



Skelly A Battery (Skelly 226 – Gas Compressor A Battery)

WORK PLAN

API No. 30-015-29182

Release Date: June 3, 2014

Unit Letter A, Section 22, Township 17 South, Range 31 East

NMOCD Case #: 2R-2352

April 27, 2016

Prepared by:

Michael Burton, Environmental Operations Director

Environmental Department

Diversified Field Service, Inc.

206 W. Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

Mike Bratcher
Environmental Specialist
NM Oil Conservation District – Division 2
811 S. First St.
Artesia, NM 88210

**RE: Linn Energy – Skelly A Battery – Skelly #226– Remediation Work Plan
Linn Energy – Skelly A Battery – Gas Compressor A Battery**
UL/A, Section 22, T17S, R31E
API No. 30-015-29182
NMOCD Case #: 2R-2352

Mr. Bratcher,

Linn Energy (Linn) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located southwest of Maljamar, NM, in Eddy County. The spill resulted from a broken 3” polyline, releasing a total of 110 barrels of oil and 110 barrels of produced water, with 90 barrels of oil and 60 barrels of produced water recovered. An initial C-141 was submitted to the NMOCD on June 11, 2014 (Appendix I).

On June 14, 2014, a separate release occurred at the site. The spill resulted from a blown head casket on a compressor, releasing a total of 2 barrels of produced water and 2 barrels of oil, with 1 barrel of produced water and one barrel of oil recovered. An initial C-141 was submitted to the NMOCD on June 19, 2014 (Appendix II)

Site Assessment and Delineation

On September 25, 2014, DFSI personnel were on site to obtain samples within the leak area (Figure 1). Fifteen samples were obtained and field sampled for chloride levels, as well as BTEX (Appendix III). The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Field samples were submitted for analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation, resulting in decreasing chloride, TPH and BTEX concentrations to below regulatory limits at various depths (Appendix IV).

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer, there is no groundwater beneath this site. Therefore, no eminent danger of groundwater impact or threat to life is anticipated (Appendix V).

Conclusion

After careful review DFSI on behalf of Linn Energy would like to propose the following:

The areas around SP1, SP2, SP3, SP4 and SP5 will be excavated to a depth of 2' bgs. The areas around SP6, SP7, SP8 and SP9 will be excavated to a depth of 1' bgs. Due to safety concerns, the areas around SP10, SP11, SP12 and SP13 will be hand shoveled to 6" bgs. The areas around SP14 and SP15 will be scraped 6". All excavations will be backfilled with clean, imported soil to ground surface. The pasture area will be seeded with a BLM approved blend of native vegetation.

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,

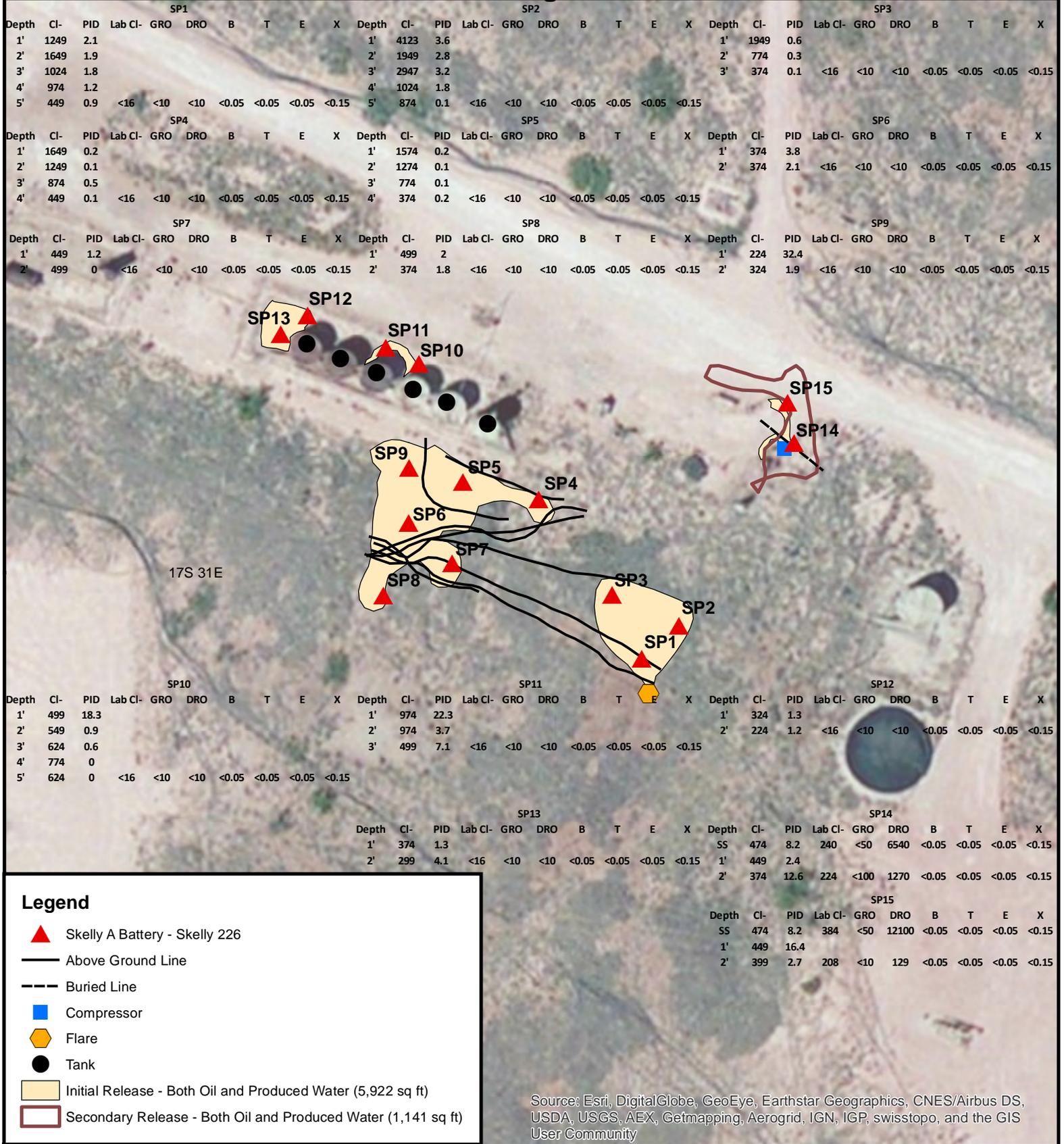


Michael Burton
Environmental Operations Director | Diversified Field Service, Inc.
206 West Snyder | Hobbs, NM 88240
Office: (575)964-8394 | Mobile: (575)390-5454
Fax: (575)964-8396 | Email: Mburton@diversifiedfsi.com

cc Shelly Tucker

Figure 1 – Site Map
Appendix I – Initial Release Initial C-141
Appendix II – Secondary Release Initial C-141
Appendix III – Site Photos
Appendix IV – Laboratory Analysis
Appendix V – Groundwater Study

Site Diagram



Legend

- ▲ Skelly A Battery - Skelly 226
- Above Ground Line
- - - Buried Line
- Compressor
- ◆ Flare
- Tank
- Initial Release - Both Oil and Produced Water (5,922 sq ft)
- Secondary Release - Both Oil and Produced Water (1,141 sq ft)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Linn
Skelly A Battery
UL/A, Sec. 22 T17S R31E
Eddy County, NM
API #: 30-015-29182
NMOCD Case #: 2R-2352

Mapped: 06/19/2014 LC
 Drafted by: L. Flores
 04/27/2016

012.5 50 75 100
 Feet

Appendix I

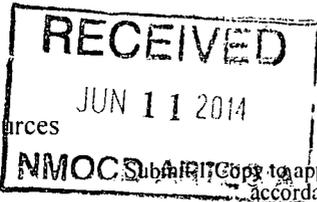
INITIAL RELEASE INITIAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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

Release Notification and Corrective Action

n HMP1417549415

OPERATOR

Initial Report Final Report

Name of Company: Linn Operating 269 324	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Skelly A Battery (Skelly 226)	Facility Type: Battery
Surface Owner: Federal	Mineral Owner:
API No.: (Closest well)3001529182	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	22	17S	31E	1217	North	1117	East	Eddy

Latitude: 32.8240028210473 Longitude: -103.852583004542

NATURE OF RELEASE

Type of Release: Produced Water / Oil	Volume of Release: 110 bbls / 110 bbls	Volume Recovered: 60 bbls / 90 bbls
Source of Release: 3" polyline	Date and Hour of Occurrence: 06/03/2014	Date and Hour of Discovery: 06/03/2014 0830
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jennifer Van Curen- BLM Mike Bratcher-NM OCD	
By Whom? Brian Wall	Date and Hour 06/10/2014 1030	
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.*: 3 inch poly line leading off of Free water knock out to water tank broke due to age/corrosion. Entire vessel emptied and new production continued to empty onto ground for the amount of time it took me to shut in the field (approx 1 hour)...upon arrival of the vac truck we began clean up immediately.

Describe Area Affected and Cleanup Action Taken.*: Area affected approximately 60' long x 3' wide, then went down into a ditch approximately 30' long x 3' wide.

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:	OIL CONSERVATION DIVISION	
Printed Name: Brian Wall	Approved by District Supervisor:	
Title: Construction Foreman II	Approval Date: 6/24/14	Expiration Date: NA
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/11/2014 Phone: 806-367-0645	Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	

* Attach Additional Sheets If Necessary

Remediation per OCD Rule & Guidelines, & like approval by BLM. **SUBMIT REMEDIATION PROPOSAL NO LATER THAN:**

7/24/14

2RP-2352

Appendix II

SECONDARY RELEASE INITIAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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

Form C-141
Revised October 10, 2003

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

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

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company: Linn Operating	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Skelly A Battery Compressor leak (Skelly 226)	Facility Type: Battery
Surface Owner: Federal	Mineral Owner:
	API No.: (Closest Well 3001529182)

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	22	17S	31E	1217	North	1117	East	Eddy

Latitude: 32.8240028210473 **Longitude:** -103.852583004542

NATURE OF RELEASE

Type of Release: Produced Water / Oil	Volume of Release: 2 bbls / 2 bbls	Volume Recovered: 1 bbl / 1 bbl
Source of Release: Head gasket on compressor	Date and Hour of Occurrence: 06/14/2014	Date and Hour of Discovery: 06/14/2014 10:30am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jennifer Van Curen- BLM	
By Whom? Brian Wall	Date and Hour 06/19/2014 0630	
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.*: Turned production into a tank that we had not produced into in a while at 10 AM after gauging up, went to check on a few wells, got a call from Tim with Zia Lact saying that he had just arrived on location and I had fluid leaking from my compressor. Back traced all lines and found that the production line running past my main production tank to the tank I had turned into is plugged, production back filled heater, and pushed over into my gas scrubber pot and into flare and gas sales line. as well as coming out of blown head gasket on the compressor housing itself.

Describe Area Affected and Cleanup Action Taken.* : Oil spray comes out from compressor in about a 10' radius half circle downwind from compressor, then winds down the road side in a 2' wide trail for about 25 feet. Very little could be picked up, since very little hit the ground, the majority of the clean up was inside the compressor skid.

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: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Brian Wall	Approved by District Supervisor:	
Title: Construction Foreman II	Approval Date:	Expiration Date:

E-mail Address: bwall@linnenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/19/2014 Phone: 806-367-0645		

* Attach Additional Sheets If Necessary

Appendix III

SITE PHOTOS



Skelly A Battery – Skelly 226

PHOTO PAGE



Site prior

9/17/2014



Utilizing hydrovac to collect samples 9/25/2014



Utilizing hydrovac to collect samples 9/25/2014



Utilizing hydrovac to collect samples 9/25/2014

Appendix IV

LABORATORY ANALYSIS

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

October 01, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: SKELLY A BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/25/14 16:23.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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.

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:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	09/25/2014	Sampling Date:	09/25/2014
Reported:	10/01/2014	Sampling Type:	Soil
Project Name:	SKELLY A BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: SP. 1 @ 5' (H402940-01)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 92.6 % 65.2-140
Surrogate: 1-Chlorooctadecane 96.5 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	09/25/2014	Sampling Date:	09/25/2014
Reported:	10/01/2014	Sampling Type:	Soil
Project Name:	SKELLY A BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: SP. 2 @ 6' (H402940-02)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 84.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.6 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 3 @ 3' (H402940-03)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 98.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 4 @ 4' (H402940-04)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358		
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579		
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52		
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95		
Total BTEX	<0.300	0.300	09/26/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92		

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	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 93.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.9 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 5 @ 4' (H402940-05)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 99.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 6 @ 2' (H402940-06)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358		
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579		
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52		
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95		
Total BTEX	<0.300	0.300	09/26/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92		

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	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 96.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 7 @ 2' (H402940-07)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358		
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579		
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52		
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95		
Total BTEX	<0.300	0.300	09/26/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92		

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	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 96.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	09/25/2014	Sampling Date:	09/25/2014
Reported:	10/01/2014	Sampling Type:	Soil
Project Name:	SKELLY A BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: SP. 8 @ 2' (H402940-08)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	400	100	400	3.92	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 93.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 9 @ 2' (H402940-09)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	432	108	400	3.77	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 93.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 10 @ 5' (H402940-10)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358		
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579		
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52		
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95		
Total BTEX	<0.300	0.300	09/26/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/26/2014	ND	432	108	400	3.77		

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	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 90.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.1 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	09/25/2014	Sampling Date:	09/25/2014
Reported:	10/01/2014	Sampling Type:	Soil
Project Name:	SKELLY A BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: SP. 11 @ 3' (H402940-11)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358	
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579	
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95	
Total BTEX	<0.300	0.300	09/26/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2014	ND	432	108	400	3.77	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 98.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 12 @ 2' (H402940-12)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/26/2014	ND	1.91	95.7	2.00	0.358		
Toluene*	<0.050	0.050	09/26/2014	ND	1.79	89.7	2.00	0.579		
Ethylbenzene*	<0.050	0.050	09/26/2014	ND	1.66	82.8	2.00	1.52		
Total Xylenes*	<0.150	0.150	09/26/2014	ND	4.91	81.8	6.00	1.95		
Total BTEX	<0.300	0.300	09/26/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/26/2014	ND	432	108	400	3.77		

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	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 89.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.9 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 13 @ 2' (H402940-13)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/29/2014	ND	1.88	94.0	2.00	7.85		
Toluene*	<0.050	0.050	09/29/2014	ND	1.79	89.4	2.00	9.27		
Ethylbenzene*	<0.050	0.050	09/29/2014	ND	1.66	83.2	2.00	8.60		
Total Xylenes*	<0.150	0.150	09/29/2014	ND	4.91	81.9	6.00	8.28		
Total BTEX	<0.300	0.300	09/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/26/2014	ND	432	108	400	3.77		

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	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	<10.0	10.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 87.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 94.5 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	09/25/2014	Sampling Date:	09/18/2014
Reported:	10/01/2014	Sampling Type:	Soil
Project Name:	SKELLY A BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: SP. 14 @ SURFACE (H402940-14)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/29/2014	ND	1.88	94.0	2.00	7.85	
Toluene*	<0.050	0.050	09/29/2014	ND	1.79	89.4	2.00	9.27	
Ethylbenzene*	<0.050	0.050	09/29/2014	ND	1.66	83.2	2.00	8.60	
Total Xylenes*	<0.150	0.150	09/29/2014	ND	4.91	81.9	6.00	8.28	
Total BTEX	<0.300	0.300	09/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/26/2014	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	6540	50.0	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 98.6 % 65.2-140
Surrogate: 1-Chlorooctadecane 297 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/18/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 14 @ 2' (H402940-15)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/29/2014	ND	1.88	94.0	2.00	7.85		
Toluene*	<0.050	0.050	09/29/2014	ND	1.79	89.4	2.00	9.27		
Ethylbenzene*	<0.050	0.050	09/29/2014	ND	1.66	83.2	2.00	8.60		
Total Xylenes*	<0.150	0.150	09/29/2014	ND	4.91	81.9	6.00	8.28		
Total BTEX	<0.300	0.300	09/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	09/26/2014	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<100	100	09/26/2014	ND	168	83.9	200	6.98		
DRO >C10-C28	1270	100	09/26/2014	ND	186	92.8	200	5.47		

Surrogate: 1-Chlorooctane 93.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 143 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/18/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 15 @ SURFACE (H402940-16)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/29/2014	ND	1.88	94.0	2.00	7.85		
Toluene*	<0.050	0.050	09/29/2014	ND	1.79	89.4	2.00	9.27		
Ethylbenzene*	<0.050	0.050	09/29/2014	ND	1.66	83.2	2.00	8.60		
Total Xylenes*	<0.150	0.150	09/29/2014	ND	4.91	81.9	6.00	8.28		
Total BTEX	<0.300	0.300	09/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	09/26/2014	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	<50.0	50.0	09/29/2014	ND	168	83.9	200	6.98			
DRO >C10-C28	12100	50.0	09/29/2014	ND	186	92.8	200	5.47			

Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 434 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 09/25/2014
 Reported: 10/01/2014
 Project Name: SKELLY A BATTERY
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/18/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP. 15 @ 2' (H402940-17)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/29/2014	ND	1.88	94.0	2.00	7.85	
Toluene*	<0.050	0.050	09/29/2014	ND	1.79	89.4	2.00	9.27	
Ethylbenzene*	<0.050	0.050	09/29/2014	ND	1.66	83.2	2.00	8.60	
Total Xylenes*	<0.150	0.150	09/29/2014	ND	4.91	81.9	6.00	8.28	
Total BTEX	<0.300	0.300	09/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	09/26/2014	ND	432	108	400	3.77	

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	09/26/2014	ND	168	83.9	200	6.98	
DRO >C10-C28	129	10.0	09/26/2014	ND	186	92.8	200	5.47	

Surrogate: 1-Chlorooctane 98.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

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 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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- 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



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

Company Name: <u>Linn Energy</u>		BILL TO				ANALYSIS REQUEST											
Project Manager: <u>Brian Wall</u>		P.O. #:															
Address:		Company: <u>Linn Energy</u>															
City:	State:	Zip:	Attn: <u>Brian Wall</u>														
Phone #:	Fax #:		Address:														
Project #:	Project Owner:		City:														
Project Name:		State:			Zip:												
Project Location: <u>Skelly A Battery</u>		Phone #:															
Sampler Name: <u>Michael Alva</u>		Fax #:															
FOR LAB USE ONLY																	
Lab I.D.	Sample I.D.	(G/RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER							SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL
<u>H4D2940</u>	<u>SP.105'</u>	<u>8</u>	<u>1</u>			X				X			<u>9/25/14</u>	<u>8:00</u>	X	X	X
	<u>SP.206'</u>	<u>8</u>	<u>1</u>			X				X				<u>8:30</u>			
	<u>SP.303'</u>	<u>8</u>	<u>1</u>			X				X				<u>9:00</u>			
	<u>SP.404'</u>	<u>8</u>	<u>1</u>			X				X				<u>9:30</u>			
	<u>SP.504'</u>	<u>8</u>	<u>1</u>			X				X				<u>10:00</u>			
	<u>SP.602'</u>	<u>8</u>	<u>1</u>			X				X				<u>10:30</u>			
	<u>SP.702'</u>	<u>8</u>	<u>1</u>			X				X				<u>11:00</u>			
	<u>SP.802'</u>	<u>8</u>	<u>1</u>			X				X				<u>11:30</u>			
	<u>SP.902'</u>	<u>8</u>	<u>1</u>			X				X				<u>12:00</u>			
	<u>SP.1005'</u>	<u>8</u>	<u>1</u>			X				X				<u>12:30</u>			

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 the client for the 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 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.

Relinquished By: <u>[Signature]</u>	Date: <u>9-25-14</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: <u>4:23</u>	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
Time:	Date:	Received By:	E-mail Results To:	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)	Ngladden@diversifiedfsi.com	
Sampler - UPS - Bus - Other:	<u>6.0°C</u>	<u>KP</u>	Rpons@diversifiedfsi.com	

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

#21

Appendix V

GROUNDWATER STUDY

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 14, 15, 16, 21,
22, 23, 26, 27,
28 **Township:** 17S **Range:** 31E