

1R - 425-103

WORKPLANS

Date:

5-31-13

Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967

RECEIVED OOD

CERTIFIED MAIL

2013 JUN -5 P 2: 12

RETURN RECEIPT NO. 7007 2560 0003 0320 5563

May 31st, 2013

Mr. Edward Hansen

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

**RE: Investigation and Characterization Plan (ICP) Report and Corrective
Action Plan (CAP)
Rice Operating Company – Vacuum SWD System
Vacuum C-36 EOL (1R425-103): UL/C sec. 36 T17S R34E**

Mr. Hansen:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site in the abandoned Vacuum Salt Water Disposal (SWD) system. 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.

Background and Previous Work

The site is located approximately 0.8 miles southwest of Buckeye, New Mexico in Unit C, Section 36, T17S, R34E as shown on the Site Location Map (Figure 1). NM OSE records indicate that groundwater will likely be encountered at a depth of approximately 107 +/- feet.

In 2010, ROC initiated work on the former Vacuum C-36 EOL junction box. A backhoe was used to collect soil samples at regular intervals creating a 5 x 3 x 4-ft deep excavation. The backhoe was unable to excavate the site deeper than 4 ft below ground surface (bgs) due to extremely compacted subsoil material. The excavated soil was properly disposed of at a NMOCD approved facility, and clean, imported soil was used to backfill the excavation to ground surface. On October 11th, 2010, the site was seeded with a blend of native vegetation.

To further investigate the depth of chloride contamination at the site, a soil bore was initiated on July 25th, 2011 at the source of the former junction box. Soil samples were field tested for chlorides and hydrocarbons to a depth of 12 ft bgs. Laboratory analysis of the 12 ft sample resulted in a chloride concentration of 1,880 mg/kg and a gasoline range

organics (GRO) and diesel range organics (DRO) concentration of non-detect. The bore hole was plugged in total with bentonite to the ground surface.

NMOCD was notified of potential groundwater impact on April 10th, 2012, and a junction box disclosure report was submitted to NMOCD with all the 2011 junction box closures and disclosures.

On February 20th, 2013, ROC submitted an Investigation and Characterization Plan (ICP) to NMOCD which was approved on March 4th, 2013. As part of the ICP, RECS personnel were on site April 8th and 9th, 2013 to install soil bores. A total of five soil bores (SB-2 through SB-6) were advanced and four surface samples were taken at this site (Figure 2). As the bores were advanced, samples were taken at regular intervals and field tested for chlorides and hydrocarbons. Representative samples from each bore were taken to a commercial laboratory for analysis of chlorides and TPH (Appendix A). SB-2 returned laboratory chloride results of 1,740 mg/kg at 15 ft bgs, which decreased to 48 mg/kg at 30 ft bgs. In SB-3, laboratory chloride readings returned results of 2,600 mg/kg at 5 ft bgs, which decreased to 64 mg/kg at 30 ft bgs. In SB-4, laboratory chloride reading returned results of 4,040 mg/kg at the surface, which decreased to 1,040 mg/kg at 10 ft bgs and 64 mg/kg at 25 ft bgs. In SB-5, laboratory chloride readings returned a result of 1,920 mg/kg at 10 ft bgs, which decreased to 96 mg/kg at 30 ft bgs. In SB-6, laboratory chloride readings returned a result of 1,730 mg/kg at 20 ft bgs, which decreased to 48 mg/kg at 35 ft bgs. GRO and DRO readings in all bores at all depths were non-detect.

Two surface samples were taken outside SB-3, west, and two outside of SB-4, south. These samples were field tested for chlorides and hydrocarbons and returned high chloride readings and very low hydrocarbon readings.

Corrective Action Plan

The site surrounds the base of an old heater-treater which indicates the presence of an old tank battery at the site. A series of historical photos were created of the site and from the photos, particularly the 1978 historical photo, it is evident that the C-36 junction box sat inside a tank battery (Appendix B). There are also numerous non-ROC steel lines located south of the site, and a non-ROC poly line located west of the site. This suggests that the elevated chloride concentrations observed in the surface samples were contributed from past operations of the non-ROC facility and not the former junction box.

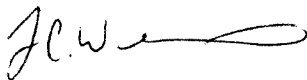
From the analysis of the soil bore data, residual chlorides and TPH at the site have not affected groundwater. In order to protect groundwater from residual soil chlorides, RECS recommends that ROC install a 20-mil reinforced poly liner at the site with dimensions of 30 ft x 39 ft at a depth of 3.5 ft bgs (Figure 2). The junction box investigation, conducted in 2010, showed an extremely hard rock layer to be located at approximately 4 ft bgs. Lithology description of the soil samples collected while drilling soil bores also showed a caliche/sandstone layer beginning at a depth of approximately 4 ft bgs. The liner will inhibit the downward migration of residual constituents to

groundwater. The soils placed above the liner will have a laboratory chloride reading no greater than 500 mg/kg and a field PID measurement below 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. The soils over and surrounding the site will then be prepared with soil amendments as necessary and seeded with a native vegetative mix. Vegetation above the liner will also provide a natural infiltration barrier for the site since plants capture water through their roots thereby reducing the volume of water moving through the vadose zone to groundwater.

Once the CAP work is completed by installing the 20-mil reinforced poly liner and seeding the site, ROC will submit a written report that will include a request for 'remediation termination' of the regulatory file.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in black ink, appearing to read 'J.C.W.' followed by a long, horizontal, wavy line.

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Soil Bore Installation Map and Proposed Liner
- Appendix A – Soil Bore Installation Documentation
- Appendix B – Historical Aerial Photos



Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967

Site Location Map



Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

NMOCD Case #: 1R425-103

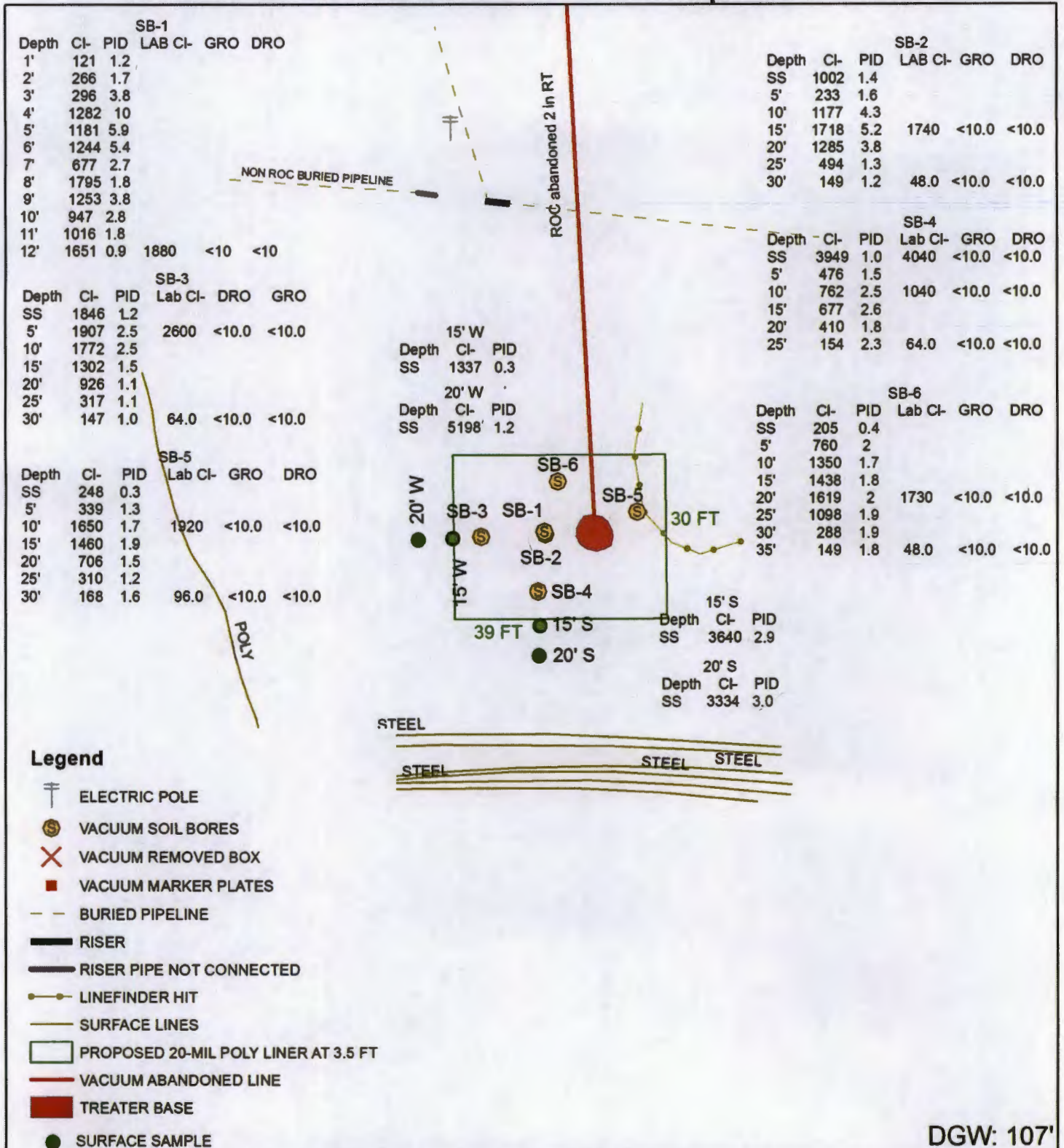
Figure 1



0 295 590 1:180
Feet

Drawing date: 2-8-13

Soil Bore Installation and Proposed Liner



DGW: 107'



Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

NMOCD Case #: 1R425-103

Figure 2



0 5 10 20
Feet

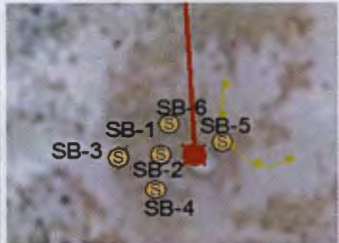

Drawing date: 5-17-13
Drawn by: LS



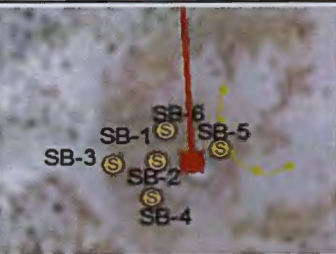

Appendix A

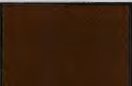









Soil Bore Installation Documentation

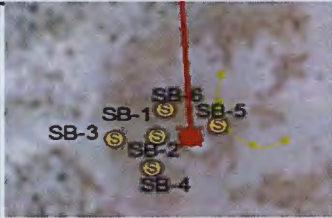









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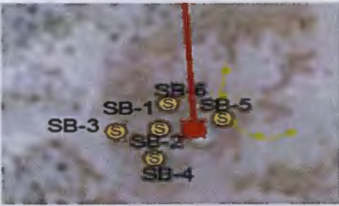







Logger:	Kyle Norman			
Driller:	Harrison & Cooper, Inc.			
Drilling Method:	Air rotary		Project Name:	Well ID:
Start Date:	4/8/2013		Vacuum C-36 EOL	SB-2
End Date:	4/8/2013		Project Consultant: RECS	
Comments: SB-2 is located 9 ft west of the former junction box site. All samples were from cuttings. DRAFTED BY: L. Peña TD = 30 ft GW = 107 ft			Location: UL/C, Sec. 36, T17S, R34E Lat: 32°47'47.379"N County: Lea Long: 103°31'0.197"W State: NM	

Depth	Field	LAB		PID	Description	Lithology	Well Construction	
	Cl ⁻ (mg/kg)	Cl ⁻ (mg/kg)	TPH (mg/kg)					
SS	1,002			1.4	6" Brown Sand			
5 ft	233			1.6	Tan Sandy Clay Regolith			
10 ft	1,177			4.3	Brown Sand Regolith			
15 ft	1,718	1,740	GRO <10 DRO <10	5.2	Tan Sand			bentonite seal
20 ft	1,285			3.8				
25 ft	494			1.3				
30 ft	149	48	GRO <10 DRO <10	1.2				

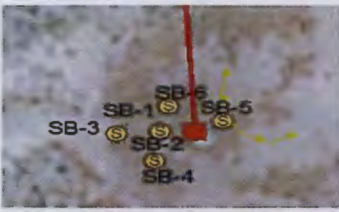









Logger:	Kyle Norman			
Driller:	Harrison & Cooper, Inc.			
Drilling Method:	Air rotary		Project Name:	Well ID:
Start Date:	4/9/2013		Vacuum C-36 EOL	SB-3
End Date:	4/9/2013		Project Consultant: RECS	
Comments: SB-3 is located 21 ft west of the former junction box site. All samples were from cuttings. DRAFTED BY: L. Peña TD = 40 ft GW = 107 ft			Location: UL/C, Sec. 36, T17S, R34E Lat: 32°47'47.378"N County: Lea Long: 103°31'0.341"W State: NM	

Depth	Field	LAB		PID	Description	Lithology	Well Construction	
	Cl ⁻ (mg/kg)	Cl ⁻ (mg/kg)	TPH (mg/kg)					
SS	1,846			1.2	6" Brown Sand			
5 ft	1,907	2,600	GRO <10 DRO <10	2.5	Caliche/Sandstone			
10 ft	1,772			2.5				
					Caliche			
15 ft	1,302			1.5				
20 ft	926			1.1	Caliche			
25 ft	317			1.1				
					Caliche			
30 ft	147	64	GRO <10 DRO <10	1.0				

Logger:	Kyle Norman						
Driller:	Harrison & Cooper, Inc.		Project Name: Vacuum C-36 EOL				
Drilling Method:	Air rotary		Well ID: SB-4				
Start Date:	4/9/2013		Project Consultant: RECS				
End Date:	4/9/2013	Location: UL/C, Sec. 36, T17S, R34E					
Comments: SB-4 is located 11 ft south of the former junction box site. All samples were from cuttings. DRAFTED BY: L. Peña TD = 25 ft GW = 107 ft			Lat: 32°47'47.275"N County: Lea				
			Long: 103°31'0.214"W State: NM				
Depth	Field	LAB		PID (ppm)	Description	Lithology	Well Construction
	Cl⁻ (mg/kg)	Cl⁻ (mg/kg)	TPH (mg/kg)				
SS	3,949	4,040	GRO <10 DRO <10	1.0	6" Brown Sand		
5 ft	476			1.5	Caliche/Sandstone		
10 ft	762	1,040	GRO <10 DRO <10	2.5	Caliche		
15 ft	677			2.6	Tan Sand		
20 ft	410			1.8			
25 ft	154	64	GRO <10 DRO <10	2.3			

Logger:	Kyle Norman									
Driller:	Harrison & Cooper, Inc.		Project Name:	Well ID:						
Drilling Method:	Air Rotary		Vacuum C-36 EOL	SB-5						
Start Date:	4/9/2013		Project Consultant: RECS							
End Date:	4/9/2013	Location: UL/C, Sec. 36, T17S, R34E Lat: 32°47'47.415"N County: Lea Long: 103°30'59.998"W State: NM								
Comments: SB-5 is located 10 ft east of the former junction box. All samples were from cuttings. DRAFTED BY: L. Peña TD = 30 ft GW = 107 ft										
Depth	Field	LAB		PID	Description	Lithology	Well Construction			
	Cl ⁻ (mg/kg)	Cl ⁻ (mg/kg)	TPH (mg/kg)							
SS	248			0.3	6" Top Soil					
5 ft	339			1.3				Caliche/Sandstone		
10 ft	1,650	1,920	GRO <10 DRO <10	1.7						
15 ft	1,460			1.9	Tan Sand					
20 ft	706			1.5						
25 ft	310			1.2						
30 ft	168	96	GRO <10 DRO <10	1.6						

bentonite
seal

Logger:	Kyle Norman							
Driller:	Harrison & Cooper, Inc.							
Drilling Method:	Air Rotary							
Start Date:	4/9/2013							
End Date:	4/9/2013							
Comments: SB-6 is located 10 ft north of the former junction box. All samples were from cuttings. DRAFTED BY: L. Peña TD = 35 ft GW = 107 ft			Project Name: Vacuum C-36 EOL Well ID: SB-6 Project Consultant: RECS Location: UL/C, Sec. 36, T17S, R34E Lat: 32°47'47.479"N County: Lea Long: 103°31'0.169"W State: NM					
Depth	Field	LAB		PID (ppm)	Description	Lithology	Well Construction	
	CI ⁻ (mg/kg)	CI ⁻ (mg/kg)	TPH (mg/kg)					
SS	205			0.4	6" Top Soil			
5 ft	760			2.0	Caliche/Sand Stone			
10 ft	1,350			1.7	Caliche			
15 ft	1,438			1.8	Tan Sand			bentonite seal
20 ft	1,619	1,730	GRO <10 DRO <10	2.0				
25 ft	1,098			1.9				
30 ft	288			1.9				
35 ft	149	48	GRO <10 DRO <10	1.8				



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

April 11, 2013

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM C-36 EOL (17/34)

Enclosed are the results of analyses for samples received by the laboratory on 04/08/13 14:05.

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

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,

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

Analytical Results For:

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

Received:	04/08/2013	Sampling Date:	04/08/2013
Reported:	04/11/2013	Sampling Type:	Soil
Project Name:	VACUUM C-36 EOL (17/34)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 2 @ 15' (H300835-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1740	16.0	04/10/2013	ND	448	112	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/10/2013	ND	211	105	200	4.47		
DRO >C10-C28	<10.0	10.0	04/10/2013	ND	208	104	200	4.21		
Surrogate: 1-Chlorooctane	94.6 %	65.2-140								
Surrogate: 1-Chlorooctadecane	114 %	63.6-154								

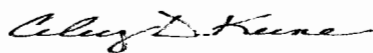
Sample ID: SB 2 @ 30' (H300835-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/10/2013	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	04/10/2013	ND	211	105	200	4.47		
DRO >C10-C28	<10.0	10.0	04/10/2013	ND	208	104	200	4.21		
Surrogate: 1-Chlorooctane		92.7 %	65.2-140							
Surrogate: 1-Chlorooctadecane		112 %	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

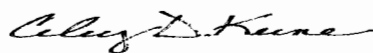
Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Relinquished By: <i>Kyle Na</i>		Date: <i>4-8-73</i>	Received By: <i>Jodi Benson</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:		Time: <i>2:05</i>	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)		Date:		REMARKS:	
Sampler - UPS - Bus - Other:		Time:		email results: zconder@rice-ecs.com Knorman@rice-ecs.com; lpena@riceswd.com Kjones@riceswd.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	
		Sample Condition	Checked By: <i>(Signature)</i>		
		Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-398-2476

#26



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

April 12, 2013

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

RE: VACUUM C-36 EOL (17/34)

Enclosed are the results of analyses for samples received by the laboratory on 04/09/13 16:15.

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

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:

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

 Received: 04/09/2013
 Reported: 04/12/2013
 Project Name: VACUUM C-36 EOL (17/34)
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/09/2013
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 3 @ 5' (H300849-01)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
Surrogate: 1-Chlorooctane		83.0 %	65.2-140						
Surrogate: 1-Chlorooctadecane		103 %	63.6-154						

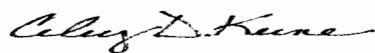
Sample ID: SB 3 @ 30' (H300849-02)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
Surrogate: 1-Chlorooctane	81.2 %	65.2-140							
Surrogate: 1-Chlorooctadecane	101 %	63.6-154							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/09/2013	Sampling Date:	04/09/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	VACUUM C-36 EOL (17/34)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 4 @ SURFACE (H300849-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4040	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
<hr/>									
Surrogate: 1-Chlorooctane	76.6 %	65.2-140							
Surrogate: 1-Chlorooctadecane	102 %	63.6-154							

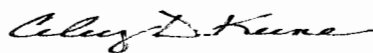
Sample ID: SB 4 @ 10' (H300849-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
<hr/>									
Surrogate: 1-Chlorooctane	75.9 %	65.2-140							
Surrogate: 1-Chlorooctadecane	97.8 %	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/09/2013	Sampling Date:	04/09/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	VACUUM C-36 EOL (17/34)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 4 @ 25' (H300849-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
Surrogate: 1-Chlorooctane	79.0 %	65.2-140							
Surrogate: 1-Chlorooctadecane	104 %	63.6-154							

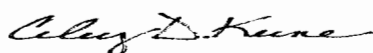
Sample ID: SB 5 @ 10' (H300849-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
Surrogate: 1-Chlorooctane	82.7 %	65.2-140							
Surrogate: 1-Chlorooctadecane	106 %	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/09/2013	Sampling Date:	04/09/2013
Reported:	04/12/2013	Sampling Type:	Soil
Project Name:	VACUUM C-36 EOL (17/34)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 5 @ 30' (H300849-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
Surrogate: 1-Chlorooctane	82.4 %	65.2-140							
Surrogate: 1-Chlorooctadecane	107 %	63.6-154							

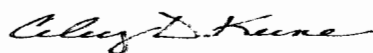
Sample ID: SB 6 @ 20' (H300849-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1730	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	
Surrogate: 1-Chlorooctane	79.9 %	65.2-140							
Surrogate: 1-Chlorooctadecane	104 %	63.6-154							

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Celest D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 04/09/2013
Reported: 04/12/2013
Project Name: VACUUM C-36 EOL (17/34)
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 04/09/2013
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB 6 @ 35' (H300849-09)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/11/2013	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	04/11/2013	ND	214	107	200	1.94	
DRO >C10-C28	<10.0	10.0	04/11/2013	ND	210	105	200	3.26	

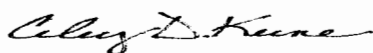
Surrogate: 1-Chlorooctane 76.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.9 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

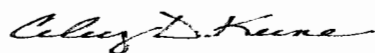
Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 8 of 8

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#26

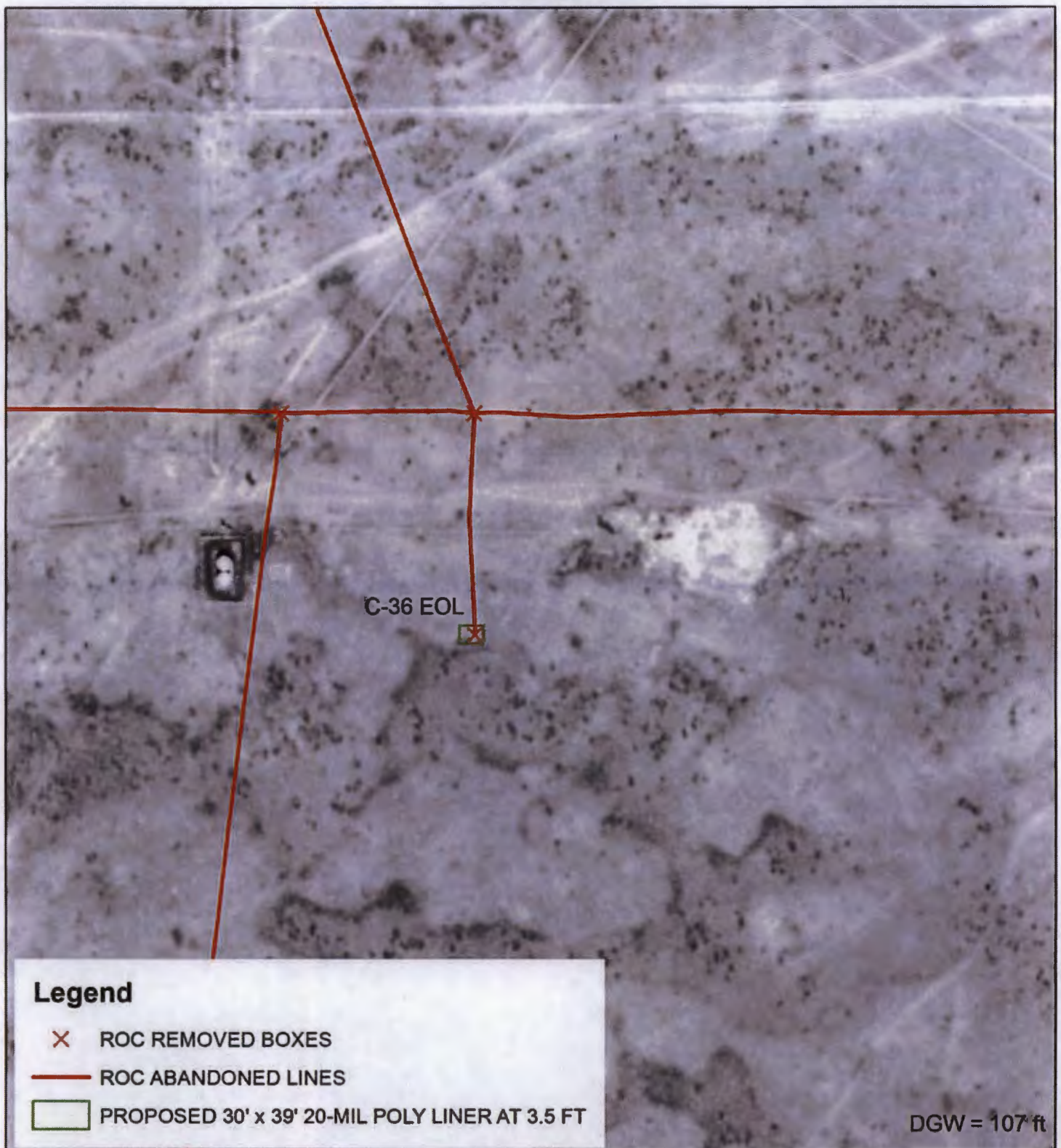


Appendix B

Historical Aerial Photos

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

1949



Legend

X ROC REMOVED BOXES

— ROC ABANDONED LINES

□ PROPOSED 30' x 39' 20-MIL POLY LINER AT 3.5 FT

DGW = 107 ft



Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

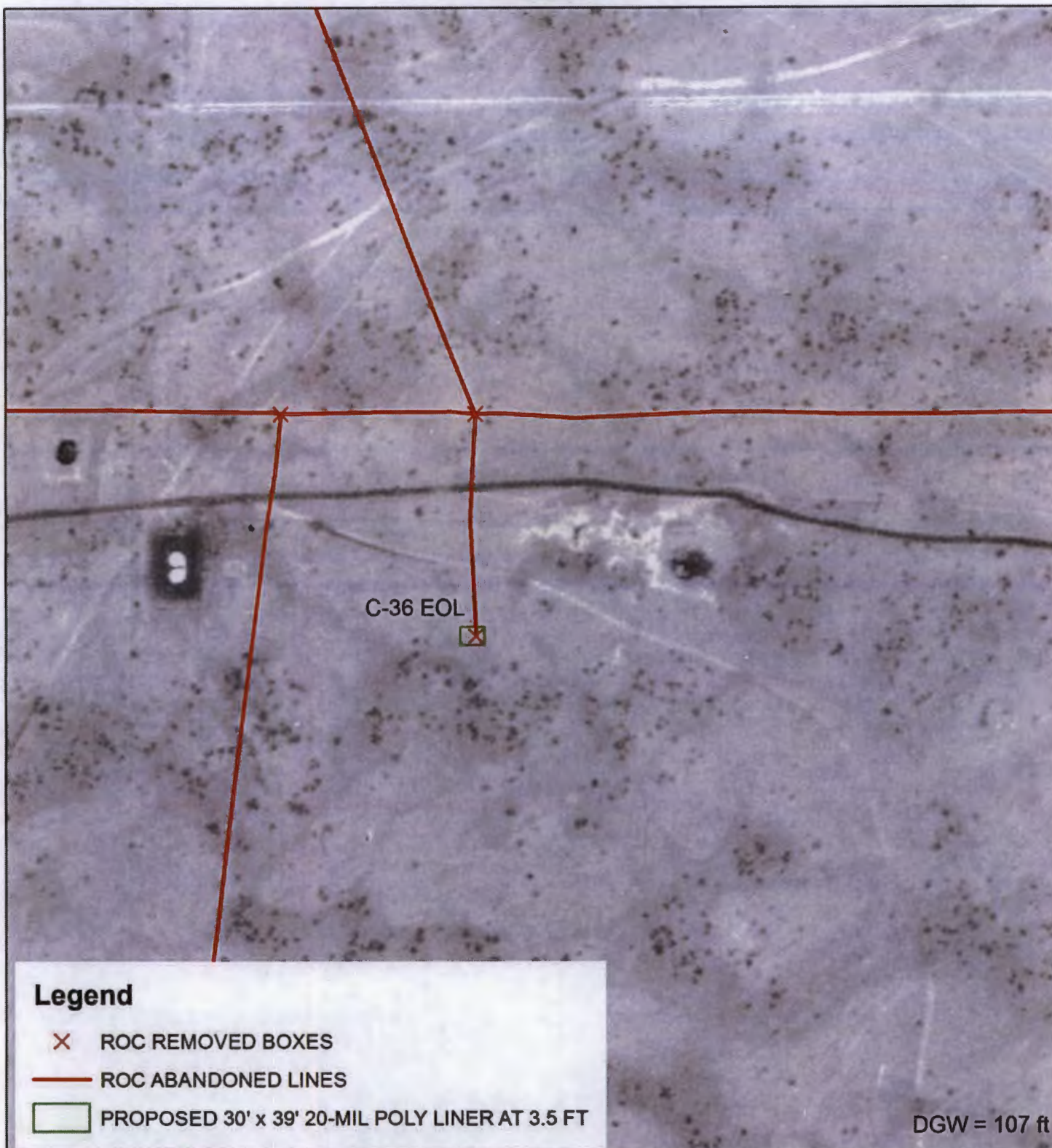
NMOCD Case #: 1R425-103



0 100 200
HHH Feet

Drawing date: 5/22/2013
Drafted by: L. Weinheimer

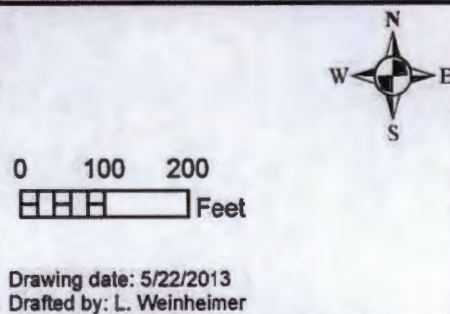
1955



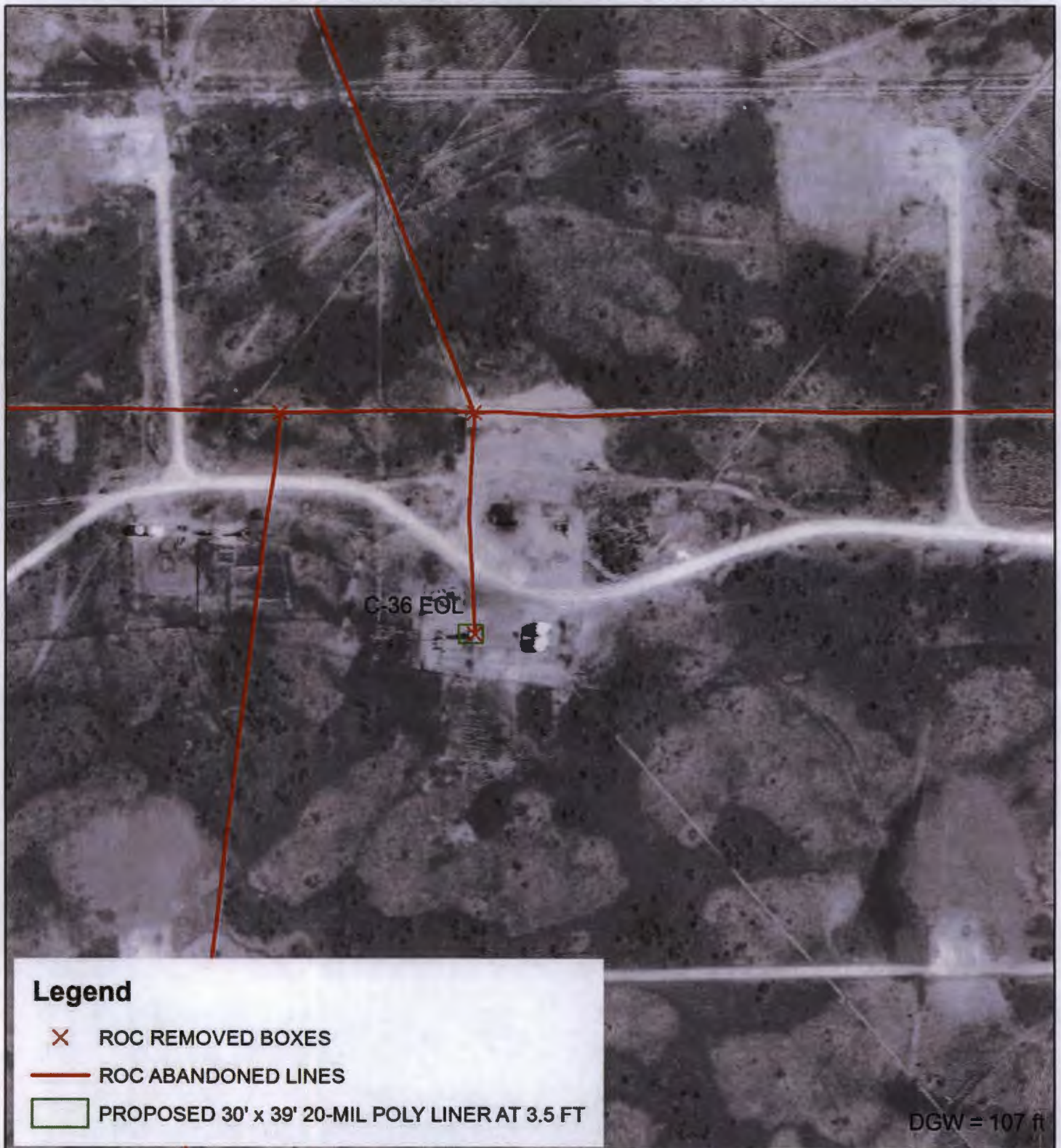
Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

NMOCD Case #: 1R425-103



1978



Legend

X ROC REMOVED BOXES

— ROC ABANDONED LINES

□ PROPOSED 30' x 39' 20-MIL POLY LINER AT 3.5 FT

DGW = 107 ft



Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

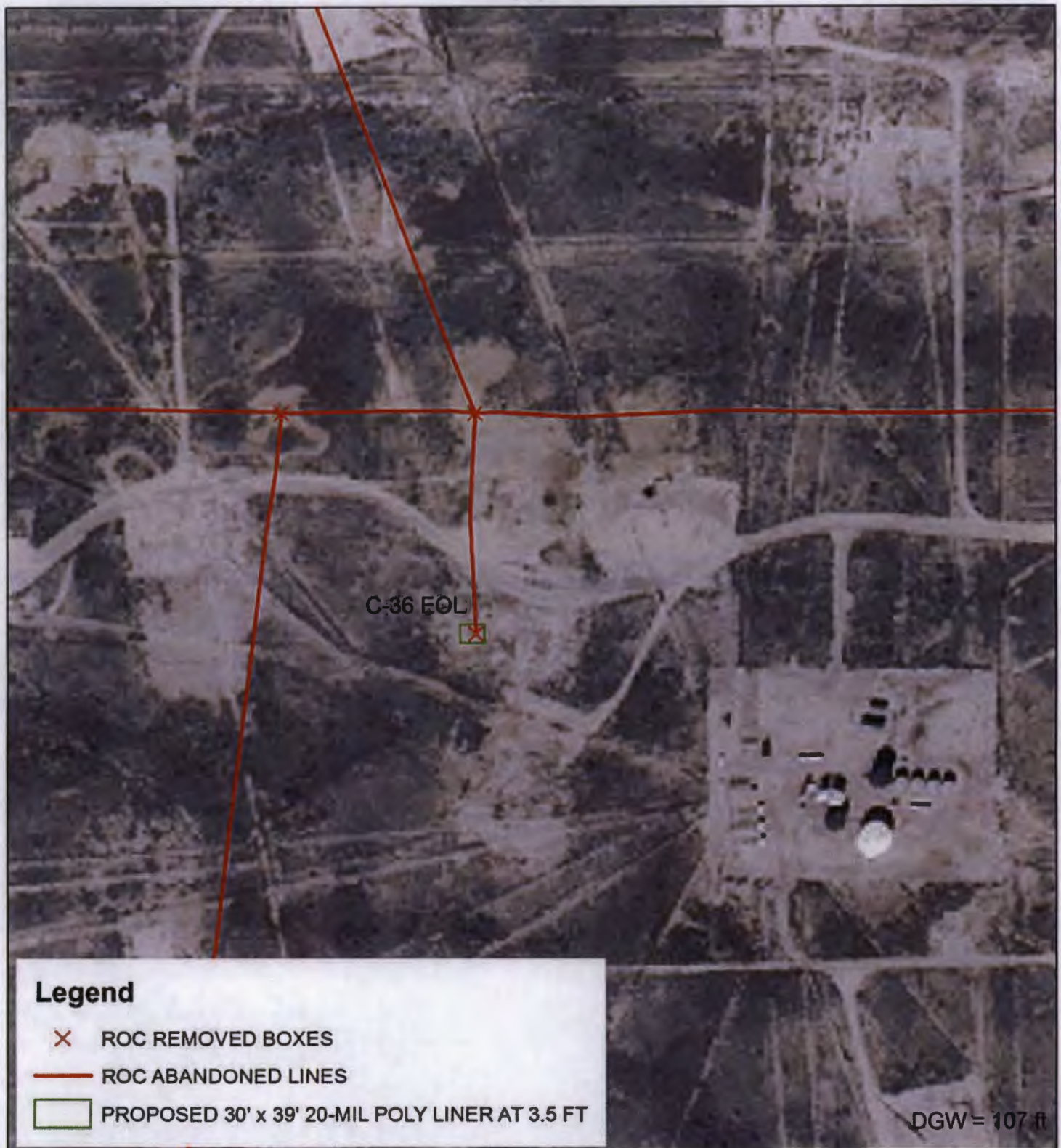
NMOCD Case #: 1R425-103

0 100 200
Feet



Drawing date: 5/22/2013
Drafted by: L. Weinheimer

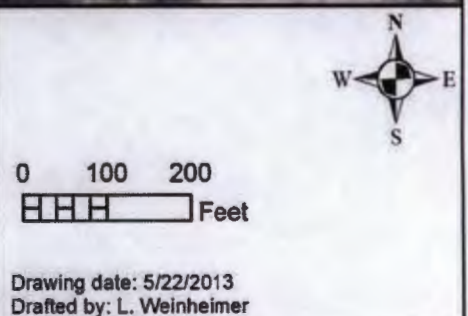
2004



Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM




NMOCD Case #: 1R425-103



2009



Legend


-  ROC REMOVED BOXES
-  ROC ABANDONED LINES
-  PROPOSED 30' x 39' 20-MIL POLY LINER AT 3.5 FT



Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

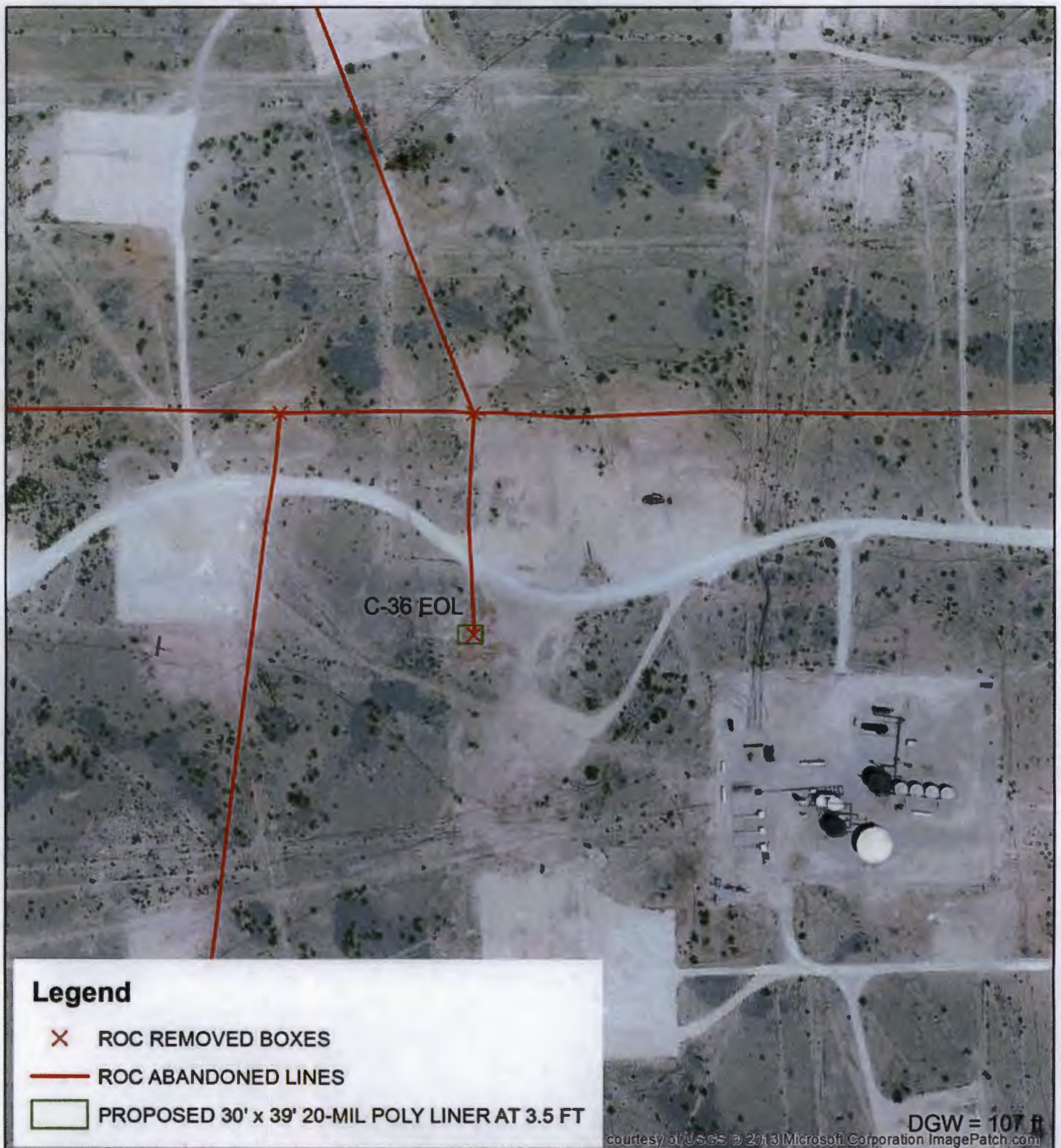
NMOCD Case #: 1R425-103

0 100 200
 Feet




Drawing date: 5/22/2013
Drafted by: L. Weinheimer



2013



Legend

-  ROC REMOVED BOXES
-  ROC ABANDONED LINES
-  PROPOSED 30' x 39' 20-MIL POLY LINER AT 3.5 FT

DGW = 107 ft

courtesy of USGS © 2013 Microsoft Corporation ImagePatch.com

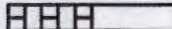


Vacuum C-36 EOL

Legals: UL/ C, Section 36,
T17S, R34E
Lea County, NM

NMOCD Case #: 1R425-103



0 100 200
 Feet

Drawing date: 5/22/2013
Drafted by: L. Weinheimer