

Page 1 of 19

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

November 1, 2019

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

RE: 1RP-1952 NEDU 102

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 closure for the release occurring September 2, 2008. Apache is respectfully submitting the closure report based on remediation and studies occurring in 2008 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@ApacheCorp.com.

Sincerely,

David Feather Environmental Supervisor Apache Corporation - Permian Basin Region

Attachment: Closure Report Dated November 24, 2009

Received by OCD: 11/1/2019 8:52:32 AM Received by OCD: 11/1/2019 8:54:31 AM

APACHE CORPORATION – PERMIAN BASIN REGION – 303 VETERANS AIRPARK LANE, STE 3000, MIDLAND, TEXAS 79705



Closure Document NEDU #102 Release Date 9/02/08 API #30-025-06400 Unit H, Sec 2, TS 21S, Range 37E 1582' FNL, 990' FEL Lea County, NM Lat N 32 deg 31.074'; Long W 103 deg 09.765' Depth to Ground Water 30-40' bgs

**Prepared by:** 

Natalie Gladden

**Apache Corporation** 

### NEDU #102 Project Summary

### **Release History:**

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On the morning of September 2<sup>nd</sup> of 2008, American Patrols had spotted a leak at the above mentioned site. This release was caused by a pin hole size leak in the 90-degree elbow 4' below the wellhead. A vacuum truck was called out and recovered 50bbls of produced water. The well was shut in and leak was repaired.

### **Emergency Response:**

After the standing fluid was recovered a heavy rain storm rolled in and further saturated the area. A backhoe and dump truck were on location the next morning and picked up 12" of saturated soil and hauled off to Sundance Services.

### **Bidding Process:**

Four local companies were called out to place a bid based on a cubic yard basis. Once all bids were in, I had a meeting with Tony Chenault, Bryan Tinsley and myself, which at that time Environmental Plus was chosen to do the remediation due to submitting a lower price per yd<sup>3</sup>.

### **Remediation Process:**

Work started on September 5<sup>th</sup> of 2008. Once we started excavating the contamination we found that large amounts of produced water started pressurizing out of the side walls and bottoms of the excavated area. Depth to ground water at this site was an estimated 20 to 40-ft bgs (below ground surface). This data was gathered by local water wells in the area. Produced water from the well and water from the bottom of the excavation was taken to Cardinal Labs for confirmation. Total Ions and TDS (total dissolved solids) was tested and confirmed that the water was a complete match. The chloride levels were at 12,600-ppm, which were above the regulatory levels of 250-ppm. Due to the saturated soil, chloride concentration levels and depth to ground water, blending was not an option at this site until we removed all saturated soil. 16,652 yd<sup>3</sup> of contaminated material was removed.

Note: NMOCD allowed the highly contaminated saturated soil with in a 10-ft radius and column of soil underneath the injection line to remain in place.

## **Conclusion:**

This project consisted of remediation of approximately 20,152-yd<sup>3</sup> of soil contaminated above regulatory levels. Closure was accomplished by disposing of only 16,652-yd<sup>3</sup> of contaminated soil.

**Attachments:** 

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Initial C141; Final C141; Anaylitical Results and sample map.

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<u>District IV</u> 220 S. St. Fran	cis Dr., Santa	Fe, NM 87505				NM 875				with Rule 116 a
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Name of Co	ompany	Apache Corr	oration				alie Gladden	$\leftarrow$		
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fixed.										
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	tify that the	information g	iven abov	e is true and com	picte to ti	ic best of my	knowledge and	understa	nd that pur	suant to NMOCD rules a
I hereby cer		are required I	o report a	nd/or file certain	release n	otifications a	nd perform corre	ctive ac	tions for rel	cases which may endang ieve the operator of liabil
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**TABLE 1** 

Well Data

# Apache Corp - NEDU 102 (Ref. #240020)

Well Number	Diversion <sup>A</sup>	Owner	Use	Twsn Rne		Sec a a a	Latitude	Loneitude	Date	Surface	Depth to Water
			}	-					Measured	Elevation	(() hgs)
CP 00552	3	MILLARD DECK	STK	21S	37E 04 4 2		N32° 30' 21.84"	W103° 09' 41.71"	01-Jul-76	3,469	75
CP 00553	3	MILLARD DECK	STK	21S	37E 04 42		N32° 30' 21.84"	W103° 09' 41.71"	01-Sep-76	3,469	75
CP 00671	3	DAVID & MARY WALKER	DOM	20S	38E 33 3 1		N32° 31' 39,48"	W103" 09' 35.76"	05-Mar-85	3,500	35
USGS #1				21S	37E  3 3 1 2	312			09-Fcb-96	3.450	22.24
USGS #2				21S	37E 3 4 3 3	433			17-Apr-91	3,425	26.52
USGS #3				21S	37E  3	3 4 3 3			04-Mar-59	3,425	33
USGS #1				21S	37E 4 133	133			17-Apr-91	3,475	23.61
USGS #5				21S	37E 4 4 2 2	422			16-Dec-70	3,435	63.7
USGS #6				21S	37E  4 4 1 2	412			17-Apr-91	3,450	24.17
USGS #7				21S	37E 5 1 1 1	111	:		17-Apr-91	3.453	31.71
USGS #8				21S	37E  9 2 2 4	224			12-Mar-68	3.466	61.49
USGS #9				21S	376 9 2 1 4	214			16-Dec-70	3,472	69.41
USGS #10				21S	37E 9 24	241			13-Mar-96	3.467	58.14
USGS #11				21S	37E 9 24	241			16-Dec-70	3,467	61.03
USGS #12				21S	37E 10 24	0 2 4 1			24-Apr-91	3,414	24.87
USGS #13				21S	37E	37E 10 4 2 2			26-Fcb-81	3,449	24.43
USGS #14				20S	38E 3	38E 31 3 4 3			23-Mar-54	3,488	66.66

\* - Data obtained from the New Mexico Office of the State Engineer Website (http://waters.oxe.state.nm.us.7001//WATERS/wr\_RegisServlet1)

A = In acre feet per annum

<sup>B</sup> = Elevation interpolated from USGS topographical map based on referenced location. STK = 72-12-1 Livestock watering DOM = 72-12-1 Domestic one houseloold quarters are 1=NW, 2-NE, 3-SW, 4-SE; quarters are biggest to smallest Shaded area indicates wells not shown in Figure 2



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PHONE (575) 393-2326 • 101 E MARLAND • HOBBS\_NM 68240

ANALYTICAL RESULTS FOR APACHE CORPORATION ATTN: NATALIE GLADDEN P.O. BOX 1849 EUNICE, NM 88231 FAX TO: (575) 394-2425

Receiving Date: 09/19/08 Reporting Date: 09/22/08 Project Number: NOT GIVEN Project Name: NOT GIVEN Project Location: NEDU 102

Sampling Date: 09/19/08 Sample Type: WATER Sample Condition: INTACT Sample Received By: CK Analyzed By: HM/TR

	Na	Ca	Mg	к	Conductivity	T-Alkalinity
LAB NUMBE SAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(US/cm)	(mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:	09/22/08	09/22/08	09/22/08	09/22/08	09/19/08	09/19/08
H15957-1 POINT OF RELEASE	3,790	2,720	1,140	61.8	32,500	120
H15957-2 INJECTION WELL	7,640	1,800	535	185	36,800	880
Quality Control	NR	48.1	51.0	3.00	1,429	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	96.2	102	100	101	NR
Relative Percent Difference	NR	<0,1	9.9	2.0	1.3	NR
METHODS	SM:	3500-Ca-D	3500-Mg E	8049	120.1	310.1

SM3500-Ca-D 3500-Mg E

	CI	SO4	CO3	HCO₃	pН	TDS
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DATE:	09/21/08	09/22/08	09/19/08	09/19/08	09/19/08	09/21/08
H15957-1 POINT OF RELEASE	12,600	1,860	0	146	7.38	26,600
H15957-2 INJECTION WELL	14,000	2,840	0	1,070	7.39	28,200
Quality Control	490	44.4	NR	976	7.02	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	98.0	111	. NR	97.6	100	NR
Relative Percent Difference	< 0.1	2.5	NR	1.2	0.1	NR
METHODS	SM4500-CI-B	375.4	310.1	310.1	150.1	160.1

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09-22-08 Date

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Phone #: 5 15 - 415 - Fax #: 274 - 542	4- 2425	Address:		
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1 Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



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ANALYTICAL RESULTS FOR OCOTILLO ENVIRONMENTAL, LLC ATTN: JOHN GOOD P.O. BOX 1816 HOBBS, NM 88241

Receiving Date: 10/21/08 Reporting Date: 10/23/08 Project Owner: APACHE CORP. Project Name: NEDU 102 Project Location: UL-A S4 T21S R37E

Analysis Date: 10/21/08 & 10/22/08 Sampling Date: 10/07/08, 10/15/08, 10/16/08 Sample Type: SOIL Sample Condition: INTACT Sample Received By: ML Analyzed By: HM

		Cl
LAB NO.	SAMPLE ID	(mg/kg)
H16153-1	BH1-19	112
H16153-2	BH2-19	80
H16153-3	BH3-19	96
H16153-4	BH4-19	64
H16153-5	BH5-19	80
H16153-6	BH6-19	96
H16153-7	BH7-23	96
H16153-8	BH8-19	80
H16153-9	BH9-19	96
H16153-10	ESW10	80
H16153-11	ESW11	80
H16153-12	ESW12	64
H16153-13	NSW13	80
H16153-14	NSW14	64
H16153-15	NSW15	64
<b>Quality Cont</b>	l	500
True Value (	C	500
% Recovery		100
Relative Per	cent Difference	
ETHOD: Sta	ndard Methods	4500-CFB

Note: Analyses performed on 1:4 wtv aqueous extracts.

11. Chemist

10 24-3 Date

H16153 OCO

PLEASE NOTE Liability and Damages. Cardinal's liability and client's exclusive remarky for any clam along whicher based in contract or toril, shall be leveled to the amount paid by client for analyses. All clams, including those for negligence and any other cause whateower shall be ideemed waved unless made in writing and received by Cardinal within birth (30) taxs alter completion of the applicable services in no over shall Cardinal be liable for incidental or consequential damages including, whout limitation business interruptions, loss of use or loss of profils incurred by client its subsidiance affiliates or successors arrang out of or inclined to the performance of services herounder by Cardinal regardless of whether such claim is based upon any of the above-stated reasons or interview. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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oC.

ANALYTICAL RESULTS FOR OCOTILLO ENVIRONMENTAL, LLC ATTN: JOHN GOOD P.O. BOX 1816 HOBBS, NM 88241

Receiving Date: 10/21/08 Reporting Date: 10/23/08 Project Owner: APACHE CORP. Project Name: NEDU 102 Project Location: UL-A S4 T21S R37E Analysis Date: 10/22/08 Sampling Date: 10/15/08 & 10/16/08 Sample Type: SOIL Sample Condition: INTACT Sample Received By: ML Analyzed By. HM

		Cl
LAB NO.	SAMPLE ID	(mg/kg)
H16153-16	NSW16	80
H16153-17	WSW17	64
H16153-18	WSW18	64
H16153-19	WSW19	64
H16153-20	WSW20	64
H16153-21	BH21-5	64
H16153-22	BH22-5	80
H16153-23	BH23-5	64
H16153-24	BH24-5	64
H16153-25	ESW25	64
H16153-26	ESW26	80
H16153-27	WSW27	80
H16153-28	WSW28	64
H16153-29	WSW29	176
H16153-30	WSW30	48
Quality Cont	rol lor	490
True Value (	20	500
% Recovery		98.0
<b>Relative Per</b>	cent Difference	2.0

METHOD: Standard Methods 4500-CFB Note: Analyses performed on 1:4 wiv aqueous extracts

Chemist

- 24.18 10 Date

H16153 OCO

PLEASE NOTE Liability and Damages, Cardinal's lability and clerit's success remedy for any carn arising whether based in contract or tort shall be labled to the amount paid by client for analyses. All carms, including those for negligence and any other cause whatsoever shall be deemed walved unless made in whiting and received by Carstinal within thiny (30) days after completion of the applicable serves in no event shall Cardinal be liable for incidentiat or consequential damogers, including, writtent for tastines, including and received by Carstinal within thiny (30) days after completion of the applicable serves in no event shall Cardinal be liable for incidentiat or consequential damogers, including, writtent feritation, tastines interruptions loss of use or loss of profits incurred by client is subclaires. Stiffalles or successors raising out of or related to the performance of services hereunder by Cardinal regarders of whether such dam 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 events in full with written approval of Cardinal Laborationes. Page 12 of 19

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0	Propile (225) 533-7004 • 2111 BEECHWOOD		8111. TO	P.O.#	Company: Apache Corp	Alth: Natalie Glacden	Address: PO Box 1849	unice	MN	Phone #: 575-390-4185		PRESERV SAMPLING	DTHER CE/COOL PHER PHER		15-Oct	16-Oct	15-Oct	15-Oct	16-Oct	16-Oct	16-Oct	16-Oct	16-Oct	16-Oct	16-Oct	16-Oct		In the second se			C 0,0 +	V		CHECKED BY	C(CS)
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PHONE (575) 393-2326 + 101 E MARLAND + HOBBS NM 88240

ANALYTICAL RESULTS FOR OCOTILLO ENVIRONMENTAL, LLC ATTN JOHN GOOD P.O. BOX 1816 **HOBBS, NM 88241** 

Receiving Date 11/24/08 Reporting Date: 11/24/08 Project Owner: APACHE Project Name: NEDU 102 Project Location: NOT GIVEN Analysis Date: 11/24/08 Sampling Date: 10/24/08 Sample Type SOIL Sample Condition: COOL & INTACT Sample Received By: AB Analyzed By, TR

		CI
LAB NO.	SAMPLE ID	(mg/kg)
H16383-1	BLEND 1	48
H16383-2	BLEND 2	48
H16383-3	BLEND 3	48
H16383-4	BLEND 4	64
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True Value QC		500
% Recovery		100
70 INECOVELY		100

METHOD: Standard Methods 4500-CIB Note: Analyses performed on 1:4 w:v aqueous extracts

5 lame de

Chemist

1-25-Date

H16383 OCO

PLEASE NOTE Liability and Demages. Cardinal's Tability and clone s exclusion remedy for any Llast arraining whether based in contract or test, what he limited to this prount poid by client for analyses. All darts, including those for regagence and any other cause which were shall be deened waived unlass made in writing and received by Cardinal which they (30) days after completion of the applicable service. In molewell shall cardinal be lable for incritential or convergential transpectives including which in transform business interruptions, loss of use or loss of profits made of by client, its subsidiation affidates or successful accession, or linear of the performance of cardinal received and services of their sub-station any of the above-stated reasons or otherwise. Result relate only to the samples idmitted above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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9 Back	ANALYSIS REQUEST		No Add'I Phone #	
0	B1TT 10	P.O. #: Company: Applic HE Attn: Surfection (Chestel) Address: P.O. Dec. 13 46 Clly: E unite State: N.M. Zlp: 55.2.31 Phone #: 34, 4170 Phone #: 34, 4170 Fax #: Fax #: State No. SampLING	7     7       7     6       7     7       7 <td></td>	
ES 1240			Temp. Sample Condition	Cool Intact T Yes 7 Yes
ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240	(010) 237-5750 Fax (210) 233-5410	VED W. /.		- Bus - Other:
AR	Company Name:	Project Manager: Address: Clty: Project %: Project Name: Project Location: Project Location: Project Location: Project Location: Project Location: Project Location:	HILSSS- - Z - Z - H - H - H - H - H - H - H - H - H - H	Sampler - UPS

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NEDU #102 Sample Map

( )



<u>District  </u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> Energ 1301 W. Grand Avenue, Artesia, NM 88210				State of New Mexico gy Minerals and Natural Resources				Form C-14 Revised October 10, 20		
District III Oil Cons 1000 Rio Brazos Road, Aztec, NM 87410 1220 So rict IV 1220 So				South	vation Div St. Franc , NM 875	is Dr.		Submit 2 Copies to appropria District Office in accordanc with Rule 116 on bac side of for		
			Rele				orrective A	ction		
Name of Compa	A.	marka Can				OPERAT		🗌 🗌 Initia	Il Report	🛛 Final Rep
Address P.O. B		pache Corr 9 Eunice Ni				Contact Natalie Gladden Telephone No. 505-390-4186				
Facility Name	NEDU	#102				Facility Typ	e Injection We	IL		
Surface Owner	McCas	land		Mineral C	)wner F	BLM/State		Lesse N	lo. 30-025-00	5400
		10000				OF REI	EASE	Lease IN	10. 30-023-00	HUU
Unit Letter Sea	ction 1	Township	Range	Feet from the		South Line	Feel from the	East/West Line	County	
14 2	:	21S -	37E	1582	North	Line	990	East Line	Lea	
			Lat	itude N 32 deg	31.074	Longitude	W 103 deg 09.	765'		
				-		OF RELI	0			
Type of Release Source of Release							Release 60-70bb		ecovered 50b	
Was Immediate N		ven?				IF YES, To		nown Discover	y 09/2/08 12:1	3 pm
			Yes	No 🗋 Not R	equired	Larry John			-	
By Whom? Nata Was a Watercour:		ed?	Yes 🛛	No	1-070	Date and Hour 09/02/08 1:15pm If YES, Volume Impacting the Watercourse.				
' Watercourse	was Impa	icted, Descri	ibe Fully.			L .				
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		leased onto l	location.	12" of chloride in	npacted s be follow	soil has been ved to closuri	picked up and hat c.	iled to Sundance.	We will remed	iate the entire
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Form C-141 Page 6

Received by OCD: 11/1/2019 8:54:31

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Bruce BAKer	_ Title: Environmental Tech SR.
Signature: Bruce Baher	Date: 11-1-19
email: larry, baker Capachecorp.com	Telephone: 432-631-6982
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.

Closure Approved by:	Bradford Billings	Date:	06/22/2022
Printed Name:	Bradford Billings	Title:	Envi.Spec.A

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

District IV 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

Operator:	OGRID:
APACHE CORPORATION	873
303 Veterans Airpark Ln	Action Number:
Midland, TX 79705	2198
	Action Type:
	[C-141] Release Corrective Action (C-141)

### CONDITIONS

Created By		Condition Date
bbillings	None	6/22/2022

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Action 2198