Administrative/Environmental Order



AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



App Number: pLWJ1011030515

1RP - 2482

ENERGEN RESOURCES CORPORATION

7/22/2016



May 7, 2010

Attn: Larry Johnson Oil Conservation Division 1625 N. French Drive Hobbs, NM 88240

RECEIVED

MAY 10 2010 HOBBSOCD

RE: West Lovington Strawn Unit #11 UL B; SEC 22; T-15-S; R-35-E; 760' FNL & 2090 FEL Lea County, NM

Dear Mr. Johnson,

On November 10, 2009 Energen Resources experienced a produced water leak of approximately 30 barrels on the West Lovington Strawn Unit #11 well location. A ¼" steel plug failed on the transfer pump causing the leak. Although this well is PA'ed the battery facility is still in place and a salt water transfer pump was being utilized as a booster to pump produced water to our SWD facility on the Bear lease.

Verbal notice was given the same day; the initial C-141 was filed with the Hobbs Division office on December 4, 2009. On November 13, 2009 Sweatt Construction began excavation of the affected area. On November 17, 2009 Energen Resources contracted Tetra Tech in Midland to collect and analyze samples within the excavated area (sample results included). Chloride levels above regulatory limits were detected in all samples and additional excavation was undertaken. On December 11, 2009 I conducted another round of sampling within the excavated area, elevated chloride levels were again noted in 4 of the 5 sampling sites. I sampled one additional area not sampled by Tetra Tech in the original batch. Additionally on the same day I pulled a water sample from the windmill that is down gradient or North of the spill location for analysis (included), good water no, contamination from production operations in the area.

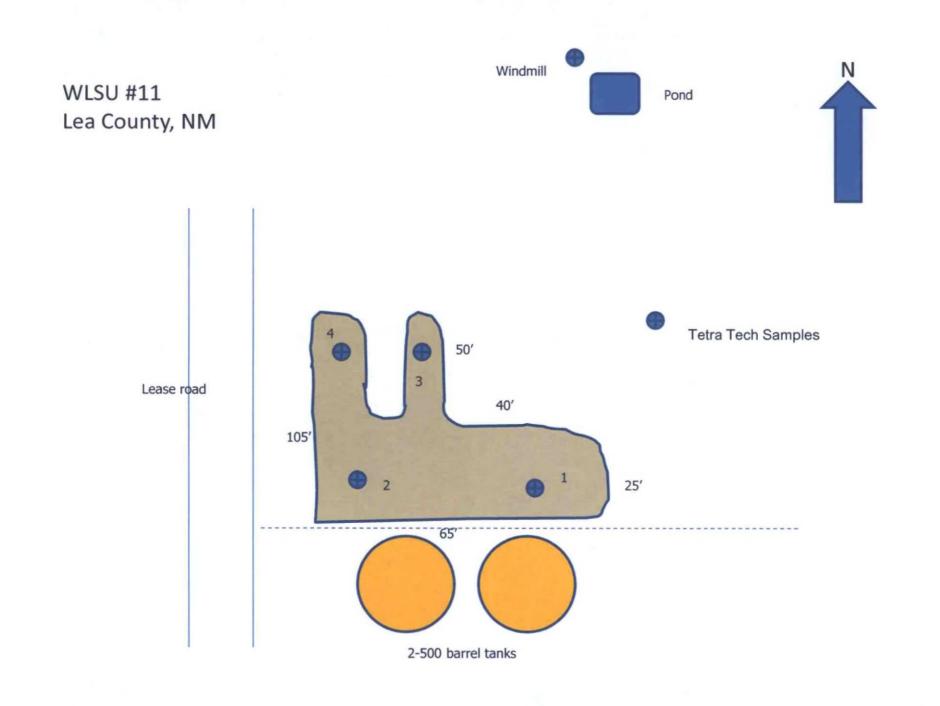
I again sampled the area on March 2, 2010 at that time only one of the samples contained chlorides in the soil a slightly higher than regulatory limits (results attached). The remaining samples are within regulatory limits for chloride levels in the soil.

Energen respectfully submits the following plan in order to submit the final C-141 for OCD approval and closure. Based on sampling of the excavation Energen feels that soil levels have been adequately delineated as to chloride concentration. We do not feel at this time that any further chloride contamination can or will be experienced associated with the spill of 11-10-09.

We therefore would request installation of an impermeable clay layer in the bottom of the excavation of approximately 12" depth, fill the remaining hole with caliche and install 12-18 inches of topsoil; or to a level at least as deep as the surrounding undisturbed topography.

Thank you for consideration of Energen's request and I look forward to visiting with you about any further concerns that may need to addressed concerning this matter. Sincerely,

Andrew Cobb Senior Safety & Environmental Specialist Energen Resources Corp.



WLSU 11 Excavation Tetra Tech Samples





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

November 24, 2009

Rex Smith Energen Resources Corporation 3300 North A St., Bldg. 4, Ste. 100 Midland, TX 79705

Re: Soil Samples

Enclosed are the results of analyses for sample number H18788, received by the laboratory on 11/23/09 at 4:40 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

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

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

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

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

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report. 3 (includes Chain of Custody)

Sincerely,

Celey D.) Keene Laboratory Director

This report conforms with NELAP requirements.



ANALYTICAL RESULTS FOR ENERGEN RESOURCES CORPORATION ATTN: REX SMITH 3300 N. A ST., BLDG. 4, STE 100 MIDLAND, TX 79705

Receiving Date: 11/23/09 Reporting Date: 11/24/09 Project Number: NOT GIVEN Project Name: NOT GIVEN Project Location: NOT GIVEN Analysis Date: 11/24/09 Sampling Date: NOT GIVEN Sample Type: SOIL Sample Condition: INTACT Sample Received By: ML Analyzed By: HM

		CI
LAB NUMBER	SAMPLE ID	(mg/kg)
H18788-1	#1	144
H18788-2	#2	608
H18788-3	#3	4,320
H18788-4	#4	240
Quality Control		500
Quality Control True Value QC		500
True Value QC	erence	500

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

11/24/09

Date

H18788 Energen

PLEASE NOTE: Llability 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 walved unless made in writing and received by Cardinal within thiny (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 services hersunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

WLSU #11 Spill; 12-2-09 Samples





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

December 3, 2009

Rex Smith Energen Resources Corporation 3300 North A St., Bldg. 4, Ste. 100 Midland, TX 79705

Re: WLSU #11

Enclosed are the results of analyses for sample number H18819, received by the laboratory on 12/02/09 at 4:50 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

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

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

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

Method EPA 552.2HaloMethod EPA 524.2TotaMethod EPA 524.2Regu

Haloacetic Acids (HAA-5) Total Trihalomethanes (TTHM) Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely

Celey D. Keene Laboratory Director

This report conforms with NELAP requirements.

4701000 101 East Marland, Hobbs, NM 88240 (575) 393-2326 Fax (575) 393-2476	Pageof	
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Project Manager: Red Spit 24	0	
City: In Ales A State: X Zip:	Attn: Ner Jon Fe	
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† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



ANALYTICAL RESULTS FOR ENERGEN RESOURCES ATTN: REX SMITH 3300 N. A ST. BLDG. 4, STE. 100 MIDLAND, TX 79705

Receiving Date: 12/02/09 Reporting Date: 12/03/09 Project Number: NOT GIVEN Project Name: W.L.S.U. BATTERY #11 Project Location: LEA COUNTY Analysis Date: 12/03/09 Sampling Date: NOT GIVEN Sample Type: SOIL Sample Condition: INTACT @ 14.5°C Sample Received By: ML Analyzed By: HM

LAB NUMBER	SAMPLE ID	CI (mg/kg)
H18819-1	2	96
H18819-2	3	160
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Diffe	rence	< 0.1
METHOD: Standard Me	thods	4500-CI'B

METHOD: Standard Methods Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

12/03/09

Date

H18819 Energen

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 writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

WLSU #11 Spill; 12-11-09 Samples





Martin Water Laboratories, Inc.

Analysts & Consultants since 1953 Bacterial & Chemical Analysis

TO: Mr. Andy Cobb 3300 N "A", Bldg 4, Suite 100 Midland, TX 79705

Lea, NM

Energen Resources

West Lovington #11

Laboratory No.:	1209-129
Date Received:	12-11-09
Results Reported:	12-21-09

SUBJECT: To determine the water soluble chloride levels of the submitted soil samples taken 12-11-09.

Source of sample & date taken:

#1. WLSU #1

COMPANY:

COUNTY:

LEASE:

- #2. WLSU #2
- #3. WLSU #3
- #4. WLSU #4
- #5. WLSU #5

METHOD: The submitted soil samples were dried, weighed, and placed in a specific volume of distilled water for a period of 18 hours with periodic agitation. The water-soluble chlorides were then determined on the sample filtrate.

	#1	#1		#2		#3	
DETERMINATION	Percent	Mg/kg	Percent	Mg/kg	Percent	Mg/kg	
Chloride, as Cl	0.0625	625	0.0398	398	0.1733	1,733	
	#	4	#4	5			
DETERMINATION	Percent	Mg/kg	Percent	Mg/kg			
Chloride, as Cl	0.0369	369	0.0028	28			

Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Greg Ogden, B.S.

Sundauce

P.O. BOX MIDLAND, TX	. 79702	Martin Water La	boratories, I	nc.		709 W. INDIANA MIDLAND, TEXAS 79701	
PHONE (432) 6	E (432) 683-4521 RESULT OF WATER ANALYSES				FAX (432) 682-8819		
	MARIA CIL		LABORATORY NO.			1209-126	
TO:	Mr. Andy Cobb	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				12-11-09	
3300 N	'A", Bldg 4, Suite 100, M	idland, 1X /9/05	RESULTS R	EPORTED_		12-11-09	
COMPANY	Energen			WI	LSU #11		
			LEASE		250 #11		
FIELD OR PO	DOL BLOCK SURVEY _		Lea			NM	
			Lou	STATE	E	14141	
	SAMPLE AND DATE TAKEN: Drinking water - taken 1	2-11-09 from windmil	I south of bat	terv			
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NO. 4							
REMARKS:							
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Specific Gravi	ty at 60 ° F.	1.001	0				
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pH When Rece	eived	7.5					
Bicarbonate a	s HCO,	26	4				
Supersatura	tion as CaCO,						
Undersatura	tion as CaCO,						
Total Hardnes	s as CaCO,	27					
Calcium as Ca	1	8					
Magnesium as	s Mg	1					
Sodium and/or	Potassium	1.					
Sulfate as SO,		3		300			
Chloride as Cl		3		300			
Iron as Fe		0.2	0	0.30			
Barium as Ba							
Turbidity, Elec	tric						
Color as Pt				1.000			
Total Solids, C		44	0	1,000			
Temperature *							
Carbon Dioxid							
Dissolved Oxy		0.	0				
Hydrogen Sulf		0.0					
Suspended Oi	ms/m at 77* F.	20.9	0				
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WLSU #11 Spill; 3-2-10 Samples





Martin Water Laboratories, Inc.

Analysts & Consultants since 1953 Bacterial & Chemical Analysis

TO: Mr. Andy Cobb 3300 N "A", Bldg 4, Suite 100 Midland, TX 79705

COMPANY: Energen Resources FIELD: Lovington LEASE: WLSU #11 MAR 1 6 2010

Laboratory No .:	310-126
Date Received:	3-2-10
Results Reported:	3-15-10

SUBJECT: To determine the water soluble salt levels of the submitted soil samples taken

Source of sample & date taken:

- #1. WLSU #11 sample #1.
- #2. WLSU #11 sample #2.
- #3. WLSU #11 sample #3.

METHOD: The submitted soil samples were dried, weighed, and placed in a specific volume of distilled water for a period of 18 hours with periodic agitation. The water-soluble chloride was then determined on the sample filtrate.

	#1	#2		
DETERMINATION	Percent	Mg/kg	Percent	Mg/kg
Chloride, as Cl	0.0284	284	0.0142	142
	#3			
DETERMINATION	Percent	Mg/kg		
Chloride, as Cl	0.0114	114		

Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Greg Ogden, B.S.

WWW #11