

DAVID FLATHLR ENVIRONMENTAL SUPERVISOR DIRECT: (432) 818-1615 E MAIL: DAVID.FEATHER @APACHECORP.COM

October 30, 2019

Mr. Bradford Billings State of New Mexico Oil Conservation Division 1220 South St Francis Drive Santa Fe, NM 87505

RE: 1RP-1357 NEDU 627

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to pit closure. Apache is respectfully submitting the closure report based on studies occurring in 2019 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-818-1615 or by e-mail at David. Feather @ Apache Corp. com.

Sincerely,

David Feather

Environmental Supervisor

Apache Corporation - Permian Basin Region

Attachment: Closure Report Dated October 25, 2019





Bruce Baker

Northeast Drinkard Unit #627 Closure Report

API NO. 30-025-37029

RP-1357

Pit Closure

U/L E, Section 14, Township 21S, Range 37E

Lea County, NM

10/25/19

Prepared By: Hungry Horse, LLC 4024 Plains Hwy Lovington, NM 88260



October 25, 2019

New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau – District I
1625 N. French Dr.
Hobbs, NM 88240-9273

RE: TERMINATION REQUEST

Apache Corporation -- Northeast Drinkard Unit #627 (NEDU #627)

U/L E, Section 14, Township 215, Range 37E

API No. 30-025-37029

To Whom it May Concern,

Apache Corporation has retained Hungry Horse, LLC to address the potential pit concerns at the site referenced above. Hungry Horse, LLC has prepared this Closure Report that demonstrates the drilling pit associated with the NEDU #627.

Background and Previous Work

Apache Corporation has submitted the initial C-144 for the proposed Pit Closure Plan for the NEDU #627 on November 30th, 2005. The plan was stated as follows:

- Pit will be closed using the trench bury procedure
- Excavate a trench adjacent to the drilling pit, line with a 12mil liner and place the contents of the drilling pit in the trench
- Cover the trenched area with a 20mil liner and 3' of clean soil
- Contour, level and seed
- Notify the OCD before starting and file sundry notice after closing of the pit.

The NMOCD approved the Pit Closure Plan on November 30th, 2005. On or before October 14th, 2005 Environmental Plus, Inc. began the transfer of the pit materials.

A total of six bottom hole and ten sidewalls samples were obtained. Below are the samples obtained for delineation purposes (Table I Sampling) on or before February of 2006.

Sample ID	Depth	Soil	Sample Date	Field Chloride	Lab BTEX	Lab TPH	Lab Chi
ENSW-5	5'	IN-SITU	2/14/2006	640	0	0	192
ESSW-5	5'	IN-SITU	2/14/2006	400	0	0	16
EESW-5	5'	IN-SITU	2/14/2006	4000	0	0	17195
SWSW-4	4'	IN-SITU	2/14/2006	4000	0	0	19594
WSSW-4	4'	IN-SITU	2/14/2006	640	0	0	272
WNSW-4	4'	IN-SITU	2/14/2006	960	0	<20	480
NWBH	14'	EXCVATED	2/14/2006	4000	0	<20	13996
NEBH	14'	EXCVATED	2/14/2006	4000	0	<20	2175

SEBH	14'	EXCVATED	2/14/2006	1600	0	<20	9757
SWBH	14'	EXCVATED	2/14/2006	4000	0	<20	688
WEST TRENCH-14	14'	EXCVATED	2/14/2006	4000	0	0	21993
WEST TRENCH-19	19'	IN-SITU	2/14/2006	4000	0	<20	8157
WEST TRENCH-24	24'	IN-SITU	2/14/2006	380	0	0	96
WEST TRENCH-29	29'	IN-SITU	2/14/2006	380	0	<20	144
EAST TRENCH-14	14'	EXCVATED	2/14/2006	2800	0	0	1727
EAST TRENCH-19	19'	IN-SITU	2/14/2006	1280	0	<20	912

On or before November 7th, of 2006 EPI obtained four sample of the fluid in the pit area and below you will find the data provided:

							TTL-					рН	
Sample ID	Date	NA	CA	Mg	K	Cond	Alk	CI	50	co	HCO	(s.u)	TDS
W-18'	11/7/2006	40975	3206	972	4 65	183200	110	69978	2895	0	134	6.48	212000
C-22'	11/7/2006	41183	2806	729	305	126200	110	68979	2563	0	134	6.93	117360
SE-22'	11/7/2006	15233	1603	729	93	62700	130	27591	1201	0	159	6.94	51550
Chaparral Brine	11/7/2006	124790	1202	2430	1135	278400	110	195939	9273	0	134	6.61	333420

On or before November 22nd of 2006, EPI continued to delineate the pit area, data is found below and in the Table 2 form attached herein:

Sample ID	Depth	Soil	Sample Date	Field Chloride	Lab BTEX	Lab TPH	Lab Chi
NSW11-12'	12'	IN-SITU	11/22/2006	400	0	0	160
NSW12-12	12'	IN-SITU	11/22/2006	240	0	0	48
NSW13-6'	6'	IN-SITU	11/22/2006	560	0	0	800
WSW14-7'	7'	IN-SITU	11/22/2006	400	0	0	240
WSW15-6'	6'	IN-SITU	11/22/2006	480	0	0	640
WSW16-12'	12'	IN-SITU	11/22/2006	240	0	0	48
WSW17-11'	11'	IN-SITU	11/22/2006	240	0	0	64
WSW18-12'	12'	IN-SITU	11/22/2006	160	0	0	48
SSW19-6'	6'	IN-SITU	11/22/2006	400	0	0	240
SSW20-7'	7'	IN-SITU	11/22/2006	240	0	0	48
SSW21-6'	6'	IN-SITU	11/22/2006	240	0	0	32
SSW22-12'	12'	IN-SITU	11/22/2006	240	0	0	336
SSW23-6'	6'	IN-SITU	11/22/2006	240	0	0	64
SSW24-12'	12'	IN-SITU	11/22/2006	160	0	0	224
BH25-19'	19'	IN-SITU	11/22/2006	0	0	0	8317
BH26-19'	19'	IN-SITU	11/22/2006	0	0	0	2607
BH27-19'	19'	IN-SITU	11/22/2006	0	0	0	11676
BH28-19'	19'	IN-SITU	11/22/2006	0	0	0	13356
BH29-19'	19'	IN-SITU	11/22/2006	0	0	0	160

In February of 2007 Hungry Horse obtained a water sample from the pit area. Comparison of the November of 2006 to February of 2007 sample data shows a drastic decline in the minerals, salts, metals, cations or anions better known as TDS (Total Dissolved Solids). The confirmed lab analysis is below:

Sam; ID	ole	Date	NA	CA	Mg	К	Cond	TTL- Alk	Cl	so	со	нсо	pH (s.u)	TDS
Pit W	ater	2/27/2007	8373	2428	1755	67.5	53300	96	21393	1299	0	117	6.98	40592

In March of 2007 another sampling event occurred comparing the injection well fluid and fluid from the wellhead. The confirmed lab analysis for TDS is below.

Sample ID	Date	NA	CA	Mg	к	Cond	TTL- Alk	CI	so	со	нсо	pH (s.u)	TDS
Inj. Well	3/16/2007	7276	2295	222	199	39000	372	13696	2939	0	454	7.94	29764
Wellhead	3/16/2007	9344	2462	484	220	48600	280	17794	3262	0	342	8.07	36048

On April 17th of 2007, continued sampling occurred comparing the East Trench at 22'bgs and on the SE Corner of the Pit. The lab confirmed the following analysis below:

Sample ID	Date	NA	CA	Mg	К	Cond	TTL- Alk	CI	50	со	нсо	pH (s.u)	TDS
E. Trench 22'bgs	4/17/2007	7223	2794	1230	122	47200	98	18794	1286	0	117	7.04	36336
SE Corner of Pit	4/17/2007	1782	938	456	31.5	15210	60	5338	536	0	73	7.47	11210

Please also see the attached documentation that has been uploaded into the NMOCD Database, this information is attached accordingly.

Groundwater Information

According to the New Mexico Office of the State Engineer, the ground water closest to the site is 57'bgs. Below you will find the two wells showing ground water information for the site listed herein:

CP-01574-POD1: 547' from the site at 57'DGW CP-01574-POD2: 563' from the site at 57'DGW

Hungry Horse used the depth of ground water found above as the basis of the Closure Criteria for Soils impacted by a release and is listed below for the new rule dated August 14th, 2018. No soil remediation will be taking place for this site, unless found required by the NMOCD. Please see the groundwater information provided below:

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Closure f	or Soils Impacted by a Relea	ase	-
Depth	Constituent	Method	Limit
51' to			
100'	Chloride	EPA 300.00 or SM4500 CL B	10,000 mg/kg
	TPH (GRO, DRO, MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Soil Boring

Hungry Horse, LLC went back out to the site on June 24th of 2019 to begin the subsurface investigation to determine depth to ground water at this site. Six boreholes were drilled, which includes SB1 thru SB6 (see attached map). The depths for the above-mentioned boreholes ranged from 28' to 198'bgs. Each borehole contained an impervious clay barrier which was first encountered at depth from 12' to 22'bgs (see attached Soil Boring Logs). Below you will find the Soil Boring Data:

Soil Boring ID	Depth Bored	Soil/AVG	Boring Date	Clay Depths
SB#1	198'	Clay	7/8/2019	20-198'
SB#2	34'	Clay	7/8/2019	22-34
SB#3	34'	Clay	7/9/2019	16-34'
SB#4	28'	Clay	7/12/2019	17-28'
SB#5	30'	Clay	8/8/2019	12-30'
SB#6	104'	Clay	8/8/2019	16-104'

SB #1 was drilled up-gradient northwest of the pit to a total depth of 198'bgs, containing 93' of an impervious clay barrier and was dry, no groundwater encountered. SB #6 was also drilled up-gradient E/NE of the pit to a total depth of 104'bgs, containing 84' of an impervious clay barrier and was dry, no groundwater encountered.

SB #2, SB #3, SB #4 and SB #5 were drilled downgradient in a south easterly direction (see attached Site Map for details). SB#2 (18'bgs) thru SB#5 (22'bgs) contained perched drilling fluids (see attached Soil Boring Logs).

On August 8th of 2019, Hungry Horse took a subsurface soil sample at the center of the pit known as SB #5 (Sample ID: MW5-32'bgs on lab analysis). No monitoring well was installed, COC (Chain of Custody was mislabeled). This sample was obtained at 32'bgs and was sent to Cardinal Laboratories (H902797) for confirmation. The confirmed lab analysis for SB #5 is as follows:

Sample ID	Depth	Soil	Sample Date	Lab BTEX	Lab Chi	Lab TPH
MW5 (SB#5)	32'	Clay	8/8/2019	<0.300	3400	<10

Natural phytoremediation is taking place at this site. Dense, healthy mesquite bushes populate the old pit area. These mesquites are 2' to 3' taller than the mesquites on the undisturbed surrounding pasture (see site photos).

Conclusion

Hungry Horse, LLC would like to request closure for the drilling pit associated with the NEDU #627 for Apache Corporation. The historical and current information which is detailed herein, indicates that groundwater is not present upgradient on the West, Northwest or Northeast area surrounding the drilling pit. This data confirms that the NEDU #627 location is an exception to the recorded groundwater data in this area based on the New Mexico Office of the State Engineer Database. (Please also see the Site Maps at the end of this report, which shows the Open Pit, Closed Pit and Current site views).

Hungry Horse along with Apache Corporation believes that the recent soil boring activity indicates that there is no groundwater present at this site. The Lab Analysis dated August 19th of 2019 (Cardinal Lab Report H902797) indicates that the fluids obtained from the center of the pit which was encountered on August 8th of 2019 is definitely non-potable perched drilling fluids. SB #1 thru #6 all exhibit a uniform depositional sequence of impervious clay that ranges from a minimum of 12' to 105' in thickness.

Apache Corporation appreciates the opportunity to work with you on this project. Please contact Bruce Baker at 432-631-6982 if you have any questions or concerns.

Sincerely

Kathy Rivera

Environmental Office Manager

Hungry Horse, LLC.

4024 Plains Highway

Lovington, NM 88260

Cell (575) 441-4374

krivera@hungry-horse.com

Attachments:

Pit Registration C-144 (1-03-2005)
Initial C-144 (11-30-2005)
NMOCD Historical Report
Historical Sample Data
Groundwater Information
Soil Boring Map
Soil Boring Data
Current Pit Sampling Data
Current Pit Lab Analysis
Site Photos
Open Pit Site Map
Closed Pit Site Map

Current View Site Map

Эретатог: __

District 1 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.

July 29, 2004 For drilling and production facilities, submit to appropriate NMOCD District Office. For downstream facilities, submit to Santa Fe

Form C-144

office Santa Fe, NM 87505 Pit or Below-Grade Tank Registration or Closure Is pit or below-grade tank covered by a "general plan"? Yes . No . Type of action: Registration of a pit or below-grade tank | Closure of a pit or below-grade tank | e-mail address: gleng.bons@apachecorp.com Telephone: (918) 491 - 4900 Apache Comoration Address: Two Warren Place, Suite 1500, 6120 S. Yale Tulsa Oklahoma 74136-4224

Pacility or well name: NEDU #627 API #: 30 - 025 U/L or Otr/On E Sec 14 T 21S R 37E Pacility or well name: NEDU #627 Latitude 32°28'47.01"N Longitude 103°08"28.28"W NAD: 1927 M 1983 Surface Owner Federal State M Private Indian Below-grade tonk

Pis Lyoe: Drilling ☑ Production ☐ Disposal ☐	Volume:but Type of fluid:	
Workover Emergency	Construction material	_
Lined ☑ Unlined □	Double-walled, with leak detection? Yes [] If n	tot, explain why not
Lines Change Volume		
7105 bbl	\	75 Table
	Less than 50 feet	(20 points)
Depth to ground water (vertical distance from bottom of pit to seasonal high	50 feet or more, but less than 100 feet - 70 ft	(10 points) 10 Pts
water elevation of ground water.)	100 feet or more	(0 points)
200 four frame a private domestic	Yes	(20 points)
Wellhead protection aren: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	<u>No</u>	(O moints)
	Less than 200 feet	(20 points)
Distance to surface water: (horizontal distance to all wellands, playas,	200 feet or more, but less than 1000 feet	(10 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet or more	(Opoints)
	Ranking Scure (Total Points)	10 Points
I bereby certify that the information above is true and complete to the best of been/will be constructed or closed according to NMOCD guidelines , Date: 12/30/2004 Printed Name/Title Gloon Bone - Drilling Engineer Your certification and NMOCD approval of this application/closure does not be a possible of the certification and NMOCD approval of this application and NMOCD approval of this application and NMOCD approval of this application and NMOCD approval of this application.	Signaturo	of the pixer tunk contaminate ground water of
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve the regulations.	e operator of its responsibility for compliance with	
Approval:		10 F
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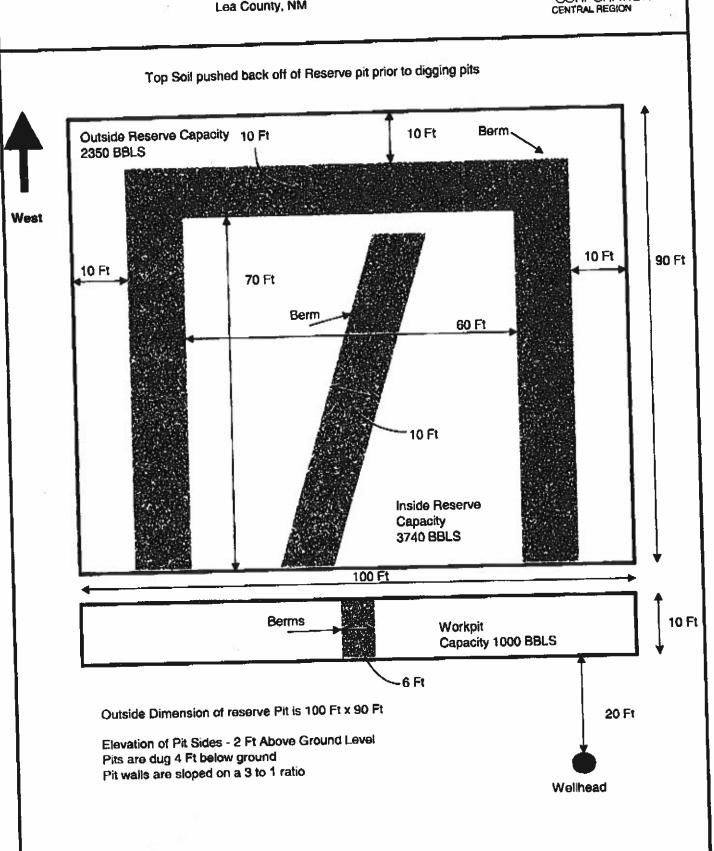
From-APACHE CORP DRILLING DEPT

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NEDU #627 - Mud Pits

Sec. 14, T 21S, R 37 E Lea County, NM





State of New Mexico Energy Minerals and Natural Resources

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

Form C-144 June 1, 2004

Released to Imaging: 7/6/2022 3:09:10 PM

For drilling and production facilities, submit to appropriate NMOCD District Office.

For downstream facilities, submit to Santa Fe office

Pit or Below-Gra	ade Tank Registration or Clos	ure
	ik covered by a "general plan"? Yes X N	
Type of action: Registration of a pit of	or below-grade tank Closure of a pit or below-g	rade tank 🕅
Operator: Agacho Carp. Telephon Address: 6/20 5. Yol. Soit /500	ie: 918 491 · 4980 c-mail address: 2	eay or @ leaco net
	0. 045. 37029U/L or Qtr/Qtr E	
	30" 18 47" Longitude 103	46
Surface Owner: Federal 🗌 State 🔲 Private 🔀 Indian 🔲		
Pit	Below-grade tank	
Type: Drilling Production Disposal D	Volume:bbl Type of fluid:	
Workover ☐ Emergency ☐	Construction material:	_
Lined 🖪 Unlined 🗋	Double-walled, with leak detection? Yes 🔲 If n	not, explain why not.
Liner type: Synthetic Thickness 12 mil Clay		
Pit Volume 719 hbbl		
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet	(20 points)
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)
70 41.	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)	No ·	(0 points) 6789107772
	Less than 200 feet	
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(10 points) (10 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet or more	(Copoints)
<u> </u>	Ranking Score (Total Points)	100 21 20 2
If this is a pit closure: (1) Attach a diagram of the facility showing the pit's	s relationship to other equipment and tanks. (2) Indi	icate disposal docation: (check the onsite boot if
your are burying in place) onsite 🔣 offsite 🔲 If offsite, name of facility_	. (3) Attach a general	description of femadial action taken including
remediation start date and end date. (4) Groundwater encountered: No 🔲 Y	es 🔲 If yes, show depth below ground surface	at and attach sample sesults.
(5) Attach soil sample results and a diagram of sample locations and excavat	ions.	975 SE
Additional Comments: Plan & tranca burn	ansite. Excusto to	end agracant I
drilling get line with 12 mil	plastic, put contains 1	drilling oit in
Frank cover with 20 mil a	substituted and 31+ 11.	200 500
contour bul and seed:	0	
Notitu the OCD belove state	the and like standar	ration also also
Will begin soon after agarage	O Santy	TOTAL CASTING
The second second		

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines [], a general permit [], or an (attached) alternative OCD-approved plan []. Printed Name/Title_ Signature Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: Printed Name/Title GARY W. WINK 157	AFFMGR Signature Lau	w.Wink	Date: 11 30/05

1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., 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** Department Oil Conservation Division 1220 South St. Francis Dr.

Form C-144 Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy

Santa Fe, NM 87505 to the appropriate NMOCD District Office. Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application Type of action: Below grade tank registration Permit of a pit or proposed alternative method Pit #1 Closure Report Closure of a pit, below-grade tank, or proposed alternative method Modification to an existing permit/or registration Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances. _____ OGRID #:______873____ Operator: __Apache Corporation___ Address: ____800 East Broadway Hobbs, NM 88240___ Facility or well name: ___NEDU #627 (Northeast Drinkard Unit #627) ___ OCD Permit Number: _____ API Number: __30-025-37029____ U/L or Qtr/Qtr ___E____Section ____14___Township ___21S____Range ___37E____County: __Lea County___ Center of Proposed Design: Latitude ___32.47980 ____ Longitude ___-103.14160 ____ NAD83 Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment Pit: Subsection F, G or J of 19.15.17.11 NMAC Temporary: Drilling Workover ☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☒ yes ☐ no ☑ Lined ☐ Unlined Liner type: Thickness ___ [2____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other __ ☐ String-Reinforced Liner Seams: Welded Factory Other Volume: _7105____bbl Dimensions: L____x W___x D_ Below-grade tank: Subsection I of 19.15.17.11 NMAC __bbl Type of fluid: _____ Tank Construction material: ☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off ☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other ____mil 🔲 HDPE 🗌 PVC 🔲 Other __ Liner type: Thickness ___

Alternative Method:

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital. institution or church)

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify__

letting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen Netting Other	
Monthly inspections (If netting or screening is not physically feasible)	
igns: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
Signed in compliance with 19.15.16.8 NMAC	
ariances and Exceptions:	
ustifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.	
Please check a box if one or more of the following is requested, if not leave blank: Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
iting Criteria (regarding permitting): 19.15.17.10 NMAC	
nstructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptaterial are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable source
General siting	
Fround water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes NA
Fround water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. IM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ ☐ NA
Vithin incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance dopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes 1
Vithin the area overlying a subsurface mine. (Does not apply to below grade tanks) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ 1
 Vithin an unstable area. (Does not apply to below grade tanks) Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Yes ☐ 1
Vithin a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	Yes 🗍 1
Below Grade Tanks	
Vithin 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured	│ │
om the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	
Vithin 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption: NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes 🔲 1
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Vithin 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, r playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	Yes 🔲 1
Vithin 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes 🔲 1
pplication. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Vithin 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock vatering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. IM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes Yes
Form C-144 Oil Conservation Division Page 2 of 6	

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes 🛛 No						
Temporary Pit Non-low chloride drilling fluid							
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes No						
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No						
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No						
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site							
Permanent Pit or Multi-Well Fluid Management Pit							
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☑ No						
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No						
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site							
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map: Topographic map: Visual inspection (certification) of the proposed site							
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC							
Previously Approved Design (attach copy of design) API Number: or Permit Number:							
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	.15.17.9 NMAC						
Previously Approved Design (attach copy of design) API Number: or Permit Number:	3:09						
Form C-144 Oil Conservation Division Page 3 of 6	Released to Imaging: 7/6/2022 3:09:10 PM						
Form C-144 Oil Conservation Division Page 3 of 6	Released						

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.19 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Lak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	documents are			
Proposed Closure: 19.15.17.13 NMAC				
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well Fallernative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	luid Management Pit			
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached. □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC □ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC				
15. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. It 19.15.17.10 NMAC for guidance.	rce material are Please refer to			
Ground water is less than 25 feet below the bottom of the buried waste.	☐ Yes ⊠ No			
 NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Ground water is between 25-50 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	☐ NA ☐ Yes ☑ No			
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ NA ✓ Yes ☐ No			
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	□ NA □ Yes ☑ No			
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No 1:60:8			
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site				
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☑ No			
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map: Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	to In			
Form C-144 Oil Conservation Division Page 4 o	Acleased to Imaging: 7			

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adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality: Written approval obtained from the municipality	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	
Within a 100-year floodplain. FEMA map	☐ Yes ☒ No ☐ Yes ☒ No
	163 🖂 140
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17. Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cann Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	11 NMAC 15.17.11 NMAC
17. Operator Application Certification:	
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and beli	
Name (Print):Larry (Bruce) Baker Title:Sr. Environmental Tech	
Signature: Lary Bruce Baher Date: 10-30-19	
e-mail address:larry.baker@apachecorp.com	
18. Report OCD Approval: Permit Application (including closure plan) X Closure Plan-(only) OCD Conditions (see attachment)	
18. Report OCD Approval: Permit Application (including closure plan) X Closure Plan-(only) OCD Conditions (see attachment)	
18. OCD Approval: Permit Application (including closure plan) Closure Plan-(only) OCD Conditions (see attachment)	
OCD Approval: Permit Application (including closure plan) \(\text{Closure Plan-(only)} \) OCD Conditions (see attachment) OCD Representative Signature: \(\text{Qaclyn Burdins} \) \(\text{Approval Date: } \(\text{07/06/20} \)	the closure report.
OCD Approval: Permit Application (including closure plan) Closure Plan-(only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 07/06/202 Title: Environmental Specialist-A OCD Permit Number: #1 19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date: Closure Completion Date:	the closure report.
OCD Approval: Permit Application (including closure plan) \(\) Closure Plan-(only) OCD Conditions (see attachment) OCD Representative Signature: Signature: Signature: OCD Permit Number: #1 19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.	the closure report.
OCD Approval: Permit Application (including closure plan) Closure Plan-(only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 07/06/202 Title: Environmental Specialist-A OCD Permit Number: #1 19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date: Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-location)	the closure report. complete this cop systems only)

Form C-144

Oil Conservation Division

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Derator Closure Certification:
hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and elief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): ____Larry (Bruce) Baker______ Title: _____Sr. Environmental Tech_

Signature: Lang Bruce Bales Date: 10-30-19

Form C-144

Oil Conservation Division

Page 6 of 6

New Mexico Office of the State Engineer
Well Reports and Downloads

NAI	27 V.						
	/2/ A. L	Y:	Zone:	a s	Search Radiu	s:	1 1 1 10 10
County:	Basin	:[Number:		Suffix:	
Owner Name: (I	irst)	(Last)		0	Non-Domes	tic O Domes	ntic
Well / Surface	Data Report	Aye	Depth to Wa	ter-Report		Water Coll	ımı Report
	Cir	ar Form	WATERS	Menu	Help		

AVERAGE DEPTH OF WATER REPORT 10/14/2005

								(Depth	Water in	Peet)
Ban	Tws	Rng	Seq	Zone	x	X	Wells	Min	Max	Avg
C5	215	37E	04				2	75	75	75
CP	215	37E	06				1	73	73	73
CP	215	37E	16				1	70	70	70
CP	215	37E	22				1	53	53	53
CP	215	37E	23	100			1	65	65	65
CP	218	37£	23		924000	6600000	1	65	65	65
CP	218	37E	27				1	76	76	76
CP	215	37E	28				3	65	75	71
CP	215	37E	33				1	100	100	100

Record Count: 12

<u>jerry brian</u>

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).xis

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.

NED() #10.627

Sincerely,

ENVIRONMENTAL PLUS, INC.

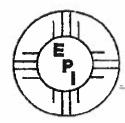
David P. Duncan Civil Engineer

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

(505) 394-3481 (505) 394-2601 (facsimile) 30-025-34887 30-025-370290000

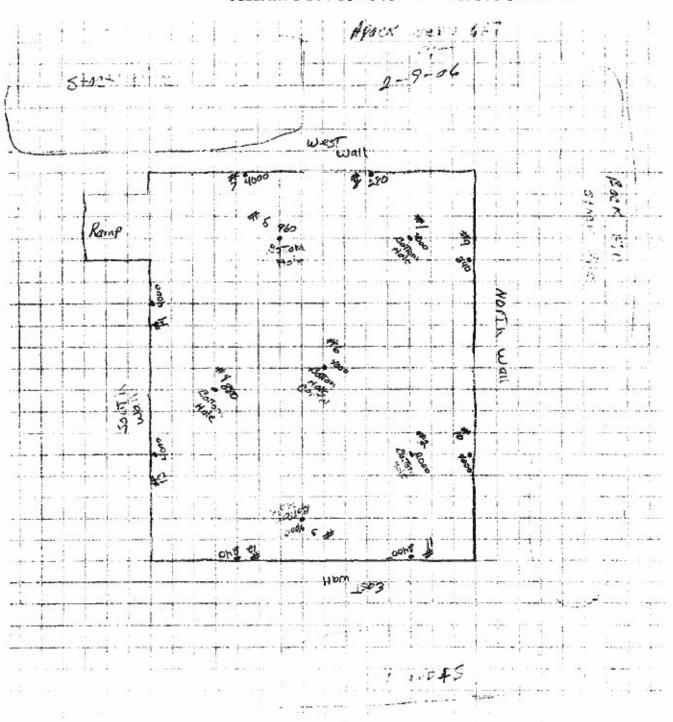
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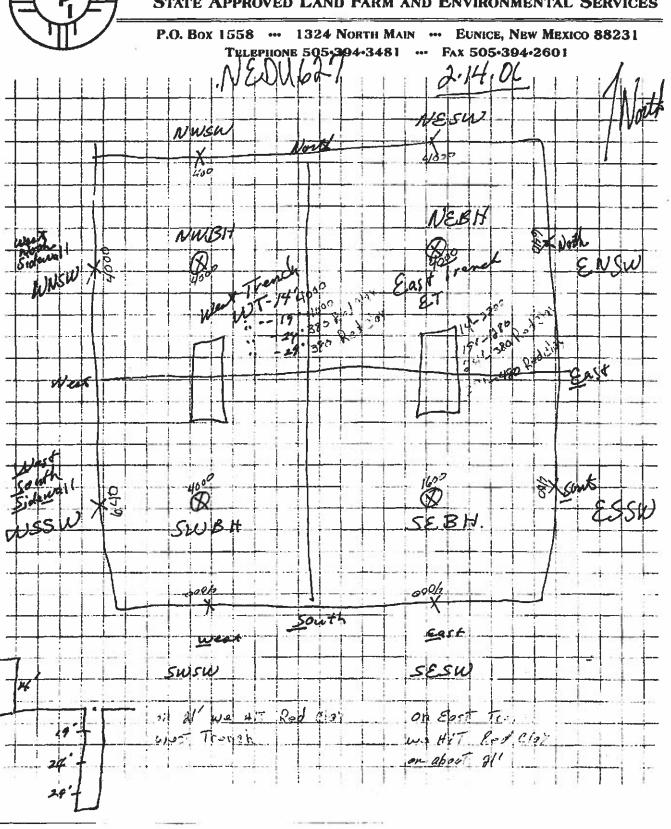
ENVIRONMENTAL PLUS, INC. 9019 TR + B242 T STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

P.O. Box 1558 ••• 2100 Ave. O ••• Eunice, New Mexico 88231 Telephone 505-394-3481 ••• Fax 505-394-2601





ENVIRONMENTAL PLUS, INC. 2017 TRO-BERIZE STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES



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TABLE 2 Apache Corporation NEDU 627 Pit (EPI Ref.# 240062)

Sample 1.D.	Date	Na (mg/L)	Cs (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (# S/cm)	T-Alkalanity (mgCsCO ₃ /L)	CI (mg/L)	SO: (mg/L)	CO ₁ (mg/L)	(mg/L)	pH (s.u.)	TDS (mg/L
W-16"	07-Nov-06	40,975	3,206	972	465	183,200	110	69,978	2,895	0	134	6,48	212,090
C-27	07-Nov-06	41,183	2.806	729	303	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	\$1,550
Chapparral 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	3)3,420
					10								
		_		-					-			_	\top
NMWQCC Remod	ial Thresholds	100		10				30			100		250

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

Sample 1.D.	Depth (feet)	Soil Status	Sample Date	PED Pictél Applysis (ppm)	Field Chloride Analysis (mg/Kg)	Bonzone (mg/Kg)	Tolsene (mg/Kg)	Ethythenusee (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	(06-C10) (mg/Kg)	DRO (>C10-C18) (mg/Kg)	Total Hydrocarbona nCs-aC28 (mg/Kg)	Chioná (mp/Kg
B04-4		Excavated	9-Feb-06		4,900			1						
BH-3		Exceptated	9-Pab-06		2.000									
884-3	-	Encavaled	9-Feb-06		4.000									
BH-4		Excerned	9-Feb-06		880									
DR-5		Excavated	9-746-06		960									
BH-6 (cemer)		Exceptated	9-Fab-46		4,000						,.			
WSW-7		Excavated	9-Feb-06		4,000					**				
wsw-#		Exceptated	9-Feb-06		280									
NSW-9		Excavated	9-Feb-06		240					-				
N\$W-10		Exampled	9-Feb-06		4.000									
ESW-II		Exception	9-Fab-06		2.400									
ESW-12		Excerned	9-Feb-06		240									
\$\$W-13		Excersed	9-Feb-06		4,000								-	
SSW-14		Excevated	9-Feb-06		4,000									
NWSW-3	5	In situ	14-Feb-06		400						<10.0	<10.0	<20.0	64
NESW-5	5	In pity	14-Feb-06		4,000	54.0			٠		<10.0	<10.0	<20.0	7,67

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

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppre)	Field Chloride Analyses (mg/Kg)	Bearens (mg/Kg)	Toluene (mg/Kg)	Ethylbeazate (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (Os-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
ENSW-5	5	În situ	14-Fcb-06		640				200	•10	••	*		192
ESSW-3	5	in-cits	14-Feb-06		400					••	:	**	•	16
SESW-5	5	(n satu	14-Feb-06		4.000				17		••			17,195
swsw-4	4	In situ	14-Feb-06		4,000									19,594
wssw→	•	in-citu	14-Feb-06		640								•-	272
WNSW-4	4	In satu	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	13,9%
NEBH	14	Excavated	14-Feb-06		4000				22		<10.0	<10.0	<20.0	2,175
SEBH	14	Excevated	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	693
West Trench-14	14	Exampled	14-Feb-06		4000					·				21.593
West Tresch-19	19	lo situ	14-Feb-06		4000		(4)	0			<10.0	<10.0	<20.0	8,157
West Treach-24	24	l'o situ	14-Feb-06		380							[96
West Treach-29	29	În situ	14-Fcb-06		390						<10.0	<10.0	<20.0	144
East Trench-14	14	Excevated	14-Feb-06		2800					9				1,727
East Trench-19	19	In situ	14-Feb-06		1290		-:				<10.0	<10,0	<20.0	912

TABLE 2 umple Field Analyses and Laboratory Analytical Results Apache Corporation NEDU 427 Pit (EPI Ref.# 240002)

Sample LD.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Pield Chloride Analyses (rag/Kg)	Berume (mg/Kg)	Toluene (mg/Kg)	Ethylbenzenc (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRÖ (C6-C10) (mg/Kg)	(w@/K#) (>C10-C38) DRO	Total Hydrocarbons nC6-nC28 (sng/Kg)	Chloride (mg/Kg)
East Trench-24	24	lo estu	14-Feb-06		380						••			96
East Trench-29	29	In situ	14-Feb-06		480						<10,0	.≪10.0	<20.0	280
NESW-5	5	In sito	27-Feb-06								<500	<90.0	<100	48
hmzm-2.	5	In situ	27-Feb-06								<50.0	<50.0	<100	32
SWSW-6	6	(n situ	27-Feb-06								<50.0	<50.0	<100	96
SESW-6	6	ln situ	27-Feb-06								<50.0	<50.0	<100	32
ESW1-6'	6	En situ	22-Nov-06		240							220		\$0
ESW1-T	7	In situ	11/220/06		320						**			160
62M3-6,	6	la situ	22-Nov-06		160									48
ESW4-12*	12	la siu	22-Nov-06		320						*10		-	160
ESWS-12"	12	lp situ	22-Nov-06		640						27			736
ESM6-13.	13	En situ	22-Nov-06		240						2000	**	12.	32
NSW7-6"	6	la satu	22-Nov-06		240					1				32
NSWI-6'	•	la titu	22-Nov-06		240						344			16
N2M3-0.	-	La situ	22-Nov-06		240	·-		Ī			.21			32
NSW10-12"	12	la situ	22-Nov-06		320							2423	22	96

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TABLE 2 Summary of Soil Sample Field Analyses and Laboratory Analytical Result Apache Corporation NEDU 427 Pit (EPI Ref.# 240002)

Sample LD.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (spm)	Field Chloride Analyses (mg/Kg)	Beautine (mg/Kg)	Toluene (mg/Kg)	Ethythenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total STEX (mg/Kg)	GRO (O6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC5-nC28 (mg/Kg)	Chloride (mg/Kg)
NSW11-12'	12	la satu	22-Nev-06		400									160
א\$W12-13'	12	lo situ	22-Nov-06		240									48
NSW13-6'	6	în sriu	22-Nov-06		560								••	800
WSW14-7	7	ln situ	22-Nov-06		400									240
W\$W15-6'	6	la situ	22-Nov-06		480									640
WSW16-12*	12	In situ	22-Nov-06		240									44
WSW17-13'		In satu	22-Nov-06		240									64
WSW18-12*	12	In siru	22-Nov-06		160									48
22M18-9.	6	ln sita	22-Nov-06		400									240
SSW20-7*	,	la situ	22-Nov-06		140									45
55W21-6'	6	En situ	22-Nov-06	- ·	240									12
SSW22-12"	12	lo situ	22-Nov-06		240							٠.		336
\$\$W2)-6'	6	In situ	22-Nov-06		240									64
SSW24-12*	12	Lo satu	22-Nov-06		160									224
BH25-19'	19	ko situ	22-Nov-06											2,317
BH26-19'	19	In situ	22-Nov-06						٠					2,507

TABLE 1

Summary of Soil Sample Field Analyses and Laboratory Analytical Results Apache Corporation

NEDU	627	Pit (EP)	Ref#	240002)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Annhysis (ppm)	Field Chloride Analyses (mg/Kg)	Beauene (mg/Kg)	Tolucne (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (OS-C10) (cug/Kg)	DR.O (>C10-C28) (ing/Kg)	Total Hydrocarbons siC5-siC28 (mg/Kg)	Chloride (mg/Kg)
BH27-19	19	fa sicu	22-Nov-06		;						- <u>-</u> -		••	11,676
BH29-19	19)a situ	22-Nev-06				••							13,3%
BH29-19*	19	ln satu	12-Nov-06										••	t60
NMK		u) Thresholds		100		10				50			100	250



PHONE (325) 873-7001 + 2111 BEECHWOOD + ABILENE, TX 79803

PHONE (505) 393-2328 - 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: 04/117/07 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 (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DA	VTE:	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	96
H12474-2	SE CORNER/PIT	1782	938	456	31.5	15210	60
Quality Contro	I	NR	45.2	54.1	1.93	1381	NR
True Value Q0		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	90.4	108	96.5	97.7	NR
Relative Perce	ent Difference	NR	5.8	3.6	3.7	1.1	NR
METHODS:		SM	500-Ca-D	3500-Mg E	8049	120.1	310.1
		CI ⁻	\$O₄	CO3	HCO ₃	рН	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DA	NTE:	04/18/07	04/19/07	04/19/07	04/19/07	04/18/07	04/18/07
H12474-1	E. TRENCH 22' BGS	18794	1286	0	117	7.04	36336
H12474-2	SE CORNER/PIT	5338	536	0	73.2	7.47	11210
Quality Contro	<u> </u>	490	23.9	NR	964	6.96	NR
True Value Q		500	25.0	NR	1000	7.00	NR
% Recovery	, <u>, , , , , , , , , , , , , , , , , , ,</u>	98	95.7	NR	96.4	99.4	NR
Relative Perce	ent Difference	2.0	14	NR	12.0	0.3	NR
METHODS:		8M4500-CI-B	375.4	310.1	310.1	150.1	160.1

J. Morovo

04-20-07

Date

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Company Name:	HUS			_		60	178	. 70						ANALYSIS	Ę	Įĕ	퉑	5	XECUES!	1		1	1	1	L
Project Manager:	J C. Brica			P.	P.O. #					_					_										
Address:	1008			ζ,	Company	3													_						_
	Holoos State: Wazip.	Zip:	88240	Attn:	5		1																		_
Phone #:	3.3386 Fax 8:		[]] [A	Address:	9				_	_			_					_						
Project #.	Project Owner:		deche	City	×		}						_					_	_						
Project Name:	Jion 627		7	90	State:		<u> </u>	Zip:			_										_				
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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 (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DAT	E:	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 Percen	t Difference	NR	2.8	0.0	3.6	0.3	NR
METHODS:		SM	3500-Ca-D	3500-Mg E	8049	120.1	310.1
		CI ⁻	SO ₄	CO ₃	HCO ₃	рН	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DAT	E:	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 Percer	t Difference	0.0	4.9	NR	9.5	0.3	NR
METHODS:		SM4500-CI-B	375.4	310.1	310.1	150.1	160.1

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03 - 13-07

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All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable serviced first applicable. 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.

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Combany manner	: H 45		BIL	BILL TO	ANA	ANALYSIS REQUEST		
Project Manager:	" Jerry Brien		P.O. #:					Γ
Address:	Bax 1058		Company:					
City:		26283 diz	Attn:		······································			
Phone #:	393-3386 Fax#:		Address:					
Project #:	Project Owner:	Ass cho	City:					_
Project Name:	150 hazy		State: Z	Zip:			-	
Project Location:	180		Phone #:				_	_
Sampler Name:	K. Re.		Fax #:					
FOR LAB USE ONLY		MATRIX	PRESERV.	SAMPLING	<i>)-</i> -			_
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Lab I.D.	sample I.D.	G)RAB OR COUTEND VASTEWA SOIL SOIL	THER CID/BASE COO!	DATE	- 14 0¢,			30
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Phone Result: Fax Result: REMARKS: CHECKED BY:
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No No Time: 25 TO-91-5 Time: 70, 25 Sampler) UPS - Bus - Other: Delivered By: TCircle One Refinantehed By

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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

		Na	Ca	Mg	ĸ	Conductivity	T-Alkalinity
LAB NUMBER	R SAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(mgCaCO ₃ /L)
ANALYSIS DA	ATE:	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
0		NID	50.0	40.0	4.75	4000	ND
Quality Contro		NR	53.2	49.2	1.75	1380	NR
True Value Qu	<u> </u>	NR	50.0	50.0	2.00	1413	NR
% Recovery		NR.	106	98.4	87.5	97.7	NR
Relative Perce	ent Difference	NR	0.0	4.8	11.0	0.2	NR
METHODS:		SM3	500-Ca-D 3	500-Mg E	8049	120.1	310.1
		cr	SO ₄	CO3	HCO ₃	рН	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS D	ATÉ:	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
7							
	-1	490	28.2	NR	903	6.91	NR
Quality Contro	OI						
Quality Contro	The second secon	500	25.0	NR	1000	7.00	NR
	The second secon			NR NR	1000 90.3	7.00 98.7	NR NR
True Value Que Recovery	The second secon	500	25.0			98.7	

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Company Name:	>/#/		BILL TO	0		ANALYSIS REQUEST	1
Project Manager:	Jerry Borian		P.O. #:				
Address: R	5.507		Company:				
city: Hobbs	,	State: 1/10 Zip: 38240	Attn:			63	
4	793 3386 Fax#:		Address:				
Project #:	Project Owner:	Rock	City:				
Project Name:	15611 #627		State: Zip:				
Project Location:	/ / / / / / / / / / / / / / / / / / /		*				
Sampler Name:	7 00 1		Fay #.		_		
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Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:	T Jamil T	H		
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Relinquished By:

Delivered By: (Circle One)

Time:

□ No 'Add'l Phone #:

/UPS - Bus - Other:



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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: 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)
ANALYSIS DAT	E:	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 Percer	nt Difference	NR	0.0	0.0	8.3	1.0	NR
METHODS:		SM	3500-Ca-D	3500-Mg E	8049	120.1	310.1
		Cl	SO ₄	CO ₃	HCO ₃	pН	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DAT	TE:	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 Percer	nt Difference	6.1	12	NR.	3.1	0	NR
METHODS:		SM4500-CI-B	375.4	310.1	310.1	150.1	_ 160.1

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Delivered By: (Circle One) Sampley - UPS - Bus - Other:	Relinquished By		Sampler Relinquished:	service. In no event shell Co afficient or successors which	PLEASE NOTE: Liability an avelynes, All delms including							コニアニー	Lab i.D.	FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name:	Project #:	Phone #: 39	City: Hot	Address:	Project Manager:	Company Name:	, <u>, , , , , , , , , , , , , , , , , , </u>	A A
Delivered By: (Circle One) Sampley - UPS - Bus - Other:	¥	Sim	ished:	ervice. In no event shall Cardinal be Sable for Indiants or consequental damages, Including velocus limbation, business Islampotines, less of use, or loss of profits incared by client, its subsidiaris afficies or successors which out or rejuted to the performance of services by supplied by Cardinal, regardless of whether such claim to based upon any of the above stated riseases or otherwise	PLEASE NOTE: Liability and Damagee, Cardinale liability and clear's exclusive namely for any claim uniting whether based in contract or fort, shall be limited to the amount ped by the clear for the preferable or the claims including those for mapigance and any other cause whatboever shall be deemed unived unities made in writing and received by Cardinal within 36 days after completion of the applicable							DAS Bring	Sample I.D.		(18) (P)	Cont O	ST ST ST		93-3386	Sep	0. Sax /	4	Humara		AKUINAL LABORA I OKIES, INC.
is:	Date: Time:	11m3: 00/γγ	90 (Re) 11	rraequental chimages, Including v ance of services heraunder by C	d client's exclusive remady for as her cause whatsoever shall be d				:			> 2 2	e I.D.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1 HE JS	おいけれる	Project Owner:	Fax#: 39	State: () ~~ Zip:	1058		- Horse	(915) 673-7001 Fax (915) 673-7020	ORA I ORIE
Sample Cool Jini	Alignet B		Received By:	edfood Embatos, business inter- landinal, repardises of whether a	ny claim arising whather based is aomad waived uniose made in w								(G)RAB OR (C)OMP. CONTAINERS GROUNDWATER WASTEWATER SOIL			1315-K37E	7	1	5854-1	h.,				ĺ	S, INC.
act Ares	}			ruptions, least of use, or loss of pr such claim is based upon any of t	n contract or text, shad to limited relimp and received by Cardinal w							_	CRUDE OIL SLUDGE OTHER: ACID/BASE: ICE / COOL	MATRIX PRESERV	T e	Phone #:	State:	City:	Address:		Company:	P.O. #:		(505) 393-2326 Fax (505) 393-2476	
CHECKED BY: (Initials))	RE	:	ofts incurred by client, its subsidiaries he above stated measure or otherwise	to the amount paid by the client Altin 30 days after completion o						110000	WVSz., Ur Tylacy //	OTHER:	RY SAMPLING		: :	Zip:	-					## O # 1/1/	M 88240	
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1			Add'I Phone #:	and all costs of collections, t	Terrus and Conditions: lets 30 days past the of the rate																		ANALYSIS REQI	P	
				and all costs of collections, including attorney's feas.	Terms and Conditions; letered will be charged on all scoeuris more then 30 days past due at the rate of 24% per arruin from the original date of in-																20		REQUEST	Pageof	
					original data of inveice,														_						

Apache Corporation NEDU #627 **Delineation Sampling of Pit 2-2006**

Sample ID	Depth	Soil	Sample Date	Field Chlor	Lab BTEX	Lab TPH	Lab Chi
ENSW-5	5'	IN-SITU	2/14/2006	640	0	0	192
ESSW-5	5'	IN-SITU	2/14/2006	400	0	0	16
EESW-5	5'	IN-SITU	2/14/2006	4000	0	0	17195
SWSW-4	4'	IN-SITU	2/14/2006	4000	0	0	19594
WSSW-4	4'	IN-SITU	2/14/2006	640	0	5 0	272
WNSW-4	4'	IN-SITU	2/14/2006	960	0	<20	480
NWBH	14'	EXCVATED	2/14/2006	4000	0	<20	13996
NEBH	14'	EXCVATED	2/14/2006	4000	0	<20	2175
SEBH	14'	EXCVATED	2/14/2006	1600	0	<20	9757
SWBH	14'	EXCVATED	2/14/2006	4000	0	<20	688
WEST TRENCH-14	14'	EXCVATED	2/14/2006	4000	0	0	21993
WEST TRENCH-19	19'	IN-SITU	2/14/2006	4000	0	<20	8157
WEST TRENCH-24	24'	IN-SITU	2/14/2006	380	0	0	96
WEST TRENCH-29	29'	IN-SITU	2/14/2006	380	0	<20	144
EAST TRENCH-14	14'	EXCVATED	2/14/2006	2800	0	0	1727
EAST TRENCH-19	19'	IN-SITU	2/14/2006	1280	0	<20	912

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Apache Corporation: NEDU #627 Pit Water Sampling 11-7-2006 MG/L

Sample ID	Date	NA	CA	Mg	K	Cond	TTL-Alk	CI	SO	co	HCO	pH (s.u)	TDS
W-18'	11/7/2006	40975	3206	972	465	183200	110	69978	2895	0	134	6.48	212000
C-22 ⁱ	11/7/2006	41183	2806	729	305	126200	110	68979	2563	0	134	6.93	117360
SE-22'	11/7/2006	15233	1603	729	93	62700	130	27591	1201	0	159	6.94	51550
Chapparral Brine	11/7/2006	124790	1202	2430	1135	278400	110	195939	9273	0	134	6.61	333420
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Apache Corporation NEDU #627 Pit Sampling 11/22/2006

Sample ID	Depth	Soil	Sample Date	Field Chlor	Lab BTEX	Lab TPH	Lab Chl
NSW11-12'	12'	IN-SITU	11/22/2006	400	0	0	160
NSW12-12	12'	IN-SITU	11/22/2006	240	0	0	48
NSW13-6'	6'	IN-SITU	11/22/2006	560	0	0	800
WSW14-7'	7'	IN-SITU	11/22/2006	400	0	0	240
WSW15-6'	6'	IN-SITU	11/22/2006	480	0	0	640
WSW16-12'	12'	IN-SITU	11/22/2006	240	0	0	48
WSW17-11'	11'	IN-SITU	11/22/2006	240	0	0	64
WSW18-12'	12'	IN-SITU	11/22/2006	160	0	0	48
SSW19-6'	6'	IN-SITU	11/22/2006	400	0	0	240
SSW20-7'	7'	IN-SITU	11/22/2006	240	0	0	48
SSW21-6'	6'	IN-SITU	11/22/2006	240	0	0	32
SSW22-12'	12'	IN-SITU	11/22/2006	240	0	0	336
SSW23-6'	6'	IN-SITU	11/22/2006	240	0	0	64
SSW24-12'	12'	IN-SITU	11/22/2006	160	0	0	224
BH25-19'	19'	IN-SITU	11/22/2006	0	0	0	8317
вн26-19'	19'	IN-SITU	11/22/2006	0	0	0	2607
BH27-19'	19'	IN-SITU	11/22/2006	0	0	0	11676
BH28-19'	19'	IN-SITU	11/22/2006	0	0	0	13356
BH29-19'	19'	IN-SITU	11/22/2006	0	0	0	160

Apache Corporation: NEDU #627

Pit Closure Sampling MG/L

MG/L Sample ID	Date	NA	CA	Mg	К	Cond	TTL-Alk	CI	SO	со	нсо	pH (s.u)	TDS
	2/27/2007	8373	2428	1755	67.5	53300	96	21393	1299	0	117	6.98	40592
Pit Water	2/21/2007	8373	2420	27.55	V.,,2			†			\vdash		
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Apache Corporation: NEDU #627

Wellhead and Injection Well TDS Comparison

MG/L

Sample ID	Date	NA	ÇA	Mg	К	Cond	TTL-Alk	CI	so	co	нсо	pH (s.u)	TD\$
Inj. Well	3/16/2007	7276	2295	222	199	39000	372	13696	2939	0	454	7.94	29764
Wellhead	3/16/2007	9344	2462	484	220	48600	280	17794	3262	0	342	8.07	36048
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Apache Corporation: NEDU #627 Pit Sampling 4/17/07 MG/L

MG/L Sample ID	Date	NA	CA	Mg	к	Cond	TTL-Alk	CI	so	co	HCO	pH (s.u)	TDS
E. Trench 22'bgs	4/17/2007	7223	2794	1230	122	47200	98	18794	1286	0	117	7.04	36336
SE Corner of Pit	4/17/2007	1782	938	456	31.5	15210	60	5338	536	0	73.2	7.47	1121(
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Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

	POD Sub-		QQ								N. NID41 NY4	Wate	
POD Number Co	de basin	County	64 16	4	Sec	Tws	Kng	X	Y	DistanceDepthV	A STATE OF THE PARTY OF THE PAR	er Colui	nn
CP 01185 POD1	CP	LE	1	3	14	215	37E	674598	3594689 🌑	452	70		
CP 01185 POD2	CP	LE	1	3	14	218	37E	674623	3594674	466	70		
CP 01110 POD1	CP	LE	I	3	14	215	37E	674586	3594648 🌑	494	70		
CP 01110 POD2	CP	LE	1	3	14	218	37E	674586	3594648	494	70		
CP 01110 POD3	СР	LE	1	3	14	215	37E	674586	3594648	494	70		
CP 01110 POD4	CP	LE	1	3	14	21S	37E	674586	3594648	494	20		
CP 01110 PODS	СР	LE	1	3	14	218	37E	674586	3594648 🌑	494	20		
CP 01185 POD3	CP	LE	I	3	14	215	37E	674592	3594620	522	70		
CP 01185 POD4	СР	LE	1	3	14	21S	37E	674633	3594610 🚱	530	70		
CP 01574 POD1	СР	LE	2 4	4	15	218	37E	674559	3594598	547	68	57	11
CP 01574 POD2	CP	LE	1 3	3	14	21S	37E	674666	3594578	563	68	57	11

57 feet Average Depth to Water: Minimum Depth 57 feet 57 feet Maximum Depth:

Record Count: 11

UTMNAD83 Radius Search (in meters):

Fasting (N): 674628.63

Northing (Y): 3595141

the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

Radius: 1000

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning

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WATER COLUMN/ AVERAGE DEPTH TO WATER



Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**

Q64 Q16 Q4 Sec Tws Rng 15 21S 37E

X

3594598

Driller License:

1456

CP 01574 POD1

Driller Company:

WHITE DRILLING COMPANY

674559

Driller Name:

Drill Start Date:

JOHN W WHITE

Drill Finish Date:

12/15/2015

Plug Date:

Shallow

Log File Date:

12/14/2015 12/30/2015

2.00

PCW Rcv Date:

Source: Estimated Yield:

Pump Type: Casing Size:

Pipe Discharge Size: Depth Well:

68 feet

Depth Water:

57 feet

Water Bearing Stratifications:

Bottom Description Top 53

Sandstone/Gravel/Conglomerate

Shale/Mudstone/Siltstone

Sandstone/Gravel/Conglomerate 63

Casing Perforations:

Bottom Top

66

67 52

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POINT OF DIVERSION SUMMARY



Point of Diversion Summary

(quarters are I=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD** Number CP 01574 POD2

Q64 Q16 Q4 Sec Tws Rng 14 21S 37E

X 674666

3594578

Driller License:

1456

Driller Company:

WHITE DRILLING COMPANY

Driller Name:

JOHN W WHITE

12/14/2015

Drill Finish Date:

12/15/2015

Plug Date:

Drill Start Date: Log File Date:

Pipe Discharge Size:

Source:

Shallow

Pump Type: Casing Size: 12/30/2015

PCW Rcv Date:

Depth Well:

68 feet

Estimated Yield: Depth Water:

57 feet

Water Bearing Stratifications:

2.00

Top

Bottom Description

Sandstone/Gravel/Conglomerate

55 66

Sandstone/Gravei/Conglomerate

Casing Perforations:

Top **Bottom**

> 52 67

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

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POINT OF DIVERSION SUMMARY



Water Column/Average Depth to Water

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

POD

(quarters are I=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

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P 01185 POD1	СР	LE		i	3	14	215	37E	674598	3594689	452	70		
P 01185 POD2	CP	LE		1	3	14	21S	37E	674623	3594674	466	70		
P 01110 POD1	CP	LE		1	3	14	218	37E	674586	3594648 🌑	494	70		
P 01110 POD2	CP	LE		1	3	14	21S	37E	674586	3594648 🌑	494	70		
P 01110 POD3	CP	LE		l	3	14	215	37E	674586	3594648 🌑	494	70		
P 01110 POD4	СР	LE		l	3	14	215	37E	674586	3594648 🌑	494	20		
P 01110 POD5	CP	LE		1	3	14	21S	37E	674586	3594648	494	20		
CP 01185 POD3	CP	LE		1	3	14	218	37E	674592	3594620 🌑	522	70		
CP 01185 POD4	CP	LE		1	3	14	215	37E	674633	3594610 🌑	530	70		
CP 01574 POD1	CP	LE	2	4	4	15	218	37E	674559	3594598 🌑	547	68	57	
CP 01574 POD2	CP	LE	1	3	3	14	21S	37E	674666	3594578 🍪	563	68	57	
P 00235 POD3	CP	LE	1	ι	1	23	215	37E	674681	3594137*	1005	90	61	
CP 00235 POD6	CP	LE	2	1	ι	23	21\$	37E	674881	3594137*	1035	85	65	
TP 00235 POD2	СР	LE	1	2	ı	23	215	37E	675083	3594144*	1095	96	65	
<u> P 00235 POD1</u>	СР	LE	2	2	1	23	215	37E	675283	3594144* 🚳	1192	81		
CP 00235 POD7	СР	LE	3	1	ì	23	218	37E	674681	3593937* 📦	1205	85	65	
CP 00239 POD1	CP	LE	1	1	2	23	215	37E	675485	3594152*	1308	89	61	
CP 00240 POD1	СР	LE	4	2	1	23	218	37E	675283	3593944*	1364			
CP 00241 POD1	СР	LE	4	2	1	23	21S	37E	675283	3593944*	1364	79		
TP 01575 POD2	СР	LE	2	2	1	22	21S	37E	673615	3594181 🌑	1395	35	35	
CP 01141 POD4	СР	LE				15	218	37E	673556	3594239 🚳	1401	45		
CP 01141 POD2	СР	LE				15	218	37E	673543	3594250 🌑	1404	40		
CP 00235 POD4	СР	LE	l	3	ι	23	218	37E	674688	3593735* 🚳	1407	100	80	
CP 01141 POD3	СР	LE				15	218	37E	673520	3594272 🌑	1408	40		
CP 01575 POD1	СР	LE	1	2	i	22	218	37E	673544	3594204 🌑	1432	40	35	
CP 00729 POD1	СР	LE	4	1	3	15	21\$	37E	673259	3594711*	1435	8015		
CP 00235 POD8	СР	LE	3	l	2	23	218	37E	675485	3593952*	1465	94	58	
CP 00236 POD1	СР	LE	3	ı	2	23	21S	37E	675485	3593952*	1465	83		
CP 00235 POD5	СР	LE	ı	4	1	23	218	37E	675090	3593742*	1473	90	70	
CP 00731 POD1	СР	LE		2	ı	22	218	37E	673577	3594015* 🍪	1540	8130		
CP 01141 POD3 CP 01575 POD1 CP 00729 POD1 CP 00235 POD8 CP 00236 POD1 CP 00235 POD5 CP 00731 POD1 C/Users/ngladden/Desktop/Clie	ents/Apache/NED	DU%20%	2362	27/[Deli	neati	on/500	0%20D	GW%20Wa	ter%20Column h	.tm[8/22/2019 1	20:54 PM]		

CP 00235 PODIO CP LE I 3 2 2 3 21S 37E 675492 3593749*															
CP CODIS FODII CP LE 1 3 2 23 21S 37E 675492 3593749	CP 00562	СР	LE	1	2	2	23	218	37E	675887	3594159*	1596	136	65	7
CP 00231 FODD CP LE 1 3 2 2 32 18 37E 675492 3593749	CP 00235 POD10	СР	LE	1	3	2	23	218	37E	675492	3593749*	1638	92	60	3
CP 00215 FODD CP LE	CP 00235 POD11	CP	LE	ı	3	2	23	21S	37E	675492	3593749*	1638	97	60	3
CP 00700 CP LE 2 2 32 18 37E 675794 359381*	CP 00237 POD1	CP	LE	1	3	2	23	218	37E	675492	3593749*	1638	84		
CP 00238 PODI CP LE 3 3 2 2 32 18 37E 67402 3593549	CP 00235 POD9	CP	LE	3	4	1	23	218	37E	675090	3593542*	1664	94	58	3
CP 00732 POD1 CP LE 4 l 2 2 2 18 37E 673584 3593613*	CP 00700	СР	LE			2	23	218	37E	675794	3593851*	1738	75	65	1
CP 00134 POD1 CP LE I I I 2 24 21S 37E 676289 3594166	CP 00238 POD1	CP	LE	3	3	2	23	218	37E	675492	3593549*	1811	81		
CP 00551 CP LE 2 2 1 6 2 1S 37E 672744 3595610* 1942 80 70 1 CP 00252 POD1 CP LE 4 2 4 22 2 1S 37E 672493 3595105* 2020 106 78 2 CP 00256 POD1 CP LE 2 1 2 10 2 1S 37E 674019 3593125* 2020 106 78 2 CP 00256 POD1 CP LE 2 1 2 10 2 1S 37E 674019 359338* 2279 70 CP 00251 POD1 CP LE 2 3 4 22 2 IS 37E 674099 3592915* 2288 103 CP 00137 POD1 CP LE 2 2 1 13 2IS 37E 674402 3592871* 23233 65 CP 00881 CP LE 2 4 2 2 1S 37E 37E 674402 3592871 2670 60 48 1 CP 0122 POD3 CP LE 2 4 2 2 1S 37E 37E 674402 3592871 2670 60 48 1 CP 0124 POD1 CP LE 2 1 2 2 7 2IS 37E 67406 3592871 2670 60 48 1 CP 00734 POD1	CP 00732 POD1	CP	LE		4	1	22	218	37E	673584	3593613*	1851	6633		
CP 00252 POD1 CP LE 4 2 4 2 4 22 21S 37E 674493 3593125*	<u>CP 00134 POD1</u>	CP	LE	1	1	1	24	215	37E	676289	3594166*	1925	85		
CP 00286 POD1 CP LE 2 1 2 1 2 10 21S 37E 674019 3597338	CP 00554	CP	LE		2	2	16	215	37E	672744	3595610*	1942	80	70	1
CP 00251 POD1 CP LE 2 3 4 22 21S 37E 674099 3592915	CP 00252 POD1	CP	LE	4	2	4	22	218	37E	674493	3593125*	2020	106	78	2
CP 00137 POD1 CP LE 2 2 1 1 3 21S 37E 676862 3595783*	CP 00286 POD1	CP	LE	2	1	2	10	215	37E	674019	3597338*	2279	70		
CP 00881 CP LE 4 4 22 2 21S 37E 674402 3592824*	CP 00251 POD1	CP	LE	2	3	4	22	218	37E	674099	3592915*	2288	103		
CP 00222 POD3 CP LE 2 4 4 23 21S 37E 676036 3592871	CP 00137 POD1	CP	LE	2	2	1	13	215	37E	676862	3595783*	2323	65		
CP 00017 POD1 CP LE 2 1 2 2 7 21S 37E 674106 3592513*	CP 00881	CP	LE		4	4	22	215	37E	674402	3592824*	2328	95	53	4
CP 01741 POD1 CP LE 1 3 4 03 21S 37E 673895 3597759 2718 45 CP 00733 POD1 CP LE 2 2 1 27 21S 37E 673196 3592801 2743 7864 CP 01636 POD3 CP LE 2 2 1 27 21S 37E 673196 3592801 2772 96 CP 00285 POD1 CP LE 3 1 2 2 7 21S 37E 673906 3592313 211 3073 102 CP 00249 POD1 CP LE 2 3 2 2 7 21S 37E 674113 3592111 3073 101 CP 00239 POD1 CP LE 2 3 2 2 1 26 21S 37E 673711 3592104 3073 101 CP 00239 POD1 CP LE 2 4 1 2 7 21S 37E 674113 3592111 3073 101 CP 00239 POD1 CP LE 2 4 1 2 7 21S 37E 674913 359104 3172 80 CP 01274 POD1 CP LE 2 4 1 2 7 21S 37E 674992 3591934 3226 60 CP 01274 POD1 CP LE 2 1 2 6 21S 37E 674992 3591934 3226 60 CP 01274 POD1 CP LE 3 3 4 2 27 21S 37E 674992 3591934 3226 60 CP 00253 POD1 CP LE 3 3 4 2 27 21S 37E 674992 3591934 3226 60 CP 00253 POD1 CP LE 3 3 4 2 27 21S 37E 674992 3591934 3238 101 CP 00253 POD1 CP LE 3 3 4 2 27 21S 37E 67310 3592096 3402 CP 00254 POD1 CP LE 3 3 6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CP 01222 POD3	CP	LE	2	4	4	23	218	37E	676036	3592871	2670	60	48	1
CP 00733 POD1 CP LE 3 3 22 21S 37E 673196 3592801	CP 00017 POD1	CP	LE	2	1	2	27	215	37E	674106	3592513*	2679	101		
CP 01636 POD3 CP LE 2 2 1 27 21S 37E 673782 3592501	CP 01741 POD1	CP	LE	1	3	4	03	21S	37E	673895	3597759 🚱	2718	45		
CP 00285 POD1 CP LE 3 1 2 27 21S 37E 673906 3592313*	CP 00733 POD1	CP	LE		3	3	22	218	37E	673196	3592801*	2743	7864		
CP 00249 POD1 CP LE 2 3 2 27 21S 37E 674113 3592111* 3073 102 CP 00250 POD1 CP LE 2 3 2 27 21S 37E 674113 3592111* 3073 101 CP 00293 POD1 CP LE 2 4 1 27 21S 37E 673711 3592104* 3172 80 CP 01274 POD1 CP LE 2 1 26 21S 37E 674992 3591934 3226 60 CP 01274 POD2 CP LE 2 1 26 21S 37E 674992 3591934 3226 60 CP 00253 POD1 CP LE 3 4 2 27 21S 37E 674992 359198* 3238 101 CP 00711 CP LE 4 2 2 2 8 21S 37E 672900 3592291* 3333 100 65 CP 00711 CP LE 1 3 1 27 21S 37E 673110 3592096* 3402 CP 00736 CP LE 3 4 04 21S 37E 672700 3598022* 3466 90 75 CP 00553 CP LE 2 4 04 21S 37E 672700 3598022* 3466 90 75	CP 01636 POD3	CP	LE	2	2	ŧ	27	218	37E	673782	3592501 🌑	2772	96		
CP O0250 POD1 CP LE 2 3 2 27 21S 37E 674113 3592111* 3073 101 CP 00293 POD1 CP LE 2 4 1 27 21S 37E 673711 3592104* 3172 80 CP 01274 POD1 CP LE 2 1 26 21S 37E 674992 3591934 3226 60 CP 01274 POD2 CP LE 2 1 26 21S 37E 674992 3591934 3226 60 CP 00253 POD1 CP LE 3 4 2 27 21S 37E 674992 3591934 3226 60 CP 00253 POD1 CP LE 3 4 2 27 21S 37E 674915 3591918* 3238 101 CP 00711 CP LE 4 2 2 28 21S 37E 672900 3592291* 3333 100 65 CP 00294 POD1 CP LE 1 3 1 27 21S 37E 673110 3592096* 3402 CP 00736 CP LE 3 1 27 21S 37E 673211 3591997* 3448 120 76 CP 00552 CP LE 2 4 04 21S 37E 672700 3598022* 3466 90 75 CP 00553 CP LE 2 4 04 21S 37E 672700 3598022* 3466 90 75	CP 00285 POD1	CP	LE	3	ı	2	27	218	37E	673906	3592313*	2918	80		
CP 00293 POD1 CP LE 2 4 1 27 21S 37E 673711 3592104*	CP 00249 POD1	СР	LE	2	. 3	2	27	215	37E	674113	3592111* 😜	3073	102		
CP 01274 POD1 CP LE 2 I 26 2IS 37E 674992 3591934	CP 00250 POD1	CP	LE	2	. 3	2	27	21S	37E	674113	3592111*	3073	101		
CP 01274 POD2 CP LE 2 1 26 21S 37E 674992 3591934	CP 00293 POD1	CP	LE	2	4	ı	27	218	37E	673711	3592104*	3172	80		
CP 00253 POD1 CP LE 3 4 2 27 21S 37E 674315 3591918*	CP 01274 POD1	CP	LE		2	1	26	218	3 7 E	674992	3591934	3226	60		
CP 00711 CP LE 4 2 2 28 21S 37E 672900 3592291*	CP 01274 POD2	CP	LE		2	1	26	218	37E	674992	3591934	3226	60		
CP 00294 POD1 CP LE I 3 I 27 2IS 37E 673110 3592096* 3402 CP 00736 CP LE 3 I 27 2IS 37E 67321I 3591997* 3448 I20 76 CP 00552 CP LE 2 4 04 2IS 37E 672700 3598022* 3466 90 75 CP 00553 CP LE 2 4 04 2IS 37E 672700 3598022* 3466 90 75	CP 00253 POD1	СР	LE	3	4	2	27	218	37E	674315	3591918*	3238	101		
CP 00736 CP LE 3 l 27 2lS 37E 6732ll 3591997*	CP 00711	СР	LE	4	2	2	28	21S	37E	672900	3592291*	3333	100	65	
CP 00552 CP LE 2 4 04 21S 37E 672700 3598022* 3466 90 75 CP 00553 CP LE 2 4 04 21S 37E 672700 3598022* 3466 90 75	CP 00294 POD1	СР	LE	1	3	1	27	218	37E	673110	3592096*	3402			
CP LE 2 4 04 21S 37E 672700 3598022* 3466 90 75	CP 00736	СР	LE		3	- 1	27	218	37E	673211	3591997*	3448	120	76	4
	CP 00552	СР	LE		2	4	04	215	37E	672700	3598022*	3466	90	75	
CP 01004 POD1 CP LE 4 2 4 27 21S 37E 674616 3591478	CP 00553													75	;
CP 00242 POD1 CP LE 3 4 2 28 21S 37E 672708 3591889*	CP 01004 POD1	СР	LE	4	2	4	27	218	37E	674616	3591478	3662	70	41	2
CP 01636 POD2 CP LE 2 3 2 28 21S 37E 672430 3592065	CP 00242 POD1	CP	LE	3	3 4	2	28	21S	37E	672708	3591889*	3776			
CP 01096 POD2 CP LE 2 2 4 28 21S 37E 672976 3591731	CP 01636 POD2	CP	LE	2	2 3	2	28	215	37E	672430	3592065	3780	108		
CP 00220 POD1 CP LE 1 1 3 25 21S 37E 676332 3591753*	CP 01096 POD2	СР	LE	2	2 2	4	28	215	37E	672976	3591731 🌑	3788	98	48	3
CP 01001 POD1 CP LE 2 3 4 27 21S 37E 674108 3591371 3805 72 40 CP 01095 POD2 CP LE 2 2 4 28 21S 37E 672876 3591714 3848 109 48	CP 00220 POD1	CP	LE	1	l	3	25	218	37E	676332	3591753* 🚳	3792	75		
<u>CP 01095 POD2</u> CP LE 2 2 4 28 21S 37E 672876 3591714 3848 109 48	CP 01001 POD1	СР	LE	2	2 3	4	27	215	37E	674108	3591371 🚳	3805	72	40	
	CP 01095 POD2	СР	LE	2	2 2	. 4	28	218	37E	672876	3591714	3848	109	48	(

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35 feet

4374 feet

											Averag	e Depth to Wa	ter:	160 fee	et
CC 01999 POD1		CU	CU	3	3	3 2	29	03N	36E	670385	3592502	4997	415	372	43
CP 00943 POD1		CP	LE	I	3	3 1	34	218	37E	673166	3590405	4956	142		
L 13546 POD1		L	LE	4	4	3	34	208	38E	675011	3600037	4910	88		
CP 01301 POD1		CP	LE	3	4	3	28	218	37E	671871	3591110 📦	4883	130	35	95
CP 00139 POD1		CP	LE	2	: 4	2	. 19	215	38E	679312	3593818*	4866	75		
CP 01026 POD1		СР	LE	1	1	3	17	218	37E	669809	3594958	4822	167	95	72
CP 00513 POD1		CP	LE	3	ı	3	28	215	37E	671508	3591467*	4820	5000	4374	626
CP 00895		CP	LE		1	1	20	218	37E	669957	3593956*	4819	163		
CP 00322		CP	LE			3	28	218	3 7 E	671818	3591366*	4706	138	73	65
CP 01019 POD1		СР	LE			- 1			38E	677929	3591884	4636	150		
CP 01077 POD1		CP	LE	1	2	. 2	33	215	37E	672710	3590940	4618	80	45	35
CP 00749		СР	LE	2	4	3	28	218	37E	672118	3591271*	4613	123	75	48
CP 00138 POD1		CP	LE	3	2	2	35			675944	3590741*	4592	70		
CP 00287 POD1		CP	LE	3	1	2	35	215	3 7 E	675542	3590734*	4500	75		
CP 00965 POD2		СР	LE				28			672273	3591336	4474	135		
CP 00965 PODI	R	CP	LE			4				672333	3591346	4435	123	60	63
CP 00966 POD1		CP	LE			4				672306	3591367	4431	154		
CP 01222 POD4		СР	LE				35			676102	3591017	4378	59	44	15
CP 01222 POD2		CP	LE				35		37E	676071	3591014	4371	60	48	12
CP 01540 POD1 CP 01222 POD1		СР	LE				35		37E	676081	3591023	4366	58	48	10
CP 00735		СР	LE	1			35		37E	674676	3590844	4296	51	36	15
CP 00197 POD1		СР	LE	ı		4			37E	672816	3591588*	3988	105		
CP 00197	O	СР	LE				01		37E	676611	3598599*	3985	85		
CP 01002 POD1	0	CP CP	LE			4	27 01		37E	676611	3598599*	3985	85	37	50
CP 01003 POD1		CP	LE		3				37E 37E	674258	3591279	3975	75	39	36
CP 01096 POD1		CP	LE			4		218	37E	672861 674669	3591708 (a)	3861 3862	79	43	36
CP 01095 POD1		CP	LE			4			37E	672859	3591714		108	48	60
COR ALASE BODI		CD		2	2	4	20	216	270	672950	2501714	3856	108	48	60

Record Count: 97

Minimum Depth:

Maximum Depth

PRESCRIPTION AND STRAGIUS Search (in meters):

Easting (N): 674628.63 Northing (Y): 3595141 Radius: 5000

*UTM location was derived from PLSS - see Help

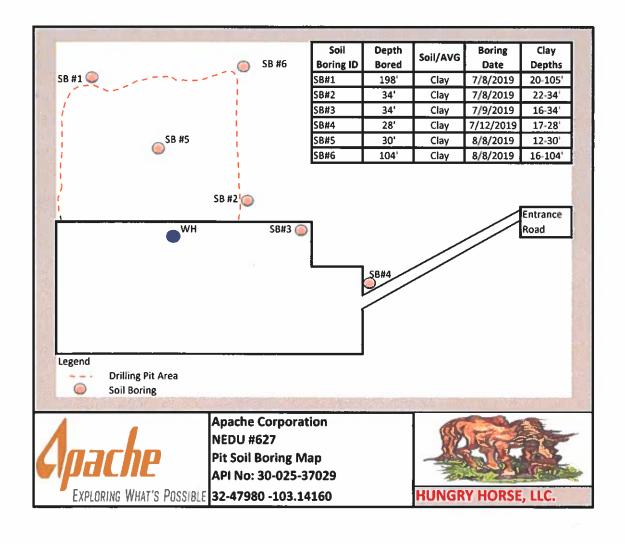
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

8/22/19 1:13 PM WATER COLUMN/ AV WATER

WATER

WATER COLUMN/ AV WATER The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning

WATER COLUMN/ AVERAGE DEPTH TO



Apache Corporation NEDU #627 Soil Boring Data 8/2019

Soil Boring ID	Depth Bored	Soil/AVG	Boring Date	Clay Depths
SB#1	198'	Clay	7/8/2019	20-198'
SB#2	34'	Clay	7/8/2019	22-34'
SB#3	34'	Clay	7/9/2019	16-34'
SB#4	28'	Clay	7/12/2019	17-28'
SB#5	30'	Clay	8/8/2019	12-30'
SB#6	104'	Clay	8/8/2019	16-104'
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Environmental Solutions

P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

BOREHOLE NO.: SB #1

TOTAL DEPTH: 198' 1 of 2

Released to Imaging: 7/6/20

PROJECT INFORMATION

PROJECT:

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO.:

71819-1

LOGGED BY:

Jerry Brian Jerry Brian

PROJECT MANAGER:

DRILLING INFORMATION

DRILLING CO.:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

INGERSOLL RAND TH60

METHOD OF DRILLING:

Air Rotary

SAMPLING METHODS:

Sand

Sandy Silt

Topsoil

Cutting Recovery

	DAT	ΓES	DRILLED:	7/8/201	9	НА	MME	R WT,/DR	OP		
DEPTH		WATER LEVEL	LITHOLOGY:		LITHOLOGY DESCRIPTION:	Sample Interval			FIELD CHLORIDES (mg/kg)	ANALYTICAL CHLORIDES (mg/kg)	DEPTH
			100 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7					FIELD CI 1.0 (mg	HLORIDES g/kg) 25000.0	ANALYTICAL CHLORIDES 1.0 (mg/kg) 25000.0	
	9	-			Brn sandy loam			20		- W	- 90
	15				: Caliche/Tan						1 10
	20 25 30			20-21';	rownish; MOIST at powder dry at 25'; orwn at 32-37'	20'-Mo	oist				20 25 30 35
	40	-			d Silt: Red	100000	i i				40
	50			Clay: Re	ed d Silt: Red	_					T 43 50
	60 65 70			Clay all	a Siit. Rea	Dry					1 60 1 65 1 70
	9 10 15 20 25 33 40 45 45 55 66 77 88 99 95 100			82-87' ta 88-90 ' i	an; 81-82' yellow; an; 87-88' yellow; red; 90-99' 122' red;122-142 an	Dry					9 10 15 20 25 30 3 40 5 55 60 65 77 5 80 5 90 5 100 100 100 100 100 100 100 100 100
	-				SYMBOL LEGEND - WATER	LEVEL		Pattern L	egend		
PM							1	Caliche	-		PM
:52							المحدا	Clay			01:10
919 1:50:52 PM								Clay and	d Silt		022 3:09:10 PM



Environmental Solutions

P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

BOREHOLE NO.: SB #1

TOTAL DEPTH:

1981

2 of 2

PROJECT INFORMATION

PROJECT:

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO.:

71819-1

LOGGED BY:

Jerry Brian

PROJECT MANAGER:

DRILLING INFORMATION

DRILLING CO .:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

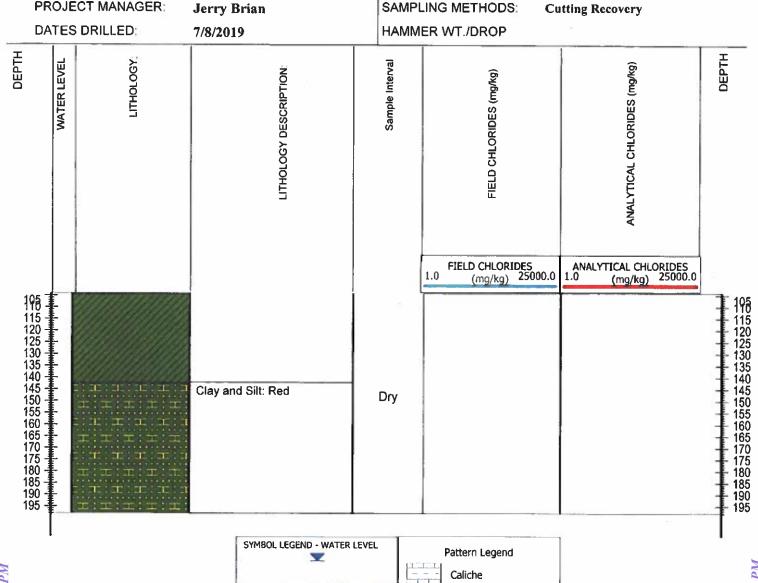
INGERSOLL RAND TH60

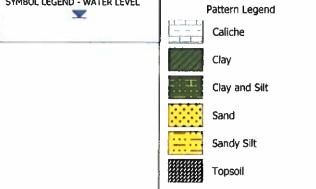
METHOD OF DRILLING:

Air Rotary

SAMPLING METHODS:

Cutting Recovery





Environmental Solutions

P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

SB #2 BOREHOLE No.

TOTAL DEPTH

341

PROJECT INFORMATION

PROJECT

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO.:

71819-1

LOGGED BY:

Jerry Brian

PROJECT MANAGER:

Jerry Brian

DRILLING INFORMATION

DRILLING CO.:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

INGERSOLL RAND TH60

METHOD OF DRILLING:

Air Rotary

SAMPLING METHODS:

Cutting Recovery

DA	TES	DRILLED:	7/8/201	9		НАММІ	ER \	WT./DROP		
ОЕРТН	SYMBOLCOLUMN-WATER LEVEL	L/ТНОLОGY:		LITHOLOGY DESCRIPTION		Sample Interval		FIELD CHLORIDES (mg/kg) FIELD CHLORIDES (mg/kg)	ANALYTICAL CHLORIDES (mg/kg) ANALYTICAL CHLORIDES (mg/kg) 1.0 (mg/kg)	ОЕРТН
0		****************	Topsoil	Brownish			1.0	(mg/kg) 25000.0	1.0 (mg/kg) 25000.0	0
5- 10 -				: Caliche w/tan sand,	ı	Эry				5 10
15 - 20 -	T			an, granular	18	Wet				15 20
25 -	-		Clay; br	own						25
30 -					75 I -					30
				SYMBOL LEGEND - WATER	LEVEL	pace	-	Pattern Legend		
					_		1	Caliche		
								Clay		
						•••		Clay and Silt		5
9 1:50:52 PM								Sand Sandy Silt		7 3-00-10 PM
::50::								Topsoil		3.00.
0 1						3333	1411	ropson		0

Environmental Solutions

P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

SB#3 BOREHOLE No. **TOTAL DEPTH** 341

PROJECT INFORMATION

PROJECT

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO.:

71819-1

LOGGED BY:

Jerry Brian

PROJECT MANAGER:

Jerry Brian

DATES DOLLIED

DRILLING INFORMATION

DRILLING CO.:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

INGERSOLL RAND TH60

METHOD OF DRILLING:

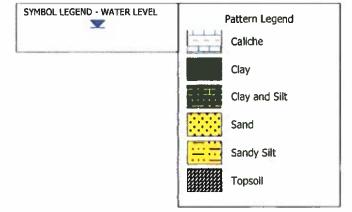
Air Rotary

SAMPLING METHODS:

Cutting Recovery

JAMMED WIT IDDOD

DATE	S DRILLED:	7/9/19	HAMM	ER WT./DROP		
DEPTH SYMBOLCOLUMN-WATER LEVEL	гиногосу:	LITHOLOGY DESCRIPTION;	Sample Interval	FIELD CHLORIDES (mg/kg)	ANALYTICAL CHLORIDES (mg/kg)	DEPTH
				FIELD CHLORIDES 1.0 (mg/kg) 25000.0	ANALYTICAL CHLORIDES 1.0 (mg/kg) 25000.0	
9 10 15 15 20 25 30		Topsoil: brownish Caliche: caliche w/some silty sand	Dry			10 15 20 25 30
20 1 25 1		Clay: brown,clumps,moist	18' moist			‡ 20 25
30	T : T : T : T : T :	Clay and Silt: reddish brown	Dry			30





Hungry Horse, LLC Environmental Solutions

P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

SB#4 BOREHOLE No.

TOTAL DEPTH 28'

PROJECT INFORMATION

PROJECT

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO.:

71819-1

LOGGED BY:

Jerry Brian

PROJECT MANAGER:

Jerry Brian

DRILLING INFORMATION

DRILLING CO.:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

INGERSOLL RAND TH60

METHOD OF DRILLING:

Air Rotary

SAMPLING METHODS:

Cutting Recovery

PROJECT MANAGER: DATES DRILLED:			Jerry Brian 7/12/2019		SAMPLING METHODS: Cutting Recovery HAMMER WT./DROP					
DEPTH	SYMBOLCOLUMN-WATER LEVEL	LIТНОLОGY:	LITHOLOGY DESCRIPTION:	Sample Interval	FIELD CHLORIDES (mg/kg)	ANALYTICAL CHLORIDES (mg/kg)	рертн			
					FIELD CHLORIDES 1.0 (mg/kg) 25000.0	ANALYTICAL CHLORIDES 1.0 (mg/kg) 25000.0				
	0		Topsoil: brownish				0			
1:	0		Caliche: tan	Dry			10			
	0 T		Clay: brown,moist	18' moist			15 20 25			
_	ŧ		SYMBOL LEGEND - WATER	LEVEL Dry	Pattern Legend					
			*	E	Caliche					
				3	Clay					
					Clay and Silt					
					Sand					
					Sandy Silt		2			
				333	Topsoil		Ma 01.00.6 CC0C/3/F Town to become			
						ly	,			
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P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

SB#5 BOREHOLE No. **TOTAL DEPTH** 30'

PROJECT INFORMATION

PROJECT

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO .:

71819-1

LOGGED BY:

Jerry Brian

PROJECT MANAGER:

Jerry Brian

DRILLING INFORMATION

DRILLING CO.:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

INGERSOLL RAND TH60

METHOD OF DRILLING:

Air Rotary

SAMPLING METHODS:

Cutting Recovery

DA	ATES	DRILLED:	8/8/19		HAM	IER	WT./DROP		
ОЕРТН	SYMBOLCOLUMN-WATER LEVEL	LITHOLOGY:		LITHOLOGY DESCRIPTION:	Sample Interval		FIELD CHLORIDES (mg/kg)	ANALYTICAL CHLORIDES (mg/kg)	ОЕРТН
0 5-			Topsoil loam	: brownish, sandy		1.0	FIELD CHLORIDES (mg/kg) 25000.0	ANALYTICAL CHLORIDES 1.0 (mg/kg) 25000.0	10
10 - 15 - 20 -				rown; hit water at 22'	Dry				10
25 - 30 -					Wet			-108AV-3031WIRRAD	25
30 -				SYMBOL LEGEND - WATER		1,1,	Pattern Legend Caliche Clay	The second secon	30
					=		Clay and Silt		
19 1:50:52 PM					1 2		Sandy Silt		
19 1:50							Topsoil		0.00



Environmental Solutions

P.O. Box 1058 Hobbs, NM 88241

FIELD BOREHOLE LOG

SB#6 BOREHOLE No. **TOTAL DEPTH** 104'

PROJECT INFORMATION

PROJECT

Apache Corporation

SITE LOCATION:

NEDU 627

JOB NO.:

71819-1

LOGGED BY:

Jerry Brian

PROJECT MANAGER:

Jerry Brian

DRILLING INFORMATION

DRILLING CO.:

Hungry-Horse, LLC

DRILLER:

John Norris

RIG TYPE:

INGERSOLL RAND TH60

METHOD OF DRILLING:

Air Rotary

SAMPLING METHODS:

Cutting Recovery

DA	TES	DRILLED:	8/8/19	HAMM	ER WT./DROP		
DEPTH	SYMBOLCOLUMN-WATER LEVEL	LITHOLOGY:	LITHOLOGY DESCRIPTION:	Sample Interval	FIELD CHLORIDES (mg/kg)	ANALYTICAL CHLORIDES (mg/kg)	DEPTH
					FIELD CHLORIDES 1.0 (mg/kg) 25000.0	ANALYTICAL CHLORIDES 1.0 (mg/kg) 25000.0	
9 10 15 20 25 30 45 45 50 75 75 80 95 100	anlandaalaalaalaahabadaalaalaalaalaalaalaalaalaalaalaalaalaa		Topsoil: hard Caliche: silty Clay: reddish brown, 20'-29' moist	Dry			9 10 15 22 50 35 44 50 55 66 5 7 7 5 0 8 5 0 9 5 10 10 10 10 10 10 10 10 10 10 10 10 10
65 70 75 80 85 90 95	ավումակավայետետետետ			Dry			100 100 100 100 100 100 100 100 100 100
·50:52 PM			SYMBOL LEGEND - WATER	1	Pattern Legend Caliche Clay		:09:10 PM
1/2019 1:					Clay and Silt Sand		/6/2022 3
CD: 10/3					Sandy Silt Topsoil		naging: 7.
Received by OCD: 10/31/2019 1:50:52 PM				833	**************************************		Released to Imaging: 7/6/2022 3

Apache Corporation NEDU #627 Pit Sampling 08/8/19

Sample ID	Depth	Soil	Sample Date	Lab BTEX	Lab Chl	Lab TPH
MW5 (SB#5)	32'	Clay	8/8/2019	<0.300	3400	<10
	\neg	1		1		



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

August 19, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NEDU #627

Enclosed are the results of analyses for samples received by the laboratory on 08/15/19 7:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 accreditated 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.

Celeg L. Keine

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

Page 1 of 4





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Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240

Fax To:

(575) 393-2432

Received: Reported: 08/15/2019

Project Name:

08/19/2019 NEDU #627

Project Number:

NONE GIVEN

Sampling Date:

08/08/2019

Sampling Type:

2011

Sampling Condition: Sample Received By: Cool & Intact Tamara Oldaker

Project Location: NONE GIVEN

Sample ID: MW5 - 32' (H902797-01)

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	08/17/2019	ND ·	1.86	92.9	2.00	3.68	
Toluene*	<0.050	0.050	08/17/2019	ND	1.96	98.0	2.00	4.39	
Ethylbenzene*	<0.050	0.050	08/17/2019	ND	2.09	104	2.00	3.42	
Total Xylenes*	<0.150	0.150	08/17/2019	ND	6.31	105	6.00	2.69	
Total BTEX	<0.300	0.300	08/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIC	98.3 % 73.3-12		19						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3400	16.0	08/16/2019	ND	432	108	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	08/16/2019	ND	191	95.7	200	1.10	
DRO >C10-C28*	<10.0	10.0	08/16/2019	ND	200	100	200	1.10	
EXT DRO >C28-C36	<10.0	10.0	08/16/2019	ND					
Surrogate: 1-Chlorooctane	102	% 41-14.	?						
Surrogate: 1-Chlorooctadecane	105	% 37.6-14	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liabelity and Damages. Cardinal's liabelity and client's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by Client for analysis. All claims, including those for negligence and any other clause whatsoever shall be deemed waived unless made in whiting and received by Cardinal within thiny (30) days after completion of the applicable service. In no event shall Cardinal be liable for inoderial 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 claims 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 Laboratones.

Colog Latrana

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4

Imaging: 7/6/2022



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Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

Analyte NOT DETECTED at or above the reporting limit ND

Relative Percent Difference RPD

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

any other cause whatsoever shall be deemed varied unless made in which and received by Cardinal within thirty (38) days after completion of the applicable service. In no event shall Cardinal be including, without limitation, business interruptions, loss of use, or loss of profits incurred by Chent, its aubsidiances, affiliates or successors anywing out of or related to the performance of the services here 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.

Cologi trans

Celey D. Keene, Lab Director/Quality Manager

Unaging: 7/6/2022 3:09:10



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

The state of	BILL TO	ANALYSIS REQUEST	
Project Manager: Stuce Boker	P.O. #:		
Address:	Company: - DO	AL CALL	
City: State:	Zip: Attn: Brude Bather	Salver -	38
Phone #: Fax #:	Address a Communication	milm	
Project #: Project Owner:			
Project Name:	State C Zin: AZZ		
Project Location: NEDU 677	Phone #453 (63)	81 (AX)	
Sampler Name:	Fax #:		
FOR LAB USE ONLY	ESERV	SAMPLING	
	RS TER IR	1	e are
H902797	(G)RAB OR (C) # CONTAINER GROUNDWAT WASTEWATE SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	TIME China BACX TPH	
I I I I I I I I I I I I I I I I I I I	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	X X X III:01 B-R-8	
PLEASE NOTE: USBN vard Company, Cordin is labely and comb and the second			
analyzes. All cisains including those for engigence and any other cause variance removed by common stating whether based in contrict or text, shell be similar to the sensure paid by the client for the sensure paid or the client for the sensure paid or the client for the sensure paid or	y any commansing whether based in contract or tork shall be similar to the and be doorned walved usless made in writing and recoved by Cerdinal within 30 or fore utilized Emakers have	and paid by the client for the opplicable	
efficients of successions arising out of or related to the performance of services harunder by Cardinal, regardless of whether such chain is based upon any of the above stated respons or otherwise. Relinguished RV:	y Cardinal, regardless of whether such claim is based upon any of the above st	red by Calonia, its subplicibionies.	
7 X X X X X X X X X X X X X X X X X X X	neceived by:	It: Yes No	
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Defivered By: (Circle One) 2.4° correct Sample Condition
Cool Intact

For Yes
No No ture of

Column McNe/112

81-51-8 Bate: 23 11-23 11-514

KmontanezerHungal-Horse.com larry Baker Apalle Corp. Com

HUNGRY HORSE, LLC

3709 S. Eunice Hwy (P.O. Box 1058) Hobbs, NM 88241 Office (575) 393-3386

Apache Corporation: NEDU #627 Soil Bore #1





DIRTWORK (PAD, FACILITY AND ROAD CONSTRUCTION)
ON SITE REMEDIATION, RECLAMATION, SUBSURFACE & SURFACE DELINEATION
MONITORING WELL INSTALLATION & GROUND WATER REMEDIATION
ELECTRICAL SERVICES

HUNGRY HORSE, LLC

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Apache Corporation: NEDU #627 Soil Bore #2





DIRTWORK (PAD, FACILITY AND ROAD CONSTRUCTION)
ON SITE REMEDIATION, RECLAMATION, SUBSURFACE & SURFACE DELINEATION
MONITORING WELL INSTALLATION & GROUND WATER REMEDIATION
ELECTRICAL SERVICES

APACHE NEDU 627 Soil Bore #3 DURING PHOTOS

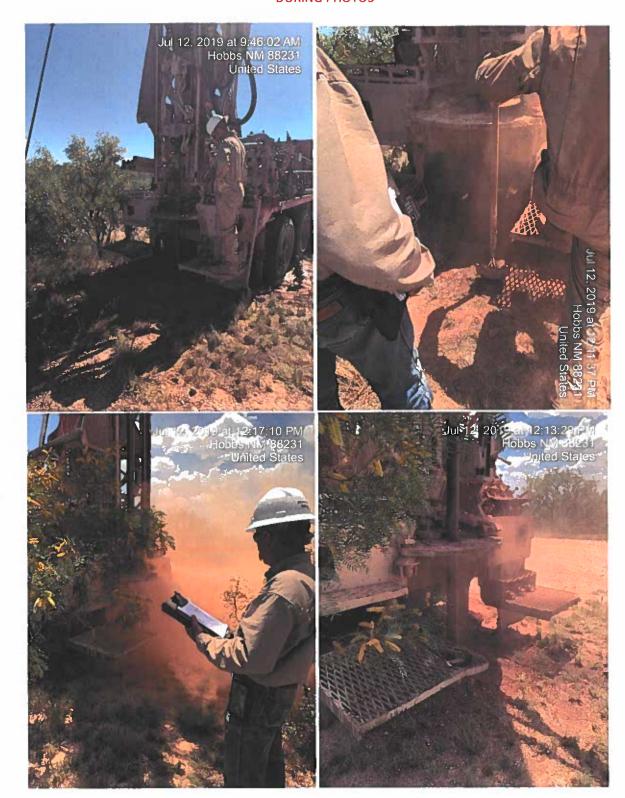




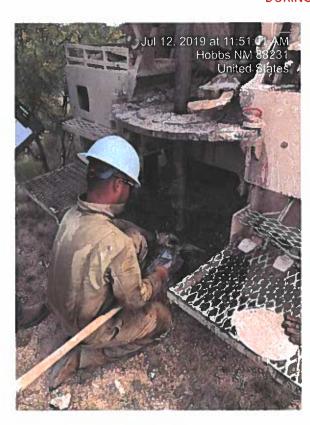


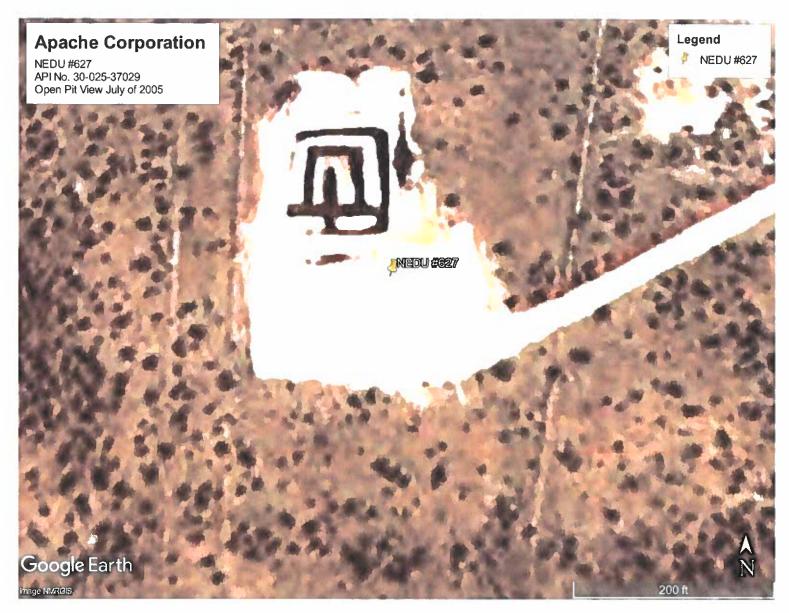


APACHE NEDU 627 "Soil Bore #4" DURING PHOTOS



APACHE NEDU 627 "Soil Bore #4" DURING PHOTOS









District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 2192

CONDITIONS

Operator:	OGRID:
APACHE CORPORATION	873
303 Veterans Airpark Ln	Action Number:
Midland, TX 79705	2192
	Action Type:
	[C-144] PIT Generic Plan (C-144)

CONDITIONS

Created By		Condition Date
jburdine	None	7/6/2022