
					·	<del>-</del>	
Processing Hr		3 hrs		e Processing		303	hrs
BBLS Processe		1,419 bbls		BBLS Proces			32 bbls
BBLS/Hr Prod	cessed:	473	Cumulative I	BBLS/Hr Proc	essed:	432.1	bbi/hr
Lead Supervisor:	Sar	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidi
Lead Operator		nris Perry	11:30		110	7.69	1.94
Crew	Regi	inald White	13:30		110	6.98	0.44
	_		15:30		110	7	1.67
			15:44		110	6.89	0.24
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
	<u> </u>	~	Chemical	Usage	Start Inv.	End Inv.	On Ord
			HcL Acid	200	4,900	4,700	No
	<b>L</b>		Sodium Hydroxide	175	2,630	2,455	No
Visitors:	Вс	Jackson	Journal 1741 Onite				
Visitors:							
Visitors:							
							***
				····		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	normal opera	tional issues onsite	?				
ere there any abi							
	<del></del>						
	•						
	•						
0		s/equipment neede	d? If so, what items and v	when?			
o re there any addit		s/equipment neede	d? If so, what items and v	when?			
ve there any addition		s/equipment neede	d? If so, what items and v	when?			
o <b>re there any addi</b> o	tional supplie						
re there any addit	tional supplie		d? If so, what items and v		17		
re there any addition	tional supplie				17		
re there any addit	tional supplie				77		
re there any addito	tional supplie	o the current schedu	ule, including volumes ne		17		
re there any addid	tional supplie		ule, including volumes ne		17		
re there any addito	tional supplie	o the current schedu	ule, including volumes ne		17	хто	
re there any addito	tional supplie	o the current schedu	ule, including volumes ne		17	XTO	

		-						
Date:	8/	23/2012		Report	Number:		74	
- 5010.	- 0,	23/2012			Number:		8	
				Office	Aumber.		0	
Client:		XTO		S	hift Onsite Time:	10:00	am/pm	
Location:		lash 29			hift Offsite Time:	7:00 PM	am/pm	
Site Contact:	Во	Jackson				9 hrs	Total hrs.	
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:		SS WATER	
							***	
Processing Hr	s Today:	5 hrs	Cumulativ	e Processing	Hrs:	308	hrs	
BBLS Processe	d Today:	2,648 bbls	Cumulative	BBLS Proces	ssed:	133,580 bbls		
BBLS/Hr Prod	essed:	529.6	Cumulative	Cumulative BBLS/Hr Processed:				
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity	
Lead Operator	Ch	ris Perry	13:00		110	6.44	1.05	
Crew	Regi	nald White	15:00		110	7.03	0.381	
			17:00		110	7.14	0.668	
			18:00		110	7	0.553	
ĺ	-		N/A		N/A	N/A	N/A	
			N/A		N/A	N/A	N/A	
			Chemical	Usage	Start Inv.	End Inv.	On Order	
			HcL Acid	150	4,700	4,550	No	
			Sodium Hydroxide	375	2,455	2,080	No	
Visitors:	Bo	Jackson						
Visitors:								
Visitors:				<u> </u>			L	
Were there any abn Rain and wind	ormal operat	ional issues onsite	?					
Rain and wind								
Are there any additi	ional supplie	s/equipment neede	d? If so, what items and v	when?				
No								
Have there been an	y changes to	the current schedu	ule, including volumes ne	eded by client	?			
NO								
Has client provided	any operation	nal feedback (posi		T				
Person: No			Company:			XTO		
Additional Cor	nments							
					7.7			
Filled holding tanks t	o 13 feet as p	er Bo Jackson's instri	uctions. All tanks are full wa	aiting for Frac d	late.			

			<del></del>		<del></del>		
Date:	0/	24/2012		Panart	Number:		75
Date.		24/2012			Number:		8
Client:		XTO			hift Onsite Time:	10:00	am/pm
Location:		ash 29		S	hift Offsite Time:	7:00 PM	am/pm
Site Contact:		Jackson				9 hrs	Total hrs.
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	PROCES	SS WATER
Processing Hr	e Today:	0 hrs	Cumulativ	e Processing	Hre	308	hrs
BBLS Processe		0 bbls		BBLS Proces			80 bbls
BBLS/Hr Proc		0		BBLS/Hr Proc			bbl/hr
Lead Supervisor:		nmy Dean	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		ris Perry	13:00		N/A	N/A	N/A
Crew	Regir	nald White	15:00 17:00		N/A N/A	N/A N/A	N/A N/A
			18:00		N/A N/A	N/A	N/A N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			14/7		1 14/7	.,,,,	
	-		Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,700	4,550	No
'	_		Sodium Hydroxide	0	2,455	2,080	No
Visitors:	Во	Jackson					
Visitors:							
Visitors:							
	12.55	- 40-				Table	
Were there any abn	ormal operat	ional issues onsite?					
Are there any addit	ional supplies	s/equipment needed	? If so, what items and v	when?			
No							
	y changes to	the current schedul	le, including volumes ne	eded by client	?		
NO							
IIIII(	· · · · · · · · · · · · · · · · · · ·	and for the state of	4 12				
Person:	any operation	nal feedback (positi	ve or negative)?  Company:		T	VTO	
No Person:		420.00	Company.			XTO	
Additional Cor	nmente					-	
Auditional Col	iiiieiit2			····			

Fixed 4" line for system one on Brown Bear. Spoke with Mr. Bo Jackson, about how Oil got into Poseidon tank. He is not for sure, but do know that there was 3 rd party trucks taking water from XTO Nash Draw Unit # 47 H and unloading it in Poseidon tank. Do not know if those trucks was clean before doing this. Took samples of influent and enfluent, took to Hobbs Yard to be sent to Houston. Poseidon tank is at 136.5" at this time. Recommend to not suck Poseidon tank no lower than 10 inches for frac job.

Date:	8/	25/2012		Report	Number:		76
		·			Number:		8
Client:		XTO			hift Onsite Time:	8:00	am/pn
Location:		lash 29		S	hift Offsite Time:	5:00 AM	am/pr
Site Contact:		Jackson				9 hrs	Total hi
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Maint	tenance
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	308	hrs
<b>BBLS Processe</b>				BBLS Proces			80 bbls
BBLS/Hr Proc	essed:	0		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	pH	Turbidi
Lead Operator		ris Perry	13:00		N/A	N/A	N/A
Crew		nald White	15:00		N/A	N/A	N/A
			17:00		N/A	N/A	N/A
Ī			18:00		N/A	N/A	N/A
[			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
}			Chemical	Usage	Start Inv.	End Inv.	On Ord
			HcL Acid	0	4,700	4,550	No
			Sodium Hydroxide	0	2,455	2,080	No
Visitors:	Во	Jackson					
Visitors:							
Visitors:				_			
re there any abn	ormal operat	ional issues onsite	?				
there any additi	onal supplies	s/equipment neede	d? If so, what items and w	vhen?			
	-						
	changes to	the current schedu	ile, including volumes ne	eded by client	?		
ve there been any							
	any operatio	nal feedback (posit	ive or negative)?				
	any operatio	nal feedback (posit	ive or negative)?  Company:			хто	
s client provided	any operatio	nal feedback (posit				хто	

Date:	9/	26/2012		Penort	Number:		77
Date.	0//	20/2012			Number:		8
Client:		XTO		S	hift Onsite Time:	10:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	7:00 PM	am/pm
Site Contact:	Во	Jackson				9 hrs	Total hrs.
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Maint	enance
Processing Hr	s Today:	0 hrs		e Processing		308	hrs
BBLS Processe		0 bbls		BBLS Proces		·	80 bbls
BBLS/Hr Proc	essed:	0	Cumulative	BBLS/Hr Proc	essed:	433.7	bbl/hr
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		ris Perry	13:00		N/A	N/A	N/A
Crew		nald White	15:00	-	N/A	N/A	N/A
-			17:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,700	4,550	No
			Sodium Hydroxide	0	2,455	2,080	No
Visitors:	Во	Jackson					
Visitors:						-	
Visitors:					l		
				1900		-	
14/a.a. 4h.a.a. a.aa.b.u		damat laavaa aaalta					
<b>were there any abn</b> No	ormai operat	ional issues onsite	<u> </u>				
NO							
Are there any addit	ional supplie	s/equipment needed	d? If so, what items and v	when?			
No							
		the current schedu	le, including volumes ne	eded by client	?		
Have there been an	y changes to						
<b>Have there been an</b> Standy- by as per cu		st					
		st					
Standy- by as per cu	stomer reque						
Standy- by as per cu  Has client provided	stomer reque	st onal feedback (posit					
Standy- by as per cu  Has client provided  Person:	stomer reque		ive or negative)?  Company:			хто	
Standy- by as per cu  Has client provided	stomer reque					хто	
Standy- by as per cu  Has client provided  Person:	stomer reques					хто	

Date:	8/2	27/2012		Report	Number:		78
		,			lumber:		8
Ollowal		VTO			Life Contraction of	0.00	
Client:		XTO			hift Onsite Time:	8:00	am/pm
Location: Site Contact:		ash 29 Jackson		3	hift Offsite Time:	5:00 AM 9 hrs	am/pm Total hr
Site Contact:		imy Dean		Present	Onsite Activities:		enance
Site Contact.	Jan	inly Dean	ı	Flesent	Offsite Activities.	IVIAITI	enance
Processing Hrs	Today:	0 hrs	Cumulativ	e Processing	Hrs:	308	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proces	ssed:	133,5	30 bbls
BBLS/Hr Proc	essed:	0	Cumulative	BBLS/Hr Proc	essed:	433.7	bbl/hr
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	рН	Turbidit
Lead Operator		ris Perry	13:00		N/A	N/A	N/A
Crew	Regir	nald White	15:00		N/A	N/A	N/A
			17:00		N/A	N/A	N/A
Ĺ			18:00		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
Į.							
Ĺ			Chemical	Usage	Start Inv.	End Inv.	On Orde
L			HcL Acid	0	4,700	4,550	No
			Sodium Hydroxide	0	2,455	2,080	No
Visitors:		Jackson					
Visitors:		dd Cage					
Visitors:	Arro	n Karcher					
		*					
	ormal operat	ional issues onsite	?				
0							
· · · · · · · · · · · · · · · · · · ·	·						
			1016	- h 0			
re there any additi	onal supplies	s/equipment neede	d? If so, what items and v	when?			
O							
	· abangaa ta	the current asked	ula inaludina valumaa na	adad by allant	2		
ave there been an		the current sched	ute, including volumes ne	eded by Client	· r		
ave there been any		zt -					
ave there been any tandy- by as per cus		st					
		st					
tandy- by as per cus	stomer reques		tive or negative)?				
tandy- by as per cus	stomer reques	st onal feedback (posi				XTO	
as client provided  Person:	stomer reques		tive or negative)? Company:			хто	
tandy- by as per cus	stomer reques					хто	
as client provided Person:	any operatio					хто	
as client provided Person: O  Additional Con	any operatio	onal feedback (posi		Drocetties was h	Dr. to clean out Pro		iden took

RT Hicks Consultants

Date:	8/2	28/2012	1	Report	Number:		79
Date.		.0/2012			Number:		8
Client:		XTO		S	hift Onsite Time:	8:00	am/pm
Location:	N	ash 29		S	hift Offsite Time:	5:00	am/pm
Site Contact:	Во	Jackson				9 hrs	Total hrs.
Site Contact:	Sam	my Dean		Present	Onsite Activities:	Main	enance
Processing Hr	s Today:	0 hrs		e Processing		308	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proce	ssed:	133,5	80 bbls
BBLS/Hr Proc	essed:	0	Cumulative	BBLS/Hr Proc	essed:	433.7	bbl/hr
Lead Supervisor:	Com	nmy Dean	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Supervisor:		ris Perry	13:00	HOW DACK	N/A	N/A	N/A
Crew		nald White	15:00		N/A	N/A	N/A
Ciew	rvegir	IGIG TTITLE	17:00	·	N/A	N/A	N/A
	-		18:00		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,700	4,550	No
		<del> </del>	Sodium Hydroxide	0	2,455	2,080	No
Visitors:	Во	Jackson					
Visitors:	-						
Visitors:							
			-11			<del></del>	
Nose there any ohr	armal anarat	ional issues onsite	9				
			n has been on standby unt	til leaks can be	repaired		
<b>Are there any addit</b> No	ional supplies	s/equipment needed	d? If so, what items and v	when?			
Hove there been ar	v shanges to	the current cahadu	ile, including volumes ne	adad by clian	10		
Standby as per custo		the current schedu	ne, morading volumes ne	eded by chem			
Has client provided	any operation	nal feedback (posit	tive or negative)?				
Person: No			Company:			хто	

Date:	8/	29/2012	]	Report	Number:		80
Dute.	- 0/	23/2012	ı		Number:		8
				O.I.I.	Tullipor.		<u> </u>
			1				,
Client:		XTO			hift Onsite Time:	8:00	am/pm
Location:		lash 29		S	hift Offsite Time:	5:00	am/pm
Site Contact:		Jackson				9 hrs	Total hrs.
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Main	tenance
Processing Hr	s Today	0 hrs	Cumulativ	e Processing	Hrs.	308	hrs
BBLS Processe		0 bbls		BBLS Proce			80 bbls
BBLS/Hr Prod		0		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		ris Perry	13:00		N/A	N/A	N/A
Crew	Regi	nald White	15:00		N/A	N/A	N/A
			17:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
			N/A		N/A	N/A	N/A
ĺ							
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,700	4,550	No
			Sodium Hydroxide	0	2,455	2,080	No
Visitors:	Во	Jackson					<u> </u>
Visitors:						-14-	<u> </u>
Visitors:							L
		· · · · · · · · · · · · · · · · · · ·					
Were there any abn	ormal operat	ional issues ensit	^2				-
			ion has been on standby unt	il leaks can be	renaired		
l cooldon tank on loc	ation develop	oca z roaks. Operat	on nas seen on standey and	iii leaks can be	repaired		
					<del></del>		
Are there any additi	onal supplie	s/equipment need	ed? If so, what items and v	when?			
No							
Have there been an	y changes to	the current sched	lule, including volumes ne	eded by client	?		
Standby as per custo	omer request						
			***				
Has client provided	any operation	onal feedback (pos			T -	\/TO	
Person:			Company:	L	L	XTO	
1140							
Additional Cor	nments	Γ"	<del></del>				
			- N				
•			on tank under repair with 2			12. Mr. Jackso	n advised we
should be able to sta	rt cleaning wa	ater on Friday 31st	Day Of August 2012, sometii	me that evenin	g.		

Date:	8/	30/2012		Report	Number:		81		
				Unit Number:					
<b>5</b> 11 / 1		VT0			this Coult Time	0.00			
Client:		XTO			hift Onsite Time:	8:00	am/pm		
Location:		lash 29		3	hift Offsite Time:	5:00 9 hrs	am/pm Total hrs.		
Site Contact:		Jackson_		Procent	Onsite Activities:		tenance		
Site Contact:	San	nmy Dean		Present	Offsite Activities.	Iviaiii	teriarice		
Processing Hrs	s Today:	0 hrs	Cumulativ	re Processing	Hrs:	308	hrs		
BBLS Processe		0 bbls	Cumulative	BBLS Proce	ssed:	133,5	80 bbls		
BBLS/Hr Proc		0	Cumulative BBLS/Hr Processed: 433.7						
			10.0	4	•				
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	ρН	Turbidity		
Lead Operator		ris Perry	13:00		N/A	N/A	N/A		
Crew		nald White	15:00		N/A	N/A	N/A		
	<u> </u>		17:00		N/A	N/A	N/A		
			18:00		N/A	N/A	N/A		
			N/A		N/A	N/A	N/A		
İ		-	N/A		N/A	N/A	N/A		
	7.772		Chemical	Usage	Start Inv.	End Inv.	On Order		
İ			HcL Acid	0	4,700	4,550	No		
,			Sodium Hydroxide	0	2,455	2,080	No		
Visitors:	Во	Jackson	•						
Visitors:									
Visitors:									
			*****						
Vere there any abn	ormal operat	tional issues onsite	?						
oseidon tank off loc	ation develop	ped 2 leaks. Operation	on has been on standby unt	til leaks can be	erepaired				
re there any additi	onal supplie	s/equipment neede	d? If so, what items and v	when?					
lo	onar supplie	arequipment necue	dr ir so, what items and t	WIIGIII					
·	*						····		
ave there been an	v changes to	the current sched	ule, including volumes ne	eded by clien	t?				
tandby as per custo			,						
as client provided	any operation	onal feedback (posi	tive or negative)?						
Person:			Company:			хто			
lo									
Additional Cor	nments								

Cilent:   XTO	Date:	۹/	31/2012		Report	Number:		32
Shift Contact:   So Jackson   Site Contact:   Sammy Dean		9,	34,2012					
Shift Contact:   So Jackson   Site Contact:   Sammy Dean								
Site Contact:   Bo Jackson   Site Contact:   Sammy Dean	Client:		XTO		S	hift Onsite Time:	12:00:00PM	am/pm
Present Onsite Activities   Processing Water		N	lash 29		S	hift Offsite Time:	0:00	am/pm
Processing Hrs Today:   10   hrs   BBLS Processed:   138   hrs   138   BBLS Processed:   138   50   138   50   138   138   BBLS BBLS Processed:   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138   50   138								Total hrs
BBLS Processed Today:   S,125 bbls   BBLS/Hr Processed:   138,705 bbls   BBLS/Hr Processed:   \$12.5	Site Contact:	San	nmy Dean		Present	Onsite Activities:	Processi	ng Water
BBLS Processed Today:   S,125 bbls   BBLS/Hr Processed:   138,705 bbls   BBLS/Hr Processed:   \$12.5	Processing Hr	s Today:	10 brs	Cumulativ	e Processina	Hrs.	318	hrs
BBLS/Hr Processed:   512.5     Cumulative BBLS/Hr Processed:   436.2   bbl/hr								
Lead Supervisor:   Sammy Dean   Readings:   flow back   Volts/Amps   pH   Turbidit								
14:00	DDEO/III 1 100		012.0	Camalative	DDLO/III T TOC		430.2	DDIJIII
16:00	Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
18:00	Lead Operator	Ch	ris Perry	14:00		110	5.31	0.116
20:00	Crew	Crew Reginald White				110	6.54	0.864
22:00 110 7.2 2.12  N/A N/A N/A N/A N/A  Chemical Usage Start Inv. End Inv. On Orde  Hct Acid 0 4,550 4,200 No  Sodium Hydroxide 0 2,080 1,800 No  Visitors: Visitors: Visitors:  Visitors:  Visitors:  Idere there any abnormal operational issues onsite?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?						110		0.747
N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A						110		
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Person: Company: XTO	lo	y changes to	the current schedu	ale, including volumes ne	eded by client	?		
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	lave there been an			tive or negative)?	eded by client	?	хто	

Date:	0.	/1/2012	1	Panart	Number:		B3		
Date:	9/	/1/2012			lumber:		8		
			l	<u> </u>					
					Life Constanting	12.00.00444			
Client:		XTO			hift Onsite Time:		am/pm am/pm		
Location:		lash 29		3	hift Offsite Time:	21:00 11 hrs	Total hrs.		
Site Contact: Site Contact:		Jackson nmy Dean		Present	Onsite Activities:		ing Water		
Site Contact.	San	illy Deali		rresent	Offsite Activities.	1100033	ing trate.		
Processing Hr	s Today:	9 hrs	Cumulativ	e Processing	Hrs:	327	hrs		
BBLS Processe		6,101 bbls	Cumulative	BBLS Proces	ssed:	139,68	81 bbls		
BBLS/Hr Prod	essed:	512.5	Cumulative	nulative BBLS/Hr Processed: 427.2 bbl/					
Lead Supervisor:		nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity		
Lead Operator		ris Perry	00:00	ļ	110	6.8	0.886		
Crew	Regi	nald White	02:00		110	7	0.968		
			13:00		110	7.65	1.11		
			15:00		110	7.26 6.8	1.26		
			17:00 19:00	<u> </u>	110 110	6.654	1.57 2.47		
			21:00		110	6.75	2.47		
			Chemical	Usage	Start Inv.	End Inv.	On Order		
			HcL Acid	Osage 0	4,200	3,800	No		
			Sodium Hydroxide	0	1,800	1,500	Yes		
Visitors:	Bo	Jackson	30didiii iiyaroxide	<del>                                     </del>	1,500	1,500	1.55		
Visitors:					<del> </del> -				
Visitors:									
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	ional supplie	s/equipment needed	? If so, what items and v	when?					
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Uava thora haar		Abo augrant achedal	e, including volumes ne	adad by elicat					
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Has client provided	any operation	onal feedback (positi	ve or negative)?						
Person:			Company:	l i		хто			
No			* ************************************	•	•				
A		T							
Additional Co	mments	l							
Received about 600	gallons of Cau	istic from Oxy Location	n. Order a load of caustic	to be here on 0	9/06/2012.				

Date:	9/	/2/2012		Report	Number:		84
Date.	- 31	2/2012			Number:		8
				<u> </u>	volliber:		
Client:		хто		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	ash 29		S	hift Offsite Time:	18:00	am/pm
Site Contact:	Во	Jackson				12 hrs	Total hrs.
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Process	ing Water
Processing Hrs	в Today:	8 hrs	Cumulativ	e Processing	Hrs:	335	hrs
BBLS Processe	d Today:	4,483 bbls	Cumulative	138,06	53 bbls		
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	412.1	bbl/hr
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator	Keni	neth Erler	08:00		108	7.56	1.15
Crew	Ferm	nin Valdez	10:00		108	7.35	1.12
			12:00		108	7.89	1.37
			14:00		108	7.46	1.24
			16:00:00 PM		108	6.8	1.57
			18:00:00 PM		108	6.654	2.47
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	3,800	3,500	No
			Sodium Hydroxide	0	1,500	1,200	Yes
Visitors:	Bo	Jackson					
Visitors:		-					
Visitors:				L			
4							
	ormal operat	ional issues onsite?					
No							
A 41 100			10.10				
No	onal supplies	s/equipment needed	1? If so, what items and v	wnen?			
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				****			
Have there been an	v changes to	the current schodu	le, including volumes ne	eded by client	2		
No	y changes to	the current schedu	ie, including volumes ne	eded by chem			
Hae client provided	any operation	nai feedback (positi	ive or negative)?		-		
Person:	any operation	mai reeuback (positi	Company:	I		XTO	
No I			Company.		l	XIO	
Additional Cor	nments						
- Martioliai Ooi		. <u> </u>					
Keep losing power. G	ioing to try an	d run till we are dow	n to 4".				

	-								
Date:	9,	/3/2012		Report	Number:		35		
				Unit	lumber:		8		
Í									
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm		
Location:	N	ash 29		S	hift Offsite Time:	19:00	am/pm		
Site Contact:		Jackson				11 hrs	Total hrs.		
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Process	ing Water		
Processing Hr	s Today:	6 hrs	Cumulativ	e Processing	Hrs:	341	hrs		
BBLS Processe		4,394 bbls	Cumulative	BBLS Proces	ssed:	137,97	74 bbls		
BBLS/Hr Proc	cessed:	512.5	Cumulative	ative BBLS/Hr Processed: 404.6 bbl/h					
Lead Supervisor:		nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity		
Lead Operator		neth Erler	08:00		108	6.86	0.886		
Crew		nin Valdez	10:00		108	6.9	0.965		
		MrGruder	12:00		108	7.54	1.116		
	R	ay Lee	14:00		108	7.68	1.24		
			16:00:00 PM		108	7.43	1.032		
							w.		
			Chamical	Heage	Chart Inv	Food love	0- 0-4		
			Chemical HcL Acid	Usage 0	Start Inv.	End Inv.	On Order		
l			Sodium Hydroxide	0	3,500 1,200	3,200 900	No Yes		
Visitors:	Ro	Jackson	Socialii Hydroxide	<u> </u>	1,200	900	162		
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Were there any abn	ormal operat	ional issues onsite	?						
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Are there any additi No  Have there been an	ional supplies	s/equipment needed	d? If so, what items and v	-	?				
Are there any additi No  Have there been an  No  Has client provided	ional supplies	s/equipment needed	d? If so, what items and value, including volumes ne	-	?	VIO			
Are there any additi No  Have there been an No  Has client provided Person:	ional supplies	s/equipment needed	d? If so, what items and v	-	?	ХТО			
Are there any additi No  Have there been an  No  Has client provided	ional supplies	s/equipment needed	d? If so, what items and value, including volumes ne	-	?	хто			
Are there any additi No  Have there been an No  Has client provided Person:	onal supplies y changes to	s/equipment needed	d? If so, what items and value, including volumes ne	-	?	хто			

					<u> </u>	·			
Date:	9/	4/2012		Report	Number:		86		
				Unit 1	Number:		8		
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm		
Location:		ash 29			hift Offsite Time:	18:00	am/pm		
Site Contact:		Jackson				12 hrs	Total hrs.		
Site Contact:	Sam	my Dean		Present	Onsite Activities:	Process	ing Water		
Processing Hrs	Today:	9 hrs	Cumulativ	e Processing	Hrs:	350	hrs		
BBLS Processe		4,844 bbis	Cumulative	e BBLS Proce	ssed:	138,42	24 bbls		
BBLS/Hr Proc	essed:	512.5	Cumulative	Cumulative BBLS/Hr Processed:					
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	рН	Turbidity		
Lead Operator		neth Erler	08:00		108	7.89	2.12		
Crew	Ferm	nin Valdez	10:00		108	6.9	0.892		
	R	ay Lee	12:00		108	7.35	0.992		
].			14:00		108	7.55	1.69		
ļ			16:00:00 PM	[	108	7.12	1.21		
-									
-			Chemical	Usage	Start Inv.	End Inv.	On Order		
L			HcL Acid	0	3,200	2,900	No		
10.24		11	Sodium Hydroxide	0	900	600	Yes		
Visitors: Visitors:		Jackson			·				
Visitors:									
VISILOIS.									
		<del></del>	<del>*************************************</del>		<del>ya. <u></u>e</del>				
Were there any abn	armal aparat	ional issues engite'	)						
No	ormai operat	ional issues onsite	<u> </u>						
140									
Are there any additi	onal supplied	s/equipment needer	1? If so, what items and	when?					
No	onar supplies	arequipment needet	in so, what items and	W110111					
Have there been any	changes to	the current schedu	le, including volumes ne	eded by clien	1?				
No									
Has client provided	any operatio	nal feedback (posit							
Person:			Company:			XTO			
No									
Additional Con	nments								
		L,							

Date:	9/	5/2012		Report	Number:		87	
					lumber:		8	
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm	
Location:	N	ash 29		S	hift Offsite Time:	0:00	am/pm	
Site Contact:	Во	Jackson				18 hrs	Total hrs.	
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Process	ing Water	
Processing Hrs		12 hrs		e Processing		362	hrs	
BBLS Processe	d Today:	5,113 bbls	Cumulative	BBLS Proces	ssed:	163,64	40 bbls	
BBLS/Hr Proc	essed:	512.5	Cumulative	nulative BBLS/Hr Processed: 452.0 b				
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	pH	Turbidity	
Lead Operator		neth Erler	08:00	HOW DUCK	108	6.54	0.158	
Crew		nin Valdez	10:00		108	6.84	0.872	
CIEW		ay Lee	12:00		108	7.25	1.01	
}		m Pollard	14:00		108	7.35	1.15	
<b> </b>		McGruder	20:00		108	7.21	1.21	
ŀ	Ludio	Moorader	22:00		108	7.85	1.52	
ļ ļ			22.00					
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s			Chemical	Usage	Start Inv.	End Inv.	On Order	
1			HcL Acid	0	2,900	2,500	No	
L			Sodium Hydroxide	0	600	1,425	Yes	
Visitors:	Во	Jackson	,					
Visitors:								
Visitors:								
	-							
			****					
Vere there any abn	ormal operat	ional issues onsite	?					
No	omai oporai	in the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the location of the locatio						
re there any additi	onal supplies	s/equipment neede	d? If so, what items and v	when?			-	
No	опал осирина							
	v changes to	the current schedu	ile, including volumes ne	eded by client	?			
lave there been an			,			-		
lave there been an	, shanges to							
	, shanges to							
	, Jinuinges to	<u></u>						
No .		onal feedback (posi	tive or negative)?					
No .		onal feedback (posi	tive or negative)?			хто		
No Has client provided		onal feedback (posi				хто		
las client provided  Person:	any operatio	onal feedback (posi				хто		

tomorrow evening around 1800 hours NMT.

Date:	9,	/6/2012		Report	Number:		38	
					Number:		8	
Client:		хто		<u> </u>	hift Onsite Time:	6:00:00AM	am/pm	
Location:	N	lash 29			hift Offsite Time:	0:00	am/pm	
Site Contact:		Jackson			The constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant of the constant o	18 hrs	Total hr	
Site Contact:	San	nmy Dean		Present	Onsite Activities:		ng Water	
Processing Hr	. Todow	6 hrs	Cumulath	re Processing	Hre. I	368	hrs	
BBLS Processe		2,786 bbls					166,426 bbls	
BBLS/Hr Proc		512.5						
BBL3/HI FIOU	esseu.	312.3	Cumulative	BBL3/HI FIOC	esseu.	452.2	bbl/hr_	
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidit	
Lead Operator		neth Erler	08:00		108	7.21	0.897	
Crew		nin Valdez	10:00		108	6.54	0.123	
		lay Lee	12:00		108	7.54	0.998	
	Ada	m Pollard	14:00					
	Eddie	McGruder	20:00					
[			22:00					
[								
[			Chemical	Usage	Start Inv.	End Inv.	On Or <b>d</b> e	
[			HcL Acid	0	2,500	2,350	Yes	
			Sodium Hydroxide	0	1,425	6,200	No	
Visitors:	Во	Jackson						
Visitors:								
Visitors:								
100					- Don			
			-					
	ormal operat	ional issues onsite	?					
)								
ro thore any additi	onal supplie	eleguinment peeder	d? If so, what items and v	when?				
o	orial supplie	srequipment needed	ar ii so, what items and v	WITETT				
	y changes to	the current schedu	le, including volumes ne	eded by client				
0								
as client provided	any operatio	onal feedback (posit	tive or negative)?					
23 Chefft provided	any operation	лагтеевраск (розп	Company:		1	XTO		
Person:				-				
Person:								
	nments							

Date:	9/	/7/2012		Report	Number:		89
Date.	31	7/2012			Number:		8
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	lash 29			hift Offsite Time:	0:00	am/pm
Site Contact:	Во	Jackson				18 hrs	Total hrs.
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Process	sing Water
Procesing Ur	e Today:	12 hrs	Cumulath	o Proceeing	Ure	380	hrs
Processing Hr BBLS Processe		6,480 bbls		e Processing BBLS Proce			06 bbls
BBLS/Hr Prod		512.5		BBLS/Hr Proc			bbl/hr
DDEC/III 1 100	,63364.	312.3	Cumulative	DDEO/III I 100		400.0	DOUTH
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator	Ken	neth Erler	10:00		108	6.75	0.456
Crew	Ferm	nin Valdez	12:00		108	6.89	0.573
	R	lay Lee	14:00		108	6.69	0.654
	Adar	m Pollard	16:00		108	7.32	0.768
	Eddie	McGruder	18:00		108	7.78	1.189
			20:00		108	7.5	0.975
			22:00		108	7.25	0.9
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	2,350	1,900	Yes
			Sodium Hydroxide	0	6,200	5,800	No
Visitors:	Во	Jackson					
Visitors:							<u> </u>
Visitors:							
		ional issues onsite					
Brown bear went do	wn, went to Od	dessa picked up anot	her unit.				
	ional supplies	s/equipment needed	1? If so, what items and v	when?			
No							
			1904				
		4	I. I. I. I. I. I. I. I. I. I. I. I. I. I				-
	y changes to	the current schedu	le, including volumes ne	eded by clien			
No							
		····-				A-1	
Has alight provided	l any operatio	nal foodback (nosit	ivo or posativo)?				
Person:	any operation	onal feedback (posit	Company:		I	хто	
No			Joinpany.	L	L		
Additional Cor	mments						
Additional Co.	Timonto						
Went to Odessa and	nicked up and	other Brown Bear Uni	t Acid did not show up PC	) was never cre	ate Acid will be o	n location at 0	1800 hours on

Went to Odessa and picked up another Brown Bear Unit. Acid did not show up PO was never create. Acid will be on location at 0800 hours on 09-07-2012. XTO is hauling in fresh water for this Frac Job.

Date:	9/	8/2012		Panort	Number:		90		
Date.		6/2012			lumber:		8		
			İ	O int i	Turriber.	_	0		
Client:		хто		5	hift Onsite Time:	6:00:00AM	am/pm		
Location:		ash 29			hift Offsite Time:	0:00	am/pm		
Site Contact:		Jackson			mit Offsite fille.	18 hrs	Total hrs.		
Site Contact:		my Dean		Present	Onsite Activities:		ing Water		
Site Collect.	Jaii	inly bean		Fresent	Offsite Activities.	Frocess	ing water		
Processing Hr	s Today:	16 hrs	Cumulativ	e Processing	Hrs:	396	hrs		
BBLS Processe		6,480 bbls		BBLS Proces		179.38	86 bbls		
BBLS/Hr Prod		512.5		Cumulative BBLS/Hr Processed: 453.					
Lead Supervisor:	Sam	ımy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity		
Lead Operator		neth Erler	10:00	THE SECTION SECTION	108	7.12	0.789		
Crew		nin Valdez	12:00		108	7.34	0.889		
CICW		ay Lee	14:00		108	7.54	0.987		
		n Pollard	16:00		108	7.32	0.785		
1		McGruder	18:00		108	7.43	0.975		
	Lodie	Wicordaei	20:00		108	7.5	1.189		
			22:00		108	7.25	1.115		
			Chemical	Heago	Start Inv.	End Inv.	On Order		
1			HcL Acid	Usage 0	6,400	6,000	NO		
l				0					
Visitors:	De	Jackson	Sodium Hydroxide		5,800	5,550	No		
Visitors:	ВО	Jackson		<u> </u>					
Visitors:						-			
VISILOIS.									
107									
	ormai operat	ional issues onsite	<u> </u>						
No									
Are there enveddit	anal aunnila	loguinment neede	d? If so, what items and v	uban2					
No	oriai supplie:	s/equipment needet	If it 50, What Rems and V	WIGHT					
140									
Have there been an	v changes to	the current schedu	le, including volumes ne	eded by client	2	<del></del>			
No	y changes to	the current schedu	ne, including volumes ne	eded by chem	· <u>·</u>				
	<del></del>	·		~					
Has client provided	any operation	nal feedback (posit	ive or negative)?						
Person:	J -porusio		Company:			XTO			
No									
Additional Cor	nments								
							-		
Peformed JSA, starte	d raining thro	ughout the night. Po	sidon Tank is filled for next	t Frac.					

Date:		(0/2012		Dancet	Number:		91
Date:	9/	/9/2012			lumber:		8
				O.I.I.	tumber.		
Client:		хто		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	lash 29			hift Offsite Time:	18:00	am/pm
Site Contact:	Во	Jackson				12 hrs	Total hrs
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Process	ing Water
Droconing Us	a Taday	3 hrs	Cumulatio	e Processing	Urei	399	hrs
Processing Hr BBLS Processe		1,230 bbls		BBLS Proces			16 bbls
BBLS/Hr Prod		512.5		BBLS/Hr Proc			bbl/hr
BBL3/HI FIO	,esseu.	312.5	Cumulative	BBL3/III F100	esseu.	432.1	DDI/III
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		neth Erler	10:00		108	7.56	0.895
Crew		McGruder	12:00		108	6.89	0.437
		Ray Lee	13:00		108	7.32	0.875
		m Pollard	16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
	-		Chemical	Usage	Start Inv.	End Inv.	On Order
		1.2.0	HcL Acid	0	6,000	5,950	NO
			Sodium Hydroxide	0	5,550	5,400	No
Visitors:	Во	Jackson	******				
Visitors:						~	
VISILOIS.							
***************************************							<del></del>
Vere there any ahr	ormal operat	tional issues onsite	7				
lo	oma opera	ionar issues choice					
re there any addit	ional supplie	s/equipment needed	i? If so, what items and	when?			
lo							
	y changes to	the current schedu	le, including volumes ne	eded by client	?		
lo							
las client provided Person:	any operation	onal feedback (posit			1	VTO	
Person:	***		Company:		l	хто	· · · · · · · · · · · · · · · · · · ·
U							

Date:	9/:	10/2012		Report	Number:		92
					Number:		8
,							
Client:		хто			hift Onsite Time:	6:00:00AM	am/pm
Location:		ash 49			hift Offsite Time:	18:00	am/pm
Site Contact:		Jackson			mit Offsite fille.	12 hrs	Total hrs.
Site Contact:		my Dean		Present	Onsite Activities:		sing Water
Processing Hr	s Today:	4 hrs	Cumulativ	e Processing	Hrs:	403	hrs
BBLS Processe		2,277 bbls		BBLS Proces		182,89	93 bbls
BBLS/Hr Prod	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	453.8	bbl/hr
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator	Ken	neth Erler	10:00		110	7	0.198
Crew		McGruder	12:00		110	7.43	0.089
		ay Lee	13:00		N/A	N/A	N/A
	Adar	n Pollard	16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
	-		Chemical	Usago	Start Inv.	End inv	On Order
			HcL Acid	Usage 0	5,950	End Inv. 5,800	NO
ı			Sodium Hydroxide	0	5,400	5,250	No
Visitors:	Bo	Jackson	Journal Hydroxide	<u> </u>	3,400	3,230	140
Visitors:		dokson		·			
Visitors:		-					
							<del></del>
		* **					
Were there any abn	ormal operat	ional issues onsite?	?	<del> </del>			
No	•						
	ional supplies	s/equipment needed	1? If so, what items and v	when?			
PVC SCH 80							
	-						
	y changes to	the current schedu	le, including volumes ne	eded by client			
No							
	·			-11			
Has client provided	any operation	nal feedback (posit	lve or negative)?				
Person:			Company:			XTO	
Additional Cor	nments						
We have 2 weeks to	esteb povt isb	we will need a	vimatoly 24 000 lbs				
AND HAVE / MEEKS TO	CATER REST ION	WE WILLDERD SUNFO	KITHATEIV 34 HILLIINS				

Date:	9/	11/2012		Report	Number:	9	93
				Unit N	lumber:		8
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm
Location:		lash 49		S	hift Offsite Time:	1:00 PM	am/pm
Site Contact:		Jackson				5 hrs	Total hrs.
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Processi	ing Water
Processing Hr	s Today:	1 hrs	Cumulativ	e Processing	Hrs:	404	hrs
BBLS Processe		935 bbls		BBLS Proces			8 bbls
BBLS/Hr Proc		512.5		BBLS/Hr Proc			bbl/hr
DDLOITH 1 100		012.0	- Cultividation				
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		Ray Lee	10:00		110	7	0.198
Crew		McGruder	12:00		N/A	N/A	N/A
			13:00		N/A	N/A	N/A
			16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Or <b>d</b> ei
Į			HcL Acid	0	5,800	5,750	NO
			Sodium Hydroxide	0	5,250	5,200	No
Visitors:	Во	Jackson					
Visitors:							
Visitors:							
		W#.					
<u>.</u>							
	ormal operat	tional issues onsite	17				
)							
- 4b	amai accemble	alamulamant naada	d2 If an author items and a	h?			
	onal supplie	s/equipment neede	d? If so, what items and v	when?			
e there any additi /C SCH 80	onal supplie	s/equipment neede	d? If so, what items and v	when?			
	onal supplie	s/equipment neede	d? If so, what items and v	when?			
/C SCH 80					17		
/C SCH 80			d? If so, what items and w		?		
/C SCH 80					?		
VC SCH 80	y changes to	the current sched	ule, including volumes ne		.?		
VC SCH 80	y changes to		ule, including volumes ne		?	XTO	
VC SCH 80	y changes to	the current sched	ule, including volumes ne		.?	хто	
VC SCH 80	y changes to	the current sched	ule, including volumes ne		?	хто	

Date:	9/	12/2012		Report	Number:		94
	37.	2012			Number:		8
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm
Location:		ash 49		<u> </u>	hift Offsite Time:	18:00:00 PM	am/pm
Site Contact:		Jackson				12 hrs	Total hrs.
Site Contact:	Sam	imy Dean		Present	Onsite Activities:	Process	ing Water
Processing Hrs	Today:	6 hrs	Cumulativ	e Processing	Hre.	410	hrs
BBLS Processe		2,513 bbls		BBLS Proces			41 bbls
BBLS/Hr Proc		512.5		BBLS/Hr Proc			bbl/hr
Lead Supervisor:	Sam	ımy Dean	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		ay Lee	10:00		110	7	0.198
Crew	Eddie	McGruder	12:00		110	7.65	0.285
			14:00		110	7.24	1.893
			16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
Ĺ			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	5,750	5,500	NO
			Sodium Hydroxide	0	5,200	5,000	No
Visitors:	Во	Jackson					
Visitors:							
Visitors:				L			
	_						
Were there any abn	ormal operat	ional issues onsite	?				
No							
						<del></del>	
Are there any additi	anal aumnliae	logulament neede	i? If so, what items and	ubon2			
PVC SCH 80	unai supplies	sequipment needed	ir ii so, what items and t	Milelit			
	·						
Have there been any	changes to	the current schedu	le, including volumes ne	eded by client	?		
No				-			
Has client provided	any operatio	nal feedback (posit	ive or negative)?				
Person:			Company:			XTO	
Additional Con	nments						
Performed JSA dkrink	plenty of flui	d and watch out for e	each other.				

			<u> </u>					
Date:	9/	13/2012		Report	Number:	9	95	
Duto.	3/	13/2012			Number:		8	
							,	
Client:		XTO			hift Onsite Time:		am/pm	
Location: Site Contact:		Jackson			hift Offsite Time:	18:00:00 PM 12 hrs	am/pm Total hrs.	
Site Contact:		nmy Dean		Present	Onsite Activities:		ing Water	
0110 00111110111		iny boan		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Processing Hr		6 hrs		e Processing		416	hrs	
BBLS Processe		2,206 bbls		BBLS Proces			47 bbls	
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	453.2	453.2 bbl/hr	
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity	
Lead Operator	R	lay Lee	10:00		110	6.89	1.785	
Crew	Eddie	McGruder	12:00		110	7.24	0.896	
			14:00		110	7.13	0.987	
			16:00		N/A	N/A	N/A	
			18:00		N/A	N/A	N/A	
	-		20:00		N/A	N/A	N/A	
			Chemical	Usage	Start Inv.	End Inv.	On Order	
			HcL Acid	0	5,750	5,500	NO	
			Sodium Hydroxide	0	5,200	5,000	No	
Visitors:	Во	Jackson			<u> </u>			
Visitors:								
Visitors:							L	
	ormal operat	tional issues onsite	?					
No			1000	-				
Are there any additi	ional eupplio	e/equipment peeds	d? If so, what items and v	when?				
PVC SCH 80	ionai supplie	arequipment neede	dr ii so, what items and t	WIIGHT				
Have there been an No	y changes to	tne current schedu	ule, including volumes ne	eded by client	17			
NO								
dae client provided	any operation	onal feedback (posi	tive or pagetive\2					
Person:	any operation	mai ieeuback (posi	Company:			хто		
Additional Cor	mments							
Doubouro d ICA delete	minutes of first		and ather					
errormed JSA drink	pienty of fluid	d and watch out for e	acii otner.					

Date:	9/	14/2012		Report	Number:		96
Date.		14/2012			Number:		8
				<u> </u>	vanisor.		<u>~</u>
Client:		хто		s	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	lash 49			hift Offsite Time:		am/pm
Site Contact:		Jackson			THE OTISICE TIME.	12 hrs	Total hrs.
Site Contact:		nmy Dean		Present	Onsite Activities:		ing Water
							<u> </u>
Processing Hr	s Today:	6 hrs	Cumulativ	e Processing	Hrs:	416	hrs
BBLS Processe		2,206 bbls		BBLS Proces		188,54	47 bbls
BBLS/Hr Prod	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:		bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator	Ada	m Pollard	10:00		110	6.89	1.785
Crew	R	lay Lee	12:00		110	7.24	0.896
			14:00		110	7.13	0.987
			16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	5,750	5,500	NO
		-	Sodium Hydroxide	0	5,200	5,000	No
Visitors:	Во	Jackson					-
Visitors:							
Visitors:				L			
			·				
Were there any abn	ormal operat	ional issues onsite	?				
No							
	<del> </del>						
PVC SCH 80	ional supplie	s/equipment neede	d? If so, what items and	when?			
PVC SCH 80							
74	<del>.</del>						
Have there been an		Also accompant a should	ula inaludian valumas as	adad bu alland			
No	y changes to	the current sched	ule, including volumes ne	eded by client			
140							
Has client provided	any operation	nal feedback (posi					
Person:			Company:		L	хто	
Additional Cor	mments						
Performed JSA drink	nlenty of fluid	and watch out for	each other				
. c. tortilea 33A artik	picinty of maid	and Hateli out for t	cae ouici.				

Date:	9/	15/2012		Report	Number:	9	97
					lumber:		8
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	lash 49		S	hift Offsite Time:	18:00:00 PM	am/pm
Site Contact:	Во	Jackson				12 hrs	Total hrs.
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Maint	enance
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	416	hrs
BBLS Processe	d Today:	0 bbls	Cumulativ	e BBLS Proces	ssed:	188,54	47 bbls
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	453.2	bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator	Ada	m Pollard	10:00		N/A	N/A	N/A
Crew	F	Ray Lee	12:00		N/A	N/A	N/A
			14:00		N/A	N/A	N/A
			16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	5,500	5,500	NO
'			Sodium Hydroxide	0	5,000	5,000	No
Visitors:	Во	Jackson			,		
Visitors:							
Visitors:							
		-					
		1 71 H30 H					
Were there any abn	ormal operat	tional issues onsite	?				
No							
Are there any additi	onal supplie	s/equipment neede	d? If so, what items and	when?			
PVC SCH 80	ола саррпо	oroquipinont neede	ar ir oo, what items and				
Have there been an	v changes to	the current sched	ule, including volumes ne	eded by client	2		
No	y onungeo to	alo carrolle contra	ale, molaumy volumes ne	oded by enem			
			- W-W-17				
Has client provided	any operation	onal feedback (posi	tive or negative)?				
Person:	any operation	That toodback (pool	Company:			XTO	
		-				70	
Additional Cor	nments						
		<u> </u>					
Maintenance and Re	pair						

VTO Energy Night Unit #20 C 144 Clas

Date:	9/	16/2012		Report	Number:		98
- Date.	31	10/2012			Number:		8
				<u> </u>	tumber.		
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm
Location:	N	ash 49		S	hift Offsite Time:	18:00:00 PM	am/pm
Site Contact:	Во	Jackson				12 hrs	Total hrs.
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Maint	enance
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	416	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proces	ssed:	188,54	47 bbis
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	453.2	bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator	Ada	m Pollard	10:00		N/A	N/A	N/A
Crew	R	ay Lee	12:00		N/A	N/A	N/A
-			14:00		N/A	N/A	N/A
			16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start inv.	End Inv.	On Order
			HcL Acid	0	5,500	5,500	NO
			Sodium Hydroxide	0	5,000	5,000	No
Visitors:	Во	Jackson					
Visitors:							
Visitors:							
Were there any abn	ormal operat	ional issues onsite	9?				
No							
Are there any additi	onal supplie	s/equipment neede	ed? If so, what items and v	when?			
PVC SCH 80							
Have there been an	y changes to	the current sched	lule, including volumes ne	eded by client	t?		
No					-		
Has client provided	any operation	onal feedback (pos	itive or negative)?				
Person:			Company:		L	хто	
XTO pump is down, f	trying to gravit	ty feed clean water	from holding tanks to Posei	don Tank.			
Additional Cor	nments						
Maintenance and Re	pair Waiting o	on XTO to tell us to s	start running again.				

re there any additional supplies/equipment needed? If so, what items and when? VC SCH 80 ave there been any changes to the current schedule, including volumes needed by client?								
Client: XTO Location: Nash 49 Site Contact: Bo Jackson Site Contact: Sammy Dean Processing Hrs Today: 0 hrs BBLS Processed: 512.5  Cumulative BBLS Processed: 188,547 bblis Cumulative BBLS Processed: 188,547 bblis Cumulative BBLS Processed: 453.2 bblihr  Lead Supervisor: Sammy Dean Lead Supervisor: Sammy Dean Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Rad Ings. Rad Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ray Lee Ra	Date:	9/	17/2012		Report	Number:		99
Shift Offsite Time: 18:00:00 PM   3m/pm   12 hrs   Total hrs.								
Shift Offsite Time: 18:00:00 PM   3m/pm   12 hrs   Total hrs.	Client		XTO	!	-	hift Onsite Time	6:00:00AM	am/nm
Site Contact: Sammy Dean  Processing Hrs Today: 0 hrs BBLS Processed Today: 0 bbls BBLS Processed: 512.5  Lead Supervisor: Sammy Dean  Lead Operator Eddie McGruder Crew Ray Lee 12:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A								
Site Contact: Sammy Dean  Present Onsite Activities: Maintenance  Processing Hrs Today: 0 hrs  BBLS Processed: 188,547 bils  BBLS Processed: 512.5  Lead Supervisor: Sammy Dean Lead Operator Eddie McGruder Crew Ray Lee 14:00 N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A						mit onsite mile.	_	
Processing Hrs Today: 0 hrs BBLS Processed: 0 bbls BBLS/Hr Processed: 188,547 bbls Cumulative BBLS Processed: 188,547 bbls Cumulative BBLS/Hr Processed: 183,24 bbl/hr Cumulative BBLS/Hr Processed: 183,25 bbl/hr Cumulative BBLS/Hr Processed: 183,25 bbl/hr  Readings: flow back Volts/Amps pH Turbidity 10:00 N/A N/A N/A N/A Crew Ray Lee 12:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A					Present	Onsite Activities		
BBLS Processed: 188,547 bbls BBLSHr Processed: 512.5  Cumulative BBLS Processed: 453.2 bbl/hr  Cumulative BBLS Processed: 453.2 bbl/hr  Cumulative BBLS Processed: 453.2 bbl/hr  Cumulative BBLS Processed: 453.2 bbl/hr  Cumulative BBLS Processed: 453.2 bbl/hr  Readings: flow back Volts/Amps pH Turbidity 10:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	One Contact.		iniy Boai.	'	1,000			
BBLS/Hr Processed: 512.5  Cumulative BBLS/Hr Processed: 453.2 bbl/hr  Lead Supervisor: Sammy Dean Lead Operator Eddie McGruder Crew Ray Lee 10:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	Processing Hrs	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	416	hrs
Lead Supervisor: Sammy Dean Lead Operator Eddie McGruder Crew Ray Lee  Ray Lee  10:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proce	ssed:	188,54	7 bbls
Lead Operator   Eddie McGruder   10:00   N/A N/A N/A N/A   N/A   12:00   N/A N/A N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A   N/A	BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	453.2 bbl/hr	
Lead Operator   Eddie McGruder   10:00   N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A								
Crew Ray Lee 12:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A				Readings:	flow back			Turbidity
14:00 N/A N/A N/A N/A N/A 16:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	Lead Operator	Eddie	McGruder	10:00				
16:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	Crew	F	Ray Lee					
18:00 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A								
20:00 N/A N/A N/A N/A  Chemical Usage Start Inv. End Inv. Hct Acid 0 5,500 5,500 NO Sodium Hydroxide 0 5,000 5,000 No Visitors: Visitors: Visitors: Visitors:  There there any abnormal operational issues onsite? Or set there any additional supplies/equipment needed? If so, what items and when? Or SCH 80  There there been any changes to the current schedule, including volumes needed by client?  There there been any changes to the current schedule, including volumes needed by client?  There there been any changes to the current schedule, including volumes needed by client?  There there been any changes to the current schedule, including volumes needed by client?  There there been any changes to the current schedule, including volumes needed by client?  There there been any changes to the current schedule, including volumes needed by client?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?  There there are any additional supplies/equipment needed? If so, what items and when?								
Chemical Usage Start Inv. End Inv. On Order Hct Acid 0 5,500 5,500 NO Sodium Hydroxide 0 5,000 5,000 No Visitors: Visitors: Visitors:  There there any abnormal operational issues onsite? Order there any additional supplies/equipment needed? If so, what items and when? VC SCH 80  The there been any changes to the current schedule, including volumes needed by client? Order there been any changes to the current schedule, including volumes needed by client? Order there been any changes to the current schedule, including volumes needed by client? Order there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?	ļ			18:00		N/A	_	
HcL Acid 0 5,500 5,500 NO  Visitors: Bo Jackson Visitors: Visitors: Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:	ļ			20:00		N/A	N/A	N/A
HcL Acid 0 5,500 5,500 NO  Visitors: Bo Jackson Visitors: Visitors: Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:  Visitors:								
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Visitors: Bo Jackson Visitors: Visitors: Visitors:  The there any abnormal operational issues onsite?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?				HcL Acid	0	5,500	5,500	NO
Visitors:  Visitors:  Visitors:  The there any abnormal operational issues onsite?  The there any additional supplies/equipment needed? If so, what items and when?  VC SCH 80  The there been any changes to the current schedule, including volumes needed by client?  The there been any changes to the current schedule, including volumes needed by client?  The there been any changes to the current schedule, including volumes needed by client?  The there been any changes to the current schedule, including volumes needed by client?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?				Sodium Hydroxide	0	5,000	5,000	No
Wisitors:  ere there any abnormal operational issues onsite?  re there any additional supplies/equipment needed? If so, what items and when?  VC SCH 80  ave there been any changes to the current schedule, including volumes needed by client?  as client provided any operational feedback (positive or negative)?  Person:  Company:  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments	Visitors:	Во	Jackson					
ere there any abnormal operational issues onsite?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items and when?  The there are any additional supplies/equipment needed? If so, what items an	Visitors:							
The there any additional supplies/equipment needed? If so, what items and when?  WC SCH 80  ave there been any changes to the current schedule, including volumes needed by client?  as client provided any operational feedback (positive or negative)?  Person:  Company:  XTO  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments	Visitors:							
ave there been any changes to the current schedule, including volumes needed by client?  as client provided any operational feedback (positive or negative)?  Person:  Company:  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments	<b>Vere there any abn</b> O	ormal opera	tional issues onsite	?				
as client provided any operational feedback (positive or negative)?  Person: Company: XTO  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments	re there any additi VC SCH 80	onal supplie	s/equipment neede	d? If so, what items and v	when?			
as client provided any operational feedback (positive or negative)?  Person: Company: XTO  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments		y changes to	the current schedu	ule, including volumes ne	eded by clien	17		
Person: Company: XTO  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments	0							
Person: Company: XTO  TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments	as client provided	any operation	onal feedback (nosi	tive or negative)?	-			
TO pump is down, trying to gravity feed clean water from holding tanks to Poseidon Tank.  Additional Comments			(posi				XTO	
		trying to gravi	ty feed clean water fi		don Tank.			
	Additional Cor	nments						

Date:	9/1	18/2012		Report	Number:		00
		-0, 20-2			lumber:		8
						···	
Client:		хто			hift Onsite Time:	6:00:00AM	am/pm
Location:		ash 49			hift Offsite Time:	18:00:00 PM	am/pm
Site Contact:		Jackson		l	int offsite vinte.	12 hrs	Total hrs.
Site Contact:		my Dean		Present	Onsite Activities:		enance
Processing Hr		8 hrs	Cumulativ	e Processing	Hrs:	424	hrs
BBLS Processe		3,005 bbls	Cumulative	BBLS Proces	ssed:	191,55	52 bbls
BBLS/Hr Prod	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	451.8	bbl/hr
						_	
Lead Supervisor:		my Dean	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		McGruder	10:00 12:00		110	6.89	0.785
Crew	R	ay Lee	14:00		110 110	7.54 7.85	0.983 1.891
			16:00		110	7.85	0.985
			18:00	<del></del>	N/A	N/A	N/A
			20:00		N/A	N/A	N/A
	-			·			
			Chemical	Usage	Start Inv.	End Inv.	On Order
[			HcL Acid	0	5,500	5,200	NO
			Sodium Hydroxide	0	5,000	4,750	No
Visitors:		Jackson					
Visitors:	Selec	t Services					
Visitors:	<del>-</del>			<u></u>	L		
Were there any abn	ormal operat	ional issues onsite?	)				
No	ormai operati	ional issues offsite					
	,						
	onal supplies	s/equipment needed	l? If so, what items and v	when?			
PVC SCH 80							
				<u></u>			
Have there been an		46	la la distribuica de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la consta	- 1 - 1 1			
No	y changes to	the current scheau	le, including volumes ne	eded by client	7		
110							
Has client provided	any operatio	nal feedback (posit	ive or negative)?				
Person:			Company:			XTO	
Additional Cor	nments						
Select Services will u	se teir pump to	o pump water from h	nolding tanks to Poseidon	Tank.			

Date:	9/	19/2012					
Client				Report	Number:	1	01
Client				Unit	lumber:		8
		хто	1	s	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	ash 49			hift Offsite Time:		am/pm
Site Contact:	Во	Jackson				8 hrs	Total hrs.
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Mainte	enance
December Un	T-4	3 hrs	C. m. deth.	. Danasaina	Ues.	427	h.,
Processing Hrs BBLS Processe		3 hrs 1,366 bbls		e Processing BBLS Proces		427	hrs 18 bbls
BBLS/Hr Proc				BBLS/Hr Proces			bbl/hr
BBL3/Hr Proc	essed:	512.5	Cumulative	BBL3/Hr Proc	essea:	451.0	DDI/NF
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		McGruder	10:00		110	6.89	0.785
Crew	F	ay Lee	12:00		110	7.54	0.983
			14:00		110	7.85	1.891
			16:00		N/A	N/A	N/A
[			18:00		N/A	N/A	N/A
[			20:00		N/A	N/A	N/A
-			Classical Control		St. All	f. dla	0-0-1-
			Chemical	Usage	Start Inv.	End Inv.	On Order
L			HcL Acid	0	5,200	5,100	NO
Visitors:		Jackson	Sodium Hydroxide	0	4,750	4,700	No
Visitors:		ot Services					
Visitors:		o Wells					
lara thara anu aba		lanal lanuar analkaí	•				
o	ormai operai	ional issues onsite	<u></u>				
J							
re there any additi	onal supplie	s/equipment needed	1? If so, what items and v	when?			
VC SCH 80							
	y changes to	the current schedu	le, including volumes ne	eded by client	.7		
0							
		mal facello activity	h				
Person:	any operation	nal feedback (posit	Company:			XTO	
, 6130II.			Company.			λ10	
Additional Con	nments						
		· · · · · · · · · · · · · · · · · · ·					

				***************************************		·	
Date:	9/2	20/2012		Penort	Number:	1	02
- Date.		20/2012			Number:		8
				Ontr	tumber.		<u> </u>
Client:	-	XTO		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	ash 49			hift Offsite Time:	20:00:00 PM	am/pm
Site Contact:	Во	Jackson				14 hrs	Total hrs.
Site Contact:	Sam	my Dean		Present	Onsite Activities:	Maint	enance
Processing Hr	s Today:	8 hrs	Cumulativ	e Processing	Hrs:	435	hrs
BBLS Processe		4,476 bbls		BBLS Proces		197,39	94 bbls
BBLS/Hr Proc		512.5	Cumulative	BBLS/Hr Proc	essed:		bbl/hr
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	рН	Turbidity
Lead Operator		McGruder	10:00		110	7.78	1.90
Crew	R	ay Lee	12:00		110	7.13	.483
			14:00		110	7.09	.319
			16:00		110	7	0.209
·			18:00		N/A	N/A	N/A
	···		20:00	<u> </u>	N/A	N/A	N/A
				<u> </u>		-	<u> </u>
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	5,100	4,800	NO
•			Sodium Hydroxide	0	4,700	4,400	No
Visitors:	Во	Jackson			1,7,00	.,,	
Visitors:		t Services					
Visitors:		Wells					
							<del></del>
					2		
Were there any abn	ormal operat	ional issues onsite	?				
No							
Are there any additi	onal supplies	s/equipment needed	1? If so, what items and v	when?			
PVC SCH 80							
				<del></del>			
Have there been an	y changes to	the current schedu	le, including volumes ne	eded by client	?	****	
No							
Has client provided	any operatio	nal feedback (posit	ive or negative)?				
Person:			Company:			XTO	
Additional Cor	nments						
JSA performed, did m	naintenance o	n units and housekee	eping.				

Date:	9/	21/2012		Report	Number:	1	03	
				Unit 1	Number:		8	
Client:		хто		<u> </u>	hift Onsite Time:	6:00:00AM	am/pm	
Location:		lash 49			hift Offsite Time:		am/pm	
Site Contact:		Jackson				14 hrs	Total hrs.	
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Maint	enance	
			***************************************					
Processing Hr		2 hrs		e Processing		437	hrs	
BBLS Processe		1,967 bbls		BBLS Proces			61 bbls bbl/hr	
BBLS/Hr Proc	essed:	512.5	Cumulative	Cumulative BBLS/Hr Processed: 456				
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity	
Lead Operator		McGruder	10:00		110	7.2	1.15	
Crew	F	lay Lee	12:00		N/A	N/A	N/A	
	Christ	opher Perry	14:00		N/A	N/A	N/A	
			16:00		N/A	N/A	N/A	
			18:00		N/A	N/A	N/A	
			20:00		N/A	N/A	N/A	
			Chemical	Usage	Start Inv.	End Inv.	On Orde	
			HcL Acid	0	4,800	4,750	NO	
			Sodium Hydroxide	0	4,400	4,350	No	
Visitors:	Во	Jackson						
Visitors:	Sele	ct Services						
Visitors:	В	o Wells						
******					· · · · · · · · · · · · · · · · · · ·	· .v=		
			•					
<b>Vere there any abn</b> Io	ormal opera	tional issues onsite	7					
,U								
re there any addit	onal supplie	s/equipment needed	d? If so, what items and v	when?				
VC SCH 80			,					
ave there been an	y changes to	the current schedu	ile, including volumes ne	eded by client	17			
lo								
	any operation	onal feedback (posit		i		VTO		
Person:			Company:	L	I	хто		
Additional Cor	nments							

Date:	9/2	22/2012		Report	Number:	1	04	
					Number:		8	
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm	
Location:		ash 49		S	hift Offsite Time:	12:00 PM	am/pm	
Site Contact:		Jackson				14 hrs	Total hr	
Site Contact:	Sam	imy Dean		Present	Onsite Activities:	Maint	Maintenance	
Processing Hrs	Today:	4 hrs	Cumulativ	e Processing	Hre:	441	hrs	
BBLS Processed		2,982 bbls		BBLS Proces			13 bbls	
BBLS/Hr Proce		512.5		BBLS/Hr Proc			bbl/hr	
BBEGIN 11000	0000.	012.0	Camadave	DDLOMII I 100		400.0	00000	
Lead Supervisor:	Sam	my Dean	Readings:	flow back	Volts/Amps	pH	Turbidit	
Lead Operator		McGruder	10:00		110	6.84	1.67	
Crew		ay Lee	12:00		110	7.35	1.02	
		opher Perry	14:00		N/A	N/A	N/A	
			16:00	N.	N/A	N/A	N/A	
Г			18:00		N/A	N/A	N/A	
Ţ			20:00		N/A	N/A	N/A	
Γ								
			Chemical	Usage	Start Inv.	End Inv.	On Orde	
Г			HcL Acid	0	4,750	4,600	NO	
_			Sodium Hydroxide	0	4,350	4,200	No	
Visitors:	Во	Jackson						
Visitors:	Selec	t Services						
Visitors:	Bo	Wells						
ere there any abno	rmal operati	ional issues onsite	?					
			d? If so, what items and v	when?				
/C SCH 80								
/C SCH 80			ile, including volumes ne	eded by client	?			
/C SCH 80				eded by client	?			
ve there been any	changes to		ile, including volumes ne	eded by client	?			
/C SCH 80	changes to	the current schedu	ile, including volumes ne	eded by client	?	ХТО		

JSA performed, did maintenance on units and housekeeping. Filled holding tanks to 13' waiting on select well service to come out and transfer water to poseidon tank.

Date:	9/2	23/2012		Report	Number:	1	105
					Number:		8
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pr
Location:	N	ash 49		S	hift Offsite Time:	12:00 PM	am/pn
Site Contact:						14 hrs	Total hr
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Maint	tenance
Processing Hr		2 hrs		e Processing		443 hrs	
BBLS Processe		1,441 bbls		BBLS Proce			84 bbls
BBLS/Hr Proc	essed:	512.5	Cumulative BBLS/Hr Processed:			460.0 bbl/hr	
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidi
Lead Operator		McGruder	10:00	11044 Dack	110	6.79	1.91
Crew		ay Lee	12:00		N/A	N/A	N/A
0.044		opher Perry	14:00		N/A	N/A	N/A
ŀ	Offinati		16:00		N/A	N/A	N/A
ŀ			18:00		N/A	N/A	N/A
ŀ			20:00	·	N/A	N/A	N/A
}			20.00		,,,		,/
			Chemical	Usage	Start Inv.	End Inv.	On Ord
ŀ			HcL Acid	0	4,600	4,500	NO
L	·		Sodium Hydroxide	0	4,200	4,100	No
Visitors:	Во	Jackson			1		
Visitors:		ct Services		1	-		
Visitors:		o Wells					
ere there any abn	ormal operat	ional issues onsite	?	-			
0							
	onal supplie	s/equipment neede	d? If so, what items and	when?			
VC SCH 80							
					-		
lave there been an	y changes to	the current schedu	ule, including volumes ne	eded by clien	t?		
lo							
			4880				
las client provided	any operation	onal feedback (posi	tive or negative)?				
Person:		V	Company:			XTO	
		*					
Additional Cor	nmente						
		on units and houseke	eping. Filled holding tanks	to 13' waiting	on select well serv	rice to come or	ut and trans
vater to poseidon ta	nk.						

Date:	9/	24/2012		Report	Number:		106
Dato.		24/2012			Number:		8
Client:		хто		S	hift Onsite Time:	6:00:00AM	am/pm
Location:		lash 49			hift Offsite Time:	12:00 PM	am/pm
Site Contact:	Во	Jackson				14 hrs	Total hrs.
Site Contact:	Sam	nmy Dean		Present	Onsite Activities:	Process Wat	er/Maintenance
Processing Hr	s Today:	2 hrs	Cumulativ	e Processing	Hrs:	445	hrs
BBLS Processe	d Today:	1,156 bbls	Cumulative	BBLS Proce	ssed:	204,940 bbls	
BBLS/Hr Proc	BBLS/Hr Processed: 512.5		Cumulative	BBLS/Hr Proc	essed:	460.5	bbi/hr
	-						
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator	Eddie	McGruder	10:00		110	7.54	0.897
Crew	R	ay Lee	12:00		N/A	N/A	N/A
	Christ	opher Perry	14:00		N/A	N/A	N/A
	Regi	nald White	16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
!			Chemical	Usage	Start Inv.	End Inv.	On Order
Į Į			HcL Acid	0	4,500	4,450	NO
			Sodium Hydroxide	0	4,100	4,050	No
Visitors:	Bo	Jackson					
Visitors:	Selec	ct Services					
Visitors:	Bo	o Wells			<u>[</u>		
Were there any abn No	ormal operat	ional issues onsite	?				
11-0					· · · · · · · · · · · · · · · · · · ·	<del> </del>	
Are there any additi	ional supplies	s/equipment needed	d? If so, what items and v	when?			
PVC SCH 80							
Have there been an	y changes to	the current schedu	ile, including volumes ne	eded by client	?		
No				VII.			
Has client provided	any operatio	nal feedback (posit	tive or negative)?				
Person:	,,		Сотрапу:			XTO	
Additional Cor	nments						
		n units and housekee	eping. Filled holding tanks	to 13' waiting o	on select well serv	rice to come ou	ıt and transfer
water to poseidon ta	nĸ.						

Date:	9/	25/2012		Report	Number:	1	07
			+	Unit I	Number:		8
011							,
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm
Location:	_	lash 49		S	hift Offsite Time:	12:00 PM	am/pm
Site Contact: Site Contact:		Jackson		Descent	Omelia Andividies	6 hrs	Total hrs. enance
Site Contact:	San	nmy Dean	,	Present	Onsite Activities:	Manu	enance
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	445	hrs
BBLS Processe		0 bbls		BBLS Proce		204,940 bbls	
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	460.5	bbl/hr
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator	Eddie	e McGruder	10:00		N/A	N/A	N/A
Crew		Ray Lee	12:00		N/A	N/A	N/A
		topher Perry	14:00		N/A	N/A	N/A
	Regi	inald White	16:00		N/A	N/A	N/A
		,	18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,450	4,450	NO
			Sodium Hydroxide	0	4,050	4,050	No
Visitors:		Jackson					· · · · · · · · · · · · · · · · · · ·
Visitors:		ct Services					
Visitors:	В	lo Wells					
	ormal operat	tional issues onsite	?				
	ormal operat	tional issues onsite	?				
<b>Vere there any abn</b> lo	ormal operat	tional issues onsite	7				
	ormal operat	tional issues onsite	7			00	
lo							
re there any addit			? d? If so, what items and v	vhen?			
lo				vhen?			
re there any addit				vhen?			
re there any addit	ional supplie	s/equipment neede	d? If so, what items and v		2		
re there any addit VC SCH 80	ional supplie	s/equipment neede			?		
re there any addit VC SCH 80	ional supplie	s/equipment neede	d? If so, what items and v		?		
re there any addit VC SCH 80 ave there been an	ional supplie	s/equipment neede	d? If so, what items and v		?		
re there any addit VC SCH 80 ave there been an	ional supplie y changes to	s/equipment neede	d? If so, what items and v		?		
re there any addit VC SCH 80  ave there been an	ional supplie y changes to	s/equipment neede	d? If so, what items and water the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of		?	XIO	
are there any addit VC SCH 80	ional supplie y changes to	s/equipment neede	d? If so, what items and v		?	ХТО	
re there any addit VC SCH 80 ave there been an	ional supplie y changes to any operatio	s/equipment neede	d? If so, what items and water the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of the solution of		?	хто	

Client: Location: Site Contact: Site Contact:	N Bo	XTO ash 49			Number: lumber:		08 8	
Location: Site Contact:	N Bo			Unit	lumber:		0	
Location: Site Contact:	N Bo						5	
Location: Site Contact:	N Bo			S	hift Onsite Time:	6:00:00AM	am/pm	
					hift Offsite Time:	12:00 PM	am/pm	
Site Contact:	Sam	Jackson				6 hrs	Total hrs.	
		nmy Dean		Present	Onsite Activities:	Process Water	r/Maintenand	
							<del></del>	
Processing Hrs		4 hrs		e Processing		449	hrs	
BBLS Processed		2,970 bbls		Cumulative BBLS/Hr Processed:			207,910 bbls	
BBLS/Hr Proce	ssed:	512.5	Cumulative	BBLS/Hr Proc	essed:	463.1	bbl/hr	
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	ρН	Turbidity	
Lead Operator	Eddie	McGruder	10:00		110	7.10	3.31	
Crew		ay Lee	12:00		110	7.65	1.96	
		opher Perry	14:00		N/A	N/A	N/A	
	Regir	nald White	16:00		N/A	N/A	N/A	
			18:00		N/A	N/A	N/A	
į.			20:00		N/A	N/A	N/A	
-			Chemical	Usage	Start Inv.	End Inv.	On Order	
		7	HcL Acid	0	4,450	4,200	NO	
_		·	Sodium Hydroxide	0	4,050	3,800	No	
Visitors:	Во	Jackson						
Visitors:	Selec	et Services						
Visitors:	В	o Wells						
ere there any abno	rmal operat	ional issues onsite	?	2				
0								
re there any additio	nal supplie:	s/equipment needed	I? If so, what items and v	when?				
VC SCH 80								
ave there been any	changes to	the current schedu	le, including volumes ne	eded by client	?			
0	goo to	ourrent consuc	er,	Table by offerin				
· · · · · · · · · · · · · · · · · · ·	·	· · · · · · · · · · · · · · · · · · ·				<del></del>		
	any operation	nal feedback (posit				VTO		
Person:		<del></del>	Company:			XTO		
Additional Com	ments							
		n units and housekee	eping. Process Water waiti	ng on select to	transfer water fro	om holding tan	ks to Poseida	

Date:	9/	27/2012		Report	Number:	1	109
					Yumber:		8
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	N	lash 49			hift Offsite Time:	12:00 PM	am/pm
Site Contact:	Во	Jackson		6 hrs Tota			
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Process Water	er/Maintenance
Processing Hr	s Today:	2 hrs	Cumulativ	e Processing	Hrs:	451	hrs
BBLS Processe		1,045 bbls	Cumulativ	Cumulative BBLS Processed:		208,9	55 bbls
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	463.3	bbl/hr
					1		
Lead Supervisor:		nmy Dean	Readings:	flow back	Volts/Amps	pH	Turbidity
Lead Operator		McGruder	10:00		110	7.54	1.19
Crew		Ray Lee	12:00 14:00		N/A N/A	N/A N/A	N/A N/A
		opher Perry nald White	16:00		N/A N/A	N/A N/A	N/A N/A
	Regi	riaiu vvnite	18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			20.00		14/7	N/A	19/6
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,200	4,100	NO
ı			Sodium Hydroxide	0	3,800	3,700	No
Visitors:	Bo	Jackson	Sociali Hydroxide	<u> </u>	3,000	3,700	
Visitors:		ct Services	-				
Visitors:		o Wells					
			<u> </u>		·		
				. 189			
Were there any abn	ormal operat	tional issues onsite	?	****		•	
No							
re there any addit	ional supplie	s/equipment needed	1? If so, what items and	when?			
PVC SCH 80							
	y changes to	the current schedu	le, including volumes ne	eded by client	?		
No							
	any operation	onal feedback (posit					
Person:			Company:	<u> </u>	<u> </u>	XTO	
Additional Cor	mments						
مانام المحسد ما مانام	intonon	a contract to a contract to a	nina Drance Meter weit		******************************	om halding tom	le ta Dosaidan

JSA performed, did maintenance on units and housekeeping. Process Water waiting on select to transfer water from holding tanks to Poseidon Tank. Filled up Poseidon Tank Frac Job started today have enough water for job.

Date:	9/	28/2012		Panort	Number:	-	110	
Date.	3/	28/2012			Number:		8	
				<u> </u>	turiber.		<u> </u>	
Client:		хто		s	hift Onsite Time:	6:00:00AM	am/pm	
Location:	N	lash 49		S	hift Offsite Time:	12:00 PM	am/pm	
Site Contact:	Во	Jackson				6 hrs	Total hrs.	
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Maintenance		
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	451	hrs	
BBLS Processe		0 bbls		BBLS Proce		208,955 bbls		
BBLS/Hr Proc		512.5	Cumulative	BBLS/Hr Proc	essed:		bbl/hr	
Lead Supervisor:	San	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity	
Lead Operator	Eddie	McGruder	10:00		N/A	N/A	N/A	
Crew	R	lay Lee	12:00		N/A	N/A	N/A	
	Christ	opher Perry	14:00		N/A	N/A	N/A	
		nald White	16:00		N/A	N/A	N/A	
			18:00		N/A	N/A	N/A	
			20:00		N/A	N/A	N/A	
ĺ								
			Chemical	Usage	Start Inv.	End Inv.	On Order	
1			HcL Acid	0	4,100	4,100	NO	
•			Sodium Hydroxide	0	3,700	3,700	No	
Visitors:	Во	Jackson				•		
Visitors:	Selec	ct Services						
Visitors:	В	o Wells						
				-				
Were there any abn	ormal operat	ional issues onsite	9?					
No								
Are there any additi	onal supplie	s/equipment neede	ed? If so, what items and v	when?				
PVC SCH 80								
Have there been an	y changes to	the current sched	ule, including volumes ne	eded by client	?			
No								
Has client provided	any operation	onal feedback (pos	itive or negative)?					
Person:		,, ,	Company:			XTO		
Additional Cor	nments							
JSA Performed waitir	ng on XTO to s	schedule the sludge	pull. House cleaning working	g on units.				

-							
Date:	9/:	29/2012			Number:		11
				Unit I	Number:		8
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm_
Location:		ash 49		<u>s</u>	hift Offsite Time:	12:00 PM	am/pm
Site Contact: Site Contact:		Jackson nmy Dean		Brosont	Onsite Activities:	6 hrs	Total hrs. enance
Site Contact.	San	iny Dean		Plesent	Onsite Activities.	Mant	enance
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	451	hrs
BBLS Processe		0 bbls		e BBLS Proce			55 bbls
BBLS/Hr Prod		512.5		umulative BBLS/Hr Processed:			bbl/hr
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		McGruder	10:00		N/A	N/A	N/A
Crew	R	ay Lee	12:00		N/A	N/A	N/A
	Christ	opher Perry	14:00		N/A	N/A	N/A
	Regi	nald White	16:00		N/A	N/A	N/A
			18:00		N/A	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
			HcL Acid	0	4,100	4,100	NO
			Sodium Hydroxide	0	3,700	3,700	No
Visitors:		Jackson					
Visitors:		ct Services					
Visitors:	B	o Wells	L	L			
		****	222				
Were there any abn	ormal operat	ional issues onsite?					
NO				A78		10.51	
	ional supplie	s/equipment needed	? If so, what items and	when?			
PVC SCH 80							
Have there been an	v shanges to	the current cohedu	le, including volumes ne	adad by alien			
No	y changes to	nia currant schedu	e, including volumes ne	eded by clien			
Has client provided	any operation	onal feedback (positi	ve or negative)?				
Person:		W 3011	Company:			XTO	-11,000
			****		<b>.</b>		
Additional Cor	mments						
JSA Performed waiti	ng on XTO to s	schedule the sludge p	ull. House cleaning workir	ng on units.			

	··-							
Date:	9/3	30/2012		Report	Number:	1	112	
		_		Unit I	Number:		8	
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm	
Location:	N	ash 49		S	hift Offsite Time:	12:00 PM	am/pm	
Site Contact:	Во	Jackson				6 hrs	Total hrs.	
Site Contact:	Sam	nmy Dean		Present Onsite Activities:			Maintenance	
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	451 hrs		
BBLS Processe	d Today:	0 bbls	Cumulative	BBLS Proces	ssed:	208,9	55 bbls	
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	463.3	bbl/hr_	
Lead Supervisor:	Sam	nmy Dean	Readings:	flow back	Volts/Amps	рН	Turbidity	
Lead Operator	Eddie	McGruder	10:00		N/A	N/A	N/A	
Crew		ay Lee	12:00		N/A	N/A	N/A	
		opher Perry	14:00		N/A	N/A	N/A	
	Regi	nald White	16:00		N/A	N/A_	N/A	
1			18:00		N/A	N/A	N/A	
}			20:00		N/A	N/A	N/A	
}			Chemical	Usage	Start Inv.	End Inv.	On Order	
			HcL Acid	0 Osage	4,100	4,100	NO	
L			Sodium Hydroxide	0	3,700	3,700	No	
Visitors:	Bo	Jackson	Sociali Hydroxide		3,700	3,700	140	
Visitors:		ct Services						
Visitors:		o Wells	- 1					
Were there any abn	ormal operat	ional issues onsite	?					
No				-				
	onal supplies	s/equipment neede	d? If so, what items and v	when?				
PVC SCH 80								
	y changes to	the current sched	ule, including volumes ne	eded by client	17			
No								
Has client provided	any operation	onal feedback (posi						
Person:			Company:			хто		
Additional Cor	nments							
		<del></del>						
JSA Performed waitin	ng on XTO to s	chedule the sludge	pull. House cleaning workin	ig on units.				

					·			
Date:	10	/1/2012	1	Report	Number:	1	13	
5010.	10,	71,2012			Number:		8	
Client:		XTO			hift Onsite Time:	6:00:00AM	am/pm	
Location:		lash 49		S	hift Offsite Time:	12:00 PM	am/pm	
Site Contact:		Jackson		B	014- 0-41-141	6 hrs	Total hrs.	
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Maint	enance	
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	451	hrs	
BBLS Processe		0 bbls		BBLS Proces		208,955 bbls		
BBLS/Hr Proc	essed:	512.5	Cumulative I	BBLS/Hr Proc	essed:	463.3	463.3 bbl/hr	
Lood Supervisors		-my Doop	Boodings	fla bask	Vales/Amana I	mll I	Tradiciolis	
Lead Supervisor:		nmy Dean	Readings: 10:00	flow back	Volts/Amps N/A	pH N/A	Turbidity N/A	
Lead Operator Crew		opher Perry nald White	12:00		N/A N/A	N/A N/A	N/A	
ciew	Regii	naid write	14:00		N/A N/A	N/A	N/A	
			16:00		N/A	N/A	N/A	
			18:00		N/A	N/A	N/A	
			20:00		N/A	N/A	N/A	
			Chemical	Usage	Start Inv.	End inv.	On Order	
			HcL Aci <b>d</b>	0	4,100	4,100	NO	
			Sodium Hydroxide	0	3,700	3,700	No	
Visitors:		Jackson						
Visitors:		ct Services						
Visitors:	В	o Wells					<u>-</u> .	
							145.00	
Wara there any abr	ormal aparat	tional issues onsite	2					
No	ormai operat	Jonal Issues Onsite						
			···				***	
	ionai supplie	s/equipment neede	d? If so, what items and v	vhen?				
	ionai suppile	s/equipment neede	d? If so, what items and v	when?				
	ionai supplie	s/equipment neede	d? If so, what items and v	when?				
PVC SCH 80			d? If so, what items and v		17			
PVC SCH 80  Have there been an					17			
PVC SCH 80  Have there been an	y changes to	the current schedu	ule, including volumes ne		.?			
PVC SCH 80  Have there been an No  Has client provided	y changes to		ule, including volumes ne		17			
PVC SCH 80  Have there been an	y changes to	the current schedu	ule, including volumes ne		7	хто		
Have there been an	y changes to	the current schedu	ule, including volumes ne		1?	хто		

JSA performed Started sludge pull today did not finished. Will continue pulling sludge on Tuesday 10/02/2012. Bo Jackson will get an electrician out on location tomorrow to unpluged all the electricity.

Date:	10	0/5/2012		Report	Number:	1	114
		,0,2022			Number:		8
						411.	
Client:		XTO		S	hift Onsite Time:	6:00:00AM	am/pm
Location:	- N	lash 49		S	hift Offsite Time:	12:00 PM	am/pm
Site Contact:	Во	Jackson		6 hrs T			Total hrs.
Site Contact:	San	nmy Dean		Present	Onsite Activities:	Rig	Down
Rig down units							
Processing Hr	s Today:	0 hrs	Cumulativ	e Processing	Hrs:	0	hrs
BBLS Processe	d Today:	0 bbls	Cumulative	e BBLS Proces	ssed:	208,955 bbis	
BBLS/Hr Proc	essed:	512.5	Cumulative	BBLS/Hr Proc	essed:	#D	IV/0!
Lead Supervisor:		nmy Dean	Readings:	flow back	Volts/Amps	pН	Turbidity
Lead Operator		topher Perry	10:00		N/A	N/A	N/A
Crew	Regi	nald White	12:00		N/A	N/A	N/A
			14:00		N/A	N/A	N/A
			16:00		N/A	N/A	N/A
			18:00		N/A_	N/A	N/A
			20:00		N/A	N/A	N/A
			Chemical	Usage	Start Inv.	End Inv.	On Order
l			HcL Acid	0	4,100	4,100	NO
			Sodium Hydroxide	0	3,700	3,700	No
Visitors:		Jackson					
Visitors:	Ro	bert Rink					
Visitors:				L	L		L
				_,			
Were there any abn	ormal operat	tional issues onsite	1?				
Are there any additi	onał supplie	s/equipment neede	d? If so, what items and v	when?			
Have there been an	y changes to	the current sched	ule, including volumes ne	eded by client	?		
Operation completed							
Has client provided	any operation	onal feedback (posi	tive or negative)?				
Person:			Company:			XTO	
Additional Cor	nments						
Ooeration Complete	d. Rig down E	quipment					



C-141 Initial and Final Reports

## 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

Andrew Parker

Cc: David Luna, XTO Energy, via email

Jennifer Van Curen, BLM - Carlsbad Field Office, via certified mail/return receipt

# RECEIVED

MAR 2 5 2013

District I 1625 N. French Dr., Hobbs, NM 88240 District II

State of New Mexico | NMOCD ARTES!A Energy Minerals and Natural Resources

Volume Recovered None

Form C-141 Revised August 8, 2011

Type of Release Treated and non-treated produced water

BII S. First St. District III				Oil (	Conserv	ation Di	vision	Submit	1 Cop	y to appropri	iate Dis	strict Office in
District IV	r Rood, Azte	ec, NM 87410		1220	South	St. Fran	cis Dr.			ccordanco w	dth 19.	15.29 NMAG.
1220 S. St. Fra	ncis Dr., San	ta Fe, NM 8750	5	S	anta Fe	NM 87	505					
			Rel	ease Notifi	cation	and C	orrective A	ction			a complete services of	
nMLB14	014 30	906				OPERA	TOR	X	Initi	al Report		Final Report
		CTO Energy, Ir	10	<i>.</i> 53	380 0	Contact D	avid Lune					
Address 20	O N. Loreine	, Sulte 800 M	(Idland, T)	¢ 79701	1	Telephone No. 432-620-6742						
Facility Na	me Nash L	Jnit #29			F	acility Ty	pe Treated produ	ced water m	odular	Impoundmer	nt	
Surface Ow	mer BLM			Mineral (	Owner	<del></del> -		A	LPI No	. 30-015-29	434	
				LOCA	ATION	OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the		outh Line	Feet from the	East/West	Line	County		
J	13	235	29E	1980	so	UTH	2310	EAST	Г	EDD	Y	

Latitude N 32.30322

Phone: 432-620-6742

Longitude W 103.93719

NAT	UKE	OF	KE.	LE/	SE	
		Vo	hime	of Re	leose	- 5

Source of Release Modular Impoundment - western edge	Date and Hour of Occurrence 8/27/12 Date and	Hour of Discovery 8/27/12
Was Immediate Notice Given?	If YES, To Whom?	
☐ Yes ☒ No ☐ Not Require	d NA	
By Whom? NA	Date and Hour NA	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.	
Yes 🗷 No	NA	
If a Watercourse was Impacted, Describe Fully.*		
NA NA		
Describe Cause of Problem and Remedial Action Taken.*	took along the control of the classic and the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the contr	
On August 27th, 2012 the modular impoundment liner detached from the top of the Mr. Randy Green of XTO Energy mobilized water hauf trucks to the site and lowered		•
water was transferred to Nash Draw 49 H and Nash Draw Unit # 57 H. Soft sampling	· · · · · · · · · · · · · · · · · · ·	
results and proposes a remediation plan.		
Describe Area Affected and Cleanup Action Taken.		
The release affected the southwest comer of the production pad, adjacent	to the modular impoundment. The area of impact v	/B5
approximately 15 X15 square feet. No cleanup action was taken due to lin	nited access caused by the location of the modular i	mpoundment along the edge
of the production pad; beyond the modular impoundment heavy mesquite	vegetation exists.	
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	notifications and perform corrective actions for rel	cases which may endanger
public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remedia	te contemination that many a threat to convend water	eve the operator of liability
or the environment. In addition, NMOCD acceptance of a C-141 report	does not relieve the operator of responsibility for c	ompliance with any other
federal, state, or local laws and/or regulations.		
	OIL CONSERVATION	DIVISION
Signature: Lower flex	Signed By Alle B	lagren 1. man
Printed Name: David Luna	Approved by Environmental Specialist.	THE COLUMN
Tringed (Table, 507th Carle	MAY 3 1 2013	
Title: Operations Engineer	Approval Date: Expiration I	Date:
E-mail Address: David_Luna@xtoenergy.com	Conditions of Approval:	Attached [7]

Remediation per OCD Rule &

Guidelines. SUBMIT REMEDIATION

PROPOȘAL NO LATER THAN:

2RP-1694

# 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.

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

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:

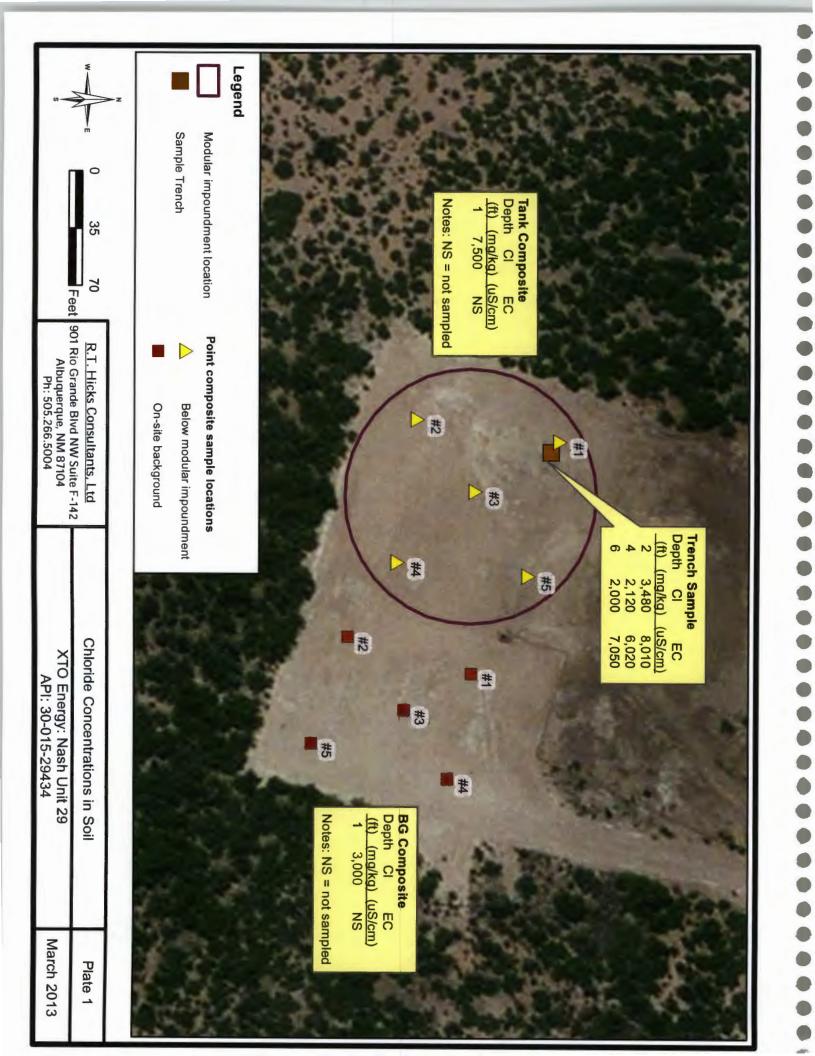
- the moist soil at a depth of 6 feet, which exhibits 2,000 mg/kg chloride, is likely impacted by shallow groundwater wicking up from the underlying brine groundwater zone,
- the moist soil near the surface (Trench Sample) is likely from recent precipitation events and past releases at the site, and
- 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.

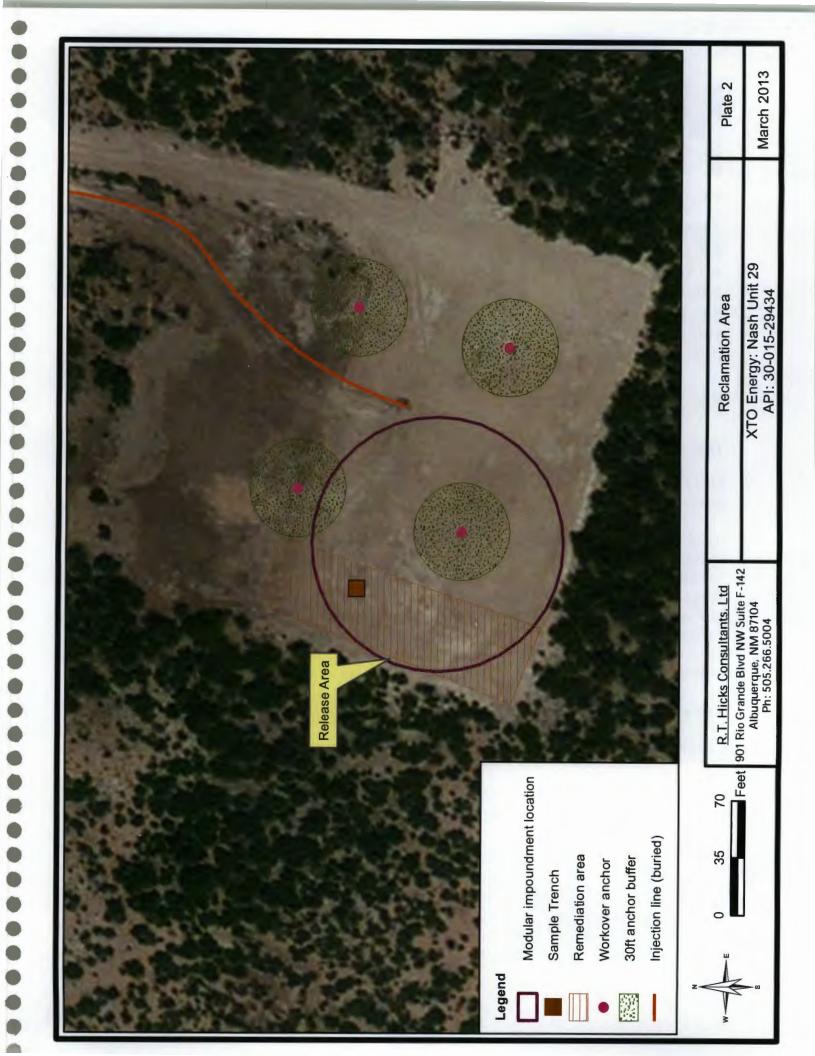
The remediation plan is presented below.

# **Remediation Plan**

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.







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

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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1211653

Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

CLIENT: R.T. Hicks Consultants, LTD

XTO Energy Nash Unit 29

Lab ID: 1211653-001 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	ND	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.
- E Value above quantitation range

Reporting Detection Limit

- Analyte detected below quantitation limits
- Sample pH greater than 2 P
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits 1 of 12

### Lab Order 1211653

Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

CLIENT: R.T. Hicks Consultants, LTD

XTO Energy Nash Unit 29 **Project:** 

Lab ID: 1211653-001 Client Sample ID: Tank Composite

Collection Date: 11/13/2012

Received Date: 11/14/2012 10:50:00 AM

1,3-Dichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19-43 (1.4-Dichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19-43 (1.4-Dichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloroethane ND 0.097 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloroethane ND 0.097 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19-43 (1.2-Dichloropropane ND 0.049 mg/Kg 1 11/21/2012 7:19-43 (1.2-Dichloropropane ND 0.049 mg/Kg 1 11/21/2012 7:19-43 (1.3-Dichloropropane ND 0.097 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloropropane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloroethane ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichlorobenzene ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichlorobenzene ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichlorobenzene ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichlorobenzene ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichlorobenzene ND 0.099 mg/Kg 1 11/21/2012 7:19-43 (1.1-Dichloroethane ND 0.099 mg/Kg 1 11/21/2012 7:19-43	Analyses	Result	RL Q	ual Units	DF	Date Analyzed
1,4-Dichlorobenzene	EPA METHOD 8260B: VOLATILES					Analyst: RAA
1.4-Dichlorobenzene	1,3-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Dichlorodifluoromethane	1,4-Dichlorobenzene	ND	0.049		1	11/21/2012 7:19:43 PM
1,1-Dichloroethane 1,1-Dichloroethane 1,1-Dichloroethane 1,1-Dichloroethane 1,1-Dichloroethane 1,1-Dichloropropane ND 0,049 mg/Kg 1 11/21/2012 7:19:43 1,3-Dichloropropane ND 0,049 mg/Kg 1 11/21/2012 7:19:43 1,3-Dichloropropane ND 0,049 mg/Kg 1 11/21/2012 7:19:43 1,3-Dichloropropane ND 0,097 mg/Kg 1 11/21/2012 7:19:43 1,1-Dichloropropane ND 0,097 mg/Kg 1 11/21/2012 7:19:43 1,1-Dichloropropene ND 0,097 mg/Kg 1 11/21/2012 7:19:43 1,1-Dichloropropene ND 0,097 mg/Kg 1 11/21/2012 7:19:43 1,1-Dichloropropene ND 0,049 mg/Kg 1 11/21/2012 7:19:43 1	Dichlorodifluoromethane	ND	0.049		1	11/21/2012 7:19:43 PM
1,2-Dichloropropane	1,1-Dichloroethane	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
1,3-Dichloropropane	1,1-Dichloroethene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
2,2-Dichloropropane	1,2-Dichloropropane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
1,1-Dichloropropene	1,3-Dichloropropane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Hexachlorobutadiene	2,2-Dichloropropane	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   Isopropylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   4-Isopropyltoluene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   4-Methyl-2-pentanone ND 0.49 mg/Kg 1 11/21/2012 7:19:43   Methylene chloride ND 0.15 mg/Kg 1 11/21/2012 7:19:43   Methylene chloride ND 0.15 mg/Kg 1 11/21/2012 7:19:43   n-Bropylbenzene ND 0.15 mg/Kg 1 11/21/2012 7:19:43   n-Propylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Styrene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Styrene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43   Itert-Butylbenzene ND 0.049 mg/Kg 1	1,1-Dichloropropene	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Isopropylbenzene	Hexachlorobutadiene	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
4-Isopropyltoluene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 4-Methyl-2-pentanone ND 0.49 mg/Kg 1 11/21/2012 7:19:43 Methylene chloride ND 0.15 mg/Kg 1 11/21/2012 7:19:43 Methylene chloride ND 0.15 mg/Kg 1 11/21/2012 7:19:43 n-Butylbenzene ND 0.15 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Styrene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 tert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 tert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 trans-1,2-DCE ND 0.049 mg/Kg 1 11/21/2012 7:19:43 trans-1,3-Dichloropropene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 trans-1,3-Dichloropropene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,4-Trichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:	2-Hexanone	ND	0.49	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           Methylene chloride         ND         0.15         mg/Kg         1         11/21/2012 7:19:43           n-Butylbenzene         ND         0.15         mg/Kg         1         11/21/2012 7:19:43           n-Propylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           sec-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Styrene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           tert-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           tert-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2-Tetrachloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2-Tetrachloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2-Tichlorobenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,2,3-Trichloroethane         ND         0.049         mg/Kg	Isopropylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Methylene chloride         ND         0.15         mg/Kg         1         11/21/2012 7:19:43           n-Butylbenzene         ND         0.15         mg/Kg         1         11/21/2012 7:19:43           n-Propylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           sec-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Styrene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           stert-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           stert-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           stert-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,1,2-Tetrachloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1 trans-1,2-DCE         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1 trans-1,3-Dichloropropene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,2,3-Trichloroebanzene         ND         0.049         mg/Kg	4-Isopropyltoluene	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
n-Butylbenzene ND 0.15 mg/Kg 1 11/21/2012 7:19:43 n-Propylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Styrene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Styrene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 styrene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,1.2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,1.2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,2.2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,2.2-DCE ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,2.3-Tichloropropene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Tichloropropene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Tichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,4-Tichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,1-Tichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,1-Tichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1.2,3-Trichloroppane ND 0.049 mg/Kg	4-Methyl-2-pentanone	ND	0.49	mg/Kg	1	11/21/2012 7:19:43 PM
n-Propylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 sec-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 tert-Butylbenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Tetrachloroethene (PCE) ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-DCE ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-DCE ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Tichloroptene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Tichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Tichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Tichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Tichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2-Dichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2-Dichloroptopane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2-Dic	Methylene chloride	ND	0.15	mg/Kg	1	11/21/2012 7:19:43 PM
sec-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Styrene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           tert-Butylbenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,1,2-Tetrachloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2,2-Tetrachloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2,2-Tetrachloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2,2-Tetrachloroethane (PCE)         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,2,3-Trichloroptenene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,2,3-Trichloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,1-Trichloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2-Trichloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2-Trichloroethane         ND	n-Butylbenzene	ND	0.15	mg/Kg	1	11/21/2012 7:19:43 PM
Styrene ND 0.049 mg/kg 1 11/21/2012 7:19:43 tert-Butylbenzene ND 0.049 mg/kg 1 11/21/2012 7:19:43 1,1,1,2-Tetrachloroethane ND 0.049 mg/kg 1 11/21/2012 7:19:43 1,1,2-Tetrachloroethane ND 0.049 mg/kg 1 11/21/2012 7:19:43 1,1,2-Tetrachloroethane ND 0.049 mg/kg 1 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43	n-Propylbenzene	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 1,1,1,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2,2-Tetrachloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 11/21/2012 7:19:43 1,2,3-Trichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,4-Trichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloropropane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloropropane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane ND 0.049 mg/Kg 1 11/21/	sec-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         1,1,2,2-Tetrachloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Tetrachloroethene (PCE)       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         trans-1,2-DCE       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         trans-1,3-Dichloropropene       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,2,3-Trichlorobenzene       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         1,2,4-Trichlorobenzene       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,1,1-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,1,2-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichloroethane (TCE)       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichlorofluoromethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Vinyl chloride       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Xylenes,	Styrene	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           Tetrachloroethene (PCE)         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           trans-1,2-DCE         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           trans-1,3-Dichloropropene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,2,3-Trichlorobenzene         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           1,2,4-Trichlorobenzene         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,1-Trichloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,1,2-Trichloroethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Trichlorofluoromethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Vinyl chloride         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Xylenes, Total         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           Surr: 4-Bromofluorobenzene         92.4         <	tert-Butylbenzene	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  trans-1,2-DCE  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  trans-1,3-Dichloropropene  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  1,2,3-Trichlorobenzene  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  1,2,4-Trichlorobenzene  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  1,1,1-Trichloroethane  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  1,1,2-Trichloroethane  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Trichloroethene (TCE)  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Trichloroethene (TCE)  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Trichlorofluoromethane  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Trichlorofluoromethane  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Vinyl chloride  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Vinyl chloride  ND  0.049  mg/Kg  1  11/21/2012 7:19:43  Xylenes, Total  ND  0.097  mg/Kg  1  11/21/2012 7:19:43  Surr: 1,2-Dichloroethane-d4  93.2  70-130  %REC  1  11/21/2012 7:19:43  Surr: 4-Bromofluoromethane  90.7  70-130  %REC  1  11/21/2012 7:19:43  Surr: Toluene-d8  101  70-130  %REC  1  11/21/2012 7:19:43	1,1,1,2-Tetrachloroethane	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 trans-1,3-Dichloropropene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichlorobenzene ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,4-Trichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichlorofluoromethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloropropane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloropropane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane-d4 ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane-d4 ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane-d4 ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloroethane-d4 93.2 70-130 mg/Kg 1 11/21/2012 7:19:43 1,2-Dichloroethane-d4 93.2 70-130 %REC 1 11/21/2012 7:19:43 Surr: 1,2-Dichloroethane-d4 93.2 70-130 %REC 1 11/21/2012 7:19:43 Surr: Oibromofluoromethane 90.7 70-130 %REC 1 11/21/2012 7:19:43 Surr: Toluene-d8 101 70-130 %REC 1 11/21/2012 7:19:43 Surr: Toluene-d8 101 70-130 %REC 1 11/21/2012 7:19:43	1,1,2,2-Tetrachloroethane	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 1,2,3-Trichlorobenzene ND 0.097 mg/Kg 1 11/21/2012 7:19:43 1,2,4-Trichlorobenzene ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,1-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,1,2-Trichloroethane (TCE) ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Trichloroethene (TCE) ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Trichlorofluoromethane ND 0.049 mg/Kg 1 11/21/2012 7:19:43 1,2,3-Trichloropropane ND 0.097 mg/Kg 1 11/21/2012 7:19:43 Vinyl chloride ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Xylenes, Total ND 0.049 mg/Kg 1 11/21/2012 7:19:43 Xylenes, Total ND 0.097 mg/Kg 1 11/21/2012 7:19:43 Surr: 1,2-Dichloroethane-d4 93.2 70-130 %REC 1 11/21/2012 7:19:43 Surr: 4-Bromofluorobenzene 92.4 70-130 %REC 1 11/21/2012 7:19:43 Surr: Dibromofluoromethane 90.7 70-130 %REC 1 11/21/2012 7:19:43 Surr: Toluene-d8 101 70-130 %REC 1 11/21/2012 7:19:43	Tetrachloroethene (PCE)	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         1,2,4-Trichlorobenzene       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,1,1-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,1,2-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichloroethene (TCE)       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichlorofluoromethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Vinyl chloride       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Xylenes, Total       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Surr: 1,2-Dichloroethane-d4       93.2       70-130       %REC       1       11/21/2012 7:19:43         Surr: 2-Dibromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH       Analyst: L	trans-1,2-DCE	ND	0.049	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         1,1,1-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,1,2-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichloroethene (TCE)       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichlorofluoromethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,2,3-Trichloropropane       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Vinyl chloride       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Xylenes, Total       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Surr: 1,2-Dichloroethane-d4       93.2       70-130       %REC       1       11/21/2012 7:19:43         Surr: 2-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA	trans-1,3-Dichloropropene	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         1,1,2-Trichloroethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichloroethene (TCE)       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichlorofluoromethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,2,3-Trichloropropane       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Vinyl chloride       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Xylenes, Total       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Surr: 1,2-Dichloroethane-d4       93.2       70-130       %REC       1       11/21/2012 7:19:43         Surr: 4-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH	1,2,3-Trichlorobenzene	ND	0.097	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         Trichloroethene (TCE)       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Trichlorofluoromethane       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         1,2,3-Trichloropropane       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Vinyl chloride       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Xylenes, Total       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Surr: 1,2-Dichloroethane-d4       93.2       70-130       %REC       1       11/21/2012 7:19:43         Surr: 4-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH	1,2,4-Trichlorobenzene	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           Trichlorofluoromethane         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           1,2,3-Trichloropropane         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           Vinyl chloride         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Xylenes, Total         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           Surr: 1,2-Dichloroethane-d4         93.2         70-130         %REC         1         11/21/2012 7:19:43           Surr: 4-Bromofluorobenzene         92.4         70-130         %REC         1         11/21/2012 7:19:43           Surr: Dibromofluoromethane         90.7         70-130         %REC         1         11/21/2012 7:19:43           Surr: Toluene-d8         101         70-130         %REC         1         11/21/2012 7:19:43           EPA METHOD 418.1: TPH	1,1,1-Trichloroethane	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           1,2,3-Trichloropropane         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           Vinyl chloride         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Xylenes, Total         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           Surr: 1,2-Dichloroethane-d4         93.2         70-130         %REC         1         11/21/2012 7:19:43           Surr: 4-Bromofluorobenzene         92.4         70-130         %REC         1         11/21/2012 7:19:43           Surr: Dibromofluoromethane         90.7         70-130         %REC         1         11/21/2012 7:19:43           Surr: Toluene-d8         101         70-130         %REC         1         11/21/2012 7:19:43           EPA METHOD 418.1: TPH    Analyst: L	1,1,2-Trichloroethane	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         Vinyl chloride       ND       0.049       mg/Kg       1       11/21/2012 7:19:43         Xylenes, Total       ND       0.097       mg/Kg       1       11/21/2012 7:19:43         Surr: 1,2-Dichloroethane-d4       93.2       70-130       %REC       1       11/21/2012 7:19:43         Surr: 4-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH    Analyst: L	Trichloroethene (TCE)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Vinyl chloride         ND         0.049         mg/Kg         1         11/21/2012 7:19:43           Xylenes, Total         ND         0.097         mg/Kg         1         11/21/2012 7:19:43           Surr: 1,2-Dichloroethane-d4         93.2         70-130         %REC         1         11/21/2012 7:19:43           Surr: 4-Bromofluorobenzene         92.4         70-130         %REC         1         11/21/2012 7:19:43           Surr: Dibromofluoromethane         90.7         70-130         %REC         1         11/21/2012 7:19:43           Surr: Toluene-d8         101         70-130         %REC         1         11/21/2012 7:19:43           EPA METHOD 418.1: TPH         Analyst: L	Trichlorofluoromethane	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         Surr: 1,2-Dichloroethane-d4       93.2       70-130       %REC       1       11/21/2012 7:19:43         Surr: 4-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH       Analyst: L	1,2,3-Trichloropropane	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         Surr: 4-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH       Analyst: L	•	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PM
Surr: 4-Bromofluorobenzene       92.4       70-130       %REC       1       11/21/2012 7:19:43         Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH       Analyst: L	Xylenes, Total	ND	0.097	mg/Kg	1	11/21/2012 7:19:43 PM
Surr: Dibromofluoromethane       90.7       70-130       %REC       1       11/21/2012 7:19:43         Surr: Toluene-d8       101       70-130       %REC       1       11/21/2012 7:19:43         EPA METHOD 418.1: TPH       Analyst: L	Surr: 1,2-Dichloroethane-d4	93.2	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           EPA METHOD 418.1: TPH         Analyst: L	Surr: 4-Bromofluorobenzene	92.4	70-130	%REC	1	11/21/2012 7:19:43 PM
EPA METHOD 418.1: TPH Analyst: L	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
Petroleum Hydrocarbons TR ND 20 mg/Kg 1 11/21/2012	EPA METHOD 418.1: TPH					Analyst: LRW
1 11/21/2012	Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	11/21/2012

### Qualifiers:

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

- В Analyte detected in the associated Method Blank
- Н 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 2 of 12

Lab Order 1211653

Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD

XTO Energy Nash Unit 29

Lab ID: 1211653-002 Matrix: SOIL

Client Sample ID: BG Composite Collection Date: 11/13/2012

Received Date: 11/14/2012 10:50:00 AM

Analyses	Result	RL Q	ual 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 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	%REC	1	11/20/2012 8:28:08 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/16/2012 3:01:11 PM
Surr: BFB	101	84-116	%REC	1	11/16/2012 3:01:11 PM
EPA METHOD 300.0: ANIONS					Analyst: JRR
Chloride	3000	150	mg/Kg	100	11/20/2012 7:07:09 PM
EPA METHOD 8260B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Toluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,4-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,3,5-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichloroethane (EDC)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibromoethane (EDB)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Naphthalene	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1-Methylnaphthalene	ND	0.20	mg/Kg	1	11/21/2012 7:48:47 PM
2-Methylnaphthalene	ND	0.20	mg/Kg	1	11/21/2012 7:48:47 PM
Acetone	ND	0.74	mg/Kg	1	11/21/2012 7:48:47 PM
Bromobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromodichloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromoform	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromomethane	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
2-Butanone	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Carbon disulfide	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Carbon tetrachloride	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Chlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Chloroethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Chloroform	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Chloromethane	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
2-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
4-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
cis-1,2-DCE	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
cis-1,3-Dichloropropene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibromo-3-chloropropane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Dibromochloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Dibromomethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range

Reporting Detection Limit

- Analyte detected below quantitation limits J
- Sample pH greater than 2

RL

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits 2 of 12

### Lab Order 1211653

Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD

**Project:** XTO Energy Nash Unit 29

**Lab ID:** 1211653-002

Nasii Unit 29

Matrix: SOIL

Client Sample ID: BG Composite

Collection Date: 11/13/2012

Received Date: 11/14/2012 10:50:00 AM

Analyses	Result	RL	Qual Ur	nits	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,3-Dichlorobenzene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,4-Dichlorobenzene	ND	0.049		g/Kg	1	11/21/2012 7:48:47 PM
Dichlorodifluoromethane	ND	0.049		g/Kg	1	11/21/2012 7:48:47 PM
1,1-Dichloroethane	ND	0.099	m	g/Kg	1	11/21/2012 7:48:47 PM
1,1-Dichloroethene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichloropropane	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,3-Dichloropropane	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
2,2-Dichloropropane	ND	0.099	m	g/Kg	1	11/21/2012 7:48:47 PM
1,1-Dichloropropene	ND	0.099	m	g/Kg	1	11/21/2012 7:48:47 PM
Hexachlorobutadiene	ND	0.099	m	g/Kg	1	11/21/2012 7:48:47 PM
2-Hexanone	ND	0.49	m	g/Kg	1	11/21/2012 7:48:47 PM
Isopropylbenzene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
4-Isopropyltoluene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
4-Methyl-2-pentanone	ND	0.49	m	g/Kg	1	11/21/2012 7:48:47 PM
Methylene chloride	ND	0.15	m	g/Kg	1	11/21/2012 7:48:47 PM
n-Butylbenzene	ND	0.15	m	g/Kg	1	11/21/2012 7:48:47 PM
n-Propylbenzene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
sec-Butylbenzene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
Styrene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
tert-Butylbenzene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,1,1,2-Tetrachloroethane	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,1,2,2-Tetrachloroethane	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
Tetrachloroethene (PCE)	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
trans-1,2-DCE	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
trans-1,3-Dichloropropene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,2,3-Trichlorobenzene	ND	0.099	m	g/Kg	1	11/21/2012 7:48:47 PM
1,2,4-Trichlorobenzene	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,1,1-Trichloroethane	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
1,1,2-Trichloroethane	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
Trichloroethene (TCE)	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
Trichlorofluoromethane	ND	0.049		g/Kg	1	11/21/2012 7:48:47 PM
1,2,3-Trichloropropane	ND	0.099	m	g/Kg	1	11/21/2012 7:48:47 PM
Vinyl chloride	ND	0.049	m	g/Kg	1	11/21/2012 7:48:47 PM
Xylenes, Total	ND	0.099	m	g/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: <b>LRW</b>
Petroleum Hydrocarbons, TR	ND	20	m	g/Kg	1	11/21/2012
-						

### Qualifiers:

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

- 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
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

**Project:** 

XTO Energy Nash Unit 29

Sample ID MB-4894

11/19/2012

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS** 

Prep Date:

Batch ID: 4894

RunNo: 7001

%REC LowLimit

Analysis Date: 11/19/2012

SeqNo: 202928

Units: mg/Kg

HighLimit

**RPDLimit** Qual

Analyte Chloride

**PQL** ND 1.5

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 4894

14

RunNo: 7001

Units: mg/Kg

Prep Date: 11/19/2012

Sample ID LCS-4894

Analysis Date: 11/19/2012

SeqNo: 202929

Analyte

SPK value SPK Ref Val %REC HighLimit

%RPD **RPDLimit** Qual

**PQL** 

90.0

110

90

%RPD

Chloride

1.5 15.00

SPK value SPK Ref Val

Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH greater than 2

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit RPD outside accepted recovery limits Page 5 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

**Project:** 

XTO Energy Nash Unit 29

Sample ID MB-4901

SampType: MBLK

TestCode: EPA Method 418.1: TPH

Client ID:

PBS

Batch ID: 4901

RunNo: 7021

Prep Date:

11/19/2012

**PQL** 

20

SeqNo: 203589

Units: mg/Kg

HighLimit

Analyte

Analysis Date: 11/21/2012

Result

Result

Result

110

100

ND

**RPDLimit** 

Qual

Petroleum Hydrocarbons, TR

SampType: LCS

TestCode: EPA Method 418.1: TPH

%REC LowLimit

Sample ID LCS-4901

Analysis Date: 11/21/2012

**PQL** 

20

%RPD

%RPD

Client ID: LCSS

Prep Date: 11/19/2012

Batch ID: 4901

RunNo: 7021

SPK value SPK Ref Val

SPK value SPK Ref Val

SPK value SPK Ref Val

100.0

100.0

SeqNo: 203590

LowLimit

LowLimit

80

Units: mg/Kg

HighLimit

**RPDLimit** 

Qual

Qual

Petroleum Hydrocarbons, TR

Analyte

Sample ID LCSD-4901

SampType: LCSD

TestCode: EPA Method 418.1: TPH

%REC

104

Client ID: LCSS02

Petroleum Hydrocarbons, TR

Batch ID: 4901

RunNo: 7021

Analyte

Prep Date: 11/19/2012 Analysis Date: 11/21/2012

**PQL** 

20

SeqNo: 203591 %REC

106

Units: mg/Kg

HighLimit %RPD **RPDLimit** 120 1.28

20

Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH greater than 2

Analyte detected in the associated Method Blank

RPD outside accepted recovery limits

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Page 6 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

**Client:** 

R.T. Hicks Consultants, LTD

Project:	XTO Ene	ergy Nash U	Jnit 29	)							
Sample ID	MB-4900	SampTy	pe: M	BLK	Tes	tCode: El	PA Method	8015B: Dies	el Range C	Organics	
Client ID:	PBS	Batch	ID: 49	000	F	RunNo: 69	989				
Prep Date:	11/19/2012	Analysis Da	ate: 1	1/20/2012	S	SeqNo: 20	02423	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10								
Motor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP		9.9		10.00		98.8	77.6	140			
Sample ID	LCS-4900	SampTy	/pe: LC	cs	Tes	tCode: El	PA Method	8015B: Dies	el Range C	)rganics	
Client ID:	LCSS	Batch	ID: 49	000	F	RunNo: 69	989				
Prep Date:	11/19/2012	Analysis Da	ate: <b>1</b>	1/20/2012	S	SeqNo: 20	02424	Units: mg/k	(g		
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	SampTy	/pe: <b>M</b>	s	Tes	tCode: El	PA Method	8015B: Dies	el Range C	Organics	
•	1211653-001AMS Tank Composite		/pe: <b>M</b> :			tCode: El		8015B: Dies	el Range (	Organics	
•			ID: <b>49</b>	000	F		989	8015B: Diese	J	Organics	
Client ID:	Tank Composite	Batch	ID: <b>49</b>	000 1/20/2012	F	RunNo: 69	989		J	Organics RPDLimit	Qual
Client ID: Prep Date: Analyte	Tank Composite	Batch Analysis Da	ID: <b>49</b> ate: <b>1</b>	000 1/20/2012 SPK value	F	RunNo: <b>6</b> 9 GeqNo: <b>2</b> 0	989 02426	Units: <b>mg/k</b>	(g	·	Qual
Client ID: Prep Date: Analyte	Tank Composite 11/19/2012	Batch Analysis Da Result	ID: <b>49</b> ate: <b>1</b> PQL	000 1/20/2012 SPK value	SPK Ref Val	RunNo: <b>6</b> 9 SeqNo: <b>2</b> 0 %REC	989 02426 LowLimit	Units: <b>mg/k</b> HighLimit	(g	·	Qual
Client ID: Prep Date: Analyte Diesel Range ( Surr: DNOP	Tank Composite 11/19/2012	Batch Analysis Da Result 54 4.8	ID: <b>49</b> ate: <b>1</b> PQL 10	000 1/20/2012 SPK value 50.97 5.097	SPK Ref Val	RunNo: 69 SeqNo: 20 %REC 106 94.6	02426 LowLimit 12.6 77.6	Units: mg/k HighLimit 148	Kg %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP	Tank Composite 11/19/2012  Organics (DRO)	Batch Analysis Da Result 54 4.8 D SampTy	ID: <b>49</b> ate: <b>1</b> PQL 10	SPK value 50.97 5.097	SPK Ref Val 0	RunNo: 69 SeqNo: 20 %REC 106 94.6	2426 LowLimit 12.6 77.6	Units: mg/k HighLimit 148 140	Kg %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP	Tank Composite	Batch Analysis Da Result 54 4.8 D SampTy	ID: 49 ate: 1 PQL 10 rpe: M:	50.97 5.097 5D	SPK Ref Val 0	RunNo: 69 ReqNo: 20 REC 106 94.6 tCode: EF	2426 LowLimit 12.6 77.6 PA Method	Units: mg/k HighLimit 148 140	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP Sample ID Client ID:	Tank Composite 11/19/2012  Drganics (DRO)  1211653-001 AMSI Tank Composite	Batch Analysis Da Result 54 4.8  D SampTy Batch	ID: 49 ate: 1 PQL 10 rpe: M:	SPK value 50.97 5.097 SD 000 1/20/2012	SPK Ref Val 0	RunNo: 69 ReqNo: 20 REC 106 94.6 tCode: EF	2426 LowLimit 12.6 77.6 PA Method	Units: mg/k HighLimit 148 140 8015B: Diese	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP Sample ID Client ID: Prep Date: Analyte	Tank Composite 11/19/2012  Drganics (DRO)  1211653-001 AMSI Tank Composite	Batch Analysis Da Result 54 4.8 D SampTy Batch Analysis Da	PQL 10 10 10 10 10 10 10 10 10 10 10 10 10	5000 1/20/2012 SPK value 50.97 5.097 SD 1/20/2012 SPK value	SPK Ref Val 0 Tes	RunNo: 69 ReqNo: 26 REC 106 94.6 CCOde: EF RunNo: 69 ReqNo: 26	2426 LowLimit 12.6 77.6 PA Method 989 92569	Units: mg/k HighLimit 148 140 8015B: Diese	%RPD %RPD el Range (	RPDLimit Organics	

### Qualifiers:

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

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID MB-4851

SampType: MBLK

TestCode: EPA Method 8015B: Gasoline Range

Client ID:

**PBS** 

Batch ID: 4851

RunNo: 6951

LowLimit

84

Prep Date:

11/15/2012

Analysis Date: 11/16/2012

5.0

SeqNo: 202014

Units: mg/Kg

HighLimit

Analyte

Result **PQL**  SPK value SPK Ref Val %REC

**RPDLimit** Qual

Gasoline Range Organics (GRO) Surr: BFB

ND 990

1000

99.3

116

Sample ID LCS-4851

SampType: LCS

TestCode: EPA Method 8015B: Gasoline Range

%RPD

Client ID:

LCSS

Batch ID: 4851

RunNo: 6951

HighLimit

Prep Date:

11/15/2012 Analysis Date: 11/16/2012

SeqNo: 202015

Units: mg/Kg

Result

24

1000

%REC LowLimit

%RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) Surr: BFB

**PQL** SPK value SPK Ref Val 5.0 25.00

0 97.3 1000

74 104 84 117 116

Sample ID 1211653-001AMS

SampType: MS

RunNo: 6951

TestCode: EPA Method 8015B: Gasoline Range

Client ID: Prep Date: 11/15/2012

Tank Composite

Batch ID: 4851

Analysis Date: 11/16/2012

24.63

985.2

SeqNo: 202020

LowLimit

70

84

Units: mg/Kg

Analyte Gasoline Range Organics (GRO)

PQL SPK value

SPK Ref Val %REC

0

0

118

109

HighLimit

130

116

116

%RPD **RPDLimit** 

Qual

Qual

Surr: BFB

1100

29

Result

4.9

TestCode: EPA Method 8015B: Gasoline Range

Client ID: **Tank Composite** 

Sample ID 1211653-001AMSD SampType: MSD

RunNo: 6951

Prep Date: 11/15/2012

Batch ID: 4851 Analysis Date: 11/16/2012

**PQL** 

SeqNo: 202021

118

109

Units: mg/Kg

**RPDLimit** 

Analyte Gasoline Range Organics (GRO)

Surr: BFB

Result 29 1100

24.75 5.0 990.1

SPK value SPK Ref Val %REC

LowLimit

HighLimit 70

84

%RPD 130

0.0876

22.1 0

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits Sample pH greater than 2
- В Analyte detected in the associated Method Blank

RPD outside accepted recovery limits

- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

R

Page 8 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID mb-4851	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: PBS	Batch	n ID: 48	51	F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	ate: <b>1</b> 1	1/21/2012	5	SeqNo: 2	04634	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Bromodichloromethane	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								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.000								
Dibromochloromethane	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								
1,1-Dichloroethane	ND	0.030								
1,1-Dichloroethene	ND ND	0.050								
	ND ND	0.050								
1,2-Dichloropropane										
1,3-Dichloropropane	ND ND	0.050								
2,2-Dichloropropane	ND ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID mb-4851 SampType: MBLK TestCode: EPA Method 8260B: VOLATILES RunNo: 7060 Client ID: PBS Batch ID: 4851 SeqNo: 204634 Analysis Date: 11/21/2012 Units: mg/Kg Prep Date: 11/15/2012 PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result ND 0.50 2-Hexanone ND 0.050 isopropylbenzene ND 0.050 4-Isopropyltoluene 4-Methyl-2-pentanone ND 0.50 ND 0.15 Methylene chloride ND 0.15 n-Butylbenzene ND 0.050 n-Propylbenzene sec-Butylbenzene ND 0.050 ND 0.050 Styrene tert-Butylbenzene ND 0.050 ND 0.050 1,1,1,2-Tetrachloroethane 0.050 1,1,2,2-Tetrachloroethane ND Tetrachloroethene (PCE) ND 0.050 ND 0.050 trans-1,2-DCE ND 0.050 trans-1,3-Dichloropropene ND 0.10 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene ND 0.050 1,1,1-Trichloroethane ND 0.050 0.050 ND 1,1,2-Trichloroethane Trichloroethene (TCE) ND 0.050 Trichlorofluoromethane ND 0.050 1,2,3-Trichloropropane ND 0.10 ND 0.050 Vinyl chloride ND 0.10 Xylenes, Total 0.5000 93.2 70 130 Surr: 1,2-Dichloroethane-d4 0.47 0.5000 89.4 70 130 Surr: 4-Bromofluorobenzene 0.45 Surr: Dibromofluoromethane 0.46 0.5000 92.3 70 130 103 70 130 Surr: Toluene-d8 0.52 0.5000

Sample ID Ics-4851	SampT	ype: LC	S	Tes						
Client ID: LCSS	Batch	n ID: 48	51	F	RunNo: <b>7</b> 0					
Prep Date: 11/15/2012	Analysis D	Date: 11	/21/2012	8	SeqNo: 2	04635	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	70	130			
Toluene	1.1	0.050	1.000	0	108	80	120			
Chlorobenzene	1.0	0.050	1.000	0	101	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	110	74	124			
Trichloroethene (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: 4-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

RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
  - Reporting Limit Page

Page 10 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1211653

29-Nov-12

Client: R.T. Hicks Consultants, LTD

Project: XTO Energy Nash Unit 29

Sample ID Ics-4851	SampT	ype: LC	s	Test						
Client ID: LCSS	Batch	ID: 48	51	RunNo: 7060						
Prep Date: 11/15/2012	Analysis Da	ate: 1	1/21/2012	S	SeqNo: 2	04635	Units: mg/K	(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	SampT	ype: MS	3	Tes	TestCode: EPA Method 8260B: VOLATILES					
Client ID: BG Composite	Batch	h ID: 48	51	F	RunNo: <b>7060</b>					
Prep Date: 11/15/2012	Analysis D	)ate: 11	1/21/2012	S	SeqNo: 20	04638	Units: mg/K	g		
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			
Surr: Dibromofluoromethane	0.47		0.4902		95.4	70	130			
Surr: Toluene-d8	0.50		0.4902		102	70	130			

Sample ID 1211653-002amsd	SampT	ype: MS	\$D	Test	tCode: <b>E</b> F	ATILES				
Client ID: BG Composite	Batch	ID: 485	51	R	RunNo: <b>7060</b>					
Prep Date: 11/15/2012	Analysis D	ate: 11	1/21/2012	S	SeqNo: 20	04639	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.049	0.9891	0	93.3	80.9	118	1.30	20	
Toluene	0.98	0.049	0.9891	0	98.8	69.5	119	2.28	20	
Chlorobenzene	0.88	0.049	0.9891	0	89.3	75.7	115	1.32	20	
1,1-Dichloroethene	1.0	0.049	0.9891	0.01122	99.6	68.6	126	0.357	24.8	
Trichloroethene (TCE)	0.82	0.049	0.9891	0	83.3	68.7	115	1.99	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4946		95.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.41		0.4946		83.4	70	130	0	0	
Surr: Dibromofluoromethane	0.48		0.4946		96.6	70	130	0	0	
Surr: Toluene-d8	0.51		0.4946		104	70	130	0	0	

Sample ID mb-4881	SampType: MBLK			Tes	tCode: El					
Client ID: PBS	Batch	1D: <b>48</b>	81	F	RunNo: 7	060				
Prep Date: 11/19/2012	Analysis D	ate: 1	1/21/2012	S	SeqNo: 2	04640	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		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.8	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.1	70	130			
Surr: Toluene-d8	0.51		0.5000		103	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

Page 11 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

**Project:** 

XTO Energy Nash Unit 29

Sample ID Ics-4881	SampT	ype: LC	s	Tes	tCode: EI	PA Method	8260B: VOL	ATILES		
Client ID: LCSS	Batch	ID: <b>48</b>	81	F	RunNo: 70	060				
Prep Date: 11/19/2012	Analysis D	ate: 1	1/21/2012	S	SeqNo: 20	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	70	130			
Surr: Toluene-d8	0.53		0.5000		106	70	130			

### Qualifiers:

P Sample pH greater than 2

R RPD outside accepted recovery limits

Page 12 of 12

^{*} Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

# Sample Log-In Check List

RT HICKS Client Name: Work Order Number: 1211653 MG- 11/14/12 Received by/date: am Ilm 11/14/2012 10:50:00 AM Logged By: an Ilm Completed By: Anne Thorne 11/19/2012 Reviewed By: Chain of Custody Not Present Yes No 🗌 1. Were seals intact? Yes V No Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Client Log In Yes 🗌 No 🗌 NA 🔽 4. Coolers are present? (see 19. for cooler specific information) Yes 🗸 No 🗌 NA 🗌 5. Was an attempt made to cool the samples? Yes 🗹 No 🗌 NA 🗌 6 Were all samples received at a temperature of >0° C to 6.0°C Yes V No 7. Sample(s) in proper container(s)? Yes 🗸 No 🗌 8 Sufficient sample volume for indicated test(s)? Yes 🗹 No 🗌 9 Are samples (except VOA and ONG) properly preserved? Yes No V NA . 10. Was preservative added to bottles? Yes No No VOA Vials 11. VOA vials have zero headspace? Yes No 🗸 12. Were any sample containers received broken? # of preserved Yes 🗹 No 🗌 13. Does paperwork match bottle labels? bottles checked (Note discrepancies on chain of custody) for pH: Yes V No (<2 or >12 unless noted) 14. Are matrices correctly identified on Chain of Custody? Adjusted? Yes 🗸 No 🗔 15. Is it clear what analyses were requested? Yes 🗸 No 🗆 16. Were all holding times able to be met? (If no, notify customer for authorization.) Checked by: Special Handling (if applicable) Yes No 🗆 NA 🗹 17. Was client notified of all discrepancies with this order? Person Notified: Date By Whom: eMail Phone Fax In Person Via: Regarding: Client Instructions: 18 Additional remarks: 19 Cooler Information Cooler No Temp °C | Condition | Seal Intact | Seal No | Seal Date Signed By Good Not Present

### BL # L * Do not analyze pointsamples tank #1-#5 Air Bubbles (Y or N) **ANALYSIS LABORATORY** HALL ENVIRONMENTAL ** Do not analize point samples 86 #127 Tank #1-5: Lab composite 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. 4901 Hawkins NE - Albuquerque, NM 87109 Fax 505-345-4107 (AOV-ime2) 07S8 www.hallenvironmental.com Analysis Request (<del>***</del>) 80978 X 8081 Pesticides / 8082 PCB's CI) NO3, NO2, PO4, SO4) RCRA 8 Metals Tel. 505-345-3975 (HA9 10 AN9) 01E8 Lab composik EDB (Method 504.1) [PH (Method 418.1) [PH Method 8015B (Gas/Diesel) Remarks: MTBE + TPH (Gas only) + TMB's (8021) **MTBE** 05:01 01 h -005 98 00 Time Preservative □ Rush Andrew Packer Type 16.6 XTO FOLLAY > : × : = = È = Turn-Around Time: Project Manager: Project Name: D. Standard 402 alass Type and # Container Received by: Project #: Sampler: : 5 = × ₹ : t Tank Compositet Bis composite ** email or Fax#: androw @ c+hicksCoasult. Com □ Level 4 (Full Validation) Sample Request ID 1.08" Chain-of-Custody Record 180 86 # 5 @8" Client: R.T. Hicks Consultants tank # 4 Ħ tank# 5 86#2 86#3 tank B6# Phone #: 505.366. 5004 Relinquished by: Relinquished by □ Other Matrix 501 ` ¥ _ > \$ : ٥ Ę ξ. Mailing Address: 5.50 1305 QA/QC Package: Time 1327 1259 1317 1354 1325 ☐ EDD (Type) 1256 1303 1311 1314 Time: Accreditation Time: □ Standard □ NELAP 11.13.12 Date 5](1.2 Date: Date: :



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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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.

Celeg D. Keine

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,

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	mg	/kg	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	u\$/	cm	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity*	8010	1.00	02/15/2013		476	95.2	500	0.752	

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

Chloride, SM4500Cl-B	mg	mg/kg		Analyzed 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, SM4500CI-B	mg	/kg	Analyze	Analyzed By: DW					
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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waved 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 incurred by client, it's subsidiances, affiliables or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg There

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 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

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 tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever 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 incurred by client, its subsidiaries, affiliates or successors anising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keine

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88246

€ (C	できます	Ruct (Initials)	Sample Condition  Cool   Intact	Delivered By: (Circle One)
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Yes No Add'l Phone #: Yes No Add'l Fax #:	Phone Result: Fax Result: REMARKS		Date: 3. 13. 13. 13. 13. 13. 13. 13. 13. 13.	Relinquished By:  Karotta By:  Ope
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	Hicks	Company: R. T. H		Address:
		P.O. #	77	Project Manager: Andrew
ANALYSIS REQUEST		The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		7 1. TICKS

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

なし、

Page 4 of 4

# 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 activities. 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

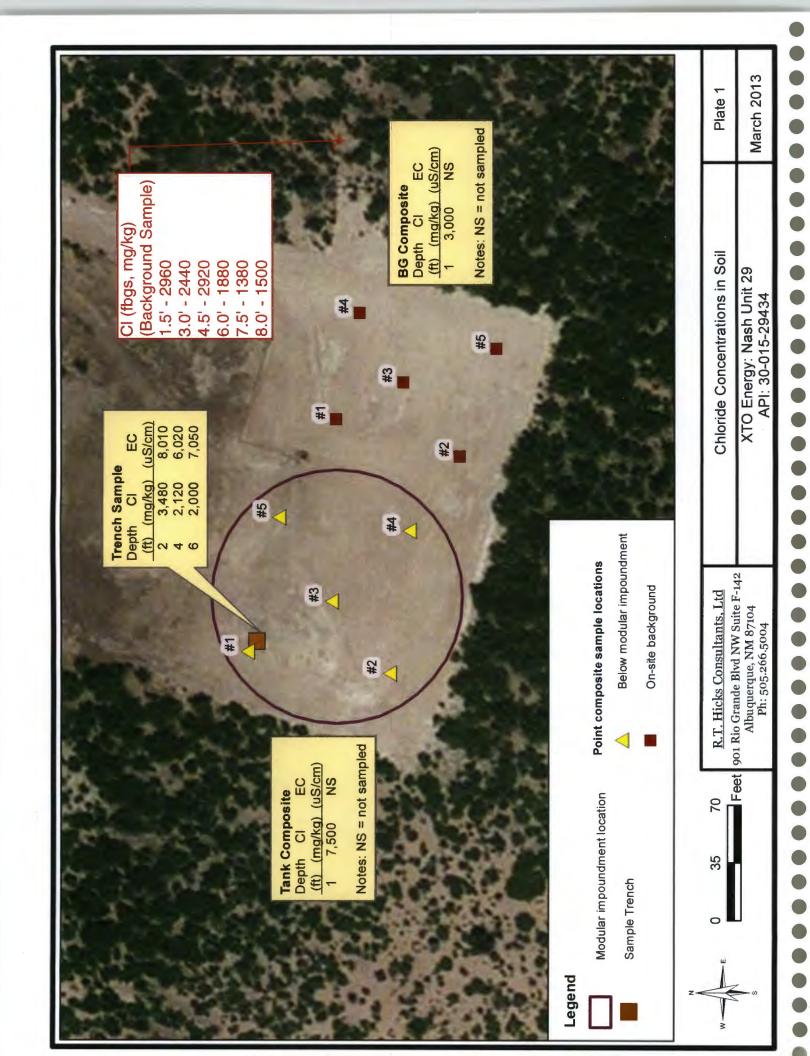
Cc: David Luna, XTO Energy, via email

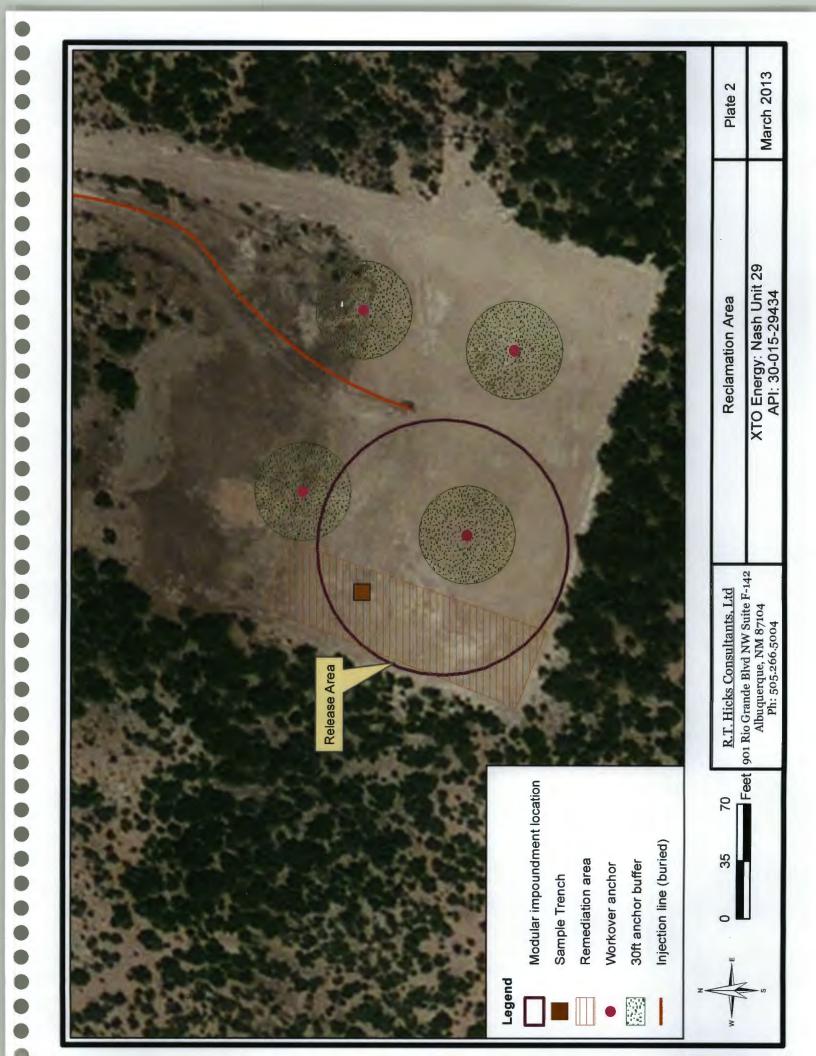
	RECEIVED
District III Energy Mil Salt S. First St., Artesia, NM 88210 District III OOR Rio Brazos Road, Aztoc, NM 87410 District IV 1220	nerals and Natural Resources Conservation Division South St. Francis Dr.  nta Fe, NM 87505  DEC 0 9 2013 Form C-14 Revised August 8, 201 ADD ARTESIA Revised August 8, 201 ACCORDANCE with 19.15.29 NMAC
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	ation and Corrective Action
nML 14014 30906	OPERATOR
Name of Company XTO Energy, INC 5380	Contest David Luna
Address 200 M. Loraine, Ste 800 Midland TX, 79 Facility Name Nash Draw #29	701 Telephone No. 432-620-6742  Facility Type Treated produced water modular impoundment
Surface Owner BLN Mineral O	
	TION OF RELEASE North/South Line   Feet from the   East/West Line   County
Unit Letter Section Township Range Feet from the 1980	South 2310 East Eddy
Latitude N. 32.303	22 Longitude W. 103.93719
NATI	URE OF RELEASE
Type of Release Treated and non-treated produced water  Source of Release Modular Impoundment - western edge	Volume of Release   Volume Recovered
Was Immediate Notice Given?	If YES, To Whom?
Yes X No Not Req	
By Whom? NA Was a Watercourse Reached?	Date and Hour NA If YES, Volume Impacting the Watercourse.
Yes 🔀 No	NA .
If a Watercourse was Impacted, Describe Fully.*  NA	
	the tank along the westom edge releasing opproximately 3 barrole of treated produced water, and the water level to provent further leakage and restlected the liner to the top of the tank. The wall stimulation, Soil sampling was conducted per C-144 closure requirements.
	coses caused by the location of the moduler impoundment along the edge tion axists. On October 23 - 27, 2013; remedial activities were performed according to apili report
regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report is should their operations have falled to adequately investigate and reme	to the best of my knowledge and understand that pursuant to NMOCD rules and use notifications and perform corrective actions for releases which may endanger by the NMOCD marked as "Final Report" does not relieve the operator of liability adiate contamination that pose a threat to ground water, surface water, human health art does not relieve the operator of responsibility for compliance with any other
( ) - /	OIL CONSERVATION DIVISION
Signature: Out her	Signed By Mily Drawnson
Printed Name: David Luna	Approved by Environmental Specialist:
Title: Operations Engineer	Approval Date: AN 1 4 2014 Expiration Date: NA
E- Address: David_Luna@xtoenergy.com	Conditions of Approval:
Date: 12/05/2013 Phone: 432-820-6742	Tinal
Attach Additional Sheets If Necessary	2RA-1674

# **Plates**

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

# 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

**Andrew Parker** 

Cc: David Luna, XTO Energy, via email

Jennifer Van Curen, BLM - Carlsbad Field Office, via certified mail/return receipt

# RECEIVED

MAR 2 5 2013

District I 1625 N. French Dr., Hobbs, NM 88240 District II B11 S. First St., Artesia, NM 88210 District III State of New Mexico NMOCD ARTES!A
Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Con

Submit 1 Copy to appropriate District Office in

1000 Pio Brazos Poorf Aziec NM 87410	inscivation D			ccordance wit	L 10.15.20 NMA	Ĉ.
District IV 1220 S	outh St. Fran					
Jall	ta Fe, NM 87					
Release Notifica			ction			
nMLB1401430906	OPERA		X Initi	al Report	Final Rep	100
Name of Company XTO Energy, Inc 5 38						
Address 200 N. Loreine, Suite 800 Midland, TX 79701		No. 432-620-6742	ad water medular	lmnou admost		
Facility Name Nash Unit #29		pe Treated produc	eo water moonar	mpoundment		_
Surface Owner BLM Mineral Ow	ner		API No	0. 30-015-294	34	
LOCAT	ION OF RE	LEASE				
Unit Letter   Section   Township   Range   Feet from the   N	orth/South Line	Feet from the	East/West Line	County		_
J 13 23S 29E 1980	SOUTH	2310	EAST	EDDY	,	
Y	1 14	W 402 02710		L		
Latitude N 32.30322		de_W 103.93719				
	RE OF REL		<del></del>			
Type of Release Treated and non-treated produced water  Source of Release Modular Impoundment - western edge		Release < 5 bb/s		Recovered No Hour of Disco		
Was Immediate Notice Given?	If YES, To	Whom?		HOM OF DISC	reciy derite	_
☐ Yes ☒ No ☐ Not Requ	ired	N				
By Whom? NA	Date and I					_
Was a Watercourse Reached? X  Yes X No	If YES, Vo	olume Impacting the	e Watercourse.			
If a Watercourse was Impacted, Describe Fully.*	110					긕
If a watercourse was nuparied, Describe Fully.						.
NA.						1
						- 1
Describe Cause of Problem and Remedial Action Taken.*					7	٦
On August 27th, 2012 the modular impoundment liner detached from the top of the						- 1
Mr. Randy Green of XTO Energy mobilized water haut trucks to the site and lower water was transferred to Nesh Draw 48 H and Nesh Draw Unit # 57 H. Soil sample						. 1
results and proposas a remediation plan.						
Describe Area Affected and Cleanup Action Taken.						
The release affected the southwest corner of the production pad, adjace		-	-			1
approximately 15 X15 square feet. No cleanup action was taken due to of the production pad; beyond the modular impoundment heavy mesquiti		•	of the modular im	ipoundment al	ong the edge	1
I hereby certify that the information given above is true and complete t			erstand that mursu	ant to NMOC	D rules and	4
regulations all operators are required to report and/or file certain releas	e notifications an	d perform correctiv	e actions for relea	ses which ma	y endanger	{
public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remed	the NMOCD ma	rked as "Final Repo	ort" does not relie	ve the operato	r of liability	1
or the environment. In addition, NMOCD acceptance of a C-141 report						
federal, state, or local laws and/or regulations.			_	<u> </u>		1
	1	OIL CONSE	RVATION I	DIVISION		
Signature: A foul fees	]	Q:1D	all. K.			ı
Bristod Name Could Lune	Approved by E	Signed By Invironmental Spec	ialist:	Alde	<u></u>	1
Printed Name: David Lune	P1	Y 3 1 2013	· · · · · · · · · · · · · · · · · · ·			+
Title: Operations Engineer	Approval Date		Expiration Da	ite:		
E-mail Address: David_Luna@xtoenergy.com	Conditions of	anmyel.				
2/14/12	7		ıle &	Attached [	ļ	
Date: 7   Phone: 432-620-6742	Kemediatio	n per OCD Ru	IATION 1			]
Attach Additional Sheets If Necessary	uidelines. SC	BMIT REMED	IAIIOI			
		NO LATER TH	MIV.	101	1101	
	7/1/20	713	·	X)F'-/	674	
			·	- 41 /	• /	

# 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 TPH 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 NS NS NS NS Trench Sample 2/11/2013 2 3,480 8,010 Trench Sample 2/11/2013 4 2,120 3,020 NS NS NS NS 7,050 NS NS NS Trench Sample 2/11/2013 6 2,000 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.

# **Remediation Plan**

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 B**Discussion of Sampling Results

#### 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.

Table 1: Soil chemistry summary results

Sample ID	Date	Depth	Chloride	EC	Benzene	ВТЕХ	TPH	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	1.0	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

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.

Table 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 (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 Table 3: Chloride concentration comparison

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.

current production activities.

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 Freeman

Laboratory Manager

male

4901 Hawkins NE

Albuquerque, NM 87109

# Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** R.T. Hicks Consultants, LTD

Project: XTO Energy Nash Unit 29

**Lab ID:** 1211653-001

Matrix: SOIL

**Received Date:** 11/14/2012 10:50:00 AM

Client Sample ID: Tank Composite

Collection Date: 11/13/2012

			111111111111111111111111111111111111111					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed			
EPA METHOD 8015B: DIESEL RANGI	E ORGANICS				Analyst: <b>JMP</b>			
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: <b>NSB</b>			
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	ND	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 PN			
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			

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

- 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
- S Spike Recovery outside accepted recovery limits 1 of 12

# 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

**Lab ID:** 1211653-001

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 PN
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 PN
isopropylbenzene	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 PN
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: LRV
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	11/21/2012
			_		

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

- 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
- S Spike Recovery outside accepted recovery limits Page 2 of 12

#### **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

**Lab ID:** 1211653-002

Collection Potes 11/12/2012

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 8015B: DIESEL RANG	E ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	10	mg/Kg	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	%REC	1	11/20/2012 8:28:08 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/16/2012 3:01:11 PM
Surr: BFB	101	84-116	%REC	1	11/16/2012 3:01:11 PM
EPA METHOD 300.0: ANIONS					Analyst: JRR
Chloride	3000	150	mg/Kg	100	11/20/2012 7:07:09 PM
EPA METHOD 8260B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Toluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,4-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,3,5-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichloroethane (EDC)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibromoethane (EDB)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Naphthalene	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1-Methylnaphthalene	ND	0.20	mg/Kg	1	11/21/2012 7:48:47 PM
2-Methylnaphthalene	ND	0.20	mg/Kg	1	11/21/2012 7:48:47 PM
Acetone	ND	0.74	mg/Kg	1	11/21/2012 7:48:47 PM
Bromobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromodichloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromoform	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromomethane	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
2-Butanone	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Carbon disulfide	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Carbon tetrachloride	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Chlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Chloroethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Chloroform	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Chloromethane	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
2-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
4-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
cis-1,2-DCE	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
cis-1,3-Dichloropropene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibromo-3-chloropropane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Dibromochloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Dibromomethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM

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

- 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
- S Spike Recovery outside accepted recovery limits 3 of 12

# **Analytical Report**

#### Lab Order 1211653

Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: BG Composite

Project: XTO Energy Nash Unit 29

Collection Date: 11/13/2012

Lab ID: 1211653-002 Matrix: SOIL

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 7:48:47 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 Pt
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 PI
Xylenes, Total	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PI
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 PI
Surr: Toluene-d8	105	70-130	%REC	1	11/21/2012 7:48:47 PI
EPA METHOD 418.1: TPH					Analyst: LRV
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	11/21/2012
,					

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

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits 4 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Result

Project:

XTO Energy Nash Unit 29

Sample ID MB-4894

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: 4894

RunNo: 7001

Prep Date: 11/19/2012

Analysis Date: 11/19/2012

SeqNo: 202928

Units: mg/Kg HighLimit

%RPD **RPDLimit** 

Qual

Analyte Chloride

PQL ND 1.5

SampType: LCS

TestCode: EPA Method 300.0: Anions

Batch ID: 4894

RunNo: 7001

Prep Date: 11/19/2012

Sample ID LCS-4894

Client ID: LCSS

Analysis Date: 11/19/2012

SeqNo: 202929

Units: mg/Kg

Analyte

15.00

90

HighLimit

%RPD

Chloride

**PQL** 

**RPDLimit** Qual

14 1.5

SPK value SPK Ref Val

SPK value SPK Ref Val %REC LowLimit

%REC 90.0

110

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

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653 29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID MB-4901

SampType: MBLK

TestCode: EPA Method 418.1: TPH

Client ID:

**PBS** 

Batch ID: 4901

RunNo: 7021

Prep Date: 11/19/2012

Analysis Date: 11/21/2012 **PQL** 

20

20

SeqNo: 203589

Units: mg/Kg

Analyte

Result ND

SPK value SPK Ref Val

%REC LowLimit

HighLimit

**RPDLimit** %RPD

Qual

Petroleum Hydrocarbons, TR

SampType: LCS

TestCode: EPA Method 418.1: TPH

Sample ID LCS-4901

Client ID: LCSS

Batch ID: 4901

RunNo: 7021

Prep Date: 11/19/2012

Analysis Date: 11/21/2012

%REC

104

SeqNo: 203590

Units: mg/Kg

120

Qual

Qual

Analyte Petroleum Hydrocarbons, TR Result **PQL** 100

SPK value SPK Ref Val

LowLimit

HighLimit

%RPD **RPDLimit** 

Sample ID LCSD-4901

SampType: LCSD

TestCode: EPA Method 418.1: TPH

80

Client ID: LCSS02

Batch ID: 4901

RunNo: 7021

%REC

Units: mg/Kg

Analyte

Prep Date: 11/19/2012

Analysis Date: 11/21/2012

Result

110

SeqNo: 203591

HighLimit

%RPD

**RPDLimit** 

Petroleum Hydrocarbons, TR

SPK value SPK Ref Val **PQL** 20

100.0

100.0

106

LowLimit

120

1.28

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.

Value above quantitation range

Analyte detected below quantitation limits

P Sample pH greater than 2

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit ND

RPD outside accepted recovery limits

Page 6 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project: XTO End	ergy Nash Uni	t 29							
Sample ID MB-4900	SampType	MBLK	Tes	tCode: El	PA Method	8015B: Dies	el Range (	Organics	
Client ID: PBS	Batch ID:	4900	F	RunNo: 6	989				
Prep Date: 11/19/2012	Analysis Date:	11/20/2012	\$	SeqNo: 2	02423	Units: mg/F	<b>(</b> g		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10							
Motor Oil Range Organics (MRO)	ND	50							
Surr: DNOP	9.9	10.00		98.8	77.6	140			
Sample ID LCS-4900	SampType	: LCS	Tes	tCode: El	PA Method	8015B: Dies	el Range (	Organics	
Client ID: LCSS	Batch ID:	4900	F	RunNo: 6	989				
Prep Date: 11/19/2012	Analysis Date:	11/20/2012	5	SeqNo: 20	02424	Units: mg/k	(g		
Analyte	Result P	QL 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	SampType	: MS	Tes	tCode: El	PA Method	8015B: Dies	el Range (	Organics	
Client ID: Tank Composite	Batch ID:	4900	F	RunNo: 6	989				
Prep Date: 11/19/2012	Analysis Date:	11/20/2012	5	SeqNo: 2	02426	Units: mg/k	(g		
Analyte	Result P	QL 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 1211653-001AMS	<b>D</b> SampType	: MSD	Tes	tCode: El	PA Method	8015B: Dies	el Range (	Organics	
Client ID: Tank Composite	Batch ID:	4900	F	Run <b>N</b> o: <b>6</b> 9	989				
Prep Date: 11/19/2012	Analysis Date:	11/20/2012	\$	SeqNo: 20	02569	Units: mg/K	(g		
Analyte	Result P	QL 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	

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range Е
- Analyte detected below quantitation limits
- Sample pH greater than 2

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

**Client:** 

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID MB-4851

SampType: MBLK

TestCode: EPA Method 8015B: Gasoline Range

LowLimit

84

84

Client ID:

PBS

Batch ID: 4851

POL

5.0

RunNo: 6951

Units: mg/Kg

116

Analyte

Prep Date: 11/15/2012

Analysis Date: 11/16/2012

SeqNo: 202014 %REC

Qual

Gasoline Range Organics (GRO) Surr: BFB

ND

1000

1000

24.63

985.2

SPK value SPK Ref Val

99.3

HighLimit

%RPD **RPDLimit** 

Sample ID LCS-4851

990 SampType: LCS

Result

TestCode: EPA Method 8015B: Gasoline Range

Client ID: LCSS Prep Date: 11/15/2012 Batch ID: 4851

Analysis Date: 11/16/2012

RunNo: 6951 SeqNo: 202015

Units: mg/Kg

117

116

Analyte Gasoline Range Organics (GRO)

**PQL** Result 24 5.0 SPK value SPK Ref Val 25.00

LowLimit %REC 97.3 74

**RPDLimit** %RPD

Qual

Surr: BFB

1000 SampType: MS

TestCode: EPA Method 8015B: Gasoline Range

HighLimit

Sample ID 1211653-001AMS **Tank Composite** 

Batch ID: 4851

0

RunNo: 6951

%RPD

Analyte

Prep Date:

11/15/2012

Analysis Date: 11/16/2012

SPK value SPK Ref Val

SeqNo: 202020 %REC

118

104

Units: mg/Kg HighLimit

**RPDLimit** 

Qual

Qual

Gasoline Range Organics (GRO) Surr: BFB

1100

Result

29

4.9

**PQL** 

109 84

Sample ID 1211653-001AMSD

SampType: MSD

RunNo: 6951

LowLimit

70

130

116

Client ID: Prep Date: 11/15/2012

Tank Composite

Batch ID: 4851

Units: mg/Kg

Analyte

Analysis Date: 11/16/2012 SPK value SPK Ref Val Result PQL

SeqNo: 202021 %REC LowLimit

HighLimit

TestCode: EPA Method 8015B: Gasoline Range

%RPD

**RPDLimit** 22.1

0

Gasoline Range Organics (GRO) Surr: BFB

29 5.0 24.75 1100 990.1

O

118 109 70 84 130 116

0.0876 0

- Value exceeds Maximum Contaminant Level
- Value above quantitation range
- Analyte detected below quantitation limits
- - Sample pH greater than 2

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
- Page 8 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client: R.T. Hicks Consultants, LTD

Project: XTO Energy Nash Unit 29

Sample ID mb-4851	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: VOL	ATILES		<u> </u>
Client ID: PBS		n ID: 48		F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D				SeqNo: 2		Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Bromodichloromethane	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								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	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								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

- * 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 Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID mb-4851	SampT	ype: ME	BLK	Test	Code: El	PA Method	8260B: VOL	ATILES		
Client ID: PBS	Batch	n ID: 48	51	R	tunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	ate: 11	/21/2012	S	eqNo: 2	04634	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, 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	SampT	ype: LC	s	Tes	8260B: VOL	ATILES				
Client ID: LCSS	Batch	n ID: 48	51	F	RunNo: 7					
Prep Date: 11/15/2012	Analysis D	oate: 11	1/21/2012	8	SeqNo: 2	04635	Units: mg/K			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	70	130			
Toluene	1.1	0.050	1.000	0	108	80	120			
Chlorobenzene	1.0	0.050	1.000	0	101	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	110	74	124			
Trichloroethene (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: 4-Bromofluorobenzene	0.43		0.5000		86.1	70	130			

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
  - RPD outside accepted recovery limits
- Page 10 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1211653

29-Nov-12

Client: R.T. Hicks Consultants, LTD

Project: XTO Energy Nash Unit 29

Sample ID Ics-4851	SampT	ype: LC	s	Test						
Client ID: LCSS	Batch	Batch ID: 4851 RunNo: 7060								
Prep Date: 11/15/2012	Analysis Da	ate: 11	1/21/2012	SeqNo: 204635 L			Units: mg/Kg			
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	Sampl	ype: MS	5	Tes	tCode: E	PA Method	8260B: VOL	ATILES		
Client ID: BG Composite	Batch	n ID: 48	51	F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	)ate: 11	1/21/2012	S	SeqNo: 2	04638	Units: mg/K	(g		
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			
Surr: Dibromofluoromethane	0.47		0.4902		95.4	70	130			
Surr: Toluene-d8	0.50		0.4902		102	70	130			

Sample ID 1211653-002amsd	SampT	ype: MS	SD	Tes	tCode: El	PA Method	8260B: VOLA	ATILES		
Client ID: BG Composite	Batch	ID: 48	51	F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	ate: 11	/21/2012	S	SeqNo: 2	04639	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.049	0.9891	0	93.3	80.9	118	1.30	20	
Toluene	0.98	0.049	0.9891	0	98.8	69.5	119	2.28	20	
Chlorobenzene	0.88	0.049	0.9891	0	89.3	75.7	115	1.32	20	
1,1-Dichloroethene	1.0	0.049	0.9891	0.01122	99.6	68.6	126	0.357	24.8	
Trichloroethene (TCE)	0.82	0.049	0.9891	0	83.3	68.7	115	1.99	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4946		95.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.41		0.4946		83.4	70	130	0	0	
Surr: Dibromofluoromethane	0.48		0.4946		96.6	70	130	0	0	
Surr: Toluene-d8	0.51		0.4946		104	70	130	0	0	

Sample ID mb-4881	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: PBS	Batch	ID: 48	81	F	RunNo: 7	060				
Prep Date: 11/19/2012	Analysis D	ate: 11	1/21/2012	S	SeqNo: 2	04640	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		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.8	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.1	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

- * 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 Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

**Project:** 

XTO Energy Nash Unit 29

Sample ID Ics-4881 SampType: LCS TestCode: EPA Method 8260B: VOLATILES Client ID: LCSS Batch ID: 4881 RunNo: 7060 Units: %REC Prep Date: 11/19/2012 Analysis Date: 11/21/2012 SeqNo: 204641 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 0.45 0.5000 89.1 70 130 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane 0.46 0.5000 92.8 70 130 Surr: Toluene-d8 0.53 0.5000 106 70 130

#### Qualifiers:

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

- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

R

RPD outside accepted recovery limits



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Clier	nt Name:	RT HICKS			Work Or	der Num	ber: 12	211653			
Rece	eived by/date	MO	- 1/1/4	1//2_							
Logg	ged By:	Anne Thorn	ne	11/14/2012 10:50:0	MA C			A-			
Com	pleted By:	Anne Thorn	ne	11/19/2012			am	J			
Revi	iewed By:	A	111 1911	2-			J				
<u>Cha</u>	in of Cust	<u>ody</u>						-			
1.	Were seals i	ntact?			Yes	☐ No		Not Pres	ent 🗹		
2.	Is Chain of C	custody comp	lete?		Yes	✓ No		Not Pres	ent 🗌		
3.	How was the	sample deliv	ered?		Clier	<u>ıt</u>					
<u>Log</u>	<u>In</u>										
4.	Coolers are p	present? (see	19. for cooler sp	ecific information)	Yes	☐ No			NA 🗹		
5.	Was an atter	mpt made to	cool the samples	?	Yes	<b>⊘</b> No			NA 🗍		
6.	Were all sam	nples received	d at a temperatur	e of >0° C to 6.0°C	Yes	<b>✓</b> No			na 🗆		
7.	Sample(s) in	proper conta	iner(s)?		Yes	✓ No					
8.	Sufficient sa	mple volume	for indicated test	(s)?	Yes	<b>✓</b> No					
9.	Are samples	(except VOA	and ONG) prope	erly preserved?	Yes	<b>✓</b> No					
10.	Was preserv	ative added to	o bottles?		Yes	☐ No	<b>✓</b>	ŀ	NA 🗆		
11.	VOA vials ha	ive zero head	space?		Yes	☐ No		No VOA Vi	ials 🗹		
12.	Were any sa	mple containe	ers received brok	en?	Yes	□ No	<b>Y</b>	-			
		vork match bo pancies on ch	ottle labels? ain of custody)		Yes	<b>✓</b> No			preserved les checked pH:		
14.	Are matrices	correctly iden	ntified on Chain o	f Custody?	Yes	✓ No			-	or >12 ur	nless noted)
15.	Is it clear wh	at analyses w	ere requested?		Yes	✓ No	_		Adjusted?		
		ling times abl	e to be met? authorization.)		Yes	<b>✓</b> No			Checked by:		
		ing (if app	•						Onconca by.		
			iscrepancies with	this order?	Yes	□ No			NA 🗹		
	By Who	<u>.</u>		Date Via:	☐ eMa	il 🗌 P	hone [	Fax [	In Person	_	
18.	Additional re	marks:									
19.	Cooler Infor Cooler No		1	eal Intact   Seal No   t Present	Seal Da	te	Signed	і Ву			

Project Name:  XT0 Forcey Project Manager:  Rampler: Andre Sampler: Andre """"""""""""""""""""""""""""""""""""	hain-of-C	of-C		cord	Turn-Around Tim	l o				Ĭ	HALL	E S	M	S S	ΣŽ	ENVIRONMENT	¥ E	
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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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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.

Celey & Keine

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,

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 Number: Project Location:

UNIT 'J', SEC. 13, T23S, R29E

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

Chloride, SM4500Cl-B	mg	/kg	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	u\$/	cm	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity*	8010	1.00	02/15/2013		476	95.2	500	0.752	

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

Chloride, SM4500CI-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)

Sample 10. SAMPLE INC.	icii @ 0 bds (	(11300707 03)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
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
<b>Conductivity* 7050</b> 1.00		1.00	02/15/2013		476	95.2	500	0.752	

# Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever 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 incurred by client, its subsidiaries affiliates or successors ansing out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg Litreene

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 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

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardina's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, 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 incurred by client, its subsidiances, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey L. Keine

101 East Marland, Hobbs, NW 882/10

	(575) 393-2326 FAX (575) 393-2476	A MARIE MARIE A COMMANDE MARIE A MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MARIE MAR	
Company Nam	" R.T. HICKS Consultants	1881. 70	ANALYSIS REQUEST
Project Manage	Project Manager: Andrew Parker	P.O. 4:	
Address		Company R. T. Hicks	
City:	State; Zip:	Attn:	
Phone #:	Fax#:	Address:	
roject#	Project Owner: Mutchison	City:	
roject Name:	XTO Nash Unit 39	State: Zip:	
Project Locatio	Froject Location: Unit 'J', Sec. 13, 7235, R 29 E	Phone #:	
Sampler Name.	Keistin Pone	Fax #:	
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Sample Condition CHECKED BY.

Cool. Intact. (Initials)

S. Other. (Initials)

No. | No. | No. | | Sampler - UPS - Bus - Other. Delivered By: (Circle One)

† Cardinal cannot accept verbal changes. Please fax viritien changes to (575) 393-2326 C. C. A

Page 4 of 4

Westing &

arms orthicks corsultion

Marine activity to the



June 28, 2013

KRISTIN POPE

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142

RE: XTO NASH UNIT 29

ALBUQUERQUE, NM 87104

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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.

Celey D. Keene

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,

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

NONE

Fax To:

Received: Reported:

Chloride

06/26/2013

06/28/2013

Project Name:

XTO NASH UNIT 29

Project Number: Project Location: NONE GIVEN

2440

UNIT 'J', SEC. 13, T23S, R29E

16.0

Sampling Date:

Sampling Type:

112

Soil Cool & Intact

Sampling Condition: Sample Received By:

Jodi Henson

06/24/2013

400

3.64

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

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	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: BACKGROUN	D @ 3' (H3014	91-02)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

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

Sample ID. BACKGROOME	W 4.5 (1150)	.431 03)							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	

ND

06/28/2013

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

Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, 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 consequ including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & 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 NONE

Fax To:

Received:

06/26/2013

06/28/2013

Reported: Project Name:

**XTO NASH UNIT 29** 

Project Number: Project Location:

Analyte

NONE GIVEN

UNIT 'J', SEC. 13, T23S, R29E

Sampling Date:

06/24/2013

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

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

Chloride, SM4500CI-B

mg/kg

Analyzed By: DW

Reporting Limit Result

Analyzed

Method Blank

BS

% Recovery True Value QC

Qualifier

Chloride

1380

16.0

06/28/2013

ND

ND

448

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

Chloride, SM4500CI-B

mg/kg

Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed
Chloride	1500	16.0	06/28/2013

nalyzed Method Blank

BS 448 % Recovery 112

112

True Value QC 400

400

RPD 3.64

3.64

Qualifier

*=Accredited Analyte Cardinal Laboratories

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 incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager

Celey Li Keine

Page 3 of 5



ND

#### **Notes and Definitions**

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

Analyte NOT DETECTED at or above the reporting limit

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 tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waved 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 incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is biased upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with writer approval of Cardinal Laboratonies.

Celegistiene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: K. T. HICKS CONSULTANTS	3/4	8/1470	ANALYSIS REQUEST
Project Manager: Kristin Pope		P,O, #:	
Address:		Company: RT Hick's	
City: State:	Zip:	Attn:	
Phone #: Fax #:		Address:	
Project #: Project Owner:	×70	City:	
Project Name: XTO Mash Draw 29		State: Zip:	
Project Location: Eddy County		Phone #:	
K. Po		Fax #:	
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING	
Lab I.D. Sample I.D. Ի\30ነ4զ	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER: DATE	CI-
1 Background @ 1.5	6	06243	
2 ) = 3'		ii	
3 " 45'		"	
4 " 6"		11	
5 " 7.5'		"	
D " 8'		"	
PLEASE NOTE: Liability and Damages, Cardana's lability and client's exclusive remedy for any daim arising whether based in contract or tort, shall be limbed to the amount paid by the client's exclusive remedy for any daim arising whether based in ordinary for its part of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the place of the pl	ny dalm arising whether based in contract ∈ leemed walved unless made in writing and without limitation, business interruptions, k	or tort, shall be limited to the amount paid by the client for received by Cardinal within 30 days after completion of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the secon	the reapplicable

1626/3 Time: 700

> Phone Result: Fax Result: REMARKS:

> > ☐ Yes ☐ No

Add'l Phone #: Add'l Fax #:

Email to andrew@rthicks consult.com

and

Kristin @ "

Time:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

# **Appendix D**Photo Documentation



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.

••••••••••••••••••••





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

OrderNo.: 1211653

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

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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

# Analytical Report

#### Lab Order 1211653

# Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

Date Reported: 11/29/2012

CLIENT: R.T. Hicks Consultants, LTD

**Project:** XTO Energy Nash Unit 29

**Lab ID:** 1211653-001

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	ND	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

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

- 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
- S Spike Recovery outside accepted recovery limits 1 of 12

## **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

**Lab ID:** 1211653-001

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
Isopropylbenzene	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 PN
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 PN
1,1,1,2-Tetrachloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PN
1,1,2,2-Tetrachloroethane	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PN
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 PN
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 PN
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 PN
Trichloroethene (TCE)	ND	0.049	mg/Kg	1	11/21/2012 7:19:43 PN
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

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

- 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
- S Spike Recovery outside accepted recovery limits Page 2 of 12

# **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

**Lab ID:** 1211653-002

Client Sample ID: BG 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 8015B: DIESEL RANG	E ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	10	mg/Kg	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	%REC	1	11/20/2012 8:28:08 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/16/2012 3:01:11 PM
Surr: BFB	101	84-116	%REC	1	11/16/2012 3:01:11 PM
EPA METHOD 300.0: ANIONS					Analyst: JRR
Chloride	3000	150	mg/Kg	100	11/20/2012 7:07:09 PM
EPA METHOD 8260B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Toluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2,4-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,3,5-Trimethylbenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichloroethane (EDC)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibromoethane (EDB)	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Naphthalene	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1-Methylnaphthalene	ND	0.20	mg/Kg	1	11/21/2012 7:48:47 PM
2-Methylnaphthalene	ND	0.20	mg/Kg	1	11/21/2012 7:48:47 PM
Acetone	ND	0.74	mg/Kg	1	11/21/2012 7:48:47 PM
Bromobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromodichloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromoform	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Bromomethane	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
2-Butanone	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Carbon disulfide	ND	0.49	mg/Kg	1	11/21/2012 7:48:47 PM
Carbon tetrachloride	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Chlorobenzene	<b>N</b> D	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Chloroethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Chloroform	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Chloromethane	ND	0.15	mg/Kg	1	11/21/2012 7:48:47 PM
2-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
4-Chlorotoluene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
cis-1,2-DCE	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
cis-1,3-Dichloropropene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dibromo-3-chloropropane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
Dibromochloromethane	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM
Dibromomethane	ND	0.099	mg/Kg	1	11/21/2012 7:48:47 PM
1,2-Dichlorobenzene	ND	0.049	mg/Kg	1	11/21/2012 7:48:47 PM

#### Qualifiers:

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

- 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
- S Spike Recovery outside accepted recovery limits 3 of 12

#### Date Reported: 11/29/2012

# Hall Environmental Analysis Laboratory, Inc.

Matrix: SOIL

CLIENT: R.T. Hicks Consultants, LTD

**Project:** XTO Energy Nash Unit 29

**Lab ID:** 1211653-002

Client Sample ID: BG 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 7:48:47 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.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- 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
- S Spike Recovery outside accepted recovery limits Page 4 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID MB-4894

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 4894

RunNo: 7001

%REC LowLimit

Prep Date: 11/19/2012

Analysis Date: 11/19/2012

Result

SeqNo: 202928

Units: mg/Kg HighLimit

**RPDLimit** Qual

Analyte Chloride

ND 1.5

**PQL** 

TestCode: EPA Method 300.0: Anions

%RPD

Sample ID LCS-4894

SampType: LCS Batch ID: 4894

RunNo: 7001

Client ID: LCSS Prep Date: 11/19/2012

Analysis Date: 11/19/2012

**PQL** 

SeqNo: 202929

Units: mg/Kg

HighLimit LowLimit

%RPD

Analyte

SPK value SPK Ref Val

SPK value SPK Ref Val

Chloride

Result 14

Qual

%REC

**RPDLimit** 

1.5

15.00

90.0

110

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits Sample pH greater than 2
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η

RPD outside accepted recovery limits

- Not Detected at the Reporting Limit ND

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

110

20

100.0

Project:

Petroleum Hydrocarbons, TR

XTO Energy Nash Unit 29

Project: XIC	Energy Nash Unit 29		
Sample ID MB-4901	SampType: <b>MBLK</b>	TestCode: EPA Method 418.1: TPH	
Client ID: PBS	Batch ID: 4901	RunNo: 7021	
Prep Date: 11/19/2012	Analysis Date: 11/21/2012	SeqNo: 203589 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20		
Sample ID LCS-4901	SampType: LCS	TestCode: EPA Method 418.1: TPH	
Client ID: LCSS	Batch ID: 4901	RunNo: 7021	
Prep Date: 11/19/2012	Analysis Date: 11/21/2012	SeqNo: 203590 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	100 20 100.0	0 104 80 120	
Sample ID LCSD-4901	SampType: LCSD	TestCode: EPA Method 418.1: TPH	
Client ID: LCSS02	Batch ID: 4901	RunNo: 7021	
Prep Date: 11/19/2012	Analysis Date: 11/21/2012	SeqNo: 203591 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

**Project:** 

Analyte

XTO Energy Nash Unit 29

_		
Samp	le (D	MB-4900

SampType: MBLK

TestCode: EPA Method 8015B: Diesel Range Organics

Client ID: PBS

Batch ID: 4900

RunNo: 6989

Prep Date: 11/19/2012

Analysis Date: 11/20/2012

SeqNo: 202423

Units: mg/Kg

Qual

Diesel Range Organics (DRO)

Result **PQL** SPK value SPK Ref Val ND 10

50

%REC

LowLimit

HighLimit

%RPD **RPDLimit** 

Motor Oil Range Organics (MRO)

ND

9.9

Result

51

4.0

10.00

98.8

77.6

SampType: LCS

TestCode: EPA Method 8015B: Diesel Range Organics

0

0

140

Sample ID LCS-4900

Client ID: LCSS

Batch ID: 4900

RunNo: 6989

Surr: DNOP

Prep Date: 11/19/2012

Analysis Date: 11/20/2012

SeqNo: 202424 %REC

LowLimit

47.4

77.6

Units: mg/Kg

Analyte. Diesel Range Organics (DRO) Surr: DNOP

5.000

50.00

102 80.2 HighLimit %RPD 122 140

**RPDLimit** Qual

Sample ID 1211653-001AMS

SampType: MS

TestCode: EPA Method 8015B: Diesel Range Organics RunNo: 6989

Client ID: Tank Composite

Prep Date: 11/19/2012

Batch ID: 4900 Analysis Date: 11/20/2012

**PQL** 

10

SPK value SPK Ref Val

SeqNo: 202426

12.6

77.6

Units: mg/Kg

Qual

Analyte Diesel Range Organics (DRO)

Result **PQL** 10

SPK value SPK Ref Val 50.97

5.097

%REC 106

LowLimit

HighLimit

**RPDLimit** 

Qual

Surr: DNOP

Sample ID 1211653-001AMSD Client ID: Tank Composite

SampType: MSD

54

4.8

TestCode: EPA Method 8015B: Diesel Range Organics

94.6

RunNo: 6989

Analyte

Prep Date: 11/19/2012

Analysis Date: 11/20/2012

Batch ID: 4900

SeqNo: 202569

Units: mg/Kg

148

140

%RPD

%RPD

**RPDLimit** 22.5

0

Surr: DNOP

Diesel Range Organics (DRO)

Result **PQL** 53 10

5.1

51.18

5.118

SPK value SPK Ref Val 0

%REC 104

98.8

LowLimit 12.6 77.6

HighLimit 148

0.773 140

0

Qualifiers:

E

Value exceeds Maximum Contaminant Level

Analyte detected below quantitation limits Sample pH greater than 2

Value above quantitation range

В Analyte detected in the associated Method Blank Н Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

Page 7 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:	XTO Ene	ergy Nash U	Jnit 29								
Sample ID	MB-4851	SampTy	/pe: <b>M</b> E	BLK	Tes	Code: El	PA Method	8015B: Gaso	line Rang	e	
Client ID:	PBS	Batch	ID: 48	51	F	lunNo: 6	951				
Prep Date:	11/15/2012	Analysis Da	ate: 1	1/16/2012	S	SeqNo: 2	02014	Units: mg/h	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 990	5.0	1000		99.3	84	116			
Sample ID	LCS-4851	SampTy	/pe: LC	s	Tes	tCode: El	PA Method	8015B: Gaso	oline Rang	е	
Client ID:	LCSS	Batch	ID: 48	51	F	RunNo: 6	951				
Prep Date:	11/15/2012	Analysis Da	ate: 1	1/16/2012	S	SeqNo: 2	02015	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	24 1000	5.0	25.00 1000	0	97.3 104	74 84	117 116	· <del>-</del>		
		-							<u> </u>		
•	1211653-001AMS	SampTy						8015B: Gaso	oline Rang	е	
Client ID:	Tank Composite	Batch	ID: 48	51	F	Run <b>N</b> o: 6	951				
Prep Date:	11/15/2012	Analysis Da	ate: 1	1/16/2012	\$	SeqNo: 2	02020	Units: mg/l	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	29	4.9	24.63	0	118	70	130			
Surr: BFB		1100		985.2		109	84	116			
Sample ID	1211653-001AMSI	D SampTy	pe: MS	SD	Tes	tCode: El	PA Method	8015B: Gaso	oline Rang	е	·
Client ID:	Tank Composite	Batch	ID: 48	51	F	RunNo: 6	951				
Prep Date:	11/15/2012	Analysis Da	ate: 1	1/16/2012	8	SeqNo: 2	02021	Units: mg/l	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
J	e 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.
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653 29-Nov-12

Client:

R.T. Hicks Consultants, LTD

**Project:** XTO Energy Nash Unit 29

SampType: MBLK

TestCode: EPA Method 8260B: VOLATILES

Sample ID mb-4851

Client ID: PBS	Batch ID: 4851			F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	)ate: 11	1/21/2012	٤	SeqNo: 2	04634	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Bromodichloromethane	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								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	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								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

#### Qualifiers:

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

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

Page 9 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID mb-4851	Samp	pType: MBLK TestCode: EPA Method					8260B: VOLA	TILES		
Client ID: PBS	Batc	h ID: 485	51	R	tunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	)ate: 11	/21/2012	S	eqNo: 2	04634	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachioroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
irans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, 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			

Client ID: LCSS	Batc	h ID: 48	51	F	RunNo: 7	060					
Prep Date: 11/15/2012	Analysis [	Date: 11	1/21/2012	S	SeqNo: 2	04635	Units: mg/H	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.050	1.000	0	101	70	130				
Toluene	1.1	0.050	1.000	n	108	80	120				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	70	130			
Toluene	1.1	0.050	1.000	0	108	80	120			
Chlorobenzene	1.0	0.050	1.000	0	101	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	110	74	124			
Trichloroethene (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: 4-Bromofluorobenzene	0.43		0.5000		86.1	70	130			

#### Qualifiers:

Sample ID Ics-4851

Value exceeds Maximum Contaminant Level.

SampType: LCS

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

В Analyte detected in the associated Method Blank

TestCode: EPA Method 8260B: VOLATILES

- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

Page 10 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID Ics-4851	SampTyp	SampType: LCS TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSS	Batch II	D: <b>4851</b>	F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis Dat	te: 11/21/2012	5	SeqNo: 2	04635	Units: mg/h	<b>(</b> g		
Analyte	Result	PQL SPK valu	e SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.47	0.500	0	93.7	70	130			
Surr: Toluene-d8	0.51	0.500	0	103	70	130			

Sample ID 1211653-002ams	SampT	ype: MS	3	Tes	tCode: El					
Client ID: BG Composite	Batch	1D: 48	51	F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	ate: 11	1/21/2012	S	SeqNo: 2	04638	Units: mg/K	(g		
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			
Surr: Dibromofluoromethane	0.47		0.4902		95.4	70	130			
Surr: Toluene-d8	0.50		0.4902		102	70	130			

Sample ID 1211653-002ams	sd SampT	Type: MS	SD	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: BG Composite	Batcl	h ID: 48	51	F	RunNo: 7	060				
Prep Date: 11/15/2012	Analysis D	Date: 1	1/21/2012	S	SeqNo: 2	04639	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.049	0.9891	0	93.3	80.9	118	1.30	20	
Toluene	0.98	0.049	0.9891	0	98.8	69.5	119	2.28	20	
Chlorobenzene	0.88	0.049	0.9891	0	89.3	75.7	115	1.32	20	
1,1-Dichloroethene	1.0	0.049	0.9891	0.01122	99.6	68.6	126	0.357	24.8	
Trichloroethene (TCE)	0.82	0.049	0.9891	0	83.3	68.7	115	1.99	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4946		95.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.41		0.4946		83.4	70	130	0	0	
Surr: Dibromofluoromethane	0.48		0.4946		96.6	70	130	0	0	
Surr: Toluene-d8	0.51		0.4946		104	70	130	0	0	

Sample ID mb-4881	SampTyp	oe: MBLK	TestCode:	EPA Method	8260B: VOLA	ATILES		
Client ID: PBS	Batch II	D: <b>4881</b>	RunNo:	7060				
Prep Date: 11/19/2012	Analysis Dat	te: 11/21/2012	SeqNo:	Units: %REC				
Analyte	Result	PQL SPK value	SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47	0.5000	93.5	70	130			
Surr: 4-Bromofluorobenzene	0.44	0.5000	88.88	70	130			
Surr: Dibromofluoromethane	0.46	0.5000	92.1	70	130			
Surr: Toluene-d8	0.51	0.5000	103	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

Page 11 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1211653

29-Nov-12

Client:

R.T. Hicks Consultants, LTD

Project:

XTO Energy Nash Unit 29

Sample ID Ics-4881	SampT	SampType: LCS			tCode: El	ATILES				
Client ID: LCSS	Batch	1D: 48	81	RunNo: 7060						
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. <b>4</b> 5		0.5000		89.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.8	70	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 Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.com

# Sample Log-In Check List

Clie	nt Name:	RT HICKS			Wo	ork Or	der N	lumt	ber: 1	121165	3			
Rec	eived by/date	Mo	- 1111	4//2										
Logg	ged By:	Anne Thor	ne	11/14/201	12 10:50:00 AM	l			am	Am	-			
Com	npleted By:	Anne Thorr	ne	11/19/201	12				am	. A.	_			
Revi	iewed By:	A	11/ 191	/2										
Cha	in of Cust	ody	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,											
	Were seals in					Yes		No		Not F	Present	✓		
	Is Chain of C		lete?			Yes	<b>V</b>	No		Not F	Present			
3.	How was the	sample deliv	rered?			Clien	<u>t</u>							
Log	In													
	-	oresent? (see	19. for cooler	specific inform	mation)	Yes		No			NA	<b>~</b>		
5.	Was an atten	npt made to	cool the samp	les?		Yes	<b>V</b>	No			NA			
6.	Were all sam	ples receive	d at a tempera	ture of >0° C	to 6.0°C	Yes	<b>✓</b>	No			NA			
7.	Sample(s) in	proper conta	iner(s)?			Yes	<b>V</b>	Νo						
8.	Sufficient sar	nple volume	for indicated to	est(s)?		Yes	V	Νo						
9.	Are samples	(except VOA	and ONG) pr	operly preserv	red?	Yes	<b>✓</b>	No						
10.	Was preserva	ative added t	o bottles?			Yes		No	<b>/</b>		NA			
11.	VOA vials ha	ve zero head	Ispace?			Yes		No		No VO	A Vials	✓		
12.	Were any sa	mple contain	ers received b	roken?		Yes		No	✓			·		
	Does paperw (Note discrep		ottle labels? ain of custody	)		Yes	V	No			# of pres bottles of for pH:			
14.	Are matrices	correctly ide	ntified on Chai	n of Custody?	,	Yes	$\checkmark$	Nο			·	(<	2 or >12	unless noted)
15.	Is it clear wha	at analyses w	ere requested	?		Yes					Ad	ljusted?		
			e to be met? authorization.)			Yes	<b>✓</b>	No			Che	eck <b>ed</b> by	<b>/</b> :	
Spe	cial Handli	ing (if app	licable)											
17.	Was client no	otified of all d	iscrepancies v	vith this order?	?	Yes		Νo			NA	✓		
	Person	Notified:			Date	100	****				•			
	By Who	m:			Via:	eMa	il 🗌	] Ph	one	☐ Fax	( 🗌 In	Person		
	Regardi	ng:												
	Client In	structions:												
18.	Additional rer	marks:				_								
10	Cooler Infor	mation												
13.	Cooler No		Condition	Seal Intact	Seal No Se	al Da	te	:	Signe	d By	1			
	1	1.0	Good	Not Present							7			



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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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.

Celeg & Keine

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,

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, SM4500CI-B	mg/kg		Analyze	d By: DW					10010
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	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Conductivity*	8010	1.00	02/15/2013		476	95.2	500	0.752	

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

Chloride, SM4500CI-B	mg/kg		Analyzed 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	Analyzed 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	mg/kg		Analyzed By: DW						
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	Analyzed 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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever 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 incurred by client, its subsidiances, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laborationes.

Celey T. Keene



ND

#### **Notes and Definitions**

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

Analyte NOT DETECTED at or above the reporting limit

Cardinal Laboratories *=Accredited Analyte

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Celeg Likere

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Labild.  Sample Finch @ 3 845 X 1
Time: Received By Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control School (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In the Control (2017) In t
Delivered By: (Circle One)  Sample Condition CHECKED BY  Cool, Integ.  Sampler UPS Bus Other

うです † Cardinal cannot accept verbal changes. Please fax written changes to (575) 333-2326 📄 🖒

Page 4 of 4



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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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.

Celey & Keens

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,

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		Analyze	d By: DW					
Analyte	Result	Reporting Limit	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	kg Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	06/28/2013	ND	<del>44</del> 8	112	400	3.64	

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

Chloride, SM4500CI-B	mg/kg			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,	/kg	Analyze	d 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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Celey L. 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

NONE

Fax To:

Received:

06/26/2013

Reported:

06/28/2013

Project Name:

XTO NASH UNIT 29 NONE GIVEN

Project Number:

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By:

Cool & Intact

Soil

Jodi Henson

06/24/2013

Project Location:

UNIT 'J', SEC. 13, T23S, R29E

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

Chloride, SM4500CI-B 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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Celegit Keene

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 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

Cardinal Laboratories *=Accredited Analyte

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Celeg to Keine



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

company Name: K. I. HICKS (MSulfants	7/5		ANALYSIS REQUEST
50		P.O. #:	
Address:		Company: PT HICKS	
City: State:	Zip:	Attn:	
Phone #: Fax #:		Address:	
Project #: Project Owner:	XTO	City:	
Project Name: XTO Mash Draw 29		State: Zip:	
Project Location: Eddy County		Phone #:	
Sampler Name: K. Pone		Fax #:	
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING	
Lab I.D. Sample I.D. Ի\30 49	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER: DATE	CI-
1 Background @ 1.5'	6	062413	
2 ) " 3'		ü	
"		"	
4 " 6'		11	
S " 7.5'			
6		"	
PLEASE NOTE: Liability and Damages. Cardwal's liability and client's exclusive remedy for any dain ansing whether based in contract of fort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed walved unless made in whiting and received by Cardinal within 30 days after completion of the applicable	iny daim ansing whether based in contract deemed walved unless made in writing ani	t of fort, shall be limited to the amount paid by the client t d received by Cardinal within 30 days after completion of	for the applicable

Relinquished By: Relinquished By: Sampler - UPS - Bus - Other: Delivered By: (Circle One) Time: Phone Result: Fax Result: REMARKS: Email to andrew@rthicks consult.com and

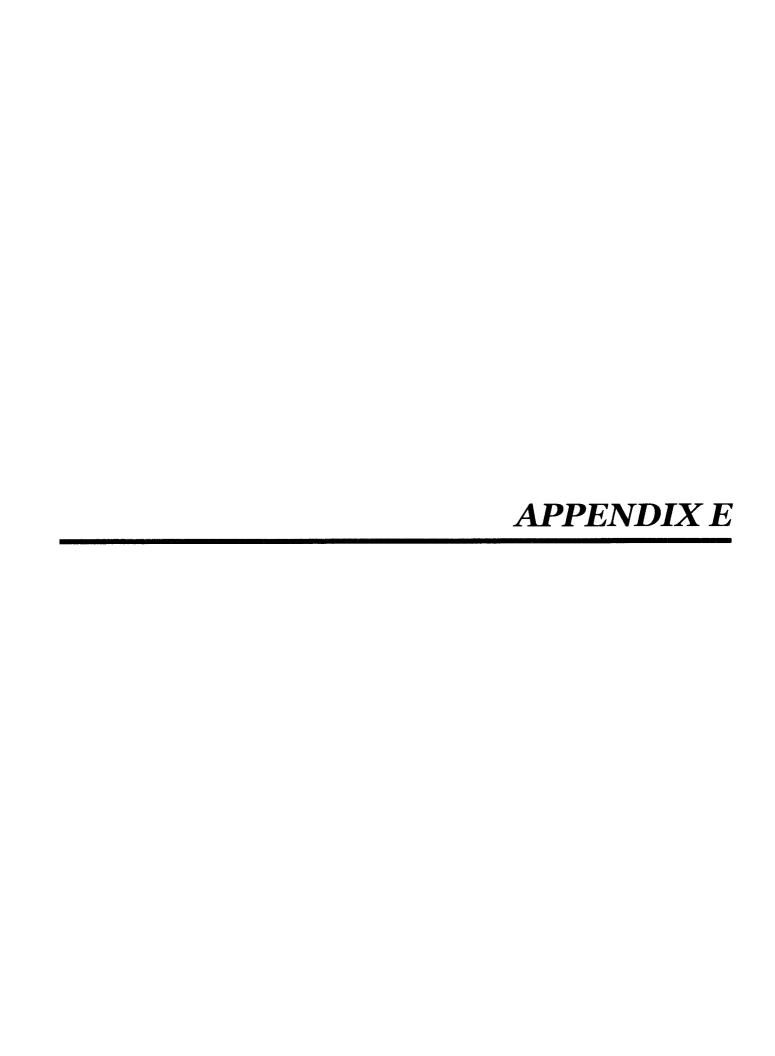
† Cardinal cannot accept verbal changes. Please fax written changes to 676) 393 3526

Kristin @ "

□ Yes

□ No Add'I Phone #:

Page 5 of 5



From: Andrew Parker <andrew@rthicksconsult.com>

Sent: Friday, October 12, 2012 12:06 PM

**To:** 'Bratcher, Mike, EMNRD'

Cc: 'Jones, Brad A., EMNRD'; 'David_Luna@xtoenergy.com'

**Subject:** 72-hour Notice of Closure for Nash Unit #29 Modular Impoundment

#### Mike:

Please accept this email as the 72-hour notice to NMOCD for closure of the Nash Unit #29 Modular Impoundment located in Section 13 T23S R29E Eddy County NM. Hicks Consultants will oversee closure activities as presented in the C-144. We will submit all required forms at the completion of the closure. We will begin closure activities after October 18th.

Please contact me if you have any questions.

Andrew Parker RT Hicks Consultants Ph: 505-266-5004

Cell: 505-350-5535

From:

Andrew Parker < andrew@rthicksconsult.com>

Sent:

Friday, October 12, 2012 12:21 PM

To:

'Bratcher, Mike, EMNRD'

Cc:

'Jones, Brad A., EMNRD'; 'David_Luna@xtoenergy.com'

Subject:

RE: 72-hour Notice of Closure for Nash Unit #29 Modular Impoundment

More info:

This is for XTO Energy. API # 30-015-29434. Unit Letter J Section 13 T23S R29E.

Andrew Parker RT Hicks Consultants Ph: 505-266-5004 Cell: 505-350-5535

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

**Sent:** Friday, October 12, 2012 12:06 PM

To: 'Bratcher, Mike, EMNRD'

Cc: 'Jones, Brad A., EMNRD'; 'David_Luna@xtoenergy.com'

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Please contact me if you have any questions.

Andrew Parker RT Hicks Consultants Ph: 505-266-5004

Cell: 505-350-5535

From: Andrew Parker <andrew@rthicksconsult.com>

Sent: Thursday, November 08, 2012 5:08 PM

To: 'Bratcher, Mike, EMNRD'
Cc: 'David_Luna@xtoenergy.com'

**Subject:** 72-hour Sampling Notice for Closure at Nash Unit #29 Modular Impoundment

Hello Mike:

Please accept this email as the 72-hour closure sampling notice for the below site:

Nash Unit #29 Modular Impoundment located in Section 13 T23S R29E Eddy County NM (API # 30-015-29434). Either on Tuesday Nov. 13 or Wednesday Nov. 14th we will perform post closure sampling as described in the June 13, 2012 C-144 Closure section. Please call me if you have any questions.

Andrew Parker RT Hicks Consultants Ph: 505-266-5004 Cell: 505-350-5535

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

**Sent:** Friday, October 12, 2012 12:21 PM

To: 'Bratcher, Mike, EMNRD'

Cc: 'Jones, Brad A., EMNRD'; 'David_Luna@xtoenergy.com'

Subject: RE: 72-hour Notice of Closure for Nash Unit #29 Modular Impoundment

More info:

This is for XTO Energy. API # 30-015-29434. Unit Letter J Section 13 T23S R29E.

Andrew Parker RT Hicks Consultants

Ph: 505-266-5004 Cell: 505-350-5535

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

**Sent:** Friday, October 12, 2012 12:06 PM

To: 'Bratcher, Mike, EMNRD'

Cc: 'Jones, Brad A., EMNRD'; 'David_Luna@xtoenergy.com'

Subject: 72-hour Notice of Closure for Nash Unit #29 Modular Impoundment

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Please contact me if you have any questions.

Andrew Parker RT Hicks Consultants

Ph: 505-266-5004 Cell: 505-350-5535

From:

Andrew Parker < andrew@rthicksconsult.com>

Sent:

Monday, December 17, 2012 10:39 AM

To:

mike.bratcher@state.nm.us

Cc:

Van Curen, Jennifer E (jvancure@blm.gov); David_Luna@xtoenergy.com

Subject:

XTO Nash Unit #29 Closure Plan

**Attachments:** 

Closure Report for C-144 Nash Draw 29 Poseidon Tank.pdf

#### Mike:

Attached is the C-144 Closure Plan for Nash Unit #29 Modular Impoundment located in Section 13 T23S R29E Eddy County NM (API # 30-015-29434). Per the Pit Rule, we are only submitting the closure plan at the District level. As appropriate, we will let you determine whether it is necessary to forward the closure plan to Santa Fe.

Please contact us with any questions or comments.

Andrew Parker RT Hicks Consultants

Cell: 505-350-5535 (Preferred)

Office: 505-266-5004

From:

Andrew Parker <andrew@rthicksconsult.com>

Sent:

Thursday, December 20, 2012 12:47 PM

To: Cc: mike.bratcher@state.nm.us David_Luna@xtoenergy.com

Subject:

Nash Unit #29 Poseidon Tank Interim Reclamation Update

#### Hello Mike:

I want to let you know the status of the interim reclamation as required by the BLM at the above referenced location. As stated in our closure report dated December 17, 2012, we will be submitting an interim reclamation plan to the BLM within the next few weeks. Before submitting such a plan, we will perform additional sampling at the location to determine if chloride concentrations in the soil is influenced by the brackish water of the nearby salt lake and to determine off-location chloride concentrations. We need to acquire this additional information in order to know how to properly reclaim the location. After we receive analytical results from our additional soil sampling, we will submit an interim reclamation plan to the BLM with a copy to NMOCD. Any near surface soils affected from the less than three barrel leak from the tank will be included in the interim reclamation.

Andrew Parker RT Hicks Consultants

Cell: 505-350-5535 (Preferred)

Office: 505-266-5004

From: Andrew Parker <andrew@rthicksconsult.com>

**Sent:** Tuesday, June 04, 2013 7:06 AM

To: Jones, Brad A., EMNRD < brad.a.jones@state.nm.us > (brad.a.jones@state.nm.us);

'mike.bratcher@state.nm.us'

Cc: Van Curen, Jennifer E (jvancure@blm.gov); David_Luna@xtoenergy.com; 'Randall Hicks'

XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status

Inquiry - API No: 30-015-29434

#### Mr. Jones and Mr. Bratcher:

I am concerned there is confusion who is reviewing the Nash Unit 29 Modular Impoundment Spill Report that contains a remediation plan. The spill report is dated March 15, 2013 and was submit to District 2 - Artesia and the Environmental Bureau – Santa Fe via certified mail . Please let me know at your convenience when we can expect a response so we can begin work on the remediation. During the remediation, we will also conduct interim reclamation for the BLM. BLM is anxious to see interim reclamation begin.

Thank you.

Subject:

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From:

Bratcher, Mike, EMNRD < mike.bratcher@state.nm.us>

Sent:

Wednesday, June 05, 2013 8:44 AM

To:

Andrew Parker; Jones, Brad A., EMNRD

Cc:

Van Curen, Jennifer E; David_Luna@xtoenergy.com; 'Randall Hicks'

Subject:

RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status

Inquiry - API No: 30-015-29434

**Attachments:** 

Nash Draw 29 background sample.jpg

#### Andrew,

The review of the C-141/Part 29 release event will be handled by the District 2 office. There was a misunderstanding on my part as to who would oversee that portion of the project. OCD tracking number for this release event is **2RP-1674**. The remediation proposal submitted is approved with the following conditions/stipulations:

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  have occurred related to any drilling, completion, production, injection or movement of produced fluids at
  this location. The analysis of this sample will be considered natural background for the area. Attached is a
  Google image indicating the preferred area to obtain this sample, assuming the area is unaffected by human
  and/or production activities.
- OCD may require additional remedial or investigatory actions after receipt and review of the above referenced sample analysis.
- A form C-141 marked Final Report, and a closure report, is to be submitted to OCD upon satisfactory completion of project.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notifications, please contact me.

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108

C: 575-626-0857 F: 575-748-9720

**From:** Andrew Parker [mailto:andrew@rthicksconsult.com]

Sent: Tuesday, June 04, 2013 7:06 AM

To: Jones, Brad A., EMNRD; Bratcher, Mike, EMNRD

Cc: Van Curen, Jennifer E; David Luna@xtoenergy.com; 'Randall Hicks'

Subject: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-015-

29434

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Thank you.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From:

Andrew Parker <andrew@rthicksconsult.com>

Sent: To: Tuesday, June 11, 2013 9:13 AM

Cc:

mike.bratcher@state.nm.us

- . . .

David_Luna@xtoenergy.com; kristin@rthicksconsult.com

Subject:

FW: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan

Status Inquiry - API No: 30-015-29434

**Attachments:** 

Nash Draw 29 background sample_AlternateSmallSize.jpg

Mike:

Sorry for the large size in the earlier email. I removed the photos and reduce the aerial image showing the location of the proposed background sample. From my original email:

We staked the proposed background sample location. We had to move the suggested location east of the pad, rather than SE of the pad per your suggestion. The mesquite was to dense in your suggested location. We chose the proposed location as there is a small opening through the mesquite. Is the new proposed location acceptable to NMOCD that is located east of the well pad versus southeast of the well pad (see attached map)?

Our preliminary plan for sampling is to obtain a surface sample and a sample every 1.5 to 2 feet for chloride until 8 to 9 feet below ground surface is reached. We will field titrate for chloride and select representative samples for laboratory analysis. We will use a backhoe to obtain the samples.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From: Kristin Pope [mailto:kristin@rthicksconsult.com]

Sent: Monday, June 10, 2013 10:09 PM

To: 'Andrew Parker'

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

015-29434

I staked the background sample point approximately 50-60 ft off the eastern edge of the pad/road, due east of the well. The coordinates are 32.30312 N, 103.93643 W

Not able to connect to the server tonight for some reason, but next time I can, I'll post the attached pics in the file.

As soon as I get the go-ahead from you and OCD, I will coordinate w/Parker Energy and Gene for sampling.

Kristin Pope R.T. Hicks Consultants Carlsbad Field Office 575.302.6755 From: Andrew Parker [mailto:andrew@rthicksconsult.com]

Sent: Monday, June 10, 2013 9:44 AM

**To:** <a href="mailto:kristin@rthicksconsult.com">kristin@rthicksconsult.com</a> **Cc:** <a href="mailto:David Luna@xtoenergy.comk">David Luna@xtoenergy.comk</a>

Subject: FW: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

015-29434

#### Kristin:

We need to obtain a background sample near the location noted on the attached map as part of the approval of our reclamation plan. Mr. Bratcher is not familiar with the site and his location is in the middle of mesquite. Obviously this will not work.

We will use Parker Energy for the backhoe trench sampling. We will call Gene to coordinate the backhoe when we are ready. But first, I need you to go down to the location and mark the backhoe trench location for the one call. Call me so we can discuss potential locations for the sample location other than Mr. Bratcher's mesquite location. I am thinking of collecting a sample for chloride at the surface and 1.5 foot intervals thereafter until we reach the extent of the backhoe reach; which should be approximately 8 to 9 feet. I am hoping to show increasing chloride with depth as we approach the brackish saturated zone.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

**From:** Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]

**Sent:** Wednesday, June 05, 2013 8:44 AM **To:** Andrew Parker; Jones, Brad A., EMNRD

Cc: Van Curen, Jennifer E; <a href="mailto:David Luna@xtoenergy.com">David Luna@xtoenergy.com</a>; 'Randall Hicks'

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

015-29434

#### Andrew,

The review of the C-141/Part 29 release event will be handled by the District 2 office. There was a misunderstanding on my part as to who would oversee that portion of the project. OCD tracking number for this release event is **2RP-1674**. The remediation proposal submitted is approved with the following conditions/stipulations:

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If you have any questions or concerns, and for notifications, please contact me.

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108

C: 575-626-0857 F: 575-748-9720

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

Sent: Tuesday, June 04, 2013 7:06 AM

To: Jones, Brad A., EMNRD; Bratcher, Mike, EMNRD

Cc: Van Curen, Jennifer E; <a href="mailto:David Luna@xtoenergy.com">David Luna@xtoenergy.com</a>; 'Randall Hicks'

Subject: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-015-

29434

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Thank you.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From:

Andrew Parker <andrew@rthicksconsult.com>

Sent:

Tuesday, June 11, 2013 11:22 AM

To:

kristin@rthicksconsult.com

Subject:

FW: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan

Status Inquiry - API No: 30-015-29434

Looks like we have the go ahead. Please initiate the one call via Gene.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]

Sent: Tuesday, June 11, 2013 10:01 AM

To: Andrew Parker

Cc: David_Luna@xtoenergy.com; kristin@rthicksconsult.com

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

015-29434

Andrew,

The proposed location will be fine. I just want to use an undisturbed/unaffected area to get an idea of what natural background is for this area. It was a concern for some of the folks in SF that the background sample was obtained on the site pad, so I think what you are proposing should alleviate that issue.

Thanks,

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108

C: 575-626-0857 F: 575-748-9720

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

**Sent:** Tuesday, June 11, 2013 9:13 AM

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Cc: David Luna@xtoenergy.com; kristin@rthicksconsult.com

Subject: FW: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

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Sent: Monday, June 10, 2013 10:09 PM

To: 'Andrew Parker'

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**To:** <u>kristin@rthicksconsult.com</u> **Cc:** David Luna@xtoenergy.comk

Subject: FW: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

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From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]

**Sent:** Wednesday, June 05, 2013 8:44 AM **To:** Andrew Parker; Jones, Brad A., EMNRD

Cc: Van Curen, Jennifer E; <u>David Luna@xtoenergy.com</u>; 'Randall Hicks'

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

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F: 575-748-9720

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Sent: Tuesday, June 04, 2013 7:06 AM

To: Jones, Brad A., EMNRD; Bratcher, Mike, EMNRD

Cc: Van Curen, Jennifer E; <a href="mailto:David Luna@xtoenergy.com">David Luna@xtoenergy.com</a>; 'Randall Hicks'

Subject: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-015-

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Thank you.

From: Andrew Parker <andrew@rthicksconsult.com>

Sent: Monday, June 17, 2013 10:12 AM To: mike.bratcher@state.nm.us

Cc: 'Kristin Pope'

Subject: XTO Nash Unit 29 C-141/Part 29 release event #2RP-1674 48 hour notice

#### Mr. Bratcher:

Per your reclamation plan condition of approval for NMOCD Release # 2RP-1674, please accept this email as the 48 hour notice for background sampling. The sampling is scheduled for Friday June 21, 2013. The condition of approval that is the topic of this email is noted below.

Notify OCD 48 hours prior to obtaining samples where the analyses are to be presented to OCD

We plan to obtain one background soil sampling east of the location in an area that is undisturbed from past oil field operations. We proposed to obtain soil samples at the surface and every 1.5 to 2 feet below ground surface to approximately 8 feet below ground surface. We will field titrate for chloride and submit the sample showing the highest chloride for laboratory testing for chloride. Please contact me if you have any questions or comments.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]

**Sent:** Wednesday, June 05, 2013 8:44 AM **To:** Andrew Parker; Jones, Brad A., EMNRD

Cc: Van Curen, Jennifer E; <a href="mailto:David Luna@xtoenergy.com">David Luna@xtoenergy.com</a>; 'Randall Hicks'

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

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C: 575-626-0857 F: 575-748-9720

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Sent: Tuesday, June 04, 2013 7:06 AM

To: Jones, Brad A., EMNRD; Bratcher, Mike, EMNRD

Cc: Van Curen, Jennifer E; David Luna@xtoenergy.com; 'Randall Hicks'

Subject: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-015-

29434

Mr. Jones and Mr. Bratcher:

I am concerned there is confusion who is reviewing the Nash Unit 29 Modular Impoundment Spill Report that contains a remediation plan. The spill report is dated March 15, 2013 and was submit to District 2 - Artesia and the Environmental Bureau – Santa Fe via certified mail . Please let me know at your convenience when we can expect a response so we can begin work on the remediation. During the remediation, we will also conduct interim reclamation for the BLM. BLM is anxious to see interim reclamation begin.

Thank you.

From: Andrew Parker <andrew@rthicksconsult.com>

Sent: Wednesday, June 19, 2013 8:33 AM

To: mike.bratcher@state.nm.us

**Subject:** FW: XTO Nash Unit 29 C-141/Part 29 release event #2RP-1674 48 hour notice

Mr. Bratcher:

The background sampling was delayed until Monday June 24th, 2013.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

**From:** Kristin Pope [mailto:kristin@rthicksconsult.com]

**Sent:** Wednesday, June 19, 2013 1:10 AM

To: 'Andrew Parker'

Subject: RE: XTO Nash Unit 29 C-141/Part 29 release event #2RP-1674 48 hour notice

Parker Energy "Mike" called me Tuesday and said they had to reschedule for Monday morning. Ugh. Sorry.

Kristin Pope R.T. Hicks Consultants Carlsbad Field Office 575.302.6755

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

Sent: Monday, June 17, 2013 10:12 AM

To: mike.bratcher@state.nm.us

Cc: 'Kristin Pope'

Subject: XTO Nash Unit 29 C-141/Part 29 release event #2RP-1674 48 hour notice

Mr. Bratcher:

Per your reclamation plan condition of approval for NMOCD Release # 2RP-1674, please accept this email as the 48 hour notice for background sampling. The sampling is scheduled for Friday June 21, 2013. The condition of approval that is the topic of this email is noted below.

Notify OCD 48 hours prior to obtaining samples where the analyses are to be presented to OCD

We plan to obtain one background soil sampling east of the location in an area that is undisturbed from past oil field operations. We proposed to obtain soil samples at the surface and every 1.5 to 2 feet below ground surface to approximately 8 feet below ground surface. We will field titrate for chloride and submit the sample showing the highest chloride for laboratory testing for chloride. Please contact me if you have any questions or comments.

Andrew Parker RT Hicks Consultants Durango Field Office (970) 570-9535

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]

**Sent:** Wednesday, June 05, 2013 8:44 AM **To:** Andrew Parker; Jones, Brad A., EMNRD

Cc: Van Curen, Jennifer E; David Luna@xtoenergy.com; 'Randall Hicks'

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

015-29434

Andrew,

The review of the C-141/Part 29 release event will be handled by the District 2 office. There was a misunderstanding on my part as to who would oversee that portion of the project. OCD tracking number for this release event is **2RP-1674**. The remediation proposal submitted is approved with the following conditions/stipulations:

- Like approval by BLM
- Notify OCD 48 hours prior to commencement of remedial activities.
- Notify OCD 48 hours prior to obtaining samples where the analyses are to be presented to OCD
- A representative sample is to be obtained in an area off the location pad, unaffected by any activities that may
  have occurred related to any drilling, completion, production, injection or movement of produced fluids at
  this location. The analysis of this sample will be considered natural background for the area. Attached is a
  Google image indicating the preferred area to obtain this sample, assuming the area is unaffected by human
  and/or production activities.
- OCD may require additional remedial or investigatory actions after receipt and review of the above referenced sample analysis.
- A form C-141 marked Final Report, and a closure report, is to be submitted to OCD upon satisfactory completion of project.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notifications, please contact me.

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108 C: 575-626-0857

F: 575-748-9720

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

Sent: Tuesday, June 04, 2013 7:06 AM

To: Jones, Brad A., EMNRD; Bratcher, Mike, EMNRD

Cc: Van Curen, Jennifer E; <a href="mailto:David Luna@xtoenergy.com">David Luna@xtoenergy.com</a>; 'Randall Hicks'

**Subject:** XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-015-29434

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Thank you.

From: Andrew Parker <andrew@rthicksconsult.com>

**Sent:** Friday, August 16, 2013 4:55 PM

To: 'Bratcher, Mike, EMNRD'

Cc: 'David_Luna@xtoenergy.com'

Subject: NMOCD 2RP-1674 - XTO Nash Unit 29 Modular Impoundment Spill Report and

Remediation Plan

Attachments: Plate1_backgroundSample.pdf; Plate2_reclamationLayout.pdf;

backgroundSamplingJune26_2013.pdf

#### Mike:

We sampled a background location per C-141/Part 29 approval conditions/stipulations for release event 2RP-1674. Attached is a map (Plate 1) showing the location and results of the Background Sample collected on June 24, 2013. Results are shown in the white box with red outline. Included is the laboratory Certificate of Analysis. We will follow this email with a hard copy to be sent via Certified Mail.

The Background Sample shows an average chloride concentration of 2,773 mg/kg between 1.5 and 4.5 feet below ground surface (bgs). Below 4.5 feet chloride concentration is less than 2,000 mg/kg. The Trench Sample shows a higher chloride concentration of approximately 520 mg/kg between 1.5 and 2-feet bgs. Comparing the Trench Sample to the Background Sample, the average chloride concentration in the Trench Sample between 4 and 6 feet bgs is lower.

- average concentration of chloride between 4 and 6 feet bgs in the Trench Sample is 2,060 mg/kg.
- average concentration of chloride between 4.5 and 6 feet bgs in the Background Sample is 2,400 mg/kg.

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

For your convenience, we reproduced a portion of our remediation plan as presented in our March 15 spill report, below:

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.

We anticipate starting remedial activities within the next few weeks. We will notify NMOCD 48-hours prior to remedial activities.

Please contact me at 970-570-9535 if you have any questions or comments.

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]

**Sent:** Wednesday, June 05, 2013 8:44 AM **To:** Andrew Parker; Jones, Brad A., EMNRD

Cc: Van Curen, Jennifer E; David Luna@xtoenergy.com; 'Randall Hicks'

Subject: RE: XTO Nash Unit 29 Modular Impoundment Spill Report and Remediation Plan Status Inquiry - API No: 30-

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If you have any questions or concerns, and for notifications, please contact me.

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108

C: 575-626-0857 F: 575-748-9720

From:

Andrew Parker < andrew@rthicksconsult.com>

Sent:

Tuesday, September 17, 2013 10:04 AM

To:

'Bratcher, Mike, EMNRD'

Cc:

'David_Luna@xtoenergy.com'

Subject:

RE: NMOCD 2RP-1674 - XTO Nash Unit 29 Modular Impoundment Spill Report and

Remediation Plan

Mr. Bratcher:

This email is the 72-hour notice to perform the spill remediation for the above referenced site per the C-141 spill report. We will begin work on Monday September 23rd, 2013.

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>

Sent: Wednesday, October 23, 2013 9:37 AM

To: Andrew Parker Subject: RE: Fall Color

Andrew,

That must be horrible to have such beautiful scenery all around you. Very nice.

I will try to get all the paperwork on my end together and imaged, but it will be at least next week before I can work on it.

Thanks,

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108

C: 575-626-0857 F: 575-748-9720

From: Andrew Parker [mailto:andrew@rthicksconsult.com]

Sent: Wednesday, October 23, 2013 9:14 AM

To: Bratcher, Mike, EMNRD

Subject: Fall Color

Mike:

Thanks for the suggestions on how to finalize the spill report. FYI: The last image online is the approved C-144 by Mr. Jones.

And a little view up the road from my house (see attached photo).

From: Andrew Parker <andrew@rthicksconsult.com>

**Sent:** Monday, January 13, 2014 10:14 AM

To: 'Bratcher, Mike, EMNRD'
Cc: David_Luna@xtoenergy.com

Subject: XTO Nash Unit 29 C-141/Part 29 release event #2RP-1674

#### Mr. Bratcher:

Per my phone message to you a few weeks ago, please upload the approved C-141 initial plan and final report to NMOCD imaging. I followed your recommendation to submit the C-144 final closure report that included the C-141 Final Closure Report to Mr. Jones prior to having a signed final report.

Mr. Jones called me and "dinged" me for:

- not including a signed/approved C-141 Final Report. I included the report but not the approved version.
- not including a signed/approved C-141 Intial Report. I did not think NMOCD-Santa Fe would want the extra paperwork. I was wrong.

#### Thanks Mike.

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Sent: Thursday, January 16, 2014 9:21 AM

To: Andrew Parker

Cc: David_Luna@xtoenergy.com

Subject: RE: XTO Nash Unit 29 C-141/Part 29 release event #2RP-1674

#### Andrew,

I just completed the imaging process for this project. The initial and final C-141 have made it to the well file (30-015-29434) and are available there now. Most of the entire project should be in the admin order file (2RP-1674), including the C-141s. I just checked and that is still uploading, some 600 + pages, but it should all be in there by end of day.

Sorry for the delay, but as always, I try to do the best I can with what resources I have available.

Mike Bratcher NMOCD District 2 811 S. First Street Artesia, NM 88210 O: 575-748-1283 X108

C: 575-626-0857 F: 575-748-9720

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