

jerry brian

From: "Swain, Harold" <Harold.Swain@usa.apachecorp.com>
To: <jrbrian@verizon.net>
Sent: Tuesday, March 13, 2007 6:29 AM
Attach: Figure #4.pdf; Figure #5.pdf; Figure #6.pdf; Table 2 - Analytical Data (soil).xls; Table 3 - Analytical Data (water).xls
Subject: FW: Apache Corporation - NEDU 627 Pit (EPI Ref. #24002)

-----Original Message-----

From: David Duncan [mailto:dduncan@envplus.net]
Sent: Monday, March 12, 2007 2:31 PM
To: Swain, Harold
Cc: cmiller@envplus.net; jstegemoller@envplus.net
Subject: Apache Corporation - NEDU 627 Pit (EPI Ref. #24002)

Mr. Swain:

On 3/9/06 (Friday) EPI received a phone call from Mr. Larry Johnson (NMOCD – Hobbs) concerning Field Analyses and Laboratory Analytical Data for the above referenced project. Although EPI is no longer in charge of the project, the information Mr. Johnson requested was put into tabular form and is being directed to your attention. Included for your review and information are Table #2 (Soil Field and Laboratory Analytical Data), Table #3 (Water Laboratory Analytical Data) and Figures #4-#6 (Soil Sampling Figures - hand drawn). Please give EPI directions as to whether Apache Corporation or EPI will relay this information to Mr. Johnson.

If you have any questions, concerns or need additional information, please contact me at (505) 394-3481 or via e-mail at dduncan@envplus.net.

Sincerely,

ENVIRONMENTAL PLUS, INC.

David P. Duncan
Civil Engineer

Environmental Plus, Inc.
P.O. Box 1558
2100 Avenue 'O'
Eunice, New Mexico 88231

(505) 394-3481
(505) 394-2601 (facsimile)

NEDU No. 627
API
~~30-025-34887~~
30-025-370290000

RP# 1357

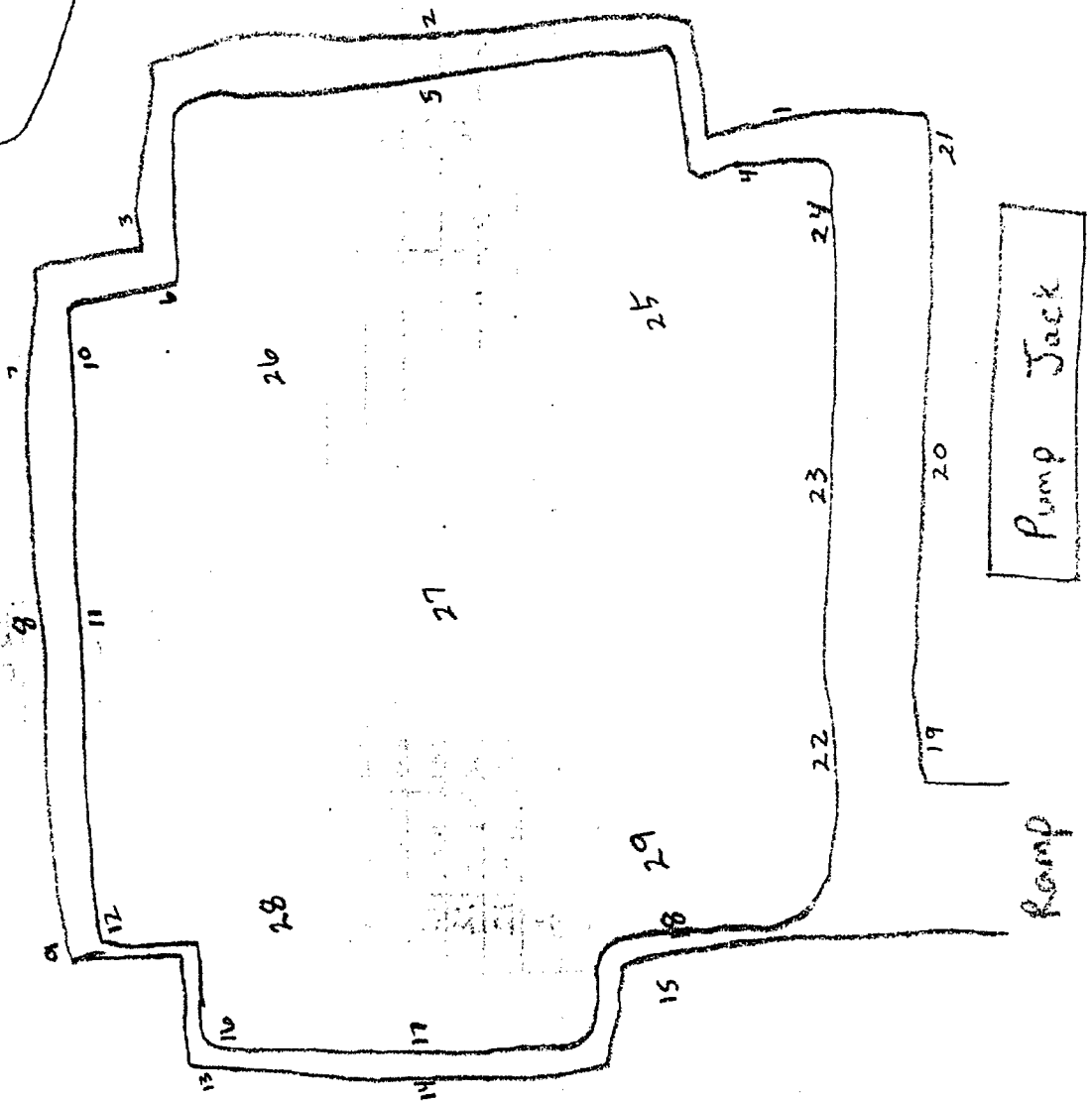
11-27-2006

N

Apache - NEDU 627

- 240002

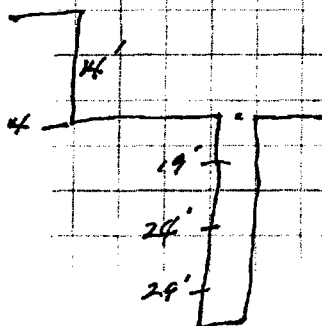
Stock Pile





TELEPHONE 505.394.3481 ... FAX 505.394.2601

2.14.06



on East Tr.
was HIT. Exp. Clay
on about 71'

TABLE 2
Summary of Water Sample Laboratory Analytical Results
Apache Corporation
NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D.	Date	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
W-18'	07-Nov-06	40,975	3,206	972	465	183,200	110	69,978	2,895	0	134	6.48	212,090
C-22'	07-Nov-06	41,183	2,806	729	305	126,200	110	68,979	2,563	0	134	6.93	117,360
SE-22'	07-Nov-06	15,233	1,603	729	93	62,700	130	27,591	1,201	0	159	6.94	51,550
Chapparal Brine	07-Nov-06	124,790	1,202	2,430	1,135	278,400	110	195,939	9,273	0.0	134.0	6.61	333,420
NMWQCC Remedial Thresholds		100		10				50			100		250

Bolded values are in excess of NMWQCC Remediation Threshold Goals

— = Not Analyzed

BH = Soil samples collected from the bottom of the excavation; SW = Soil samples collected from the side walls of the excavation (E=East, W=West, N=North and S=South)

TABLE 2
Summary of Soil Sample Field Analyses and Laboratory Analytical Results
Apache Corporation
NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analysis (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
BH-1	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
BH-2	--	Excavated	9-Feb-06	--	2,000	--	--	--	--	--	--	--	--	--
BH-3	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
BH-4	--	Excavated	9-Feb-06	--	880	--	--	--	--	--	--	--	--	--
BH-5	--	Excavated	9-Feb-06	--	960	--	--	--	--	--	--	--	--	--
BH-6 (center)	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
WSW-7	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
WSW-8	--	Excavated	9-Feb-06	--	280	--	--	--	--	--	--	--	--	--
NSW-9	--	Excavated	9-Feb-06	--	240	--	--	--	--	--	--	--	--	--
NSW-10	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
ESW-11	--	Excavated	9-Feb-06	--	2,400	--	--	--	--	--	--	--	--	--
ESW-12	--	Excavated	9-Feb-06	--	240	--	--	--	--	--	--	--	--	--
SSW-13	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
SSW-14	--	Excavated	9-Feb-06	--	4,000	--	--	--	--	--	--	--	--	--
NWSW-5	5	In situ	14-Feb-06	--	400	--	--	--	--	--	<10.0	<10.0	<20.0	64
NESW-5	5	In situ	14-Feb-06	--	4,000	--	--	--	--	--	<10.0	<10.0	<20.0	7,678

TABLE 2
Summary of Soil Sample Field Analyses and Laboratory Analytical Results
Apache Corporation
NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
ENSW-5	5	In situ	14-Feb-06	--	640	--	--	--	--	--	--	--	--	192
ESSW-5	5	in-situ	14-Feb-06	--	400	--	--	--	--	--	--	--	--	16
SESW-5	5	In situ	14-Feb-06	--	4,000	--	--	--	--	--	--	--	--	17,195
SWSW-4	4	In situ	14-Feb-06	--	4,000	--	--	--	--	--	--	--	--	19,594
WSSW-4	4	in-situ	14-Feb-06	--	640	--	--	--	--	--	--	--	--	272
WNSW-4	4	In situ	14-Feb-06	--	960	--	--	--	--	--	<10.0	<10.0	<20.0	480
NWBH	14	Excavated	14-Feb-06	--	4,000	--	--	--	--	--	<10.0	<10.0	<20.0	13,996
NEBH	14	Excavated	14-Feb-06	--	4000	--	--	--	--	--	<10.0	<10.0	<20.0	2,175
SEBH	14	Excavated	14-Feb-06	--	1600	--	--	--	--	--	<10.0	<10.0	<20.0	9,757
SWBH	14	Excavated	14-Feb-06	--	4000	--	--	--	--	--	<10.0	<10.0	<20.0	688
West Trench-14	14	Excavated	14-Feb-06	--	4000	--	--	--	--	--	--	--	--	21,993
West Trench-19	19	In situ	14-Feb-06	--	4000	--	--	--	--	--	<10.0	<10.0	<20.0	8,157
West Trench-24	24	In situ	14-Feb-06	--	380	--	--	--	--	--	--	--	--	96
West Trench-29	29	In situ	14-Feb-06	--	380	--	--	--	--	--	<10.0	<10.0	<20.0	144
East Trench-14	14	Excavated	14-Feb-06	--	2800	--	--	--	--	--	--	--	--	1,727
East Trench-19	19	In situ	14-Feb-06	--	1280	--	--	--	--	--	<10.0	<10.0	<20.0	912

NEDU 627 Pit (EPI Ref.# 240002)

[illegible]

TABLE 2
Sample Field Analyses and Laboratory
Apache Corporation
NEDU 627 Pit (EPI Ref.# 240002)

[illegible]

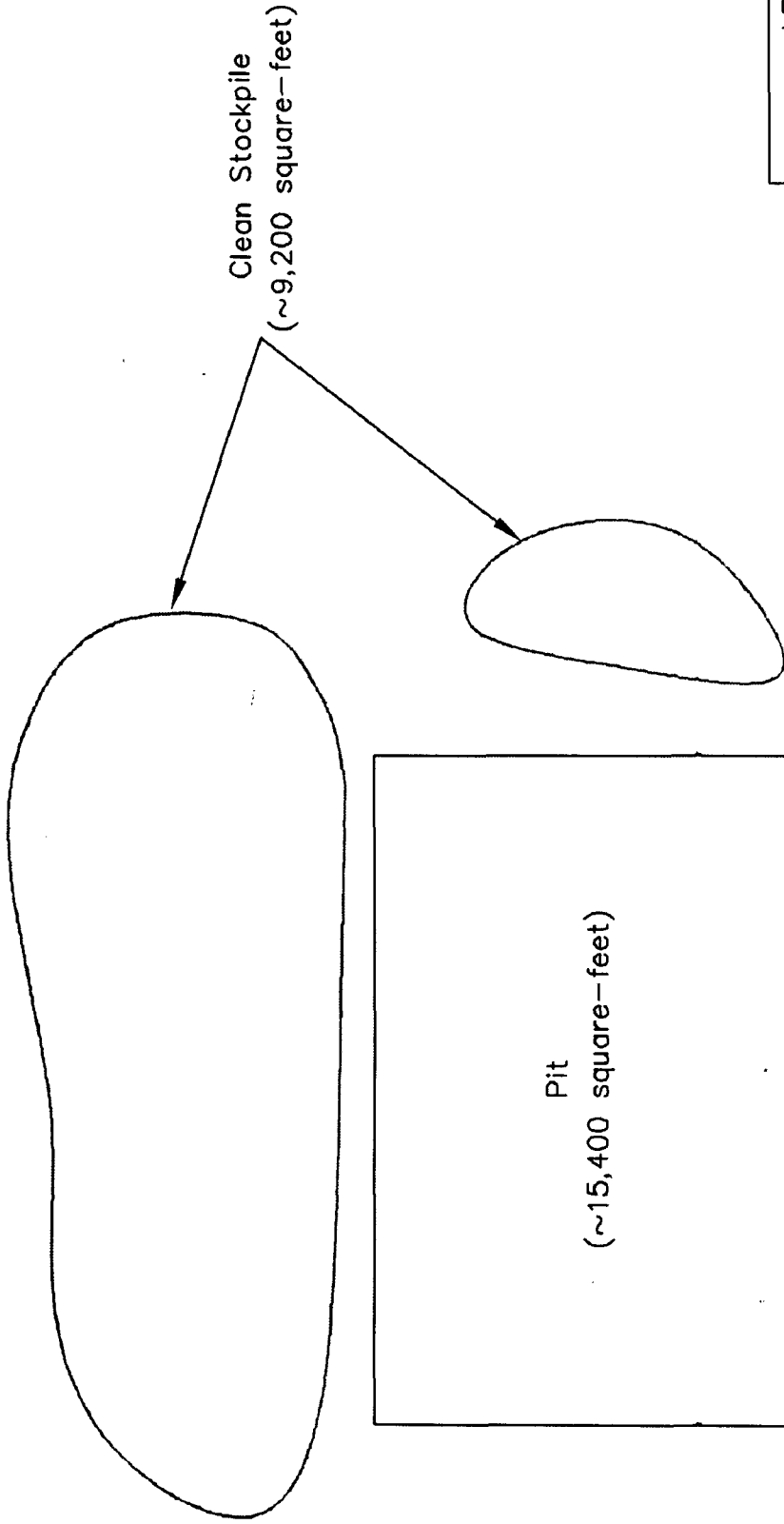
TABLE 2
Summary of Soil Sample Field Analyses and Laboratory Analytical Results
Apache Corporation
NEDU 627 Pit (EPI Ref.# 240002)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
BH27-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	11,676
BH28-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	13,356
BH29-19'	19	In situ	22-Nov-06	--	--	--	--	--	--	--	--	--	--	160
NMOCD Remedial Thresholds				100		10				50			100	250

Bolded values are in excess of NMOCD Remediation Threshold Goals

-- = Not Analyzed

BH = Soil samples collected from the bottom of the excavation; SW = Soil samples collected from the side walls of the excavation (E=East, W=West, N=North and S=South)



LEGEND

Oil Well

W

Figure 3 Site Map Apache Corporation N.E.D.U. Pit #627	Lea County, New Mexico SW 1/4 of the NW 1/4, Sec. 14, T21S, R37E N 32° 28' 48.21" W 103° 08' 30.28" Elevation: 3,416 feet amsl	DWG By: Daniel Dominguez February 2006	REVISD:		
		 Feet	SHEET 1 of 1		



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PHONE (505) 393-2325 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HUNGRY HORSE ENVIRONMENTAL
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 04/11/07
Reporting Date: 04/20/07
Project Owner: APACHE
Project Name: NEDU 627
Project Location: LEA CTY., NM

Sampling Date: 04/17/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM/AB

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		04/19/07	04/19/07	04/19/07	04/19/07	04/18/07	04/19/07
H12474-1	E. TRENCH 22' BGS	7223	2794	1230	122	47200	98
H12474-2	SE CORNER/PIT	1782	938	456	31.5	15210	60
Quality Control		NR	45.2	54.1	1.93	1381	NR
True Value QC		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	80.4	108	96.5	97.7	NR
Relative Percent Difference		NR	5.8	3.6	3.7	1.1	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/18/07	04/19/07	04/19/07	04/19/07	04/18/07
H12474-1	E. TRENCH 22' BGS	18794	1286	0	117	7.04
H12474-2	SE CORNER/PIT	5338	536	0	73.2	7.47
Quality Control		490	23.9	NR	964	6.98
True Value QC		500	25.0	NR	1000	7.00
% Recovery		98	95.7	NR	96.4	99.4
Relative Percent Difference		2.0	14	NR	12.0	0.3

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Jose S. Moreno
Chemist

04-20-07
Date

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 03/16/07
Reporting Date: 03/23/07
Project Owner: APACHE
Project Name: NEDU 627
Project Location: LEA COUNTY, NM

Sampling Date: 03/16/07
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:	03/23/07	03/23/07	03/23/07	03/23/07	03/20/07	03/23/07
H12345-1 INJECTION WELL	7276	2295	222	199	39000	372
H12345-2 WELL-HEAD	9344	2462	484	220	48600	280
Quality Control	NR	50.6	52.4	1.97	1378	NR
True Value QC	NR	50.0	50.0	2.00	1413	NR
% Recovery	NR	101	105	98.5	99.1	NR
Relative Percent Difference	NR	2.8	0.0	3.6	0.3	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
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ANALYSIS DATE:	03/21/07	03/21/07	03/23/07	03/23/07	03/20/07	03/21/07
H12345-1 INJECTION WELL	13696	2939	0.0	454	7.94	29764
H12345-2 WELL-HEAD	17794	3262	0	342	8.07	36048
Quality Control	500	25.0	NR	854	6.94	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	100	100	NR	85.4	99.1	NR
Relative Percent Difference	0.0	4.9	NR	9.5	0.3	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Chemist

Date

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ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 02/27/07
Reporting Date: 02/28/07
Project Owner: APACHE
Project Name: NEDU #627
Project Location: LEA CTY., NM

Sampling Date: 02/27/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AB

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:		02/27/07	02/27/07	02/27/07	02/27/07	02/27/07	02/27/07
H12252-1	PIT WATER	8373	2428	1755	67.5	53300	96
Quality Control		NR	53.2	49.2	1.75	1380	NR
True Value QC		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	106	98.4	87.5	97.7	NR
Relative Percent Difference		NR	0.0	4.8	11.0	0.2	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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		Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		02/27/07	02/27/07	02/27/07	02/27/07	02/27/07	02/28/07
H12252-1	PIT WATER	21393	1299	0	117	6.98	40592
Quality Control		490	28.2	NR	903	6.91	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		98	113	NR	90.3	98.7	NR
Relative Percent Difference		0.0	18	NR	1.3	0.0	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Chemist

Date

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ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505)-391-4585

Source

Receiving Date: 11/28/06
Reporting Date: 12/07/06
Project Owner: APACHE
Project Name: NM STATE "S" #42
Project Location: UNIT 0, SEC. 34 T21S-R37E

Sampling Date: 11/28/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: HM/AB

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:	12/06/06	12/06/06	12/06/06	12/06/06	11/29/06	11/30/06
H11850-1 P&S BRINE SALES	124714	2400	2570	1120	74200	288
Quality Control	NR	48.1	48.6	2.77	1304	NR
True Value QC	NR	50.0	50.0	3.00	1413	NR
% Recovery	NR	96	97	92.0	92	NR
Relative Percent Difference	NR	0.0	0.0	8.3	1.0	NR
METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1	

Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
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ANALYSIS DATE:	12/04/06	12/05/06	11/30/06	11/30/06	11/29/06	11/29/2006
H11850-1 P&S BRINE SALES	201000	5510	0	351	6.62	325588
Quality Control	510	17.9	NR	952	7.00	NR
True Value QC	500	20.0	NR	1000	7.00	NR
% Recovery	102.0	90	NR	95.2	100	NR
Relative Percent Difference	6.1	12	NR	3.1	0	NR
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

[Signature]
Chemist

12-07-06
Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

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