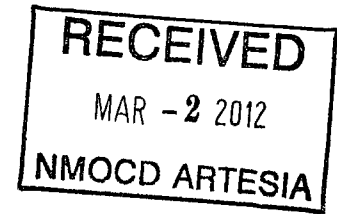




February 29, 2012

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



Subject: **Remediation and Closure Report**  
Quantum Resources Management, LLC  
Artesia Battery 1 to Battery 3 Transfer Line Release  
Artesia Unit No. 22  
API # 30-015-01747 – 2RP-775

AMARILLO  
921 North Bivins  
Amarillo, Texas 79107  
Phone 806.467.0607  
Fax 806.467.0622

ARTESIA  
408 West Texas Ave.  
Artesia, New Mexico 88210  
Phone 575.746.8768  
Fax 575.746.8905

AUSTIN  
911 West Anderson Lane  
Suite 202  
Austin, Texas 78757  
Phone 512.989.3428  
Fax 512.989.3487

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

MIDLAND  
2901 State Hwy 349  
Midland, Texas 79706  
Phone 432.522.2133  
Fax 432.522.2180

SAN ANTONIO  
11 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

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. The results of our soil assessment, completed remediation activities and closure request are submitted herein.

#### 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 underlain by sand stone and hard caliches. The New Mexico State Engineer web site indicates the nearest ground water data to be in S35-T18S-R28E. The ground water in Section 35 is reported to be 65' 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:

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

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

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. The visibly impacted soil 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.

## **Remedial Actions**

On January 13, 2012 Talon personnel mobilized to the site to begin excavation of the chloride impacted area. The impacted soil within the area of the release was removed to an average depth of 7-feet deep and transported to a NMOCD approved solid waste disposal facility, Lea Land, LLC pursuant to the work plan. The excavated area was left open until approval for installation of a 20 Mil liner was obtained from NMOCD.

Multiple sampling and field testing events for chlorides using field titration methods were conducted during the excavation process, per NMOCD requirements. The excavation was expanded to include the lease road, which was excavated to a depth of 7-feet deep, a 20 mil liner was installed and backfilled to grade. The overspray area, west of the lease road, was excavated to a depth of 2.5 feet deep and backfilled to grade using new material from Lea Land, LLC and contoured to match the surrounding terrain.

On January 19, 2012 Talon personnel mobilized to the site to begin closure soil sampling activities on the bottom and sidewalls of the excavations per NMOCD requirements. Grab soil samples were collected and submitted for laboratory analysis.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for Chlorides using method SM4500Cl-B, TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The complete laboratory report is attached as Appendix II.

## **Analytical Results**

Analytical results received from Cardinal Laboratories are summarized below:

January 19, 2012

<u>Sample</u>	<u>Chlorides</u>	<u>BTEX</u>	<u>TPH</u>
S-1, North side wall	32 mg/kg	<0.150 mg/kg	<10 mg/kg
S-2, East side wall	24,800	<0.150	<10
S-3, South side wall	656	<0.150	<10
S-4, West side wall	48	<0.150	<10
S-5, Bottom excavation 7'	7,680	<0.150	<10

<u>Sample</u>	<u>Chlorides</u>	<u>BTEX</u>	<u>TPH</u>
S-6, North side wall overspray	80	<0.150	<10
S-7, East side wall overspray	416	--	--
S-8, South side wall overspray	1,230	--	--
S-9, West side wall overspray	2,040	--	--
S-10, Bottom overspray 2.5'	448	<0.150	<10

--Analyte not tested

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 100 mg/kg.

On February 1, 2012 the NMOCD granted approval for backfilling the excavated area to 4-feet deep using new material backhauled from Lea Land, LLC then install a 20 Mil liner into the bottom of the excavation. The excavated area was subsequently backfilled to grade and contoured to match the surrounding location.

### **Summary and Conclusion**

- Groundwater in the project vicinity is greater than 50-feet below land surface per the New Mexico State Engineer Database.
- The impacted soil from the initial release area and lease road was excavated to approximately 7-feet deep. The excavated soil was transported to Lea Land, LLC disposal facility.
- The excavated area was backfilled to 4-feet deep, a 20 Mil liner was installed into the bottom of the excavated area at 4-feet and backfilled to grade using new material from Lea Land, LLC.
- The overspray area to the west of the lease road was excavated to a depth of 2.5 feet deep. The excavated soil was transported to Lea Land, LLC disposal facility.
- The overspray area was backfilled to grade using new material from Lea Land, LLC and contoured to match existing terrain.
- Based on the depth to groundwater and the remedial actions carried out, it is unlikely that the impacts identified from this release will pose a threat to groundwater.

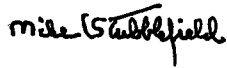
## Closure

Therefore, on behalf of Quantum Resources Management, LLC, we respectfully request that no further actions be required and that closure with respect to this release be granted.

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

Respectfully submitted,

TALON/LPE

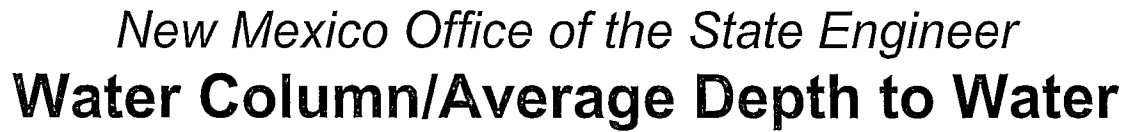
A handwritten signature in black ink that reads "Mike Stubblefield". The signature is written in a cursive, slightly slanted style.

Mike Stubblefield  
Project Manager

A handwritten signature in black ink that reads "David J. Adkins". The signature is written in a cursive, slightly slanted style.

David J. Adkins  
District Manager

**APPENDIX I**  
**GROUNDWATER DATA**



(In feet)

Maximum Depth: 65 feet

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

**APPENDIX II**  
**LABORATORY RESULTS**



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

January 30, 2012

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARTESIA NO. 22

Enclosed are the results of analyses for samples received by the laboratory on 01/23/12 16:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-1 NORTHSIDE WALL (H200164-01)**

BTEX 8021B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2012	ND	1.83	91.4	2.00	5.44	
Toluene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.68	
Ethylbenzene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.73	
Total Xylenes*	<0.150	0.150	01/28/2012	ND	6.07	101	6.00	5.61	

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 64.4-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/26/2012	ND	448	112	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835	
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70	

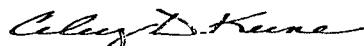
Surrogate: 1-Chlorooctane 93.3 % 55.5-154

Surrogate: 1-Chlorooctadecane 124 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 01/23/2012  
 Reported: 01/30/2012  
 Project Name: ARTESIA NO. 22  
 Project Number: 701407.010.01  
 Project Location: SEC. 35 - T17S - R28E

 Sampling Date: 01/19/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-2 EASTSIDE WALL (H200164-02)**

BTEX 8021B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2012	ND	1.83	91.4	2.00	5.44	
Toluene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.68	
Ethylbenzene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.73	
Total Xylenes*	<0.150	0.150	01/28/2012	ND	6.07	101	6.00	5.61	

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 64 4-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24800	16.0	01/26/2012	ND	448	112	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835	
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70	

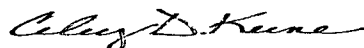
Surrogate: 1-Chlorooctane 86 2 % 55.5-154

Surrogate: 1-Chlorooctadecane 115 % 57 6-158

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-3 SOUTHSIDE WALL (H200164-03)**

BTEX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2012	ND	1.83	91.4	2.00	5.44		
Toluene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.68		
Ethylbenzene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.73		
Total Xylenes*	<0.150	0.150	01/28/2012	ND	6.07	101	6.00	5.61		

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 64 4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	01/26/2012	ND	448	112	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835		
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70		

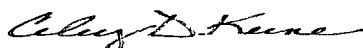
Surrogate: 1-Chlorooctane 100 % 55 5-154

Surrogate: 1-Chlorooctadecane 133 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-4 WESTSIDE WALL (H200164-04)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2012	ND	1.83	91.4	2.00	5.44		
Toluene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.68		
Ethylbenzene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.73		
Total Xylenes*	<0.150	0.150	01/28/2012	ND	6.07	101	6.00	5.61		

Surrogate. 4-Bromofluorobenzene (PII) 109 % 64 4-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/26/2012	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835		
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70		

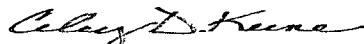
Surrogate. 1-Chlorooctane 69 4 % 55 5-154

Surrogate. 1-Chlorooctadecane 85 2 % 57 6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-5 BOTTOM 7' BGS (H200164-05)**

BTEX 8021B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2012	ND	1.83	91.4	2.00	5.44	
Toluene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.68	
Ethylbenzene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.73	
Total Xylenes*	<0.150	0.150	01/28/2012	ND	6.07	101	6.00	5.61	

Surrogate. 4-Bromofluorobenzene (PIL) 110 % 64 4-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7680	16.0	01/26/2012	ND	448	112	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835	
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70	

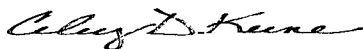
Surrogate. 1-Chlorooctane 103 % 55.5-154

Surrogate. 1-Chlorooctadecane 138 % 57 6-158

**Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-6 NORTHSIDE WALL (H200164-06)**

BTX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2012	ND	1.83	91.4	2.00	5.44	
Toluene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.68	
Ethylbenzene*	<0.050	0.050	01/28/2012	ND	1.94	97.1	2.00	5.73	
Total Xylenes*	<0.150	0.150	01/28/2012	ND	6.07	101	6.00	5.61	

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 64 4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/26/2012	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835	
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70	

Surrogate: 1-Chlorooctane 105 % 55.5-154

Surrogate: 1-Chlorooctadecane 143 % 57.6-158

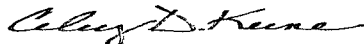
**Sample ID: S-7 EASTSIDE WALL (H200164-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	01/26/2012	ND	448	112	400	0.00	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-8 SOUTHSIDE WALL (H200164-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1230	16.0	01/26/2012	ND	448	112	400	0.00		

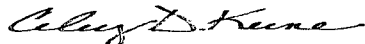
**Sample ID: S-9 WESTSIDE WALL (H200164-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2040	16.0	01/26/2012	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/23/2012  
Reported: 01/30/2012  
Project Name: ARTESIA NO. 22  
Project Number: 701407.010.01  
Project Location: SEC. 35 - T17S - R28E

Sampling Date: 01/19/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-10 BOTTOM 2.5' BGS (H200164-10)**

BTEX 8021B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2012	ND	1.94	96.9	2.00	6.70	
Toluene*	<0.050	0.050	01/30/2012	ND	2.07	104	2.00	6.87	
Ethylbenzene*	<0.050	0.050	01/30/2012	ND	2.07	103	2.00	6.68	
Total Xylenes*	<0.150	0.150	01/30/2012	ND	6.46	108	6.00	6.43	

Surrogate 4-Bromofluorobenzene (PIL) 108 % 64 4-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	01/26/2012	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835	
DRO >C10-C28	<10.0	10.0	01/26/2012	ND	225	113	200	6.70	

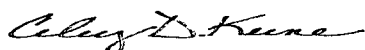
Surrogate: 1-Chlorooctane 104 % 55.5-154

Surrogate: 1-Chlorooctadecane 141 % 57.6-158

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Celey D. Keene, Lab Director/Quality Manager



### Notes and Definitions

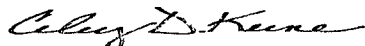
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

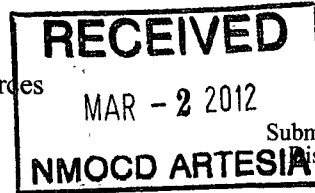
101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

[illegible]

**FINAL C-141**

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



Form C-141  
Revised October 10, 2003  
Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## 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

Surface Owner	Mineral Owner	Lease No. API # 30-015-01747 2RP-775
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### LOCATION OF RELEASE

Unit Letter K	Section 35	Township 17S	Range 28E	Feet from the 2187'	North/South Line FSL	Feet from the 2310'	East/West Line FWL	County EDDY
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Latitude 32.79069 N Longitude -104.14837 W

### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 10 bbls	Volume Recovered -0-
Source of Release Water Transfer Line	Date and Hour of Occurrence 4/29/11 2:00 pm	Date and Hour of Discovery same
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD / Mike Bratcher	
By Whom? Garrett Newton	Date and Hour 4/29/11 2:15 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	


If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* The water transfer line coming from the Artesia Battery No. 1 to the Artesia Battery No. 3 was found to be leaking. The line was shut in, repaired, analytical testing was completed and the impacted soil was transported to Lea Land, LLC for disposal.

Describe Area Affected and Cleanup Action Taken.\*

Talon/LPE was contracted for the correction of this release. The impacted area from this release was excavated to a depth of 7-feet deep. A 20 mil liner was installed into the bottom of the excavation. The excavation was backfilled to grade using new material from Lea Land, LLC and contoured to match the surrounding location.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Garrett Newton		Approved by District Supervisor:	
Title: Field Supervisor		Approval Date:	Expiration Date:
E-mail Address: gnewton@pvtnetworks.net		Conditions of Approval:	
Date: 2/21/2012 Phone: 575-513-0230		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary