## Bratcher, Mike, EMNRD

From:	Michael Stubblefield [mstubblefield@talonlpe.com]
Sent:	Tuesday, April 12, 2011 5:25 PM
To:	Bratcher, Mike, EMNRD
Cc:	'roy.white@dvn.com'
Subject:	Amended work plan for Devon Energy Corporation Parkway No. 21 release.pdf
Attachments:	Amended work plan for Devon Energy Corporation Parkway No. 21 releasepdf

Dear Mr. Mike Bratcher,

Talon/LPE is submitting the amended work plan for the Devon Energy Corporation Parkway No. 21. If further information is required please contact me at 575-746-8905 or <u>mstubblefield@talonlpe.com</u>.

Talon/LPE

Mike Stubblefield Project Manager



## April 12, 2011

AMARILLO 821 North Bivins Amarillo, Texas 79/07 Phana 805,457,0507 Fac: 806,457,0502

ARTESIA 408 Wost Texas Ave. Artesia, New Mexico 85:20 Fhone 575.746.3758 Fax 575.746.8905

AUSTIN 911 West Anderson Lone Suite 202 Austin, Toxas 76757 Phone 512 929,3429 Fax 512,959,3487

HODE3 \* 3IE Sact Taylor Street Hotbs, New Mexice 38240 Phone 575,393,4351 Free 575,393,4555

> MIDLAND 2301 State Hwy 349 Midland, Texas 75706 Phone 432,522,2153 Fex 432,122,2130

SAN ANTONIO 1797 9 Jordan Rd Suite 102 Saite 102 Saite 102 Saite 210,203,3025 Fax 230,568,2191

TRESS 525 South Midals Street Solito 535 Tatsa, Oktoberg, 7410 9 Photo 517,742,0871 Tax 915,982,0282

CEMPLY-AMERITAL CONSULTESS ENGINEERING TELLING CONSTRUCTION STILL MANAGEMENT GENERAL CONTOURTHS

Toll Free: SG6.742.0742 www.stonlpe.com Mr. Mike Bratcher NMOCD District 2 1301 West Grand Avenue Artesia, NM 88210

## Subject: Soil Assessment and Amended Remediation Work Plan Devon Energy Corporation Parkway No. 21 release, Eddy County, New Mexico

Dear Mr. Bratcher,

Devon Energy Corporation has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Parkway No.21 release. Talon's proposed work plan to perform soil assessment and remediation activities consists of the following:

**Incident Date** 

January 23, 2011

**Background Information** 

The Parkway No. 21 is located approximately thirty-one (31) miles southeast of Artesia, New Mexico. The legal location for the site is Section 28, Township 19 South and Range 29 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.62534 North and -104.07259 West.

This site lies on undulating plains and low hills consisting of wind worked sandy deposits. Drainage courses in this area are normally dry. The local surface and shallow geology includes silty soils under lain by sand stone and hard caliches, providing and impermeable barrier to the migration of fluids in the area of the release. The New Mexico State Engineer web site indicates the nearest ground water data to be in S34-T19S-R29E. The ground water in Section 34 is reported to be at an average depth of 60' below ground surface (bgs).

The ranking for this site is 10 based on the as following:

Depth to ground water	50'-100'
Wellhead Protection Area	>1000,
Distance to surface water body	>1000,

#### **Incident Description**

On January 1, 2011 the valve located on the load line running from the stock tank froze and then ruptured. The valve was replaced. One hundred and fifty-two (152) barrels of hydrocarbon fluids were released. A vacuum truck was brought to the location and twentythree (23) barrels of hydrocarbon were recovered. The affected area is on the location in front of the tank battery. The hydrocarbon impacted area is estimated to be one hundred feet (100') long by sixty feet (60') wide. The bermed area of the tank battery was lined and no further corrective actions are required.

## **Actions Taken**

On February 9, 2011 Talon/LPE mobilized personnel were on the site to begin the assessment and soil sampling for the construction of a work plan. Grab soil samples were collected utilizing a split spoon auger rig. A bore hole was drilled on the impacted area located in front of the tank battery. Grab soil samples were collected from the surface of the impacted area on the location to a depth of six feet (6') below ground surface.

The grab soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, stored on ice or refrigerated, and transported to Cardinal Lab in Hobbs, New Mexico for analysis. The samples were tested for volatile organics (BTEX) per EPA Method 8021B; Total Petroleum Hydrocarbons (TPH) per EPA Method 8015M; and total chlorides via Method SM 4500cl-b. All analytical testing was performed on a standard turn-around basis. The complete laboratory report is attached as Appendix II.

#### Analytical Results

Analytical results received from Cardinal Laboratories are summarized below:

Sample, Depth	Chlorides	<u>BTEX</u> mg/kg	<u>TPH</u> (mg/kg)
S-1, 0'	240 ppm	442.6	24850
Set, 12	144	<50	59.2
S-1, 2'	112	<50	<10
S=1, 3'	80	<50	137
S-1, 4'	32	<50	<10
S-1 6'	16		

## Summary and Conclusions

- Groundwater in the project vicinity is greater than 50-feet below land surface per the New Mexico State Engineer Database.
- The chloride impacts have been documented to be 240 mg/kg at the surface of the impacted area, and declined to 16 mg/kg in the soil sample labeled S-1 at six feet (6') below ground surface.
- Based on the laboratory results, hydrocarbon impacted soil was over the Recommended Remediation Action Level (RRAL) at less than one foot (1') below ground surface only.

## **Recommended Remedial Actions**

- The impacted soil will be excavated. The excavated soil will be transported to and NMOCD approved solid waste disposal facility for disposal.
- Soil samples will be collected from the excavated area. The soil samples will be submitted to laboratories for TPH analysis using SW-846 Method 8015M and BTEX analysis using Method 8021B. The chlorides will be tested using SM4500CL.B.
- When analytical results from soil samples collected report the TPH to be less than the Recommended Action Level for the area. The BTEX will be corrected to 50 mg/kg. Benzene will be corrected to 10 mg/kg. The chlorides will be corrected as agreed upon.
- Analytical results will be submitted to the New Mexico Oil Conservation Division (NMOCD) Artesia office. When permission is granted by NMOCD, the excavated area will be backfilled back to grade using new material transported from a local borrow pit.
- A final report and analytical results will be provided to the NMOCD Artesia Office utilizing Form C-141.

Should you have any questions or if further information is required, please do not hesitate to contact us at 575.746.8768 or mstubblefield@talonlpe.com.

Respectfully submitted,

Mike Stubblefield Talon/LPE Project Manager APPENDIX I

. . .

## INITIAL FORM C-141

## STATE GROUNDWATER DATA

.

## APPENDIX II

## LABORATORY REPORT

## APPENDIX I

## INITIAL FORM C-141

## STATE GROUNDWATER DATA

.

## State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 side												
Release Notification and Corrective Action												
			OPERAT	FOR	Ľ	] Initia	al Report		Final Report			
Name of Company Devon Energy			Contact Roy White, Foreman									
Address 6488 Seven Rivers Hwy -	P.O. Box 250			No. 575-748-	<u>513-17</u>	41						
Facility Name Parkway #21			Facility Typ	1ê								
Surface Owner	Mineral Ow	ner				Lease N	۱o.					
	LOCAT	[OI]	N OF REI	LEASE								
Unit Letter Section Township Range	Feet from the 1	Vorth	/South Line	Feet from the	East/W	est Line	County					
Latitude	*****		Longitud	le	10 <sup>-00</sup>	9531- <b>1410</b>						
	NATU	RE	OF REL	EASE								
Type of Release		*****	Volume of				Recovered		*******			
Oil Source of Release			152 bb	IS Iour of Occurrenc	1	23 bbl	S Hour of Dis					
Load line valve in front of tank broke	in two.			- 10:30 am			1 10:30					
Was Immediate Notice Given?		· .	IFYES, To									
	No 🔲 Not Requ	ured	varroli (	Gray,OCD								
By Whom?			Date and Hour									
Roy White, Foreman			01/23/11 – 11:55am									
Was a Watercourse Reached?	»r		If YES, Volume Impacting the Watercourse.									
If a Watercourse was Impacted, Describe Fully.*												
Describe Cause of Problem and Remedial Action			08 3× 2 4 8	4 <sup>1</sup>								
We are going to put fertilizer on the a	mecteo area ar	na u		cation				•				
Describe Area Affected and Cleanup Action Tak		d f			0			- 16/-				
Spill was in front of tanks, 60x100. W dirt in affected area on 1-23, the day of		tam	ks, recoat i		o, and r	epiace	all value	3. VVQ	removeu			
- <i>4</i>	•							A				
I hereby certify that the information given above regulations all operators are required to report an												
public health or the environment. The acceptanc	e of a C-141 report	by th	e NMOCD m	arked as "Final R	Report" do	es not rel	lieve the ope	erator (	of liability			
should their operations have failed to adequately or the environment. In addition, NMOCD accept	investigate and rem ance of a C-141 rem	nediat	e contaminati	ion that pose a thr	reat to gro	und wate utity for a	er, surface w compliance	ater, h with a	uman health worker			
federal, state, or local laws and/or regulations.		i							,			
Signature: <b>Kykol Horné</b> r				<u>OIL CON</u>	SERV/	ATION	<u>I DIVISI</u>	<u>on</u>				
Signature: FlyKOI HUI HCI		Approved by	District Supervis	şor:								
Printed Name: Mykol Horner				·								
Title: Field Tech 1			Approval Da	te:	E	xpiration	Date:					
E-mail Address: mykol.horner@dvn.con	î.		Conditions o	f Approval:			Attache					
							witacue	u [_]				
Date: 01/23/11 Phone: 575-748-0160												

\* Attach Additional Sheets If Necessary



## New Mexico Office of the State Engineer Water Column/Average Depth to Water

		(qu	arte	rs a	re 1	I≈NN	/ 2=NB	≣ 3=SN	/ 4=SE)					
		(qu	arte	rs a	re s	small	est to I	argest)	(NAD8	3 UTM in m	eters)	(In	feel)	
	Sub	e de la composición Composición	Q	Q	Q							Depth De	opth W	ater
POD Number	basin U	se County	64	1 16	4	Sec	Tws	Rng	X	Y	Distance	Well W	aterCo	lumn
CP 00681	PF	O ED	1	1	3	34	19S	29E	587230	3609127*	1912			
CP 00741	PF	O ED	1	3	2	34	198	29E	588030	3609533*	1997	230	60	170
CP 00830	รา	K LE		2	1	04	20S	29E	586118	3608193*	2786	120		
										Avera	ge Depth to	Water:	60 fee	et
											Minimum	Depth:	60 fee	et
											Maximum	Depth:	60 fee	et

#### Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 586608

Northing (Y): 3610936

Radius: 3000

"UTM location was derived from PLSS - see Help

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

2/18/11 11:26 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

## APPENDIX II

## LABORATORY REPORT



February 15, 2011 MIKE STUBBLEFIELD TALON LPE 408 W. TEXAS AVE. ARTESIA, NM 38210

RE: PARKWAY BS #21

Enclosed are the results of analyses for samples received by the laboratory on 02/11/11 16:38.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celez B.Keene

Celey D. Keene Lab Director/Quality Manager

Page 1 of 8



PHONE (575) 393-2326 \* 101 E. MARLAND \* NOBBS, NM 85240

## Analytical Results For:

TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	02/11/2011	Sampling Date:	02/09/2011
Reported:	02/15/2011	Sampling Type:	Soil
Project Name:	PARKWAY BS #21	Sampling Condition:	Cool & Intact
Project Number:	700794.006.01	Sample Received By:	Jodi Henson
Project Location:	SEC 28 - 195-29E		

#### Sample ID: S - 1 0' (H100281-01)

BTEX 80216	nıg,	/kg	Analyze	d By: CMS	*****			·····	***************************************
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	12.1	5.00	02/15/2011	ŅD	2.13	106	2.00	1.96	
Toluene*	159	5.00	02/15/2011	ND	2.12	106	2.00	1.07	
Ethylbenzene*	59.5	5.00	02/15/2011	ND	2.15	107	2.00	1.25	
Total Xylenes*	212	15.0	02/15/2011	ND	6.41	107	6.00	0.261	
Surrogate: 4-Bromofluorobenzene (PIL	34.8	% 70-136	}						
Chlaride, SM4568CI-8	mg,	/kg	Analyzed By: HM		#54%-00-90-00-00-00-00-00-00-00-00-00-00-00-				·······
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/13/2011	ND	432	108	400	0.00	
TPH 8015M	ang,	/kg	Analyzo	d By: AB	5		*****		S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	9850	50.0	02/15/2011	ND	214	107	200	0.929	
DRO >C10-C28	15000	50.0	02/15/2011	ND	226	113	200	1.74	
Surrogate: 1-Chlorooctane	134	% 70-130	}	*******	·····				Maaaaa waxaa w
Surrogate: 1+Chloroociadecane	102	% 70-130	•						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

FLEASE HOTE: USUBLY and Damages. Cardinal's Bability and clean's exclusive remedy for any claim arising, valuates based in contract or tou, inhibite targed have been preserved and the sense of a cardinal's Bability and clean's including those for negligence and any other cares valuacever abilities desembly excluse investiga and reactived by Cardinal within thisty (30) days after complexities of the applicable serves. In no event shall Cardinal to Lable for including those for negligence and babelity, waters inflation, business beamption, toor of test of profile including by clean at the predicable serves, and or or other including the exclusion of the serves the contract of the services the exclusion of the service of the service the exclusion of the service of the service the exclusion of the service of the services the exclusion of the service of the service the service the exclusion of the service of the service the exclusion of the service the service the exclusion of the service the exclusion of the service the exclusion of the service of the service the exclusion of the service

Celey B.Kura

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 \* 101 E. MARLAND \* HOBBS, NM 65240

## Analytical Results For:

TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	02/11/2011	Sampling Date:	02/09/2011
Reported:	02/15/2011	Sampling Type:	Soll
Project Name:	PARKWAY BS #21	Sampling Condition:	Cool & Intact
Project Number:	700794.006.01	Sample Received By:	Jodi Henson
Project Location:	SEC 28 - 195-29E		

## Sample ID: S - 1 1' (H100281-02)

BTEX 80218	mg/kg		Analyze	d By: CMS				······································	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2011	ND	2.13	106	2.00	1.96	
Toluene*	0.188	0.050	02/14/2011	ND	2.12	106	2.00	1.07	
Ethylbenzene*	0.094	0.050	02/14/2011	ND	2.15	107	2.00	1.25	
Total Xylenes*	0.381	0.150	02/14/2011	ND	6.41	107	6.00	0.261	
Surrogate: 4-Bromofluorobenzene (PIL	99.7 9	5 70 <b>-1</b> 30	)	<b></b>					
Chloride, SM4500CI-8	mg/l	(9	Analyze	d By: HM					

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/13/2011	ND	432	108	400	.0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/15/2011	ND	214	107	200	0.929	
DR0 >C10-C28	59.2	10.0	02/15/2011	ND	226	113	200	1.74	
Surrogate: 1-Chloroociane	117	% 70-130							H - L - L - L - THE ANDROLOGIC AND A - L - L - L - L - L - L - L - L - L -
Surrogate: 1-Chlorooctadecane	133	% 70-130	i i						

#### **Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Utability and Damoyes. Candinal's fability and coint's exclusion remotely for any claim antiang, whether based in contract or text, shall be limited to the amount paid by client for antipeer. All deline, including those for negligence and ony claim claims whether texts what be tablet or text, shall be limited to the amount paid by client for antipeer. All deline, including those for negligence and only claims whatesever theil be deemed wated outless mode in writing and received by Cardinal ter texts within theiry (30) days after complexion of the applicable service. In no event shall be deemed, wated outless mode in writing and received by Cardinal ter texts which limits (30) days after complexion of the applicable service. In no event shall be deemed, wated outless for textsended or consequential damage, without Embalding, without Embalding, united texts whether texts the provide out of or related to the performance of the services becaude by Cardinal, regardless of whether texts claim is based upon any of the above stated textsenders.

Celer D+ Seine

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 \* 101 E. MARIAND \* HOBBS, NM 68240

## Analytical Results For:

TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	02/11/2011	Sampling Date:	02/09/2011
Reported:	02/15/2011	Sampling Type:	Soil
Project Name:	PARKWAY BS #21	Sampling Condition:	Cool & Intact
Project Number:	700794.005.01	Sample Received By:	Jodi Henson
Project Location:	SEC 28 - 19S-29E		

#### Sample ID: S - 1 2' (H100281-03)

BTEX 8021B	mg,	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2011	ND	2.13	106	2.00	1.96	
Toluene*	0.066	0.050	02/14/2011	ND	2.12	106	2.00	1.07	
Ethylbenzene*	< 0.050	0.050	02/14/2011	ND	2.15	107	2.00	1.25	
Total Xylenes*	<0.150	0.150	02/14/2011	ND	6.41	107	6.00	0.261	

Surrogate: 4-Bromofluorobenzene (PIL 95.3 % 70-130

Chioride, SM4500Cl-8	mg,	/kg	Analyze	d бү: НМ				······································	1077127 automotive.att.12000.00000
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/13/2011	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/15/2011	ND	214	107	200	0.929	
DRO >C10-C28	<10.0	10.9	02/15/2011	ND	226	113	.200	1.74	
Surrogate: 1-Chlorooctane	87.5	% 70-130		· · · · ·					····
Survogate: 1-Chlorooctadeçane	95.9	% 70-130							

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLENSE MOTE: Mability and Damages. Cardinals liability and cliquits exclusive remody for any day, whicher boson in contract or land, shall be limited to the amount paid by clicid for analyzes. All oblind, there for negligance, and ziny other cancer whichese which he denned valued unless make in welling and received by Cardinal within theiry (20) days after completion of the sphilastic terrise. In no event, shall be denned to be table for incidented or composential damages, including, without landards, business lateruptions, loss of une, or last of profits bosonid by clicid, its subalitative, allivates or autoasses and the conduct territory business of the services becomes by Cardinal regardless of whether such climits based sport of cardinal tables and december. This report that has be reproduced or called within approval of Cardinal tables approval.

Clert Kena-

Celey D. Keene, Lab Director/Quality Manager

## CARDINAL

PHONE (575) 393-2326 \* 101 E. MARLAND \* HOBBS, NH 88249

#### Analytical Results For:

TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	02/11/2011	Sampling Date:	02/09/2011
Reported:	02/15/2011	Sampling Type:	Soil
Project Name:	PARKWAY BS #21	Sampling Condition:	Cool & Intact
Project Number:	700794.006.01	Sample Received By:	Jodi Henson
Project Location:	SEC 28 - 19S-29E		

#### Sample ID: S - 1 3' (H100281-04)

BTEX 8021B	mg/kg		Analyze	d By: CMS	·····			2000,000,000,000,000,000,000,000	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2011	ND	2.13	106	2.00	1.96	
Toluene*	<0.050	0.050	02/14/2011	ND	2,12	106	2.00	1.07	
Ethylbenzene*	<0.050	0.050	02/14/2011	ND	2.15	107	2.00	1.25	
Total Xylenes*	<0.150	0.150	02/14/2011	ND	6.41	107	6.00	0.261	

70-130

Surrogate: 4-Bromo/luorobenzene (PIL 103 %

Chloride, SM4500Cl-B	m9,	ſkg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0 16.0		02/13/2011 ND		416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result Reporting Lin		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/15/2011	ND	214	107	200	0.929	
DRO >C10-C28	137	10.0	02/15/2011	ND	226	113	200	1.74	
Surrogate: 1-Chlorooctane	90.6	96 70-130	1		*				
Surrogate: 1-Chlorovstadecane	90.4	% 70-130							

#### Cardinal Laboratories

#### \*=Accredited Analyte

FLASE NOTE: Labeliny and Demagets. Cardina's Sackly and clant's exclusive consider for y daim anising, whether based in contract or terr, whether based in the applicable source. In no event, shall be listly for including those for negligence and any other based in the performance of the sensitive in the performance of the sensitive in inclusion, business interruptions, loss of use, or loss of particle incrumed by Contract by clant, adjusted source based in contract or terr, shall be included any other based of the sensitive incrument in the performance of the sensitive incrument is based on terr, and the based or terr, provided based of the sensitive incrument in the performance of the sensitive incrument incrument in the performance of the sensitive incrument in the performance of the sensitive incrument incrument

aley & Keine

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 8

# CARDINAL

### Analytical Results For:

TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	02/11/2011	Sampling Date:	02/09/2011
Reported:	02/15/2011	Sampling Type:	Soil
Project Name:	PARKWAY BS #21	Sampling Condition:	Cool & Intact
Project Number:	700794.006.01	Sample Received By:	Jodi Henson
Project Location:	SEC 28 - 19S-29E		

#### Sample ID: S - 1 4' (H100281-05)

BTEX 80218	mg,	/kg	Analyze	d By: CMS		*****			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery-	True Value QC	rpd	Quațifier
Benzene*	<0.050	0.050	02/14/2011	ND	2.13	106	2.00	1.96	
Toluene*	<0.050	0.050	02/14/2011	ND	2.12	106	2.00	1.07	
Ethylbenzene*	<0.050	0.050	02/14/2011	ND	2.15	107	2.00	1.25	
Total Xylenes*	<0.150	0.150	02/14/2011	ND	6.41	107	6.00	0.261	
•••••									

Surrogate: 4-Bromofluorobenzene (PIE 95.9 % 70-130

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 8y: HM					******
Analyte	Result	Reporting Limit	Analyzed .	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	32.0 16.0		ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyze	of By: AB			2207.000 209.000 Magazana		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/15/2011	ND	214	107	200	0.929	
DRO >C10-C28	<10.0	10.0	02/15/2011	ND	226	113	200	1.74	
Surrogate: 1-Chlorooctane	87.3	% 70-130	1					,	
Surrogate: 1-Chlorooctadecane	91.7	% 70-130							

#### Sample ID: S - 1 6' (H100281-06)

Chloride, SM4500CI-8	តាទ្	/kg	Anaiyze	d Gy: HM			······		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/13/2011	NÐ	416	104	400	0,00	

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

FLEXES (REFLE) Libbility and Demogras. Cardinal's fability and clearing exclusive remerys for any data orbing, whether based in contract or tori, shall be timited to the estimant paid by clear for sanityses. All clearins, including block for negligence and any other cluse wheteapeur shall be decimed wolved unless made in whiting and respect by Cardinal tabley (30) days after compactant of the applicable stream. In my exect shall Cardinal tables for indefends or consequently demogras, including, without imitation, business interruptions, base of uses or respect provide interruptions, business of uses or respected by Cardinal, the substitutes or successors and by and of the performance of the services hereunder by Cardinal, respected set which shall be imposed or any of the zero-stated resome and endowed by clear the service state resome setting of class are interruptions. Successors are interruptions, business built only to the sample identified bow. This capacitate the respected compact for dual when any of the zero-stated resome are interruptions.

.

aler & Kane

Celey D. Keene, Lab Director/Quality Manager

Page 6 of 8



PHONE (575) 393-2326 \* 101 E. MARLAND \* HOBBS, NM 88240

#### **Notes and Definitions**

S-LOW	Low surrogate recovery confirmed as a matrix effect by a second analysis.
S-05	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
**	Insufficient time to reach temperature.
•	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PERSEE NOTE: Likhilly and Demogras. Continuits Exaility and client's exclusive remark for any claim mixing, whether based in contract or tert, shall be limited to the amount paid by client for analyses. All claims, including these for negligence and any other cause whiteoers shall be decread white and sectored white and sectored in white state (30) days after completion of the applicable service. In no event shall be failed for includent or concourtshall domogras, including, without finitedion; builders, builders, builders, including the contract by client, is subsidiaries, all-failers or successors and/or or related to the participant or the softwares hercunder by Cardinal, regardless of whether such claim is based your any of the clave states reasons ar objectvice, the context sets of antipier client with written inperved of Cardinal tables softwares.

aler B.Kene-

Celey D. Keene, Lab Director/Quality Manager

Page 7 of 8

ARDINAL LABORATORIES

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**,** ,

101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

Company Name	npony Name: Talon [LPE						<i>R1</i>	ersto-				naamin Aliinadi	2740.000 and a	A STAT	VOIC		BILL TO ANALYSIS REQUEST								
Project Manager	· m.kelstullefield					. #:	BALT IT A NAMAT			l	1			114/-18	_131	> KE	UUE	51		T					
1	408 W. Teras Avr.	*** ********			S		"7	alon/LP	fel																
\$		*** •			8			aion/LF	4.00 																
<u>City:</u>	State: N/M				Attn:																				
Phone #:	Fax #: \$75.				Address:				SARCLOW																
Project #: 70	0794.006.01 Project Owner	<u>: O</u>	wa	Encras Carp	Cit	y:				2						]									
Project Name:	Park Way BS #21			17	Sta	te:		Zip:		Ŏ															
Project Location	n: scc. 28 - 195 - 29e				Phi	one #:				80/080															
Sampler Name:	mike stubletjeld				Fax	c#:				l d			ĺ												
FOR LAB USE OFLY		Γ.		MATRIX		PRESE	RV.	SAMPLI	NG	Ιε	_	S													
Lab I.D.	Sample I.D.	CORAB OR (CIONF	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER :	ACID/BASE: ICE / COOL	OTHER :	DATE	TIME	TOM ANS	1.5	tal ch													
<u> HICO251-1</u>	5-1 0'	6						2/4/201	4:49 8	1	1	ير ا	_												
12	5-1 1'	<u> </u>				v	{	2 Jaloun	4:50 P	1	1	r													
1	5-12	9				~		2/9/2011	Y:51P	12	1	v													
ų.	5.13	6		ĸ		v		2/9/2011	4:53P	4	1	m													
5	9-14	9		1		4		2/5/2011	4:49P	60	1	v			[										
	5.16	ς,		6			ĺ	2/3/224				1													
							1	1																	
							ĺ				i		_												
1		1					1	1							1										

PLEASE NOTE: Lisbility and Demoges. Contrasts labelity and clients exclusive rentedy for any other ecsise wholese vasate in contrast or fort, shall be limited to the emount part by the client for the anatymes. All clients including these for negigence and any other cause wholesever shall be demod waiver unless made in which give destready of antice within 30 days after competion of the applicable ervice. In one ward shall carried be liable to incidentiate or consequential darange, including window limited in these thereagons, bas of over, at the sol of the shall be shall be autoble to substitutions.

	nifelies or successors arising cut of or related to the performance of services hereunder by Cantiles, regardloss of while asce pann any of the above shilled Assons of Otherwise.											
tuy:	Relinguished By:		Regeived	1 8y: 👝		Phone Result:	🛛 Yes	() No	Add'l Phone #:			
10000		211/2014	Son & ware	a start		Fax Result:	🗆 Yes	D No	Add'I Fax #:			
2000		Time: of en	Same 1	and the second second		REMARKS:						
	mile (Sufflight	1:05 P.m.		and the second of the second o								
04000	Relinguished By:	Date:	Received	16v: ₹3		1						
Contraction of the local distribution of the	.com.dama.ml.											
Contraction of the local division of the loc		Time over 1 Winds FROMA REACT									1	
(W)		4.50	Coll Plan	and the second second	Allen Con Con Marine and	1						
	Delivered By: (Circle One)		71 1	Sample Condition	CHECKED BY:							
	Denvered by. (On the one)		1 N	Cool Intact	(Initials)	Contra-						
	A 1 100 A 600	15	100	TYes Yes	KIL							
	Sampler - UPS - Bus - Other	· • *	50	H No H No	6211							
- 1									erent distances from the distances in a state of the state			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# 26

Page 8 of 8