GW - 008

GENERAL CORRESPONDENCE

2014 - Present

Chavez, Carl J, EMNRD

From: Sent: To: Subject: Chavez, Carl J, EMNRD Thursday, June 19, 2014 11:09 AM 'White, David' RE: (GW-008) Monument CS Remediation Plan

David:

Good morning. The New Mexico Oil Conservation Division has reviewed the submittal and accepts it for record.

Good job. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 O: (505) 476-3490 E-mail: <u>CarlJ.Chavez@State.NM.US</u> Web: <u>http://www.emnrd.state.nm.us/ocd/</u>

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental



From: White, David [mailto:David_White@kindermorgan.com] Sent: Thursday, June 19, 2014 9:46 AM To: Chavez, Carl J, EMNRD Subject: RE: (GW-008) Monument CS Remediation Plan

Carl

Attached is the final C-141 form with attached remediation work plan and disposal records for the soil. Please let me know if you have any questions.

Thanks

Dave

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us] Sent: Tuesday, June 17, 2014 5:30 PM To: White, David Subject: FW: (GW-008) Monument CS Remediation Plan

David:

Re: Final C-141 and documentation of disposition of wastes within 30 days of receipt of this e-message

Good afternoon. Did you send the documentation?

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 O: (505) 476-3490 E-mail: <u>CarlJ.Chavez@State.NM.US</u> Web: <u>http://www.emnrd.state.nm.us/ocd/</u> **"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of**

the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental



From: Chavez, Carl J, EMNRD
Sent: Friday, May 16, 2014 7:22 AM
To: 'White, David'
Cc: Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Griswold, Jim, EMNRD; Thompson, Glen D; Greer, John
Subject: (GW-008) Monument CS Remediation Plan

David:

The New Mexico Oil Conservation Division (OCD) hereby approves the attached Remediation Plan.

OCD requires receipt of the final C-141 and documentation of disposition of wastes within 30 days of receipt of this e-message or date approved by the OCD.

Thank you for your cooperation in this matter.

Please be advised that OCD approval of this plan does not relieve Kinder Morgan Energy Partners, L.P. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Kinder Morgan Energy Partners, L.P. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 O: (505) 476-3490 E-mail: <u>CarlJ.Chavez@State.NM.US</u> Web: <u>http://www.emnrd.state.nm.us/ocd/</u> **"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of**

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental



From: White, David [mailto:David White@kindermorgan.com]
Sent: Wednesday, May 14, 2014 12:12 PM
To: Chavez, Carl J, EMNRD
Cc: Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Griswold, Jim, EMNRD; Thompson, Glen D; Greer, John
Subject: Monument CS Remediation Plan

Carl

Attached is the Remediation Plan for the Monument Compressor Station Leak which occurred on January 30,2014 . Please let me know if you need a hard copy of the report or just this electronic copy.

Please do not hesitate to contact me with any questions or comments.

Thanks

Dave

David H. White, P.G.

EHS Remediation Project Manager Kinder ✓ Morgan Energy Partners, L.P.
Kinder Morgan Building 1001 Louisiana Street, Suite 1000 Houston, Texas 77002
[☎]Office Direct - (713) 369-9556
[☎]Fax Direct - (713) 495-2812
[☎]Mobile - (281) 772-0730
[☞]Email - david_white@kindermorgan.com

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Oil Conservation Division 1220 South St. Francis Dr.

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Attached

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						OPERA'				ıl Report 🛛 🖂	Final Report
Company)	1.			Kinder Morgan			avid White / Gle		1		
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Facility Nat	me Monu	ment Comp	ressor Sta	tion		Facility Typ	be Natural Gas	Compre	ssor Stati	on	
Surface Ow	ner Kind	er Morgan		Mineral C	Owner				API No	•	
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Unit Letter NE ¼ of NW ¼	Section 1	Township 20S	Range 36E	Feet from the	North/	South Line	Feet from the	East/W	Vest Line	County Lea	
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By Whom?	Glen Thor				equireu		Hour 01/30/2014	4.18 PM	(MST)		
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Remediation	Work Plan					-				es are included in th	
regulations a public health should their o or the enviro	ll operators or the envi operations h nment. In a	are required t ronment. The ave failed to	to report ar e acceptance adequately OCD accep	nd/or file certain r ce of a C-141 report investigate and r	elease no ort by the emediate	otifications a NMOCD m contamination	nd perform correct narked as "Final R ion that pose a thr ve the operator of	ctive action Report" do reat to gro responsil	ons for rele oes not reli ound water bility for co	uant to NMOCD ru eases which may en eve the operator of , surface water, hur ompliance with any	danger liability nan health
Signature:	ODA W	A					<u>OIL CON</u>	<u>SERV</u>	<u>ATION</u>	DIVISION	
Printed Name	e: David V	Vhite				Approved by	Environmental S	pecialist	:		
Title: EHS F	Remediatior	Project Man	ager			Approval Da	te:	E	Expiration	Date:	
										1	

Conditions of Approval:

06/19/2014 Phone: (713) 369-9556 * Attach Additional Sheets If Necessary

Date:

E-mail Address: david_white@kindermorgan.com



May 14, 2014

Mr. Carl J. Chavez New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Soil Remediation Summary Report and Remediation Plan Monument Compressor Station Monument, New Mexico

Dear Mr. Chavez:

El Paso Natural Gas (EPNG), a Kinder Morgan Company, is pleased to submit this Soil Remediation Summary Report and Remediation Plan (RP) to the New Mexico Oil Conservation Division (NM-OCD), Environmental Bureau of the New Mexico Energy, Minerals & Natural Resources Department. This report documents the remediation activities that were completed to assess the extent of benzene, toluene, ethylbenzene, and xylenes (BTEX), Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO), and chloride impacted soils at the EPNG Monument Compressor Station located at 47 Brady Lane, Monument, Lea County, New Mexico. A Site Location map and Site Details map are presented as Figure 1 and Figure 2, respectively.

BACKGROUND AND REMEDIATION INFORMATION

On January 30, 2014, operations noticed discoloration on the ground surface near the waste oil tank located in the southern portion of the station. Precautionary procedures were implemented to close values and shut in the facilities primary drain line to the tank. The NM-OCD was notified approximately 2 hours after the discovery and confirmation of the leak (see Appendix A for C-141 Form). An emergency One Call was initiated and excavation activities began on January 31, 2014. The surface discoloration was discovered to be the result of a leaking drain line which feeds the tank. The liquids from the drain line are a mixture of used oil and wash water (fresh water used to wash off and clean the compressors.) The initial excavated material was placed on plastic and segregated as per stained and unstained soils. Soil samples were collected from all four walls and the stock piled soils. Soil samples collected for laboratory analysis were placed in laboratory supplied containers, placed on ice in a cooler and delivered to the laboratory for the analysis of BTEX by EPA Method 8021B and TPH by EPA 8015D. Table 1 below summarizes the sample results.

Constituents		Samples – Date Collected 02-10-2014											
	North Side	South Side	East Side	West Side	East Spoil	West Spoil							
	7' bgs	7' bgs	7' bgs	7' bgs									
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							
Benzene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020							
Toluene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020							
Ethylbenzene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020							
Xylenes	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020							
TPH – GRO	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00							
TPH – DRO	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0							

 Table 1 – Initial Excavation Sampling Results

On March 17, 2014, EPNG contracted EnviroClean Services, L.L.C. to perform additional excavation to remove any remaining impacted soils from the walls and base of the initial dig. The additional soil removal resulted in an excavation that was approximately 25 feet by 25 feet by 23 feet deep. During the additional excavation, no soil samples were collected and were only evaluated using a Photoionization Detector (PID). Side wall results ranged from 72 ppm to 2.3 ppm from the PID; however, bottom results indicated a high of 1,380 ppm at 12 feet bgs and 500 ppm value from 23 feet. Due to the location of underground utilities and the reach limit of the excavator, the excavation was stopped.

On April 8, 2014, EPNG contracted Conestoga-Rovers and Associates (CRA) to collect a soil sample at the bottom of the excavation. The sample was collected using a decontaminated hand auger and was advanced to 25 feet bgs. Finally, on April 29, 2014 additional side wall and spoil pile confirmation samples were collected. The side wall samples were collected from 20 feet bgs to account for potential horizontal migration of contaminates as a result of elevated PID readings from the excavation in March. The spoil pile samples were collected from both the stained and unstained piles. Each sample was composited from 5 to 7 locations to adequately represent the entire pile. Soil samples collected for laboratory analysis were placed in laboratory supplied containers, placed on ice in a cooler and delivered to the laboratory for the analysis of BTEX by EPA Method 8021B, TPH by TX 1005 (4-8-14 sample only) and EPA 8015D (4-29-14), Chloride by EPA SM 4500-Cl-B, and for the soil piles only, RCRA Total Metals to determine disposal characteristics. Table 2 summarizes the results from the additional sampling events.

Constituents	Samples – Dates Collected 04-08-2014 & 04-29-2014										
	Excavation-	North	South	East	West	East	Middle	West			
	25' – 4-8-14	Side 20'	Side 20'	Side 20'	Side 20'	Pile	Pile	Pile			
	25' bgs	20' bgs	20 bgs	20' bgs	20' bgs						
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
Benzene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020			
Toluene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020			
Ethylbenzene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020			
Xylenes	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020			
TPH – GRO	<50.0	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00			
TPH – DRO	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	58.9			
Chloride	186	297	198	149	50	149	50	50			
Total Silver						< 0.500	< 0.500	< 0.500			
Total Arsenic						<2.00	<2.00	<2.00			
Total Barium						278	73.5	86.1			
Total Cadmium						< 0.500	< 0.500	< 0.500			
Total Chromium						4.76	6.99	7.83			
Total Mercury						< 0.0250	< 0.0250	< 0.0250			
Total Lead						<1.00	2.17	1.71			
Total Selenium						<2.00	<2.00	<2.00			

 Table 2 – Additional Excavation Sampling Results

A Sample Location map is presented in Figure 3. A copy of the certified laboratory report is presented in Appendix B. Photo documentation of the remediation and sampling actives are presented in Appendix C.

REMEDIATION PLAN

EPNG evaluated clean-up criteria following NM-OCD "Guidelines for Remediation of Leaks, Spills and Releases", dated August 13, 1993. The action levels were determined based on the following ranking criteria:

- 1. Depth To Ground Water (Ranking Score) <50 *feet* Score: 20 (groundwater depth was estimated, however the most conservative value was chosen)
- 2. Wellhead Protection Area (Ranking Score) <1000 feet from a water source & <200 feet from private domestic water source *No* Score: **0**
- 3. Distance to Surface Water Body (Ranking Score) >1000 horizontal feet Score: 0
- 4. Total Ranking Score (Total Score 20), therefore the clean-up levels are as follows:

•	Benzene (mg/kg)	10
-	\mathbf{DTEV} (m $\approx /1 \times \infty$)	50

- BTEX (mg/kg) 50
- TPH (mg/kg) 100

EPNG evaluated Chloride concentrations in the soil, pursuant to NM-OCD delineation standard of 250 mg/kg. All Chloride samples were below delineation levels, with the exception of one sample collected on the north wall of the excavation. The Chloride value was 297 mg/kg, which exceeds the delineation criteria, however, EPNG believes this value poses no threat to groundwater in the area and therefore requests that no additional excavation be performed at the site. With both local and regional data documenting the current condition of the aquifer, EPNG would like to propose the value for Chloride Closure Criteria for this site to be 600 mg/kg as per Table 1 of the "New Pit Rule" (19.15.17 NMAC).

Upon evaluating the excavation sampling results with the clean-up criteria values, all soil remediation action levels have been met.

EPNG recommends the following closure/remedial strategy:

- As a result of a clean bottom excavation sample, groundwater will not be evaluated.
- No additional excavation is planned.
- Replace soils from the excavation that were segregated and samples confirm that no adverse impact exists. The remaining soils, to bring the excavation to grade, will be clean fill with road base. The soils segregate as "stained soils" will be disposed of as a non-hazardous waste. All disposal manifests will be supplied with the Final Report (C-141 Form).
- As an extra precaution, a vault will be placed around and underneath the repaired piping, in order to perform periodic inspections of the pipes integrity and collect any liquids, if necessary, resulting from a leak.

CONCLUSION/RECOMMENDATIONS

Upon completion of the proposed closure/remedial strategy and disposal of the excavated material, EPNG will provide the final C-141 Form to the NM-OCD. EPNG plans to dispose of the excavated soils at Lea Land Landfill in Carlsbad, NM following approval from NM-OCD.

If you have additional comments or concerns about this remediation approach, please contact David White at (713) 369-9556 or david_white@kindermorgan.com.

Sincerely,

El Paso Natural Gas, L.L.C.

Stutt

David H. White, P.G. (TX 2577) EHS Remediation Project Manager

Attachments:	Figure 1 Figure 2 Figure 3	 Site Location Map Site Details Map Sample Location Map
	Appendix A Appendix B Appendix C	 Initial Form C-141 Laboratory Analytical Data Photographic Documentation

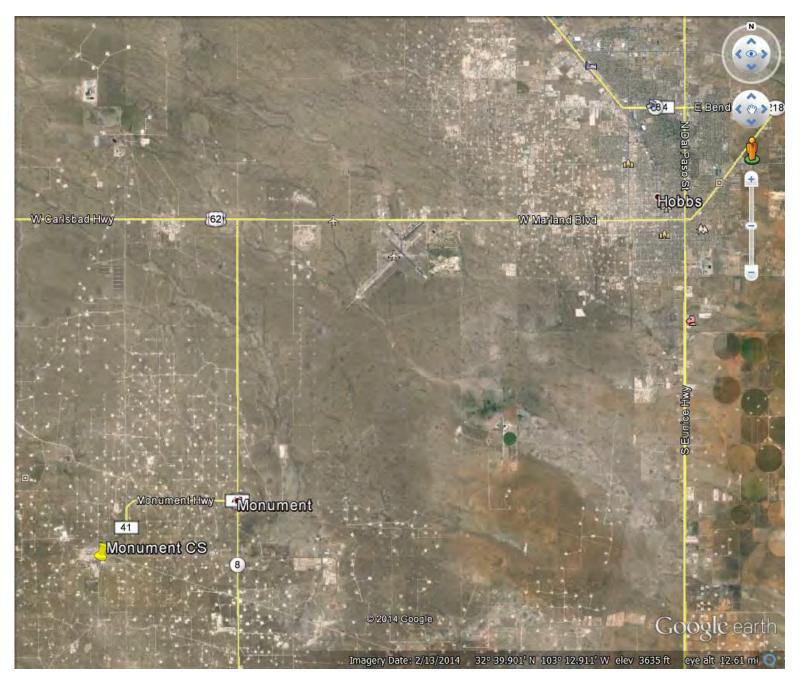




Figure 3. Sample Location Map



Appendix A Initial Form C-141 State of New Mexico Energy Minerals and Natural Resources

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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. Fra	ncis Dr., Sant	a Fe, NM 8750	5	S	anta I	Fe, NM 87:	505		
			Rel	ease Notifi	catio	on and C	orrective A	ction	
						OPERA	TOR	🖂 Initi	al Report 🔲 Final Repo
Name of C	ompany El	Paso Natural	Gas (own	ed by Kinder Mo	rgan)		en Thompson		
		ne, Monume				the second se	No. (432) 333-:	5518	
Facility Na	me Monu	ment Compr	essor Sta	tion		Facility Ty	pe Natural Gas	Compressor Stati	ion
Surface Or	vner Kinde	Morgan		Mineral (Qumor			API No	
Surface Ov	viter Kinde	a worgan				0	2.00	APING).
		_				ON OF RE	T		
Unit Letter NE ¼ of NW ¼	Section 1	Township 20S	Range 36E	Feet from the	Nort	h/South Line	Feet from the	East/West Line	County Lea
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Type of Rel	ease Oily w	vater				Volume o	f Release		Recovered
					_	Estimated		To be det	
Source of R	elease PVC	drain line				Date and I Unknown	Hour of Occurrent		Hour of Discovery 14 2:00 p.m. (MST)
Was Immed	iate Notice (] Yes [] No 🗌 Not R	equired	If YES, To d Carl Chav			
	Glen Thom							4:18 p.m. (MST)	
Was a Watercourse Reached?				If YES, V	olume Impacting	the Watercourse.			
At approxim 45 ft. northe on all air acc NMOCD wa	ately 2:00 p ast of the so cumulation t as notified at	uthern storage anks and shut 4:18 p.m. (N	tring an ho building, down the IST). An l	urly plant walk a Upon verification facility reverse os Emergency One O	on that smosis Call wa	the leak was fr (RO) tank in o is made to secu	om the facility's p rder to isolate the are clearances prio	primary drain line, header of the drain or to excavating any	of ground surface approximatel the technician closed the valves the line. Carl Chavez with the macted soil. At s on-site to conduct the
The impacte eak so that sampled for	d soil will b repairs can b TPH and B7	e made to the TEX. Soil dis	own to the drain line posal will	pve drain line. The impacted s be determined ba	soil will ased on	l be placed on lab results.	6 mil. plastic and	as directed by the I	ler to locate the source of the NMOCD the soil will be
egulations a bublic health should their or the enviro	all operators or the envi operations h onment. In a	are required t ronment. The ave failed to	to report and acceptance adequately OCD accept	nd/or file certain i ce of a C-141 rep investigate and i	release ort by t remedia	notifications a he NMOCD n ate contaminat	and perform correct narked as "Final R ion that pose a thus we the operator of	ctive actions for rel deport" does not rel reat to ground wate responsibility for c	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Signature: Slen Thompson				OIL CONSERVATION DIVISION Approved by Environmental Specialist:					
						Approval D	tar	Evaluation	Date:
	ne Engineer ess: Glen_1	- Sr. Thompson@K	inderMor	gan.com		Approval Da		Expiration	Attached
Date: 01/3	31/2014		Phone	: (432) 333-551	8				

* Attach Additional Sheets If Necessary

Appendix B Laboratory Analytical Data



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 (BioAquatic) 2501 Mayes Rd., Suite 100

Lubbock, Texas 79424 Texas 79922 El Paso, Texas 79703 Midland, Carroliton. Texas 75006 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

915-585-3443 FAX 915 • 585 • 4944 432-689-6301 FAX 432 • 689 • 6313 972-242 -7750

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Oklahoma ISO 17025 Kansas

Analytical and Quality Control Report

Ernest Long Kinder Morgan/El Paso Natural Gas-Hobbs 2316 W. Bender Blvd. Hobbs, NM, 88240

Report Date: February 12, 2014

Work Order: 14021110

Project Location: Monument, Lea Co, NM **Project** Name: Monument Drain Line Project Number: 5205-1920-020914

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
354321	North Side	soil	2014-02-10	08:50	2014-02-11
354322	South Side	soil	2014-02-10	08:55	2014-02-11
354323	East Side 10:05am	soil	2014-02-10	10:05	2014-02-11
354324	West Side	soil	2014-02-10	09:10	2014-02-11
354325	East Spoil	soil	2014-02-10	08:46	2014-02-11
354326	West Spoil	soil	2014-02-10	08:40	2014-02-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael abel

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

Report Contents

Case Narrative	4
Analytical Report Sample 354321 (North Side) Sample 354322 (South Side) Sample 354323 (East Side 10:05am) Sample 354324 (West Side) Sample 354325 (East Spoil) Sample 354326 (West Spoil)	5 6 7 8 9 10
Method Blanks QC Batch 109173 - Method Blank (1)	13 13 13 13
	15 15 16 16 17 17
QC Batch 109173 - CCV (1)	 19 19 19 19 20 20
Appendix Report Definitions Laboratory Certifications Standard Flags Attachments	 21 21 21 21 21 21

Case Narrative

Samples for project Monument Drain Line were received by TraceAnalysis, Inc. on 2014-02-11 and assigned to work order 14021110. Samples for work order 14021110 were received intact at a temperature of 4.4 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	92329	2014-02-11 at 14:25	109173	2014-02-11 at 14:25
TPH DRO - NEW	S 8015 D	92337	2014-02-11 at $14:00$	109188	2014-02-11 at $15:00$
TPH GRO	S 8015 D	92329	2014-02-11 at 14:25	109174	2014-02-11 at $14:25$

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14021110 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 354321 - North Side

Laboratory: Lubbock Analysis: BTEX QC Batch: 109173 Prep Batch: 92329		Date Ana	l Method: lyzed: reparation	2014-02	2-11		Prep Methe Analyzed E Prepared B	By: JS
				RL				
Parameter	Flag	Cert		Result	Unit	S	Dilution	RL
Benzene	U	1	<	(0.0200	mg/K	g	1	0.0200
Toluene	U	1	<	(0.0200)	mg/K	g	1	0.0200
Ethylbenzene	Jb	1	<	(0.0200)	mg/K	g	1	0.0200
Xylene	Jb	1	<	(0.0200	mg/K	g	1	0.0200
						Spike	Percent	Recovery
Surrogate	Fla	g Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	59.5 - 120
Sample: 354321 - North Sid	е							
Laboratory: Lubbock	_							/.

Analysis: QC Batch: Prep Batch:	TPH DRC 109188 92337) - NEV	N	Date	lytical Metho e Analyzed: ple Preparat	2014-0)2-11	11 Analyzed B	
						RL			
Parameter			Flag	Cert	Res	ult	Units	Dilution	RL
DRO			$_{\rm Jb,Qs}$	1	<5	0.0	m mg/Kg	1	50.0
~			<i>c</i>				Spike	Percent	Recovery
Surrogate	-	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane				104	m mg/Kg	1	100	104	70 - 130

Sample: 354321 - North Side

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	109174	Date Analyzed:	2014-02-11	Analyzed By:	$_{ m JS}$
Prep Batch:	92329	Sample Preparation:	2014-02-11	Prepared By:	$_{\rm JS}$

Report Date: February 12, 2014 5205-1920-020914			Work Ore Monumer		0	ber: 6 of 22 Lea Co, NM		
		C I		RL	TT -			DI
Parameter	Flag	Cert		Result	Uni	ts	Dilution	RL
GRO	U	1		<4.00	mg/ł	Хg	1	4.00
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	73 - 122
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	74.6 - 120

Sample: 354322 - South Side

Laboratory: Lubbock Analysis: BTEX QC Batch: 109173 Prep Batch: 92329		Date Ana	l Method: lyzed: reparation:	S 80211 2014-02 2014-02	- 2-11		Prep Method Analyzed By Prepared By	r: JS
				RL				
Parameter	Flag	Cert]	Result	Unit	ts	Dilution	RL
Benzene	U	1	<(0.0200	mg/K	g	1	0.0200
Toluene	U	1	<(0.0200	mg/K	g	1	0.0200
Ethylbenzene	Jb	1	<(0.0200	mg/K	g	1	0.0200
Xylene	Jb	1	<	0.0200	mg/K	g	1	0.0200
		<i>c</i>				Spike	Percent	Recovery
Surrogate	Flag	g Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.70	m mg/Kg	1	2.00	85	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.63	$\mathrm{mg/Kg}$	1	2.00	82	59.5 - 120

Sample: 354322 - South Side

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH DRO - NE 109188 92337	W	Date	lytical Metho e Analyzed: ple Preparat	2014-0	02-11	Prep Me Analyzed Prepared	l By: CM
]	RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		$_{\rm Jb,Qs}$	1	<5	0.0	m mg/Kg	1	50.0
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Tiag	0010	105	mg/Kg	1	100	105	70 - 130

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Sample: 354322 - South Side

Laboratory: Lubbock Analysis: TPH GRO QC Batch: 109174 Prep Batch: 92329			Date An	al Metho alyzed: Preparatio	2014-0)2-11		Prep Methe Analyzed E Prepared B	By: JS
					RL				
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		1		<4.00	mg/ł	Kg	1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)				1.89	mg/Kg	1	2.00	94	73 - 122
4-Bromofluorobenzene (4-BF	B)			1.98	$\mathrm{mg/Kg}$	1	2.00	99	74.6 - 120

Sample: 354323 - East Side 10:05am

Laboratory: Lubbock Analysis: BTEX QC Batch: 109173 Prep Batch: 92329		Date Ana	l Method: lyzed: reparation	2014-02			Prep Metho Analyzed B Prepared B	sy: JS
				RL				
Parameter	Flag	Cert		Result	Uni	ts	Dilution	RL
Benzene	U	1	<	0.0200	mg/k	g	1	0.0200
Toluene	U	1	<	0.0200	mg/k	g	1	0.0200
Ethylbenzene	U	1	<	0.0200	mg/k	g	1	0.0200
Xylene	Jb	1	<	0.0200	mg/k	g	1	0.0200
						Spike	Percent	Recovery
Surrogate	Flag	g Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.72	$\mathrm{mg/Kg}$	1	2.00	86	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.63	$\mathrm{mg/Kg}$	1	2.00	82	59.5 - 120

Sample: 354323 - East Side 10:05am

Laboratory:	Lubbock				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	109188	Date Analyzed:	2014-02-11	Analyzed By:	CM
Prep Batch:	92337	Sample Preparation:	2014-02-11	Prepared By:	CM
				1. 1	

continued ...

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sample 354323 continued ...

					RL			
Parameter		Flag	Cert	Res	sult	Units	Dilution	RL
					RL			
Parameter		Flag	Cert	Res		Units	Dilution	RL
DRO		$_{\rm Jb,Qs}$	1	<5	0.0	m mg/Kg	1	50.0
G		C I		TT •/		Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			106	m mg/Kg	1	100	106	70 - 130

Sample: 354323 - East Side 10:05am

Laboratory: Lubbock Analysis: TPH GRO QC Batch: 109174 Prep Batch: 92329			Date An	al Metho alyzed: Preparatio	2014-0)2-11		Prep Metho Analyzed E Prepared B	By: JS
					RL				
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		1		<4.00	mg/ł	Kg	1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)				1.97	mg/Kg	1	2.00	98	73 - 122
4-Bromofluorobenzene (4-BFB))			1.99	mg/Kg	1	2.00	100	74.6 - 120

Sample: 354324 - West Side

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock BTEX 109173 92329		Analytical M Date Analyze Sample Prepa	d: 2014-02-1		Prep Method: Analyzed By: Prepared By:	S 5035 JS JS
				RL			
Parameter		Flag	Cert	Result	Units	Dilution	RL
Benzene		U	1	< 0.0200	m mg/Kg	1	0.0200
Toluene		U	1	< 0.0200	m mg/Kg	1	0.0200
Ethylbenzene	<u>)</u>	U	1	< 0.0200	mg/Kg	1	0.0200
Xylene		$_{ m Jb}$	1	< 0.0200	mg/Kg	1	0.0200

Report Date 5205-1920-02			Work Ore Monumer	Page Number: 9 of 22 Monument, Lea Co, NM						
Surrogate Trifluorotolue			Flag	Cert	Result	Units mg/Kg		Spike Amount 2.00	Percent Recovery 85	Recovery Limits 66.2 - 120
4-Bromofluor	obenzene (4-BFB)				1.65	mg/Kg	1	2.00	82	59.5 - 120
Sample: 354	4 324 - W est Side	•								
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH DRO - NEW 109188 92337	V		Da	alytical M te Analyz nple Prep	ed: aration:	S 8015 D 2014-02-11 2014-02-11		Prep Me Analyzec Preparec	By: CM
Parameter		Flag		Cert		RL Result	U	nits	Dilution	RL
DRO		Jb,Qs		1		<50.0	mg/		1	50.0
Surrogate n-Tricosane	Flag	Cert	5	Result 102	Units mg/K		lution 1	Spike Amount 100	Percent Recovery 102	Recovery Limits 70 - 130
Sample: 354 Laboratory: Analysis: QC Batch: Prep Batch:	4324 - West Side Lubbock TPH GRO 109174 92329	•		Date Ar	cal Metho nalyzed: Preparatio	2014	15 D -02-11 -02-11		Prep Meth Analyzed I Prepared F	By: JS
· F - · · · · · · · ·				юр - с	• F				• P • - • •	- <u>j</u>
Parameter		Flag		Cert		RL Result	U	nits	Dilution	RL
GRO		U		1		<4.00	mg/		1	4.00
Surrogate Trifluorotolue 4-Bromofluor	ene (TFT) obenzene (4-BFB)		Flag	Cert	Result 1.95 2.00	Units mg/Kg mg/Kg		Spike Amount 2.00 2.00	Percent Recovery 98 100	Recovery Limits 73 - 122 74.6 - 120

Sample: 354325 - East Spoil

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	109173	Date Analyzed:	2014-02-11	Analyzed By:	$_{\rm JS}$
Prep Batch:	92329	Sample Preparation:	2014-02-11	Prepared By:	$_{\rm JS}$

Report Date: Febr 5205-1920-020914		Work Ore Monumer	Page Number: 10 of 22 Monument, Lea Co, NM						
					RL				
Parameter		Flag	Cert		Result	Uni		Dilution	RL
Benzene		U	1		< 0.0200	mg/I		1	0.0200
Toluene		U	1		< 0.0200	mg/I	-	1	0.0200
Ethylbenzene		U	1		< 0.0200	mg/ł	-	1	0.0200
Xylene		Jb	1		< 0.0200	mg/ł	бg	1	0.0200
							Spike	Percent	Recovery
Surrogate		F	lag Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (7				1.70	mg/Kg	1	2.00	85	66.2 - 120
4-Bromofluorobenz	ene (4-BFB)			1.53	m mg/Kg	1	2.00	76	59.5 - 120
QC Batch: 1091 Prep Batch: 9233 Parameter	oock DRO - NEV 88		Da	nalytical M ate Analyz mple Prep	ed: 2 aration: 2 RL Result	5 8015 D 2014-02-11 2014-02-11 Un		Prep Me Analyzed Prepared Dilution	l By: CM l By: CM RL
DRO		$_{\rm Jb,Qs}$	1		$<\!50.0$	mg/l	Хg	1	50.0
Surrogate n-Tricosane	Flag	Cert	Result 100	Units mg/K			Spike mount 100	Percent Recovery 100	Recovery Limits 70 - 130
Sample:354325Laboratory:LubbAnalysis:TPFQC Batch:1091Prep Batch:9232	oock GRO 74	1	Date A	cal Metho nalyzed: Preparati	2014-0	02-11		Prep Meth Analyzed I Prepared F	•
Laboratory: Lubl Analysis: TPH QC Batch: 1091 Prep Batch: 9232 Parameter	oock GRO 74	l Flag	Date A	nalyzed: Preparati	2014-0 on: 2014-0 RL Result	02-11 02-11 Un		Analyzed I	By: JS By: JS RL
Laboratory: Lubl Analysis: TPH QC Batch: 1091 Prep Batch: 9232	oock GRO 74		Date A Sample	nalyzed: Preparati	2014-(on: 2014-(RL	02-11 02-11		Analyzed I Prepared E	By: JS By: JS
Laboratory: Lubl Analysis: TPH QC Batch: 1091 Prep Batch: 9232 Parameter	pock GRO 74 9	Flag U	Date A Sample Cert	nalyzed: Preparati	2014-0 on: 2014-0 RL Result	02-11 02-11 Un		Analyzed I Prepared E Dilution	By: JS By: JS RL

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Sample: 354326 - West Spoil

Laboratory: Lubbock Analysis: BTEX QC Batch: 109173 Prep Batch: 92329		Date Ana	al Method: alyzed: 'reparation	2014-02	2-11		Prep Methoo Analyzed By Prepared By	: JS
				RL				
Parameter	Flag	Cert		Result	Uni	$^{ m ts}$	Dilution	RL
Benzene	U	1	<	< 0.0200	mg/k	۲g	1	0.0200
Toluene		1	<	< 0.0200	mg/k	g	1	0.0200
Ethylbenzene	U	1	<	< 0.0200	mg/k	Γg	1	0.0200
Xylene	Jb	1	<	< 0.0200	mg/k	lg	1	0.0200
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.57	mg/Kg	1	2.00	78	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	59.5 - 120

Sample: 354326 - West Spoil

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH DRO - NE 109188 92337	ΣW	Date	lytical Metho e Analyzed: ple Preparat	2014-0	02-11	Prep Me Analyzec Preparec	•
]	RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		$_{\rm Jb,Qs}$	1	<5	0.0	m mg/Kg	1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			103	m mg/Kg	1	100	103	70 - 130

Sample: 354326 - West Spoil

Laboratory: Lubbock Analysis: TPH GF QC Batch: 109174 Prep Batch: 92329		Analytical 1 Date Analy Sample Pre		2-11	Prep Method Analyzed By: Prepared By:	$_{\rm JS}$
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	U	1	<4.00	m mg/Kg	1	4.00

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	~		$1.81 \\ 1.82$	m mg/Kg $ m mg/Kg$	1 1	$2.00 \\ 2.00$	90 91	73 - 122 74.6 - 120

Method Blanks

QC Batch: 109173		Date	Analyzed:	2014-02-	.11		Analyz	ed By: JS
Prep Batch: 92329			reparation:	2014-02- 2014-02-			Prepare	v
					MDL			
Parameter	Flag		Cert		Result		Units	RL
Benzene			1		< 0.00487		mg/Kg	0.02
Toluene			1		< 0.00358		m mg/Kg	0.02
Ethylbenzene			1		0.00300		m mg/Kg	0.02
Xylene			1		0.0136		mg/Kg	0.02
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	1	2.00	84	66.2 - 120
4-Bromofluorobenzene (4-B	FB)		1.43	mg/Kg	1	2.00	72	59.5 - 120

Method Blank (1) QC Batch: 109174

QC Batch: 109174 Prep Batch: 92329			Analyzed: reparation:	2014-02- 2014-02-			Analyze Prepare	v
					MDL			
Parameter	Flag		Cert		Result		Units	RL
GRO			1		0.219		m mg/Kg	4
Cumorata	Elo m	Cont	Degult	Unita	Dilution	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	73 - 122
4-Bromofluorobenzene (4-BFB)			1.75	$\mathrm{mg/Kg}$	1	2.00	88	74.6 - 120

Method Blank (1)	QC Batch: 109188	
QC Batch: 109188	Date Analyzed:	Analyzed By: CM
Prep Batch: 92337	QC Preparation:	Prepared By: CM

Report Date: Febr 5205-1920-020914	4		Work Order: Monument D	Page Number: 14 of 22 Monument, Lea Co, NM				
D (C t		DL	TT */	DI
Parameter		Fla	g Cert		Result		Units	RL
DRO				1	6	.44	mg/Kg	50
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			107	m mg/Kg	1	100	107	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:	109173	Date Analyzed:	2014-02-11	Analyzed By:	JS
Prep Batch:	92329	QC Preparation:	2014-02-11	Prepared By:	$_{\rm JS}$

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	1.74	mg/Kg	1	2.00	< 0.00487	87	69.3 - 120
Toluene		1	1.79	m mg/Kg	1	2.00	$<\!0.00358$	90	70.5 - 120
Ethylbenzene		1	1.86	m mg/Kg	1	2.00	0.003	93	70.6 - 120
Xylene		1	5.58	m mg/Kg	1	6.00	0.0136	93	70.7 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.65	mg/Kg	1	2.00	< 0.00487	82	69.3 - 120	5	20
Toluene		1	1.75	$\mathrm{mg/Kg}$	1	2.00	< 0.00358	88	70.5 - 120	2	20
Ethylbenzene		1	1.85	$\mathrm{mg/Kg}$	1	2.00	0.003	92	70.6 - 120	0	20
Xylene		1	5.53	mg/Kg	1	6.00	0.0136	92	70.7 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.70	1.56	mg/Kg	1	2.00	85	78	66.2 - 120
4-Bromofluorobenzene (4-BFB)	1.42	1.39	$\mathrm{mg/Kg}$	1	2.00	71	70	59.5 - 120

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	109174 92329]		•	ed By: JS ed By: JS				
				LCS			Spike	Matrix		Rec.
Param		\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO			1	14.9	mg/Kg	1	20.0	0.219	74	60.1 - 120
Democrat mason	rome is based on t	he aniles nor	ult D	DD ia haaa	d on the ani	les and a	miles dunliss	to normlt		

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: February 12, 2014 5205-1920-020914						14021110 rain Line				-		16 of 22 Co, NM
control spikes continued			LCSD			Spike	Matrix		Re	20		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Lin		RPD	Limit
						~						
Param	F	С	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Re Lir		RPD	RPD Limit
GRO	Г	1	15.4	mg/Kg		20.0	0.219	77	60.1 ·		3	$\frac{111111}{20}$
Percent recovery is based on the	spike											
	~ P					~F				I GOD		D
Summe met e			LCS Resu		CSD	Unita T	Spil		LCS	LCSD		Rec.
Surrogate Trifluorotoluene (TFT)			1.74				$\frac{\text{Dil.} \text{Amo}}{1 \qquad 2.0}$		$\frac{\text{Rec.}}{87}$	$\frac{\text{Rec.}}{90}$		Limit 3 - 122
4-Bromofluorobenzene (4-BFB)			1.74				1 2.0 1 2.0		91	$\frac{90}{94}$.6 - 122
Laboratory Control Spike (L QC Batch: 109188 Prep Batch: 92337		,		Analyz Preparat		014-02-11 014-02-11				Analyz Prepar	•	
Param		F		LCS Result	Unit	s Dil.	Spike Amoun		latrix tesult	Rec	•	Rec. Limit
DRO		_		190	mg/k		250		6.44	76		70 - 130
Percent recovery is based on the	spike	resu	lt. RPD	is based	d on the	spike and s	spike duplie	cate res	sult.			
			LCSD			Spike	Matrix		D	ec.		RPD
Param	F	С		T T •,	- D:1	-		-			DDD	Limit
	-	• • •	Result	Units	S DIL	. Amount	: Result	Rec.		mit	RPD.	
DRO		1	Result 195	Units mg/K		Amount 250	t Result 6.44	Rec. 78		mit - 130	$\frac{\text{RPD}}{3}$	20
	spike	1	195	mg/K	Kg 1	250	6.44	78	70 -			
	-	1 resu	195 lt. RPD 1	mg/K is based	Kg 1	250	6.44 spike duplie	78 cate res	70 - sult.	- 130	3	20
Percent recovery is based on the	L	¹ resu CS	195	mg/K is based O	Kg 1	250	6.44	78 cate res L(70 - sult. CS	- 130 LCSD	3	
Percent recovery is based on the s Surrogate	Le Re	1 resu	195 lt. RPD : LCSI	mg/K is based D It	Kg 1 l on the	250 spike and s	6.44 spike duplic Spike	78 cate res	70 - sult. CS ec.	- 130	3	20 Rec. Limit
Percent recovery is based on the s Surrogate n-Tricosane Matrix Spike (MS-1) Spike QC Batch: 109173	Le Re 82	1 c resu CS sult 2.7	195 lt. RPD = LCSI Resul 102 : 354321 Date	mg/K is based D It	I on the Units ng/Kg	250 spike and s Dil.	6.44 spike duplic Spike Amount	78 cate res L(Re	70 - sult. CS ec.	- 130 LCSD Rec. 102	3	20 Rec. Limit 70 - 130
Percent recovery is based on the s Surrogate n-Tricosane Matrix Spike (MS-1) Spike QC Batch: 109173	Le Re 82	1 c resu CS sult 2.7	195 lt. RPD = LCSI Resul 102 : 354321 Date	mg/K is based D It r	I on the Units ng/Kg	250 spike and s Dil. 1 2014-02-11	6.44 spike duplic Spike Amount	78 cate res L(Re	70 - sult. CS ec.	- 130 LCSD Rec. 102	3	20 Rec. Limit 70 - 130
QC Batch: 109173	Lo Re 82	1 c resu CS sult 2.7	195 lt. RPD : Resul 102 : 354321 Date QC I	mg/K is based D It r	I on the Units ng/Kg	250 spike and s Dil. 1 2014-02-11	6.44 spike duplic Spike Amount	78 cate res L(Re	70 - sult. CS ec. 3	- 130 LCSD Rec. 102	3 , vzed B ared B	20 Rec. Limit 70 - 130

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5205-1920-020914	Monument Drain Line	Monument, Lea Co, NM

matrix spikes continued ...

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Toluene		1	2.10	mg/Kg	1	2.00	< 0.00358	105	67.8 - 128
Ethylbenzene		1	2.17	m mg/Kg	1	2.00	0.0035	108	69.5 - 136
Xylene		1	6.45	mg/Kg	1	6.00	0.0053	107	69.3 - 139

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	2.01	mg/Kg	1	2.00	< 0.00487	100	63.6 - 120	3	20
Toluene		1	2.00	$\mathrm{mg/Kg}$	1	2.00	$<\!0.00358$	100	67.8 - 128	5	20
Ethylbenzene		1	2.12	$\mathrm{mg/Kg}$	1	2.00	0.0035	106	69.5 - 136	2	20
Xylene		1	6.32	$\mathrm{mg/Kg}$	1	6.00	0.0053	105	69.3 - 139	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.27	2.15	m mg/Kg	1	2	114	108	66.2 - 120
4-Bromofluorobenzene (4-BFB)	1.66	1.59	$\mathrm{mg/Kg}$	1	2	83	80	59.5 - 120

Matrix Spike (MS-1) Spiked Sample: 354321

QC Batch:	109174	Date Analyzed:	2014-02-11	Analyzed By:	$_{\rm JS}$
Prep Batch:	92329	QC Preparation:	2014-02-11	Prepared By:	$_{\rm JS}$

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	12.0	m mg/Kg	1	20.0	< 0.217	60	40.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Μ	latrix		Re	c.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil	. Amoun	it R	esult	Rec.	Lin	nit	RPD	Limit
GRO		1	12.9	mg/Kg	1	20.0	<	0.217	64	40.3 -	120	7	20
Percent recovery is based on the	spike	e resi	ult. RPD	is based	on the	e spike and	d spik	e dupli	icate re	sult.			
			M	S M	SD			Sp	oike	MS	MS)	Rec.
Surrogate			Res	ult Re	sult	Units	Dil.	Am	ount	Rec.	Rec	•	Limit
Trifluorotoluene (TFT)			1.8	7 1	.87	mg/Kg	1		2	94	94	7	3 - 122
4-Bromofluorobenzene (4-BFB)			1.9	9 2	.05	$\mathrm{mg/Kg}$	1		2	100	102	2 74	.6 - 120

Report Date: February 12, 2014 5205-1920-020914				Work Order: 14021110 Monument Drain Line						Page Number: 18 of 22 Monument, Lea Co, NM		
Matrix Spike (MS-1)	Spiked S	Sam	ple:	354326								
QC Batch:109188Date Analyzed:2014-02-11Prep Batch:92337QC Preparation:2014-02-11							Analyzed By: CM Prepared By: CM					
					MS			Spike	Ma	trix		Rec.
Param			F	C I	Result	Units	Dil.	Amount	Re	sult	Rec.	Limit
DRO	$_{\rm Qs}$		$_{\rm Qs}$	1	161	mg/Kg	1	250	5.	.97	62	70 - 130
			1.							1.		
Percent recovery is based or	n the spi	ike 1	result	t. RPD i	s based o	n the spi	ike and sp	ike duplica	te resu	lt.		
Percent recovery is based or	n the sp	ike 1	result	t. RPD i MSD	s based c	n the spi	-	ike duplica Matrix	ite resu	lt. Rec.		RPD
Percent recovery is based or Param	n the sp	ike r F	result C		s based c Units	n the spi Dil.	ke and sp Spike Amount	-	ite resu Rec.		RI	
Param	n the spi $_{Q_s}$			MSD		Dil.	Spike	Matrix		Rec.		PD Limit
Param DRO	Qs	F	C	MSD Result 166	Units mg/Kg	Dil.	Spike Amount 250	Matrix Result 5.97	Rec. 64	Rec. Limit 70 - 13		PD Limit
Param DRO	Qs	F	C 1 result	MSD Result 166	Units mg/Kg s based c	Dil.	Spike Amount 250	Matrix Result 5.97	Rec. 64	Rec. Limit 70 - 13 lt.		PD Limit
v	Qs n the spi	F _{Qs} ike r	$\frac{C}{1}$ result	MSD Result 166 t. RPD i	Units mg/Kg s based c	Dil.	Spike Amount 250	Matrix Result 5.97 ike duplica	Rec. 64 ate resu	Rec. Limit 70 - 13 lt. 5 M	0 3	PD Limit 3 20

Calibration Standards

Standard (CCV-1)

QC Batch: 109173			Analyzed By: JS					
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0900	90	80 - 120	2014-02-11
Toluene		1	m mg/kg	0.100	0.0893	89	80 - 120	2014-02-11
Ethylbenzene		1	m mg/kg	0.100	0.0904	90	80 - 120	2014-02-11
Xylene		1	m mg/kg	0.300	0.270	90	80 - 120	2014-02-11

Standard (CCV-2)

QC Batch: 109173			Date Ar	Analyzed By: JS				
				$\rm CCVs$	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0884	88	80 - 120	2014-02-11
Toluene		1	m mg/kg	0.100	0.0885	88	80 - 120	2014-02-11
Ethylbenzene		1	m mg/kg	0.100	0.0894	89	80 - 120	2014-02-11
Xylene		1	mg/kg	0.300	0.267	89	80 - 120	2014-02-11

Standard (CCV-1)

QC Batch:	109174		Date	Analyzed:	2014-02-11		Anal	yzed By: JS
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.967	97	80 - 120	2014-02-11

Standard (CCV-2)

QC Batch: 109174

Date Analyzed: 2014-02-11

Analyzed By: JS

Report Date: 5205-1920-020	• ·	2014		Work Ore Monumen	Page Number: 20 of 22 Monument, Lea Co, NM				
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
GRO	0	1	mg/Kg	1.00	0.906	91	80 - 120	2014-02-11	
Standard (C	CV-1)								
QC Batch: 109188		Date	Analyzed:	2014-02-11		Analyzed By: CM			
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
DRO	Flag	1	mg/Kg	250	216	86	80 - 120	2014-02-11	
Standard (C	CV-2)								
QC Batch: 1	09188		Date	Date Analyzed: 2014-02-11			Analyzed By: CM		
_		~		CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	

Conc.

250

Conc.

207

Recovery

83

Limits 80 - 120

Analyzed

2014-02-11

Param DRO Cert

1

Flag

Units

 $\mathrm{mg/Kg}$

Work Order: 14021110 Monument Drain Line Page Number: 21 of 22 Monument, Lea Co, NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	Lubbock

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- MI1 Split peak or shoulder peak
- MI2 Instrument software did not integrate
- MI3 Instrument software misidentified the peak
- MI4 Instrument software integrated improperly
- MI5 Baseline correction
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

Attachments

Report Date: February 12, 2014 5205-1920-020914

Work Order: 14021110 Monument Drain Line Page Number: 22 of 22 Monument, Lea Co, NM

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

Phone #: Fax #: Fax #: Fax #: Froject Name: Project Name: Pr	
	See Net Manual Contrainers Contrainers La Contraine



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Certifications

WBE HUB **NCTRCA** DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

David White Kinder Morgan-Houston 1001 Louisiana St Suite 1460A Houston, TX, 77002

Report Date: April 11, 2014

Work Order: 14040905

Project Location: Monument, NM Project Name: Monument Drain Line Project Number: Monument Drain Line

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
359927	Excavation-25'-4-8-14	soil	2014-04-08	13:30	2014-04-09
359928	Water Well	water	2014-04-08	14:00	2014-04-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael alm

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monument Drain Line were received by TraceAnalysis, Inc. on 2014-04-09 and assigned to work order 14040905. Samples for work order 14040905 were received intact at a temperature of 1.3 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	93883	2014-04-10 at 15:30	111047	2014-04-10 at 09:12
Chloride (IC)	E 300.0	93909	2014-04-10 at $12:06$	111078	2014-04-10 at $12:06$
Chloride (Titration)	SM 4500-Cl B $$	93848	2014-04-09 at $08:45$	111014	2014-04-09 at $12:20$
TX1005 Extended - NEW	TX1005	93866	2014-04-09 at $11:45$	110989	2014-04-09 at 15:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14040905 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 359927 - Excavation-25'-4-8-14

Laboratory: Midland Analysis: BTEX QC Batch: 111047 Prep Batch: 93883		Analytica Date Ana Sample P		S 8021E 2014-04 : 2014-04	-10		Prep Method Analyzed By Prepared By:	: AK
				RL				
Parameter	Flag	Cert		Result	Unit	3	Dilution	RL
Benzene	U	2	<	0.0200	mg/Kg	r	1	0.0200
Toluene	U	2	<	0.0200	mg/Kg	g	1	0.0200
Ethylbenzene	U	2	<	0.0200	mg/Kg	r	1	0.0200
Xylene	U	2	<	0.0200	$\mathrm{mg/Kg}$	r S	1	0.0200
Surrogate	Fla	g Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1 10	5 001	2.08	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08 2.06	mg/Kg	1	2.00 2.00	104	70 - 130 70 - 130

Sample: 359927 - Excavation-25'-4-8-14

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 111014 93848	Date A	cal Method: nalyzed: Preparation:	SM 4500-Cl B 2014-04-09 2014-04-09	Prep Method: Analyzed By: Prepared By:	ÁK
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			186	mg/Kg	5	4.00

Sample: 359927 - Excavation-25'-4-8-14

Laboratory:	Midland					
Analysis:	TX1005 Extended - N	EW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	110989		Date Analyzed:	2014-04-09	Analyzed By:	RG
Prep Batch:	93866		Sample Preparation:	2014-04-09	Prepared By:	RG
			RL			
Parameter	Flag	g Cert	Result	Units	Dilution	RL
C6-C12	Qs, U	2	<50.0	mg/Kg	1	50.0
					continued	

 $continued \ldots$

Report Date: April 11, 2014	Work Order: 14040905	Page Number: 5 of 16
Monument Drain Line	Monument Drain Line	Monument, NM

sample 359927 continued ...

					R	L			
Parameter		F	lag	Cert	Resul	lt	Units	Dilution	RL
>C12-C35		J	b,Qs	2	$<\!50.$	0	m mg/Kg	1	50.0
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	Qsr	Qsr		69.5	mg/Kg	1	100	70	70 - 130
n-Octane				103	m mg/Kg	1	100	103	70 - 130
n-Tricosane				81.0	m mg/Kg	1	100	81	70 - 130

Sample: 359928 - Water Well

Laboratory: Analysis: QC Batch: Prep Batch:	El Paso Chloride (IC) 111078 93909		Analytical I Date Analy Sample Pre	zed:	E 300.0 2014-04-10 2014-04-10		Prep Method: Analyzed By: Prepared By:	$ {JR}$
Parameter		Flag	Cert	R. Resul		Units	Dilution	RL
Chloride		1 105	1	53.	-	mg/L	5	2.50

Method Blank (1)

Method Blanks

QC Batch: 110989

QC Batch: 11098 Prep Batch: 93866	-		Date Ar QC Prej	•	2014-04-09 2014-04-09		Analyze Prepare	v
					M	DL		
Parameter		Flag		Cert	Res	ult	Units	RL
C6-C12				2	<7	.11	mg/Kg	50
>C12-C35				2	2	4.4	m mg/Kg	50
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane			76.5	mg/Kg	1	100	76	70 - 130
n-Octane			109	mg/Kg	1	100	109	70 - 130
n-Tricosane			90.0	mg/Kg	1	100	90	70 - 130

Method Blank (1) QC Batch: 111014

QC Batch: Prep Batch:		Date Analyzed: QC Preparation:		Analyzed By Prepared By	
			MDL		
Parameter	Flag	Cert	Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 111047

QC Batch: 111047		Date Analyzed:	2014-04-10	Analyzed By:	AK
Prep Batch: 93883		QC Preparation:	2014-04-10	Prepared By:	AK
			MDL		
Parameter	Flag	Cert	Result	Units	RL
Benzene		2	< 0.00354	mg/Kg	0.02
Toluene		2	< 0.00966	m mg/Kg	0.02
Ethylbenzene		2	< 0.00790	m mg/Kg	0.02
Xylene		2	< 0.00667	mg/Kg	0.02

Report Date: April 11, 2014 Monument Drain Line				r: 14040905 Drain Line		Page Number: 7 of 16 Monument, NM				
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits		
Trifluorotoluene (TFT)			2.07	mg/Kg	1	2.00	104	70 - 130		
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130		
Method Blank (1) QC Batch: 1 QC Batch: 111078 Prep Batch: 93909	11078		Analyzed: reparation:	2014-04-10 2014-04-10			Analyze Preparec	v		
Parameter	Flag		Cert		MDL Result		Units	RL		
Chloride	~		1		1.43		$\mathrm{mg/L}$	2.5		

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:	110989	Date Analyzed:	2014-04-09	Analyzed By:	RG
Prep Batch:	93866	QC Preparation:	2014-04-09	Prepared By:	RG

C6-C12 2 229 mg/Kg 1 250 <7.11				LCS			Spike	Matrix		Rec.
8, 8	Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	Limit
>C12-C35 2 264 mg/Kg 1 250 24.4 96 75	C6-C12		2	229	mg/Kg	1	250	<7.11	92	75 - 125
	>C12-C35		2	264	m mg/Kg	1	250	24.4	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
C6-C12		2	228	mg/Kg	1	250	<7.11	91	75 - 125	0	20
>C12-C35		2	260	$\mathrm{mg/Kg}$	1	250	24.4	94	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	72.6	73.3	mg/Kg	1	100	73	73	70 - 130
n-Octane	112	111	m mg/Kg	1	100	112	111	70 - 130
n-Tricosane	84.4	85.8	$\mathrm{mg/Kg}$	1	100	84	86	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:	111014		D	ate Analyz	ed: 2014-	-04-09		1	Analyzed	By: AK
Prep Batch:	93848		Q	C Preparat	tion: 2014 -	-04-09]	Prepared	By: AK
				LCS			Spike	Matrix		Rec.
Param		\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride				2520	mg/Kg	5	2500	<19.2	101	85 - 115
Percent recov	very is based on the sp	ike resu	ılt. RI	PD is based	on the spil	ke and s	pike duplicat	e result.		

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2600	$\mathrm{mg/Kg}$	5	2500	<19.2	104	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: April 11, 2014	Work Order: 14040905	Page Number: 9 of 16
Monument Drain Line	Monument Drain Line	Monument, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:			Oate Analyze QC Preparat		2014-04-10 2014-04-10			Analyzed By Prepared By	
Daram	F	С	LCS Bosult	Unit	s Dil	Spike	Matrix Result	Bog	Rec.

Param	F,	С	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		2	1.87	mg/Kg	1	2.00	< 0.00354	94	70 - 130
Toluene		2	1.97	m mg/Kg	1	2.00	< 0.00966	98	70 - 130
Ethylbenzene		2	2.06	$\mathrm{mg/Kg}$	1	2.00	< 0.00790	103	70 - 130
Xylene		2	6.23	$\mathrm{mg/Kg}$	1	6.00	< 0.00667	104	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		2	1.89	mg/Kg	1	2.00	< 0.00354	94	70 - 130	1	20
Toluene		2	1.99	$\mathrm{mg/Kg}$	1	2.00	< 0.00966	100	70 - 130	1	20
Ethylbenzene		2	2.08	$\mathrm{mg/Kg}$	1	2.00	< 0.00790	104	70 - 130	1	20
Xylene		2	6.25	mg/Kg	1	6.00	< 0.00667	104	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.03	2.04	mg/Kg	1	2.00	102	102	70 - 130
4-Bromofluorobenzene (4-BFB)	2.19	2.18	m mg/Kg	1	2.00	110	109	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:	111078	Date Analyzed:	2014-04-10	Analyzed By:	$_{\rm JR}$
Prep Batch:	93909	QC Preparation:	2014-04-10	Prepared By:	$_{\rm JR}$

			LCS			Spike	Matrix		Rec.		
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit		
Chloride		1	23.1	$\mathrm{mg/L}$	1	25.0	< 0.678	92	90 - 110		
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.											
		тас			G .1	N	л		מתת		

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1	23.0	$\mathrm{mg/L}$	1	25.0	< 0.678	92	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: April 11, 20 Monument Drain Line)14				Order: 140 nent Drai		Page Number: 10 of 16 Monument, NM						
Matrix Spike (MS-1)	Spiked	Samp	ole: 3598	341									
QC Batch: 110989 Prep Batch: 93866				Oate Analyze QC Preparati		4-04-09 4-04-09			Analyz Prepar				
				MS			Spike	Matri			Rec.		
Param		F	F C	Result	Units	Dil.	Amount				Limit		
C6-C12	Q	s Q	s 2	2450	mg/Kg		250	2830			5 - 125		
>C12-C35	Q	s Q	s 2	7080	mg/Kg	ç 5	250	9560	-995	2 7	5 - 125		
Percent recovery is based	on the s	pike re	sult. R	PD is based	on the sp	oike and s	pike duplica	ate result.					
			MS	SD		Spike	Matrix		Rec.		RPD		
Param		\mathbf{F}	C Res		Dil.	Amount	Result			RPD	Limit		
C6-C12	Qs	Qs	$\frac{100}{2}$ 24			250	2830		5 - 125	1	$\frac{20}{20}$		
>C12-C35	Qs Qs	Qs Qs	² 24 ₂ 70	0, 0	0	$250 \\ 250$			5 - 125	1	$\frac{20}{20}$		
Percent recovery is based of	-	-		0, (-					-	•		
ercent recovery is based (on the s	pike re	sun. n.	r D is based	on the sp	nke and s	ріке апрііса	ate result.					
			MS	MSD			Spike	MS	MSD)	Rec.		
Surrogate		R	lesult	Result	Units	Dil.	Amount	Rec.	Rec.		Limit		
-Triacontane _{Qsr}	Qsr		178	168	mg/Kg	5	100	178	168	7	0 - 130		
n-Octane			111	114	mg/Kg	5	100	111	114	7	0 - 130		
n-Tricosane _{Qsr}	Qsr		152	150	$\mathrm{mg/Kg}$	5	100	152	150	7	0 - 130		
Matrix Spike (MS-1) QC Batch: 111014 Prep Batch: 93848	Spiked	Samp		27 Date Analyze 2C Preparati		4-04-09 4-04-09			Analyz Prepar				
		Б	C	MS	TT •/	D'1	Spike	Matrix	D		Rec.		
Param		F	С	Result	Units		Amount	Result	Rec.		Limit		
Chloride				3050	mg/Kg	5	2500	186	114	18.	9 - 121		
Percent recovery is based of	on the s	pike re			on the sp				_				
			MS		Dil.	Spike Amount	Matrix		Rec.	RPD	RPD		
)					1 11	Amount	Result 1	Rec. L	imit	RED			
Param Chloride		F C	2 Rest 293			2500			9 - 121	4	Limit 20		

Matrix Spike (MS-1)	Spiked Sample: 359927

QC Batch:	111047	Date Analyzed:	2014-04-10	Analyzed By:	$\mathbf{A}\mathbf{K}$
Prep Batch:	93883	QC Preparation:	2014-04-10	Prepared By:	AK

Report Date: April 11, 2014 Monument Drain Line				Order: 140 ument Drain	Page Number: 11 of 16 Monument, NM						
			MS			Spike	Matrix		Rec.		
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	Limit		
Benzene		2	1.81	mg/Kg	1	2.00	< 0.00354	90	70 - 130		
Toluene		2	1.90	mg/Kg	1	2.00	< 0.00966	95	70 - 130		
Ethylbenzene		2	1.98	mg/Kg	1	2.00	< 0.00790	99	70 - 130		
Xylene		2	5.95	mg/Kg	1	6.00	< 0.00667	99	70 - 130		

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		2	1.84	mg/Kg	1	2.00	< 0.00354	92	70 - 130	2	20
Toluene		2	1.93	$\mathrm{mg/Kg}$	1	2.00	< 0.00966	96	70 - 130	2	20
Ethylbenzene		2	1.99	$\mathrm{mg/Kg}$	1	2.00	< 0.00790	100	70 - 130	0	20
Xylene		2	6.06	$\mathrm{mg/Kg}$	1	6.00	< 0.00667	101	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.04	2.02	mg/Kg	1	2	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)	2.19	2.19	$\mathrm{mg/Kg}$	1	2	110	110	70 - 130

Matrix Spike (MS-1) Spiked Sample: 359960

QC Batch: Prep Batch:	111078 93909		D Q	v	By: JR By: JR					
Param		\mathbf{F}	С	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			1	1410	$\mathrm{mg/L}$	55.6	1390	76.2	96	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1	1380	$\mathrm{mg/L}$	55.6	1390	76.2	94	80 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 1109	989	Date Analyzed: 2014-04-09						Analyzed By: RG		
				$\rm CCVs$	CCVs	CCVs	Percent			
				True	Found	Percent	Recovery	Date		
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
C6-C12		2	m mg/Kg	250	225	90	75 - 125	2014-04-09		
>C12-C35		2	m mg/Kg	250	257	103	75 - 125	2014-04-09		

Standard (CCV-2)

QC Batch: 11098	89		Date A:		Analyzed By: RG			
				$\rm CCVs$	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
C6-C12		2	mg/Kg	250	219	88	75 - 125	2014-04-09
>C12-C35		2	m mg/Kg	250	262	105	75 - 125	2014-04-09

Standard (ICV-1)

QC Batch:	111014	Date Analyzed:			2014-04-09		Analy	Analyzed By: AK		
					ICVs	ICVs	ICVs	Percent		
					True	Found	Percent	Recovery	Date	
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Chloride				mg/Kg	100	101	101	85 - 115	2014-04-09	

Standard (CCV-1)

QC Batch: 111014

Date Analyzed: 2014-04-09

Analyzed By: AK

Report Date: April 11, 2014				Work Order:	Page Number: 13 of 16			
Monument Drain Line				Monument I	Monument, NM			
Param Chloride	Flag	Cert	Units mg/Kg	CCVs True Conc. 100	CCVs Found Conc. 98.8	CCVs Percent Recovery 99	Percent Recovery Limits 85 - 115	Date Analyzed 2014-04-09

Standard (CCV-1)

QC Batch: 111047	Date Analyzed: 2014-04-10						Analyzed By: AK	
				CCVs	$\rm CCVs$	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		2	mg/kg	0.100	0.105	105	80 - 120	2014-04-10
Toluene		2	m mg/kg	0.100	0.104	104	80 - 120	2014-04-10
Ethylbenzene		2	m mg/kg	0.100	0.0983	98	80 - 120	2014-04-10
Xylene		2	mg/kg	0.300	0.299	100	80 - 120	2014-04-10

Standard (CCV-2)

QC Batch: 111047			Date An	alyzed: 20	Analyzed By: AK			
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		2	mg/kg	0.100	0.0983	98	80 - 120	2014-04-10
Toluene		2	m mg/kg	0.100	0.0995	100	80 - 120	2014-04-10
Ethylbenzene		2	m mg/kg	0.100	0.0953	95	80 - 120	2014-04-10
Xylene		2	mg/kg	0.300	0.287	96	80 - 120	2014-04-10

Standard (CCV-1)

QC Batch:	111078	Date Analyzed:			2014-04-10		Analy	Analyzed By: JR	
					CCVs	CCVs	CCVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			1	$\mathrm{mg/L}$	25.0	23.8	95	90 - 110	2014-04-10

Report Date: Monument D	: April 11, 2014 Drain Line			Work Orden Monument			Page Number: 14 of 16 Monument, NM		
Standard (C	CCV-2)								
QC Batch: 111078		Date	Analyzed:	Analyzed By: JR					
				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Chloride		1	$\mathrm{mg/L}$	25.0	23.8	95	90 - 110	2014-04-10	

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Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704392-13-7	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- MI1 Split peak or shoulder peak
- MI2 Instrument software did not integrate
- MI3 Instrument software misidentified the peak
- MI4 Instrument software integrated improperly
- MI5 Baseline correction
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

Report Date: April 11, 2014 Monument Drain Line Work Order: 14040905 Monument Drain Line Page Number: 16 of 16 Monument, NM

Attachments

The scanned attachments will follow this page. Please note, each attachment may consist of more than one page.

PIOH Brandon & Clark 3403 Industrial Blvd. **Hobbs, NM 88240** Tel (575) 392-7561 Fax (575) 392-4508 Turn Around Time if different from standard 364 2.eH ę No.) Chlorides Na, Ca, Mg, K, TDS, EC or Specify Method NO₃ -N, NO₂ -N, PO₄ -P, Alkalinity <u>cı, F, so₄,</u> BioAquatic Testing 2501 Mayes Rd., Ste 100 **Carroliton, Texas 75006** Tel (972) 242-7750 **ANALYSIS REQUEST** Page Moisture Content Hq ,227 ,008 Dry Weight Basis Required Check If Special Reporting Limits Are Needed Pesticides 8081 / 608 TRRP Report Required PCB's 8082 / 608 GC/MS Semi. Vol. 8270 / 625 GC/MS Vol. 8260 / 624 REMARKS RCI TCLP Pesticides (Circle (TCLP Semi Volatiles 200 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 щ TCLP Volatiles M/NA TCLP Metals Ag As Ba Cd Cr Pb Se Hg LAB USE Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7 ONLY Log-in-Reviev PAH 8270 / 625 シイオー TPH 8015 GRO / DRO / TVHC TPH 418.10 TX1005 Ext(C35) 8021 / 602 / 8260 / 624 3 Ö C ΰ Carrier # ALL 7 8021 / 602 / 8260 / 624 MTBE david - white Ckinde murgar Co.t. Project Name: Monumark Drain Line B'B INST DBS/ INST OBS COR SAMPLING INST OBS COR ৬ TIME 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 6 369-95 lime: Time: Time: \$ J **DATE** . P PRESERVATIVE ANONE Date: METHOD ICE Sampler Signature: 🗸 Ċ ň 64 Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. HOPN 2 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1298 1 (800) 378-1296 *OS^zH Company: Company: Company: °ONH Phone #: 7 E-mail: Fax #: ICH £ SLUDGE MATRIX Received by: Received by: Received by: ЯІ₿ ORIGINAL COPY (EPtG) SOIF **A J T A W** 2 407 Σ 3 InuomA \ 9muloV CKA 4-9-14 0930 Time: Time: Time: TraceAnalysis, Inc. **& CONTAINERS** C Morgen Monumet. Exervation _ 25 - 4-8-14 LAB Order ID # 14040905 email: lab@traceanalysis.com Date: Date: Date: David White FIELD CODE Kinder (Street, City, Zip) Project Location (including state) Company: NENUMA Company: Company: Water Well Momes h Marcon (If different from above) Company Name: Contact Person: Relinquished by: Relinquished by: Relinquished by: F9927 Invoice to: LAB USE) Address: Project #: 928 LAB#



200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 (BioAquatic) 2501 Mayes Rd., Suite 100

Texas 79424 Lubbock, Texas 79922 El Paso, Texas 79703 Midland, Carroliton. Texas 75006 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

432-689-6301 972-242 -7750

915-585-3443

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

David White Kinder Morgan-Houston 1001 Louisiana St Suite 1460A Houston, TX, 77002

Report Date: May 1, 2014

FAX 915 • 585 • 4944

FAX 432 • 689 • 6313

Work Order: 14042916

Project Location: Monument, NM **Project Name:** Monument Drain Line Project Number: Monument Drain Line

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
361541	North Side 20'	soil	2014-04-29	08:15	2014-04-29
361542	South Side 20'	soil	2014-04-29	08:30	2014-04-29
361543	East Side 20'	soil	2014-04-29	08:50	2014-04-29
361544	West Side 20'	soil	2014-04-29	09:10	2014-04-29
361545	West Pile	soil	2014-04-29	09:25	2014-04-29
361546	Middle Pile	soil	2014-04-29	09:45	2014-04-29
361547	East Pile	soil	2014-04-29	10:05	2014-04-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 32 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael abel

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monument Drain Line were received by TraceAnalysis, Inc. on 2014-04-29 and assigned to work order 14042916. Samples for work order 14042916 were received intact at a temperature of 6.0 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	$\rm QC$	Analysis
Test	Method	Batch	Date	Batch	Date
Ag, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
As, Total	S 6010C	94341	2014-04-30 at $14:28$	111622	2014-05-01 at $13:32$
Ba, Total	S 6010C	94341	2014-04-30 at $14:28$	111622	2014-05-01 at $13:32$
BTEX	S 8021B	94322	2014-04-30 at $08:33$	111598	2014-05-01 at $07:47$
Cd, Total	S 6010C	94341	2014-04-30 at $14:28$	111622	2014-05-01 at $13:32$
Chloride (Titration)	SM 4500-Cl B $$	94365	2014-04-30 at $16:00$	111605	2014-05-01 at $08:28$
Cr, Total	S 6010C	94341	2014-04-30 at $14:28$	111622	2014-05-01 at $13:32$
Hg, Total	S 7471 B	94373	2014-05-01 at $08:15$	111620	2014-05-01 at $13:45$
Pb, Total	S 6010C	94341	2014-04-30 at $14:28$	111622	2014-05-01 at 13:32
Se, Total	S 6010C	94341	2014-04-30 at $14:28$	111622	2014-05-01 at 13:32
TPH DRO - NEW	S 8015 D	94321	2014-04-29 at $14:30$	111562	2014-04-30 at $08:28$
TPH GRO	S 8015 D	94322	2014-04-30 at $08:33$	111599	2014-05-01 at 07:53

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14042916 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 361541 - North Side 20'

Laboratory: Midland Analysis: BTEX QC Batch: 111598 Prep Batch: 94322		Date Ana	l Method: lyzed: reparation	2014-05	-01		Prep Metho Analyzed By Prepared By	v: AK
				RL				
Parameter	Flag	Cert		Result	Unit	s	Dilution	RL
Benzene	U	2	<	(0.0200	mg/Kg	r	1	0.0200
Toluene	U	2	<	(0.0200)	mg/Kg	g	1	0.0200
Ethylbenzene	U	2	<	(0.0200)	$\mathrm{mg/Kg}$	g	1	0.0200
Xylene	U	2	<	(0.0200)	mg/K_s	r S	1	0.0200
Surrogate	Fla	g Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		, 	1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	70 - 130
Sample: 361541 - North Sid	e 20'							

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 111605 94365	Date	ytical Method: Analyzed: ble Preparation:	SM 4500-Cl B 2014-05-01 2014-04-30	Prep Method: Analyzed By: Prepared By:	ŔĠ
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			297	m mg/Kg	5	4.00

Sample: 361541 - North Side 20'

Laboratory:	Midland						
Analysis:	TPH DRO - NEW	V	Analytica	l Method:	S 8015 D	Prep Method:	N/A
QC Batch:	111562		Date Ana	lyzed:	2014-04-30	Analyzed By:	RG
Prep Batch:	94321		Sample P	reparation:	2014-04-29	Prepared By:	RG
				RL			
Parameter		Flag	Cert	Result	Units	Dilution	RL
DRO		Jb	2	<50.0	mg/Kg	1	50.0

Report Date: Ma Monument Drain	•		0				nber: 7 of 32 nument, NM	
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			82.5	mg/Kg	1	100	82	70 - 130

Sample: 361541 - North Side 20'

Laboratory:MidlandAnalysis:TPH GROQC Batch:111599Prep Batch:94322			Date An	al Methoo alyzed: Preparatio	2014-0	5-01		Prep Metho Analyzed B Prepared B	y: AK
					RL				
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		2		<4.00	mg/K	g	1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)				2.13	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)				1.80	mg/Kg	1	2.00	90	70 - 130

Sample: 361542 - South Side 20'

Laboratory:MidlandAnalysis:BTEXQC Batch:111598Prep Batch:94322		Date Ana	l Method: lyzed: reparation:	S 8021E 2014-05 : 2014-04	-01		Prep Method Analyzed By Prepared By	: AK
				RL				
Parameter	Flag	Cert		Result	Unit	s	Dilution	RL
Benzene	U	2	<	0.0200	mg/Kg	g	1	0.0200
Toluene	U	2	<	0.0200	mg/K_{z}	g	1	0.0200
Ethylbenzene	U	2	<	0.0200	mg/K_{z}	g	1	0.0200
Xylene	U	2	<	0.0200	mg/K	g	1	0.0200
C		a i		TT •/		Spike	Percent	Recovery
Surrogate	Fla	g Cert	Result	Units	Dilution	Amount		Limits
Trifluorotoluene (TFT)			1.85	$\mathrm{mg/Kg}$	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.62	$\mathrm{mg/Kg}$	1	2.00	81	70 - 130

Report Date: May 1, 2014	Work Order: 14042916	Page Number: 8 of 32
Monument Drain Line	Monument Drain Line	Monument, NM

Sample: 361542 - South Side 20'

Laboratory:	Midland					
Analysis:	Chloride (Titration)	Analy	tical Method:	SM 4500-Cl B $$	Prep Method:	N/A
QC Batch:	111605	Date	Analyzed:	2014-05-01	Analyzed By:	RG
Prep Batch:	94365	Samp	le Preparation:	2014-04-30	Prepared By:	\mathbf{RG}
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			198	mg/Kg	5	4.00
				8, 8		

Sample: 361542 - South Side 20'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - NE 111562 94321	ĊW	Date	lytical Metho e Analyzed: ple Preparat	2014-0	04-30	Prep Me Analyzec Prepared	l By: RG
]	RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		Jb	2	<5	0.0	mg/Kg	1	50.0
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			81.3	m mg/Kg	1	100	81	70 - 130

Sample: 361542 - South Side 20'

Laboratory: Midland Analysis: TPH GRO QC Batch: 111599 Prep Batch: 94322			Date An	al Methoo alyzed: Preparatio	2014-0	5-01		Prep Metho Analyzed B Prepared B	y: AK
					RL				
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		2		<4.00	mg/K	g	1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		- 0		2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)				1.80	mg/Kg	1	2.00	90	70 - 130

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Monument Drain Line	Monument Drain Line	Monument, NM

Sample: 361543 - East Side 20'

	Analytica	l Method:	S 8021E	3		Prep Method	l: S 5035
	Date Ana	lyzed:	2014-05	-01		Analyzed By	: AK
	Sample P	reparation:	2014-04	-30		Prepared By	: AK
			RL				
Flag	Cert]	Result	Unit	5	Dilution	RL
U	2	<	0.0200	mg/Kg	r	1	0.0200
U	2	<	0.0200	mg/Kg	r S	1	0.0200
U	2	<	0.0200			1	0.0200
U	2	<	0.0200	mg/Kg	5	1	0.0200
					~	_	
					Spike	Percent	Recovery
Flag	g Cert	Result	Units	Dilution	Amount	Recovery	Limits
		1.82	mg/Kg	1	2.00	91	70 - 130
		1.57	mg/Kg	1	2.00	78	70 - 130
	U U U U	Date Ana Sample PFlagCertU2U2U2U2U2U2	Flag Cert U 2 U 2 U 2 U 2 U 2 U 2 U 2 U 2 Elag Cert Result 1.82	Date Analyzed: 2014-05 Sample Preparation: 2014-04 Flag Cert Result U 2 <0.0200	Date Analyzed: 2014-05-01 Sample Preparation: 2014-04-30 Flag Cert Result Units U 2 <0.0200	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Sample: 361543 - East Side 20'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 111605		tical Method: Analyzed: le Preparation:	SM 4500-Cl B 2014-05-01 2014-04-30	Prep Method: Analyzed By: Prepared By:	$ {RG}$
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			149	mg/Kg	5	4.00

Sample: 361543 - East Side 20'

Laboratory: Analysis: QC Batch: Prep Batch:	TPH DRO - NEW 111562		Date	lytical Metho e Analyzed: ple Preparat	2014-0	04-30	Prep Me Analyzec Preparec	v
]	RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		Jb	2	<5	0.0	m mg/Kg	1	50.0
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			83.5	m mg/Kg	1	100	84	70 - 130

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Monument Drain Line	Monument Drain Line	Monument, NM

Sample: 361543 - East Side 20'

Laboratory: Mi	dland								
Analysis: TF	PH GRO		Analytic	al Method	l: S 8015	5 D		Prep Metho	d: S 5035
QC Batch: 111	1599		Date An	alyzed:	2014-0	5-01		Analyzed B	y: AK
Prep Batch: 943	322		Sample 1	Preparatic	on: 2014-0	4-30		Prepared By	y: AK
1			-	1				1 0	
					RL				
Parameter	Flag	S	Cert		Result	Unit	ts	Dilution	RL
GRO	U		2		<4.00	mg/K	g	1	4.00
								_	_
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene	(TFT)			1.99	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorober	nzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

Sample: 361544 - West Side 20'

Laboratory:MidlandAnalysis:BTEXQC Batch:111598Prep Batch:94322		Date Ana	l Method: lyzed: reparation	S 8021E 2014-05 : 2014-04	-01		Prep Method Analyzed By Prepared By	: AK
				RL				
Parameter	Flag	Cert		Result	Unit	s	Dilution	RL
Benzene	U	2	<	0.0200	mg/K	g	1	0.0200
Toluene	U	2	<	0.0200	mg/K	g	1	0.0200
Ethylbenzene	U	2	<	0.0200	mg/K	g	1	0.0200
Xylene	U	2	<	0.0200	mg/K	g	1	0.0200
						Spike	Percent	Recovery
Surrogate	Fla	g Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		-	1.78	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			1.61	mg/Kg	1	2.00	80	70 - 130

Sample: 361544 - West Side 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111605	Date Analyzed:	2014-05-01	Analyzed By:	RG
Prep Batch:	94365	Sample Preparation:	2014-04-30	Prepared By:	RG

continued ...

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sample 36154	$4 \ continued \ \dots$									
Parameter		Flag		Cert	Ŧ	RL Result	Uni	ts	Dilution	RL
		1 1005		0010		tobalt	0111		Diration	102
		-		a i	-	RL	.			DI
Parameter		Flag		Cert	ł	Result	Uni		Dilution	RL
Chloride						50.0	mg/K	g	5	4.00
Sample: 361	1544 - West Side	e 20'								
Laboratory:	Midland									
Analysis:	TPH DRO - NEV	N			lytical Me		8015 D		Prep Meth	
QC Batch:	111562				e Analyzed		2014-04-30		Analyzed	v
Prep Batch:	94321			San	nple Prepa	ration: 2	2014-04-29		Prepared 1	By: RG
						RL				
Parameter		Flag		Cert		Result	Uni		Dilution	RL
DRO		ЈЪ		2		<50.0	mg/K	g	1	50.0
							S	pike	Percent	Recovery
Surrogate	Flag	Cert		Result	Units	Dilu		nount	Recovery	Limits
n-Tricosane				85.3	mg/Kg	1	1	100	85	70 - 130
Sample: 36 Laboratory: Analysis: QC Batch: Prep Batch:	1544 - West Side Midland TPH GRO 111599 94322	e 20'		Date An	al Method alyzed: Preparation	2014-0	05-01		Prep Metho Analyzed By Prepared By	v: AK
Parameter		Flag		Cert	т	RL Result	Uni	ta	Dilution	RL
GRO		r lag		2 Cert		<4.00	mg/K		1	4.00
- **		~						_		
			Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Surrogate										
Surrogate Trifluorotolue	ene (TFT)		0		1.93	mg/Kg	1	2.00	96	70 - 130

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Sample: 361545 - West Pile

Laboratory: Midland Analysis: BTEX QC Batch: 111598 Prep Batch: 94322]	Date Ana	l Method: lyzed: reparation:	S 8021E 2014-05 : 2014-04	-01		Prep Method Analyzed By Prepared By:	AK
				RL				
Parameter	Flag	Cert		Result	Unit	s	Dilution	RL
Benzene	U	2	<	0.0200	mg/K	g	1	0.0200
Toluene	U	2	<	0.0200	mg/K	g	1	0.0200
Ethylbenzene	U	2	<	0.0200	mg/K	g	1	0.0200
Xylene	U	2	<	0.0200	mg/K	g	1	0.0200
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	$\mathrm{mg/Kg}$	1	2.00	82	70 - 130

Sample: 361545 - West Pile

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 111605 94365	Date A	ical Method: nalyzed: Preparation:	SM 4500-Cl B 2014-05-01 2014-04-30	Prep Method: Analyzed By: Prepared By:	$ {RG}$
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			50.0	mg/Kg	5	4.00

Sample: 361545 - West Pile

Laboratory: Lubbock							
Analysis: Total 8 Metals		Analytical Me	thod:	S 7471 B		Prep Method:	N/A
QC Batch: 111620		Date Analyzed	1:	2014-05-01		Analyzed By:	TP
Prep Batch: 94373		Sample Prepar	ration:	2014-05-01		Prepared By:	TP
Laboratory: Lubbock							
Analysis: Total 8 Metals		Analytical Me	thod:	S $6010C$		Prep Method:	S $3050B$
QC Batch: 111622		Date Analyzed	1:	2014-05-01		Analyzed By:	LM
Prep Batch: 94341		Sample Prepar	ration:	2014-05-01		Prepared By:	\mathbf{PM}
				RL			
Parameter	Flag	Cert	Res	ult	Units	Dilution	RL
Total Silver	U	1	<0.5	500	mg/Kg	1	0.500
Total Arsenic	U	1	<2	.00	m mg/Kg	1	2.00

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Monument Drain Line	Monument Drain Line	Monument, NM

sample 361545 continued \dots

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Total Barium		1	86.1	mg/Kg	1	1.00
Total Cadmium	U	1	< 0.500	m mg/Kg	1	0.500
Total Chromium		1	7.83	mg/Kg	1	0.500
Total Mercury		1	< 0.0250	mg/Kg	1	0.0250
Total Lead		1	1.71	mg/Kg	1	1.00
Total Selenium	U	1	<2.00	mg/Kg	1	2.00

Sample: 361545 - West Pile

Laboratory:	Midland							
Analysis:	TPH DRO - NE	W	Ana	lytical Metho	od: S 8015	5 D	Prep Me	thod: N/A
QC Batch:	111562		Date	e Analyzed:	2014-0	04-30	Analyzed	l By: RG
Prep Batch:	94321		Sam	ple Preparat	ion: 2014-0	04-29	Prepared	l By: RG
					RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		В	2	58	8.9	m mg/Kg	1	50.0
_						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			88.6	m mg/Kg	1	100	89	70 - 130

Sample: 361545 - West Pile

Laboratory:MidlandAnalysis:TPH GROQC Batch:111599Prep Batch:94322			Date An	al Methoo alyzed: Preparatio	2014-0	5-01		Prep Metho Analyzed B Prepared B	y: AK
	RL								
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		2		<4.00	mg/K	g	1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0		2.11	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)				1.84	mg/Kg	1	2.00	92	70 - 130

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Sample: 361546 - Middle Pile

Laboratory: Midland Analysis: BTEX QC Batch: 111598 Prep Batch: 94322		Date Ana	l Method: lyzed: reparation:	S 8021E 2014-05 2014-04	-01		Prep Method Analyzed By Prepared By:	: AK
				RL				
Parameter	Flag	Cert		Result	Unit	S	Dilution	RL
Benzene	U	2	<	0.0200	mg/Kg	r S	1	0.0200
Toluene	U	2	<	0.0200	$\mathrm{mg/Kg}$	5	1	0.0200
Ethylbenzene	U	2	<	0.0200	$\mathrm{mg/Kg}$	S	1	0.0200
Xylene	U	2	<	0.0200	mg/Kg	r 5	1	0.0200
Surromato	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Surrogate	гіад	Cert						
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	$\mathrm{mg/Kg}$	1	2.00	82	70 - 130

Sample: 361546 - Middle Pile

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 111605 94365	Date An	al Method: alyzed: Preparation:	SM 4500-Cl B 2014-05-01 2014-04-30	Prep Method: Analyzed By: Prepared By:	ŔĠ
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			50.0	mg/Kg	5	4.00

Sample: 361546 - Middle Pile

Lubbock							
Total 8 Metals		Analytical Me	ethod:	S 7471 B		Prep Method:	N/A
111620		Date Analyze	d:	2014-05-0)1	Analyzed By:	TP
94373		Sample Prepa	ration:	2014-05-0)1	Prepared By:	TP
Lubbock							
Total 8 Metals		Analytical Me	ethod:	S $6010C$		Prep Method:	S $3050B$
111622		Date Analyze	d:	2014-05-01		Analyzed By:	LM
94341		Sample Prepa	ration:	2014-05-0	1	Prepared By:	\mathbf{PM}
				RL			
	Flag	Cert	Re	esult	Units	Dilution	RL
	U	1	<0	.500	mg/Kg	1	0.500
	U	1	<	2.00	m mg/Kg	1	2.00
	Fotal 8 Metals 11620 94373 Lubbock Fotal 8 Metals 11622	Fotal 8 Metals 11620 94373 Jubbock Fotal 8 Metals 11622 94341 Flag U	Fotal 8 Metals Analytical Metals .11620 Date Analyze .4373 Sample Prepa .ubbock Total 8 Metals .11622 Date Analyze .4341 Sample Prepa Flag Cert	Fotal 8 Metals Analytical Method: .11620 Date Analyzed: .04373 Sample Preparation: .ubbock Date Analyzed: .ubbock Date Analyzed: .ubbock Date Analyzed: .ubback Date Analyzed: .ubback Sample Preparation: .ubback Date Analyzed: .ubback Sample Preparation: .ubback Sample Preparation: .ubback Sample Preparation:	$ \begin{array}{c ccccc} \hline \mbox{Fotal 8 Metals} & \mbox{Analytical Method:} & \mbox{S 7471 B} \\ \hline \mbox{I1620} & \mbox{Date Analyzed:} & \mbox{2014-05-0} \\ \hline \mbox{04373} & \mbox{Sample Preparation:} & \mbox{2014-05-0} \\ \hline \mbox{Lubbock} & \ \mbox{Fotal 8 Metals} & \mbox{Analytical Method:} & \mbox{S 6010C} \\ \hline \mbox{I1622} & \mbox{Date Analyzed:} & \mbox{2014-05-0} \\ \hline \mbox{04341} & \ \mbox{Sample Preparation:} & \mbox{2014-05-0} \\ \hline \mbox{RL} & \ \mbox{RL} \\ \hline \mbox{I1622} & \ \mbox{Date Analyzed:} & \mbox{2014-05-0} \\ \hline \mbox{Life} & \ \mbox{Life} & \ \mbox{Cert} & \ \mbox{Result} \\ \hline \mbox{I162} & \ \mbox{U} & \ \mbox{I1620} & \ \mbox{I1620} \\ \hline \mbox{U} & \ \mbox{I1620} & \ I$	Fotal 8 MetalsAnalytical Method:S 7471 B.11620Date Analyzed: $2014-05-01$.4373Sample Preparation: $2014-05-01$.ubbockFotal 8 MetalsAnalytical Method:S 6010C.11622Date Analyzed: $2014-05-01$.4341Sample Preparation: $2014-05-01$.4341Sample Preparation: $2014-05-01$	Fotal 8 MetalsAnalytical Method:S 7471 BPrep Method:.11620Date Analyzed:2014-05-01Analyzed By:.4373Sample Preparation:2014-05-01Prepared By:.ubbock

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sample 361546 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Total Barium		1	73.5	mg/Kg	1	1.00
Total Cadmium	U	1	< 0.500	m mg/Kg	1	0.500
Total Chromium		1	6.99	mg/Kg	1	0.500
Total Mercury		1	< 0.0250	mg/Kg	1	0.0250
Total Lead		1	2.17	mg/Kg	1	1.00
Total Selenium	U	1	<2.00	mg/Kg	1	2.00

Sample: 361546 - Middle Pile

Laboratory:	Midland							
Analysis:	TPH DRO - NE	W	Ana	lytical Methe	od: S 801	5 D	Prep Me	thod: N/A
QC Batch:	111562		Date	e Analyzed:	2014-0	04-30	Analyzeo	l By: RG
Prep Batch:	94321		Sam	ple Preparat	ion: 2014-0	04-29	Prepared	l By: RG
					RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		Jb	2	<5	0.0	m mg/Kg	1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			83.2	m mg/Kg	1	100	83	70 - 130

Sample: 361546 - Middle Pile

Laboratory:MidlandAnalysis:TPH GROQC Batch:111599Prep Batch:94322			Date An	al Method alyzed: Preparatic	2014-0	5-01		Prep Metho Analyzed B Prepared B	y: AK
					RL				
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		2	<4.00		m mg/Kg		1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0		2.10	mg/Kg	1	2.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

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Sample: 361547 - East Pile

Laboratory: Midland Analysis: BTEX QC Batch: 111598 Prep Batch: 94322		Date Ana	l Method: lyzed: reparation:	S 8021E 2014-05 2014-04	-01		Prep Method Analyzed By Prepared By:	: AK
				RL				
Parameter	Flag	Cert		Result	Unit	s	Dilution	RL
Benzene	U	2	<	0.0200	mg/K	g	1	0.0200
Toluene	U	2	<	0.0200	$\mathrm{mg/K}_{2}$	r 5	1	0.0200
Ethylbenzene	U	2	<	0.0200	m mg/Kg		1	0.0200
Xylene	U	2	<	0.0200	m mg/Kg		1	0.0200
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
<u>0</u>	Flag	Uert						
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	$\mathrm{mg/Kg}$	1	2.00	83	70 - 130

Sample: 361547 - East Pile

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 111605 94365	Date An	al Method: alyzed: Preparation:	SM 4500-Cl B 2014-05-01 2014-04-30	Prep Method: Analyzed By: Prepared By:	ŔĠ
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			149	m mg/Kg	5	4.00

Sample: 361547 - East Pile

Total Arsenic	2	U	1	<:	2.00	m mg/Kg	1	2.00
Total Silver		U	1	<0.	500	m mg/Kg	1	0.500
Parameter		Flag	Cert	Re	RL sult	Units	Dilution	RL
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Total 8 Metals 111622 94341		Analytical Method: Date Analyzed: Sample Preparation:		S 6010C 2014-05-01 2014-05-01		Prep Method: Analyzed By: Prepared By:	S 3050B LM PM
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock Total 8 Metals 111620 94373		Analytical Me Date Analyze Sample Prepa	d:	S 7471 B 2014-05-01 2014-05-01		Prep Method: Analyzed By: Prepared By:	N/A TP TP

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sample 361547 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Total Barium		1	278	mg/Kg	10	1.00
Total Cadmium	U	1	< 0.500	m mg/Kg	1	0.500
Total Chromium		1	4.76	mg/Kg	1	0.500
Total Mercury		1	< 0.0250	mg/Kg	1	0.0250
Total Lead		1	< 1.00	mg/Kg	1	1.00
Total Selenium	U	1	<2.00	mg/Kg	1	2.00

Sample: 361547 - East Pile

Laboratory:	Midland							
Analysis:	TPH DRO - NEW Analytical Method:					5 D	Prep Me	thod: N/A
QC Batch:	111562				2014-0	04-30	Analyzeo	l By: RG
Prep Batch:	94321		Sam	ple Preparat	ion: 2014-0	04-29	Prepared	l By: RG
					RL			
Parameter		Flag	Cert	Res	ult	Units	Dilution	RL
DRO		Jb	2	<5	0.0	m mg/Kg	1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			91.8	mg/Kg	1	100	92	70 - 130

Sample: 361547 - East Pile

Laboratory:MidlandAnalysis:TPH GROQC Batch:111599Prep Batch:94322		Analytical Method:S 8015 DDate Analyzed:2014-05-01Sample Preparation:2014-04-30						Prep Metho Analyzed B Prepared B	y: AK
					RL				
Parameter	Flag		Cert		Result	Uni	ts	Dilution	RL
GRO	U		2	<4.00		m mg/Kg		1	4.00
Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0		2.10	mg/Kg	1	2.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)				1.84	mg/Kg	1	2.00	92	70 - 130

Method Blanks

Method Bla	ank (1)	QC B	atch: 1115	662					
QC Batch: Prep Batch:	$\frac{111562}{94321}$				Analyzed: reparation:	2014-04-30 2014-04-29		•	ed By: RG ed By: RG
							MDL		
Parameter			Fla	g	Cert		Result	Units	RL
DRO					2		29.0	mg/Kg	50
~			~	D			Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilutio	n Amount	Recovery	Limits
n-Tricosane				98.0	mg/Kg	1	100	98	70 - 130

Method Blank (1) QC Batch: 111598

QC Batch: 111598 Prep Batch: 94322			analyzed: eparation:	2014-05-0 2014-04-3	-		Analyzed By Prepared By Units mg/Kg mg/Kg mg/Kg		
					MDL				
Parameter	Flag		Cert		Result		Units	RL	
Benzene			2		< 0.00533]	mg/Kg	0.02	
Toluene			2		< 0.00645	1	0.02		
Ethylbenzene			2		< 0.0116	1	m mg/Kg	0.02	
Xylene			2		< 0.00874]	mg/Kg	0.02	
						Spike	Percent	Recovery	
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130	
4-Bromofluorobenzene (4-BFB)			1.64	$\mathrm{mg/Kg}$	1	2.00	82	70 - 130	

Method Blank (1)	QC Batch: 111599
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QC Batch:	111599	Date Analyzed:	2014-05-01	Analyzed By:	AK
Prep Batch:	94322	QC Preparation:	2014-04-30	Prepared By:	AK

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				MDL				
Parameter	Flag	Cert		Result		Units		RL
GRO		2		<2.32		mg/Kg		4
Surrogate	Flag	Cert Result	Units I	Dilution	Spike Amount	Percent Recovery		overy mits
Trifluorotoluene (TFT)	8	2.20	mg/Kg	1	2.00	110		- 130
4-Bromofluorobenzene (4-BFB)		1.83	mg/Kg	1	2.00	92	70	- 130
Method Blank (1) QC Bate	ch: 111605							
QC Batch: 111605		Date Analyzed:	2014-05-01			Analyzed	d By:	RG
Prep Batch: 94365		QC Preparation:	2014-04-30			Prepared	l By:	RG
				MDL				
Parameter	Flag	Cert		Result		Units		RL
	0			<3.85		mg/Kg		4
Chloride								
	ch: 111620	Date Analyzed: QC Preparation:	2014-05-01 2014-05-01			Analyze Prepared	•	TP TP
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373		QC Preparation:		MDL		Analyze Prepared	•	ΤР
Method Blank (1) QC Bate QC Batch: 111620	ch: 111620 Flag	·	2014-05-01			Analyze	d By:	
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury	Flag	QC Preparation: Cert	2014-05-01	MDL Result		Analyze Preparec Units	d By:	TP RL
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate		QC Preparation: Cert	2014-05-01	MDL Result		Analyze Preparec <u>Units</u> mg/Kg	d By:	TP RL 0.025
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate QC Batch: 111622	Flag	QC Preparation: Cert 1 Date Analyzed:	2014-05-01	MDL Result		Analyze Prepare Units mg/Kg Analyzed	d By:	TP <u>RL</u> 0.025 LM
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate	Flag	QC Preparation: Cert	2014-05-01	MDL Result		Analyze Preparec <u>Units</u> mg/Kg	d By:	TP RL 0.025
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate QC Batch: 111622 Prep Batch: 94341	Flag ch: 111622	QC Preparation: Cert 1 Date Analyzed: QC Preparation:	2014-05-01	MDL Result 0.00177		Analyzed Prepared Units mg/Kg Analyzed Prepared	d By:	TP RL 0.025 LM PM
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate QC Batch: 111622 Prep Batch: 94341 Parameter	Flag	QC Preparation: Cert 1 Date Analyzed: QC Preparation:	2014-05-01 <00000000000000000000000000000000000	MDL Result 0.00177 MDL Result		Analyzed Prepared Units mg/Kg Analyzed Prepared Units	d By:	TP RL 0.025 LM PM RL
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate QC Batch: 111622 Prep Batch: 94341 Parameter Total Silver	Flag ch: 111622	QC Preparation: Cert 1 Date Analyzed: QC Preparation:	2014-05-01 <00000000000000000000000000000000000	MDL Result 0.00177 MDL Result <0.0344		Analyzed Prepared Units mg/Kg Analyzed Prepared Units mg/Kg	d By:	TP <u>RL</u> <u>0.025</u> <u>LM</u> PM <u>RL</u> <u>0.5</u>
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter	Flag ch: 111622	QC Preparation: <u>Cert</u> 1 Date Analyzed: QC Preparation: ag <u>Cer</u> 1 1	2014-05-01 <00000000000000000000000000000000000	MDL Result 0.00177 MDL Result <0.0344 <0.256		Analyzee Prepared Units mg/Kg Analyzee Prepared Units mg/Kg mg/Kg	d By:	TP <u>RL</u> 0.025 LM PM <u>RL</u> 0.5 2
Method Blank (1) QC Bate QC Batch: 111620 Prep Batch: 94373 Parameter Total Mercury Method Blank (1) QC Bate QC Batch: 111622 Prep Batch: 94341 Parameter Total Silver	Flag ch: 111622	QC Preparation: <u>Cert</u> 1 Date Analyzed: QC Preparation: ag <u>Cer</u> 1	2014-05-01 <00000000000000000000000000000000000	MDL Result 0.00177 MDL Result <0.0344		Analyzed Prepared Units mg/Kg Analyzed Prepared Units mg/Kg	d By:	TP <u>RL</u> <u>0.025</u> <u>LM</u> PM <u>RL</u> <u>0.5</u>

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method blank continued			MDL			
Parameter	Flag	Cert	Result	Units	RL	
Total Chromium		1	< 0.127	m mg/Kg	0.5	
Total Lead		1	< 0.263	m mg/Kg	1	
Total Selenium		1	< 0.422	m mg/Kg	2	

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111562 Prep Batch: 94321			ate Analy C Prepar		4-04-30 4-04-29			v	zed By red By:	
Param	F	С	LCS Result	Units	Dil.	Spike Amount	Matri Resul		0	Rec. Limit
DRO	Г	2	229	mg/Kg		250	29	$\frac{11}{80}$		$\frac{111111}{0 - 130}$
Percent recovery is based on the	aniles no			0, 0					<u>, 1</u>	0 - 150
Percent recovery is based on the	spike re	suit. Ri	$^{\circ}D$ is base	ed on the sp	Dike and s	pike duplica	ite result.			
		LCS	SD		Spike	Matrix		Rec.		RPD
Param	F (C Res	ult Uni	ts Dil.	Amount	Result		Limit	RPD	Limit
DRO		2 22	0 mg/	Kg 1	250	29	76 70	0 - 130	4	20
Percent recovery is based on the	spike re	sult. Rl	PD is base	ed on the sp	oike and s	pike duplica	ate result.			
	LCS	т	CSD			C :1	T CC	LCSE	``	D
Surrogate	Resul		esult	Units	Dil.	Spike Amount	LCS Rec.	Rec.		Rec. Limit
n-Tricosane	97.1			mg/Kg	<u> </u>	100 Amount	97	86		$\frac{11111}{0 - 130}$
Laboratory Control Spike (I	CS-1)									
QC Batch: 111598		Γ	ate Analy	vzed: 201	4-05-01			Analy	zed By:	: AK
Prep Batch: 94322			C Prepar		4-04-30				red By:	
			LCS			Spike	Matrix	x		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result		c.	Limit
Benzene		2	1.61	mg/Kg	1	2.00	< 0.005			0 - 130
Toluene		2	1.63	mg/Kg	1	2.00	< 0.0064	45 82	2 7	0 - 130
Ethylbenzene		2	1.74	mg/Kg	1	2.00	< 0.011			0 - 130
Xylene		2	5.21	mg/Kg	1	6.00	< 0.0087	74 87	7 7	
				-						0 - 130
Percent recovery is based on the	spike re	sult. Rl	PD is base	ed on the sp	oike and s	pike duplica	ate result.			0 - 130

			LCSD			эріке	Maurix		nec.		nf D	
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Benzene		2	1.65	mg/Kg	1	2.00	< 0.00533	82	70 - 130	2	20	
Toluene		2	1.67	$\mathrm{mg/Kg}$	1	2.00	$<\!0.00645$	84	70 - 130	2	20	
Ethylbenzene		2	1.77	$\mathrm{mg/Kg}$	1	2.00	< 0.0116	88	70 - 130	2	20	
Xylene		2	5.35	$\mathrm{mg/Kg}$	1	6.00	< 0.00874	89	70 - 130	3	20	

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Surrogate				CS	LCSD Result	τ	Jnits	Dil.	Spil Amou		LCS Rec.	LCS Re		Rec. Limit
Trifluorotoluene (TFT)				.92	1.92		g/Kg	1	2.0		96 92	96		70 - 130
4-Bromofluorobenzene (4-BFB)			1	.64	1.66	11	g/Kg	1	2.0	0	82	83)	70 - 130
Laboratory Control Spike (I	LCS-1	L)												
QC Batch: 111599			Dat	te Ana	lyzed:	201	4-05-01					Analy	zed By	y: AK
Prep Batch: 94322					aration:		4-04-30					Prepa		
2		-	~	LCS					Spike		latrix			Rec.
Param		F	С	Result		nits	Dil.		Amount		tesult	Ree		Limit
GRO			2	17.4		g/Kg			20.0		<2.32	87		70 - 130
Percent recovery is based on the	spike	resu	lt. RPI) is ba	sed on t	the sp	oike and	spik	e duplica	te res	sult.			
			LCSE)			Spike	. 1	Matrix		Re	ec.		RPD
Param	F	С	Result			Dil.	Amour		Result	Rec.		nit	RPD	Limit
GRO		2	17.7	mg	g/Kg	1	20.0		<2.32	88	70 -	130	2	20
Percent recovery is based on the	spike	resu	lt. RPI) is ba	sed on t	he sp	oike and	spik	e duplica	te res	sult.			
			L	\mathbf{CS}	LCSD				Spil	æ	LCS	LCS	SD	Rec.
Surrogate				sult	Result	τ	Jnits	Dil.	-		Rec.	Re		Limit
Trifluorotoluene (TFT)			2	.16	2.11	m	g/Kg	1	2.0	0	108	10		70 - 130
4-Bromofluorobenzene (4-BFB)			2	.03	1.98	m	g/Kg	1	2.0	0	102	99)	70 - 130
Laboratory Control Spike (I	LCS-1	L)	Det			001	4.05.01					•	•	y: RG
QC Batch: 111605 Prep Batch: 94365					lyzed: aration:		4-05-01 4-04-30					Prepa	rea By	. ng
Prep Batch: 94365		F	QC	Prepa LCS	aration:	201	4-04-30		Spike Amount		fatrix	-		Rec.
Prep Batch: 94365 Param		F		Prepa	aration: t U	201 nits			Spike Amount 2500	R		Prepa: Rec	с.	Rec. Limit
Prep Batch: 94365 Param Chloride	spike		QC C	Prepa LCS Result 2480	t U	201 nits g/Kg	4-04-30 Dil.		Amount 2500	R <	fatrix tesult <19.2	Ree	с.	Rec. Limit
Prep Batch: 94365 Param Chloride	spike		QC C lt. RPI	Prepa LCS Resul 2480 D is bas	t U	201 nits g/Kg	$\frac{4-04-30}{\text{Dil.}}$	spik	Amount 2500 e duplica	R <	fatrix Result <19.2 sult.	Rec 99	с.	Rec. Limit 85 - 115
Prep Batch: 94365 Param Chloride Percent recovery is based on the	-	resu	QC C lt. RPI LCSE	Prepa LCS Result 2480 D is bas	$\frac{t \qquad U}{m_{\xi}}$	201 nits g/Kg he sp	4-04-30 Dil. 5 Dike and Spike	spik	Amount 2500 e duplica Matrix	R < te res	fatrix tesult <19.2 sult. Re	Ree 99	c.)	Rec. Limit 85 - 115 RPD
Prep Batch: 94365 Param Chloride	spike		QC C lt. RPI	LCS Result 2480 D is bas t Un	$\frac{t \qquad U}{m_{\xi}}$	201 nits g/Kg	$\frac{4-04-30}{\text{Dil.}}$	spik	Amount 2500 e duplica	R <	fatrix tesult <19.2 sult. Re Lir	Ree 99	с.	Rec. Limit 85 - 115

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Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	111620 94373	94373 QC Preparation: 2014-05-01 Prepared LCS Spike Matrix								By: TP By: TP
Param		F	С	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercur	ry		1	0.255	mg/Kg	1	0.250	< 0.00177	102	80 - 120
Percent reco	very is based on the spi	ke res	ult. R	PD is base	d on the sp	pike and	spike duplica	ate result.		
			LCS	SD		Spike	Matrix	Red	n.	RPD

			LUSD			Бріке	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Mercury		1	0.252	$\mathrm{mg/Kg}$	1	0.250	< 0.00177	101	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:	111622	Date Analyzed:	2014-05-01	Analyzed By:	LM
Prep Batch:	94341	QC Preparation:	2014-04-30	Prepared By:	\mathbf{PM}

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	Limit
Total Silver		1	13.6	m mg/Kg	1	12.5	< 0.0344	109	85 - 115
Total Arsenic		1	51.4	m mg/Kg	1	50.0	$<\!0.256$	103	85 - 115
Total Barium		1	107	m mg/Kg	1	100	< 0.314	107	85 - 115
Total Cadmium		1	26.3	m mg/Kg	1	25.0	< 0.0286	105	85 - 115
Total Chromium		1	10.6	$\mathrm{mg/Kg}$	1	10.0	< 0.127	106	85 - 115
Total Lead		1	55.0	$\mathrm{mg/Kg}$	1	50.0	< 0.263	110	85 - 115
Total Selenium		1	53.0	mg/Kg	1	50.0	< 0.422	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Silver		1	13.8	mg/Kg	1	12.5	< 0.0344	110	85 - 115	2	20
Total Arsenic		1	52.7	$\mathrm{mg/Kg}$	1	50.0	$<\!0.256$	105	85 - 115	3	20
Total Barium		1	108	$\mathrm{mg/Kg}$	1	100	< 0.314	108	85 - 115	1	20
Total Cadmium		1	26.7	$\mathrm{mg/Kg}$	1	25.0	< 0.0286	107	85 - 115	1	20
Total Chromium		1	10.8	$\mathrm{mg/Kg}$	1	10.0	< 0.127	108	85 - 115	2	20
Total Lead		1	56.0	$\mathrm{mg/Kg}$	1	50.0	< 0.263	112	85 - 115	2	20
Total Selenium		1	54.0	$\mathrm{mg/Kg}$	1	50.0	< 0.422	108	85 - 115	2	20

Matrix Spikes

QC Batch:111562Date Analyzed: $2014-04-30$ Prep Batch:94321QC Preparation: $2014-04-29$ MSMSParamFCResultUnitsDRO2209mg/Kg1Percent recovery is based on the spike result.RPD is based on the spike and spike	Spike Amount		Analyzed Prepared	v
MS Param F C Result Units Dil. DRO 2 209 mg/Kg 1	-		i iepaieu	by. ng
ParamFCResultUnitsDil.DRO2209mg/Kg1	-	N		
DRO 2 209 mg/Kg 1	Amount	Matrix		Rec.
		Result	Rec.	Limit
Percent recovery is based on the spike result. RPD is based on the spike and sp	250	15.8	77	70 - 130
	oike duplica	ate result.		
MSD Spike	Matrix	R	ec.	RPD
Param F C Result Units Dil. Amount	Result		mit RP	
DRO 2 219 mg/Kg 1 250	15.8	81 70 -	· 130 5	20
Percent recovery is based on the spike result. RPD is based on the spike and sp	oike duplica	ate result.		
MS MSD	Spike	MS	MSD	Rec.
Surrogate Result Result Units Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane 71.8 78.0 mg/Kg 1	100	72	78	70 - 130
QC Batch: 111598 Date Analyzed: 2014-05-01				
•			Analyzed Prepared	
•				
Prep Batch: 94322 QC Preparation: 2014-04-30 MS	Spike	Matrix	Prepared	
Prep Batch: 94322 QC Preparation: 2014-04-30 MS Param F C Result Units Dil.	Amount	Result	Prepared Rec.	By: AK Rec. Limit
Prep Batch: 94322 QC Preparation: 2014-04-30 MS Param F C Result Units Dil. Benzene 2 1.51 mg/Kg 1	Amount 2.00	Result <0.00533	Prepared Rec. 76	By: AK Rec. Limit 70 - 130
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1	Amount 2.00 2.00	Result <0.00533 <0.00645	Prepared Rec. 76 78	By: AK Rec. Limit 70 - 130 70 - 130
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1Ethylbenzene2 1.64 mg/Kg1	Amount 2.00 2.00 2.00	Result <0.00533 <0.00645 <0.0116	Prepared <u>Rec.</u> 76 78 82	By: AK Rec. Limit 70 - 130 70 - 130 70 - 130
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1Ethylbenzene2 1.64 mg/Kg1Xylene2 4.98 mg/Kg1	Amount 2.00 2.00 2.00 6.00	$\begin{array}{r} \text{Result} \\ < 0.00533 \\ < 0.00645 \\ < 0.0116 \\ < 0.00874 \end{array}$	Prepared <u>Rec.</u> 76 78 82	By: AK Rec. Limit 70 - 130 70 - 130
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1Ethylbenzene2 1.64 mg/Kg1Xylene2 4.98 mg/Kg1Percent recovery is based on the spike result.RPD is based on the spike and spike	Amount 2.00 2.00 2.00 6.00	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Prepared Rec. 76 78 82 83	By: AK Rec. Limit 70 - 130 70 - 130 70 - 130 70 - 130
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1Ethylbenzene2 1.64 mg/Kg1Xylene2 4.98 mg/Kg1Percent recovery is based on the spike result.RPD is based on the spike and spikeMSDSpike	Amount 2.00 2.00 2.00 6.00 Dike duplica Matrix	Result <0.00533	Prepared <u>Rec.</u> 76 78 82 83 83	By: AK Rec. Limit 70 - 130 70 - 130 70 - 130 70 - 130 RPD
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1Ethylbenzene2 1.64 mg/Kg1Xylene2 $2.4.98$ mg/Kg1Percent recovery is based on the spike result.RPD is based on the spike and spikeMSDSpikeParamFCResultUnitsDil.Amount	Amount 2.00 2.00 2.00 6.00 Dike duplica Matrix Result	$\begin{tabular}{ c c c c } \hline Result \\ \hline <0.00533 \\ <0.00645 \\ <0.0116 \\ <0.00874 \\ \hline \\ ate \ result. \\ \hline \\ Rec. \ Li \end{tabular}$	Prepared Rec. 76 78 82 83 Rec. mit RF	By: AK Rec. Limit 70 - 130 70 - 130 70 - 130 70 - 130 PD Limit
Prep Batch:94322QC Preparation: $2014-04-30$ ParamFCResultUnitsDil.Benzene21.51mg/Kg1Toluene21.57mg/Kg1Ethylbenzene21.64mg/Kg1Xylene24.98mg/Kg1Percent recovery is based on the spike result.RPD is based on the spike and spikeSpikeParamFCResultUnitsDil.AmountBenzene21.46mg/Kg12.00	Amount 2.00 2.00 2.00 6.00 Dike duplica Matrix Result <0.00533	$\begin{tabular}{ c c c c c } \hline Result & <0.00533 \\ <0.00645 \\ <0.0116 \\ <0.00874 \\ \hline ate result. & \\ \hline Rec. & Li \\ \hline 73 & 70 \\ \hline \end{tabular}$	Rec. 76 78 82 83 tec. mit RF - 130 3	By: AK Rec. Limit 70 - 130 70 - 20 80 70 - 20 70 - 20 7
Prep Batch:94322QC Preparation: $2014-04-30$ MSParamFCResultUnitsDil.Benzene2 1.51 mg/Kg1Toluene2 1.57 mg/Kg1Ethylbenzene2 1.64 mg/Kg1Xylene2 $2.4.98$ mg/Kg1Percent recovery is based on the spike result.RPD is based on the spike and spikeMSDSpikeParamFCResultUnitsDil.Amount	Amount 2.00 2.00 2.00 6.00 Dike duplica Matrix Result	$\begin{tabular}{ c c c c c } \hline Result \\ \hline <0.00533 \\ <0.00645 \\ <0.0116 \\ <0.00874 \\ \hline ate result. \\ \hline Rec. Li \\ \hline 73 & 70 \\ \hline 76 & 70 \\ \hline end{tabular}$	Prepared Rec. 76 78 82 83 Rec. mit RF	By: AK Rec. Limit 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 20 20 20 20

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.79	1.78	mg/Kg	1	2	90	89 70	70 - 130
4-Bromofluorobenzene (4-BFB)	1.65	1.51	m mg/Kg	1	2	82	76	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361541

QC Batch:	111599	Date Analyzed:	2014-05-01	Analyzed By:	AK
Prep Batch:	94322	QC Preparation:	2014-04-30	Prepared By:	AK

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		2	16.0	m mg/Kg	1	20.0	$<\!\!2.32$	80	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		2	16.5	$\mathrm{mg/Kg}$	1	20.0	$<\!2.32$	82	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.94	1.85	mg/Kg	1	2	97	92	70 - 130
4-Bromofluorobenzene (4-BFB)	1.83	1.79	$\mathrm{mg/Kg}$	1	2	92	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361547

QC Batch:	111605	Date Analyzed:	2014-05-01	Analyzed By:	\mathbf{RG}
Prep Batch:	94365	QC Preparation:	2014-04-30	Prepared By:	RG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2480	m mg/Kg	5	2500	149	93	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2480	$\mathrm{mg/Kg}$	5	2500	149	93	78.9 - 121	0	20

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Matrix Spike (MS-1) Spike	ed Sa	mple	: 361432								
QC Batch: 111620 Prep Batch: 94373				e Analyze Preparati		14-05-01 14-05-01				lyzed By bared By	
Param		F	СH	MS Result	Units	Dil.	Spike Amount		atrix sult F	lec.	Rec. Limit
Total Mercury			1	0.256	mg/Kg	1	0.250	0.0	0858	99 8	80 - 120
Percent recovery is based on the	spike	e resu	lt. RPD	is based of	on the sp	pike and sp	oike duplic	ate resu	ılt.		
			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Mercury		1	0.259	mg/Kg	1	0.250	0.00858	100	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 361430

QC Batch:	111622	Date Analyzed:	2014-05-01	Analyzed By:	LM
Prep Batch:	94341	QC Preparation:	2014-04-30	Prepared By:	\mathbf{PM}

Param	F	С	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver		1	13.1	mg/Kg	1	12.5	< 0.0344	105	75 - 125
Total Arsenic		1	54.3	$\mathrm{mg/Kg}$	1	50.0	< 0.256	109	75 - 125
Total Barium		1	188	m mg/Kg	1	100	86.32	102	75 - 125
Total Cadmium		1	24.4	mg/Kg	1	25.0	< 0.0286	98	75 - 125
Total Chromium		1	19.4	mg/Kg	1	10.0	6.902	125	75 - 125
Total Lead		1	55.3	mg/Kg	1	50.0	6.298	98	75 - 125
Total Selenium		1	41.0	mg/Kg	1	50.0	< 0.422	82	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Silver		1	13.1	mg/Kg	1	12.5	< 0.0344	105	75 - 125	0	20
Total Arsenic		1	50.4	mg/Kg	1	50.0	< 0.256	101	75 - 125	7	20
Total Barium		1	194	mg/Kg	1	100	86.32	108	75 - 125	3	20
Total Cadmium		1	25.0	mg/Kg	1	25.0	< 0.0286	100	75 - 125	2	20
Total Chromium		1	19.3	mg/Kg	1	10.0	6.902	124	75 - 125	0	20
Total Lead		1	55.7	mg/Kg	1	50.0	6.298	99	75 - 125	1	20
Total Selenium		1	42.8	mg/Kg	1	50.0	< 0.422	86	75 - 125	4	20

Calibration Standards

Standard (CCV-1)

QC Batch:	111562		Date	Analyzed:	2014-04-30		Analy	Analyzed By: RG		
				CCVs	CCVs	CCVs	Percent			
				True	Found	Percent	Recovery	Date		
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
DRO		2	mg/Kg	250	243	97	80 - 120	2014-04-30		

Standard (CCV-2)

QC Batch:	111562		Date	Analyzed:	2014-04-30		Analy	zed By: RG
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		2	mg/Kg	250	229	92	80 - 120	2014-04-30

Standard (CCV-1)

QC Batch: 111598	Date An	alyzed: 20	Analyzed By: AK					
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		2	mg/kg	0.100	0.0898	90	80 - 120	2014-05-01
Toluene		2	m mg/kg	0.100	0.0898	90	80 - 120	2014-05-01
Ethylbenzene		2	m mg/kg	0.100	0.0893	89	80 - 120	2014-05-01
Xylene		2	m mg/kg	0.300	0.268	89	80 - 120	2014-05-01

Standard (CCV-2)

QC Batch: 111598

Date Analyzed: 2014-05-01

Analyzed By: AK

Report Date: May 2 Monument Drain Li	,			rk Order: 14 nument Dra	Page Number: 28 of 32 Monument, NM			
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		2	mg/kg	0.100	0.0910	91	80 - 120	2014-05-01
Toluene		2	mg/kg	0.100	0.0903	90	80 - 120	2014-05-01
Ethylbenzene		2	mg/kg	0.100	0.0897	90	80 - 120	2014-05-01
Xylene		2	mg/kg	0.300	0.271	90	80 - 120	2014-05-01

Standard (CCV-1)

QC Batch:	111599		Date	Analyzed:	2014-05-01		Analy	zed By: AK
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		2	m mg/Kg	1.00	1.03	103	80 - 120	2014-05-01

Standard (CCV-2)

QC Batch:	111599		Date	Analyzed:	2014-05-01		Analy	zed By: AK
				CCVs True	$\begin{array}{c} \mathrm{CCVs} \\ \mathrm{Found} \end{array}$	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		2	m mg/Kg	1.00	0.986	99	80 - 120	2014-05-01

Standard (ICV-1)

QC Batch:	111605			Date A	analyzed:	2014-05-01		Analy	zed By: RG
					ICVs	ICVs	ICVs	Percent	
					True	Found	Percent	Recovery	Date
Param		Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride				m mg/Kg	100	101	101	85 - 115	2014-05-01

Standard (CCV-1)

QC Batch: 111605

Date Analyzed: 2014-05-01

Analyzed By: RG

Report Date: May Monument Drain L	,			ork Order: 1 onument Dr	Page Number: 29 of 32 Monument, NM			
Param Chloride	Flag	Cert	Units mg/Kg	CCVs True Conc. 100	CCVs Found Conc. 99.0	CCVs Percent Recovery 99	Percent Recovery Limits 85 - 115	Date Analyzed 2014-05-01
Standard (CCV-1	1)							
QC Batch: 111620			Date Ar	nalyzed: 20	014-05-01		Analy	zed By: TP
Param Total Mercury	Flag	Cert	Units mg/L	CCVs True Conc. 0.0100	CCVs Found Conc. 0.0104	CCVs Percent Recovery 104	Percent Recovery Limits 80 - 120	Date Analyzed 2014-05-01
Standard (CCV-2 QC Batch: 111620	,		Date Ar	nalyzed: 20)14-05-01		Analy	zed By: TP
				CCVs True	CCVs Found	CCVs	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Percent Recovery	Limits	Analyzed
Total Mercury		Cert 1	Units mg/L				•	
)			Conc. 0.0100	Conc.	Recovery	Limits 80 - 120	Analyzed
Total Mercury Standard (ICV-1))		mg/L	Conc. 0.0100	Conc. 0.0105	Recovery	Limits 80 - 120 Analyz Percent Recovery	Analyzed 2014-05-01
Total Mercury Standard (ICV-1) QC Batch: 111622 Param)	1	mg/L Date An Units	Conc. 0.0100 nalyzed: 20 ICVs True Conc.	Conc. 0.0105 014-05-01 ICVs Found Conc.	Recovery 105 ICVs Percent Recovery	Limits 80 - 120 Analyz Percent Recovery Limits	Analyzed 2014-05-01 zed By: LM Date Analyzed
Total Mercury Standard (ICV-1) QC Batch: 111622 Param Total Silver)	1	mg/L Date An Units mg/Kg	Conc. 0.0100 halyzed: 20 ICVs True Conc. 0.125	Conc. 0.0105 014-05-01 ICVs Found Conc. 0.126	Recovery 105 ICVs Percent Recovery 101	Limits 80 - 120 Analyz Percent Recovery Limits 90 - 110	Analyzed 2014-05-01 zed By: LM Date Analyzed 2014-05-01
Total Mercury Standard (ICV-1) QC Batch: 111622 Param Total Silver Total Arsenic)	ı	mg/L Date An Units mg/Kg mg/Kg	Conc. 0.0100 aalyzed: 20 ICVs True Conc. 0.125 1.00	Conc. 0.0105 014-05-01 ICVs Found Conc. 0.126 0.994	Recovery 105 ICVs Percent Recovery 101 99	Limits 80 - 120 Analyz Percent Recovery Limits 90 - 110 90 - 110	Analyzed 2014-05-01 zed By: LM Date Analyzed 2014-05-01 2014-05-01
Total Mercury Standard (ICV-1) QC Batch: 111622 Param Total Silver Total Arsenic Total Barium)	ı Cert	mg/L Date An Units mg/Kg mg/Kg mg/Kg	Conc. 0.0100 alyzed: 20 ICVs True Conc. 0.125 1.00 1.00	Conc. 0.0105 014-05-01 ICVs Found Conc. 0.126 0.994 1.02	Recovery 105 ICVs Percent Recovery 101 99 102	Limits 80 - 120 Analyz Percent Recovery Limits 90 - 110 90 - 110 90 - 110	Analyzed 2014-05-01 zed By: LM Date Analyzed 2014-05-01 2014-05-01 2014-05-01
Total Mercury Standard (ICV-1) QC Batch: 111622 Param Total Silver Total Arsenic Total Barium Total Cadmium)	ı Cert	mg/L Date An Units mg/Kg mg/Kg mg/Kg mg/Kg	Conc. 0.0100 halyzed: 20 ICVs True Conc. 0.125 1.00 1.00 1.00	Conc. 0.0105 014-05-01 ICVs Found Conc. 0.126 0.994 1.02 1.01	Recovery 105 ICVs Percent Recovery 101 99 102 101	Limits 80 - 120 Analyz Percent Recovery Limits 90 - 110 90 - 110 90 - 110 90 - 110	Analyzed 2014-05-01 zed By: LM Date Analyzed 2014-05-01 2014-05-01 2014-05-01 2014-05-01
Total Mercury Standard (ICV-1) QC Batch: 111622 Param Total Silver Total Arsenic Total Barium Total Cadmium Total Chromium)	1 Cert 1 1	mg/L Date An Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Conc. 0.0100 alyzed: 20 ICVs True Conc. 0.125 1.00 1.00 1.00 1.00 1.00	Conc. 0.0105 014-05-01 ICVs Found Conc. 0.126 0.994 1.02 1.01 1.01	Recovery 105 ICVs Percent Recovery 101 99 102 101 101 101	Limits 80 - 120 Analyz Percent Recovery Limits 90 - 110 90 - 110 90 - 110 90 - 110 90 - 110 90 - 110 90 - 110	Analyzed 2014-05-01 zed By: LM Date Analyzed 2014-05-01 2014-05-01 2014-05-01 2014-05-01 2014-05-01 2014-05-01
Total Mercury Standard (ICV-1) QC Batch: 111622 Param Total Silver Total Arsenic Total Barium Total Cadmium)	1 Cert 1 1 1	mg/L Date An Units mg/Kg mg/Kg mg/Kg mg/Kg	Conc. 0.0100 alyzed: 20 ICVs True Conc. 0.125 1.00 1.00 1.00 1.00 1.00	Conc. 0.0105 014-05-01 ICVs Found Conc. 0.126 0.994 1.02 1.01	Recovery 105 ICVs Percent Recovery 101 99 102 101	Limits 80 - 120 Analyz Percent Recovery Limits 90 - 110 90 - 110 90 - 110 90 - 110	Analyzed 2014-05-01 zed By: LM Date Analyzed 2014-05-01 2014-05-01 2014-05-01 2014-05-01

Report Date: May 1, 2014	Work Order: 14042916	Page Number: 30 of 32
Monument Drain Line	Monument Drain Line	Monument, NM

Standard (CCV-1)

QC Batch: 111622		Date Analyzed: 2014-05-01					Analyz	ed By: LM
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silver		1	mg/Kg	0.125	0.129	103	90 - 110	2014-05-01
Total Arsenic		1	m mg/Kg	1.00	1.05	105	90 - 110	2014-05-01
Total Barium		1	m mg/Kg	1.00	1.04	104	90 - 110	2014-05-01
Total Cadmium		1	m mg/Kg	1.00	1.05	105	90 - 110	2014-05-01
Total Chromium		1	m mg/Kg	1.00	1.05	105	90 - 110	2014-05-01
Total Lead		1	$\mathrm{mg/Kg}$	1.00	1.07	107	90 - 110	2014-05-01
Total Selenium		1	mg/Kg	1.00	1.08	108	90 - 110	2014-05-01

Work Order: 14042916 Monument Drain Line Page Number: 31 of 32 Monument, NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-14-10	Lubbock
2	NELAP	T104704392-13-7	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- MI1 Split peak or shoulder peak
- MI2 Instrument software did not integrate
- MI3 Instrument software misidentified the peak
- MI4 Instrument software integrated improperly
- MI5 Baseline correction
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

Report Date: May 1, 2014 Monument Drain Line Work Order: 14042916 Monument Drain Line Page Number: 32 of 32 Monument, NM

Attachments

The scanned attachments will follow this page. Please note, each attachment may consist of more than one page.

ORIGINAL COPY

PIOH Brandon & Clark 3403 Industrial Blvd. Hobbs, NM 88240 Tel (575) 392-7561 Fax (575) 392-4508 23 48 28 48 48 200 97 Turn Around Time if different from standard A of No. Chlorides 8177-OOSHWS) × × X × × × × 24 hr. on metals ١ TDS, EC Na, Ca, Mg, K, **Circle or Specify Method** 01 100 NO3-N, NO2-N, PO4-P, Alkalinity CI' E' 204 BioAquatic Testing 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Tel (972) 242-7750 ANALYSIS REQUEST Moisture Content Dry Weight Basis Required Check If Special Reporting Limits Are Needed Hq ,221, GOB Pesticides 8081 / 608 **TRRP Report Required** from field PCB's 8082 / 608 GC/MS Semi. Vol. 8270 / 625 **REMARKS**: 20 GC/MS Vol. 8260 / 624 RCI TCLP Pesticides TCLP Semi Volatiles CORRUN-UN ш TCLP Volatiles 00 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 588-4944 1 (888) 588-3444 space YININ LAB USE TCLP Metals Ag As Ba Cd Cr Pb Se Hg Log-in-Review ONLY Intact Q / N Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7 × × × PAH 8270 / 625 TPH(8015)GRO (DRO / TVHC X × X × × TPH 418.1 / TX1005 / TX1005 Ext(C35) 0 3.00 C 0 C Carrier # 10 0 0 BTEX (802) / 602 / 8260 / 624 X × X × × X × COR 6.0 200 INST 12 **OBS** 6.D 8021 / 602 / 8260 / 624 MTBE -white Rindermorgan, de A COR OBS COR INST INST OBS 0280 2180 0880 0925 0110 2490 1005 SAMPLING TIME 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 13:48 Time: 4129 62/A Time: Time: 62/h 62/h Perly 9556 62/2 429 5 5 **JTAG** 0 51 4130/14 4-29-14 369 Date: Date: PRESERVATIVE NONE Date: × × × × × × × Project Name: Duch × × × METHOD ICE X × × Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. Allison Junsun TA EIt HOBN Sampler Signatur Company: Company: Company: *OS⁷H ogument 6 david ^EONH Suite 6701 Aberdeen Avenue, Suite Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 f (800) 378-1298 1 (800) 378-1298 Phone #: E-mail: ICH Fax #: SLUDGE Received by: Received by: Received by: MATRIX ξ AIA NN 9 × TIOS × × X × × 5 **MATER** Station 85 3 85 2 85 82 28 00 1347 JnuomA \ 9muloV lime: lime: Time: Hion. IraceAnalysis, Inc. # CONTAINERS 1/29/29/10 B enument Compreser Date: Date: Date: email: lab@traceanalysis.com Compressor Kinder Norgan LAB Order ID # 14042916 David White 20 2 West Side ZU FIELD CODE Side Zu Side Side Middle Pile Company (Street, City, Zip) Project Location (including state) KN Company Company elig tost 0 à くっとうくつ North 4mas (If different from above) Lest 1307 1 Relinquished by: Relinquished by: Relinquished by: Company Name: 5 4 Contact Person 545 544 546 E CHS nvoice to: AB USE 6/541 Project #: した Address: LAB # ONLY 3 2

Page

Appendix C Photographic Documentation





South Side 20' Sample Location April 29, 2014 East Side 20' Sample Location April 29, 2014

North Side 20' Sample Location April 29, 2014

West Side 20' Sample Location April 29, 2014





April 29, 2014

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Chavez, Carl J, EMNRD

From:	Chavez, Carl J, EMNRD
Sent:	Friday, May 16, 2014 7:22 AM
То:	'White, David'
Cc:	Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Griswold, Jim, EMNRD;
	Thompson, Glen D; Greer, John
Subject:	(GW-008) Monument CS Remediation Plan

David:

The New Mexico Oil Conservation Division (OCD) hereby approves the attached Remediation Plan.

OCD requires receipt of the final C-141 and documentation of disposition of wastes within 30 days of receipt of this e-message or date approved by the OCD.

Thank you for your cooperation in this matter.

Please be advised that OCD approval of this plan does not relieve Kinder Morgan Energy Partners, L.P. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Kinder Morgan Energy Partners, L.P. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 O: (505) 476-3490 E-mail: <u>CarlJ.Chavez@State.NM.US</u> Web: <u>http://www.emnrd.state.nm.us/ocd/</u> "Why Not Prevent Pollution: Minimize Weste: Poduce the Co

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental



From: White, David [mailto:David_White@kindermorgan.com]
Sent: Wednesday, May 14, 2014 12:12 PM
To: Chavez, Carl J, EMNRD
Cc: Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Griswold, Jim, EMNRD; Thompson, Glen D; Greer, John
Subject: Monument CS Remediation Plan

Attached is the Remediation Plan for the Monument Compressor Station Leak which occurred on January 30,2014 . Please let me know if you need a hard copy of the report or just this electronic copy.

Please do not hesitate to contact me with any questions or comments.

Thanks

Dave

David H. White, P.G.

EHS Remediation Project Manager Kinder ✓ Morgan Energy Partners, L.P. Kinder Morgan Building 1001 Louisiana Street, Suite 1000 Houston, Texas 77002 [☎]Office Direct - (713) 369-9556 [☎]Fax Direct - (713) 495-2812 [☎]Mobile - (281) 772-0730 [☞]Email - david_white@kindermorgan.com

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Chavez, Carl J, EMNRD

From:	White, David <david_white@kindermorgan.com></david_white@kindermorgan.com>
Sent:	Thursday, May 08, 2014 1:45 PM
То:	Chavez, Carl J, EMNRD
Cc:	Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D; Griswold, Jim, EMNRD
Subject:	RE: Monument CS Excavation

The excavation is cordoned off and no plant personnel can get close without meaning to. I do understand your concerns with filling the excavation before final approval. EPNG is concerned that the exposed drain lines, that empty into the tank, have the potential for sluff to dislodge and damage these lines possibly causing another leak. I am quickly trying to finalize the RP to stick with OCD protocol, I'm just concerned that any heavy rain could undermine the integrity of the surrounding walls casing a potential bigger problem.

Thank you for your guidance and hope to have the RP to you very soon.

Thanks

Dave

David H. White, P.G. Confice Direct - (713) 369-9556 Mobile - (281) 772-0730 Email – <u>david_white@kindermorgan.com</u>

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, May 08, 2014 2:33 PM
To: White, David
Cc: Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D; Griswold, Jim, EMNRD
Subject: RE: Monument CS Excavation

David:

Good afternoon. OCD required that the excavation be fenced off to prevent trespass. Any VOCs remaining in the excavation are volatilizing out of the release area under warmer temperatures.

Unless the operator can describe why it is proceeding to fill the excavation before receiving approval of the RP with environmental information, which outlines the proper closure methods for OCD approval, OCD does not approve the activities stated below.

Is the excavation fenced to prevent trespass?

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 O: (505) 476-3490 E-mail: <u>CarlJ.Chavez@State.NM.US</u> Web: http://www.emnrd.state.nm.us/ocd/

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From: White, David [mailto:David_White@kindermorgan.com]
Sent: Thursday, May 08, 2014 8:40 AM
To: Chavez, Carl J, EMNRD
Cc: Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D; Griswold, Jim, EMNRD
Subject: RE: Monument CS Excavation

Carl

I have received the data from the side wall and spoil pile samples. All side wall values were below detection limits and only one spoil pile had a small hit of TPH. I'm in the process of finalizing the Remediation Plan, however, I was hoping I could get a verbal ok, to fill in the excavation? We would like to use a portion of the excavated material and fill the rest with new clean fill. The excavation has been open for quite some time and I'd really like get this filled back in. In a nut shell, the Remediation Plan will explain activities, show sample locations, state the results and recommend closure. Would you agree for us to fill in the excavation with excavated material in which the results were non-detect and complete with new clean fill?

Please let me know.

Thanks

Dave

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Tuesday, April 22, 2014 2:55 PM
To: White, David
Cc: Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D; Griswold, Jim, EMNRD
Subject: RE: Monument CS Excavation

David:

Sounds like a plan. Thank you.

Carl J. Chavez, CHMM

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From: White, David [mailto:David_White@kindermorgan.com]
Sent: Monday, April 21, 2014 10:18 AM
To: Chavez, Carl J, EMNRD
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D
Subject: RE: Monument CS Excavation

Carl

I just wanted to give you an update on the activities at the EPNG Monument Compressor Station. Activities are underway to collect additional side wall samples as well as samples from the excavated soil pile. The additional side wall samples will be collected at approximately 20 feet bgs and be analyzed for BTEX, TPH and chlorides. After we receive the results, I will complete and submit the requested Remediation Plan. Please let me know if you have any questions or comments.

Thanks

Dave

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, April 10, 2014 4:24 PM
To: White, David
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D
Subject: FW: Monument CS Excavation

David:

Good afternoon. New Mexico Oil Conservation Division (OCD) Santa Fe (SF) had been working with Mr. Glen Thompson (Kinder Morgan Energy Partners, L.P.) on this discovery.

Kinder Morgan submitted a preliminary C-141 Form and Glen has corresponded with OCD-SF regarding the excavation under the leaky pipeline(s). In addition to excavating deeper to get out of the > 100 ppm TPH, Glen was directed to collect a chloride sample, which appears to have been completed. Mr. Geoff Leking (OCD Hobbs) inspected the location of remediation and should be copied on correspondence submitted to OCD-SF.

Upon review of the attached pdf file with some preliminary environmental information. OCD recommends that Kinder Morgan submit a Remediation Plan (RP) to OCD- SF to propose the final actions based on information and corrective actions to date. The RP must contain a map of the excavation, sample locations, all environmental analytical data with laboratory QA/QC data supporting any summaries, and documentation of remediation in the RP.

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From: Leking, Geoffrey R, EMNRD Sent: Thursday, April 10, 2014 2:26 PM To: Chavez, Carl J, EMNRD Subject: FW: Monument CS Excavation

Carl

Do you want me to refer them to you on this project and have them copy me? Thanks.

Geoffrey Leking Environmental Specialist NMOCD-Hobbs 1625 N. French Drive Hobbs, NM 88240 Office: (575) 393-6161 Ext. 113 Cell: (575) 399-2990 email: geoffreyr.leking@state.nm.us

From: White, David [mailto:David_White@kindermorgan.com]
Sent: Thursday, April 10, 2014 12:02 PM
To: Leking, Geoffrey R, EMNRD
Cc: White, David
Subject: Monument CS Excavation

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Thank you for getting back with me on the remediation at the Monument Compressor Station. I have attached the lab results and a picture showing where the sample was collected. Please let me know what the folks in Santa Fe say about additional delineation.

Thanks

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David H. White, P.G.
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Kinder Morgan Energy Partners, L.P.
Kinder Morgan Building
1001 Louisiana Street, Suite 1000
Houston, Texas 77002
Coffice Direct - (713) 369-9556
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Chavez, Carl J, EMNRD

From:	Chavez, Carl J, EMNRD
Sent:	Tuesday, April 22, 2014 1:55 PM
То:	'White, David'
Cc:	Sanchez, Daniel J., EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D; Griswold, Jim, EMNRD
Subject:	RE: Monument CS Excavation

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Sent: Thursday, April 10, 2014 4:24 PM
To: White, David
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D
Subject: FW: Monument CS Excavation

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From: Leking, Geoffrey R, EMNRD Sent: Thursday, April 10, 2014 2:26 PM To: Chavez, Carl J, EMNRD Subject: FW: Monument CS Excavation

Carl

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Geoffrey Leking Environmental Specialist NMOCD-Hobbs 1625 N. French Drive Hobbs, NM 88240 Office: (575) 393-6161 Ext. 113 Cell: (575) 399-2990 email: geoffreyr.leking@state.nm.us

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Sent: Thursday, April 10, 2014 12:02 PM
To: Leking, Geoffrey R, EMNRD
Cc: White, David
Subject: Monument CS Excavation

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Thanks

Dave

David H. White, P.G.

EHS Remediation Project Manager Kinder ✓ Morgan Energy Partners, L.P. Kinder Morgan Building 1001 Louisiana Street, Suite 1000 Houston, Texas 77002 [☎]Office Direct - (713) 369-9556 [☎]Fax Direct - (713) 495-2812 [☎]Mobile - (281) 772-0730 [☞]Email - david_white@kindermorgan.com This transmission may contain certain information that is privileged, confidential, and exempt from disclosure under applicable law. If you are not the intended email recipient, you are hereby noticed that any form of disclosure, photocopying or distribution of these contents is unauthorized and prohibited. If you have received this email in error, please notify the sender immediately and destroy all copies of this transmission.

Chavez, Carl J, EMNRD

From:	White, David <david_white@kindermorgan.com></david_white@kindermorgan.com>
Sent:	Monday, April 14, 2014 10:24 AM
То:	Chavez, Carl J, EMNRD
Cc:	Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Leking, Geoffrey R, EMNRD;
	Thompson, Glen D
Subject:	RE: Monument CS Excavation

Carl,

Thank you for your response and direction. Kinder Morgan will begin preparation of the Remediation Plan.

Thanks again!

Dave

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, April 10, 2014 4:24 PM
To: White, David
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Leking, Geoffrey R, EMNRD; Thompson, Glen D
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