

April 05, 2013

NATALIE GLADDEN  
APACHE - EUNICE  
P. O. BOX 1849  
EUNICE, NM 88231

30-015 - 30144

RE: LOCO FEDERAL BATTERY #1

Enclosed are the results of analyses for samples received by the laboratory on 04/03/13 8:50.

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

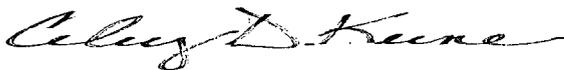
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 04/03/2013  
 Reported: 04/05/2013  
 Project Name: LOCO FEDERAL BATTERY #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 04/02/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: 5 PT. COMP @ 1' (H300783-01)**

Chloride, SM4500CI-B

mg/kg

Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>448</b>	16.0	04/03/2013	ND	432	108	400	0.00	

TPH 8015M

mg/kg

Analyzed By: MS

S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>3050</b>	50.0	04/04/2013	ND	189	94.6	200	0.711	
<b>DRO &gt;C10-C28</b>	<b>12300</b>	50.0	04/04/2013	ND	188	93.9	200	0.621	

Surrogate: 1-Chlorooctane 300 % 65.2-140

Surrogate: 1-Chlorooctadecane 400 % 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

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

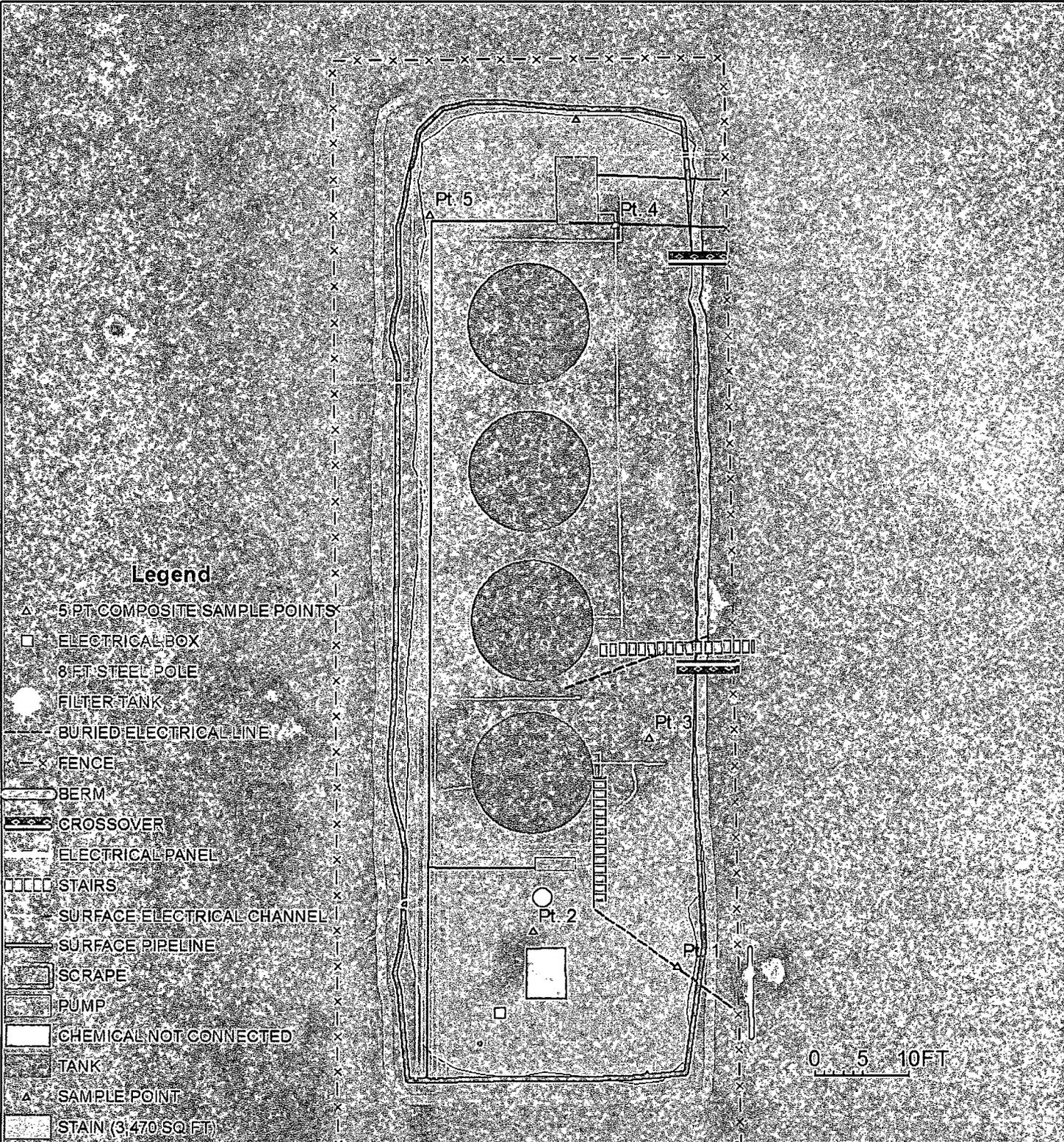
Company Name: Apache Corp.		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																				
Project Manager: Natalie Gladden		P.O. #:		<table border="1"> <tr><td>Chlorides</td></tr> <tr><td>TPH 8015 M</td></tr> <tr><td>BTEX</td></tr> <tr><td>Texas TPH</td></tr> <tr><td>Complete Cations/Anions</td></tr> <tr><td>TDS</td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>										Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS					
Chlorides																								
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Complete Cations/Anions																								
TDS																								
Address:		Company:																						
City:	State:	Zip:	Attn:																					
Phone #:	Fax #:		Address:																					
Project #:	Project Owner:		City:																					
Project Name: <i>Loce Fed Entry # 1 A0</i>			State:	Zip:																				
Project Location:			Phone #:																					
Sampler Name: JKAMPLAIN			Fax #:																					
FOR LAB USE ONLY																								
Lab I.D.	Sample I.D.	(GRAB OR C) COMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING														
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:												
<i>H30078B</i>	<i>1 5pt Comp @ 1'</i>	<i>C</i>	<i>1</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>													
											DATE	TIME												
											<i>4-2-13</i>	<i>11:30</i>												

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: <i>[Signature]</i>	Date: <i>4/3/13</i>	Received By: <i>Jodi Henson</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: <i>3:50</i>		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		email results natalie.gladden@apachecorp.com Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com; JKAMPLAIN@RICE-ECS.COM	
Delivered By: (Circle One)	Sample Condition	Checked By: (Initials)		
Sampler - UPS - Bus - Other:	<i>-70</i> <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Intact <input type="checkbox"/> No <input type="checkbox"/> No	<i>[Signature]</i>		

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

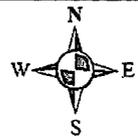
#26



**Legend**

- △ 5 PT. COMPOSITE SAMPLE POINTS
- ELECTRICAL BOX
- 8 FT. STEEL POLE
- FILTER TANK
- BURIED ELECTRICAL LINE
- x-x- FENCE
- ▭ BERM
- ▭ CROSSOVER
- ▭ ELECTRICAL PANEL
- ▭ STAIRS
- SURFACE ELECTRICAL CHANNEL
- SURFACE PIPELINE
- ▭ SCRAPER
- ▭ PUMP
- ▭ CHEMICAL NOT CONNECTED
- ▭ TANK
- △ SAMPLE POINT
- ▭ STAIN (3,470 SQ. FT.)

0 5 10 FT



**APACHE  
 LOCO FEDERAL  
 #1 BATTERY**  
 UL B SECTION 21  
 T-17-S R-30-E  
 LEA COUNTY, NM

GPS date: 4/9/13  
 Drawing date: 4/10/13  
 Drafted by: L. Weinheimer

RECEIVED

MAY 21 2013

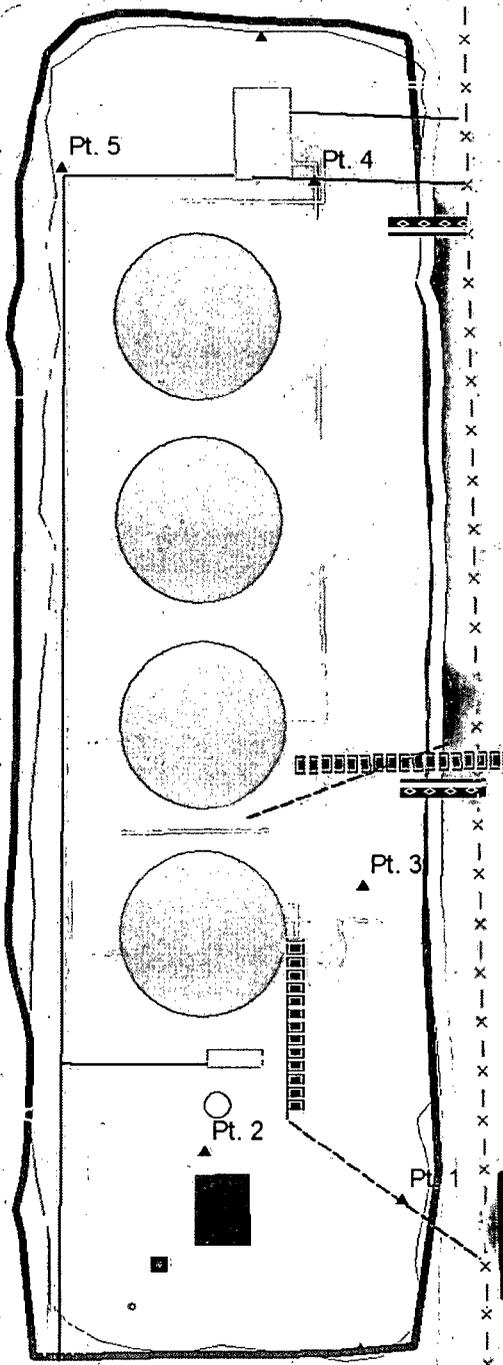
NMOCD ARTESIA

5 pt bottom composite Lab  
CI- 448  
GRO 3050  
DRO 12300

*Initial C-141  
has not been  
processed* →

**Legend**

- ▲ 5 PT COMPOSITE SAMPLE POINTS
- ELECTRICAL BOX
- 8 FT STEEL POLE
- FILTER TANK
- BURIED ELECTRICAL LINE
- x- FENCE
- ▬ BERM
- ▬ CROSSOVER
- ▬ ELECTRICAL PANEL
- ▬ STAIRS
- ▬ SURFACE ELECTRICAL CHANNEL
- ▬ SURFACE PIPELINE
- ▬ SCRAPE
- ▬ PUMP
- CHEMICAL NOT CONNECTED
- ▬ TANK
- ▲ SAMPLE POINT
- ▬ STAIN (3,470 SQ FT)



0 5 10FT

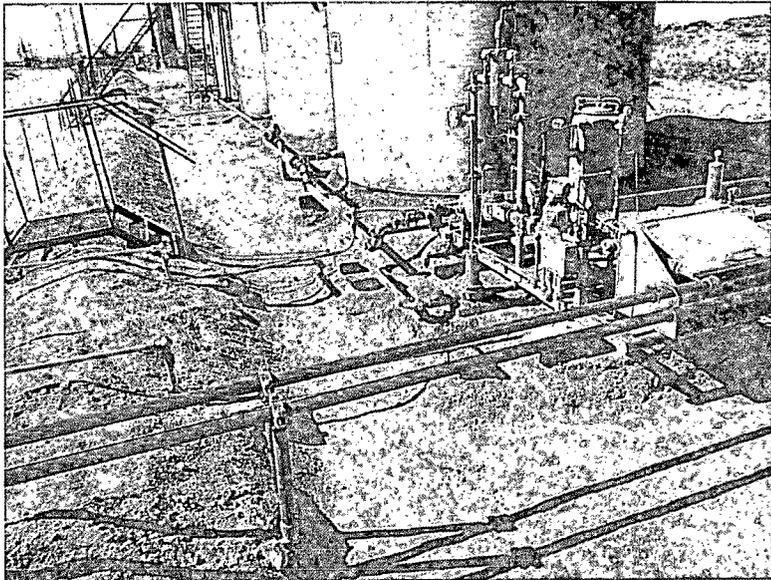


**APACHE  
LOCO FEDERAL  
#1 BATTERY**

UL B SECTION 21  
T-17-S R-30-E  
LEA COUNTY, NM

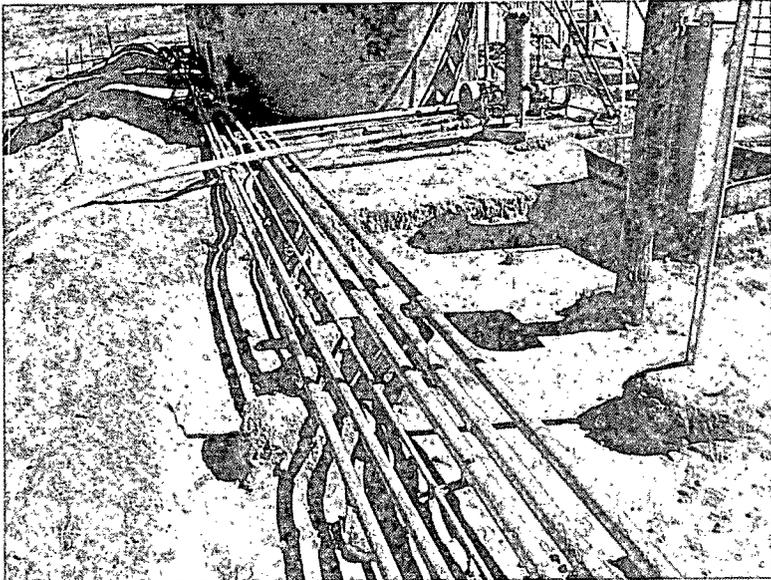


GPS date: 4/9/13  
Drawing date: 4/10/13  
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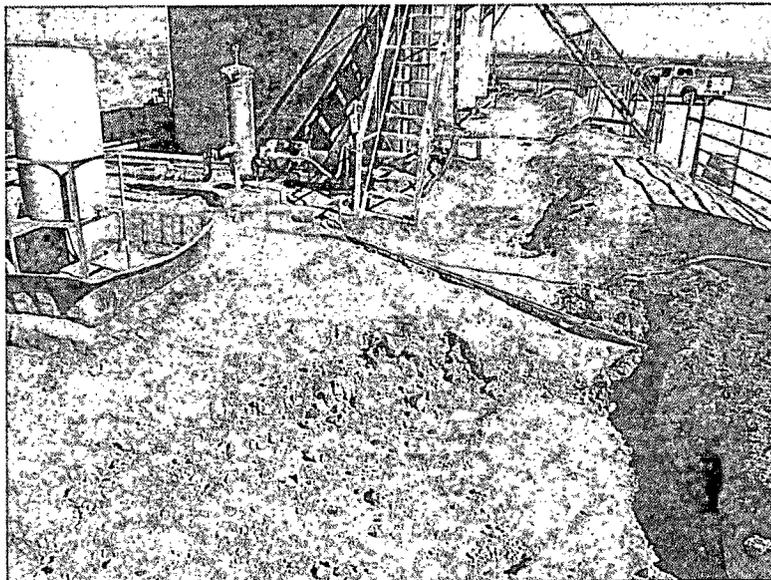
Final excavation, facing south

4/15/13



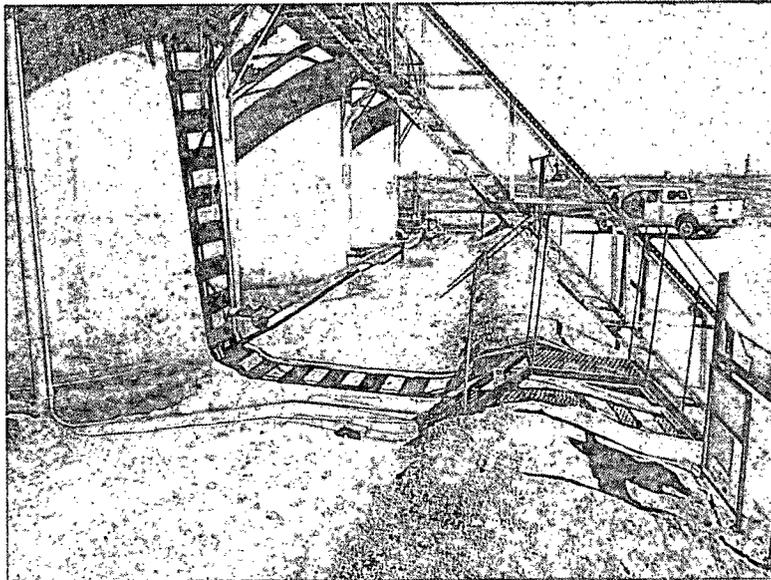
Final excavation, facing north

4-15-13



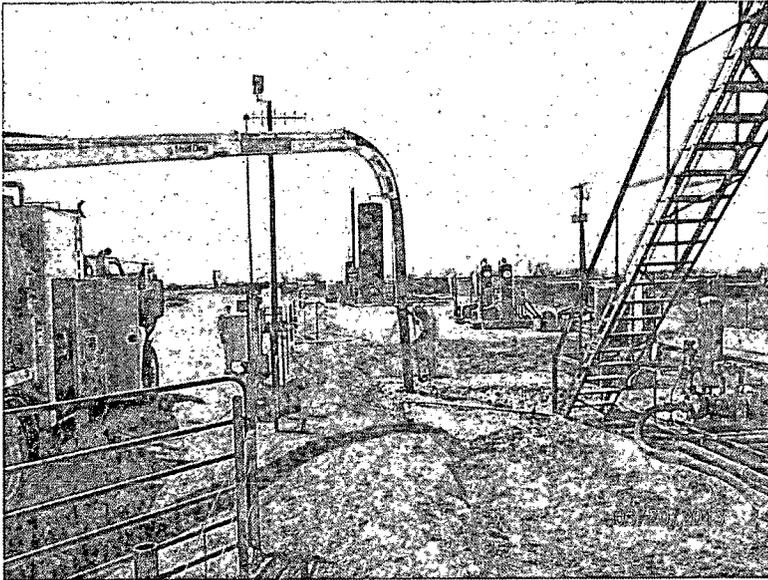
Final excavation, facing north

4/15/13

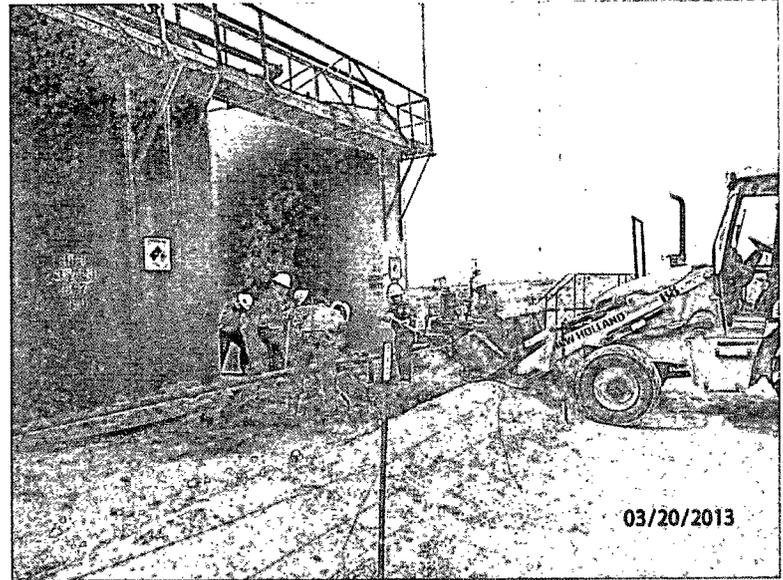


Final excavation, facing north

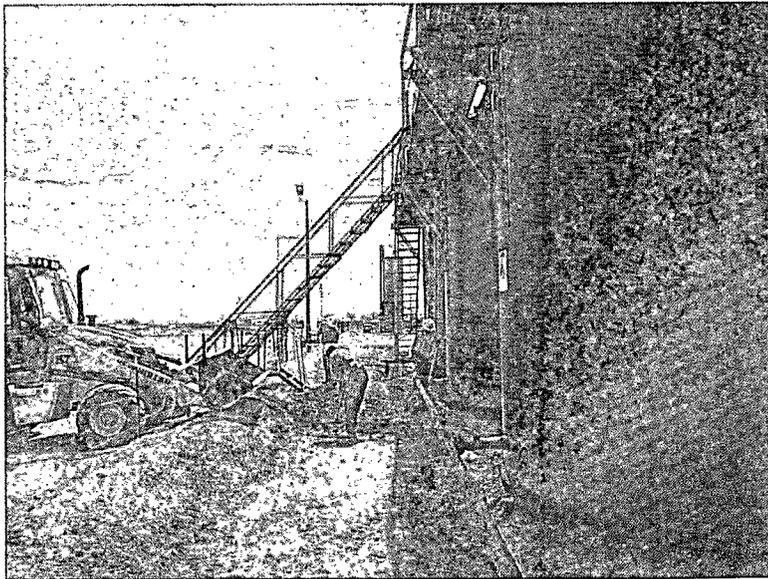
4/15/13



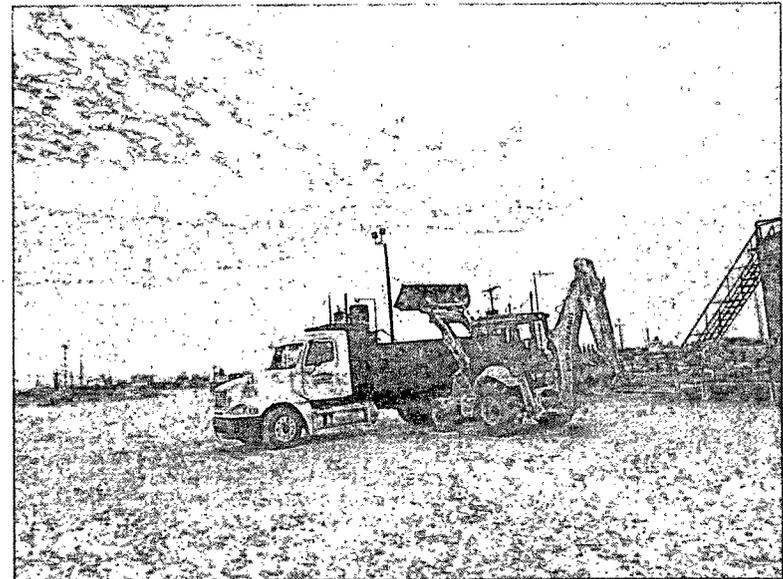
Excavating with hydro-vacuum, facing south 3/20/13



Excavating, facing northwest 3/20/13



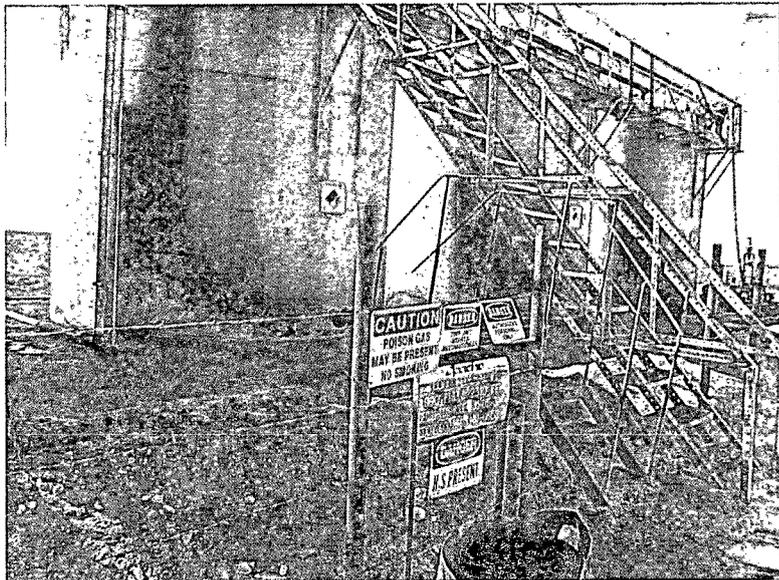
Excavating, facing south 3/21/13



Exporting soil, facing south 3/21/13

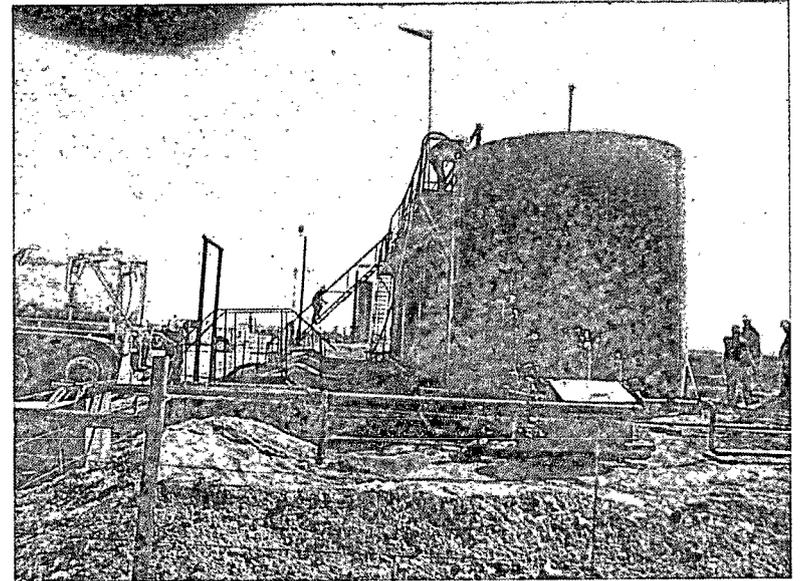
# Apache Loco Federal #001 AD

Unit Letter B, Section 21, T17S, R30E



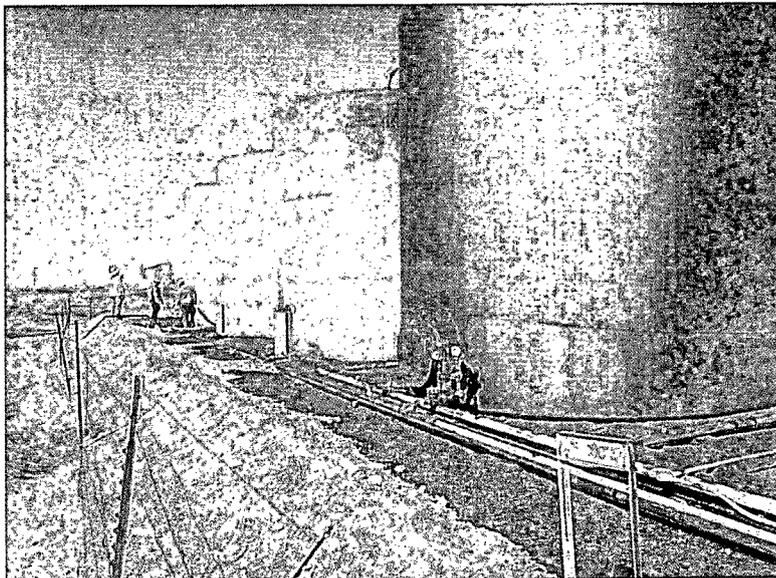
Initial release area, facing northwest

3/11/13



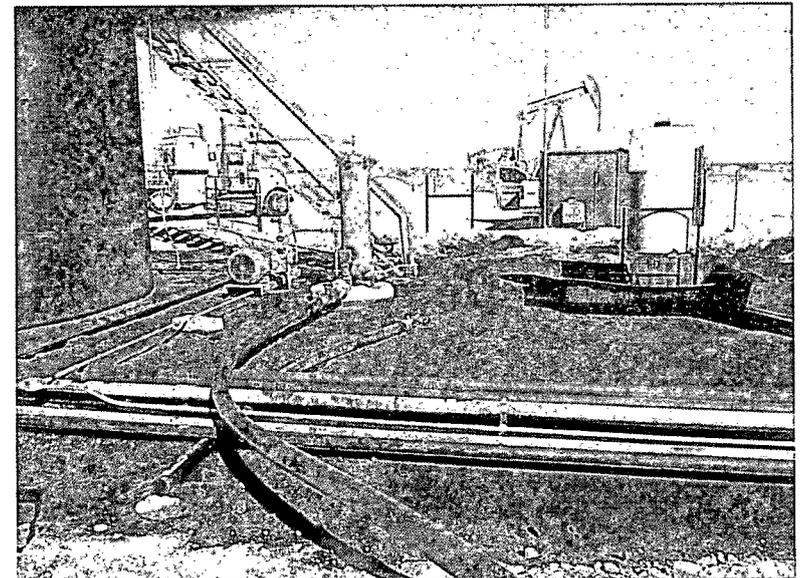
Initial release area, facing south

3/11/13



Initial release area, facing north

3/11/13



Initial release area, facing east

3/11/13