

July 19, 2011

Mr. Mike Bratcher
NMOCD District 2
1301 West Grand Avenue
Artesia, NM 88210



AMARILLO 92I North Bivins Amarillo. Texas 79107 Phone 806.467.0607 Fax 806.467.0622

ARTESIA

408 West Texas Ave. Artesia, New Mexico 882I0 Phone 575.746.8768 Fax 575.746.8905

AUSTIN

9II West Anderson Lane Suite 202 Austin, Texas 78757 Phone 5I2.989.3428 Fax 5I2.989.3487

HOBBS

318 East Taylor Street Hobbs, New Mexico 88240 Phone 575.393.4261 Fax 575.393.4658

MIDLAND

290I State Hwy 349 Midland, Texas 79706 Phone 432.522.2133 Fax 432.522.2180

SAN ANTONIO

II Commercial Place Schertz, Texas 78154 Phone 210.265.8025 Fax 210.568.2191

TULSA 525 South Main Street Suite 535 Tulsa, Oklahoma 74103 Phone 918.742.0871 Fax 918.382.0232 Subject: Soil Assessment and Remediation Work Plan

Quantum Resources Management, LLC

Artesia Battery 1 to Battery 3 Transfer Line Release

API # 30-015-01747 - 2RP-775

Dear Mr. Bratcher,

Quantum Resources Management, LLC has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Artesia Battery 1 to Battery 3 Transfer Line release. Talon's soil assessment results and proposed remediation activities consist of the following:

Incident Date

April 29, 2011

Background Information

The Artesia Battery 1 to 3 Transfer Line is located approximately sixteen (16) miles southeast of Artesia, New Mexico. The legal location for the site is Section 35, Township 17 South and Range 28 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.79069 North and -104.14837 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 consists of Quaternary Age sedimentary deposits comprised of alluvium and eolian sands under lain by sand stone and hard caliches. The New Mexico State Engineer web site indicates the nearest ground water data to be in S34-T17S-R28E. The ground water in Section 34 is reported to be at an average depth of 53' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

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

ENVIRONMENTAL CONSULTING ENGINEERING DRILLING

> CONSTRUCTION SPILL MANAGEMENT GENERAL CONTRACTING

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

Toll Free: 866.742.0742 www.talonlpe.com

Incident Description

On April 29, 2011 the water transfer line coming from the Artesia Battery No. 1 to the Artesia Battery No. 3 had developed a leak. The line was shut-in, excavated, repaired and placed back into service. Ten (10) barrels of produced water were released with no fluids recovered. The impacted area is located north of the Apache Corporation D State No. 17 well location. It measured approximately 45-feet long by 30-feet wide. The visually impacted soil was immediately excavated to a depth of 5-feet and placed on a liner.

Actions Taken

On May 9, 2011 Talon/LPE mobilized personnel to begin the assessment and soil sampling for the construction of a work plan. Grab soil samples were collected utilizing a backhoe. The soil samples labeled S-1 were collected from the impacted area to a depth of 8-foot.

On May 26, 2011 Talon/LPE mobilized personnel again to the site for soil sampling at greater depths utilizing a split spoon auger rig. Grab soil samples from location S-1 were collected from 10-feet bgs within the impacted area to a depth of 30-feet bgs. Soil samples were also collected from a second location (S-2) east of excavated area for delineation under the lease road. Samples were obtained from location S-2 at 10-feet and 12-feet deep.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis of chlorides using method SM4500Cl-B. The complete laboratory report is attached as Appendix II.

Analytical Results

Analytical results received from Cardinal Laboratories dated May 17, 2011 and June 4, 2011 are summarized below:

Sampl	le, Depth	Chlorides (mg/kg)	<u>Sam</u> ı	ple, Depth	Chlorides (mg/kg)
S-1	1'	800	S-1	16'	3600
S-1	2'	10800	S-1	18'	1200
S-1	4'	12400	S-1	20'	1250
S-1	6'	11800	S-1	24'	144
S-1	8'	7000	S-1	26'	336
S-1	10'	12200	S-1	28'	624
S-1	12'	12600	S-1	30'	288
S-1	14'	9800			

Samp	ole, Depth	Chlorides (mg/kg)
S-2	10'	128
S-2	12'	272

Summary and Conclusion

- Groundwater in the project vicinity is greater than 50-feet below land surface per the New Mexico State Engineer Database.
- Based upon the results of the laboratory data obtained for this investigation, the vertical of the chloride release have been documented to be 144 mg/kg in the soil sample S-1 at 24-feet bgs.

Proposed Remedial Actions

- The chloride impacted soil from this release will be excavated to a depth of 4-foot deep. The excavated soil will be transported to an NMOCD approved solid waste disposal facility.
- Soil samples will be collected for analytical testing from the side walls of the excavated area. The soil samples collected will be submitted to Cardinal Laboratories for analysis of chlorides using method SM4500Cl-B.
- Upon OCD approval of confirmation samples, a 20 Mil liner will then be installed into the bottom of the excavated area.
- The excavated area will be backfilled to grade using new material transported from a local borrow pit, contoured to match existing terrain and seeded using an approved seed mixture for the area.
- A final report documenting all field activities and lab reports will be provided to the NMOCD Artesia Office including Form C-141.

If we can provide additional information or be of further assistance please contact our office at 575.746.8768.

Respectfully submitted,

TALON/LPE

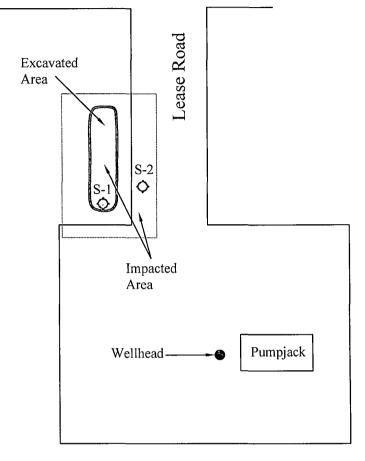
Mikel Shillifiell

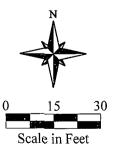
Mike Stubblefield Project Manager David J. Adkins District Manager

AM

SITE MAP

Lease Road





Legend - Monitor Well --- - Overhead Powerline - Proposed Monitor Well -- - Underground Electric Line - Soil Boring - - - Sanitary Sewer - Proposed Soil Boring - - Storm Sewer - Recovery Well -- ras-- - Telephone Line - Vapor Recovery Well - Fence line - Domestic Well - - - City Utilities - Plugged & Abandoned Well ------ - Underground Cable - Observation Well +++++ - Railroad Tracks - Surface Soil Samples - Groundwater Gradient Contour Line - Vapor Monitoring Point 81.30 - Groundwater Gradient Contour Elevation - Water Main - Groundwater Flow Direction - Gas Line



Date: 07/08/2011

Scale: 1" = 30'

Drawn By: TJS

Artesia Battery 1 to Battery 3 Transfer Line - Artesia Unit No. 22
Quantum Resources Management, LLC
Eddy County, New Mexico

APPENDIX I

INITIAL C-141

GROUNDWATER DATA



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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

QQQ Sub Depth Depth Water Y Well Water Column basin Use County 64:16 4 Sec Tws Ring **POD Number** L 07643 DOM LE 4 4 2 34 17S 28E 578979 3628574* 120 53 Average Depth to Water:

53 feet

Minimum Depth:

53 feet

Maximum Depth:

53 feet

Record Count: 1

PLSS Search:

Township: 17S

Range: 28E

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Submit 2 Copies to appropriate District Office in accordance

Oil Conservation Division 1220 South St. Francis Dr. Santa Ea NIM 07505

with Rule 116 on back side of form

Revised October 10, 2003

Form C-141

				Sa	nia re	, NIVI 8/3	05		
			Rele	ease Notific	ation	and Co	rrective A	ction	
Name of Company Quantum Resources Management, LLC Contact Garrett Newton Address 1905 West Sears Ave, Artesia, New Mexico 88210 Telephone No. 575-513-0230 Facility Name Artesia Battery 1 to Battery 3 Transfer line Facility Type Water Transfer line Surface Owner State Mineral Owner State Lease No. LOCATION OF RELEASE Unit Letter Section Township Range Feef from the R28E 2187" FRL North/South Line Feef from the 2310" FWL EDDY Latitude 32.79069N Longitude 104.14837W NATURE OF RELEASE Volume Recovered -0- Date and Hour of Discovery Same Mineral Hour of Discovery Mineral Mineral Hour of Discovery Mineral Hour of									
Name of Co	mpany Qu	ıantum Reso	urces Ma	nagement, LLC		Contact Gar	rett Newton		
Address 190	5 West Se	ears Ave., Ai	tesia, Ne	w Mexico 8821	0	Telephone 1	No. 575-513-023	30	
Surface Ow	ner State			Mineral C	wner S	tate		Lease N	No.
							TEACE		
Unit Letter	Section	Township	Range					Fact/West Line	County
	<u> </u>			1		Doddi Lijiç			
Release Notification and Corrective Action OPERATOR Initial Report Final Report Name of Company Quantum Resources Management, LLC Contact Garrett Newton Address 1905 West Sears Ave., Artesia, New Mexico 88210 Telephone No. 575-513-0230 Facility Name Artesia Battery 1 to Battery 3 Transfer line Facility Type Water Transfer line Surface Owner State Mineral Owner State Lease No. LOCATION OF RELLEASE Unit Letter Section Township Range Feet from the North/South Line Feet from the East/West Line County FWL S5 T17S Range Feet from the PRILEASE Unit Letter Section Township Range Feet from the PRILEASE State									
l			1 -						
			Latitu	de <u>32.79069N</u>		Longitude	104.14837W		
				NAT	URE				
Source of Re	lease Water	Transfer line	:					N .	Hour of Discovery
Waa Immadi	ota Notice (Given?						same	
was illillicul	ate Notice (Yes [No Not Re	equired				
By Whom? C	Garrett New	rton			_	Date and I	Hour 04/29/2011 2	2:15 pm	
Release Notification and Corrective Action OPERATOR Initial Report Final Report Name of Company Quantum Resources Management, LLC Contact Garrett Newton Address 1905 West Sears Ave., Artesia, New Mexico 88210 Telephone No. 575-513-0230 Facility Name Artesia Battery 1 to Battery 3 Transfer line Facility Type Water Transfer line Surface Owner State Mineral Owner State Lease No. LOCATION OF RELEASE Unit Letter Section Township Range Feet from the Rash West Line EDDY									
] Yes ∑] No			. 0		ENER
If a Watercon	ırse was Im	pacted, Desci	ibe Fully.	*		'			ECK 2011
									AF BULLENAL
								\	JUL ARTE
Describe Cau	ise of Probl	lem and Reme	dial Actio	n Taken.*				· · · · · · · · · · · · · · · · · · ·	,0CD
The water tro	nefer line o	oming from t	he Artesia	Battery No. 1 to t	the Arte	sia Rattero M	o 3 was found to	he leaking	/ MW
				Dattery 190, 1 to	ino Aite	ara Daniery IV	o. 5 was found to	oc icaking.	
					34 NT	17 11 1	-A1		1 1 1 1 2
The impacted	area is loc	cated north of	tne Apach	e Corporation D S	State No	. 17 Well loca eet (30') wid	ation. The weather	at the time of the	release was dry and windy. The
									ry excavated and praced on a
Release Notification and Corrective Action OPERATOR Initial Report Final Report									
Release Notification and Corrective Action OPERATOR Initial Report Final Report Name of Company Quantum Resources Management, LLC Contact Garrett Newton Address 1905 West Sears Ave., Artesia, New Mexico 88210 Telephone No. 575-513-0230 Facility Name Artesia Battery 1 to Battery 3 Transfer line Facility Type Water Transfer line Surface Owner State Mineral Owner State Lease No. LOCATION OF RELEASE Unit Letter Section Township Range Feet from the Pist. Fill F									
Release Notification and Corrective Action OPERATOR OPERATOR Name of Company Quantum Resources Management, LLC Contact Garrett Newton Address 1905 West Sears Ave., Artesia, New Mexico 88210 Facility Name Artesia Battery 1 to Battery 3 Transfer line Facility Name Artesia Battery 1 to Battery 3 Transfer line Facility Type Water Transfer line Surface Owner State Mineral Owner State Mineral Owner State Lease No. LOCATION OF RELEASE Unit Letter Section Township Range Feet from the Final Report K 35 T17S R28E 2187' FSI.									
should their	operations l	have failed to	adequatel	v investigate and i	emediat	te contaminat	ion that pose a th	eat to ground water	er surface water human health
Release Notification and Corrective Action OPERATOR									
							OIL CON	SERVATION	<u>I DIVISION</u>
Signature:	Land		10/1	· ·					
	The state of the s	· · · · · / (7		Approved by	y District Supervis	sor:	
Printed Nam	e: Garrett N	Vewton							

Approval Date:

Conditions of Approval:

Expiration Date:

Attached

E-mail Address: gnewton@pvtnetworks.net

Phone: 575-513-0230

Title: Field Supervisor

Date: 05/4/2011

^{*} Attach Additional Sheets If Necessary

APPENDIX II LABORTORY REPORT



May 17, 2011

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARTESIA BATTERY 1 TO BATTERY 3 TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 05/13/11 13:02.

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.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

05/13/2011

Sampling Date:

05/09/2011

Reported:

05/17/2011

Sampling Type:

Project Name:

ARTESIA BATTERY 1 TO BATTERY 3 TRA

Sampling Condition:

** (See Notes)

Project Number:

701407.011.01

Sample Received By:

Jodi Henson

Project Location:

701407.008.01

Sample ID: S - 1 1' (H100990-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					· · · · · · · · · · · · · · · · · · ·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	05/16/2011	ND ·	432	108	400	0.00	
Sample ID: S - 1 2' (H10	00990-02)								
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10800	16.0	05/16/2011	ND	432	108	400	0.00	
Sample ID: S - 1 4' (H1	00990-03)								
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12400	16.0	05/16/2011	ND	416	104	400	3.77	
Sample ID: S - 1 6' (H1	00990-04)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	05/16/2011	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in withing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such

Celey D. Keene



TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE, ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

05/13/2011

Sampling Date:

05/09/2011

Reported:

05/17/2011

Sampling Type:

Project Name:

Soil

ARTESIA BATTERY 1 TO BATTERY 3 TRA

Sampling Condition:

** (See Notes)

Project Number: Project Location: 701407.011.01 701407.008.01

Sample Received By:

Jodi Henson

Sample ID: S - 1 8' (H100990-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	а ву: нм					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7000	16.0	05/16/2011	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE Labbilty and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be detend waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Clent, its subsidiaries, affiliates or successors ansing out of or related to the performance of the services hereunder by Cardinal, regardless of whether such

Celey D. Keene



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whitsoever shall be deemed warved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be lable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Client, its subsidiants, stillations or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims based whose stated reasons or otherwise. Results related only to the sample is elegable above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Warland, Hobbs, NM 88240 (575) 393-2326 EAY (575) 393-2476

	5/5) 393-2326 FAX (313) 333-247			-			-7			mb C	H - 12	ATTIV ASS.				-							·			
Company Name:	Talon /LPE										3/1	سادا	Į O	· Carren	٠. ش مم	komana.			سمجم	ANA	LYS	IS R	EQU:	<u>est</u>			
Project Manager	mike Stubblef	ie id							3.0.		_1							1				į					
Address:	408 W. Texas Ave								omp	oany	7	alo	14	32							1	1					1
City:	Actesia	State: NM	Zip	: 85	3210	9]/	lttn:									}]			1]
Phone #:	575-441-2254	Fax#: 505-7	46.	820	5				ddre	ess:								1						1		l	
Project #:	10.1107.011.01	Project Owner	Qu	ant un	Cel	[035	'nζ		ity:												1	}					1
Project Name:	Artesia Toaltery 1	TO Bayer	13	Ira	15.4	1	.,.		tato	<u>: _</u> .		Zip:					,										
Project Location	201407.08.0	l /							hon	e#:								1					1		1		
Sampler Name:	mies 5 600 Grad							F	ax#	:										}			1				
FOR LAB USE ONLY	<i>y</i>			Ī].		MA	TRI)	(PF	ESE	RV.	S	AWPL	ING		Į.			{	1							
			(C)OMP	RS	ATER 1	בן ו				1 1						CLLoride											
Lab I.D.	Sample I.I).	8	# CONTAINERS	GROUNDWATER	SOIL		SLUDGE	CR.	COOL	ER:					Total C							İ				
H 100990			(G)RAB	# 00	080	SOIL	님	SLU	Sign	SE	OTHER	D.	ATE	TIN	re	15											
1 . 1	5.1 1'		4		5	م				امرا		5/4	2011	10:41	OA	من								7	h de name	P42	
Z,	5 · 1 z.*		5		v	v				Y_				1044		V								1			
3	5-14'		G		<u>, </u>				L	4		5/9	12011	11:0	Y A	V											
u u	5-1-6"		G		r	V.	<u> </u>			10				12:4													
5	5 · 1 z · 5 · 1 · 6 · 6 · 6 · 6 · 6 · 6 · 6 · 6 · 6		a			V.				~		5/4	ZOIL	12:5	SP	1.			1		1.						
							ļ		-∦									ļ	ļ	<u> </u>		ļ					
				-			ļ	-		-								ļ	ļ	ļ		ļ					
				-			-]_{.	-	1				}						 	<u> </u>	 		<u> </u>	 		
						- -	<u> </u>			-				<u> </u>						 		 	ļ	ļ			
PLEASE NOTE: Liability and	Damages Cardinal's liability and client	's exclusive remedy for a	v clau	n Busina	whelh	er baso	d in co	ntract or	lort, she	all be for	rated to	u the ai	moust pa	id by the ut	ent for	the				<u> </u>		<u> </u>		<u> </u>	<u>l.,1</u>]	
analysus All claims including	those for negligence and any other cau dinal be liable for incidental or consequi	ise whatsoever shall be d	eemec	wa.ved	unless	made :	n wate	ig and re	ceived	by Care	fnal w	ithin 30	gays after	er complete	on of th	e applicat	le										
atfiliates or successors arising	out of or related to the performance of	services hereunder by C	irdinal	(brener	ess of	wielher	such e	la'm is b	ased up	on any	of (he	ahove	stated re	Phone	Pervis	e	□ Ye		No	10 -1-11		70					
Relinquished By	_	Date: \$/13/2011	/	ceive	ים ארן	y: ∤ ′		1	, ,		Α	æ.		Fax R	esult	t:	☐ Ye		No		Phone Fax #:	#:					
Relinquished By	drold	Time:		M	(A	1	a.	M	Ll	1	\Box			REMA	RKS	i:											
Relinquished By	://	Date:	Re	ceive	od B	у:		<u>,</u>						ſ		1.	1	111									
	1	Time:							,						1	£13		F7=;									
Delivered By:	(Circle One)				- 0	أمما	Into	iditio: ct	1	CHI	CK!	ED B als)	Υ:			B5,	131	111									
Sampler - UPS	· Bus - Other:		6	e	/ []	Ye.		Yes No		9	女	ED B			^	V		•				_					

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



June 04, 2011

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARTESIA BATTERY 1 TO BATTERY 3 TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 06/02/11 11:45.

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.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

Received:

06/02/2011

Reported: Project Name:

06/04/2011

ARTESIA BATTERY 1 TO BATTERY 3 TRA

Project Number:

701407.011.01

Sampling Date:

Sampling Type:

05/26/2011

Sampling Condition:

** (See Notes)

Sample Received By:

Jodi Henson

Project Location:

35-T17S-R28E

Sample ID: S - 1 10' (H101135-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12200	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 1 12' (H	101135-02)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12600	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 1 14' (H:	101135-03)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9800	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 1 16' (H:	101135-04)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3600	16.0	06/03/2011	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE Liability and Damages. Cardina's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidianes, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratones.

Celeg D. Keine



TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Analyzed By: HM

Received:

06/02/2011

Sampling Date:

05/26/2011

Reported:

Sampling Type:

Soil

06/04/2011 ARTESIA BATTERY 1 TO BATTERY 3 TRA

Sampling Condition:

** (See Notes)

Project Name: Project Number:

701407.011.01

Sample Received By:

Jodi Henson

Project Location:

35-T17S-R28E

Sample ID: S - 1 18' (H101135-05)

•	-	-
Chloride, SM4500Cl-B		mg/kg

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 1 20' (H1	01135-06)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1250	16.0	06/03/2011	ND	416	104	400	3.77	•
Sample ID: S - 1 24' (H1	.01135-07)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM			····		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 1 26' (H1	.01135-08)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 1 28' (H1	.01135-09)								
Chloride, SM4500CI-B	mg	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	06/03/2011	· ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE. Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount, paid by client for analyses. All claims, including those for negligence and any other cause whitsoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Cleint, its subscribed above. This reproduced except in full with written approval of Cardinal laboratories.

Celey & Kune



TALON LPE MIKE STUBBLEFIELD 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

06/02/2011

Sampling Date:

05/26/2011

Reported:

06/04/2011

272

16.0

Sampling Type:

Soil

Project Name:

ARTESIA BATTERY 1 TO BATTERY 3 TRA

Sampling Condition:

** (See Notes)

Project Number:

701407.011.01

Project Location:

35-T17S-R28E

Sample Received By:

Jodi Henson

Sample ID: S - 1 30' (H101135-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/03/2011	ND	416	104	400	3.77	
Sample ID: S - 2 10' (H1	101135-11)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM			<u> </u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/03/2011	ПD	416	104	400	3.77	
Sample ID: S - 2 12' (H1	101135-12)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

ND

416

104

400

3.77

06/03/2011

Cardinal Laboratories

Chloride

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever is shall be deemed waved unless made in writing and receptually did within thirty (30) days after completion of the applicable service. In no evert shall be dated be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laborationes.

Celey D. Keene



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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

Celey D. Keine

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 6 of 7

101 Eact Warland, Hobbs, Nik 88240 (575) 393-2326 FAX (575) 393-2470

Company Moind	: Jala	DILF)					1		. [⁵⁰][]	M. Ter						JB,	NAL	YSIS	RE	QUE	ST		- 	
LLOISOF MEHINDS	98.5	-						- N). <i>li</i> :		·			T											
Address: 40	18 W. L	Texas	٠,					Co	mpan	ر بريد: پر	alon	1LPE		ĺ		İ]		}	
City: arte	via)		State://///	Zip:	\$3°	40		Att					`	$\sqrt{}$											
Phone #: 575	5.746	8763	Fax II: 575	14	6.8	1905		Ad	dress	:			<u>.</u>	2					}		İ				
Project 7:			Project Owne	1: W	iai	tion	1	Cit	y:				100	1		1			l			Ì			
Project Mame:	liteour	i Barti	tily / 10	<u>. تَ</u> رَ	_			Sia	1:0:		Zin:			2		}									
Project Location	Attacks State: N/M Zip: \$321 Attacks State: N/M Zip: \$321 Oct 1. 575. 746 8763 Fax 11: 575. 746 89 Oct 1. Constion: 35 773 88 E Office (Location: 36 E) Office (L				Ph	one #:					3		}					_							
Sampler (lame:(Mike	Steel	rblefler	A.				Fat					0			1									
FOR LAD USE ONLY			U		<u> </u>	NEAT	RIX_		PRES	RV	SAMPL	ING	-	4		l									
Lub I.D.	\$35	amogales II.I	1 0.	RAB OR (C)OMF	CONTAINERS	WASTEWATER SOIL	UDGE	отнек.	ACID/3ASE: ICE / COOL	OTHER			1.4.2	Mach											
H101135	<i>a</i>	. 55 1		12	it G	<u> </u>	<u> </u>	5	취임		DATE	TIME	-							D-16		ļ			
- 1	->-/-						-	$\left\ \cdot \right\ $		-	5.26.11	1:44,			- -			\dashv				 			-
	\				-		_		+		3 - <u>26 - 77</u> 6 - 57 - 11	1:50p	مريداً.	_								 			
u U	2.1										5.06.71	3:056		7		_ -		-					 	ļ	
	5.				_ _						5. He. 11	3.120				-	_					·			
6	5.1										5.26.11	3:180	1,-	기											
	5-1								- 200		9-21-11	3:18p	تمير -	4											
7	5-1	24'				1			1		5.26.11	3:327	\ <u></u>	-											
	5-1			/	_						5211	3:52	-			_ _	_					<u></u>			
3	51		Per manhanan anggan ku kur	<u> </u>	Vielon Leb	Jour Da Fred III	nun't ael	05 100	الم والألامان	<u> .</u>	5.76.11	1:130	i	<u> </u>	_					<u>l</u>			J		<u></u>
analyses All claims including	y those for negligene	e and any other car	use e hatsoever shall be :	w bompal	alved unic	es made in w	າໄທນູ ລຸກປ	d receiv	ed by Car					ksable											
alillaces or successors mish	n out of or related to			nichal, te	Handlers o	of whether suc							ac		Yes	□ No	- 10	ld'I Ph							
kemensuea by	r:		10/2/11	1	di		len	Li	In.	·		Fax Resu REMARK	lt:		Yes	CI No		de'l Fa							
Relinquished By			Døte:	TO CO	eived	By:																			
Sampler - UPS	· Sus - Oth	ier:	2	7.5	2	Sample C Cool In Yes	ac) Yes	3	(#			21.21.74		s. =										
† Cardinal d	cannot acce	of verbal of	nanges. Pleaso	ะ ร้อม พ	mtten	change	S 63 S	505-	393-24 <u>-</u>	76 Z	6														Page 6

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Warland, Hobbs, NW 88240 45761 393,2726 FAY (575) 393,2726

Company Hame	(575) 393-2326 FAI ::: Jakon/L	P. 25	-] <u>-</u> . ·		(7)	(M.C710)	* ,	 -				ANA	LYS	IS RI	EQUI	37	 .			_
Broings Wanaga	E:							P.0	3. <i>I</i> I:	-		**************************************			T	1		1	7		1		7		-{
Address: 4/		السين						Co	mpar	ту: (Talon	ILFE													
City: Artes	in	State: N/77	Zip	: 88	2/0			Att				,] ,								.				
Phone # 57:	5-746-8768	Fax II: 575	.75	16:-	84	05	-	Ado	dress	5:			7	3											
Project :::		Project Owner	:0	ua.	277	ZM.	ζ	City	y:					الأ				İ				1			
Project Mame: A	Artesia Bal. 135 - Tir. Miko Stu.	Ex 21 / 103	3		ZingangaT.		-	Sta			Zip:		1.	3											
Project Location	35 - T/7.	5-R 23E						Pho	one il	:			1	3											
Sampler Name:(Mike Stu	phleliel	2					f-a::					1	7	-										
FOR LAB USE ONLY	Takan fi fi fi fi fi an maddh i sinaan i		A 8		132-2-22	WA TR	iχ		PRES	CRV	SAMP	ING	17	7				1		1				1	
Lab I.D. H101135 10 11 17	Sample 1. \$ -1 30' \$ 3 10' \$' \$ 12'	D.	(G) (G) RAB OR (C) OMP.	# CONTAINERS	WASTEWATER	108 / / / / / / / / / / / / / / / / / / /	SLUDGE	OTHER	ACID/BASE	OTHER:	5.261 5.2611	тме (4.25р 2:00р 2:00р													
<u> </u>					- -	<u></u>	-	_ -		_			<u> </u>	ļ	<u> </u>		-l	<u> </u>	ļ	ļ	ļ	ļ	<u> </u>		_
native: All claus: including service in no event chall can expended to the property of the confidence of the property of the property of the confidence of t	(Circle One)	nuse wholcower shall be duested all and year, multiple general personal per	Rec	enved to Imitation equiviles eives	nters man, business a of whether N Ey: I By: Samilar Cool	ole Co	ndiile	DB OB	cd by Cr se, or los tipon an	EGIC	within 30 days, allo offic incurred by e above stated pro-	er completion of th client, its subsidia	ne applica mes, se Suita:	J □ Ye □ Ye	s □ s □	No No	Add'i Add'i	Phone Fax #:	i	1					
† Cardinat c	annot accept verbal c	hanges. Piease	fax v	vritte	n cha	กฎอย	to 5	05-3	9B-2	V 276				5	- 717,144						******			age	'
,	,						_		件	Z	6													aye	<u>. `</u>