DATE IN 05/29/2013	SUSPENSE	ENGINEER PG	LOGGED IN 05/29/13	TYPE WFX	APP NO. pPRG1314960053

ABOVE THIS LINE FOR DIVISION USE ONLY

-913

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] R-12981
[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

West Blinebry Drinkard Unit (WBDU)

Check One Only for [B] or [C]

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

Wells: 8
WBDU #37
WBDU #40
WBDU #56
WBDU #59

[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

WBDU #61

[B] ■ Offset Operators, Leaseholders or Surface Owner

WBDU #66
WBDU #75
WBDU #77

[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

Apache Corp

[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	David Catanach	Agent-Apache Corporation
Print or Type Name	Signature	Title
	5/29/13	drcatanach@netscape.com
	Date	E-Mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

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-12981 entered in Cases No. 14125/14126 on 8/11/08

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: 5/29/13

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.

May 29, 2013

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
West Blinebry Drinkard Unit
Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
Sections 8, 9, 16 & 17, Township 21 South, Range 37 East, NMPM,
North Eunice Blinebry-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 West Blinebry Drinkard Unit Waterflood Project. Division Order No. R-12981, as amended, dated August 11, 2008 approved the statutory unitization of the West Blinebry Drinkard Unit Area ("Unit Area") and approved secondary recovery operations within the Unit Area. Apache Corporation proposes to convert the West Blinebry Drinkard Unit Wells No. 37, 40, 56, 59, 61, 66, 75 and 77 to injection in order to complete an efficient production/injection pattern within the Unit Area. These wells are located in Sections 8, 9, 16 and 17, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

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

Sincerely,

David Catanach

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

Xc: OCD-Hobbs

C-108 Application
Apache Corporation
West Blinebry Drinkard Unit Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
Sections 8, 9, 16 & 17, T-21S, R-37E, NMPM
Lea County, New Mexico

I. The purpose of the application is to request approval to convert eight (8) wells to water injection within the West Blinebry Drinkard Unit Waterflood Project, North Eunice Blinebry-Tubb-Drinkard Pool, Lea County, New Mexico, in order to normalize the pattern configuration in the south end of the Unit Area to 40-acre five spot patterns. This well reduce the number of isolated and unbalanced patterns in this area of the field, thereby improving sweep efficiencies and injection rates and consequently, oil recoveries should improve within this area.

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 for each of the eight injection wells are attached. Also included are work-over procedures for each well detailing how each of these wells are going to be converted from producing wells to injection wells. Due to the age of these wells, Apache has elected to set a 4 ½" production liner within each of these wells and cement the liner to surface. Consequently, all existing Binebry-Tubb-Drinkard perforations in each well will be abandoned. **Please note that Apache proposes to initially complete the injection wells only within the Drinkard formation. The Blinebry interval may be perforated in each well at a later date, and consequently, Apache requests that the approved injection interval in each well comprise the "Unitized Formation" as defined by Order No. R-12981 as "the interval underlying the Unit Area occurring from a depth of 75 feet above the stratigraphic Blinebry marker down to the top of the Abo formation, as found on the Type Log for the Hawk B-1 Well No. 34 (API No. 30-025-36344) located 1040 feet from the South line and 1470 feet from the West line of Section 9, Township 21 South, Range 37 East, N.M.P.M."**

IV. This is an expansion of the West Blinebry Drinkard Unit Waterflood Project. Division Order No. R-12981, as amended, dated August 11, 2008 approved the statutory unitization of the West Blinebry Drinkard Unit Area ("Unit Area") and 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 wells 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 eight subject injection wells. **Group 1 Wells** (Pages 1 & 2) are a list of wells that penetrate the injection interval whose well construction details were previously presented in Case No. 14126 on May 15, 2008. Since this well data was previously submitted, it is not re-submitted with this application. **Group 2 Wells** (Pages 3 & 4) are a list of wells within the AOR that do not penetrate the injection interval and consequently, well

construction details for these wells is not required. **Group 3 Wells** (Page 5) is a list of AOR wells that penetrate the injection interval whose well construction details have not been previously submitted to the Division. This list includes wells that were not in the AOR of the injection wells permitted by Order No. R-12981, or wells that were presented in Case No. 14126 whose status has changed. 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 650 BWPD per well, and the maximum injection rate is 1,500 BWPD per well. 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 in each well. If a higher injection pressure is necessary, Apache will conduct step rate injection tests to determine the fracture pressure of the injection interval.

4. Produced water from the North Eunice Blinebry-Tubb-Drinkard Pool originating from wells within the Unit Area will be re-injected into the subject injection wells. If additional make-up water is necessary, Apache will utilize San Andres produced water (as described in Case No. 14126).

5. Injection is to occur into a formation that is oil productive.

VIII. The formations being targeted for water injection are the Blinebry 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 are several Ogallala fresh water wells in this area whose depths range from 80 feet to 167 feet.

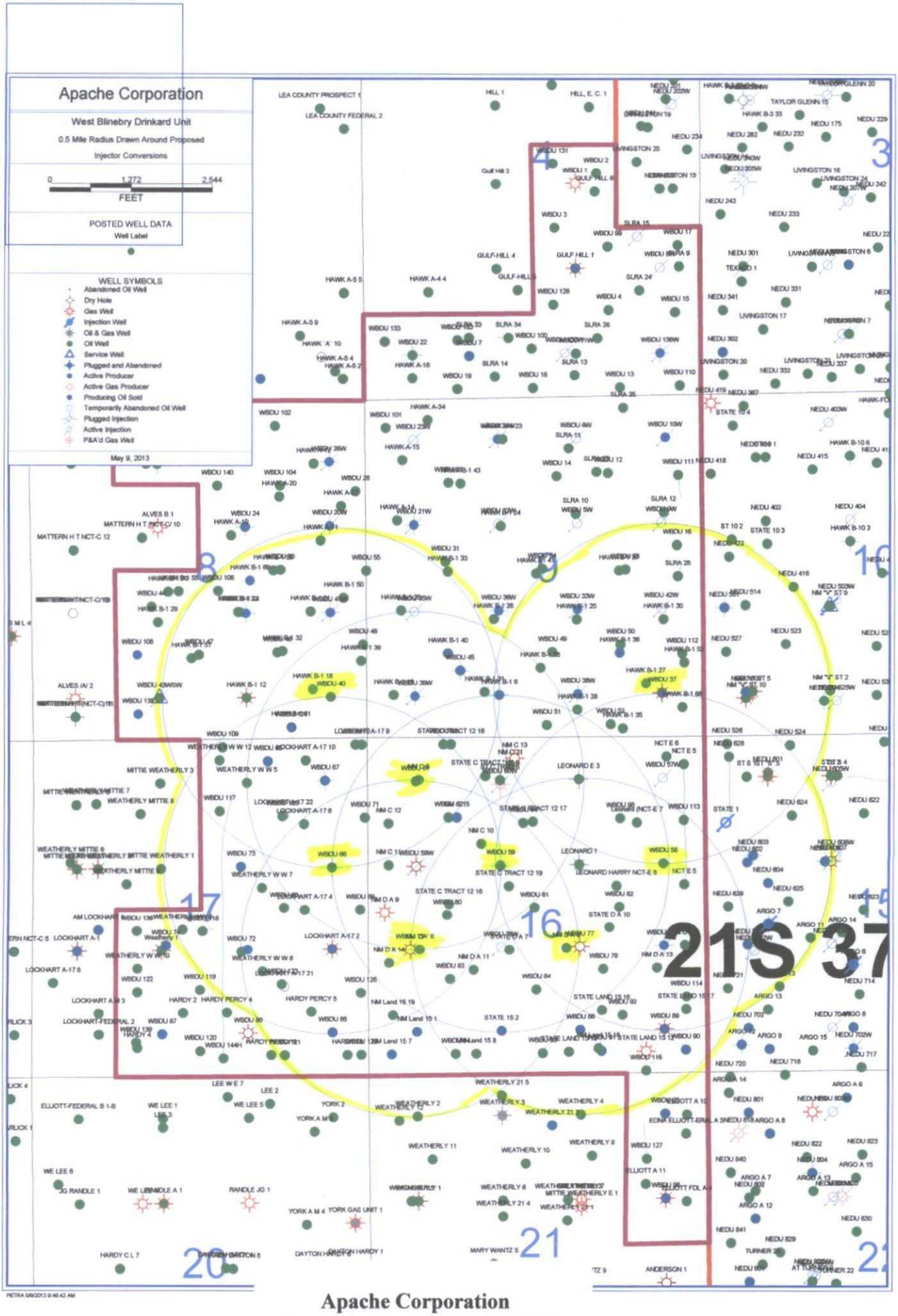
IX. A stimulation treatment will be performed on the injection wells with a 15% HCL-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/- 10 BPM.

X. Logs were filed at the time of drilling.

XI. Attached is a water analysis from two fresh water wells within the Unit Area. These water analysis were previously presented in Case No. 14126.

XII. Affirmative statement is enclosed.

XIII. Proof of Notice is enclosed.



Apache Corporation
Form C-108: 8 Wells-WBDU
½ Mile AOR Map

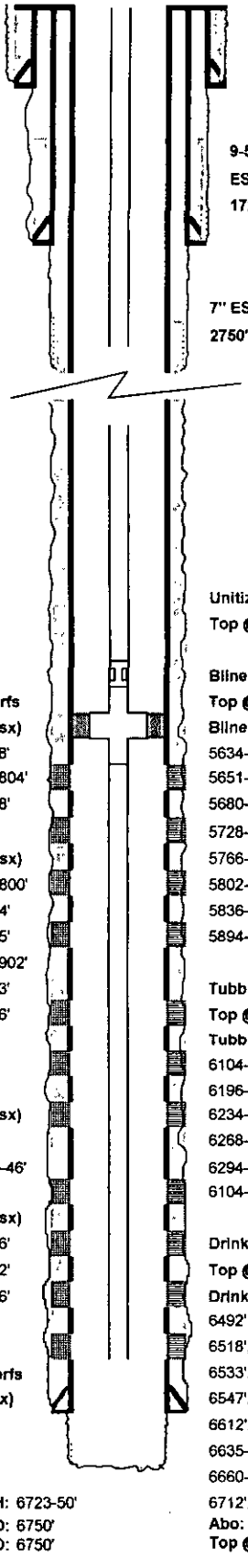
Apache Corporation
Form C-108: WBDU Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
Injection Well Summary Sheet

Well Name & Number	API No.	Well Location	Injection Interval	Tbg. Size
WBDU No. 37	30-025-06439	660' FSL & 660' FEL (P) 9-21S-37E	5,585'-6,710' (Perforated)	2 3/8" IPC
WBDU No.40	30-025-06433	660' FSL & 660' FEL (P) 8-21S-37E	5,597'-6,758' (Perforated)	2 3/8" IPC
WBDU No. 56	30-025-06621	1980' FNL & 660' FEL (H) 16-21S-37E	5,543'-6,702' (Perforated)	2 3/8" IPC
WBDU No. 59	30-025-06626	1980' FNL & 1980' FWL (F) 16-21S-37E	5,580'-6,694' (Perforated)	2 3/8" IPC
WBDU No. 61	30-025-06629	660' FNL & 660' FWL (D) 16-21S-37E	5,599'-6,726' (Perforated)	2 3/8" IPC
WBDU No. 66	30-025-06638	1980' FNL & 660' FEL (H) 17-21S-37E	5,572'-6,712' (Perforated)	2 3/8" IPC
WBDU No. 75	30-025-06615	1980' FSL & 660' FWL (L) 16-21S-37E	5,590'-6,707' (Perforated)	2 3/8" IPC
WBDU No. 77	30-025-06618	1980' FSL & 1980' FEL (J) 16-21S-37E	5,547'-6,674' (Perforated)	2 3/8" IPC

Apache Corporation

WBDU #37 (Hawk B-1 #7)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #37 (Hawk B-1 #7)			**API:**	30-025-06439
LOCATION:	660'S/660'E -SE-SE, Sec. 9, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	09-03-1948 / 11-25-1948			**COMP. DATE:**	11/30/1948
PREPARED BY:	Michael Hunter			**DATE:**	5/8/2013
TD:	6750'	**KB Elev.**	3482'	**KB Dist. H**	
PBTD:	6750'	**Ground Elev.**	3472'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx., Circ.)	48.00	H-40	0.00	232.00
	9-5/8" (500sx,TOC @ 1720')	36.00	H-40/J-55	0.00	2,779.00
Prod. Casing	7" (800sx, TOC @ 2750')	23.00	J-55/N-80	0.00	6,723.00
Open Hole	6-1/8"			6,723.00	6,750.00
Tubing					

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5559.00
2	215 JTS 2-3/8" 4.7# J-55 TBG		
3	Seating Nipple		6689.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	79 JTS 7/8" KD RODS	1,975.00	
2	183 JTS 3/4" KD RODS	4,575.00	
3	3 JTS 1-1/2" K-BARS	75.00	
4	BHP: 2" X 1 1/4" X 12' RHBC (06/26/2012)	12.00	
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C160-?-74	**MOTOR HP:**	10 HP
PUMPING UNIT MAKE:		**MOTOR MAKE:**	

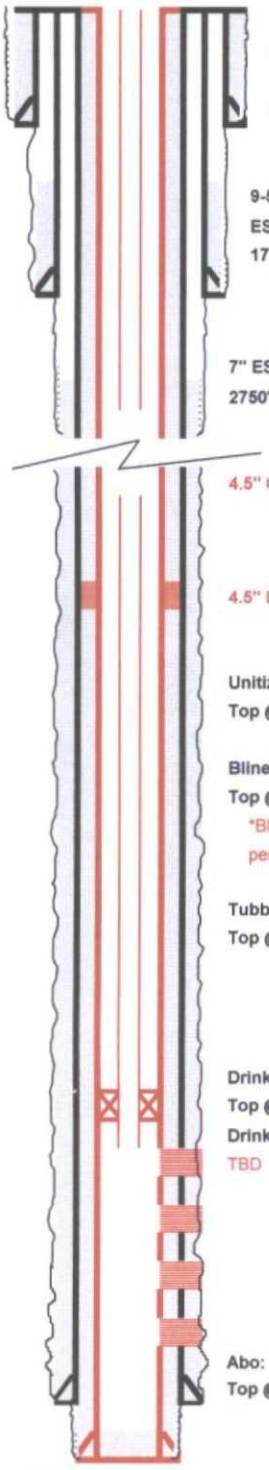
PERFORATIONS

Form.	Intervals	Density
Blinebry	5634-46', 51-58', 66-76', 5680-5702', 5718-24', 28-40', 60-62', 66-70', 82-92' (Active)	2 SPF
	5802-06', 10-30', 36-46', 74-82', 5894-5908', 5912-18' (Active)	2 SPF
	5738', 61', 68', 83', 92', 5804', 13', 21', 28', 43' (Sq. w/ 150sx)	1 SPF
	5782', 87', 5800', 04', 11', 14', 15', 25', 35', 68', 76', 5902', 14', 37', 53', 60', 70', 76', 82' (Sqz. w/130sx)	1 SPF
Tubb	6104-24', 44-50', 6196-6224', 6234-38', 49-63', 6268-74', 6294-6328' (Active)	2 SPF
	6200-6300', 6200-12', 20-46', 60-90' (Sqz. w/100sx)	1/4 SPF
	6201', 08', 16', 36', 56', 62', 72', 80', 96', 6312', 25' (Sqz. w/245sx)	1 SPF
Drinkard	6492', 6518', 25', 27', 33', 36', 42', 47', 54', 85', 6612', 26', 6712', 18' (Active)	2 SPF
	6635-42', 48-50', 6660-6705' (Active)	8 SPF
	6567-85', 6600-12' (Sqz. w/75sx)	8 SPF

Apache Corporation

WBDU #37 (Hawk B-1 #7)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #37 (Hawk B-1 #7)			**API:**	30-025-06439
LOCATION:	660'S/660'E -SE-SE, Sec. 9, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	09-03-1948 / 11-25-1948			**COMP. DATE:**	11/30/1948
INJ ORDER DATE:		**INJ. ORDER #:**		**BPD/PSI:**	
PREPARED BY:	Michael Hunter			**DATE:**	5/8/2013
TD:	6750'	**KB Elev.**	3482'	**KB Dist. H**	
PBTD:	6730'	**Ground Elev.**	3472'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx., Circ.)	48.00	H-40	0.00	232.00
	9-5/8" (500sx, TOC @ 1720')	36.00	H-40/J-55	0.00	2,779.00
Prod. Casing	7" (800sx, TOC @ 2750')	23.00	J-55/N-80	0.00	6,723.00
	4-1/2" (CMT @ SURF)	11.60	J-55	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	6,520.00

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 37 Proposed Procedure: Convert well to injection

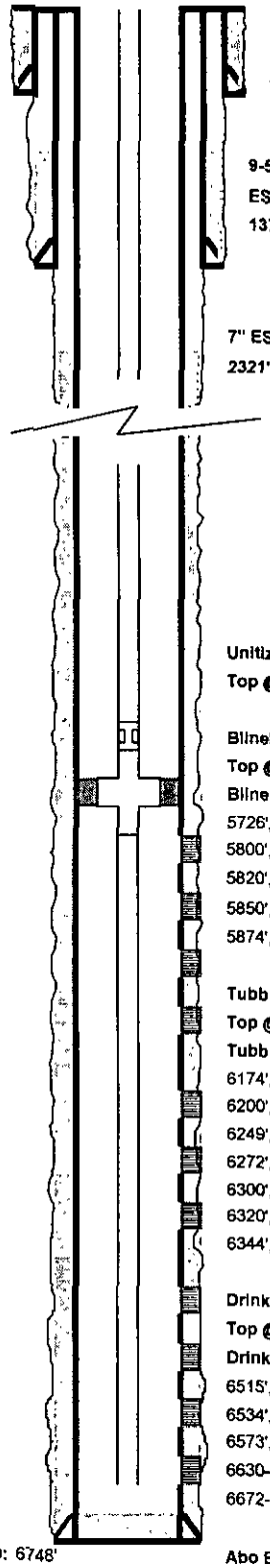
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-3/8" tubing
2. RIH w/ 6-1/8" bit on 2-3/8" work string. Clean well out as necessary to TD at +/-6750', POOH
3. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
4. RU casing crew and equipment. RIH w/ 4-1/2" 11.6# J-55 casing w/ centralizers, float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
5. Perform two stage cement job to surface. WOC
6. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
7. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing
8. RIH w/4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
9. RIH w/4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD work string*
10. RIH w/2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
11. Run MIT for NMOCD*
12. Allow injection rates to stabilize, run injection profile and temperature survey
13. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #40 (Hawk B-1 #10)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #40 (Hawk B-1 #10)	**API:**	30-025-06433
LOCATION:	660'S/660'E SE-SE, Sec. 8, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	11-12-1949 / 12-16-1949	**COMP. DATE:**	12/28/1949
PREPARED BY:	Michael Hunter	**DATE:**	5/8/2013
TD: 6758'	**KB Elev.** 3514'	**KB Dist. H**	
PBTD: 6748'	***Ground Elev.*** 3504'	***KB to Ground***	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (250sx., Circ.)	48.00	H-40	0.00	229.00
	9-5/8" (1100sx,TOC @ 1375')	40.00	J-55	0.00	2,818.00
Prod. Casing	7" (625sx, TOC @ 2321')	23.00	J-55/N-80	0.00	6,753.00
Open Hole					
Tubing	2-7/8"	6.50	J-55	0.00	6,706.00

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5622.00
2	217 JTS 2-7/8" 6.5# J-55 TBG		
3	Seating Nipple		6706.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	263 JTS 3/4" C RODS	6,575.00	
2	2 JTS 3/4" (?) SINKER BARS	50.00	
3	BHP: 2" X 1 1/2" X 20' RHBC (06/04/2010)	20.00	
4			
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C-114-143-64	**MOTOR HP:**	15 HP
PUMPING UNIT MAKE:		**MOTOR MAKE:**	

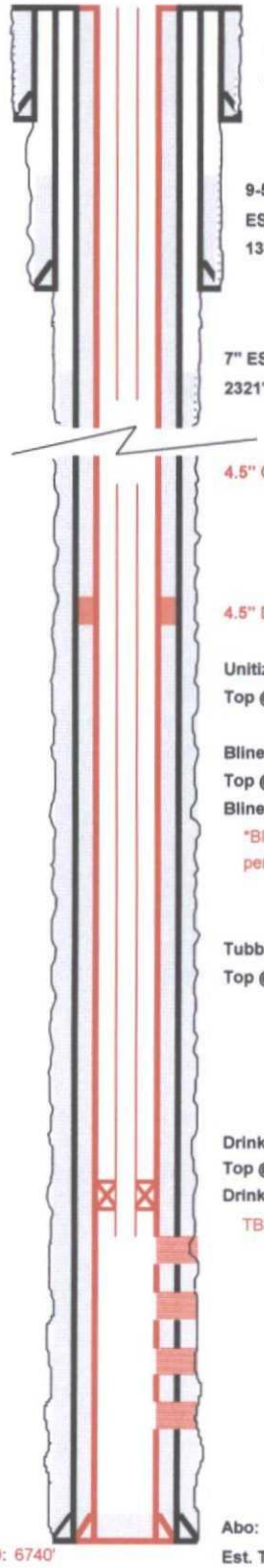
PERFORATIONS

Form.	Intervals	Density
Blinebry	5726', 38', 68', 5800', 02', 14', 20', 40', 46', 50', 66', 68', 74', 86', 92' (Active)	2 SPF
Tubb	6174', 78', 6200', 06', 24', 49', 56', 61', 72', 77', 97' (Active)	2 SPF
	6300', 12', 18', 20', 22', 31', 44', 46', 50' (Active)	2 SPF
Drinkard	6515', 21', 30', 34', 49', 58', 73', 75', 86' (Active)	1 SPF
	6630-42', 47-54', 58-68', 72-90', 6700-08' (Active)	4 SPF

Apache Corporation

WBDU #40 (Hawk B-1 #10)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #40 (Hawk B-1 #10)	**API:**	30-025-06433
LOCATION:	660'S/660'E SE-SE, Sec. 8, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	11-12-1949 / 12-16-1949	**COMP. DATE:**	12/28/1949
INJ ORDER DATE:		**INJ. ORDER #:**	**BPD/PSI:**
PREPARED BY:	Michael Hunter	**DATE:**	5/8/2013
TD: 6758'	**KB Elev.** 3514'	**KB Dist. H**	
PBTD: 6740'	**Ground Elev.** 3504'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (250sx., Circ.)	48.00	H-40	0.00	229.00
	9-5/8" (1100sx,TOC @ 1375')	40.00	J-55	0.00	2,818.00
Prod. Casing	7" (625sx, TOC @ 2321')	23.00	J-55/N-80	0.00	6,753.00
	4-1/2" (CMT @ SURF)	11.60	J-55	0.00	6,748.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	+/-6520

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
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8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 40 Proposed Procedure: Convert well to injection

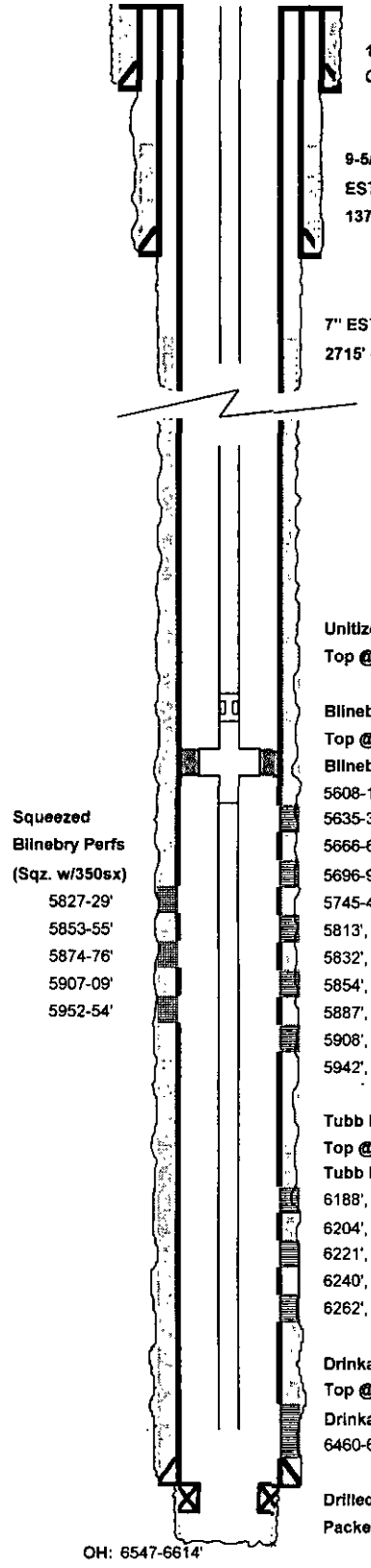
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-7/8" tubing
2. RIH w/ 6-1/8" bit on 2-3/8" work string. Drill well out from PBTD at 6748' to TD at 6758'. Circulate clean. POOH
3. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
4. RU casing crew and equipment. RIH w/ 4-1/2" 11.6# J-55 casing w/ centralizers, float equipment, marker joint and stage tool (at +/-5500') to +/- 6758'
5. Perform two stage cement job to surface. WOC
6. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6740'. Circulate clean. POOH
7. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing
8. RIH w/ 4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
9. RIH w/ 4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD ws*
10. RIH w/ 2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
11. Run MIT for NMOCD*
12. Allow injection rates to stabilize, run injection profile and temperature survey
13. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #56 (Harry Leonard NCT-E #2)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #56 (Harry Leonard NCT-E #2)			**API:**	30-025-06621
LOCATION:	1980'N/660'E SE-NE, Sec. 16, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	11-24-1947 / 11-1-1948			**COMP. DATE:**	1/14/1948
PREPARED BY:	*Michael Hunter*			**DATE:**	5/9/2013
TD:	6614'	**KB Elev.**	3507'	**KB Dist. H**	
PBTD:	6614'	**Ground Elev.**	3497'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (300sx., Circ.)	48.00	H-40	0.00	301.00
	9-5/8" (1300sx,TOC @ 1370')	36.00	H-40	0.00	2,952.00
Prod. Casing	7" (700sx, TOC @ 2715')	23.00	J-55	0.00	6,547.00
Open Hole	6-1/8"			6,547.00	6,614.00
Tubing	*2-3/8"*	*4.70*	*J-55*	*0.00*	*6,523.00*

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5527.00
2	215 JTS 2-3/8" 4.7# J-55 TBG		
3	Seating Nipple		6523.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	75 JTS 7/8" KD RODS	1,875.00	
2	183 JTS 3/4" KD RODS	4,575.00	
3	BHP: 2" X 1 1/4" X 24' RHBC (07/25/2012)	24.00	
4			
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C160-200-74	**MOTOR HP:**	10 HP
PUMPING UNIT MAKE:	American	**MOTOR MAKE:**	

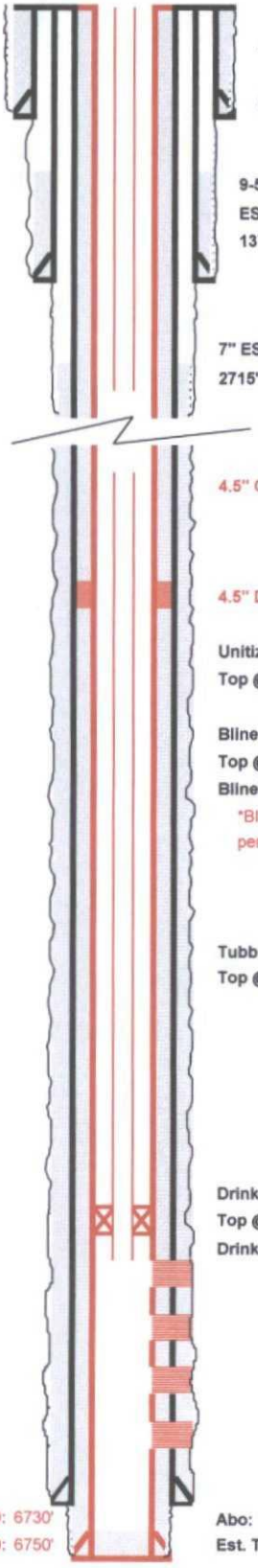
PERFORATIONS

Form.	Intervals	Density
Blinebry	5608-10', 35-37', 66-68', 96-98', 5745-47' (Active)	4 SPF
	5813', 22', 28', 32', 39', 51', 54', 74', 76', 87', 97', 5908', 21', 30', 42', 47', 51', 58' (Active)	2 SPF
	5827-29', 53-55', 74-76', 5907-09', 52-54' (Sqz. w/350sx)	4 SPF
Tubb	6188', 91', 97', 6204', 12', 16', 21', 32', 37', 40', 54', 57', 62', 68', 82', 86' (Active)	2 SPF
Drinkard	6460-6530' (Active)	2 SPF
	6723-50' (Active)	OH

Apache Corporation

WBDU #56 (Harry Leonard NCT-E #2)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #56 (Harry Leonard NCT-E #2)			**API:**	30-025-06621
LOCATION:	1980'N/660'E SE-NE, Sec. 16, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	11-24-1947 / 11-1-1948			**COMP. DATE:**	1/14/1948
INJ ORDER DATE:		**INJ. ORDER #:**		**BPD/PSI:**	
PREPARED BY:	Michael Hunter			**DATE:**	5/9/2013
TD: 6750'	**KB Elev.**	3507'		**KB Dist. H**	
PBTD: 6730'	**Ground Elev.**	3497'		**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (300sx., Circ.)	48.00	H-40	0.00	301.00
	9-5/8" (1300sx,TOC @ 1370')	36.00	H-40	0.00	2,952.00
Prod. Casing	7" (700sx, TOC @ 2715')	23.00	J-55	0.00	6,547.00
	4-1/2" (CMT @ SURF)	11.60	J-55 IPC	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	6,520.00

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 56 Proposed Procedure: Convert well to injection

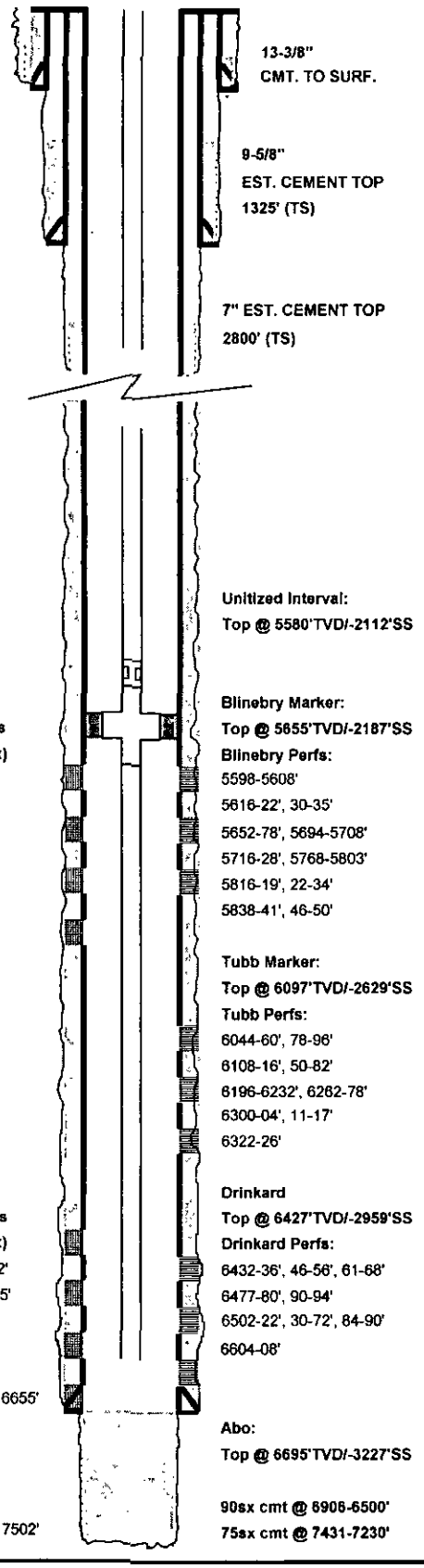
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-3/8" tubing
2. RIH w/ 6-1/8" washover shoe, washover pipe on 2-7/8" work string. Cut over and remove Model D packer at 6540'. POOH
3. RIH w/ 6-1/8" bit on 2-7/8" work string. Drill well out from current TD at 6614' to new TD at 6750', circulate clean. POOH
4. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
5. RU casing crew & equipment. RIH w/ 4-1/2" 11.6# J-55 casing w/ centralizers, float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
6. Perform two stage cement job to surface. WOC
7. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
8. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing
9. RIH w/ 4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/ 10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
10. RIH w/ 4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Rel. on/off tool and POOH LD work string*
11. RIH w/ 2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
12. Run MIT for NMOCD*
13. Allow injection rates to stabilize, run injection profile and temperature survey
14. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #59 (State C, Tract 12, #4)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #59 (State C, Tract 12, #4)			**API:**	30-025-06626
LOCATION:	1980'N/1980'W SE-NW, Sec. 16, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	9-18-1947 / 10-28-1947			**COMP. DATE:**	11/20/1947
PREPARED BY:	Michael Hunter			**DATE:**	5/9/2013
TD: 7502'	**KB Elev.**	3467'		**KB Dist. H**	
PBTD: 6655'	**Ground Elev.**	3467'		**KB to Ground**	0'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (325sx., Circ.)	48/57.5	H-40/J-55	0.00	316.00
	9-5/8" (1500sx,TOC @ 1325')	36/40	H-40/J-55	0.00	2,900.00
Prod. Casing	7" (670sx, TOC @ 2800')	20/23	J-55/N-80	0.00	6,656.00
Open Hole					
Tubing	2-3/8"	4.70	J-55	0.00	6,631.00

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5540.00
2	213 JTS 2-3/8" 4.7# J-55 TBG		
3	Seating Nipple		6631.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	79 JTS 7/8" K RODS	1,975.00	
2	183 JTS 3/4" K RODS	4,575.00	
3	BHP: 2" X 1 1/4" X 16' RHBC (07/10/2007)	24.00	
4			
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C114-169-54	**MOTOR HP:**	20 HP
PUMPING UNIT MAKE:		**MOTOR MAKE:**	

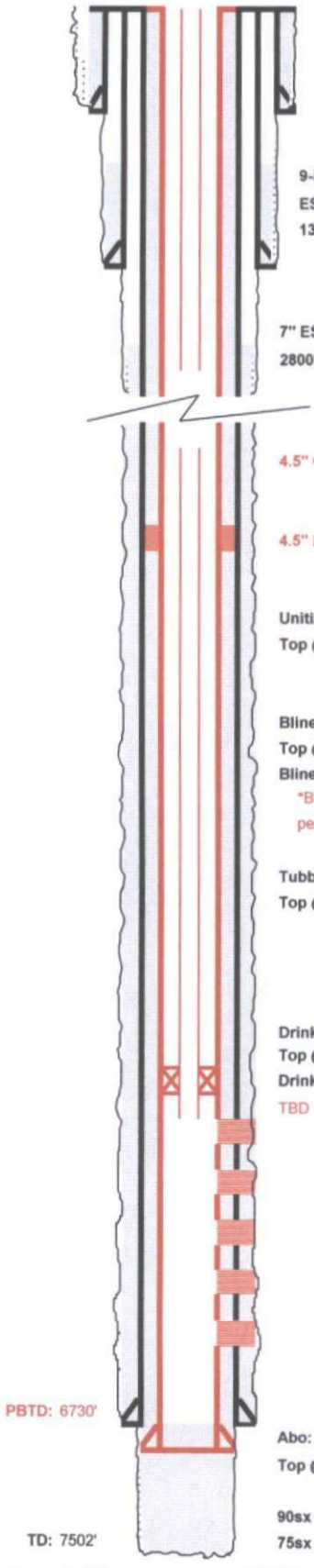
PERFORATIONS

Form.	Intervals	Density
Blinebry	5598-5608', 16-22', 30-35', 52-78', 5694-5708', 5716-28', 5768-5803' (Active)	2 SPF
	5816-19', 22-34', 38-41', 46-50' (Active)	2 SPF
	5650-90', 5710-20', 30-40', 5770-5815', 5885-5905', 5925-40', 5975-6010' (Sqz. w/700sx)	2 SPF
Tubb	6044-60', 78-96', 6108-16', 50-82', 6196-6232', 62-78', 6300-04', 11-17', 22-26' (Active)	2/1 SPF
Drinkard	6432-36', 46-56', 61-68', 77-80', 90-94', 6502-22', 30-72', 84-90', 6604-08' (Active)	
	6458-68, 89-92', 6502-06', 15-35', 6550-80', 6620-56' (Sqz. w/900sx)	2/6 SPF

Apache Corporation

WBDU #59 (State C, Tract 12, #4)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #59 (State C, Tract 12, #4)		**API:**	30-025-06626	
LOCATION:	1980'N/1980'W SE-NW, Sec. 16, T-21S, R-37E		**COUNTY:**	Lea Co., NM	
SPUD/TD DATE:	9-18-1947 / 10-28-1947		**COMP. DATE:**	11/20/1947	
INJ ORDER DATE:		**INJ. ORDER #:**		**BPD/PSI:**	
PREPARED BY:	Michael Hunter		**DATE:**	5/9/2013	
TD: 7502'	**KB Elev.**	3467'	**KB Dist. H**		
PBTD: 6730'	**Ground Elev.**	3467'	**KB to Ground**	0'	

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (325sx., Circ.)	48/57.5	H-40/J-55	0.00	316.00
	9-5/8" (1500sx,TOC @ 1325')	36/40	H-40/J-55	0.00	2,900.00
Prod. Casing	7" (670sx, TOC @ 2800')	20/23	J-55/N-80	0.00	6,656.00
	4-1/2" (CMT @ SURF)	11.60	J-55	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	+/-6520

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 59 Proposed Procedure: Convert well to injection

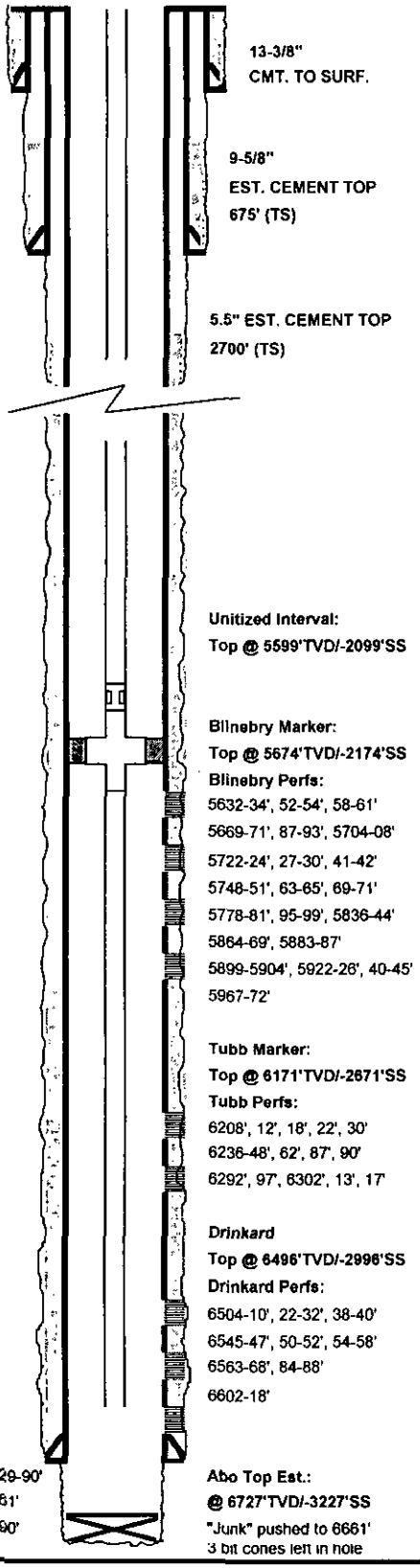
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-3/8" tubing
2. RIH w/ 6-1/8" bit on 2-7/8" work string. Drill out cement from 6655' to 6750', circulate clean. POOH
3. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
4. RU casing crew and equipment. RIH w/ 4-1/2" 11.6# J-55 casing w/ centralizers, float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
5. Perform two stage cement job to surface. WOC
6. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
7. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above @ 4 SPF, 90 degree phasing
8. RIH w/4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
9. RIH w/4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD work string*
10. RIH w/2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
11. Run MIT for NMOCD*
12. Allow injection rates to stabilize, run injection profile and temperature survey
13. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #61 (State C, Tract 12, #7)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #61 (State C, Tract 12, #7)			**API:**	30-025-06629
LOCATION:	660'N/660'W NW-NW, Sec. 16, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	6-8-1949 / 7-19-1949			**COMP. DATE:**	8/4/1949
PREPARED BY:	Michael Hunter			**DATE:**	5/10/2013
TD:	6690'	**KB Elev.**	3499'	**KB Dist. H**	
PBTD:	6661'	**Ground Elev.**	3489'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (300sx., Circ.)	31.25	H-40/J-55	0.00	335.00
	9-5/8" (1500sx,TOC @ 675')	32/36	H-40/J-55	0.00	2,898.00
Prod. Casing	5-1/2" (1300sx, TOC @ 2700')	14/15.5	J-55	0.00	6,629.00
Open Hole	4-3/4"			6,629.00	6,690.00
Tubing	2-3/8"	4.70	J-55	0.00	6,631.00

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5551.00
2	209 JTS 2-3/8" 4.7# J-55 TBG		
3	Seating Nipple		6594.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	81 JTS 7/8" K RODS	2,025.00	
2	168 JTS 3/4" K RODS	4,200.00	
3	12 JTS 1-1/2" K BARS	300.00	
4	BHP: 2" X 1 1/4" X 16' RHBC (09/04/2012)	16.00	
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C228-213-64	**MOTOR HP:**	25 HP
PUMPING UNIT MAKE:		***MOTOR MAKE:***	

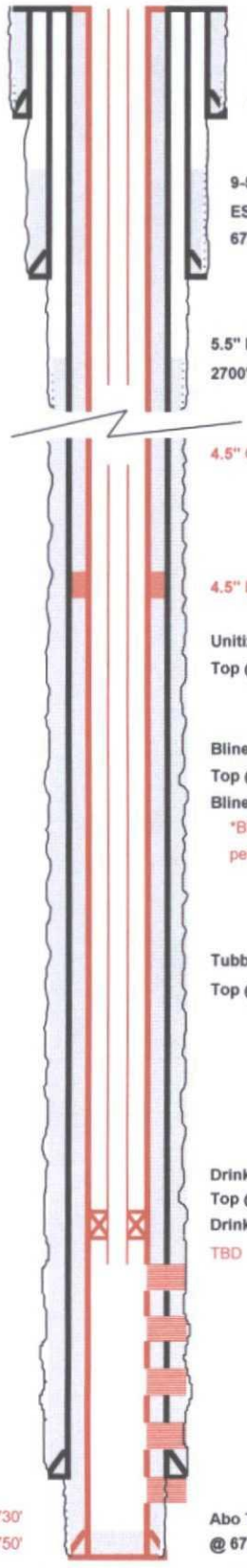
PERFORATIONS

Form.	Intervals	Density
Blinebry	5632-34', 52-54', 58-61', 69-71', 87-93', 5704-08', 22-24', 27-30', 41-42', 48-51', 63-35' (Active)	2 SPF
	5769-71', 78-81', 95-99', 5836-44', 64-69', 83-87', 5899-5904', 22-26', 40-45', 67-72' (Active)	2 SPF
Tubb	6208', 12', 18', 22', 30', 36-48', 62', 87', 90', 92', 97', 6302', 13', 17' (Active)	1/2SPF
Drinkard	6504-10', 22-32', 38-40', 45-47', 50-52', 54-58', 63-68', 84-88', 6602-18' (Active)	2/4 SPF

Apache Corporation

WBDU #61 (State C, Tract 12, #7)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #61 (State C, Tract 12, #7)	**API:**	30-025-06629
LOCATION:	660'N/660'W NW-NW, Sec. 16, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	6-8-1949 / 7-19-1949	**COMP. DATE:**	8/4/1949
INJ ORDER DATE:	**INJ. ORDER #:**	**BPD/PSI:**	
PREPARED BY:	Michael Hunter	**DATE:**	5/10/2013
TD: 6750'	**KB Elev.** 3499'	**KB Dist. H**	
PBTD: 6730'	**Ground Elev.** 3489'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (300sx., Circ.)	31.25	H-40/J-55	0.00	335.00
	9-5/8" (1500sx,TOC @ 675')	32/36	H-40/J-55	0.00	2,898.00
Prod. Casing	5-1/2" (1300sx, TOC @ 2700')	14/15.5	J-55	0.00	6,629.00
	4-1/2" (CMT @ SURF)	11.60	J-55 FJ	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	+/-6520

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 61 Proposed Procedure: Convert well to injection

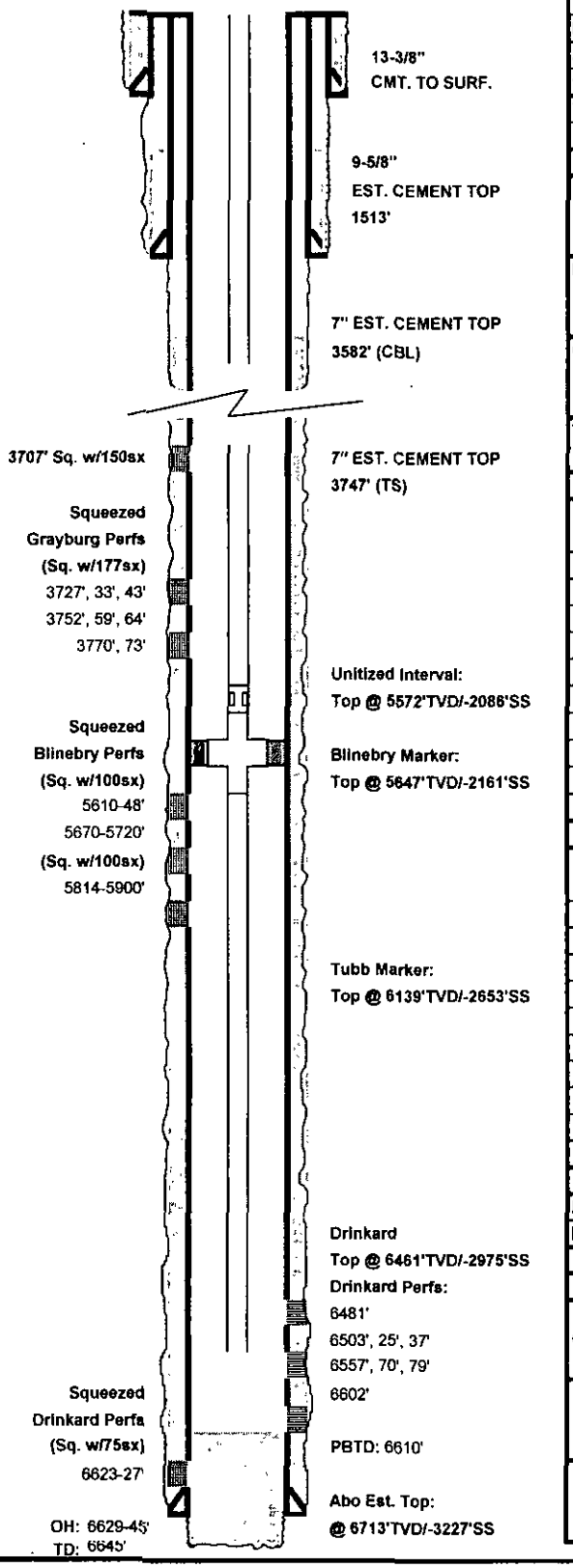
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-3/8" tubing
2. RIH w/ 4-3/4" washover shoe, washover pipe on 2-7/8" work string. Cut over and remove junk at 6661'. POOH
3. RIH w/ 4-3/4" bit on 2-7/8" work string. Drill well out from current TD at 6661' to new TD at 6750', circulate clean. POOH
4. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
5. RU casing crew and equipment. RIH w/ 4-1/2" 11.6# J-55 flush joint casing w/ float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
6. Perform two stage cement job to surface. WOC
7. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
8. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing
9. RIH w/4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
10. RIH w/4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD work string*
11. RIH w/2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
12. Run MIT for NMOCD*
13. Allow injection rates to stabilize, run injection profile and temperature survey
14. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #66 (Lockhart A-17 #3)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #66 (Lockhart A-17 #3)		**API:**	30-025-06638	
LOCATION:	1980'N/660'E SE-NE, Sec. 17, T-21S, R-37E		**COUNTY:**	Lea Co., NM	
SPUD/TD DATE:	7-7-1947 / 9-10-1947		**COMP. DATE:**	9/9/1947	
PREPARED BY:	Michael Hunter		**DATE:**	5/10/2013	
TD: 6645'	**KB Elev.**	3483'	**KB Dist. H**		
PBTD: 6610'	**Ground Elev.**	3473'	**KB to Ground**	10'	

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx., Circ.)	32.40	J-55	0.00	222.00
	9-5/8" (500sx,TOC @ 1513')	36.00	J-55	0.00	2,529.00
Prod. Casing	7" (500sx, TOC @ 3582')	23.00	J-55/N-80	0.00	6,629.00
Open Hole	6/1/8" (Cemented)			6,629.00	6,645.00
Tubing	2-7/8"	6.50	J-55	0.00	6,542.00

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		6387.00
2	220 JTS 2-7/8" 6.5# J-55 TBG		
3	Seating Nipple		6542.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	80 JTS 3/4" ? RODS	2,000.00	
2	179 JTS 5/8" ? RODS	4,475.00	
3	2 JTS 1-1/4" K BARS	50.00	
4	BHP: 2" X 1 1/4" X 16' RHBC (06/05/2012)	16.00	
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C228-246-86	**MOTOR HP:**	20 HP
PUMPING UNIT MAKE:		**MOTOR MAKE:**	

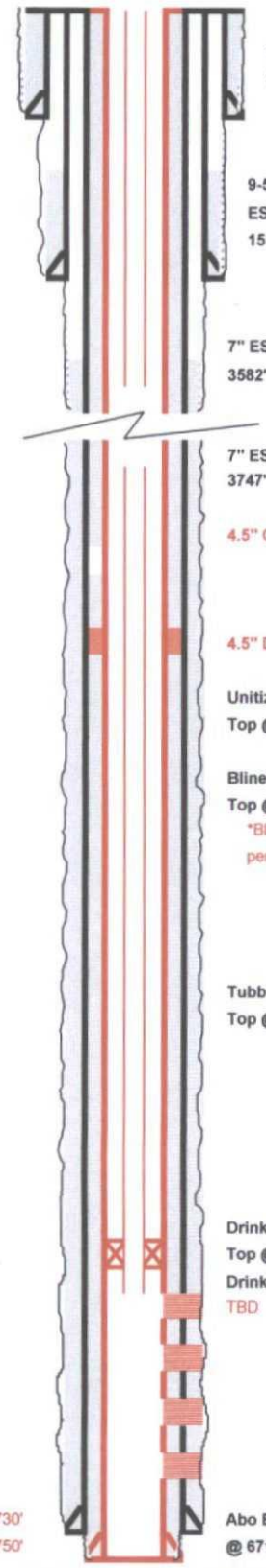
PERFORATIONS

Form.	Intervals	Density
Grayburg	3727', 33', 43', 52', 59', 64', 70', 73' (Sq. w. 177sx)	1 SPF
Blinebry	5610-48', 5670-5720' (Sq. w/ 100sx)	4 SPF
	5814-5900 (Sq. w/ 100sx)	4 SPF
Drinkard	6481', 6503', 25', 37', 57', 70', 79', 6602'	1 SPF
	6623-27' (Sq. w/ 75sx)	8 SPF

Apache Corporation

WBDU #66 (Lockhart A-17 #3)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #66 (Lockhart A-17 #3)	**API:**	30-025-06638
LOCATION:	1980'N/660'E SE-NE, Sec. 17, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	7-7-1947 / 9-10-1947	**COMP. DATE:**	9/9/1947
INJ ORDER DATE:	**INJ. ORDER #:**	**BPD/PSI:**	
PREPARED BY:	Michael Hunter	**DATE:**	5/10/2013
TD: 6750'	**KB Elev.** 3483'	**KB Dist. H**	
PBTD: 6730'	**Ground Elev.** 3473'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx., Circ.)	32.40	J-55	0.00	222.00
	9-5/8" (500sx,TOC @ 1513')	36.00	J-55	0.00	2,529.00
Prod. Casing	7" (500sx, TOC @ 3582')	23.00	J-55/N-80	0.00	6,629.00
	4-1/2" (CMT @ SURF)	11.60	J-55	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	+/-6520

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 66 Proposed Procedure: Convert well to injection

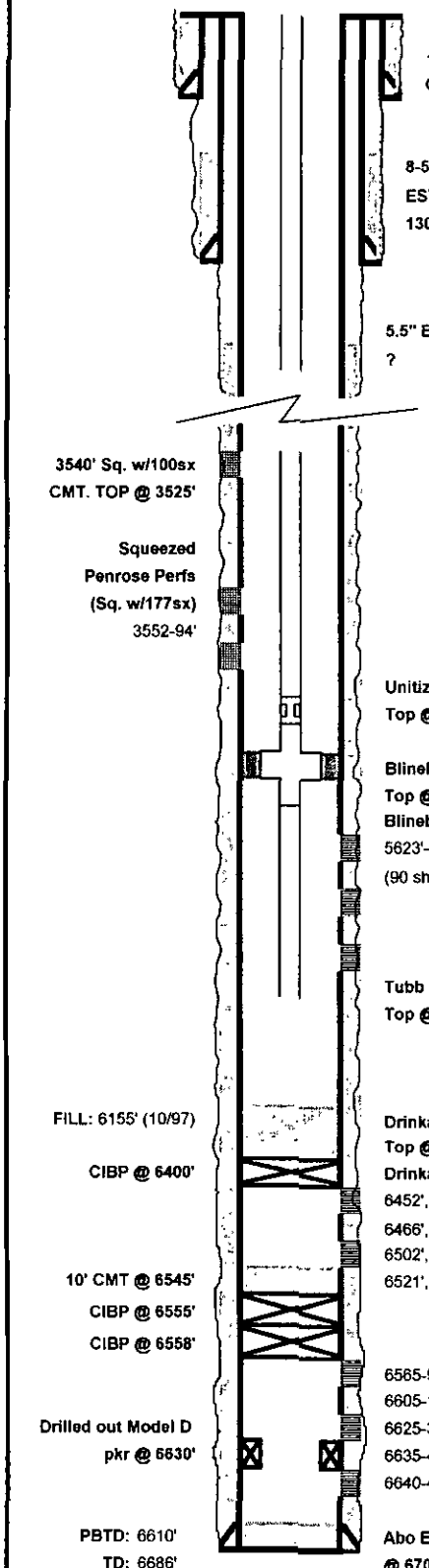
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-7/8" tubing
2. RIH w/ 6-1/8" bit on 2-7/8" work string. Drill out cement from 6610' to 6645', continue to drill out from current TD at 6645' to new TD at +/-6750', circulate clean. POOH
3. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
4. RU casing crew & equipment. RIH w/ 4-1/2" 11.6# J-55 casing w/ centralizers, float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
5. Perform two stage cement job to surface. WOC
6. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
7. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing. Perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing
8. RIH w/4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
9. RIH w/4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD work string*
10. RIH w/2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
11. Run MIT for NMOCD*
12. Allow injection rates to stabilize, run injection profile and temperature survey
13. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #75 (State DA #1)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #75 (State DA #1)		**API:**	30-025-06615	
LOCATION:	1980'S/660'W NW-SW, Sec. 16, T-21S, R-37E		**COUNTY:**	Lea Co., NM	
SPUD/TD DATE:	3-24-1947 / 4-30-1947		**COMP. DATE:**	5/5/1947	
PREPARED BY:	Michael Hunter		**DATE:**	5/15/2013	
TD: 6686'	**KB Elev.**	3470'	**KB Dist. H**		
PBTD: 6400'	**Ground Elev.**	3460'	**KB to Ground**	10'	

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx, circ?)	36.00	J-55	0.00	216.00
	8-5/8" (1200sx,TOC @ 1300')	32.00	J-55	0.00	2,812.00
Prod. Casing	5-1/2" (400sx, TOC @ ?)	15.50	J-55	0.00	6,686.00
Open Hole					
Tubing	2-3/8"	4.70	J-55	0.00	6,085.00

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5260.00
2	190 JTS 2-3/8" 4.7# J-55 TBG		
3	Seating Nipple		6085.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	121 JTS 7/8" T-66 RODS	3,025.00	
2	120 JTS 3/4" T-66 RODS	3,000.00	
3	BHP: 2" X 1 1/2" X 20' HVRC (01/09/2007)	16.00	
4			
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	M640-305-168	**MOTOR HP:**	30 HP
PUMPING UNIT MAKE:		**MOTOR MAKE:**	

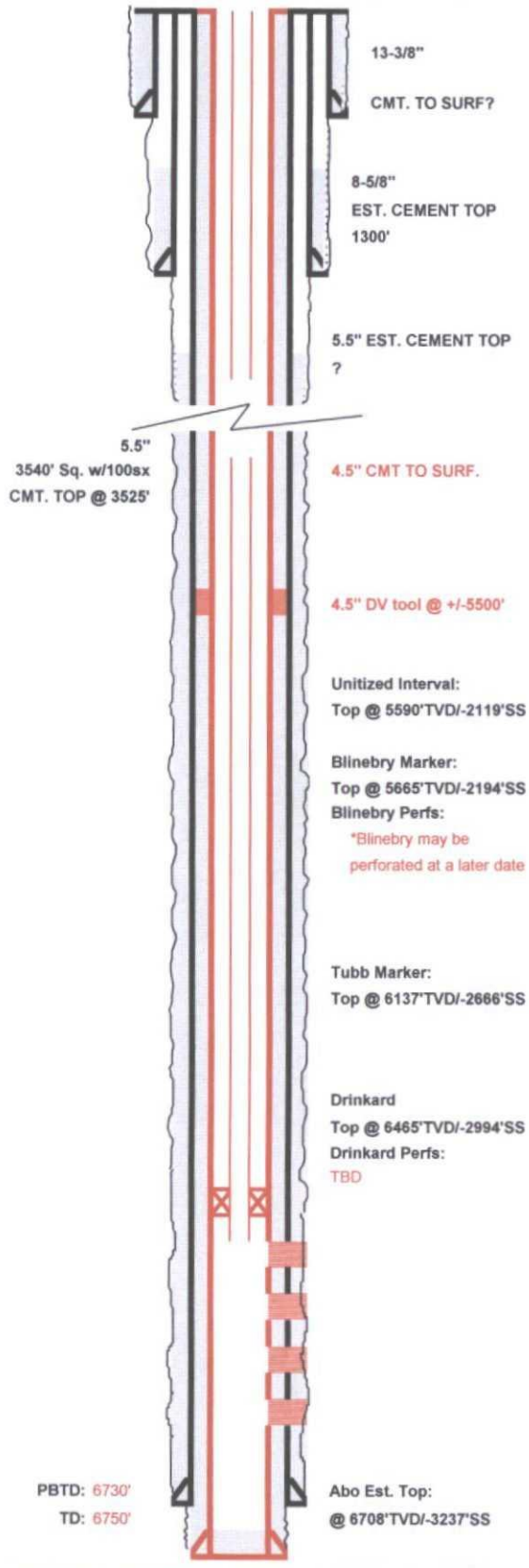
PERFORATIONS

Form.	Intervals	Density
Penrose	3552-94' (Sq. w/177sx)	2 SPF
Blinebry	5623'-6029' (Active, 90 shots)	1 SPF
Drinkard	6452', 53', 60', 64', 466', 72', 83', 94', 6502', 07', 13', 15', 17', 19', 21', 23', 27', 28', 35', 37' (Suspended)	2 SPF
	6565-95', 6605-18', 25-30', 35-40', 40-49' (Suspended)	4 SPF

Apache Corporation

WBDU #75 (State DA #1)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #75 (State DA #1)	**API:**	30-025-06615
LOCATION:	1980'S/660'W NW-SW, Sec. 16, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	3-24-1947 / 4-30-1947	**COMP. DATE:**	5/5/1947
INJ ORDER DATE:	**INJ. ORDER #:**	**BPD/PSI:**	
PREPARED BY:	Michael Hunter	**DATE:**	5/15/2013
TD: 6750'	**KB Elev.** 3470'	**KB Dist. H**	
PBTD: 6730'	**Ground Elev.** 3460'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx, circ?)	36.00	J-55	0.00	216.00
	8-5/8" (1200sx,TOC @ 1300')	32.00	J-55	0.00	2,812.00
Prod. Casing	5-1/2" (400sx, TOC @ ?)	15.50	J-55	0.00	6,686.00
	4-1/2" (CMT @ SURF)	11.60	J-55 FJ	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55	0.00	+/-6520'

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 75 Proposed Procedure: Convert well to injection

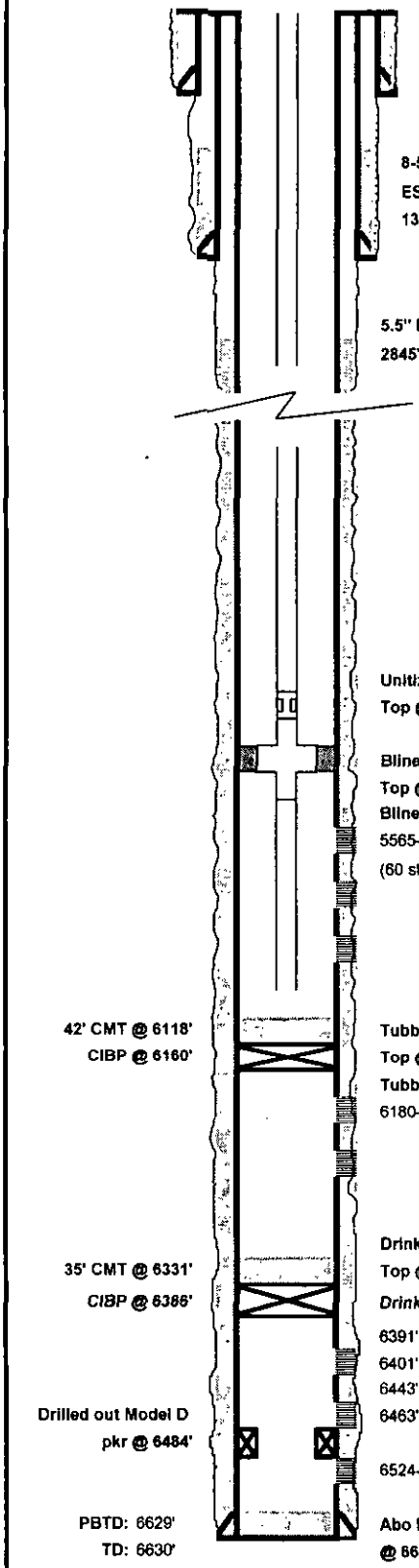
1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-3/8" tubing
2. RIH w/ 4-3/4" bit on 2-7/8" work string. Clean out fill at +/-6155', drill out CIPB at 6400', cement at 6545', CIBP at 6555', and CIBP at 6558'. Clean well out to Model D packer at 6630'
3. RIH w/ 4-3/4" washover shoe, washover pipe on 2-7/8" work string. Cut over and remove Model D packer at 6630'. POOH
4. RIH w/ 4-3/4" bit on 2-7/8" work string. Drill well out from current PBTD at 6610' to new TD at 6750', circulate clean, POOH
5. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
6. RU casing crew & equipment. RIH w/ 4-1/2" 11.6# J-55 flush joint casing w/ float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
7. Perform two stage cement job to surface. WOC
8. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
9. RU wireline unit, RIH w/CBL/CCL, log well from PBTD to surface, POOH. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing, POOH
10. RIH w/4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
11. RIH w/4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD work string*
12. RIH w/2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
13. Run MIT for NMOCD*
14. Allow injection rates to stabilize, run injection profile and temperature survey
15. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed

Apache Corporation

WBDU #77 (State DA #3)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #77 (State DA #3)		**API:**	30-025-06618	
LOCATION:	1980'S/1980'E NW-SE, Sec. 16, T-21S, R-37E		**COUNTY:**	Lea Co., NM	
SPUD/TD DATE:	7-4-1947 / 8-4-1947		**COMP. DATE:**	8/8/1947	
PREPARED BY:	Michael Hunter		**DATE:**	5/15/2013	
TD: 6630'	**KB Elev.**	3469'	**KB Dist. H**		
PBTD: 6118'	**Ground Elev.**	3459'	**KB to Ground**	10'	

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx, circ)	36.00	J-55	0.00	213.00
	8-5/8" (1550sx,TOC @ 580')	*32/36*	*J-55/N-80*	*0.00*	*2,807.00*
Prod. Casing	5-1/2" (500sx, TOC @ 2845')	15.50	J-55	0.00	6,630.00
Open Hole					
Tubing	2-3/8"	4.70	J-55	0.00	6,085.00

PRODUCTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	Tubing Anchor		5659.00
2	191 JTS 2-3/8" 4.7# J-55 TBG		
3	Seating Nipple		6008.00
4			
5			
6			
7			
8			
9			
10			

PRODUCTION ROD STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	238 JTS 3/4" KD RODS	5,950.00	
2	BHP: 2" X 1 1/2" X 16' RHBC (07/02/2012)	16.00	
3			
4			
5			
6			
7			
8			
9			
10			

SURFACE EQUIPMENT

PUMPING UNIT SIZE:	C228-200-74	**MOTOR HP:**	20 HP
PUMPING UNIT MAKE:		**MOTOR MAKE:**	

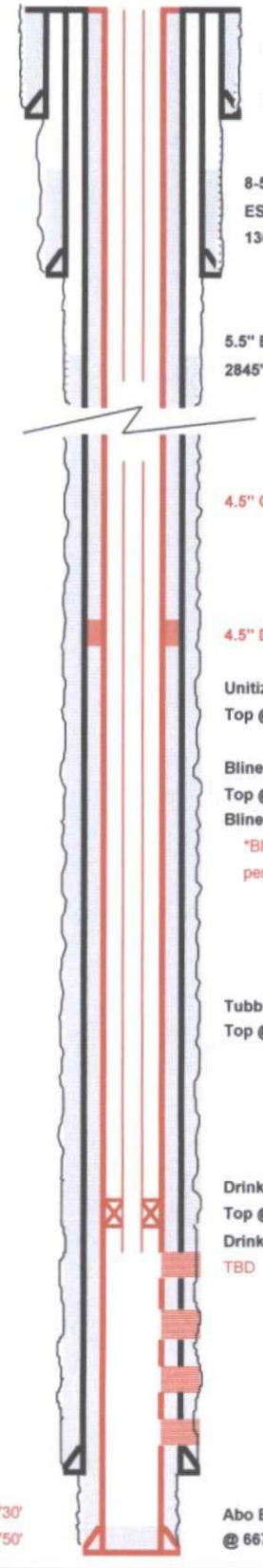
PERFORATIONS

Form.	*Intervals*	*Density*
Blinebry	5565-5975' (Active, 60 shots @ 1 SPF)	1 SPF
Tubb	6180-6290' (Suspended)	4 SPF
Drinkard	6391', 93', 99', 6401', 10', 15', 19', 32', 39', 43', 45', 47', 52', 55', 59', 63', 66', 77', 79' (Suspended)	2 SPF
	6524-6629' (Suspended)	4 SPF

Apache Corporation

WBDU #77 (State DA #3)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #77 (State DA #3)	**API:**	30-025-06618
LOCATION:	1980'S/1980'E NW-SE, Sec. 16, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	7-4-1947 / 8-4-1947	**COMP. DATE:**	8/8/1947
INJ ORDER DATE:		**INJ. ORDER #:**	**BPD/PSI:**
PREPARED BY:	Michael Hunter	**DATE:**	5/15/2013
TD: 6750'	**KB Elev.** 3469'	**KB Dist. H**	
PBTD: 6730'	**Ground Elev.** 3459'	**KB to Ground**	10'

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (200sx, circ)	36.00	J-55	0.00	213.00
	8-5/8" (1550sx,TOC @ 580')	32/36	J-55/N-80	0.00	2,807.00
Prod. Casing	5-1/2" (500sx, TOC @ 2845')	15.50	J-55	0.00	6,630.00
	4-1/2" (CMT @ SURF)	11.60	J-55 FJ	0.00	6,750.00
Open Hole					
Tubing	2-3/8"	4.70	J-55 IPC	0.00	+/-6520

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Depth (FT)
1	ON/OFF TOOL		+/-6498
2	BAKER LOK-SET DOUBLE-GRIP RETRIEVABLE PACKER		+/-6500
3	200 JTS 2-3/8" 4.7# J-55 IPC TBG		+/-6520
4			
5			
6			
7			
8			
9			
10			

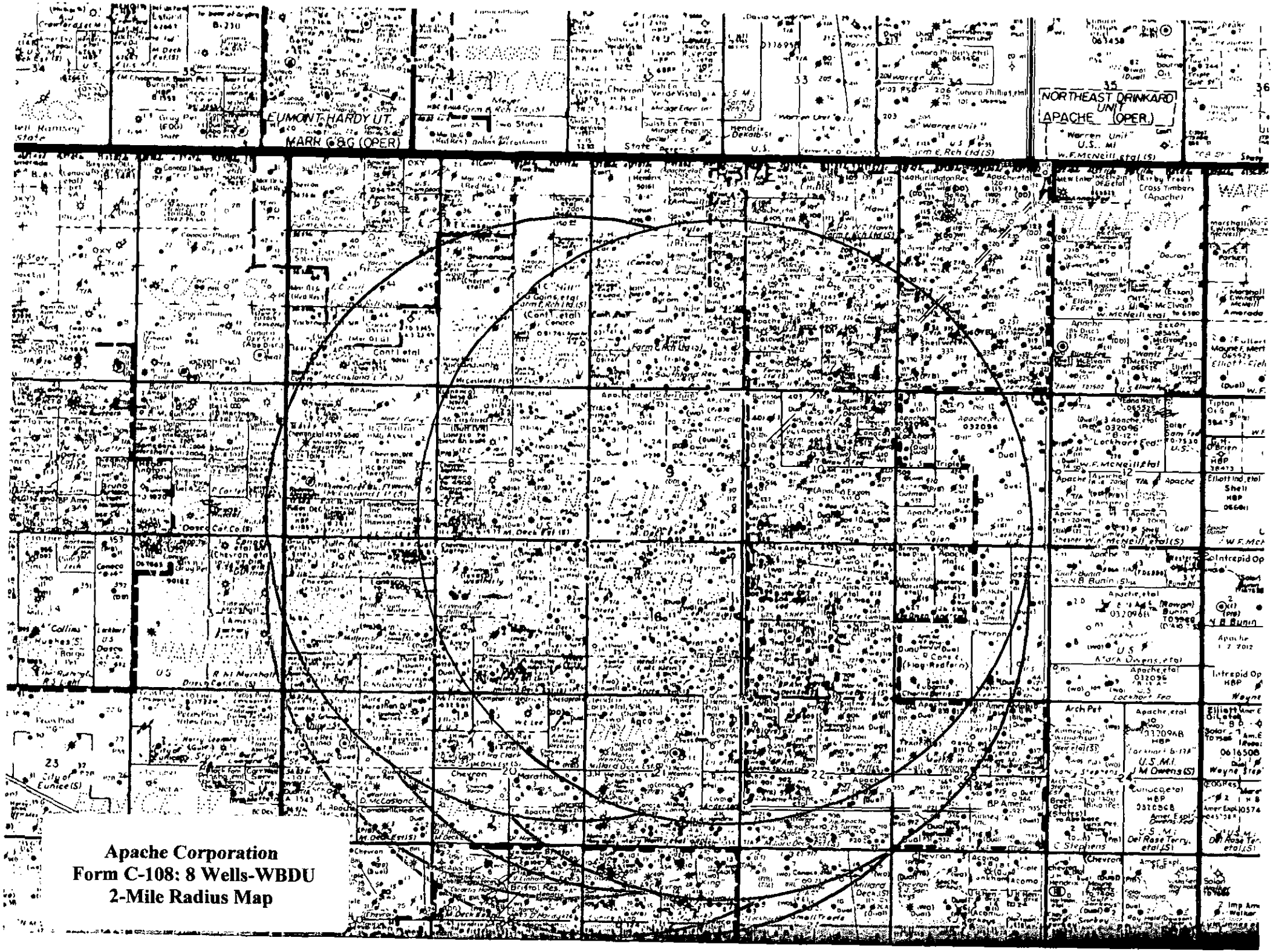
PERFORATIONS

Form.	Intervals	Density
Blinebry		
Tubb		
Drinkard	TBD	4 SPF

WBDU 77 Proposed Procedure: Convert well to injection

1. MIRU. POOH w/rods and pump. Install BOP. POOH w/ 2-3/8" tubing
2. RIH w/ 4-3/4" bit on 2-7/8" work string. Drill out cement at 6118' and CIPB at 6160', cement at 6331' and CIBP at 6366'. Clean well out to Model D packer at 6484'
3. RIH w/ 4-3/4" washover shoe, washover pipe on 2-7/8" work string. Cut over and remove Model D packer at 6484'. POOH
4. RIH w/ 4-3/4" bit on 2-7/8" work string. Drill well out from PBTD at 6629' to new TD at 6750', circulate clean, POOH
5. RU WL. RIH w/GR/CNL/CCL/CBL. Log well from TD to surface (perforation intervals to be determined from log interpretation)
6. RU casing crew & equipment. RIH w/ 4-1/2" 11.6# J-55 flush joint casing w/ float equipment, marker joint and stage tool (at +/-5500') to +/- 6750'
7. Perform two stage cement job to surface. WOC
8. RIH w/ 3-3/4" bit on 2-3/8" work string. Drill out stage tool, float collar and cement to +/- 6730'. Circulate clean. POOH
9. RU wireline unit. RIH w/CBL/CCL, log well from PBTD to surface, POOH. RIH w/perforating guns, perforate the Drinkard as per the log evaluation above at 4 SPF, 90 degree phasing, POOH
10. RIH w/4-1/2" treating packer on 2-3/8" work string. Set packer at +/-6500'. Acidize the Drinkard w/10,000 gals 15% HCl-NE-FE BXDX acid w/scale inhibitor and rock salt in 3 equal stages at +/-10 BPM. Release packer. Wash out salt. POOH
11. RIH w/4-1/2" injection packer, on-off tool and 2-3/8" work string. Set packer at +/- 6500'. P/T backside to 500 psi. Release on/off tool and POOH LD work string*
12. RIH w/2-3/8" IPC injection tubing. Latch on to packer at +/- 6500'. RO*
13. Run MIT for NMOCD*
14. Allow injection rates to stabilize, run injection profile and temperature survey
15. At later date, shut well in to perform a fall-off test or static gradient

*72 hours' notice must be given to the NM OCD Hobbs District office of the date and time that injection equipment will be installed, and that a MIT will be performed



Apache Corporation
Form C-108: 8 Wells-WBDU
2-Mile Radius Map

APACHE CORPORATION
AREA OF REVIEW WELL LIST
GROUP 3: UPDATED WELLS & WELL DATA
WBDU WELLS NO. 37, 40, 56, 59, 61, 66, 75 & 77 (PAGE 5)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP.	RNG.	DATE DRILLED	TOTAL DEPTH	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	HOLE SIZE	CSG. SIZE	SET. AT	SX. CMT.	CMT. TOP	MTD.	COMPLETION	REMARKS
30-025-39407	Apache Corp	WBDU	106	P	Active	2310'	S	2310'	E	J	8	21S	37E	Jan-11	7,027'	12 1/4"	8 5/8"	1,399'	665	Surface	Circ.	7 7/8"	5 1/2"	7,027'	1410	Surface	Circ.	5,754'-6,829' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-40274	Apache Corp	WBDU	124	P	Active	170'	S	1180'	E	P	8	21S	37E	Oct-11	7,300'	12 1/4"	8 5/8"	1,352'	710	Surface	Circ.	7 7/8"	5 1/2"	7,300'	1225	Surface	Circ.	6,162'-6,762' Perf.	Tubb-Drinkard Completion
30-025-40458	Apache Corp	Hawk Federal B 1	69	P	Active	2480'	S	1805'	E	J	8	21S	37E	May-12	7,500'	12 1/4"	8 5/8"	1,389'	725	Surface	Circ.	7 7/8"	5 1/2"	7,500'	1400	86'	Well File	6,822'-7,035' Perf.	Abo Completion; PBTD: 7,050'
30-025-06432	Apache Corp	WBDU	20	I	Active	1980'	N	660'	E	H	8	21S	37E	Mar-50	6,733'	16 1/2"	13 3/8"	225'	250	Surface	Circ.	12 1/4"	9 5/8"	2,859'	1075	1,190'	Well File	5,785'-6,704' Perf.	Blinebry-Drinkard Completion
																						8 3/4"	7"	6,730'	800	2,950'	Well File		
30-025-06433	Apache Corp	WBDU	40	P	Active	660'	S	660'	E	P	8	21S	37E	Nov-49	6,758'	N/A	13 3/8"	229'	250	Surface	Circ.	N/A	9 5/8"	2,818'	1100	1,375'	T.S.	5,726'-6,708' Perf.	Blinebry-Tubb-Drinkard Completion
																						N/A	7"	6,753'	625	2,321'	T.S.		Hole Sizes Not Available
30-025-06434	Apache Corp	WBDU	41	I	Active	1980'	S	660'	E	I	8	21S	37E	Feb-50	6,775'	N/A	13 3/8"	213'	250	Surface	Circ.	N/A	9 5/8"	2,684'	1750	1,300'	Well File	5,667'-6,736' Perf.	Blinebry-Drinkard Completion
																						N/A	7"	6,774'	822	2,804'	Well File		Hole Sizes Not Available
30-025-39442	Apache Corp	WBDU	112	P	Active	1295'	S	330'	E	P	9	21S	37E	Jan-11	6,965'	12 1/4"	8 5/8"	1,340'	665	Surface	Circ.	7 7/8"	5 1/2"	6,965'	1285	Surface	Circ.	5,601'-6,699' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-36070	Breck Operating Corp.	State 10	2	P	Active	2273'	N	467'	W	E	10	21S	37E	Jan-03	7,505'	12 1/4"	8 5/8"	1,275'	600	Surface	Calc.	7 7/8"	5 1/2"	7,503'	1800	Surface	Calc.	6,852'-7,091' Perf.	Wantz-Abo Completion
30-025-39119	Apache Corp	WBDU	98	P	Active	1260'	N	1330'	E	B	16	21S	37E	Jun-09	6,880'	12 1/4"	8 5/8"	1,313'	450	Surface	Circ.	7 7/8"	5 1/2"	6,880'	1050	Surface	Circ.	5,599'-6,869' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-39277	Apache Corp	WBDU	113	P	Active	1290'	N	330'	E	A	16	21S	37E	Sep-09	6,912'	12 1/4"	8 5/8"	1,342'	650	Surface	Circ.	7 7/8"	5 1/2"	6,912'	1000	Surface	Circ.	5,635'-6,712' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-06635	Chevron USA, Inc.	Mittie Weatherly	1	P	Active	1980'	N	1980'	W	F	17	21S	37E	Jul-48	6,638'	17 1/4"	13 3/8"	273'	300	Surface	Circ.	11"	8 5/8"	2,791'	1000	1,740'	T.S.	3,716'-3,972' Perf.	Grayburg Completion
* 5 1/2" csg. perforated @ 4,000' & squeezed w/200 sx.			Plug Back Data: Drinkard Perfs: 6,483'-6,635': CIBP @ 6,375' + 35' cmt. Blinebry Pefs: 5,656'-5,918'; CIBP @ 5,635' + 35' cmt.																			7 3/8"	5 1/2"	6,638'	350	3,390' *	CBL		
30-025-06645	Apache Corp	WBDU	72	P	Active	1980'	S	1980'	E	J	17	21S	37E	Aug-47	6,639'	13 3/8"	10 3/4"	337'	300	Surface	Circ.	9 7/8"	7 5/8"	2,845'	1600	Surface	Calc.	5,642'-6,637' Perf.	Blinebry-Tubb-Drinkard Completion
																						6 3/4"	5 1/2"	6,639'	550	3,000'	T.S.		
30-025-06652	Apache Corp	WBDU	85	P	Active	660'	S	660'	E	P	17	21S	37E	Apr-47	6,657'	15 1/2"	13 3/8"	297'	300	Surface	Calc.	11"	8 5/8"	2,814'	1200	Surface	Calc.	5,819'-5,881' Perf.	Blinebry Completion; Drinkard Perfs-
																						7 7/8"	5 1/2"	6,641'	500	3,975'	Calc.		6,439'-6,637'; CIBP @ 6,532'
30-025-39172	Apache Corp	WBDU	123	P	Active	1450'	S	1350'	E	J	17	21S	37E	May-10	7,200'	12 1/4"	8 5/8"	1,248'	650	Surface	Circ.	7 7/8"	5 1/2"	7,200'	1150	Surface	Circ.	6,107'-6,689' Perf.	Tubb-Drinkard Completion
30-025-39278	Apache Corp	WBDU	117	P	Active	1115'	N	2310'	E	B	17	21S	37E	Jan-11	7,000'	12 1/4"	8 5/8"	1,298'	670	Surface	Circ.	7 7/8"	5 1/2"	7,000'	985	300'	CBL	6,247'-6,773' Perf.	Tubb-Drinkard Completion
30-025-39709	Apache Corp	WBDU	118	P	Active	2330'	S	2430'	E	J	17	21S	37E	May-10	7,208'	12 1/4"	8 5/8"	1,215'	650	Surface	Circ.	7 7/8"	5 1/2"	7,208'	1400	Surface	Circ.	6,125'-6,741' Perf.	Tubb-Drinkard Completion
					BHL	2310'	S	2,581'	E	J	17	21S	37E																
30-015-39733	Apache Corp	WBDU	109	P	Active	130'	N	2260'	E	B	17	21S	37E	Apr-10	7,200'	12 1/4"	8 5/8"	1,270'	725	Surface	Circ.	7 7/8"	5 1/2"	7,200'	1175	Surface	Circ.	6,176'-6,802' Perf.	Tubb-Drinkard Completion
30-025-39958	Apache Corp	WBDU	126	P	Active	1310'	S	120'	E	P	17	21S	37E	Jan-11	6,920'	12 1/4"	8 5/8"	1,283'	665	Surface	Circ.	7 7/8"	5 1/2"	6,920'	1340	Surface	Circ.	5,547'-6,681' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-39987	Apache Corp	WBDU	125	P	Active	1190'	N	1330'	E	B	17	21S	37E	Jan-11	6,951'	12 1/4"	8 5/8"	1,317'	665	Surface	Circ.	7 7/8"	5 1/2"	6,951'	1300	Surface	Circ.	5,577'-6,750' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-40429	Apache Corp	WBDU	144H	P	Active	800'	N	2100'	E	B	17	21S	37E	Apr-12	6,673'	17 1/2"	13 3/8"	1,235'	1230	Surface	Circ.	11"	8 5/8"	5,741'	1360	Surface	Circ.	7,106'-10,206'	Drinkard Completion-Sliding Sleeves
					BHL	332'	S	2258'	E	O	17	21S	37E		10,677'							7 7/8"	5 1/2"	10,657' *	515	Surface	Circ.		See Attached Schematic Diagram
KOP @ 6,043' *5 1/2" casing cemented from 6,043' to surface. TVD: 6,673' MD: 10,677'																													
30-025-06585	Apache Corp	Cities S State	2	P	PA	1980'	N	1980'	W	F	15	21S	37E	Jun-48	6,676'	17 1/4"	13 3/8"	297'	300	Surface	Circ.	11 1/4"	8 5/8"	2,791'	500	675'	Well File	4,061'-4,900' Perf.	San Andres Completion
																						7 7/8"	5 1/2"	6,586'	125	5,120'	Well File		PA'd 9/11. Schematic Attached
30-015-06590	Apache Corp	Northeast Drinkard Ut.	608	P	PA	1980'	N	1880'	W	F	15	21S	37E	Jul-51	7,850'	17 1/2"	13 3/8"	315'	325	Surface	Circ.	11"	8 5/8"	2,805'	500	Surface	Circ.	5,556'-7,814' Perf.	PA'd 10/2001. Schematic Attached
																						7 7/8"	5 1/2"	7,850'	350	4,700'	T.S.		
30-025-39300	Apache Corp	WBDU	115	P	Active	280'	S	740'	E	P	16	21S	37E	May-10	7,225'	12 1/4"	8 5/8"	1,273'	650	Surface	Circ.	7 7/8"	5 1/2"	7,225'	1300	Surface	Circ.	5,602'-6,618' Perf.	Blinebry-Tubb-Drinkard Completion
					BHL	31'	S	968'	E	P	16	21S	37E																
30-025-39963	Apache Corp	WBDU	114	P	Active	1200'	S	330'	E	P	16	21S	37E	Dec-10	6,970'	12 1/4"	8 5/8"	1,297'	665	Surface	Circ.	7 7/8"	5 1/2"	6,952'	1195	800'	Well File	5,577'-6,615' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-39280	Apache Corp	WBDU	129	P	Active	330'	S	110'	E	P	17	21S	37E	Apr-10	7,120'	12 1/4"	8 5/8"	1,286'	650	Surface	Circ.	7 7/8"	5 1/2"	7,120'	1150	Surface	Circ.	5,636'-6,627' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-39986	Apache Corp	WBDU	121	P	Active	330'	S	1310'	E	P	17	21S	37E	Jan-11	6,970'	12 1/4"	8 5/8"	1,300'	665	Surface	Circ.	7 7/8"	5 1/2"	6,970'	1370	124'	Well File	5,931'-6,681' Perf.	Blinebry-Tubb-Drinkard Completion
30-025-06722	Stephens & Johnson Co.	Weatherly	4	P	Active	660'	N	1980'	E	B	21	21S	37E	Jul-47	6,610'	17 1/4"	13 3/8"	210'	218	Surface	Circ.	11"	8 5/8"	2,858'	1200	Surface	Circ.	5,580'-6,608' Perf.	Blinebry-Drinkard Completion
* 5 1/2 casing perforated @ 3,440' & squeeze cemented w/400 sx. Well file does not indicate TOC.																						7 3/4"	5 1/2"	6,610'	700	3,550' *	CBL		
30-025-06720	Stephens & Johnson Co.	Weatherly	2	P	Active	660'	N	660'	W	D	21	21S	37E	May-47	6,629'	17 1/2"	12 1/4"	280'	250	Surface	Calc.	11"	8 5/8"	2,890'	1200	Surface	Calc.	5,825'-6,318' Perf.	Blinebry-Drinkard Completion
																						7 7/8"	5 1/2"	6,629'	500	3,963'	Calc.		
30-025-22859	Conoco, Inc.	Hawk B 1	14	P	PA	1980'	S	1980'	E	J	8	21S	37E	Nov-68	6,836'	12 1/4"	8 5/8"	1,322'	650	Surface	Circ.	7 7/8"	5 1/2"	6,836'	625	2,900'	Well File	5,666'-6,700' Perf.	Blinebry-Drinkard PA'd 9/97. Schematic
30-025-06474	Apache Corp	Northeast Drinkard Ut.	501	P	PA	1980'	N	330'	W	L	10	21S	37E	Apr-62	5,990'	13 3/4"	10 3/4"	310'	200	Surface	Circ.	9 7/8"	7 5/8"	2,975'	200	2,100'	T.S.	5,793'-5,936' Perf.	Blinebry; PA'd 6/05. Schematic
																						6 3/4"	2 7/8"	5,989'	1200	3,000'	T.S.		
30-025-06614	Apache Corp	Northeast Drinkard Ut.	601	P	PA	600'	N	990'	W	D	15	21S	37E	Feb-52	8,145'	17 1/2"	13 3/8"	293'	300	Surface	Circ.	11"	8 5/8"	2,990'	2000	160'	Well File	5,679'-6,686' Perf.	Blinebry-Drinkard Completion
																						6 3/4"	5 1/2"	8,142'	350	5,380'	T.S.		PA'd 10/11. Schematic Attached
30-025-06606	Apache Corp	ARGO	10	WSW	PA	1880'	S	760'	W	L	15	21S	37E	Jul-51	8,012'	17 1/4"	13 3/8"	241'	250	Surface	Circ.	11"	8 5/8"	2,907'	1700	Surface	Circ.	4,016'-4,100' Perf.	San Andres Completion
																						7 7/8"	5 1/2"	2,660'-8,912'	875	Liner Top	Circ.		PA'd 11/11. Schematic Attached

(32)

28 Active
4 P&A

APACHE CORPORATION
AREA OF REWIEW WELL LIST
GROUP 1: WELL & WELL DATA PREVIOUSLY PRESENTED IN CASE NO. 14126
WBDU WELLS NO. 37, 40, 56, 59, 61, 66, 75 & 77 (PAGE 1)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP	RNG.	DATE DRILLED	TOTAL DEPTH	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	COMPLETION	REMARKS
30-025-06432	Apache Corp	WBDU	20	I	Active	1980'	N	660'	E	H	8	21S	37E																
30-025-06434	Apache Corp	WBDU	41	I	Active	1980'	S	660'	E	I	8	21S	37E																
30-025-06435	Apache Corp	Hawk Federal B 1	12	P	Active	660'	S	1980'	E	O	8	21S	37E																
30-025-26601	Apache Corp	WBDU	43	WSW	Active	660'	S	1980'	W	N	8	21S	37E																
30-025-37020	Apache Corp	WBDU	46	P	Active	1365'	S	1420'	E	J	8	21S	37E																
30-025-37741	Apache Corp	WBDU	47	P	Active	1332'	S	2629'	W	K	8	21S	37E																
30-025-37742	Apache Corp	WBDU	48	P	Active	1475'	S	60'	E	I	8	21S	37E																
30-015-38195	Apache Corp	WBDU	30	P	Active	2630'	N	1330'	E	G	8	21S	37E																
30-025-38521	Apache Corp	WBDU	55	P	Active	2820'	S	20'	E	I	8	21S	37E																
30-025-06438	Apache Corp	WBDU	33	I	Active	1980'	S	1980'	E	J	9	21S	37E																
30-025-06441	Apache Corp	WBDU	39	I	Active	660'	S	660'	W	M	9	21S	37E																
30-025-06444	Apache Corp	WBDU	9	I	Active	1980'	N	660'	E	H	9	21S	37E																
30-025-09906	Apache Corp	WBDU	38	I	Active	660'	S	1980'	E	O	9	21S	37E																
30-025-09907	Apache Corp	Hawk Federal B 1	6	P	Active	1060'	S	1980'	W	N	9	21S	37E																
30-025-09910	Apache Corp	WBDU	35	I	Active	1980'	S	660'	W	L	9	21S	37E																
30-025-20178	Apache Corp	WBDU	42	I	Active	1980'	S	660'	E	I	9	21S	37E																
30-025-36344	Apache Corp	WBDU	45	P	Active	1040'	S	1470'	W	N	9	21S	37E																
30-025-37200	Apache Corp	WBDU	16	P	Active	2310'	N	430'	E	H	9	21S	37E																
30-025-37743	Apache Corp	WBDU	49	P	Active	1330'	S	2400'	E	J	9	21S	37E																
30-025-37744	Apache Corp	WBDU	50	P	Active	1440'	S	1332'	E	J	9	21S	37E																
30-025-38197	Apache Corp	WBDU	51	P	Active	185'	S	2460'	E	O	9	21S	37E																
30-025-38198	Apache Corp	WBDU	52	P	Active	190'	S	1481'	E	O	9	21S	37E																
30-025-38199	Apache Corp	WBDU	53	P	Active	2605'	S	1210'	E	I	9	21S	37E																
30-025-06483	Apache Corp	Northeast Drinkard Ut	502	P	Active	660'	S	660'	W	M	10	21S	37E																
30-025-06464	Exxon Corporation	New Mexico V St.	2	P	PA	660'	S	1980'	W	N	10	21S	37E																
30-025-06467	XTO Energy, Inc.	N.M. V State	5	P	Active	660'	S	810'	W	M	10	21S	37E																
30-015-06469	XTO Energy, Inc.	N.M. V State	7	P	Active	500'	S	1880'	W	N	10	21S	37E																
30-025-06472	XTO Energy, Inc.	N.M. V State	10	P	Active	560'	S	660'	W	M	10	21S	37E																
30-025-30913	Apache Corp	Northeast Drinkard Ut	514	P	Active	2310'	S	660'	W	L	10	21S	37E																
30-025-34799	Apache Corp	Northeast Drinkard Ut	523	P	Active	1420'	S	1300'	W	L	10	21S	37E																
30-025-37242	Apache Corp	Northeast Drinkard Ut	527	P	Active	1310'	S	330'	W	M	10	21S	37E																
30-025-37444	Apache Corp	Northeast Drinkard Ut	422	P	Active	2500'	N	390'	W	E	10	21S	37E																
30-025-06586	Chevron USA, Inc.	State S	1	P	Active	660'	N	660'	W	D	15	21S	37E																
30-025-06612	Chevron USA, Inc.	State S	5	P	Active	660'	N	990'	W	D	15	21S	37E																
30-025-34886	Apache Corp	Northeast Drinkard Ut	524	P	Active	160'	N	1350'	W	C	15	21S	37E																
30-025-36809	Apache Corp	Northeast Drinkard Ut	526	P	Active	130'	N	330'	W	D	15	21S	37E																
30-025-37223	Apache Corp	Northeast Drinkard Ut	628	P	Active	1410'	N	380'	W	E	15	21S	37E																
30-025-06616	Apache Corp	WBDU	78	I	Active	1980'	S	1980'	W	K	16	21S	37E																
30-025-06620	Chevron USA, Inc.	Harry Leonard NCT-E	1	P	Active	1980'	N	1980'	E	G	16	21S	37E																
30-025-06622	Chevron USA, Inc.	Harry Leonard NCT-E	3	P	Active	660'	N	1980'	E	B	16	21S	37E																
30-025-06623	Apache Corp	WBDU	57	I	Active	660'	N	660'	E	A	16	21S	37E																
30-025-06625	Apache Corp	WBDU	58	I	Active	1980'	N	660'	W	E	16	21S	37E																
30-025-06627	Stanolind Oil & Gas	State C Tract 12	6	P	PA	660'	N	1980'	W	C	16	21S	37E																
30-025-06628	Apache Corp	WBDU	60	I	Active	720'	N	1980'	W	C	16	21S	37E																
30-025-06631	Apache Corp	State Land 15	2	P	Active	660'	S	1980'	W	N	16	21S	37E																
30-025-25198	Chevron USA, Inc.	Harry Leonard NCT-E	8	P	Active	330'	N	600'	E	A	16	21S	37E																
30-015-36305	Apache Corp	WBDU	62	P	Active	1240'	N	1270'	W	D	16	21S	37E																
30-025-37201	Apache Corp	WBDU	79	P	Active	1650'	S	1650'	E	J	16	21S	37E																
30-025-37202	Apache Corp	State C Tract 12	21	P	Active	430'	N	2210'	W	C	16	21S	37E																
30-025-38220	Apache Corp	WBDU	80	P	Active	2530'	S	1240'	W	L	16	21S	37E																
30-025-38230	Apache Corp	WBDU	81	P	Active	2630'	S	2610'	W	K	16	21S	37E																

APACHE CORPORATION
AREA OF REVIEW WELL LIST
GROUP 1 (CONT.): WELL & WELL DATA PREVIOUSLY PRESENTED IN CASE NO. 14126
WBDU WELLS NO. 37, 40, 56, 59, 61, 66, 75 & 77 (PAGE 2)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP	RNG.	DATE DRILLED	TOTAL DEPTH	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	COMPLETION	REMARKS
30-025-38231	Apache Corp	WBDU	82	P	Active	2630'	S	1360'	E	J	16	21S	37E																
30-025-38267	Apache Corp	WBDU	83	P	Active	110'	N	1195'	W	D	16	21S	37E																
30-025-38268	Apache Corp	WBDU	84	P	Active	1330'	N	2440'	W	F	16	21S	37E																
30-025-38414	Apache Corp	WBDU	83	P	Active	1510'	S	1280'	W	L	16	21S	37E																
30-025-38415	Apache Corp	WBDU	84	P	Active	1330'	S	2630'	W	K	16	21S	37E																
30-025-06637	Apache Corp	Lockhart A 17	2	P	Active	1980'	S	660'	E	I	17	21S	37E																
30-025-06639	Apache Corp	WBDU	67	WSW	Active	660'	N	660'	E	A	17	21S	37E																
30-025-06642	Apache Corp	WBDU	65	P	Active	330'	N	1650'	E	B	17	21S	37E																
30-015-06646	Apache Corp	WBDU	73	P	Active	1980'	N	1980'	E	G	17	21S	37E																
30-025-38204	Apache Corp	WBDU	69	P	Active	2630'	S	120'	E	I	17	21S	37E																
30-025-38205	Apache Corp	WBDU	70	P	Active	110'	N	180'	E	A	17	21S	37E																
30-025-38206	Apache Corp	WBDU	71	P	Active	1240'	N	40'	E	A	17	21S	37E																
30-025-38411	Apache Corp	WBDU	68	P	Active	2630'	N	1310'	E	H	17	21S	37E																
30-025-06591	Apache Corp	Northeast Drinkard Ut	604	P	Active	2310'	N	990'	W	E	15	21S	37E																
30-025-06607	Apache Corp	ARGO	11	P	Active	2080'	S	1650'	W	K	15	21S	37E																
30-025-09913	Shell Western E & P, Inc.	Northeast Drinkard Ut	603	P	PA	3390'	S	4520'	E	E	15	21S	37E																
30-025-09914	Apache Corp	Northeast Drinkard Ut	602	P	Active	1980'	N	660'	W	E	15	21S	37E																
30-025-09915	Apache Corp	ARGO	7	SWD	Active	2310'	S	990'	W	L	15	21S	37E																
30-025-09916	Apache Corp	Northeast Drinkard Ut	701	P	Active	1980'	S	660'	W	L	15	21S	37E																
30-025-34887	Apache Corp	Northeast Drinkard Ut	624	P	Active	1250'	N	1368'	W	C	15	21S	37E																
30-025-34888	Apache Corp	Northeast Drinkard Ut	713	P	Active	1330'	S	1142'	W	L	15	21S	37E																
30-025-35271	Apache Corp	Northeast Drinkard Ut	625	P	Active	2580'	N	1300'	W	E	15	21S	37E																
30-025-37238	Apache Corp	Northeast Drinkard Ut	629	P	Active	2630'	S	330'	W	L	15	21S	37E																
30-015-37243	Apache Corp	Northeast Drinkard Ut	721	P	Active	1310'	S	330'	W	M	15	21S	37E																
30-025-06617	Apache Corp	State DA	5	P	Active	1980'	S	330'	E	I	16	21S	37E																
30-025-06619	Apache Corp	WBDU	78	I	Active	1980'	S	660'	E	I	16	21S	37E																
30-025-06624	Chevron USA, Inc.	Harry Leonard NCT-E	5	P	Active	2310'	N	330'	E	H	16	21S	37E																
30-025-06630	Apache Corp	State Land 16	1	P	Active	660'	S	660'	W	M	16	21S	37E																
30-025-06632	Apache Corp	WBDU	88	P	Active	660'	S	1980'	E	O	16	21S	37E																
30-025-06633	Apache Corp	WBDU	89	P	Active	660'	S	660'	E	P	16	21S	37E																
30-025-06634	Apache Corp	WBDU	90	P	Active	330'	S	330'	E	P	16	21S	37E																
30-025-20311	Apache Corp	WBDU	91	P	Active	330'	S	1650'	E	O	16	21S	37E																
30-025-37535	Apache Corp	WBDU	92	P	Active	910'	S	1330'	E	O	16	21S	37E																
30-025-37536	Apache Corp	WBDU	93	P	Active	330'	S	2610'	E	O	16	21S	37E																
30-025-37537	Apache Corp	WBDU	94	P	Active	330'	S	1330'	W	N	16	21S	37E																

APACHE CORPORATION
AREA OF REVIEW WELL LIST
GROUP 2: WELLS THAT DO NOT PENETRATE THE INJECTION INTERVAL
WBDU WELLS NO. 37, 40, 56, 59, 61, 66, 75 & 77 (PAGE 3)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP	RNG.	DATE DRILLED	TOTAL DEPTH	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	COMPLETION	REMARKS
30-025-35795	Apache Corp	Hawk Federal B 1	18	P	Active	760'	S	840'	E	P	8	21S	37E		4,200'														
30-025-35804	Apache Corp	Hawk A	11	P	Active	2180'	N	700'	E	H	8	21S	37E		4,200'														
30-025-35877	Apache Corp	Hawk Federal B 1	21	P	Active	1980'	S	865'	E	I	8	21S	37E		4,212'														
30-025-35878	Apache Corp	Hawk Federal B 1	22	P	Active	1980'	S	2000'	E	J	8	21S	37E		4,215'														
30-025-36158	Apache Corp	Hawk Federal B 1	32	P	Active	1365'	S	1310'	E	I	8	21S	37E		4,200'														
30-025-36532	Apache Corp	Hawk Federal B 1	39	P	Active	1200'	S	80'	E	P	8	21S	37E		4,350'														
30-025-37997	Apache Corp	Hawk Federal B 1	51	P	Active	1280'	S	2515'	W	N	8	21S	37E		4,405'														
30-025-38014	Apache Corp	Hawk Federal B 1	50	P	Active	2200'	S	380'	E	I	8	21S	37E		4,355'														
30-025-38493	Apache Corp	Hawk Federal B 1	58	P	Active	2620'	S	1440'	E	J	8	21S	37E		4,193'														
30-025-38547	Apache Corp	Hawk Federal B 1	61P			171'	S	1181'	E	P	8	21S	37E	Cancelled APD														
30-025-38659	Apache Corp	WBDU	124P			171'	S	1181'	E	P	8	21S	37E	Cancelled APD														
30-025-35796	Apache Corp	Hawk Federal B 1	19	P	Active	660'	S	425'	W	M	9	21S	37E		4,200'														
30-025-35798	Apache Corp	Hawk Federal B 1	25	P	Active	1830'	S	1980'	E	J	9	21S	37E		4,200'														
30-025-35806	Apache Corp	Hawk Federal B 1	27	P	Active	830'	S	900'	E	P	9	21S	37E		4,200'														
30-025-35876	Apache Corp	Hawk Federal B 1	20	P	Active	1980'	S	550'	W	L	9	21S	37E		4,200'														
30-025-35880	Apache Corp	Hawk Federal B 1	28	P	Active	420'	S	1980'	E	O	9	21S	37E		4,200'														
30-015-35881	Apache Corp	Hawk Federal B 1	30	P	Active	1830'	S	620'	E	I	9	21S	37E		4,200'														
30-025-35882	Apache Corp	Hawk Federal B 1	31	P	Active	700'	S	1850'	W	N	9	21S	37E		4,204'														
30-025-36530	Apache Corp	Hawk Federal B 1	36	P	Active	1310'	S	1310'	E	P	9	21S	37E		4,743														
30-0-25-36531	Apache Corp	Hawk Federal B 1	38	P	Active	1080'	S	2551'	E	O	9	21S	37E		4,350'														
30-025-36533	Apache Corp	Hawk Federal B 1	40	P	Active	1310'	S	1280'	W	M	9	21S	37E		4,775														
30-025-36662	Apache Corp	Hawk Federal B 1	35	P	Active	160'	S	1310'	E	P	9	21S	37E		4,350'														
30-025-36686	Apache Corp	Hawk Federal B 1	37	P	Active	2590'	S	1310'	E	I	9	21S	37E		4,350'														
30-025-37998	Apache Corp	Hawk Federal B 1	52	P	Active	1150'	S	330'	E	P	9	21S	37E		4,358'														
30-025-38959	Apache Corp	Hawk Federal B 1	68	P	Active	450'	S	330'	E	P	9	21S	37E		4,455'														
30-025-39015	Apache Corp	Southland Royalty A	28	P	Active	2310'	N	330'	E	H	9	21S	37E		4,400'														
30-025-39229	Apache Corp	Northeast Drinkard Ut	427			2550'	N	970'	W	E	10	21S	37E	Cancelled APD														
30-025-33547	Key Energy Services, LLC	State	1	P	Active	1340'	N	330'	W	E	15	21S	37E		2,200'														
30-015-39831	Chevron USA, Inc.	State S	12			990'	N	1330'	W	C	15	21S	37E	Cancelled APD														
30-025-34245	Apache Corp	State DA	6	P	Active	1980'	S	810'	W	L	16	21S	37E		4,000'														
30-025-35515	Apache Corp	State C Tract 12	8	P	Active	660'	N	810'	W	D	16	21S	37E		4,450'														
30-015-35516	Apache Corp	State DA	7	P	Active	1959'	S	2212'	W	K	16	21S	37E		4,200'														
30-025-35707	Apache Corp	State C Tract 12	9	P	Active	600'	N	1850'	W	C	16	21S	37E		4,450'														
30-025-35708	Apache Corp	State C Tract 12	10	P	Active	1650'	N	1780'	W	F	16	21S	37E		4,200'														
30-025-35709	Apache Corp	State C Tract 12	11	P	Active	1980'	N	330'	W	E	16	21S	37E		4,200'														
30-025-35765	Apache Corp	State DA	8	P	Active	1980'	S	2200'	E	J	16	21S	37E		4,200'														
30-025-36095	Apache Corp	State C Tract 12	13	P	Active	330'	N	2310'	W	C	16	21S	37E		4,150'														
30-025-36115	Apache Corp	State C Tract 12	12	P	Active	1330'	N	330'	W	E	16	21S	37E		4,125'														
30-025-36478	Apache Corp	State C Tract 12	15	P	Active	1240'	N	1400'	W	C	16	21S	37E		4,725'														
30-025-36613	Apache Corp	State C Tract 12	17	P	Active	1310'	N	2590'	W	C	16	21S	37E		4,386'														
30-025-36614	Apache Corp	State C Tract 12	16	P	Active	2590'	N	1270'	W	E	16	21S	37E		4,350'														
30-015-36617	Apache Corp	State DA	9	P	Active	2579'	S	265'	W	L	16	21S	37E		4,350'														
30-025-36618	Apache Corp	State C Tract 12	18	P	Active	110'	N	1310'	W	D	16	21S	37E		4,350'														
30-025-36725	Apache Corp	State C Tract 12	19	P	Active	2310'	N	2210'	W	F	16	21S	37E		4,350'														
30-025-36741	Chevron USA, Inc.	Harry Leonard NCT-E	7	P	Active	1330'	N	1070'	E	H	16	21S	37E		4,345'														
30-025-36786	Apache Corp	State DA	10	P	Active	2310'	S	1550'	E	J	16	21S	37E		4,345'														
30-025-36787	Apache Corp	State DA	11	P	Active	1650'	S	1850'	W	K	16	21S	37E		4,350'														
30-025-37834	Chevron USA, Inc.	Harry Leonard NCT-E	8	P	Active	2310'	N	1030'	E	H	16	21S	37E		4,300'														
30-015-37864	Apache Corp	State DA	14	P	Active	1775'	S	330'	W	L	16	21S	37E		4,375'														
30-025-39056	Apache Corp	State C Tract 12	26C			991'	N	1651'	W	C	16	21S	37E	Cancelled APD														
30-025-23717	Apache Corp	W W Weatherly	5	P	Active	660'	N	1980'	E	B	17	21S	37E		3,875'														
30-025-23831	Apache Corp	Percy Hardy	5	P	Active	990'	S	990'	E	B	17	21S	37E		3,849'														
30-025-24178	Apache Corp	W W Weatherly	6	P	Active	2310'	S	2310'	W	K	17	21S	37E		3,840'														
30-025-36101	Apache Corp	Lockhart A 17	6	P	Active	1330'	N	990'	E	H	17	21S	37E		4,150'														
30-025-36159	Apache Corp	Lockhart A 17	7	P	Active	2630'	S	990'	E	I	17	21S	37E		4,100'														

APACHE CORPORATION
AREA OF REVIEW WELL LIST
GROUP 2 (CONT.): WELLS THAT DO NOT PENETRATE THE INJECTION INTERVAL
WBDU WELLS NO. 37, 40, 56, 59, 61, 66, 75 & 77 (PAGE 4)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP	RNG.	DATE DRILLED	TOTAL DEPTH	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	COMPLETION	REMARKS
30-025-36658	Apache Corp	W W Weatherly	7	P	Active	2310'	N	1650'	E	G	17	21S	37E		4,234'														
30-025-36659	Apache Corp	W W Weatherly	8	P	Active	1650'	S	1650'	E	J	17	21S	37E		4,215'														
30-025-36661	Apache Corp	Lockhart A 17	9	P	Active	110'	N	80'	E	A	17	21S	37E		4,350'														
30-025-37379	Apache Corp	Lockhart A 17	10	P	Active	330'	N	990'	E	A	17	21S	37E		4,360'														
30-025-38377	Apache Corp	W W Weatherly	12	P	Active	330'	N	2310'	E	B	17	21S	37E		4,150'														
30-025-38412	Apache Corp	Lockhart A 17	21			1410'	S	1310'	E	O	17	21S	37E	Cancelled APD														
30-025-38548	Apache Corp	WBDU	125			1190'	N	1310'	E	A	17	21S	37E	Cancelled APD														
30-025-38549	Apache Corp	WBDU	126			1330'	S	120	E	I	17	21S	37E	Cancelled APD														
30-025-39017	Apache Corp	W W Weatherly	11G			1651'	N	2311'	E	G	17	21S	37E	Cancelled APD														
30-025-39443	Apache Corp	WBDU	130			780'	N	540'	E	A	17	21S	37E	Cancelled APD														
30-025-37364	Apache Corp	State Land 15	7	P	Active	330'	S	330'	W	M	16	21S	37E		4,402'														
30-025-37365	Apache Corp	State Land 15	8	P	Active	330'	S	1650'	W	N	16	21S	37E		4,435'														
30-025-37482	Apache Corp	State Land 15	13	P	Active	350'	S	2200'	E	O	16	21S	37E		4,392'														
30-025-37496	Apache Corp	State Land 15	12	P	Active	350'	S	990'	E	P	16	21S	37E		4,415'														
30-015-37916	Apache Corp	State DA	13	P	Active	1650'	S	780'	E	I	16	21S	37E		4,398'														
30-025-38378	Apache Corp	State Land 15	16	P	Active	990'	S	1650'	E	O	16	21S	37E		4,135'														
30-025-39449	Apache Corp	State Land 15	17	P	Active	990'	S	330'	E	P	16	21S	37E		4,415'														
30-025-39605	Apache Corp	State Land 15	18	P	Active	660'	S	1650'	E	O	16	21S	37E		4,404'														
30-025-39606	Apache Corp	State Land 15	19	P	Active	895'	S	540'	W	M	16	21S	37E		4,414'														
30-025-36056	Apache Corp	Percy Hardy	10	P	Active	330'	S	330'	E	P	17	21S	37E		5,350'														
30-025-36646	Apache Corp	Weatherly 21	5	P	Active	330'	N	2080'	W	C	21	21S	37E		4,250'														

WELL DATA SHEET Last Update: 7-19-12

Lease Name: WBDU #144H API No: 30-025-40429

Location: 800'N/2100'E, B-Surf 332.5'S/2258'E, O-BHL, Sec 17 T-21S, R-37E County: Lea ST: NM

Spud Date: 4-14-12 Well Elev: 3480' GL 18' KB

TD Date: 5-18-12 Completion Date: 6-22-12

TD: 6673' TVD 10,657' MD PBTD: 10,600' TOC: Circ

Csg Size: 13 3/8" Wt: 48# Grd: H-40 Dpth: 1235' Cmt: 1230 sx (Circ)

Producing Formation: Drinkard

Perfs: From _____ to _____ /spf _____ to _____

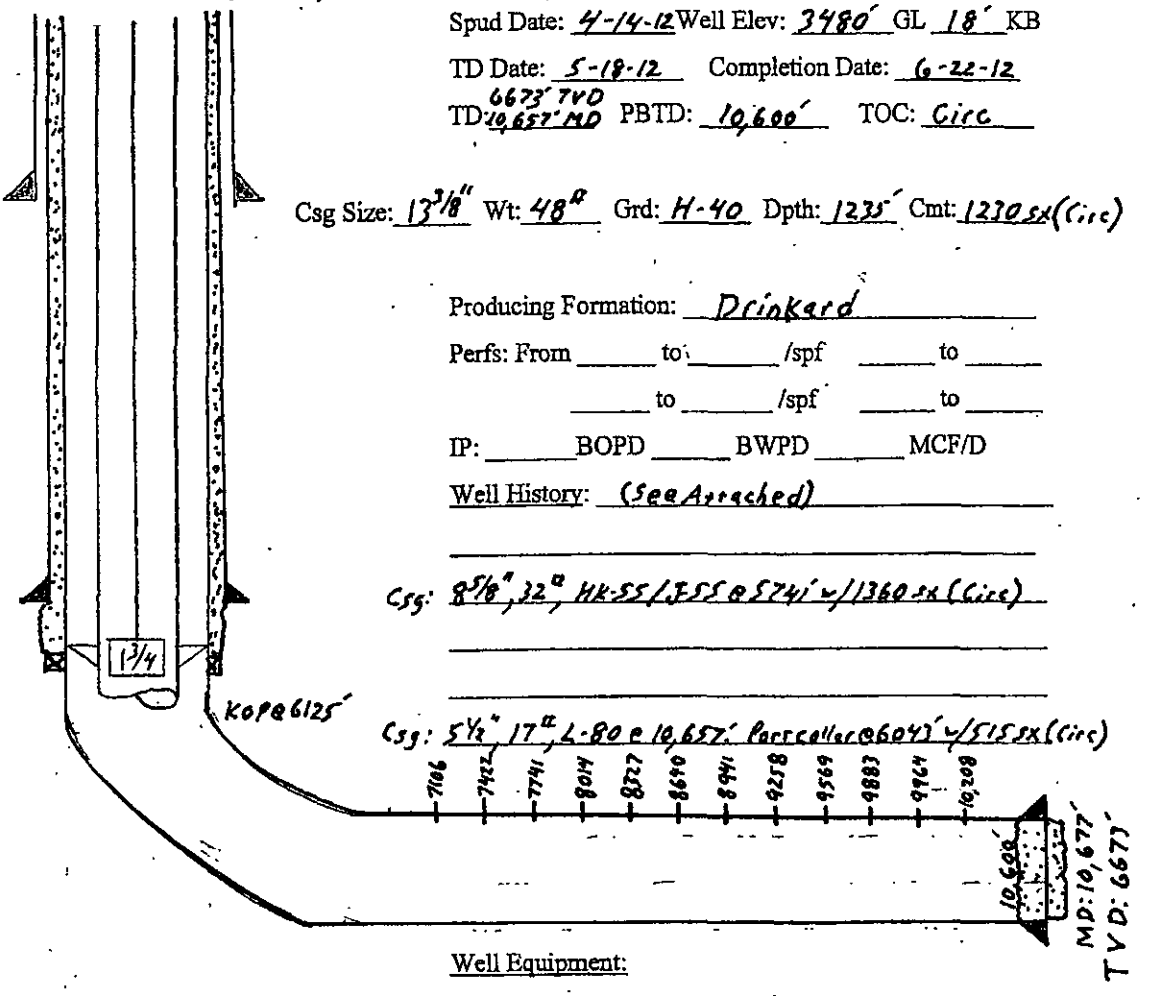
_____ to _____ /spf _____ to _____

IP: _____ BOPD _____ BWPD _____ MCF/D

Well History: (See Attached)

Csg: 8 5/8", 32#, HK-55/J55 @ 5741' w/ 1360 sx (Circ)

Csg: 5 1/2", 17#, L-80 @ 10,657' Parr collar @ 6043' w/ 515 sx (Circ)



Well Equipment:

Pumping Unit: 640 PU

Motor Type: _____ HP: _____ POC: _____

Tbg: 192 Jts 2 7/8" Size 6.5# J-55 Grade

MA @ — SN @ 6105' TAC @ 6070' (6-18-12)

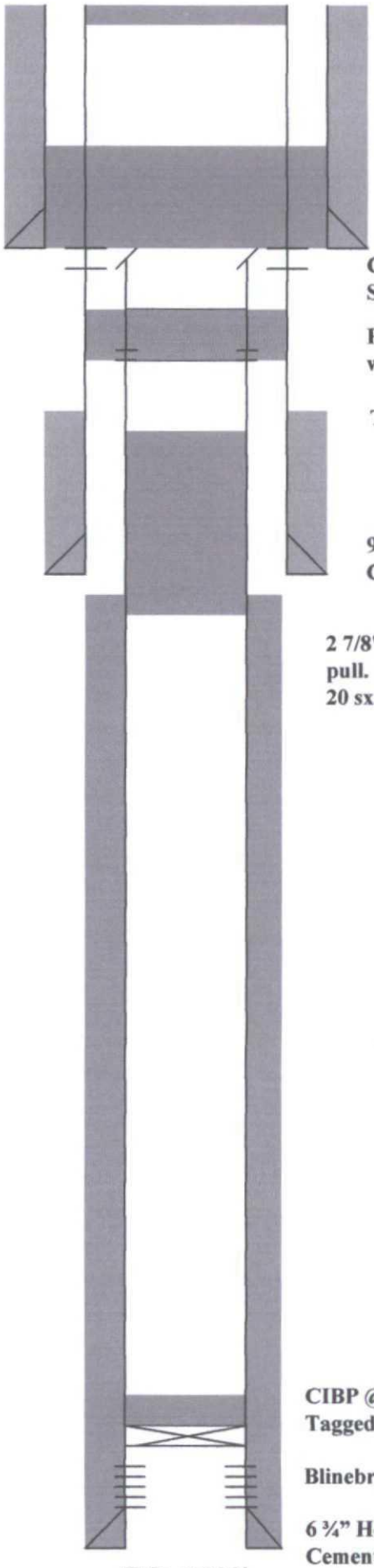
Rods: 103-1 1/4" FG + 40-1" KD + 34-7/8" KD + 12-1 1/2" K Rods

Pump: 2" x 1 3/4" x 24' HVRC (6-21-12)

Csg Size: _____ Wt: _____ Grd: _____ Dpth: _____ Cmt: _____

Apache Corporation
Form C-108: 8 Wells-WBDU
Well Schematic-WBDU 144H

Apache Corporation
Northeast Drinkard Unit No. 501
API No. 30-025-06474
1980' FNL & 330' FWL (Unit L)
Section 10, T-21S, R-37E, NMPM,
Lea County, New Mexico
Type Well: Producer



10 Sx. @ Surface

13 ¾" Hole; 10 ¾" Csg. Set @ 310'. Cemented w/200 Sx. Cement Circulated to Surface.

Cut 2 7/8" csg. @ 418'. Perforated 7" csg. @ 360'. Squeezed 100 sx. cmt. 200'360'. Tagged @ 210'

Perforated 2 7/8" csg. @ 1,400'. Squeezed w/120 sx. Tagged cmt. @ 1,000'

TOC @ 2,100'

9 7/8" Hole; 7 5/8" Csg. Set @ 2,975'
Cemented w/ 200 Sx. TOC @ 2,100' by T.S.

2 7/8" casing cut @ 3,018'. Could not pull. RIH w/ 1 ½" coiled tubing @ set 20 sx. cement plug 2,210'-3,078'

CIBP @ 5,610' + Cement
Tagged @ 5,567'

Blinebry Perforations: 5,793'-5,936'

6 ¾" Hole; 2 7/8" Csg. Set @ 5,989'
Cemented w/1200 Sx. TOC @ 3,000' by T.S.

T.D. 5,990'

Date Drilled: 4/62
Date PA'd: 6/05

Apache Corporation
Form C-108: 8 Wells-WBDU
PA Schematic-NEDU 501

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

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

Form C-103
May 27, 2004

WELL API NO.
30-025-06474

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
B-935

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.)

7. Lease Name or Unit Agreement Name
Northeast Drinkard Unit

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

8. Well Number 501

2. Name of Operator
Apache Corporation

9. OGRID Number
00873

3. Address of Operator
6120 South Yale, Suite 1500, Tulsa, OK 74136-4224

10. Pool name or Wildcat
Eunice Blinebry-Tubb-Drinkard-North

4. Well Location
Unit Letter L : 1,980 feet from the South line and 330 feet from the West line
Section 10 Township 21-S Range 37-E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3,470' DF

Pit or Below-grade Tank Application ☐ or Closure ☒

Pit type STEEL Depth to Groundwater 24' Distance from nearest fresh water well 1/2 mile Distance from nearest surface water

Pit Liner Thickness: STEEL mil Below-Grade Tank: Volume 180 bbls; Construction Material STEEL

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER:	☐			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.

See attached plugging procedure & wellbore diagram

06/14/05 Notified NMOCD, Buddy Hill. MIRU Triple N rig #23 & plugging equipment. Tested 2⅞" casing to 1,000 psi, held. RIH w/ wireline and tagged PBTD @ 5,567'. RIH w/ jet cutter, cut 2⅞" tubing @ 3,018', worked tubing, not free, stretch indicating 470' free 2⅞". RU cementer and attempted to establish rate into tubing cut, pressured up to 1,200 psi after ½ bbl, no rate. SI well, SDFN. Will RU coiled tubing in a.m.

06/15/05 Notified NMOCD, Buddy Hill. RU Triple N coiled tubing unit. RIH w/ 1½" coiled tubing to 3,078'. Pumped 20 sx C cmt 3,078 – 2,263'. POOH w/ tbg. WOC and tagged cmt @ 2,210'. Perforated 2⅞" casing @ 1,400'. Established rate into perforations of 1 BPM @ 1,000 psi. Squeezed 35 sx C cmt w/ 3% $CaCl_2$ @ 1,400', ISIP 300 psi. WOC, on vacuum. Attempted to pressure-test squeeze, rate 2 BPM @ 1,000 psi. Squeezed an additional 35 sx C cmt w/ 3% $CaCl_2$ @ 1,400', ISIP 700 psi. WOC and attempted to pressure-test squeeze, pumping into perforations 1 BPM @ 1,000 psi. Squeezed an additional 50 sx C cmt @ 1,400'. SI well, SDFN.

06/16/05 Pressure-tested casing to 1,000 psi. Tagged cmt @ 1,000'. Cut 2⅞" @ 418'. Circulated hole w/ mud and POOH. Perforated 7⅝" casing @ 360'. Squeezed 100 sx C cmt 360 - 200'. WOC and tagged cmt @ 210', POOH w/ wireline. Pumped 10 sx C cmt 50' to surface. RDMO.

06/30/05 Cut off wellhead & anchors, installed dry hole marker.

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

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any 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 _____ TITLE James F. Newman, P.E. (Triple N Services) DATE 07/12/05

Type or print name James F Newman E-mail address: jim@triplenservices.com Telephone No. 432-687-1994

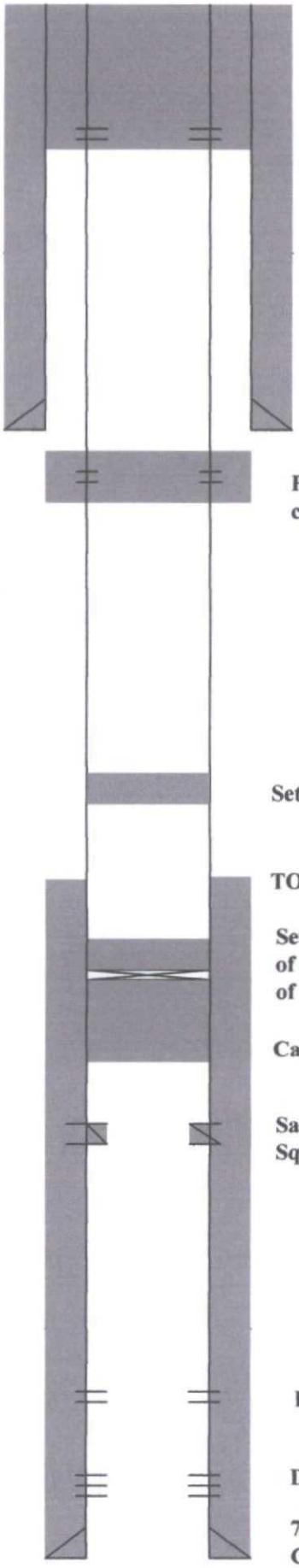
For State Use Only

APPROVED BY: _____ TITLE FIELD REPRESENTATIVE II/STAFF MANAGER DATE JUL 19 2005

Conditions of Approval (if any):

Conoco, Inc.
Hawk B-1 No. 14
API No. 30-025-22859
1980' FSL & 1980' FEL, Unit J
Section 8, T-21S, R-37E
Type Well: Producer

Date Drilled: 11/68
Date PA'd: 10/97



Perforate 5 ½" csg. @ 350'.
Squeeze cmt. to surface w/175 sx.

12 ¼" Hole; 8 5/8" csg. set @ 1,322'
Cemented w/650 sx.
Cement circulated to surface

Perforate 5 ½" csg. @ 1,372'. Set 25 sx. cmt. plug @ 1,372'

Set 25 sx. cmt. plug @ 2,567'

TOC @ 2,900' (Well File)

Set cement retainer @ 3,400'. Pump 67 Bbls of Class C cmt. through retainer. Sting out of retainer & set 6 sx. cmt. on tool.

Casing collapsed @ 3,553'

San Andres Perforations: 4,151'-4,196'
Squeezed w/100 Sx. cmt.

Blinebry Perforations: 5,666'-5,876'

Drinkard Perforations: 6,660'-6,700'

7 7/8" Hole; 5 ½" csg. set @ 6,836'
Cemented w/625 Sx. TOC @ 2,900' by Well File

T.D. 6,836'

Apache Corporation
Form C-108: 8 Wells-WBDU
PA Schematic-Hawk B-1 No. 14

N.M Oil Con
P.O. 1980
Hobbs, NM 88241

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.
NM 901610

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
Hawk B 1
Well #14

9. API Well No.
30 025 22859

10. Field
Blinebry Oil & Gas ← Drinkard

11. County or Parish, State
DHC-1827
Lea County, NM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT --" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other INJECTION

2. Name of Operator
CONOCO, INC.

3. Address and Telephone No
10 Desta Dr., Suite 100W, Midland, TX 79705-4500, 915 686-5424 or 915 684-6381

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: 1980 FSL & 1980' FEL
Location: Sec 8, T21S, R37E
TD: Same

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[X] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ]	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

9-17-97 through 10-17-97: Tried to clean out hole for repairs. Abandoned.
10-20-97: POH w/rods and all tubing.
10-22-97: GIH w/retainer set @ 3400', pump 67 bbls Class C w/2% CaCl, sting out of retainer, spot 6 sx on tool. Circulate wellbore w/P&A mud. PUH to 2567' spot 25 sx cement plug, POOH, RUWL, shoot squeeze holes @ 1372', dig out surface casing valve. SION.
10-23-97: Pump 25 sx cement plug across perf @ 1372', POH laying down tbg, RUWL, shoot squeeze holes @ 350', RDWL, establish circulation up surface casing. Pump 175 sx cement down production casing, circualte up surface casing. Shut surface valve, squeeze to 300#, RD BJ. Rig down & move off. Marker to be installed.

Cement Retainer @ 3400'
Cement Plug @ 2567'
Cement Plug @ 1404'
Cement Plug @ 350'

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

Signed [signature] Title Ann E. Ritchie REGULATORY AGENT Date 12-11-97

(This space for Federal or State office use)

Approved by ORIG. SGD.) GARY GOURLEY Title PETROLEUM ENGINEER Date JAN 13 1998
Conditions of approval, if any:

*See Instruction on Reverse Side

DIST: BLM(5) NMOCD(1)

JC

N.M. Oil ...
P... 1990
Hobbs, NM 88241

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No
NM 80680

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT --" for such proposals

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] INJECTION Other

8. Well Name
Hawk B1
Well #14

2. Name of Operator
CONOCO, INC.

9. API Well No.
30 025 22869

3. Address and Telephone No
10 Desta Dr., Suite 100W, Midland, TX 79705-4500, 915 686-5424 or 915 684-6381

10. Field
Blinebry Oil & Gas

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: 1980 FSL & 1980 FEL
Location: Sec 8, T21S, R37E
TD: Same

11. County or Parish, State
Lea County, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other: Remedial	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

9-17-97: MIRU, pump stuck, worked free, POH laying down rods. SION.
9-18-97: POH w/tbg, scale build up on tbg., GIH w/shoe, SION.
9-19-97: GIH w/bit & scraper to 4500', POH - GIH w/RBP & Pkr, set RBP @ 4310', set pkr @ 4010', test San Andres squeeze, spot acid across perfs, circulate acid out. SION.
9-22-97: Spot acid on perfs, shot squeeze holes @ 4060', RDWL, GIH w/2@ CaCl2, POH w/pkr. SION.
9-23-97: GIH w/bit, tag cmt @ 4003', DO to 4203', test csg. - spot 50 sx Cl C w/2%. WOC - SION.
9-24-97-10-9-97: Clean out/drill cement to 4158', test csg 500#, down60#/50 min.
10-10-97: Latch on to RBP, could not release plug, rig up wireline, cut tbg @ 4295', POH, clean to plug. SION.
10-13-97-10-15-97: Latch on & release RBP, clean out & circulate to 6277', cut cement core. POH. SION>
10-16-97-10-17-97: Mill to 3585', quit making hole, POH w/OE tbg, tag @ 3590', tbg dragging up hole to 3534'.POH,SION.
10-20-97: GIH w/rods, POH laying down, lay down all excess tbg. SION. Evaluation.

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

Signed [signature] Title Ann E. Ritchie REGULATORY AGENT Date 10-23-97

(This space for Federal or State office use)

OCT 27 1997
(ORIG. SGD.) GARY GOURLEY

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

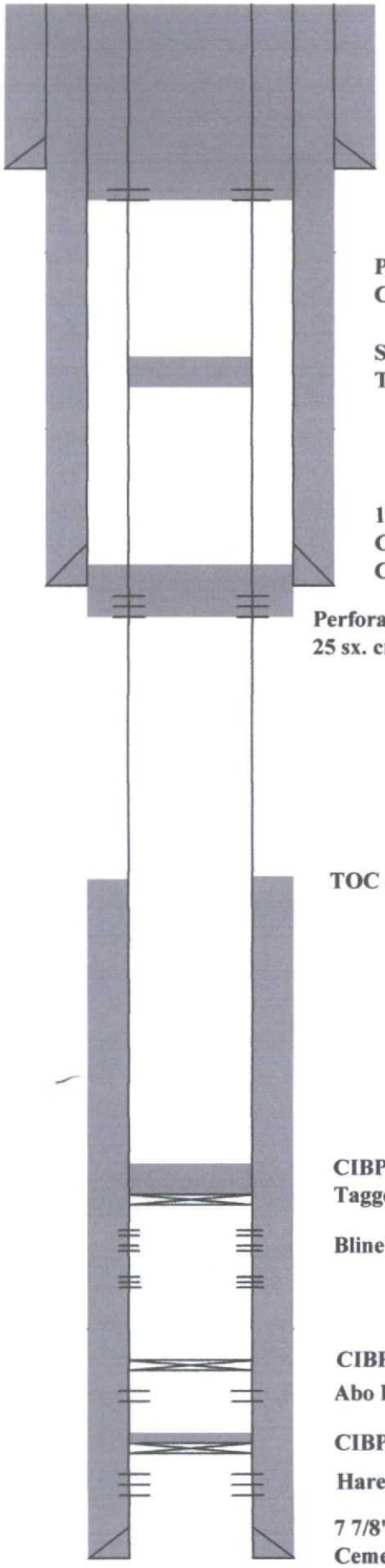
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

DIST BLM(5) NMOCD(1)

Apache Corporation
Northeast Drinkard Unit No. 608
API No. 30-025-06590
1980' FNL & 1880' FWL, Unit F
Section 15, T-21S, R-37E
Type Well: Producer

Date Drilled: 7/51
Date PA'd: 10/01



17 ½" Hole. 13 3/8" csg. set @ 315'
Cemented w/325.
Cement circulated to surface.

Perforate 5 ½" csg. @ 365'.
Cement to surface w/300 sx.

Set 25 sx. cmt. plug @ 1,300'
Tagged @ 1,055'

11" Hole; 8 5/8" csg. set @ 2,805'
Cemented w/500 sx.
Cement circulated to surface

Perforate 5 ½" csg. @ 2,855'. Set
25 sx. cmt. Tagged @ 2,798'

TOC @ 4,700' by T.S.

CIBP @ 5,500' w/ 35' cmt.
Tagged @ 5,476'

Blinebry-Tubb-Drinkard Perforations: 5,556'-6,613'

CIBP @ 6,620'
Abo Perforations: 6,747'-7,395'

CIBP @ 7,520' + 30' cmt.
Hare Perforations: 7,550'-7,814"

7 7/8" Hole; 5 ½" csg. set @ 7.850'
Cemented w/350 Sx. TOC @ 4,700' by T.S.

T.D. 7,850'

Apache Corporation
Form C-108: 8 Wells-WBDU
PA Schematic-NEDU 608

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 Resouces

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

FORM C-103
Revised March 25, 1999

WELL API NO. 30-025-06590

5. Indicate Type of Lease ☑ STATE ☐ FEE

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: Northeast Drinkard Unit

1. Type of Well: ☑ OIL WELL ☐ GAS WELL ☐ OTHER

2. Name of Operator: Apache Corporation

8. Well No. 608

3. Address of Operator: 2000 Post Oak Blvd., Ste. 100, Houston, Texas 77056-4400

9. Pool name or Wildcat: Eunice N., Blinebry-Tubb-Drinkard

4. Well Location
Unit Letter F : 1980 Feet From The North Line and 1880 Feet From The West Line
Section 15 Township 21S Range 37E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3441' GR

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
☐ Perform Remedial Work	☐ Plug and Abandon	☐ Remedial Work	☐ Altering Casing
☐ Temporarily Abandon	☐ Change Plans	☐ Commence Drilling Operations	☑ Plug and Abandonment
☐ Pull or Alter Casing		☐ Casing Test and Cement Job	
☐ Other		☐ 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.

10/5/2001 MIRU Fleet Cementers. Circulate well w/ 95.# mud. Run in hole w/ 4" casing gun. Tag cement on top of CIBP @ 5476'. Pull up hole to 2855' and perforate. Run in hole to 2855' and pump 25 sx cement. Wait on cement and tag @ 2798'. Pull up hole to 1300'. Spot 25 sx cement plug. Wait on cement and tag @ 1055'. Run in hole w/ 4" casing gun and perforate @ 365'. Run in hole to 385'. Break circulation. Circulate 300 sx cement to surface inside and outside casing. Install P&A marker. Clean location.

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

SIGNATURE Debra J. Anderson TITLE Sr. Engineering Technician DATE 11/5/2001

TYPE OR PRINT NAME Debra J. Anderson TELEPHONE NO. 713-296-6338

(This space for State Use)

APPROVED BY Johnny Robinson TITLE COMPLIANCE OFFICER DATE FEB 25 2003

CONDITIONS OF APPROVAL, IF ANY:

GWW

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 Resouces

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

FORM C-103
Revised March 25, 1999

WELL API NO. 30-025-06590

5. Indicate Type of Lease ☑ STATE ☐ FEE

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: Northeast Drinkard Unit

1. Type of Well: ☑ OIL WELL ☐ GAS WELL ☐ OTHER

2. Name of Operator: Apache Corporation

8. Well No. 608

3. Address of Operator: 2000 Post Oak Blvd., Ste. 100, Houston, Texas 77056-4400

9. Pool name or Wildcat: Eunice N., Blinebry-Tubb-Drinkard

4. Well Location
Unit Letter F : 1980 Feet From The North Line and 1880 Feet From The West Line
Section 15 Township 21S Range 37E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3441' GR

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
☐ Perform Remedial Work	☑ Plug and Abandon	☐ Remedial Work	☐ Altering Casing
☐ Temporarily Abandon	☐ Change Plans	☐ Commence Drilling Operations	☐ Plug and Abandonment
☐ Pull or Alter Casing		☐ Casing Test and Cement Job	
☐ Other		☐ 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.

Apache Corporation proposes to Plug and Abandon the Northeast Drinkard Unit # 608. The well is currently TA'd with a CIBP @ 5500' w/ 35' cement cap. The previous operator, Altura Energy LTD, submitted a plugging procedure approved by Chris Williams in December 1997. Apache requests permission to use the attached approved plugging procedure with the exception of step 2. Apache pulled the RBP @ 5534' in 10/2000 and replaced it with a CIBP @ 5500' w/ 35' cement cap.

THE COMMISSION MUST BE NOTIFIED 24 HOURS PRIOR TO THE BEGINNING OF PLUGGING OPERATIONS FOR THE C-103 TO BE APPROVED.

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

SIGNATURE Debra J. Anderson TITLE Sr. Engineering Technician DATE 10/5/2001

TYPE OR PRINT NAME Debra J. Anderson TELEPHONE NO. 713-296-6338

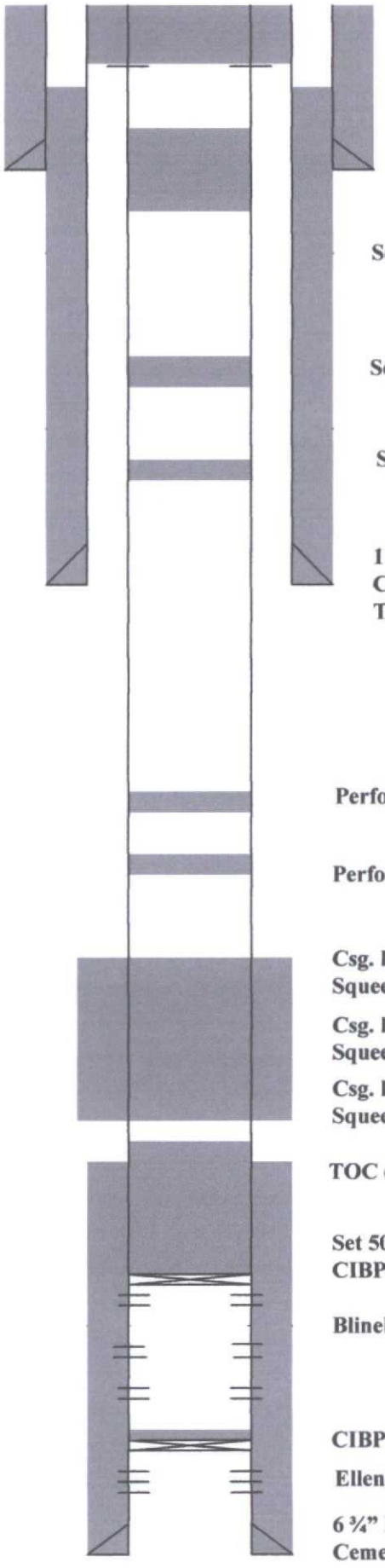
(This space for State use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Apache Corporation
Northeast Drinkard Unit No. 601
API No. 30-025-06614
600' FNL & 990' FWL, Unit D
Section 15, T-21S, R-37E
Type Well: Producer

Date Drilled: 7/52
Date PA'd: 10/11



Perforate 5 ½" csg. @ 100'. Circulate to surface w/50 sx.

17 ½" Hole. 13 3/8" csg. set @ 293'
Cemented w/300 sx.
Cement circulated to surface.

Set 25 sx. cmt. plug 200'-400'

Set 25 sx. cmt. plug @ 1,306'

Set 25 sx. cmt. plug @ 2,246'

11" Hole; 8 5/8" csg. set @ 2,990'
Cemented w/2000 sx.
TOC @ 160'

Perforate 5 ½" csg. @ 3,040'. Unable to squeeze. Set 40 sx. cmt. plug. Tag @ 2,740'

Perforate 5 ½" csg. @ 4,032'. Unable to squeeze. Set 25 sx. cmt. plug. Tag @ 3,855'

Csg. leaks @ 4,320'-4,350'
Squeezed w/250 sx.

Csg. leaks @ 4,943'-4,974'
Squeezed w/350 sx.

Csg. leaks @ 5,360'
Squeezed w/325 sx.

TOC @ 5,380' by T.S.

Set 50 sx. cmt. Plug 5,113'-5,620'
CIBP @ 5,640' + 20' cmt.

Blinebry-Tubb-Drinkard Perforations: 5,679'-6,704'

CIBP @ 7,900' + 2 sx. cmt.

Ellenburger Perforations: 7,988'-8,956'

6 ¾" Hole; 5 ½" csg. set @ 8,142'
Cemented w/350 Sx. TOC @ 5,380' by T.S.

T.D. 8,145'

Apache Corporation
Form C-108: 8 Wells-WBDU
PA Schematic-NEDU 601

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

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

HOBBS OCD
OCT 24 2011
RECEIVED

Form C-103
May 27, 2004

WELL API NO. 30-025-06614

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil & Gas Lease No. BD-9188

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)

7. Lease Name or Unit Agreement Name: Northeast Drinkard Unit

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

8. Well Number: 601

2. Name of Operator: Apache Corporation

9. OGRID Number: 873

3. Address of Operator: 303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705

10. Pool name or Wildcat: Eunice, Blinebry-Tubb-Drinkard, N.

4. Well Location
Unit Letter D : 600 feet from the N line and 990 feet from the W line
Section 15 Township 21S Range 37E NMPM County Lea

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 3459' GR

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water N/A

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:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: drill out & add Plugs ☐		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.

10/10/11 Tag ~~TOC~~ existing CIBP @ 5,620'

10/11/11 Tbg @ 5,620' – Circ hole w/ MLF. Test csg – OK.
Spot 50sx cmt @ 5,620'. Displaced to 5113'.

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, www.emnrd.state.nm.us/ocd.

10/12/11 Perf @ 4,032' – unable to Sqz. Tbg @ 4,082' – Spot 25sx cmt w/2% calc – Tag @ 3,885'
Perf @ 3,040' – unable to Sqz. Tbg @ 3,090' – ~~Spot 25sx cmt~~ – Tag @ 2,740' Spot 40sx cmt.
TIH open ended to

10/13/11 Tbg @ 2,246' – Spot 25sx cmt No tag per OCD, mark Whitaker.
Tbg @ 1,306' – Spot 25sx cmt w/2% calc No tag per OCD again.
Tbg @ 400' – Spot 25sx cmt – Tag @ 200'
Perf @ 100' – Circ 50sx cmt to surface. RDMO. Cutoff WH, anchors, clean location. Install dry hole marker.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any 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 [signature] TITLE P &A Technician (Basic Energy Services) DATE 10-18-11

Type or print name: Greg Bryant E-mail address: Telephone No. 432-563-3355

For State Use Only

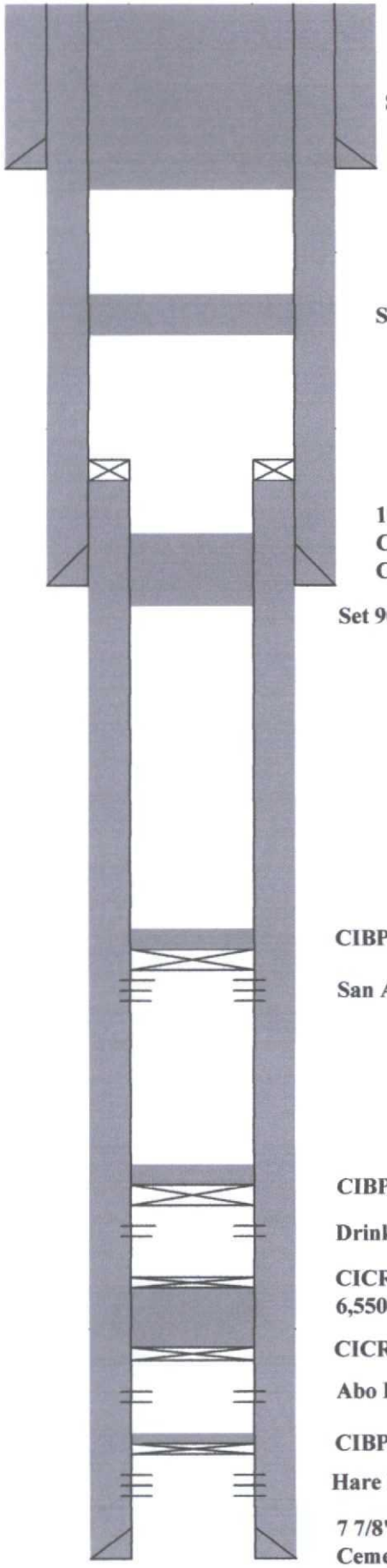
APPROVED BY: [signature] TITLE Staff Mgr DATE 10-25-2011

Conditions of Approval (if any):

OCT 25 2011

Apache Corporation
ARGO No. 10
API No. 30-025-06606
1880' FSL & 760' FWL, Unit L
Section 15, T-21S, R-37E
Type Well: Water Supply

Date Drilled: 7/51
Date PA'd: 11/11



Fill 8 5/8" casing to surface w/7 sx.

Set 92 sx. cmt. plug 375'-25'

17 ¼" Hole. 13 3/8" csg. set @ 241'
Cemented w/250 sx.
Cement circulated to surface.

Set 50 sx. cmt. plug 1,088'-1,250'. Tagged

11" Hole; 8 5/8" csg. set @ 2,907'
Cemented w/1700 sx.
Cement circulated to surface

Set 90 sx. cmt. plug 2,522'-2,962'. Tagged

CIBP @ 3,960' + 35 sx. cmt. TOC @ 3,834'

San Andres Perforations: 4,016'-4,100'

CIBP @ 6,375' + 35' cmt.

Drinkard Perforations: 6,421'-6,498'

CICR @ 6,530'. Squeezed casing leaks
6,550'-6,680' w/250 sx. cmt.

CICR @ 6,680'

Abo Perforations: 6,686'-7,214'

CIBP @ 7,600' + 1 sx. cmt.

Hare Perforations: 7,647'-7,960'

7 7/8" Hole; 5 ½" csg. set @ 2,660'-8,912'
Cemented w/875 Sx. TOC @ 2,660'

T.D. 8,012'

Apache Corporation
Form C-108: 8 Wells-WBDU
PA Schematic-ARGO No. 10

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

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

HOBBS OCD
NOV 15 2011
RECEIVED

Form C-103
May 27, 2004

WELL API NO. 30-025-06606
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: Argo
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐
8. Well Number: 10
2. Name of Operator: Apache Corporation
9. OGRID Number: 873
3. Address of Operator: 303 Veterans Airpark Lane, Ste. #3000, Midland, Tx. 79705
10. Pool name or Wildcat: WSW;San Andres ~~(96221)~~ 78080
4. Well Location
Unit Letter L : 1880 feet from the S line and 760 feet from the W line
Section 15 Township 21S Range 37E NMPM County Lea
11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 3453' DF

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type ____ Depth to Groundwater ____ Distance from nearest fresh water well ____ Distance from nearest surface water N/A
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:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: ☐		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.

10-28-2011- MIRU Plugging Equipment.
10-31-2011- Tag existing plug @ 3834 ft. Circulate 5 ½ x 8 5/8 casing w/ 188 bbls. Mud laden fluid. Spot 90 sacks cement from 2962 ft. Across 5 ½ liner top & up inside 8 5/8 casing. WOC Tag cement plug @ 2522 ft.
11-1-2011- Spot 50 sacks cement from 1250 ft. WOC, Tag cement plug @ 1088 ft.
11-1-2011- Spot 92 sacks cement from 375 ft. Left top of cement @ 25 ft. NDBOP. Fill 8 5/8 wellbore W/ 7 sacks cement to surface. Cut-off wellhead & anchors. Clean location. Install dry-hole marker.
11-1-2011- RDMO plugging equipment.

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, www.emnrd.state.nm.us/ocd

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any 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 _____ TITLE P & A Supervisor (Basic Energy Services) DATE 11/8/11

Type or print name: _____ E-mail address: _____ Telephone No. 432-563-3355

For State Use Only

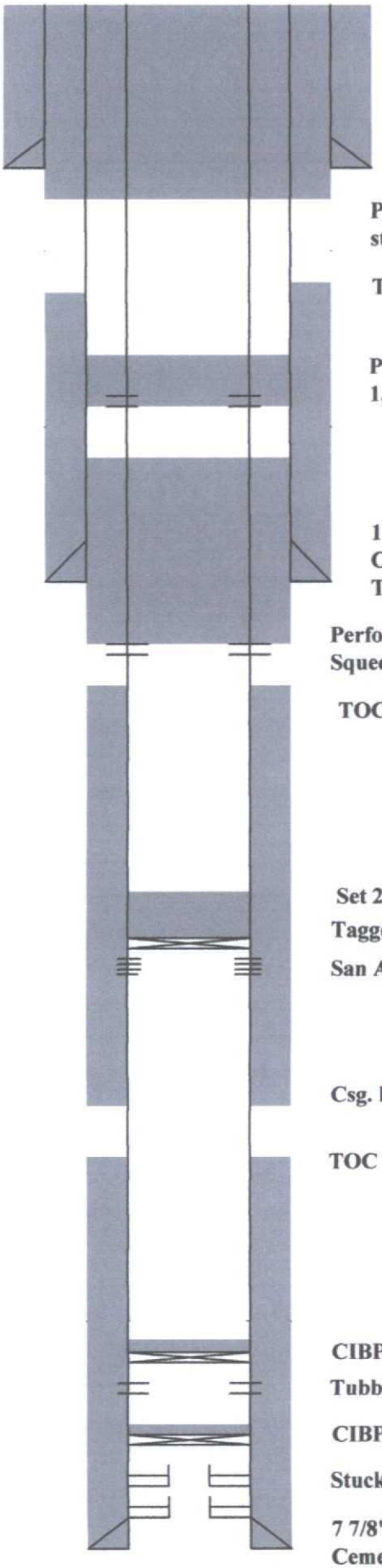
APPROVED BY: _____ TITLE _____ DATE 11-15-2011

Conditions of Approval (if any):

NOV 16 2011

Apache Corporation
Cities S State No. 2 (NEDU 607S)
API No. 30-025-06585
1980' FNL & 1980' FWL, Unit F
Section 15, T-21S, R-37E
Type Well: Producer

Date Drilled: 6/48
Date PA'd: 9/11



17 ¼" Hole. 13 3/8" csg. set @ 297'. Cemented w/300 sx. Cement circulated to surface.

Perforate @ 347'. Establish circulation on all casing strings. Squeeze to surface w/280 sx. cmt.

TOC @ 675'

Perforate 5 ½" csg. @ 1,563'. Packer @ 1,052'. Squeeze w/50 sx. Tagged @ 1,402'

11 ¼" Hole; 8 5/8" csg. set @ 2,791'
Cemented w/500 sx.
TOC @ 675'

Perforate 5 ½" csg. @ 2,841'. Packer @ 1,976'
Squeeze w/135 sx. cmt. Tagged @ 2,220'

TOC @ 3,050'

Set 25 sx. cmt. plug @ 3,984'

Tagged CIBP + 35' cmt. @ 3,984'

San Andres Perforations: 4,061'-4,900'

Csg. leaks @ 5,030' squeezed w/200 sx. cmt.

TOC @ 5,120'

CIBP @ 5,990' + 35' cmt.

Tubb Perforations: 6,044'-6,235'

CIBP @ 6,500' + 35' cmt.

Stuck packers @ 6,586' & 6,530'

7 7/8" Hole; 5 ½" csg. set @ 6,586'
Cemented w/125 Sx. TOC @ 5,120' by T.S.

T.D. 6,676'

Apache Corporation
Form C-108: 8 Wells-WBDU
PA Schematic-NEDU 607S

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

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

HOBBS OCD
SEP 20 2011
RECEIVED

Form C-103
May 27, 2004

WELL API NO.	30-025-06585
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	B0-1481-0018

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.)

7. Lease Name or Unit Agreement Name	Cities S State (NEDU #607S)
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 2
2. Name of Operator: Apache Corporation	9. OGRID Number 873
3. Address of Operator: 303 Veterans Airpark Lane, Ste. 3000, Midland, TX 79705	10. Pool name or Wildcat: Hare; San Andres (Gas)

4. Well Location
Unit Letter F : 1980 feet from the N line and 1980 feet from the W line
Section 15 Township 21S Range 37E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3435' GR

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type____ Depth to Groundwater____ Distance from nearest fresh water well____ Distance from nearest surface water N/A____
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:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: ☐		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.

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, www.emnrd.state.nm.us/ocd.
Cate.

9/2/11 Notify OCD – Move in.

9/6/11 (1) RIH tubing. Tag existing CIBP @ 3984'.

9/7/11 (2) Tubing @ 3984'. Mix/load w 10# mlf. Spot 25 sxs cmt. As per Mark w/OCD 3731' calc toc.
(3) Perf @ 2841'. Packer @ 1976'. Est circ. Sqz 135 sxs cmt. Woc overnight. Tag @ 2220'.

9/8/11 (4) Perf @ 1563'. Packer @ 1052'. Est circ. Sqz 50 sxs cmt w/3% CACL. Woc 4hrs. Tag @ 1402'.
(5) Perf @ 347'. Est circ on all strings. Pump 280 sxs cmt down 5 ½" & out 8 5/8" x 13 3/8" to surf.

9/9/11 (6) Verify cement to surface. RDMO. P & A'd. Cut off WH, anchors, clean location. Install dry hole marker.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any 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 [signature] TITLE P & A (Basic Energy Services) DATE 9-14-2011

Type or print name Gary Eggleston E-mail address: Telephone No. 432-563-3355

For State Use Only

APPROVED BY: [signature] TITLE STAFF MGR DATE 9-21-2011

Conditions of Approval (if any):

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-basin	County	Q 64	Q 16	Q 4	Sec	Twp	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00251		LE	2	3	4	22	21S	37E	674099	3592915*	103		
CP 00252		LE	4	2	4	22	21S	37E	674493	3593125*	106		
CP 00552		LE		2	4	04	21S	37E	672700	3598022*	90	75	15
CP 00553		LE		2	4	04	21S	37E	672700	3598022*	90	75	15
CP 00554		LE		2	2	16	21S	37E	672744	3595610*	80	70	10
CP 00881		LE		4	4	22	21S	37E	674402	3592824*	95	53	42
CP 00895		LE		1	1	20	21S	37E	669957	3593956*	163		
CP 01026 POD1		LE	1	1	3	17	21S	37E	669809	3594958	167	95	72

Average Depth to Water: **73 feet**
Minimum Depth: **53 feet**
Maximum Depth: **95 feet**

Record Count: 8

PLSS Search:

Section(s): 3, 4, 8, 9, 10, 15, 16, 17, 20, 21, 22 **Township:** 21S **Range:** 37E

Apache Corporation
Form C-108: 8 Wells-WBDU
Fresh Water Data
State Engineer

***UTM location was derived from PLSS - see Help**

CARDINAL LABORATORIES

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

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

Receiving Date: 05/22/08
Reporting Date: 05/23/08
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: WATER TEST FOR WEBA WTR. FLOOD

Sampling Date: 05/20/08
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM/KS

LAB NUMBER	SAMPLE ID	TDS (mg/L)	Cl (mg/L)
ANALYSIS DATE:		05/22/08	05/22/08
H14853-1	SP2 WTR WELL - WW WEATHERLY	1,320	416
H14853-2	SP3 WTR WELL WEST OF HOUSE	918	244
Quality Control		NR	500
True Value QC		NR	500
% Recovery		NR	100
Relative Percent Difference		NR	< 0.1

METHODS: EPA 600/4-79-020	160.1	SM4500-Cl-B

Chemist

05-23-08
Date

Apache Corporation
Form C-108: 8 Wells-WBDU
Fresh Water Well Analysis

Oil Conservation Division
Case No.
Exhibit No. 32A

H14853-LABAQUE

Form C-108
Affirmative Statement
Apache Corporation
WBDU Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
Section 8, 9, 16 & 17, 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

5/29/13
Date

May 29, 2013

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

TO: OFFSET OPERATORS/LEASEHOLD OWNERS/SURFACE OWNERS
(See Attached List)

Re: Apache Corporation
Form C-108 (Application for Authorization to Inject)
West Blinebry Drinkard Unit
Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
Sections 8, 9, 16 & 17, 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 West Blinebry Drinkard Unit Wells No. 37, 40, 56, 59, 61, 66, 75 & 77. You are being provided a copy of the application as an offset operator, leasehold owner or the surface owner of the land on which one or more of the injection wells are located. Apache Corporation proposes to convert these wells to injection within the existing West Blinebry Drinkard Unit Waterflood Project in order to complete an efficient production/injection pattern within the West Blinebry Drinkard Unit Area ("Unit Area"). The Unit Area and the waterflood project were previously approved by Division Order No. R-12981 dated August 11, 2008. Injection within each of these wells will occur into the Unitized Formation which comprises the Blinbry-Tubb-Drinkard formation from a depth of 75 feet above the stratigraphic Blinebry marker down to the top of the Abo formation (approximately 5,584 feet to 6,690 feet within the Hawk B-1 Well No. 34 located in Unit N of Section 9, 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

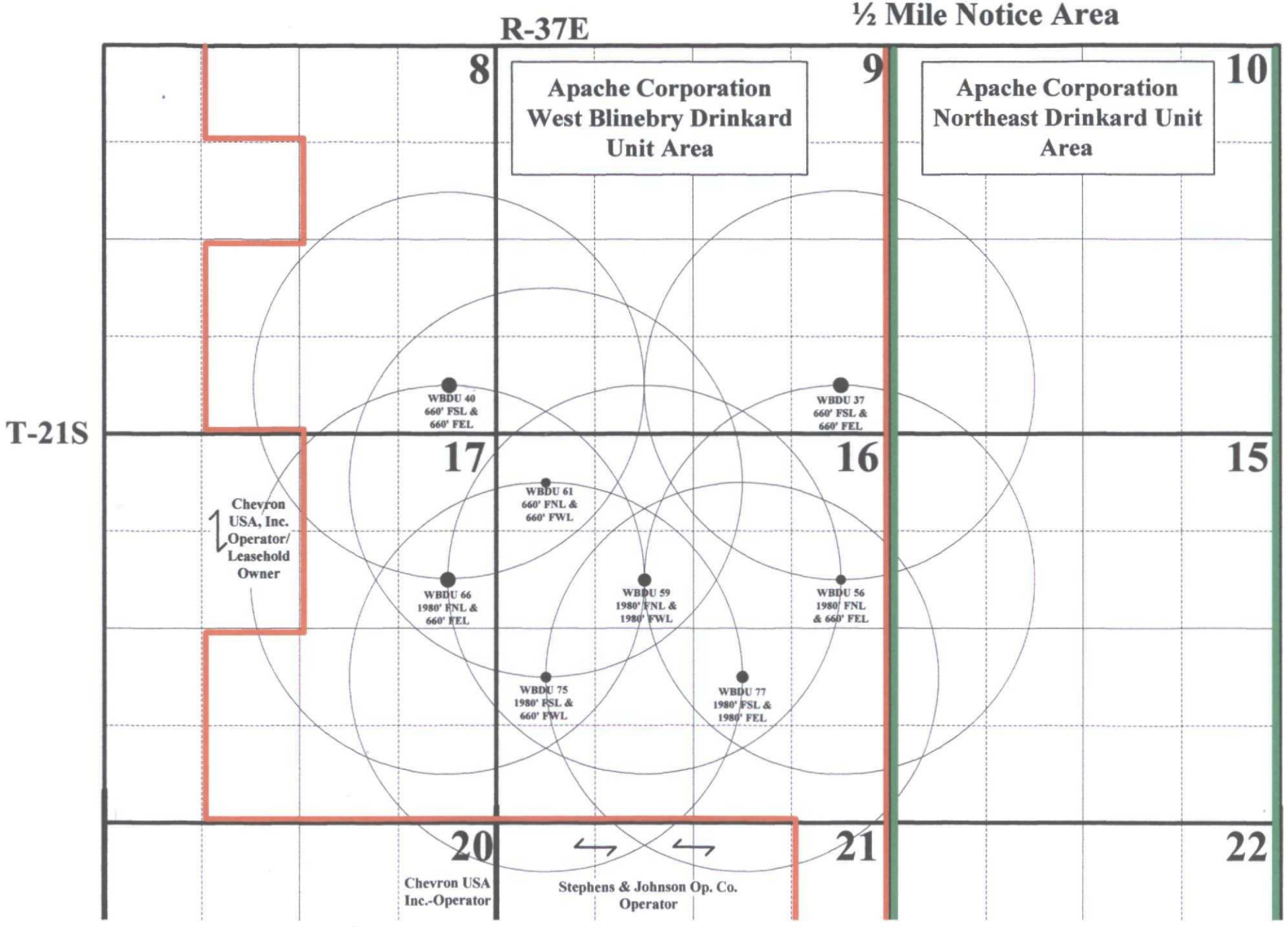
David Catanach-Agent
Apache Corporation
303 Veterans Airpark Lane, Suite 3000
Midland, Texas 79705

Enclosure

WBDU Boundary

NEDU Boundary

Apache Corporation
Form C-108: WBDU
Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
½ Mile Notice Area



Apache Corporation
Form C-108: West Blinebry Drinkard Unit
Wells No. 37, 40, 56, 59, 61, 66, 75 & 77
Sections 8, 9, 16 & 17, T-21 South, R-37 East, NMPM
Lea County, New Mexico

Offset Operator/Leasehold Owner/Surface Owner Notification List (See Attached Map)

All acreage within the ½ mile notice area for the West Blinebry Drinkard Unit ("WBDU") Wells No. 37, 40, 56, 59, 61, 66, 75 & 77 with the exception of the E/2 NW/4 of Section 17, NE/4 NE/4 of Section 20 and the N/2 NW/4 & NW/4 NE/4 of Section 21, T-21S, R-37E is located within Apache Corporation's West Blinebry Drinkard Unit Area, or Apache Corporation's Northeast Drinkard Unit Area, both of which are secondary recovery units within the North Eunice Blinebry-Tubb-Drinkard Pool. Offset operators/leasehold owners within the Blinbry-Tubb-Drinkard interval and surface owners that are being provided notice of this application are described as follows:

E/2 NW/4 of Section 17, T-21S, R-37E

Chevron USA, Inc.
Attn: Sandy Stedman-Daniel
P.O. Box 2100
Houston, Texas 77252

NE/4 NE/4 of Section 20, T-21S, R-37E

Chevron USA, Inc.

N/2 NW/4 & NW/4 NE/4 of Section 21, T-21S, R-37E

Stephens & Johnson Operating Co.
P.O. Box 2249
Wichita Falls, Texas 76307

Surface Owner: WBDU Wells No. 56, 59, 61, 75 & 77

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

Surface Owner: WBDU Well No. 66

Chevron USA, Inc.

Surface Owner: WBDU Wells No. 37 & 40

Millard Deck Estate #4193
c/o Bank of America, N.A.
P.O. Box 1470
Fort Worth, Texas 76102

Additional Notice

OCD-Hobbs District Office

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
May 21, 2013
and ending with the issue dated
May 21, 2013

PUBLISHER
Sworn and subscribed to before me
this 21st day of
May, 2013

Notary Public

My commission expires
January 29, 2015
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-15

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

Legal Notice
May 21, 2013

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 wells to water injection wells within the West Blinebry Drinkard Unit Waterflood Project, North Eunice Blinebry-Tubb-Drinkard Pool, Lea County New Mexico:

WBDU Well No. 37 API No. 30-025-06439, 660' FSL & 660' FEL (Unit P)
Section 9, T-21S, R-37E,
Injection Interval: Approximately 5,585'-6,710' (Perforated)

WBDU Well No. 40 API No. 30-025-06433, 660' FSL & 660' FEL (Unit P)
Section 8, T-21S, R-37E
Injection Interval: Approximately 5,597'-6,758' (Perforated)

WBDU Well No. 56 API No. 30-025-06621, 1980' FNL & 660' FEL (Unit H)
Section 16, T-21S, R-37E
Injection Interval: Approximately 5,543'-6,702' (Perforated)

WBDU Well No. 59 API No. 30-025-06626, 1980' FNL & 1980' FWL (Unit F)
Section 16, T-21S, R-37E,
Injection Interval: Approximately 5,580'-6,694' (Perforated)

WBDU Well No. 61 API No. 30-025-06629, 660' FNL & 660' FWL (Unit D)
Section 16, T-21S, R-37E
Injection Interval: Approximately 5,599'-6,726' (Perforated)

WBDU Well No. 66 API No. 30-025-06638, 1980' FNL & 660' FEL (Unit H)
Section 17, T-21S, R-37E
Injection Interval: Approximately 5,572'-6,712' (Perforated)

WBDU Well No. 75 API No. 30-025-06615, 1980' FSL & 660' FWL (Unit L)
Section 16, T-21S, R-37E
Injection Interval: Approximately 5,590'-6,707' (Perforated)

WBDU Well No. 77 API No. 30-025-06618, 1980' FSL & 1980' FEL (Unit J)
Section 16, T-21S, R-37E
Injection Interval: Approximately 5,547'-6,674' (Perforated)

Produced water and San Andres make-up water will be injected into the wells a average and maximum rates of 650 BWPD and 1,500 BWPD, respectively. The initia surface injection pressure is anticipated to be in compliance with the Division's limi of 0.2 psi/ft, and the maximum surface injection pressure will be determined by step rate injection tests.

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 o the date of this publication. Additional information can be obtained by contacting Mr. David Catanach, Agent for Apache Corporation at (505) 690-9453.
#28161

67109591 00114693

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

7011 3500 0002 1604 0082

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Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $8.57

USPS SANTA FE, NM 87505 10 Postmark Here MAY 29 2013 CORONADO STATION 05/29/2013

Sent To: Stephens & Johnson Op. Co.
Street, Apt. No.; or PO Box No.: P.O. Box 2249
City, State, ZIP+4: Wichita Falls, Texas 76307

PS Form 3800, August 2006 See Reverse for Instructions

7011 3500 0002 1604 0099

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Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $8.57

USPS SANTA FE, NM 87504 10 Postmark Here MAY 29 2013 CORONADO STATION

Sent To: Commissioner of Public Lands
Street, Apt. No.; or PO Box No.: P.O. Box 1148
City, State, ZIP+4: Santa Fe, New Mexico 87504-1148

PS Form 3800, August 2006 See Reverse for Instructions

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Return Receipt Fee (Endorsement Required)	$2.55
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $8.57

USPS SANTA FE, NM 87504 10 Postmark Here MAY 29 2013 CORONADO STATION 05/29/2013

Sent To: Millard Deck Estate #4193
Street, Apt. No.; or PO Box No.: c/o Bank of America, N.A. P.O. Box 1470
City, State, ZIP+4: Fort Worth, Texas 76102

PS Form 3800, August 2006 See Reverse for Instructions

7011 3500 0002 1604 0075

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Certified Fee	$3.10
Return Receipt Fee (Endorsement Required)	$2.55
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $8.57

USPS SANTA FE, NM 87504 10 Postmark Here MAY 29 2013 CORONADO STATION 05/29/2013

Sent To: Chevron USA, Inc.
Street, Apt. No.; or PO Box No.: Attn: Sandy Stedman-Daniel P.O. Box 2100
City, State, ZIP+4: Houston, Texas 77252

PS Form 3800, August 2006 See Reverse for Instructions

Injection Permit Checklist: Received 05/29/13 First Email Date: — Final Reply Date: — Suspended?: —

Issued Permit: Type: WFX / PMX / SWD Number: 913 Permit Date: 06/28/13 Legacy Permits or Orders: R-12981

Well No. Eight total: #37, #40, #56, #59, #61, #66, #75, #77 Well Name(s): West Blinebry-Drinkard Unit (WBDU)

API : 30-0 See individual well diagram Spud Date: 1947/1948 New/Old: Old (UIC Cl II Primacy March 7, 1982)

Footages — Lot — Unit — Sec — Tsp 21S Rge 37E County Lea

General Location: WBDU - near Eunice NM Pool: Blinebry & Drinkard Pool No.: 66660 & 19190

Operator: Apache Corporation OGRID: 873 Contact: David Catanach - Agent

COMPLIANCE RULE 5.9: Inactive Wells: 4 Total Wells: 2785 Fincl Assur: ✓ Compl. Order? No **IS 5.9 OK?** OK

Well File Reviewed: ✓ Current Status: All are producers / uneconomical - conversion to injection only

Planned Rehab Work to Well: Pull production equipment / run 4½ casing and cementing to surface for all eight

Well Diagrams: Proposed — Before Conversion — After Conversion ✓ Are Elogs in Imaging?: Yes

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned — or Existing — Cond		Existing Production Well			
Planned — or Existing — Surface		See individual diagrams - all have cmt tops			
Planned — or Existing — Interm		lower on production casing			
Planned — or Existing — LongS			DV tools for all new 4½ installation		
Planned — or Existing — Liner	NA / 4½	- All wells: surface to TD; cmt to circulate to Surface			
Planned — or Existing — OH / PERF					

Injection Strat Column:	Depths (ft)	Formation	Tops?
Above Top of Inject Formation		San Andres	
Above Top of Inject Formation		Glorieta	
Proposed Interval TOP:	See individual	Blinebry - Drinkard (commingle)	
Proposed Interval BOTTOM:	well		
Below Bottom of Inject Formation	—	~~Tubb~~ Abo	
Below Bottom of Inject Formation	—	—	

Water Flood

Completion/Ops Details:

Drilled TD — PBTD —

Open Hole — or Perfs ✓

Tubing Size 2 3/8 Inter Coated? ✓

Proposed Packer Depth —

Min Packer Depth ≤100' (100-ft limit) R-12981

Proposed Max. Surface Press 0.2 or ≤1120

Calc. Injt Press — (0.2 psi per ft)

Calc. FPP — (0.65 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P — Noticed? — **BLM Sec Ord** No **WIPP** No Noticed? No **SALADO:** T: — B: — **CLIFF HOUSE** NA

Fresh Water: Max Depth: ~300 FW Formation Ogallala Wells? — Analysis? Yes HydrologicAffirmStatement Yes

Disposal Fluid: Formation Source(s) Ogallala/Bottom/Redbeds Production Water / San Andres B-D On Lease ✓ Only from Operator — or Commercial —

Disposal Interval: Injection Rate (AVE/MAX): 650/1500 Protectable Waters: No CAPITAN REEF: thru No adjacent No

H/C Potential: Producing Interval? Water Flood Project Formerly Producing? NA Method: E Log /Mudlog/DST/Depleted/Other NA

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes - Group 3 Wells Total No. Wells Penetrating Interval: 28+4=32

Penetrating Wells: No. Active Wells 28 Num Repairs? 0 on which well(s)? — Diagrams? No

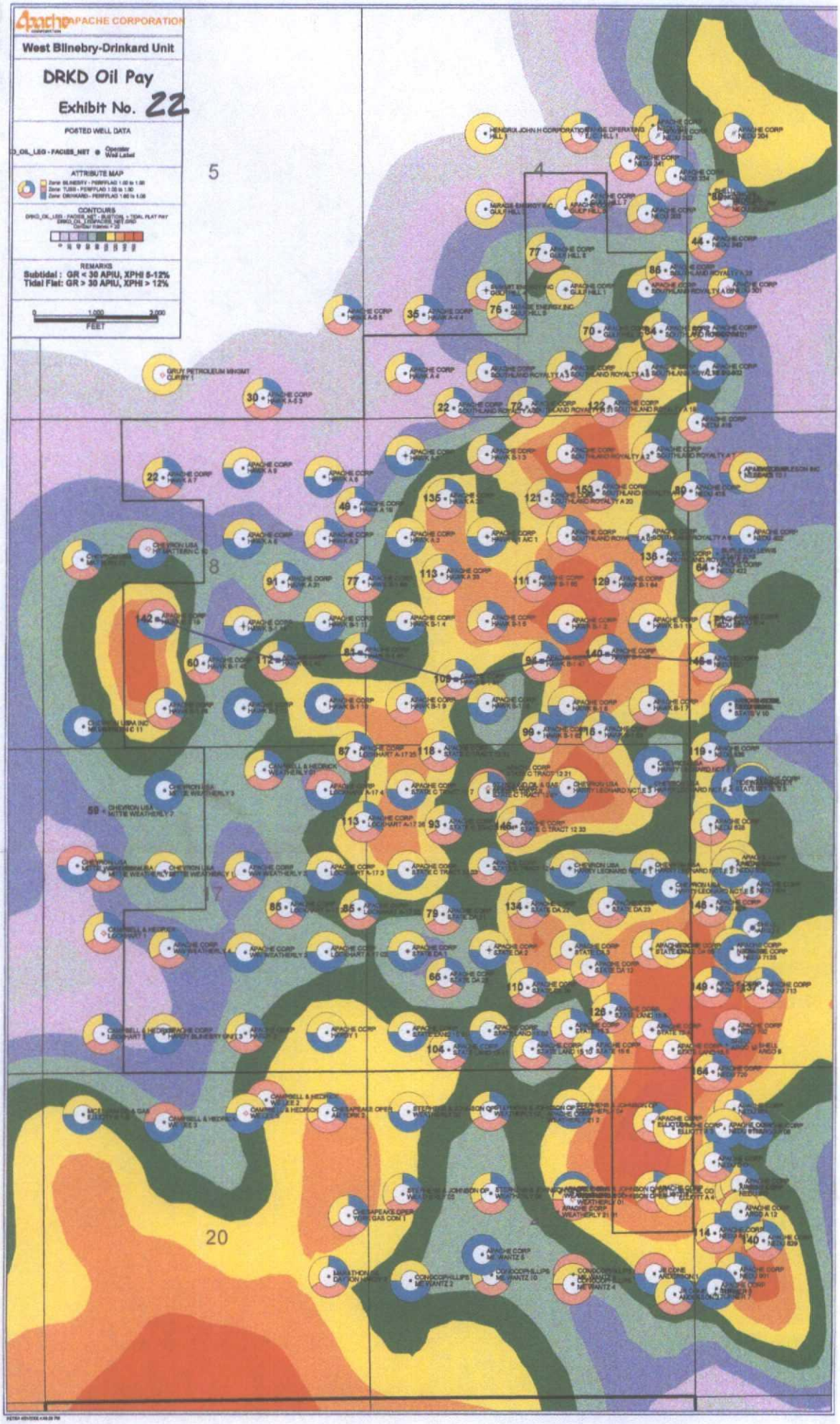
Penetrating Wells: No. P&A Wells 4 Num Repairs? 0 on which well(s)? — Diagrams? Yes

NOTICE: Newspaper Date May 21, 2013 Mineral Owner State Surface Owner Millard Deck Estate N. Date May 29

RULE 26.7(A): Identified Tracts? ✓ Affected Persons: Chevron / Stephens & Johnson / State of NM / Chevron N. Date May 29

Permit Conditions: None required or identified

Issues:


APACHE CORPORATION
West Blinebry-Drinkard Unit
DRKD Oil Pay
Exhibit No. 22
POSTED WELL DATA
ATTRIBUTE MAP
CONTOURS
REMARKS
Subtidal : GR < 30 APIU, XPHI 5-12%
Tidal Flat: GR > 30 APIU, XPHI > 12%
0
1,000
2,000
FEET
5
4
8
17
20