

1R - 425-87

WORKPLANS

Date:

4-17-12

L. Peter Galusky, Jr. Ph.D., P.G.

Texerra LLC

20055 Laredo Lane Monument, Colorado 80132

Tel: 719-339-6791 E-mail: lpg@texerra.com

April 17th, 2012

Mr. Edward Hansen

New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED

APR 25 2012

RE: Corrective Action Plan (CAP)

Rice Operating Company – Vacuum SWD System

Vacuum Jct N-28-1: UL/N, Sec. 28, T17S, R35E (formerly Vacuum Jct K-28-1)

NMOCD Case Number: 1R425-87

Oil Conservation Division

1220 S. St. Francis Drive

Santa Fe, NM 87505

Sent via Certified U.S. Mail w/ Return Receipt No. 7011 0110 0001 5863 4875

Mr. Hansen:

RICE Operating Company (ROC) has retained Texerra to address potential environmental concerns at the above-referenced site in the abandoned Vacuum Salt Water Disposal (SWD) system. This report summarizes work to date completed per the OCD-approved Investigation and Characterization Plan of May 2nd, 2011 for this site.

The location of the Vacuum Jct N-28-1 site is given in Figure 1. A summary of soil boring analyses from samples taken in June and July 2011 are given in Figure 2.

Residual soil chlorides are high in the at-source soil boring (SB-2) from the surface to a depth of 65 ft bgs. The depth to groundwater at this site is approximately 68 ft below ground surface (bgs). The lateral extent of residual soil chlorides was defined by SB-3 to the west, SB-8 to the north and SB-6 to the south where a three-point decline (with the lowest sample testing less than 250 mg/kg) was found in the lowest intervals sampled. The easterly extent was defined by SB-4, where chloride concentrations decreased from 4,000 mg/kg to 432 mg/kg at 65 ft bgs. SB-9, drilled east of SB-4, is encroaching upon an abandoned lease facility (Figure 3). Residual soil petroleum hydrocarbons were generally negligible in each of the soil bores. Petroleum hydrocarbons were therefore determined not to be of concern.

It should be noted that site is located within the immediate vicinity of oil field facilities having a long history with apparent surface spillage (Figures 4 to 9) and that the elevated levels of residual soil chlorides are likely due to activities not directly caused by ROC operations. Nevertheless, in order to protect groundwater quality from the potential migration of residual soil chlorides ROC proposes the following actions to serve as a Corrective Action Plan (CAP) for this project. *These measures will provide protection beyond the impacts directly caused by past operation of the Vacuum Jct N-28-1 junction box.*

Vacuum Jct N-28-1

ROC will:

Install a 20-mil Reinforced Sub-surface Infiltration Barrier and Restore the Ground Surface

- Excavate the area encompassed by the soil borings (48 by 96 ft as shown in Figure 10) to a depth of approximately 3 ft bgs (limited by the presence of hard rock). Due to the close proximity between this location and the ROC Vacuum N-28 vent location, the excavation and liner will encompass the affected areas of both former boxes.
- Install a 20-mil, reinforced poly liner over a 6 inch layer of clean blow sand and pad this with another 6 inch layer of the same (aerial view given in Figure 10).
- The excavation will then be backfilled with soil that chlorides measure less than 500 mg/kg and PID hydrocarbons measure less than 100 ppm. Excavated soil will be evaluated for use as backfill, and any soil requiring disposal will be properly disposed of at a NMOCD approved facility.
- Restore the ground surface to natural contours and seed with a blend of native vegetation mix.

Report Course and Results of Work to NMOCD

- Provide a brief report with photographs summarizing the course of these corrective actions to NMOCD following their completions with a request for remediation termination. Please note that we do not anticipate the need for, nor propose to, install any monitor wells as our proposed liner system will provide effective protection of groundwater from residual chlorides at this former ROC junction box. It is likely that any chlorides in groundwater above natural baseline levels are caused by historical sources up-gradient of and surrounding this former junction box. Historical aerial photos given in Figures 4 through 9 illustrate oil-field impacts of non-ROC facilities surrounding the location of this former box. This is particularly clear in the 1966 and 1949 historical aerial photos.

ROC is the service provider (agent) for the Vacuum SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

We appreciate your consideration of this Corrective Action Plan. Please do not hesitate to contact either Hack Conder of Rice Operating Company or myself if you have any questions or need additional information.

Sincerely,



L. Peter Galusky, Jr. Ph.D.

Copy: Rice Operating Company

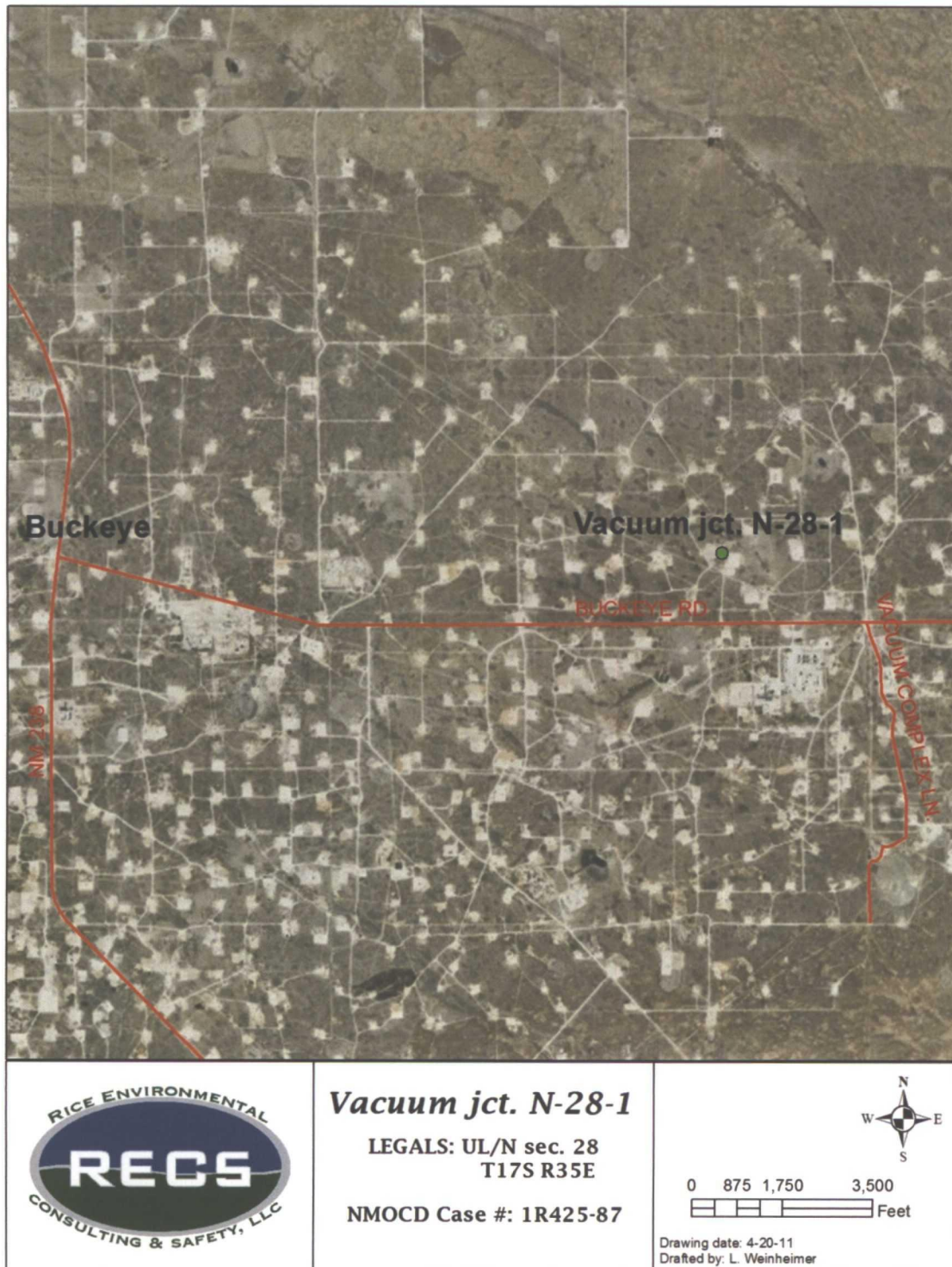
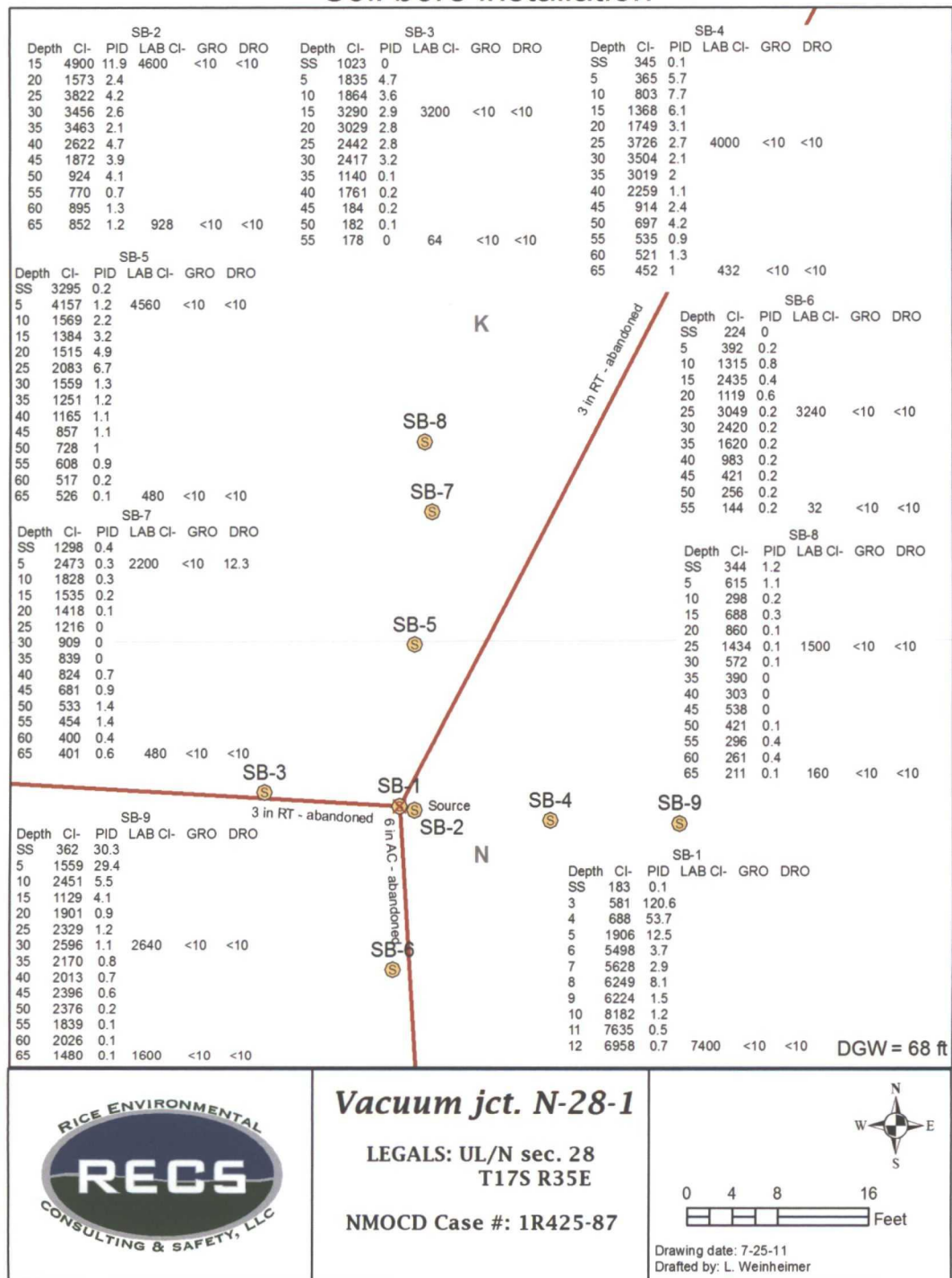


Figure 1 – Vacuum Jct N-28-1 location.

Soil bore installation



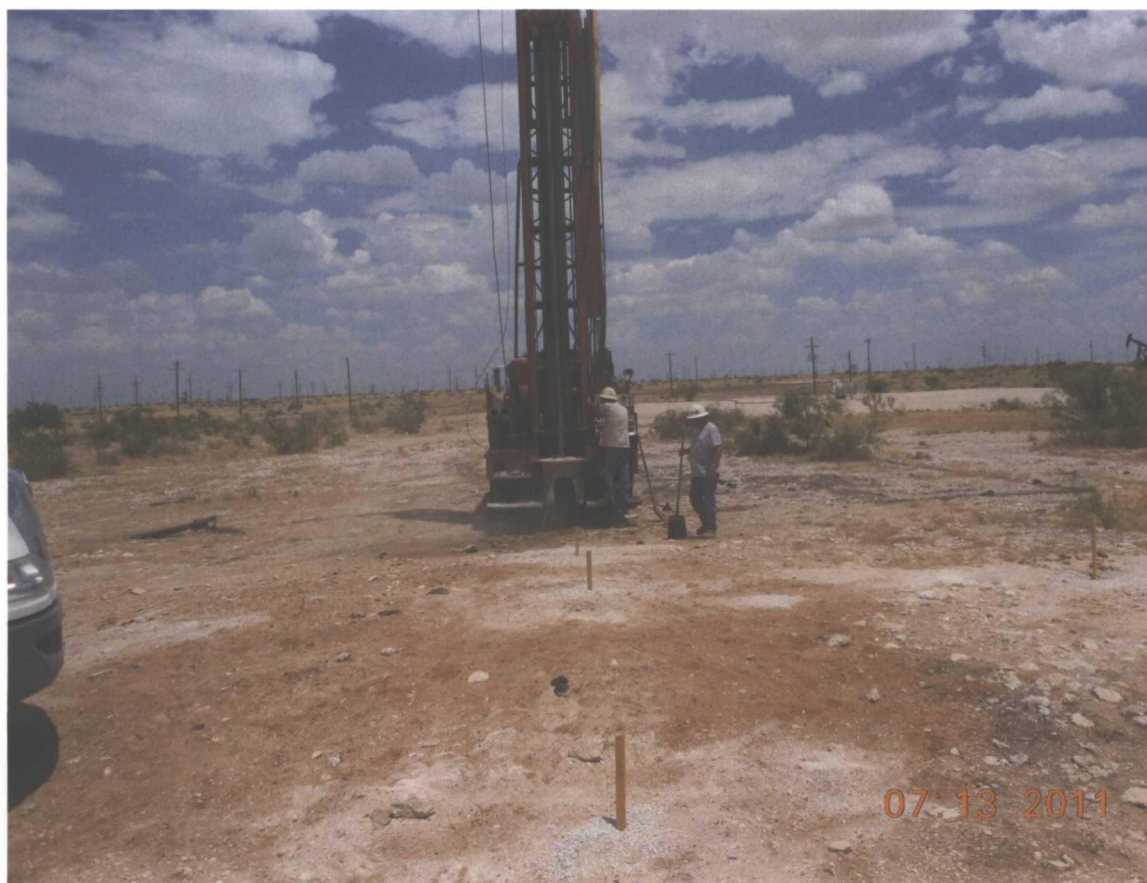


Figure 3 – Abandoned lease facility, next to SB-9.

2011

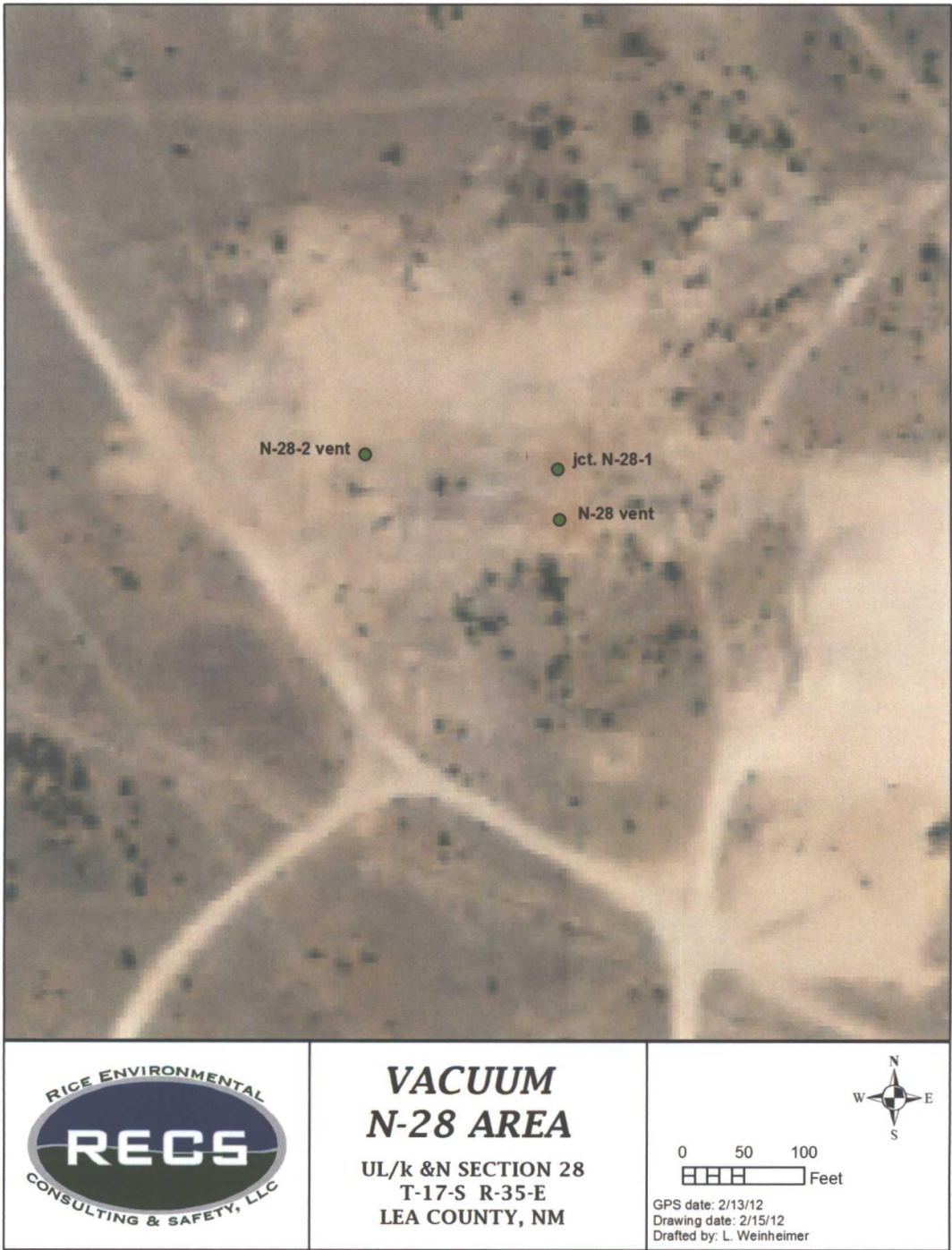


Figure 4 – Aerial of Vacuum Jct N-28-1 location in 2011.

2009

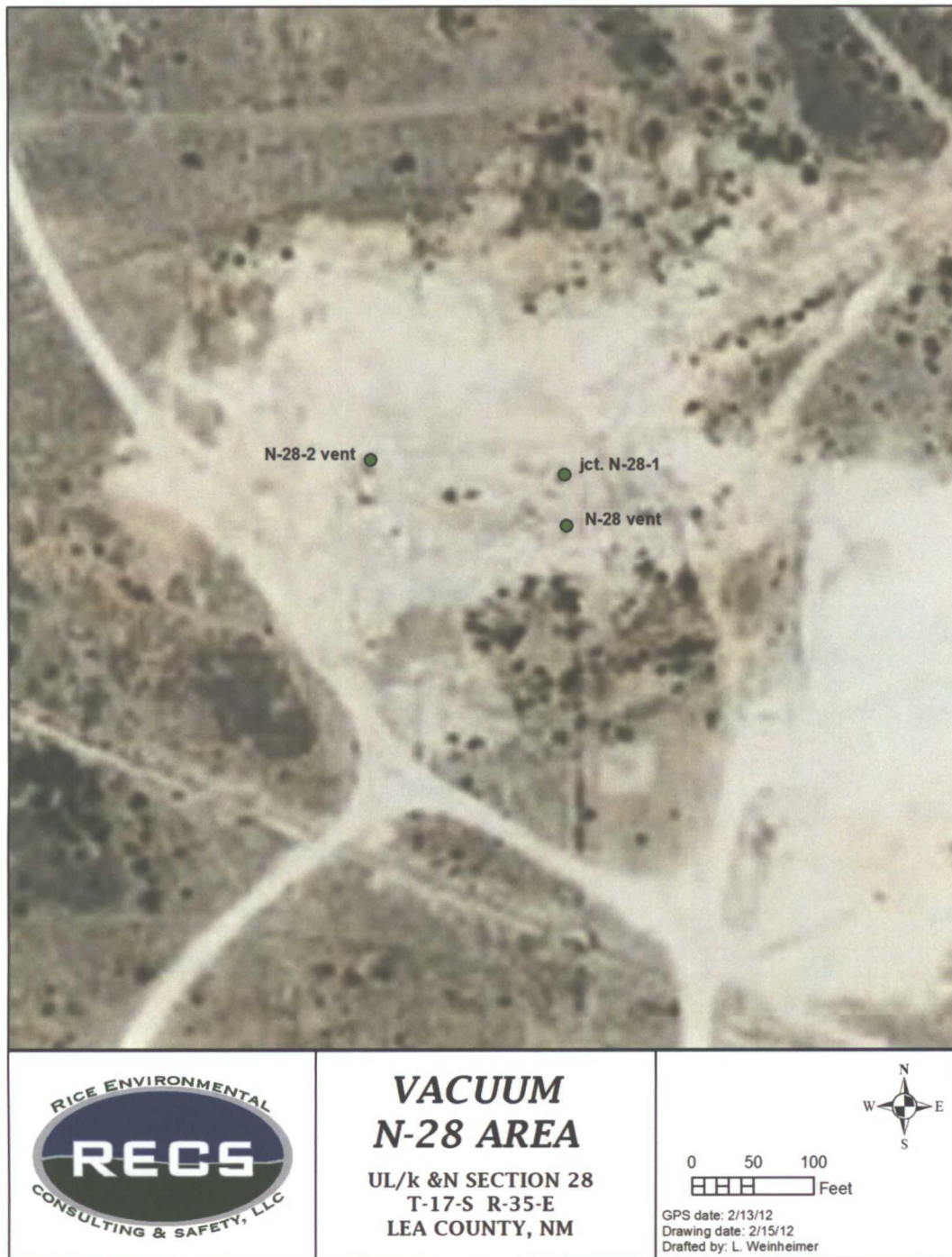


Figure 5 – Aerial of Vacuum Jct N-28-1 location in 2009.

2005



Figure 6 – Aerial of Vacuum Jct N-28-1 location in 2005.

1978

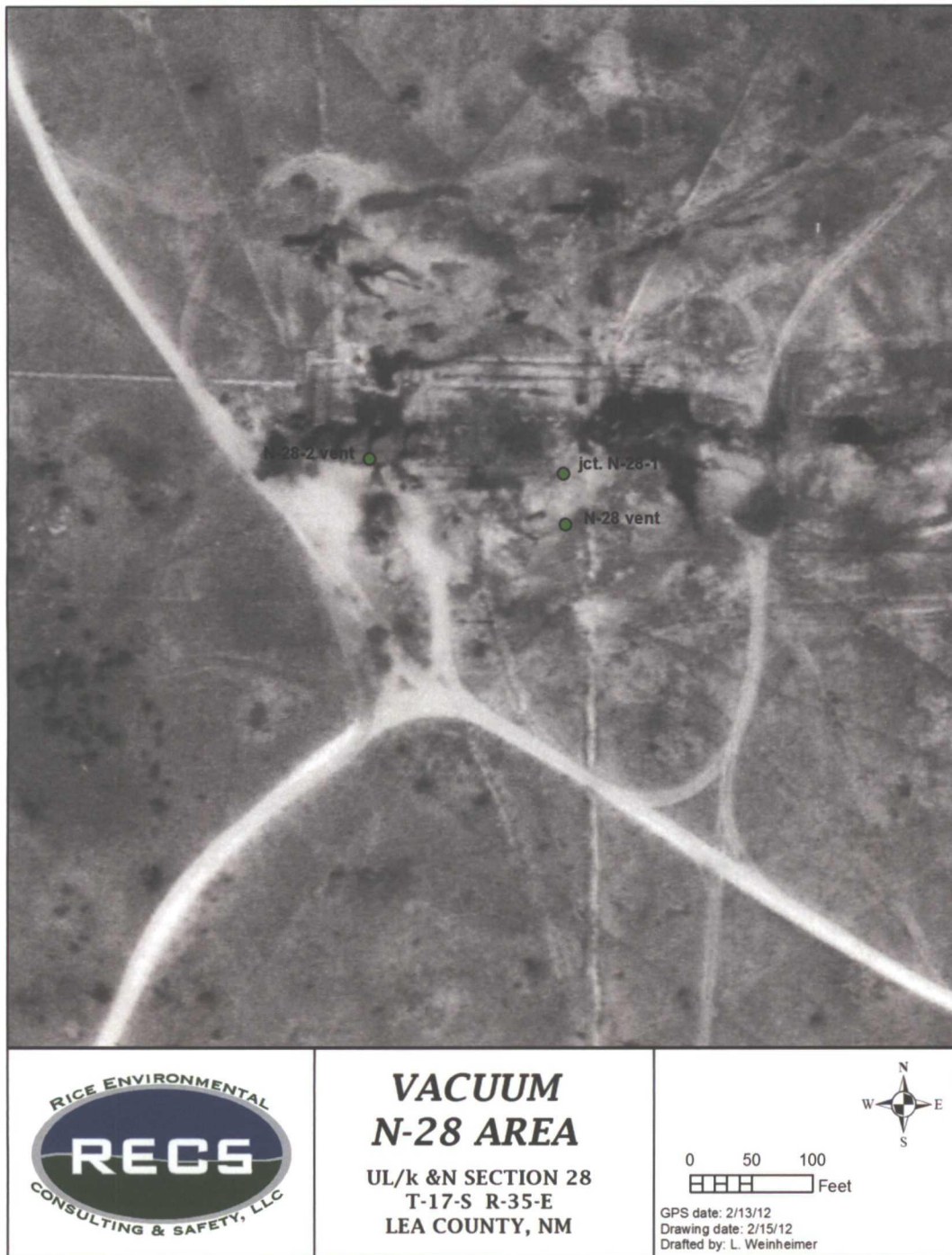


Figure 7 – Aerial of Vacuum Jct N-28-1 location in 1978.

1966

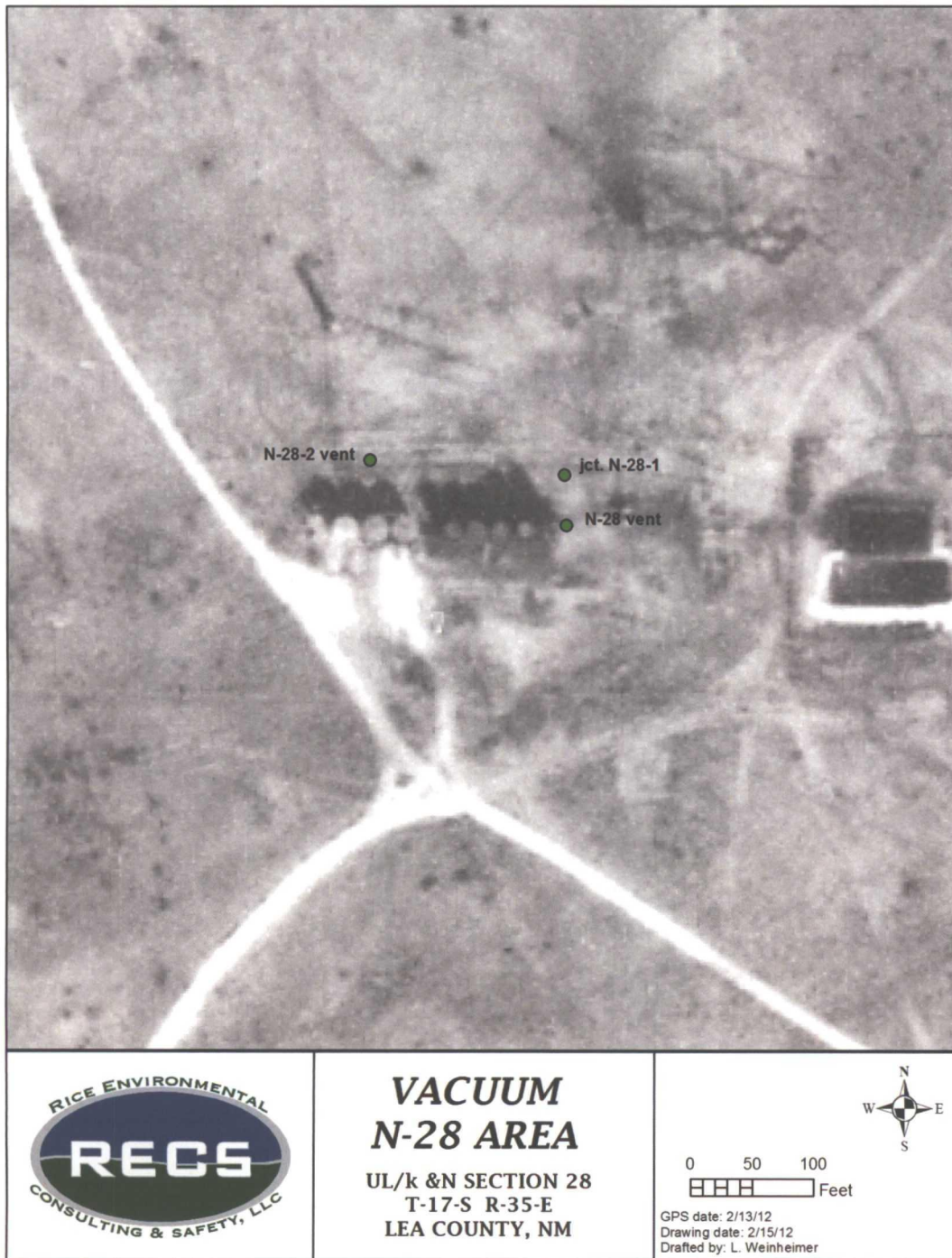


Figure 8 – Aerial of Vacuum Jct N-28-1 location in 1966.

1949

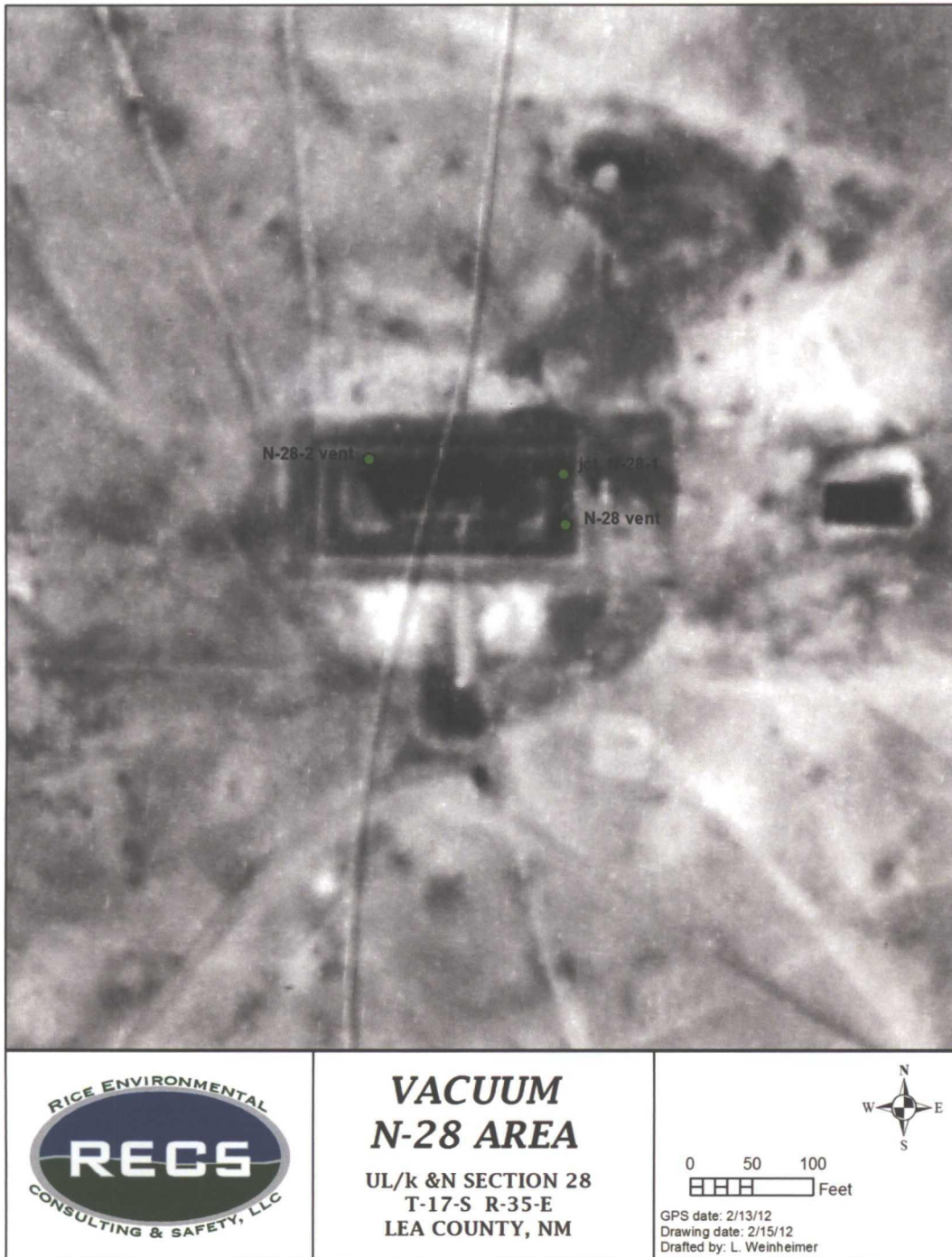
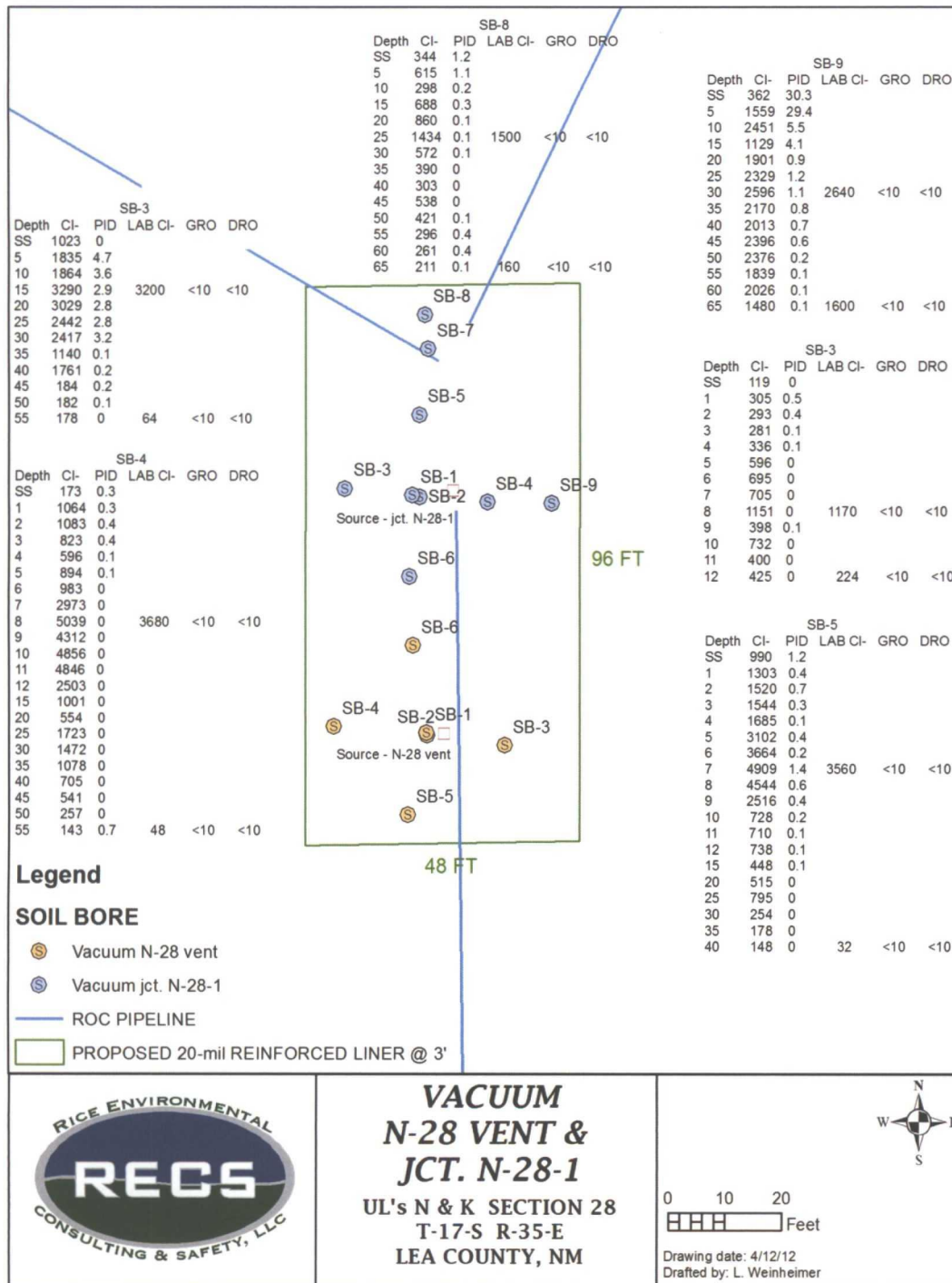


Figure 9 – Aerial of Vacuum Jct N-28-1 location in 1949.

Vacuum Jct N-28-1





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

June 17, 2011

Hack Conder
Rice Operating Company
112 W. Taylor
Hobbs, NM 88240

RE: VACUUM JCT N-28-1

Enclosed are the results of analyses for samples received by the laboratory on 06/10/11 16:20.

Cardinal Laboratories is accredited through Texas NELAP for:

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

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

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 (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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 06/10/2011
Reported: 06/17/2011
Project Name: VACUUM JCT N-28-1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 2 @ 15' (H101212-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4600	16.0	06/14/2011	ND	432	108	400	7.14	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane		86.5 %	70-130						
Surrogate: 1-Chlorooctadecane		110 %	70-130						

Sample ID: SB 2 @ 65 (H101212-02)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	928	16.0	06/14/2011	ND	432	108	400	7.14	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane		73.1 %	70-130						
Surrogate: 1-Chlorooctadecane		95.9 %	70-130						

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 06/10/2011
Reported: 06/17/2011
Project Name: VACUUM JCT N-28-1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 3 @ 15' (H101212-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3200	16.0	06/14/2011	ND	432	108	400	7.14		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	73.4 %	70-130								
Surrogate: 1-Chlorooctadecane	94.3 %	70-130								

Sample ID: SB 3 @ 55' (H101212-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/14/2011	ND	432	108	400	7.14		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	80.0 %	70-130								
Surrogate: 1-Chlorooctadecane	103 %	70-130								

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 06/10/2011
Reported: 06/17/2011
Project Name: VACUUM JCT N-28-1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/09/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 4 @ 25" (H101212-05)

Chloride, SM4500CI-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	06/14/2011	ND	432	108	400	7.14	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane		74.8 %	70-130						
Surrogate: 1-Chlorooctadecane		98.5 %	70-130						

Sample ID: SB 4 @ 65' (H101212-06)

Chloride, SM4500CI-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane		69.6 %	70-130						
Surrogate: 1-Chlorooctadecane		91.9 %	70-130						

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Caley D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
 Hack Conder
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received: 06/10/2011
 Reported: 06/17/2011
 Project Name: VACUUM JCT N-28-1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 06/09/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 5 @ 5' (H101212-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4560	16.0	06/14/2011	ND	432	108	400	3.64		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	70.1 %	70-130								
Surrogate: 1-Chlorooctadecane	88.7 %	70-130								

Sample ID: SB 5 @ 65' (H101212-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	06/14/2011	ND	432	108	400	3.64		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	75.9 %	70-130								
Surrogate: 1-Chlorooctadecane	103 %	70-130								

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 06/10/2011
Reported: 06/17/2011
Project Name: VACUUM JCT N-28-1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 06/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 6 @ 25' (H101212-09)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3240	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	81.0 %	70-130							
Surrogate: 1-Chlorooctadecane	110 %	70-130							

Sample ID: SB 6 @ 55' (H101212-10)

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	06/14/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/16/2011	ND	167	83.6	200	3.30	
DRO >C10-C28	<10.0	10.0	06/16/2011	ND	150	75.0	200	2.31	
Surrogate: 1-Chlorooctane	85.5 %	70-130							
Surrogate: 1-Chlorooctadecane	116 %	70-130							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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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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A handwritten signature in black ink, reading "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

Page 7 of 8

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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

NEED SAMPLES BACK, PLEASE



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

July 18, 2011

Hack Conder
Rice Operating Company
112 W. Taylor
Hobbs, NM 88240

RE: VACUUM JCT N-28-1

Enclosed are the results of analyses for samples received by the laboratory on 07/14/11 10:30.

Cardinal Laboratories is accredited through Texas NELAP for:

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

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

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

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Sincerely,

Celey D. Keene
Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 07/14/2011
Reported: 07/18/2011
Project Name: VACUUM JCT N-28-1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/13/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 7 @ 5' (H101453-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	07/15/2011	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112	
DRO >C10-C28	12.3	10.0	07/17/2011	ND	182	90.8	200	0.814	
Surrogate: 1-Chlorooctane		97.5 %	70-130						
Surrogate: 1-Chlorooctadecane		108 %	70-130						

Sample ID: SB 7 @ 65' (H101453-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	07/15/2011	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112	
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814	
<hr/>									
Surrogate: 1-Chlorooctane	106 %	70-130							
Surrogate: 1-Chlorooctadecane	113 %	70-130							

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Rice Operating Company
 Hack Conder
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received: 07/14/2011
 Reported: 07/18/2011
 Project Name: VACUUM JCT N-28-1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 07/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 8 @ 25' (H101453-03)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1500	16.0	07/15/2011	ND	416	104	400	0.00		
TPH 8015M			mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		
Surrogate: 1-Chlorooctane										
	105 %	70-130								
Surrogate: 1-Chlorooctadecane										
	114 %	70-130								

Sample ID: SB 8 @ 65' (H101453-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/15/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		
Surrogate: 1-Chlorooctane										
	108 %	70-130								
Surrogate: 1-Chlorooctadecane										
	118 %	70-130								

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 07/14/2011
Reported: 07/18/2011
Project Name: VACUUM JCT N-28-1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/13/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 9 @ 30' (H101453-05)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2640	16.0	07/15/2011	ND	416	104	400	0.00	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112	
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814	
Surrogate: 1-Chlorooctane		108 %	70-130						
Surrogate: 1-Chlorooctadecane		122 %	70-130						

Sample ID: SB 9 @ 65' (H101453-06)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	07/15/2011	ND	416	104	400	0.00	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112	
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814	
Surrogate: 1-Chlorooctane		108 %	70-130						
Surrogate: 1-Chlorooctadecane		118 %	70-130						

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Celey D. Keene, Lab Director/Quality Manager



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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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(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Rice Operating Company				BILL TO				ANALYSIS REQUEST											
Project Manager: Hack Conder				P.O. #:				Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TPH 8015 M Extended Thru C40						
Address: 122 West Taylor				Company:															
City: Hobbs State: NM Zip: 88240				Attn:															
Phone #: 575-393-9174 Fax #: 575-397-1471				Address:															
Project #: Project Owner:				City:															
Project Name: VACUUM JCT N-28-1				State: Zip:															
Project Location: VACUUM JCT N-28-1				Phone #:															
Sampler Name: Jordan Woodfin				Fax #:															

FOR LAB USE ONLY		Lab I.D.	Sample I.D.	CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACIDBASE	ICE / COOL	OTHER	DATE	TIME
GRAB OR	COMPOUND														
1	SB 7 @ 5'	1	1											7/13/11	11:00
2	SB 7 @ 65'	2	1											"	11:45
3	SB 8 @ 25'	3	1											"	01:00
4	SB 8 @ 65'	4	1											"	01:45
5	SB 9 @ 30'	5	1											"	02:15
6	SB 9 @ 65'	6	1											"	03:00

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Contract or test, shall be limited to the amount paid by the client for the analysis and received by Cardinal within 30 days after completion of the applicable analysis, less of any, or less of profit incurred by client, its subsidiaries or affiliates based upon any of the above stated requests or otherwise.

Relinquished By: Jordan Woodfin	Date: 7/14/11	Signature: [Signature]	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: [Signature]	Date: 7/14/11	Signature: [Signature]	Test Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)			Remarks:	
AS - Bu - Other:			Results	
			Emails: riceswd.com; jwoodfin@rice-ecs.com; [Email]	
			[Email]	

#26

AMPLE BACK, PLE

Hansen, Edward J., EMNRD

From: Laura Pena <lpena@riceswd.com>
Sent: Wednesday, May 09, 2012 11:41 AM
To: Hansen, Edward J., EMNRD
Cc: Hack Conder; Katie Jones; L Peter Galusky Jr
Subject: Vacuum N-28 vent, jct. N-28-1, and N-28-2 vent Plats
Attachments: Vacuum N-28 vent and N-28-1 ALL SB data and Proposed Liner 5-9-12.jpg; Vacuum N-28 vent, N-28-2 vent and N-28-1 OUTSIDE SB DATA 5-9-12.jpg

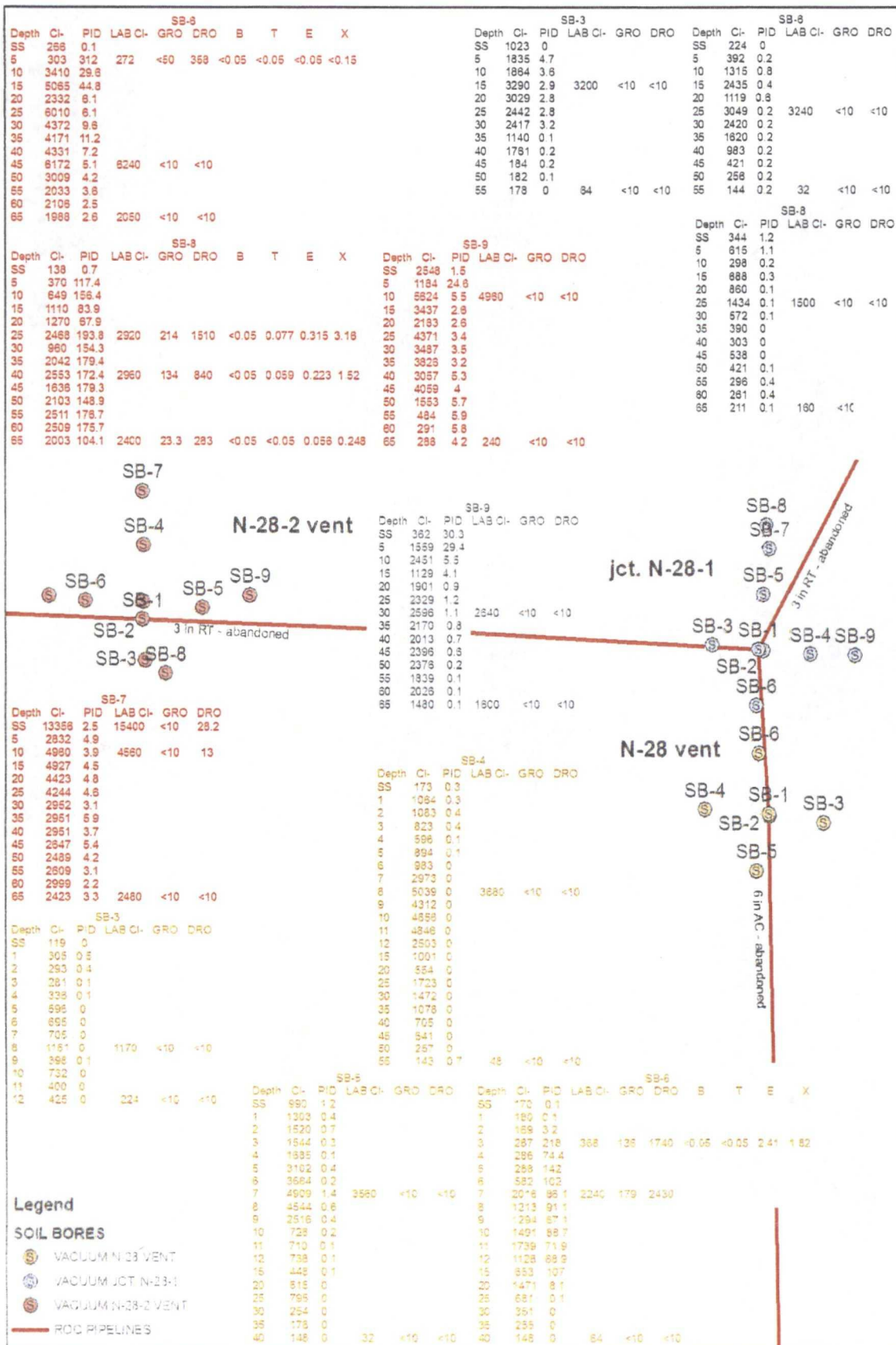
Mr. Hansen,

Attach are the plats for Vacuum N-28 vent (1R425-85), Jct. N-28-1 (1R425-87), and N-28-2 vent (1R425-86) as discussed during the May 1, 2012 meeting between NMOCD and Rice Operating Company.

- One plat depicts the relationship of N-28 vent and jct. N-28-1 to each other with soil data and the proposed liner.
- The other plat depicts all 3 sites and the relationships between them with all outside soil data.

If you have any questions or require more information, please do not hesitate to contact Hack Conder at (575) 631-6432.

Thank you,
Laura Peña

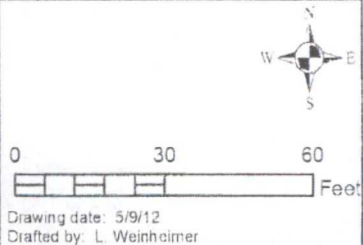


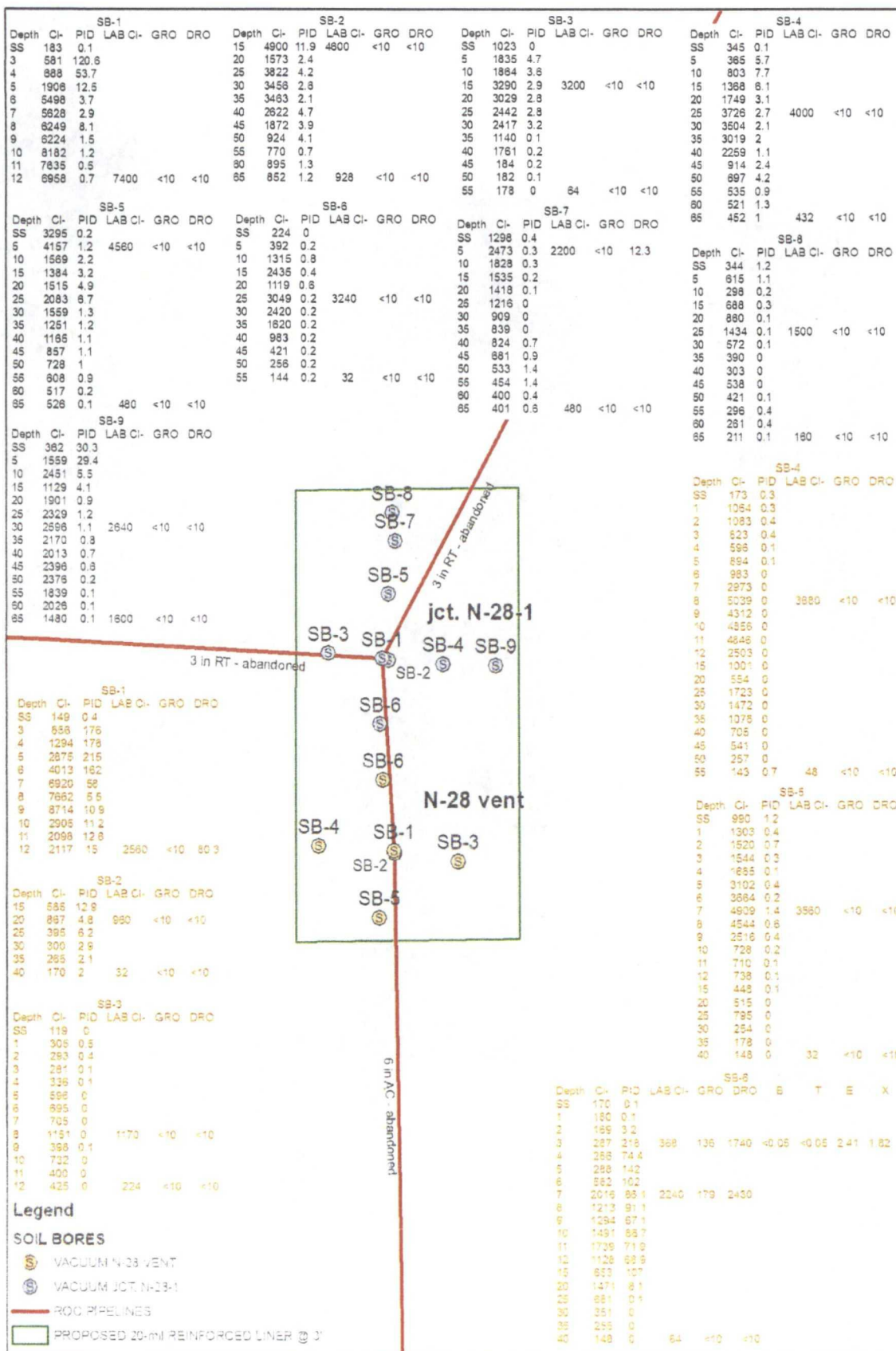
VACUUM N-28 VENT
NMOCD Case #: 1R425-85

VACUUM JCT. N-28-1
NMOCD Case #: 1R425-87

VACUUM N-28-2 VENT
NMOCD Case #: 1R425-86

LEGALS: UL/N&K sec. 28
T-17-S R-35-E





VACUUM N-28 VENT
 NMOCD Case #: 1R425-85
VACUUM JCT. N-28-1
 NMOCD Case #: 1R425-87
 LEGALS: UL/N&K sec. 28
 T-17-S R-35-E

