

DATE IN 02/18/2014	SUSPENSE	ENGINEER PRG	LOGGED 02/18/2014	TYPE WFX	APP NO. PMAM14d49076
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☒ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Catanach
 Print or Type Name

Signature

Date

Agent-Apache Corporation
 Title

drcatanach@netscape.com
 E-Mail Address

-WFX
 -Apache corp
 873
 well
 -NorthEast
 Drinkand#324
 30-025-
 06348
 Pool
 -EUNICE; Bli- T4-DQ,
 North
 22900

February 18, 2014

Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

HAND DELIVERED

Re: Form C-108
Apache Corporation
Northeast Drinkard Unit Well No. 324 (API No. 30-025-06348)
Section 2, Township 21 South, Range 37 East, NMPM,
North Eunice Blinbry-Tubb-Drinkard Pool (22900)
Lea County, New Mexico

Dear Ms. Bailey,

Enclosed please find a Division Form C-108 (Application for Authorization to Inject) to expand the Northeast Drinkard Unit Waterflood Project. Division Order No. R-8540, dated November 9, 1987 approved the statutory unitization of the Northeast Drinkard Unit Area ("Unit Area") and Division Order No. R-8541, as amended, dated November 9, 1987 approved secondary recovery operations within the Unit Area. Apache Corporation proposes to convert the Northeast Drinkard Unit No. 324 located 860 feet from the South line and 1980 feet from the East line (Unit W) of Section 2, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, to injection in order to complete an efficient production/injection pattern within the Unit Area.

All the required information is enclosed. If additional information is needed, please contact me at (505) 690-9453.

Sincerely,



David Catanach
Agent for Apache Corporation
303 Veterans Airpark Lane, Suite 3000
Midland, Texas 79705

Xc: OCD-Hobbs

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: X Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Apache Corporation (OGRID-873)

ADDRESS: 303 Veterans Airpark Lane, Suite 3000 Midland, Texas 79705

CONTACT PARTY: David Catanach-Agent PHONE: (505) 690-9453
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? X Yes No
If yes, give the Division order number authorizing the project: Order No. R-8541, as amended, entered in Case No. 9232 on November 9, 1987.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: David Catanach TITLE: Agent-Apache Corporation

SIGNATURE: David Catanach DATE: 2/18/14

E-MAIL ADDRESS: drcatanach@netscape.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:
- DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108 Application
Apache Corporation
Northeast Drinkard Unit No. 324
Section 2, T-21S, R-37E, NMPM
Lea County, New Mexico

- I. The purpose of the application is to request approval to convert the Northeast Drinkard Unit Well No. 324 to water injection within the Northeast Drinkard Unit Waterflood Project, North Eunice Blinebry-Tubb-Drinkard Pool, Lea County, New Mexico, in order to complete an efficient production/injection pattern within this secondary recovery project.
- II. Apache Corporation ("Apache")
303 Veterans Airpark Lane, Suite 3000
Midland, Texas 79705
Contact Party: Mr. David Catanach (505) 690-9453
- III. Well schematic diagrams showing the current and proposed wellbore configurations are attached. Also included are work-over procedures detailing how the Northeast Drinkard Unit No. 324 is going to be converted from a producing well to an injection well. **Please note that Apache proposes to initially complete the subject well only within the Drinkard formation. The Blinebry interval may be perforated at a later date, and consequently, Apache requests that the approved injection interval comprise the "Unitized Formation" as defined by Order No. R-8541 as "the Blinebry, Tubb and Drinkard formations which extend from an upper limit of 5,530 feet (2,101 feet sub-sea) to a lower limit of 6,680 feet (3,251 feet sub-sea) on the log run June 21, 1951 on the Shell Argo Well No. 8 located 660 feet from the South line and 2310 feet from the West line of Section 15, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico".**
- IV. This is an expansion of the Northeast Drinkard Unit Waterflood Project. Division Order No. R-8540 dated November 9, 1987 approved the statutory unitization of the Northeast Drinkard Unit Area ("Unit Area") and Division Order No. R-8541 dated November 9, 1987 approved secondary recovery operations within the Unit Area.
- V. Enclosed are maps that identify all wells/leases within a 2-mile radius of the proposed injection well and a map that identifies the ½ mile "Area of Review" ("AOR").
- VI. Attached is the complete listing of wells within the AOR of the Northeast Drinkard Unit No. 324. An examination of AOR well data indicates that all wells are constructed and/or plugged in such a manner so as to confine the injected fluid to the proposed injection interval.
- VII.
 1. The average water injection rate is 250 BWPD, and the maximum injection rate is 500 BWPD. If the average or maximum rates increase in the future, the Division will be notified.
 2. This will be a closed system.

3. The proposed average surface injection pressure will be in compliance with the Division's assigned gradient of 0.2 psi/ft of depth to the top injection perforation. If a higher injection pressure is necessary, Apache will conduct a step rate injection test to determine the fracture pressure of the injection interval.
 4. Produced water from the North Eunice Blinbry-Tubb-Drinkard Pool originating from wells within the Unit Area will be re-injected into the subject injection well. If additional make-up water is necessary Apache will utilize San Andres produced water from a water source well.
 5. Injection is to occur into a formation that is oil productive.
- VIII. The formations being targeted for water injection are the Blinbry and Drinkard at depths ranging from approximately 5,500 feet to 6,800 feet. These formations are Leonardian in age and are a sequence of shallow marine carbonates, which have for the most part been dolomatized. A five percent porosity cut off is used to determine "pay" as porosity less than this is considered non-productive at the existing and proposed reservoir pressures and reservoir fluid regimes. The vertical extent of the reservoir is limited top and bottom by impermeable shales and carbonates. Data obtained from the New Mexico State Engineer indicates that there two Ogallala fresh water wells in this area whose depths range from 75 feet to 85 feet.
- IX. A stimulation treatment may be performed on the injection well with a 15% HCL-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/- 10 BPM. ✓
- X. Logs were filed at the time of drilling. ✓
- XI. There are no fresh water wells located within a one-mile radius of the Northeast Drinkard Unit No. 324.
- XII. Affirmative statement is enclosed. ✓
- XIII. Proof of Notice is enclosed. ✓

INJECTION WELL DATA SHEET

OPERATOR: Apache Corporation

WELL NAME & NUMBER: Northeast Drinkard Unit No. 324 (API No. 30-025-06348)

WELL LOCATION: 860' FSL & 1980' FEL W 2 21 South 37 East
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

See Attached Wellbore Schematic

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/4" Casing Size: 12 3/4" @ 259'
Cemented with: 300 Sx. or ft³
Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 11" Casing Size: 8 5/8" @ 2,989'
Cemented with: 1100 Sx. or ft³
Top of Cement: 1,135' Method Determined: T.S.

Production Casing

Hole Size: 7 7/8" Casing Size: 5 1/2" @ 7,778'
Cement with: 870 sx. or ft³
Top of Cement: 3,320' Method Determined: T.S.
Total Depth: 7,778'

Injection Interval: The well will initially be completed in the Drinkard formation through perforations from 6,690'-6,780'. Ultimately, the injection interval in the well will be expanded to include the entire "Unitized Interval" as defined by Order No. R-8541.

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" Lining Material: Internally Plastic Coated

Type of Packer: Nickel Plated Arrowset Packer

Packer Setting Depth: 6,650' or within 100' of the uppermost injection perforations

Other Type of Tubing/Casing Seal (if applicable): None

Additional Data

1. Is this a new well drilled for injection: Yes X No

If no, for what purpose was the well originally drilled: Well was originally drilled in 1952 as a producing well

2. Name of the Injection Formation: Blinebry-Tubb-Drinkard

3. Name of Field or Pool (if applicable): North Eunice Blinebry-Tubb-Drinkard Pool (22900)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

Connell 7,710'-7,740' & McKee: 7,595'-7,640'; CIBP @ 7,585' + 10 feet of cement on top. Abo: 6,916'-7,238' CIBP @ 6,900' + 14' of cement on top.

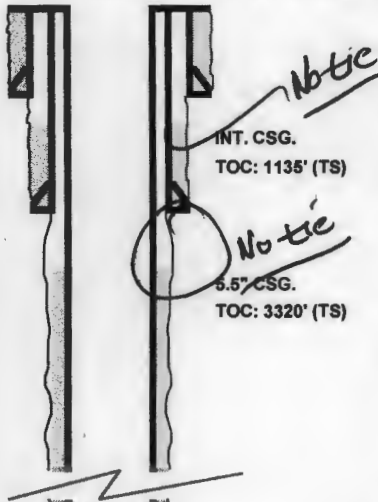
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

North-Paddock Pool (5,364'); Wantz-Abo Pool (6,813'); Hare-Simpson Pool (7,518'); Brunson-Ellenburger Pool (8,000')

Apache Corporation
NEDU #324 (Former: Harry Leonard "F" #4)
WELL DIAGRAM (CURRENT CONFIGURATION)



SURF. CSG.
CMT. CIRC.



CIBP @ 6650'
Drinkard Perfs:
 (Suspended)
 6698-6772
 13', 52 shots

CIBP @ 6900'
 w/14' (2sx) cmt
Abo Perfs:
 (Suspended)
 6916-7238'
 18', 72 shots

CIBP @ 7585'
 w/10' (2sx) cmt
McKee Perfs:
 (Suspended)
 7595-7640'
 45', 180 shots
Connell Perfs:
 (Suspended)
 7710-40'
 30', 120 shots

PBTD: 7,755.0
 TD: 7,778.0

WELL NAME:	NEDU #324 (Former: Harry Leonard "F" #4)	API:	30-025-06348
LOCATION:	860°S/1980°E, Unit W, Sec 2, T-21S, R-37E	COUNTY:	Lea Co, NM
SPUD-TD DATE:	03/29/52 - 05/05/52	COMP. DATE:	5/11/1952
PREPARED BY:	Michael Hunter	DATE:	1/27/2014
TD (ft):	7,778.0	KB Elev. (ft):	3,498.0
PBTD (ft):	6,650.0	Ground Elev. (ft):	3,487.0
		KB to Ground (ft):	11.0

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)
Surface Casing	12-3/4"	50.0	SMLS	0.00 259.0
	(Cemented w/300 sx circ to surface)			
Int. Casing	8-5/8"	32.0	J-55	0.00 2,989.0
	(Cemented w/1100 sx TOC: 1135')			
Prod. Casing	5-1/2"	20.0	N-80	0.00 12.0
	(CMT. w/870sx TOC @ 3320')	15.5	J-55	12.00 1,035.0
		14.0	J-55	1,035.00 4,874.0
		15.5	J-55	4,874.00 6,403.0
		20.0	N-80	6,403.00 7,778.0
Tubing				

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	MOTOR HP:
PUMPING UNIT MAKE:	MOTOR MAKE:

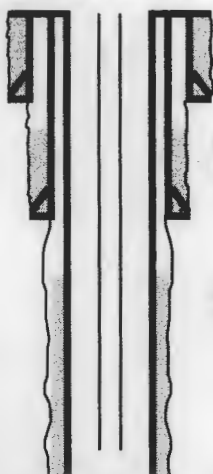
PERFORATIONS

Form.	Intervals	FT	SPF
Drinkard	6698-6700', 6707-09', 18-21', 35-37', 55-57', 70-72' (Suspended)	13	4
Abo	6916-18', 88-90', 7072-74', 7098-7100', 7114-16', 36-38', 50-52', 7208-10', 36-38' (Suspended)	18	4
McKee	7595-7640' (Suspended)	45	4
Connell	7710-40' (Suspended)	30	4

Apache Corporation
NEDU #324 (Former: Harry Leonard "F" #4)
WELL DIAGRAM (PROPOSED CONFIGURATION)

Apache

SURF. CSG.
CMT. CIRC.



INT. CSG.
TOC: 1135' (TS)

5.5" CSG.
TOC: 3320' (TS)

Drinkard Perfs:
(Approx.)
6690-6780
60', 240 shots

CIBP @ 6900'
w/14' (2sx) cmt
Abo Perfs:
(Suspended)
6916-7238'
18', 72 shots

CIBP @ 7585'
w/10' (2sx) cmt
McKee Perfs:
(Suspended)
7595-7640'
45', 180 shots
Connell Perfs:
(Suspended)
7710-40'
30', 120 shots

PBTD: 7,755.0
TD: 7,778.0

WELL NAME: NEDU #324 (Former: Harry Leonard "F" #4) **API:** 30-025-06348
LOCATION: 860'S/1980'E, Unit W, Sec 2, T-21S, R-37E **COUNTY:** Lea Co, NM
SPUD-TD DATE: 03/29/52 - 05/05/52 **COMP. DATE:** 5/11/1952
PREPARED BY: Michael Hunter **DATE:** 1/27/2014
TD (ft): 7,778.0 **KB Elev. (ft):** 3,498.0 **KB to Ground (ft):** 11.0
PBTD (ft): 6,886.0 **Ground Elev. (ft):** 3,487.0

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)
Surface Casing	12-3/4"	50.0	SMLS	0.00 259.0
	(Cemented w/300 sx circ to surface)			
Int. Casing	8-5/8"	32.0	J-55	0.00 2,989.0
	(Cemented w/1100 sx TOC: 1135')			
Prod. Casing	5-1/2"	20.0	N-80	0.00 12.0
	(CMT. w/870sx TOC @ 3320')	15.5	J-55	12.00 1,035.0
		14.0	J-55	1,035.00 4,874.0
		15.5	J-55	4,874.00 6,403.0
		20.0	N-80	6,403.00 7,778.0
Tubing	2-3/8"	4.7	J-55 IPC	0.00 6,664.9

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	2-3/8" 4.7 LB/FT J-55 IPC TBG	6642.0	6642.0
2	2-3/8" ON/OFF TOOL W/ 1.78 F PROFILE	1.8	6643.8
3	2-3/8" X 5-1/2" NICKLE PLATED ARROW-SET PKR	6.2	6650.0
4	2-3/8" 4.7 LB/FT J-55 IPC TBG	8.0	6658.0
5	2-3/8" PROFILE NIPPLE 1.50 R	0.9	6658.9
6	2-3/8" 4.7 LB/FT J-55 IPC TBG	6.0	6664.9
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	FT	SPF
Drinkard	6690-6780' (Approximate Proposed)	60	4
Abo	6916-18', 88-90', 7072-74', 7098-7100', 7114-16', 36-38', 50-52', 7208-10', 36-38' (Suspended)	18	4
McKee	7595-7640' (Suspended)	45	4
Connell	7710-40' (Suspended)	30	4

APACHE CORPORATION
FORM C-108: AREA OF REVIEW WELL LIST
NORTHEAST DRINKARD UNIT NO. 324 (PAGE 1)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	FTG. E/W	E/W UNIT	SEC.	TYP.	IND.	DATE	TOTAL DEPTH	HOLE SIZE	CDL. SIZE	SET AT	IN. CHRT.	OUT. TOP	RTD.	HOLE SIZE	CDL. SIZE	SET AT	IN. CHRT.	OUT. TOP	RTD.	COMPLETION	REMARKS
30-025-06349	Apache Corp.	NEDU	325	P	TA	555'	S 555'	E X	2	21S	37E	May-52	8,013'	17 1/2"	12 3/4"	287'	300	Surface	Circ.	11"	8 5/8"	3,049'	1100	1,375'	T.S.	6,602'-6,778' Perf	TA'd w/CIBP @ 6,557' Additional Perfs Abandoned. 6,928'-7,955'
30-025-06350	Apache Corp.	NEDU	221	I	Active	2983'	S 2317'	E O	2	21S	37E	Nov-52	8,295'	17 1/4"	13 3/8"	271'	300	Surface	Circ.	11"	8 5/8"	2,998'	1700	1,430'	T.S.	5,861'-6,126' Perf	Blinbry Comp. Additional Perfs Abandoned. 6,126'-8,250' CIBP @ 6,126'
30-025-06352	Apache Corp.	NEDU	321	P	Active	660'	S 330'	E X	2	21S	37E	Apr-53	5,970'	17 1/4"	12 3/4"	309'	350	Surface	Circ.	11"	8 5/8"	3,099'	1400	743'	T.S.	5,750'-5,970' O.H.	Blinbry Completion
30-025-06353	Apache Corp.	NEDU	319	I	Active	1650'	S 990'	E Q	2	21S	37E	May-53	8,470'	17 1/2"	13 3/8"	309'	350	Surface	Circ.	11"	8 5/8"	3,099'	1575	1,495'	T.S.	5,786'-6,888' Perf	Blinbry-Tubb-Drinkard Completion Additional Perfs Abandoned. 7,090'-8,215' CIBPs @ 8,010', 7,567' & 7,065'
30-025-06355	Apache Corp.	NEDU	223	I	Active	2970'	S 990'	E P	2	21S	37E	May-54	7,542'	17 1/4"	13 3/8"	336'	450	Surface	Circ.	12 1/4"	9 5/8"	3,044'	1550	309'	T.S.	5,787'-6,243' Perf	Blinbry Completion CIBPs @ 7,110', 6,720' & 6,400'
30-025-06361	Apache Corp.	NEDU	323	P	TA	1980'	S 1980'	E R	2	21S	37E	Oct-51	8,350'	19 1/2"	16"	253'	300	Surface	Circ.	13 1/2"	10 3/4"	2,904'	1600	205'	File	5,740'-6,796' Perf	BTD Completion: TA'd w/CIBP @ 5,680' + 35' cmt. Additional Perfs Abandoned. 6,902'-8,350' CIBPs @ 7,850', 6,875'
30-025-06363	Chevron USA, Inc.	Harry Leonard NCT-F	3	P	Active	660'	S 660'	E X	2	21S	37E	Feb-52	8,168'	17 1/2"	13 3/8"	285'	350	Surface	Circ.	11"	8 5/8"	3,084'	2150	1,745'	T.S.	7,802'-8,160' Perf	Ellenburger Completion
30-025-06365	Apache Corp.	NEDU	318	I	Active	1650'	S 1980'	E R	2	21S	37E	Dec-54	5,986'	17 1/2"	13 3/8"	312'	375	Surface	Circ.	11"	8 5/8"	3,040'	1650	Surface	Circ.	5,764'-5,986' O.H.	Blinbry Completion
30-025-06366	Apache Corp.	NEDU	320	I	Active	660'	S 1780'	E W	2	21S	37E	Mar-55	5,925'	17 1/2"	13 3/8"	334'	375	Surface	Circ.	11"	8 5/8"	3,049'	2000	1,390'	T.S.	5,769'-5,925' O.H.	Blinbry Completion
30-025-06372	Apache Corp.	NEDU	322	I	Active	1980'	S 1980'	W S	2	21S	37E	May-51	8,207'	17 1/4"	13 3/8"	225'	300	Surface	Calc.	11"	8 5/8"	3,149'	2000	Surface	Calc.	5,817'-6,824' Perf	Blinbry-Tubb-Drinkard Completion PBTD, Cement Retainer @ 5,912'
30-025-06373	Apache Corp.	State Section 2	7	P	Active	660'	S 1980'	W V	2	21S	37E	Jul-51	7,854'	17 1/4"	13 3/8"	225'	250	Surface	Calc.	11"	8 5/8"	3,152'	1950	Surface	Calc.	7,014'-7,349' Perf	Abo Completion Blinbry-Drinkard Perfs. 5,631'-6,735' squeezed
30-025-06375	Apache Corp.	NEDU	315	I	Active	1980'	S 1880'	W S	2	21S	37E	Nov-51	6,704'	17 1/4"	13 3/8"	209'	250	Surface	Calc.	11"	8 5/8"	3,145'	2000	Surface	Calc.	5,786'-5,954' Perf	Blinbry Completion Drinkard Perfs. 6,596'-6,699' squeezed
30-025-06378	Shell Oil Company	State Section 2	12	P	PA	2250'	S 2140'	W S	2	21S	37E	Jan-52	8,075'	17"	13 3/8"	211'	250	Surface	Circ.	11"	8 5/8"	3,150'	2200	Surface	Circ.	7,719'-8,016' Perf	McKee Completion. Well PA'd 1963 Schematic Attached
30-025-06487	Apache Corp.	NEDU	316	P	Active	2310'	S 2307'	W S	2	21S	37E	Sep-55	5,950'	17"	13 3/8"	282'	300	Surface	Circ.	11"	8 5/8"	3,199'	1450	Surface	Circ.	5,774'-5,942' Perf	Blinbry Completion
30-025-06488	Apache Corp.	NEDU	317	P	PA	990'	S 2300'	W V	2	21S	37E	Apr-56	5,913'	17"	13 3/8"	283'	300	Surface	Circ.	11"	8 5/8"	3,148'	1500	Surface	Circ.	5,749'-5,904' Perf	Blinbry Comp. Well PA'd 9/2011 Schematic Attached Blinbry Perfs. 5,672'-5,893' squeezed
30-025-06490	Apache Corp.	NEDU	314	P	PA	990'	S 990'	W U	2	21S	37E	Sep-56	5,910'	17"	13 3/8"	303'	300	Surface	Circ.	11"	8 5/8"	3,148'	1100	Surface	Circ.	5,854'-5,800' Perf	Blinbry-Tubb-Drinkard Completion Well PA'd 2/2004, Schematic Attached
30-025-34884	Apache Corp.	NEDU	237	P	Active	2450'	S 1700'	E R	2	21S	37E	May-00	6,300'	12 1/4"	8 5/8"	1336'	460	Surface	Circ.	7 7/8"	5 1/2"	6,300'	1110	Surface	Circ.	5,756'-6,094' Perf	Blinbry Completion
30-025-35403	Apache Corp.	NEDU	238	P	Active	2500'	S 1700'	W S	2	21S	37E	Jun-01	6,950'	12 1/4"	8 5/8"	1,434'	460	Surface	Circ.	7 7/8"	5 1/2"	6,950'	1250	Surface	Circ.	5,760'-6,693' Perf	Blinbry-Tubb-Drinkard Completion
30-025-35404	Apache Corp.	NEDU	333	P	Active	1209'	S 1463'	W V	2	21S	37E	Jun-01	6,950'	12 1/4"	8 5/8"	1,358'	460	Surface	Circ.	7 7/8"	5 1/2"	6,950'	1335	Surface	Circ.	5,734'-6,678' Perf	Blinbry-Tubb-Drinkard Completion
30-025-35405	Apache Corp.	NEDU	334	P	Active	1300'	S 2450'	E W	2	21S	37E	Jul-01	6,950'	12 1/4"	8 5/8"	1,378'	460	Surface	Circ.	7 7/8"	5 1/2"	6,950'	1100	Surface	Circ.	5,749'-6,693' Perf	Blinbry-Tubb-Drinkard Completion
30-025-35406	Apache Corp.	NEDU	335	P	Active	1200'	S 1400'	E W	2	21S	37E	Aug-01	6,270'	12 1/4"	8 5/8"	1,403'	460	Surface	Circ.	7 7/8"	5 1/2"	6,270'	1350	Surface	Circ.	5,781'-5,970' Perf	Blinbry Completion
30-025-36808	Apache Corp.	NEDU	336	P	Active	330'	S 2576'	W V	2	21S	37E	Dec-04	7,000'	12 1/4"	8 5/8"	1,262'	575	Surface	Circ.	7 7/8"	5 1/2"	7,000'	1200	65'	File	5,694'-6,684' Perf	Blinbry-Tubb-Drinkard Completion
30-025-37677	Apache Corp.	NEDU	339	P	Active	330'	S 1310'	W U	2	21S	37E	Mar-06	6,975'	12 1/4"	8 5/8"	1,274'	550	Surface	Circ.	7 7/8"	5 1/2"	6,975'	1200	Surface	Circ.	5,712'-6,730' Perf	Blinbry-Tubb-Drinkard Completion

41
48 wells: Producers - [16 + 14] 30 ~ 6 PA/TA / 24 active
Injectors - [7 + 4] 11 ~ all active

APACHE CORPORATION
FORM C-108: AREA OF REVIEW WELL LIST
NORTHEAST DRINKARD UNIT NO. 324 (PAGE 2)

10

Apache Corporation
Northeast Drinkard Unit No. 314
API No. 30-025-06490
990' FSL & 990' FWL (Unit U)
Section 2, T-21S, R-37E, NMPM,
Type Well: Producer

Date Drilled: 9/56
Date PA'd: 2/04

Perforated @ 353'. Squeeze
100 sx. cmt through
bradenhead. Cement
circulted inside & outside of
casing

17 1/2" Hole; 13 3/8" Csg. Set @ 303'. Cemented
w/300 Sx. Cement circulated to surface

Perforated @ 1,400'. Squeeze w/50 sx. cmt.
Cement tagged @ 1,304'

11" Hole; 8 5/8" Csg. Set @ 3,148'
Cemented w/1100 Sx. Cement circulated to surface

Perforated @ 3,198'. Squeeze 50 sx. cmt. Tag cement @ 3,070'

Set cement retainer @ 4,200'. Pumped 100 sx. cmt
below retainer. Left 5 sx. Cmt. on top of retainer

5 1/2" casing parted @ 4,285'
2 3/8" tubing cut @ 4,434'

TOC @ 5,050' by Calculation

Blinebry-Tubb-Drinkard Perforations:
5,654'-5,800'

7 7/8" Hole; 5 1/2" Csg. Set @ 5,812'
Cemented w/200 Sx. Calculated TOC @ 5,050'

T.D. 5,910'

Apache Corporation
Form C-108: NEDU # 324
PA Schematic
NEDU No. 314

Submit 3 Copies to Appropriate District Office

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240

DISTRICT II

811 South First, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

FORM C-103
Revised March 25, 1999

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-06490
1. Type of Well: <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. Indicate Type of Lease <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE
2. Name of Operator Apache Corporation		6. State Oil & Gas Lease No.
3. Address of Operator 6120 S. Yale, Suite 1500 Tulsa, Oklahoma 74136-4224		7. Lease Name or Unit Agreement Name Northeast Drinkard Unit
4. Well Location Unit Letter <u>U</u> : <u>990</u> Feet From The <u>West</u> Line and <u>990</u> Feet From The <u>South</u> Line Section <u>2</u> Township <u>21S</u> Range <u>37E</u> NMPM <u>Lea</u> County		8. Well No. 314
10. Elevation (Show whether DP, RKB, RT, GR, etc.) 3471' GR		9. Pool name or Wildcat Eunice Blinberry-Tubb-Drinkard-North

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO: <input type="checkbox"/> Perform Remedial Work <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon <input type="checkbox"/> Change Plans <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Other	SUBSEQUENT REPORT OF: <input type="checkbox"/> Remedial Work <input type="checkbox"/> Altering Casing <input type="checkbox"/> Commence Drilling Operations <input checked="" type="checkbox"/> Plug and Abandonment <input type="checkbox"/> Casing Test and Cement Job <input type="checkbox"/> Other

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

2/10/2004

MIRUSU-NU BOP-SDFN

2/11/2004

RU wireline-Set cmt retainer @ 4200'-Pump plug mud under retainer-Pump 100 sks cmt-Sting out of retainer leaving 5 sks on retainer-SWI-SDFN to WOC

2/12/2004

RU wireline-Perforate @ 3198' w/ 4 js & 90 phasing-RD wireline-GIH w/ pkr-Set @ 2995'-Squeeze 50 sks cmt through perfs & displace to 3075'-POOH w/ pkr-SWI-SDFN to WOC

2/16/2004

GIH & tag cmt @ 3070'-POOH-RU wireline & perforate @ 1400' w/ 4js & 90 phasing-RD wireline-GIH w/ pkr & set @ 1185'-Pump 50 sks cmt through perfs & displace to 1300'-WOC-POOH w/ pkr-GIH & tag cmt @ 1304' POOH-RU wireline & perforate @ 353' w/ 4 js & 90 phasing-RD wireline-ND BOP-NU Braiden Head adapter flange-Pump 100 sks cmt bringing cmt to surface inside & outside of csg-RDMO

Installed P&A Marker

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kara Coday TITLE Sr. Engineering Tech. DATE 3/4/2004
TYPE OR PRINT NAME Kara Coday TELEPHONE NO. 918-491-4957

(This space for State Use)

APPROVED BY Larry W. Wink TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER DATE MAR 10 2004
CONDITIONS OF APPROVAL, IF ANY:

APPROVED
MAR 2004
HOBBS
OC

Approved as to plugging of the Well Bore.
Liability under bond is retained until
surface restoration is completed.

Apache Corporation
Northeast Drinkard Unit No. 317
API No. 30-025-06488
990' FSL & 2300' FWL (Unit V)
Section 2, T-21S, R-37E, NMPM,
Type Well: Producer

Date Drilled: 4/56
Date PA'd: 9/11

Perforated @ 60'. Spot 30 sx. cmt. plug. Circulated to surface.

17 1/2" Hole; 13 3/8" Csg. Set @ 283'. Cemented w/300 Sx. Cement circulated to surface

Perforated @ 333'. Unable to squeeze

Calculated TOC of casing leak squeeze job: 1,930'

Perforated @ 2,054'. Unable to squeeze.
Spot 25 sx. cmt. plug @ 2,103'. Tagged @ 1,875'

11" Hole; 8 5/8" Csg. Set @ 3,148'
Cemented w/1500 Sx. Cement circulated to surface

Perforated @ 3,200'. Unable to squeeze.
Spot 50 sx. cmt. plug @ 3,250' & tagged @ 2,785'

Spot 25 sx. cmt. plug @ 4,117'

Casing leak @ 4,914'-4,977'. Squeezed w/500 sx. Calculated TOC @ 1,930'

Spot 55 sx. cmt. plug @ 5,377'. Tagged @ 4,876'

TOC @ 5,304' by Calculation

CIBP @ 5,665' w/35' cmt. on top. Tagged @ 5,630'

Blinebry Perforations Open: 5,749'-5,904'
Blinebry Perforations Squeezed: 5,672'-5,893'

7 7/8" Hole; 5 1/2" Csg. Set @ 5,914'
Cemented w/100 Sx. Calculated TOC @ 5,304'

T.D. 5,913'
PBTD: 5,630'

Apache Corporation
Form C-108: NEDU # 324
PA Schematic NEDU No. 317

Submit 3 Copies To Appropriate District
Office
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources
HOBBS OCD
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505
SEP 28 2011

Form C-103
May 27, 2004

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-025-06488
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator Apache Corporation		6. State Oil & Gas Lease No.
3. Address of Operator 303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705		7. Lease Name or Unit Agreement Name Northeast Drinkard Unit
4. Well Location Unit Letter <u>X</u> : 990' feet from the <u>S</u> line and <u>2300'</u> feet from the <u>W</u> line Section <u>2</u> Township <u>21S</u> Range <u>37E</u> NMPM County <u>Lea</u>		8. Well Number 317
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3467' GL		9. OGRID Number 873
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat Eunice; Bli-Tu-Dri, North (22900)
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water <u>N/A</u>		
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
OTHER: drill out & add Plugs ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☒
CASING/CEMENT JOB ☐
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

9/12/11 MIRU

9/13/11 Tag existing cmt on CIBP @ 5630'. Circulate hole w/mlf. Tbg @ 5377' - Spot 55 sxs, disp toc to 4834' & tag @ 4876'. ^{TOC}

9/14/11 Tbg @ 4117 - Spot 25 sxs disp toc to 3870'. Perf @ 3200'. Pkr @ 2358' unable to set pressure Holding 1000#. Tbg @ 3250'. Spot 50 sxs disp toc to 2757' & tag @ 2785'. ^{IDC} ^{Sqz.} ^{called ocd + DK'd to Spot.}

9/15/11 Perf @ 2054' unable to sqz pressure holding 1000#. Tbg @ 2103' - Spot 25 sxs & tag @ 1875'. Perf @ 333' unable to sqz pressure holding 700#. Perf @ 60'. Well circ out b/h valve. Tbg @ 383' - Spot 30 sxs. POOH. Flange up wellhead circ 15 sxs cmt to surface.

9/16/11 RDMO. Cut off wellhead and anchors. Install DH marker. ^{clean location.}

Approved for plugging of well bore only.
Liability under bond is retained pending receipt
of C-103 (Subsequent Report of Well Plugging)
which may be found at OCD Web Page under
Forms, further more than any pit or below-

I hereby certify that the information above is true and complete to the best of my knowledge and belief, and that no 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 ☐.

SIGNATURE Greg Bryant TITLE P & A Tech (Basic Energy Services) DATE 9-21-11

Type or print name: Greg Bryant
For State Use Only

E-mail address:

Telephone No. 432-563-3355

APPROVED BY: Staff MGR TITLE Staff MGR DATE 9-09-2011
Conditions of Approval (if any):

SEP 29 2011

Apache Corporation
E. Blinebry Drinkard Unit No. 32
API No. 30-025-06542
330' FNL & 330' FWL (Unit D)
Section 12, T-21S, R-37E, NMPM,
Type Well: Producer

Date Drilled: 4/54
Date PA'd: 9/08

**Perforated 5 1/2" csg. @ 313'.
 Squeeze 5 1/2" x 7 5/8" to
 surface w/85 sx. Cmt.**

**13" Hole (Assumed);
 10 3/4" Csg. Set @ 263'.
 Cemented w/250 Sx. Calculated TOC @ surface**

**Perforated @ 1,520'. Unable to squeeze.
 Spot 30 sx. cmt. plug @ 1,583'. Tagged @ 1,330'**

Spot 25 sx. cmt. plug @ 2,584. Tagged @ 2,423'

Calculated TOC @ 2,801'

**9 5/8" Hole (Assumed); 7 5/8" Csg. Set @ 3,149'
 Cemented w/1255 Sx. Calculated TOC @ surface**

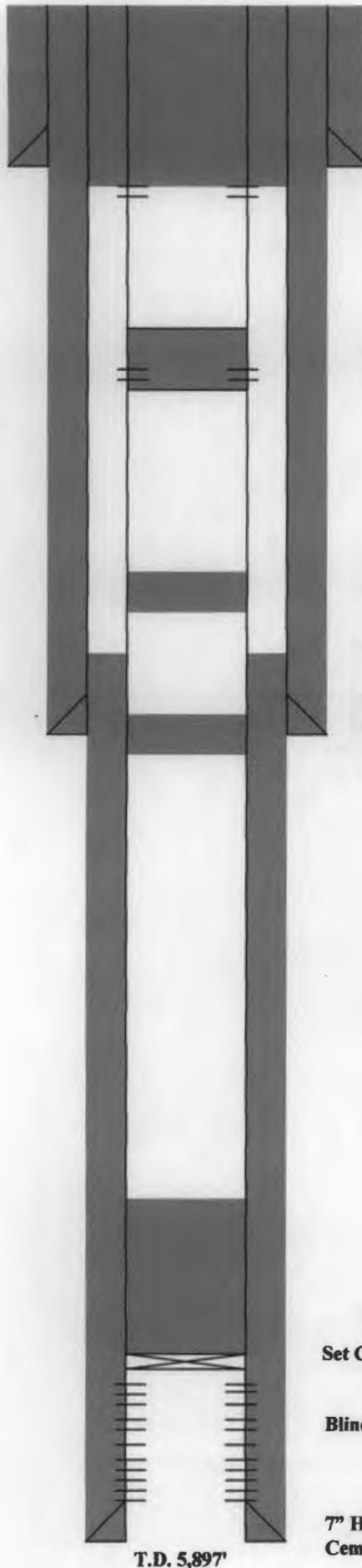
Spot 25 sx. cmt. plug @ 2,951'-3,198'

Set CIBP @ 5,730'. Spot 60 sx. cmt. plug to 5,098'

Blinebry Perforations: 5,780'-5,881'

**7" Hole (Assumed); 5 1/2" Csg. Set @ 5,897'
 Cemented w/362 Sx. Calculated TOC @ 2,801'**

Apache Corporation
Form C-108: NEDU # 324
PA Schematic
EBDU No. 32



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

APACHE CORPORATION

3a. Address

3301 N. A St. Ste 7-150, Midland, TX 79705

3b. Phone No. (include area code)

(432) 683-6511

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Unit 330' ENL & 330' FWL Section 12, T-21-S, R-37-E

5. Lease Serial No.

NMC 032096B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

E. Blinbry Drinkard Unit #32

8. Well Name and No.

9. API Well No.

30-025-06542

10. Field and Pool, or Exploratory Area

Blinbry 046

11. County or Parish, State

Lea County NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Acidize ☐ Deepen ☐ Production (Start/Resume) ☐ Water Shut-Off
☐ Alter Casing ☐ Fracture Treat ☐ Reclamation ☐ Well Integrity
☐ Casing Repair ☐ New Construction ☐ Recomplete ☐ Other
☐ Change Plans ☒ Plug and Abandon ☐ Temporarily Abandon
☐ Convert to Injection ☐ Plug Back ☐ Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

9-10-08 MIRU. Well was circulated w/140 BBL of M.L.F.

9-11-08 Spot 25 sx. @3,198' - 2,951'. Spot 25 sx. @2,584'. W.O.C. & tag @2,423'. Perf. @1,520'.
Could not pump into perms. (BLM chg. Plug)

9-12-08 R.I.H. to 1,583'. Spot 30 sx. cmt. W.O.C. & tag @1,330'. Perf. @313'. Sqz. 85 sx. cmt. to surface. RIMO (BLM chg. Plug)

9/10/08 Set CIBP @ 5730', Spot 6054 cmt. to 5098', Covered CIBP @nd Glorieta. (BLM add. plug.)
9/12/08 Circ. 5 1/2" x 75/8" to Surf w/85 sx cmt.

Cutoff wellhead and anchors, install dry hole marker.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

GARY EGGLESTON

Title

P & A SUPERV.

Signature

Date 9-15-08

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

JUN 24 2009

DISTRICT 1 SUPERVISOR

Date JUN 11 2009

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

JAMES A. AMOS
SUPERVISOR

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NUMBER OF COPIES RECEIVED		DISTRIBUTION		NEW MEXICO OIL CONSERVATION COMMISSION		FORM C-103 (Rev 3-55)	
SANTA FE				MISCELLANEOUS REPORTS ON WELLS			
FILE				(Submit to appropriate District Office as per Commission Rule 1106)			
U.S.G.S.				1963 JAN 10 AM 10:05			
LAND OFFICE							
TRANSPORTER							
OIL							
GAS							
PRODUCTION OFFICE							
OPERATOR							
Name of Company Shell Oil Company				Address Box 1858 Roswell, New Mexico			
Lease State (Sec.2)		Well No. 12	Unit Letter S	Section 2	Township 21	Range 37	
Date Work Performed January 2, 1962		Pool Hare			County Lea		
THIS IS A REPORT OF: (Check appropriate block)							
<input type="checkbox"/> Beginning Drilling Operations		<input type="checkbox"/> Casing Test and Cement Job		<input type="checkbox"/> Other (Explain):			
<input checked="" type="checkbox"/> Plugging		<input type="checkbox"/> Remedial Work					
Detailed account of work done, nature and quantity of materials used, and results obtained.							
<p>Ran tubing to top of fish at 2912'.</p> <p>*Spotted cement plugs as follows:</p> <p style="padding-left: 40px;">15 axs neat cement - 2870' - 2912'</p> <p style="padding-left: 40px;">30 axs neat cement - 100' - surface</p> <p>Erected prescribed 4"x4" marker in 8-5/8" casing.</p> <p>Well P&A January 2, 1963.</p> <p>*Attempted to spot cement plug on casing perfs, but were not able to pump through fish at 2912'.</p>							
Witnessed by H. B. Brooks		Position Production Foreman		Company Shell Oil Company			
FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY							
ORIGINAL WELL DATA							
D F Elev.		T D		P BTD		Producing Interval	
						Completion Date	
Tubing Diameter		Tubing Depth		Oil String Diameter		Oil String Depth	
Perforated Interval(s)							
Open Hole Interval				Producing Formation(s)			
RESULTS OF WORKOVER							
Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD	
Before Workover							
After Workover							
OIL CONSERVATION COMMISSION				I hereby certify that the information given above is true and complete to the best of my knowledge.			
Approved by <i>Leslie N. Clements</i>				Name W. E. Bingham Original Signed By W. E. Bingham			
Title				Position Division Mechanical Engineer			
Date				Company Shell Oil Company			

Shell Oil Company
State Section 2 No. 12
API No. 30-025-06378
2250' FSL & 2140' FWL (Unit S)
Section 2, T-21S, R-37E, NMPM,
Type Well: Producer

Date Drilled: 1/52
Date PA'd: 1/63

Set 30 sx. cmt. plug 100'-Surface

**17" Hole; 13 3/8" Csg. set @ 211'. Cemented
w/250 sx. Cement circulated to surface**

**Unknown fish in hole @ 2,912'
Could not pump through fish
Set 15 sx. cmt plug 2,870'-2,912'**

5 1/2" Liner Top @ 2,913'

**11" Hole; 8 5/8" Csg. set @ 3,150'
Cemented w/2200 sx. Cement circulated to surface**

McKee Perforations: 7,719'-8,016'

**7 7/8" Hole; 5 1/2" Liner set @ 2,913'-8,072'
Cemented w/800 Sx. Cement circulated to liner top**

T.D. 8,075'

Apache Corporation
Form C-108: NEDU # 324
PA Schematic
State Section 2 No. 12



from WFX-784

South Permian Basin Region

10520 West I-20 East

Odessa, TX 79765

(815) 488-9191

Lab Team Leader - Sheila Hernandez

(815) 485-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	33102
Region:	PERMIAN BASIN	Account Manager:	MIKE EDWARDS (505) 910-9517
Area:	EUNICE, NM	Sample #:	223099
Lease/Platform:	NORTHEAST DRINKARD UNIT	Analysis ID #:	28971
Entity (or well #):	WATER INJECTION STATION	Analysis Cost	\$40.00
Formation:	UNKNOWN		
Sample Point:	INJECTION PUMP DISCHARGE		

Summary		Analysis of Sample 223099 @ 75 °F					
Sampling Date:	10/3/02	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	10/4/02	Chloride:	10086.0	284.49	Sodium:	5799.5	252.26
Analyst:	SHEILA HERNANDEZ	Bicarbonate:	671.0	11.	Magnesium:	439.0	36.11
TDS (mg/l or g/m3):	20702.9	Carbonate:	0.0	0.	Calcium:	1099.0	54.84
Density (g/cm3, tonne/m3):	1.015	Sulfate:	2465.0	51.32	Strontium:	28.0	0.84
Anion/Cation Ratio:	1.000000	Phosphate:			Barium:	0.1	0.
		Borate:			Iron:	0.3	0.01
		Silicate:			Potassium:	115.0	2.94
Carbon Dioxide:	80 PPM	Hydrogen Sulfide:		90 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		7.5	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		7.5	Lead:		
					Manganese:		
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	index	Amount	index	Amount	psi
80	0	1.18	75.54	-0.08	0.00	-0.14	0.00	0.07	2.75	0.75	0.00	0.21
100	0	1.25	85.15	-0.08	0.00	-0.09	0.00	0.07	3.09	0.60	0.00	0.3
120	0	1.33	95.11	-0.10	0.00	-0.02	0.00	0.09	3.78	0.47	0.00	0.42
140	0	1.41	105.41	-0.10	0.00	0.08	129.07	0.11	4.46	0.38	0.00	0.56

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO₂ pressure is actually the calculated CO₂ fugacity. It is usually nearly the same as the CO₂ partial pressure.



New Mexico Office of the State Engineer

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 Number	POD Sub-Code	basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00197			LE	1	4	1	01	21S	37E	676611	3598599*	85		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 1-3

Township: 21S

Range: 37E

Apache Corporation
Form C-108: NEDU # 324
State Engineer
Fresh Water Well Data

*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 or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

NEDU 324 (API: 30-025-06348) Proposed Procedure: Convert Well to Injection

January 29, 2014

Day 1: MIRU SR. ND WH & NU BOPs. PU & RIH w/ 2-7/8" WS and bit

Day 2: Cont. RIH w/ 2-7/8" WS & bit. Drill out CIBP @ 6650' & circulate clean. RIH and tag for PBTD @ +/- 6886'. Clean out to PBTD if necessary. POOH

Day 3: MIRU WL, run GR/CNL/CBL log from PBTD to surface, POOH. Send logs to Midland

Day 4: PU & RIH 5-1/2" casing scraper on 2-7/8" ws to +/-6670', POOH

Day 5: MIRU WL & RIH w/ 3-3/8" TAG guns loaded with SDP charges & perforate the Drinkard @ 4 SPF, 90 deg phasing (estimated 60', 240 shots), POOH

PU & RIH w/ treating packer on 2-7/8" ws

Day 6: Cont. RIH w/ treating packer on 2-7/8" WS. Set packer @ +/-6650'

MIRU acidizers. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid and rock salt in 3 equal stages @ +/- 10 BPM. Release packer. Wash out salt. POOH

Day 7: PU & RIH w/5-1/2" injection packer c/w 2-3/8" IPC tbgs subs, upper & lower profile nipples, & on/off tool on 2-7/8" ws. Set packer @ +/-6650'. Rel. on/off tool & test casing to 500 psi. POOH & LD 2-7/8" WS

Day 8: PU & RIH w/2-3/8" IPC inj. tbgs & on/off tool. Circulate packer fluid & latch onto packer w/ on/off tool. ND BOPs & NU WH. Pressure test casing to 500 psi. RDMO SR

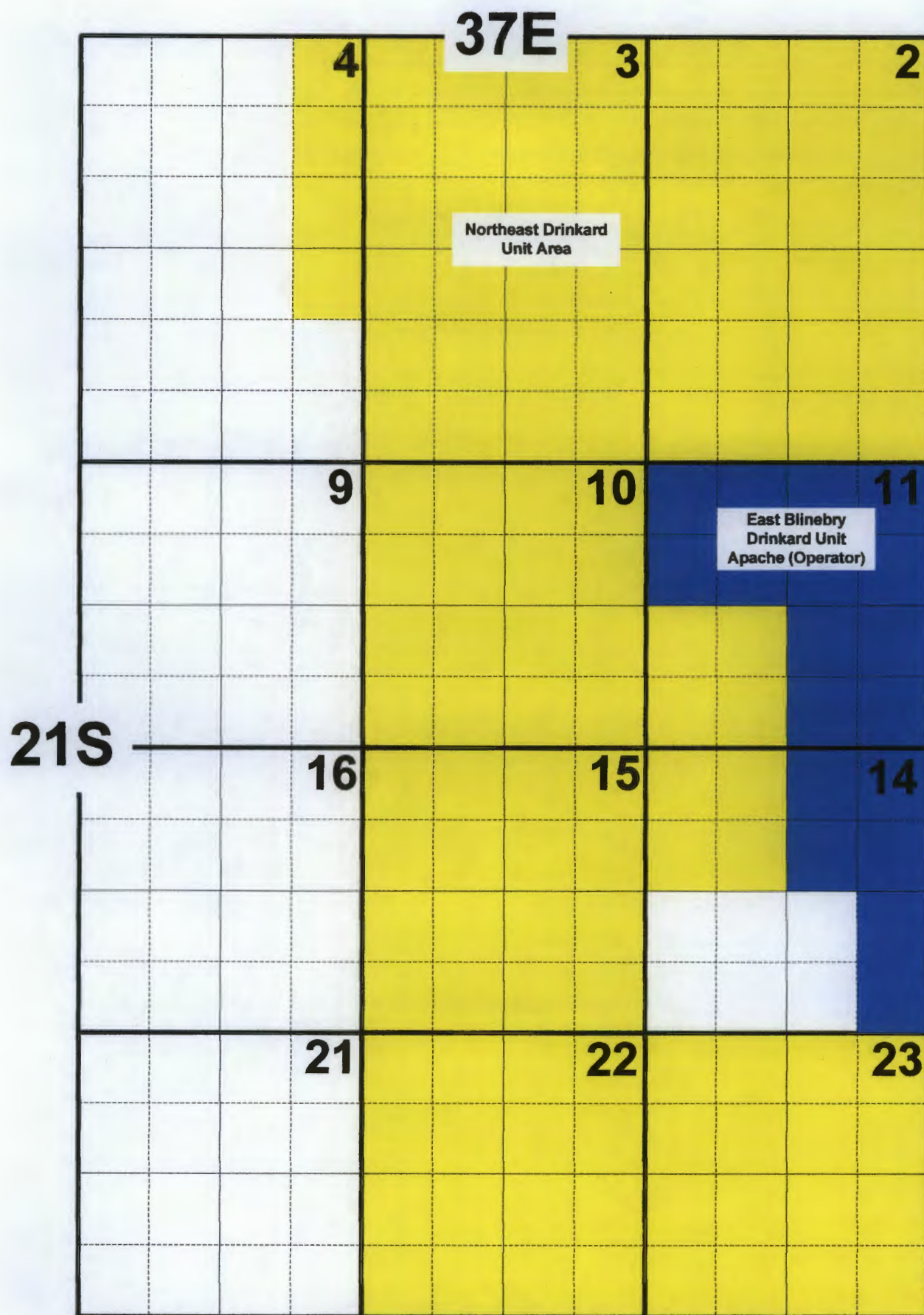
Day 9: Perform MIT test for NM OCD. Place well on injection

NEDU 324 Formation Tops

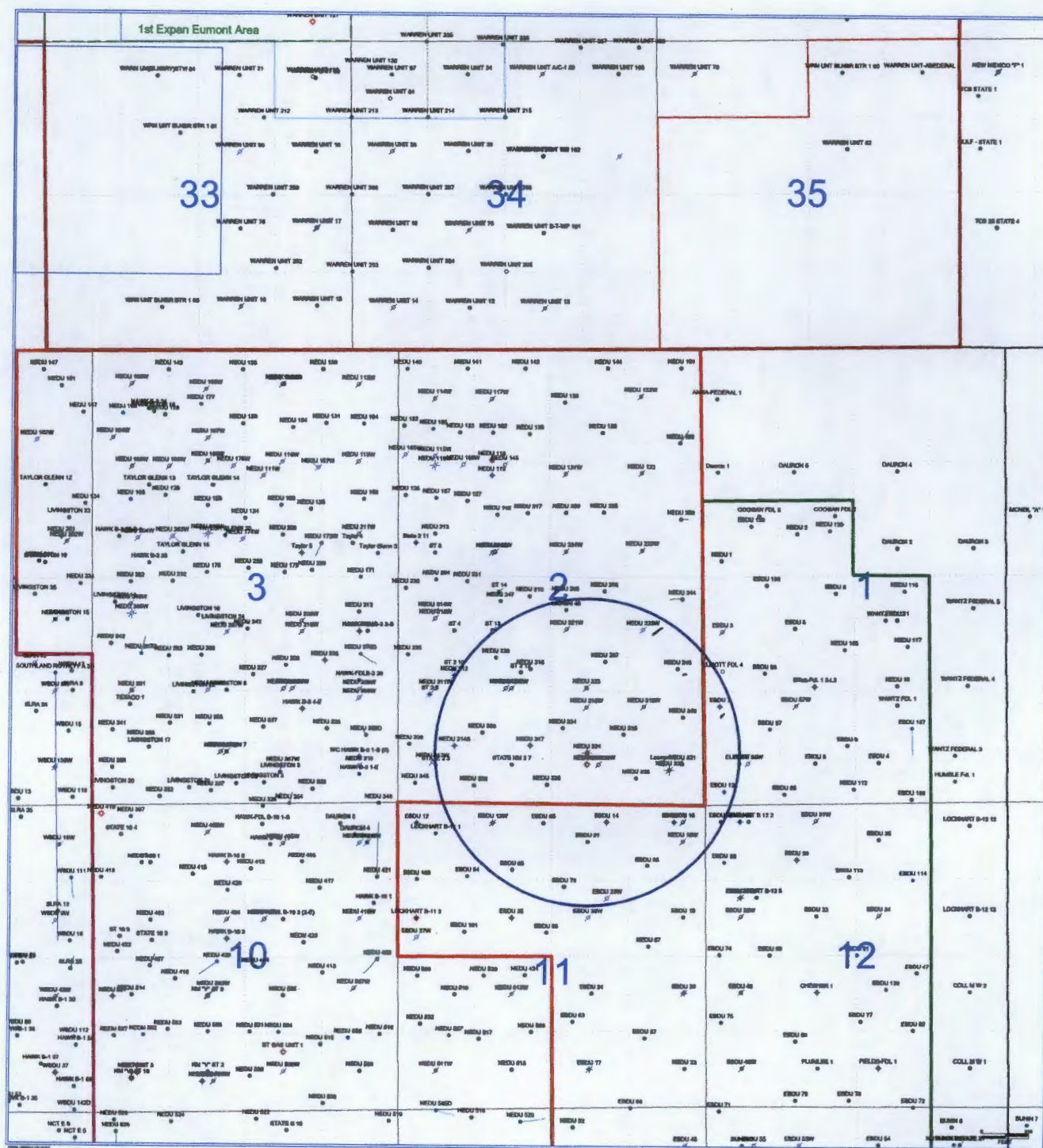
Fm Name	Src	MD	SS	TVD
RUSTLER	TRP	1,388	2,100	1,388
YATES	TRP	2,680	808	2,680
SEVEN_RIVERS	TRP	2,941	547	2,941
QUEEN	TRP	3,510	-22	3,510
GLORIETA	TRP	5,303	-1,815	5,303
DRINKARD *	TRP *	6,579	-3,091	6,579 ✓
ABO	TRP	6,813	-3,325	6,813 ✓
GRAYBURG	TRP	3,845	-357	3,845
SAN_ANDRES	TRP	4,155	-667	4,155
PADDOCK	TRP	5,364	-1,876	5,364
TUBB_MRKR *	TRP	6,243	-2,755	6,243
BLINEBRY_MRKR *	TRP	5,766	-2,278	5,766
PENROSE	TRP	3,664	-176	3,664
SIMPSON	TRP	7,518	-4,030	7,518

— Bl Marker — 5766

6813 Abo



Apache Corporation
Form C-108: Northeast Drinkard Unit No. 324
Northeast Drinkard Unit Boundaries



Apache Corporation
Form C-108: NEDU # 324
Lease Map



New Mexico Office of the State Engineer 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 Number	POD Sub-	Code	basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 01221 POD1		LE	4	4	4	11	21S	37E	676254	3588506	75	60	15		

Average Depth to Water: 60 feet

Minimum Depth: 60 feet

Maximum Depth: 60 feet

Record Count: 1

PLSS Search:

Section(s): 10-12

Township: 21S

Range: 37E

CP 00197

NW 1/4 of SE 1/4 of NW 1/4 - Sec. 1

6-inch casing
85 ft well depth

Sec. 4 (CP 00552)

BTW 75 ft well TD 90 ft

CP 00906 - Red beds at 152'


CP 00552 - Red beds at 88' (Sec. 4)

Apache Corporation
Form C-108: NEDU # 324
State Engineer
Fresh Water Well Data

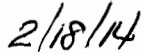
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Form C-108
Affirmative Statement
Apache Corporation
Northeast Drinkard Unit No. 324
Section 2, T-21 South, R-37 East, NMPM,
Lea County, New Mexico

Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.



David Catanach
Agent for Apache Corporation



Date

Apache Corporation
Form C-108: Northeast Drinkard Unit No. 324
Section 2, T-21 South, R-37 East, NMPM
Lea County, New Mexico

Offset Operator/Leasehold Owner/Surface Owner Notification List

All acreage within the ½ mile notice area for the Northeast Drinkard Unit No. 324 is located within the Northeast Drinkard Unit Waterflood Project or the East Blinebry Drinkard Unit Waterflood Project. Both of these Units/Secondary Recovery Projects are operated by Apache Corporation in the North Eunice Blinebry-Tubb-Drinkard Pool (**See Attached Lease Map**). Division records indicate that there are no other operators within the ½ mile notice area that operate in the North Eunice Blinebry-Tubb-Drinkard Pool. The surface owner at the well location of the Northeast Drinkard Unit No. 324 is the Commissioner of Public Lands for the State of New Mexico. In accordance with Division rules, notice of this application is being provided as follows:

Surface Owner: Northeast Drinkard Unit No. 324

Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

Additional Notice

OCD-Hobbs District Office

February 18, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

TO: Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

Re: Apache Corporation
Form C-108 (Application for Authorization to Inject)
Northeast Drinkard Unit No. 324
Section 2, T-21S, R-37E, NMPM,
Lea County, New Mexico

Ladies & Gentlemen:

Enclosed please find a copy of Oil Conservation Division Form C-108 (Application for Authorization to Inject) for the Apache Corporation Northeast Drinkard Unit No. 324. You are being provided a copy of the application as the surface owner of the land on which the injection well is located. Apache Corporation proposes to convert the Northeast Drinkard Unit No. 324 to injection within the existing Northeast Drinkard Unit Waterflood Project in order to complete an efficient production/injection pattern within the Northeast Drinkard Unit ("Unit Area"). The Unit Area and the waterflood project were previously approved by Division Orders No. R-8540 and R-8541, respectively, dated November 9, 1987. Injection into this well will occur into the Unitized Formation which comprises the Blinbry-Tubb-Drinkard formation from a depth of approximately 5,530 feet to 6,680 feet within the Shell Argo Well No. 8 located in Unit N of Section 15, T-21S, R-37E.

Objections must be filed with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

If you should have any questions, please contact me at (505) 690-9453.

Sincerely,



David Catanach-Agent
Apache Corporation
303 Veterans Airpark Lane, Suite 3000
Midland, Texas 79705

Enclosure

**Form C-108
Apache Corporation
Northeast Drinkard Unit No. 324
Section 2, T-21 South, R-37 East, NMPM
Lea County, New Mexico**

The following-described legal notice will be published in the:

**Hobbs Daily News Sun
P.O. Box 936
Hobbs, New Mexico 88241**

The Affidavit of Publication will be forwarded to the Division upon receipt by Apache Corporation

Apache Corporation, 303 Veterans Airpark Lane, Suite 3000, Midland Texas 79705 has filed a Form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to convert the following-described well to water injection within the Northeast Drinkard Unit ("NEDU") Waterflood Project, North Eunice Blinbry-Tubb-Drinkard Pool, Lea County, New Mexico:

**NEDU Well No. 324 API No. 30-025-06348, 860' FSL & 1980' FEL (Unit W)
Section 2, T-21 South, R-37 East,
Injection Interval: Initially: 6,690'-6,780' (Perforated), later to be
expanded to include the entire "Unitized Formation" (Blinbry, Tubb
& Drinkard Formations which extend from an upper limit of 5,530' (2,101
feet sub-sea) to a lower limit of 6,680' (3,251 feet sub-sea) on the log run on
the Shell Argo Well No. 8 located in Unit N of Section 15, T-21S, R-37E**

Produced water and San Andres make-up water will be injected into the well at average and maximum rates of 250 BWPD and 500 BWPD, respectively. The initial surface injection pressure is anticipated to be in compliance with the Division's limit of 0.2 psi/ft, or 1,338 psi, and the maximum surface injection pressure will be determined by a step rate injection test.

Interested parties must file objections with the New Mexico Oil Conservation Division, 1220 S. St Francis Drive, Santa Fe, New Mexico 87505, within 15 days of the date of this publication. Additional information can be obtained by contacting Mr. David Catanach, Agent for Apache Corporation at (505) 690-9453.

7012 0470 0001 5964 7742

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CERTIFIED MAIL™ RECEIPT		
(Domestic Mail Only; No Insurance Coverage Provided)		
For delivery information visit our website at www.usps.com ®		
OFFICIAL USE		
Postage	\$	\$2.03
Certified Fee		\$3.30
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total		\$8.03

0500

USPS SANTA FE, NM 87501

Postmark Here

FEB 18 2014

SANTA FE MAIN POST OFFICE

0216/2014

Sent To	Commissioner of Public Lands	
Street, or PO	P.O. Box 1148	
City, St	Santa Fe, New Mexico	
	87504-1148	

PS Form 3800, August 2006 See reverse for instructions

Affidavit of Publication

State of New Mexico,
County of Lea.

I, DANIEL RUSSELL
PUBLISHER
of the Hobbs News-Sun, a
newspaper published at Hobbs, New
Mexico, do solemnly swear that the
clipping attached hereto was
published in the regular and entire
issue of said newspaper, and not a
supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
February 21, 2014
and ending with the issue dated
February 21, 2014

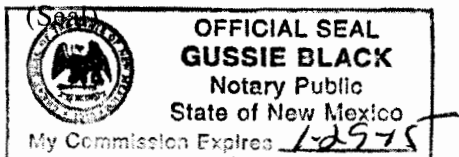

PUBLISHER

Sworn and subscribed to before me
this 21st day of
February, 2014



Notary Public

My commission expires
January 29, 2015



This newspaper is duly qualified to
publish legal notices or
advertisements within the meaning of
Section 3, Chapter 167, Laws of
1937 and payment of fees for said
publication has been made.

LEGAL

LEGAL

LEGAL NOTICE February 21, 2014

Apache Corporation, 303 Veterans Airpark Lane, Suite 3000, Midland Texas 79705 has filed a Form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to convert the following-described well to water injection within the Northeast Drinkard Unit ("NEDU") Waterflood Project, North Eunice Blinbry-Tubb-Drinkard Pool, Lea County, New Mexico:

NEDU Well No. 324 API No. 30-025-06348, 860' FSL & 1980' FEL (Unit W)
Section 2, T-21 South, R-37 East.
Injection Interval: Initially: 6,690'-6,780'
(Perforated), later to be expanded to include the entire "Unitized Formation" (Blinbry, Tubb & Drinkard Formations which extend from an upper limit of 5,530' (2,101 feet sub-sea) to a lower limit of 6,680' (3,251 feet sub-sea) on the log run on the Shell Argo Well No. 8 located in Unit N of Section 15, T-21S, R-37E

Produced water and San Andres make-up water will be injected into the well at average and maximum rates of 250 BWPD and 500 BWPD, respectively. The initial surface injection pressure is anticipated to be in compliance with the Division's limit of 0.2 psi/ft, or 1,338 psi, and the maximum surface injection pressure will be determined by a step rate injection test.

Interested parties must file objections with the New Mexico Oil Conservation Division, 1220 S. St Francis Drive, Santa Fe, New Mexico 87505, within 15 days of the date of this publication. Additional information can be obtained by contacting Mr. David Catanach, Agent for Apache Corporation at (505) 690-9453.

#28783

67109591

00131290

DAVID CATANACH
REGULATORY CONSULTANT
1142 VUELTA DE LAS ACEQUIAS
SANTA FE, NM 87507



C-108 Review Checklist: Received 02/18/14 Add. Request: — Reply Date: — Suspended: — [Ver 13]

PERMIT TYPE: WFX / PMX / SWD Number: 920 Permit Date: 05/07/14 Legacy Permits/Orders: R-8541
[amended twice]
R-8540

Well No. 324 Well Name(s): Northeast Drinkard Unit

API: 30-0 25-06348 Spud Date: 03/21/1952 New or Old: Old (UIC Class II Primacy 03/07/1982)

Footages 860 FSL/1980 FEL Lot — or Unit W Sec 2 Tsp 21S Rge 37E County Lea

General Location: Sec 2 - elongated 1/6 lots; SW 1/4 SE 1/4 of Sec 2 - or DL equivalent
North of Eunice NM, just north of town Pool: Northeast Drinkard WF Pool No.: 22900
North Eunice, Blinbury - Tubb - Drinkard oil Pool

BLM 100K Map: Hobbs Operator: Apache Corporation OGRID: 873 Contact: D. Catanach

COMPLIANCE RULE 5.9: Total Wells: 2889 Inactive: 6 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? Yes Date: 05/07/14

WELL FILE REVIEWED ☒ Current Status: Temp. T&A for WFX application; CIBP at 6650/6900/7585

WELL DIAGRAMS: NEW: Proposed ☐ or RE-ENTER: Before Conv. ☒ After Conv. ☒ Logs in Imaging: GR/Newton D.

Planned Rehab Work to Well: Drill out CIBP at 6650'; clean; tag CIBP at 6886; log/analyze/perf. / install

Well Construction Details:		Sizes (in)	Setting	Cement	Cement Top and
		Borehole / Pipe	Depths (ft)	Sx or Cf	Determination Method
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/>	Surface	17 1/4 / 12 3/4	0 to 259	360	Circulated to Surf
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/>	Interm Prod	11 / 8 5/8	0 to 2889	1100	TS - 1135' / No tie
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/>	Interm Prod	7 7/8 / 5 1/2	0 to 7778	870	TS - 3320' / No tie
Planned <input type="checkbox"/> or Existing <input type="checkbox"/>	Prod/Liner	—	—	—	—
Planned <input type="checkbox"/> or Existing <input type="checkbox"/>	Liner	—	—	—	—
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	OH / PERF	7 7/8 / 5 1/2 *	6690 - 6780 [See Conditions]	Inj Length 90'	
Injection Stratigraphic Units:		Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.			Glorieta		Drilled TD 7778 PBDT 7778/6650
Confining Unit: Litho. Struc. Por.			Paddock		NEW TD NA NEW PBDT 6886 ±
Proposed Inj Interval TOP:	To be added		Unitized Interval		NEW Open Hole <input type="checkbox"/> or NEW Perfs <input checked="" type="checkbox"/> *
Proposed Inj Interval BOTTOM:	6690 - 6780		Blinbury to Drinkard		Tubing Size 2 3/8 in. Inter Coated? Yes
Confining Unit: Litho. Struc. Por.	LGR of current log		Rbo		Proposed Packer Depth — ft
Adjacent Unit: Litho. Struc. Por.					Min. Packer Depth Based on (100-ft limit)
					Proposed Max. Surface Press. — psi
					Admin. Inj. Press Based on (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P Noticed? NA BLM Sec Ord NA WIPP Noticed? NA SALT/SALADO T: — B: — CLIFF HOUSE NA

FRESH WATER: Aquifer Ogallala Max Depth < 90' HYDRO AFFIRM STATEMENT By Qualified Person ☒

NMOSE Basin: Capitan CAPITAN REEF: thru ☐ adj ☒ NA No. Wells within 1-Mile Radius? 0 FW Analysis NA

Disposal Fluid: Formation Source(s) Re-injection / makeup from San Andres Analysis? Yes On Lease ☒ Operator Only ☐ or Commercial ☐

Disposal Int: Inject Rate (Avg/Max BWPD): 250/500 Protectable Waters? No Source: Water Sample System: Closed ☒ or Open ☐

HC Potential: Producing Interval? Yes - water flood Formerly Producing? Yes Method: Logs/DST/P&A/Other [producing] 2-Mile Radius Pool Map NA

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: 40 Horizontals? 0

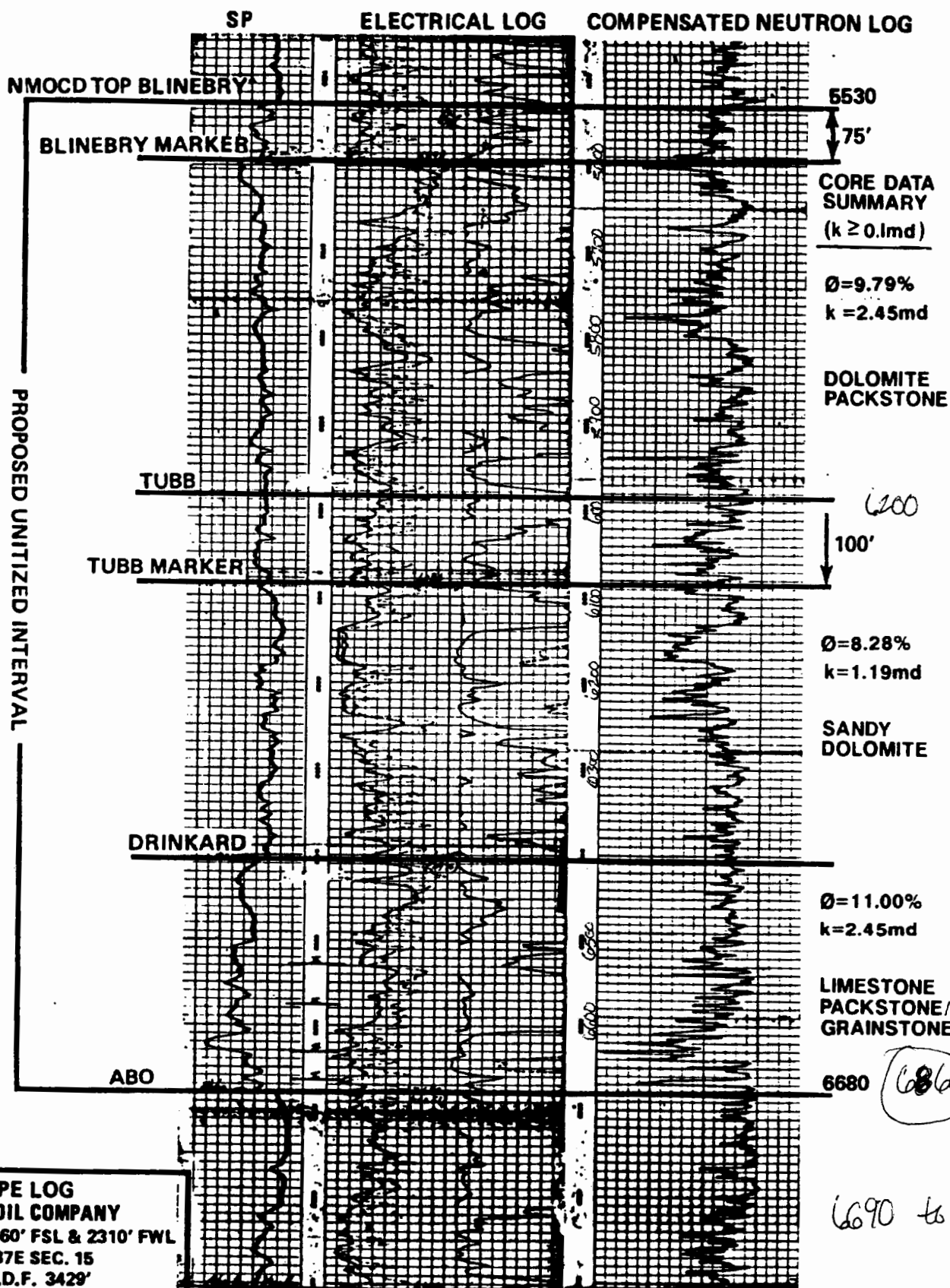
Penetrating Wells: No. Active Wells 35 Num Repairs? 0 on which well(s)? — Diagrams? No

Penetrating Wells: No. P&A Wells 6 Num Repairs? 0 on which well(s)? — Diagrams? Yes

NOTICE: Newspaper Date 02/21/2014 Mineral Owner SLO Surface Owner SLO N. Date Feb. 18

RULE 26.7(A): Identified Tracts? Yes Affected Persons: Apache only N. Date NA

Permit Conditions: Issues: To accomodate WF; perf'd interval is equivalent to "Unitized Interval"
under order No. 8540
Add Permit Cond: 1) P.D. - to be in Unitized Interval: 2) include calc of MSIP and



TYPE LOG
SHELL OIL COMPANY
ARGO NO. 8 660' FSL & 2310' FWL
21S-37E SEC. 15
ELEV.D.F. 3429'
LEA COUNTY, NEW MEXICO

Northeast Drinkard Unit
Exhibit Fourteen
Cases 9230
9231
9232