

Submit 1 Copy To Appropriate District Office

District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
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District IV - (505) 476-3460
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
OCT 29 2018

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-06593	
5. Indicate Type of Lease STATE ☐ FEE ☒	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Northeast Drinkard Unit (NEDU) [22503]	
8. Well Number 708	
9. OGRID Number 873	
10. Pool name or Wildcat Eunice; B-T-D, North [22900]	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3413' GL	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR TO RETURN TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-104) FOR SUCH PROPOSALS.)

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

2. Name of Operator
Apache Corporation

3. Address of Operator
303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705

4. Well Location
Unit Letter O : 660 feet from the South line and 1980 feet from the East line
Section 15 Township 21S Range 37E NMPM County Lea

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 ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
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 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Apache intends to perform conformance work on this well, per the attached procedure and supporting WBD information.

**Condition of Approval: notify
OCD Hobbs office 24 hours
prior of running MIT Test & Chart**

Spud Date:

7/30/1948

Rig Release Date:

10/4/1951

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

SIGNATURE

Reesa Fisher

TITLE Sr. Staff Reg Analyst

DATE 10/24/2018

Type or print name Reesa Fisher

E-mail address: Reesa.Fisher@apachecorp.com

PHONE: (432) 818-1062

For State Use Only

APPROVED BY:

Mark Brown

TITLE

AO/I

DATE 10/30/2018

Conditions of Approval (if any):

NEDU 708W: (API: 30-025-06593)

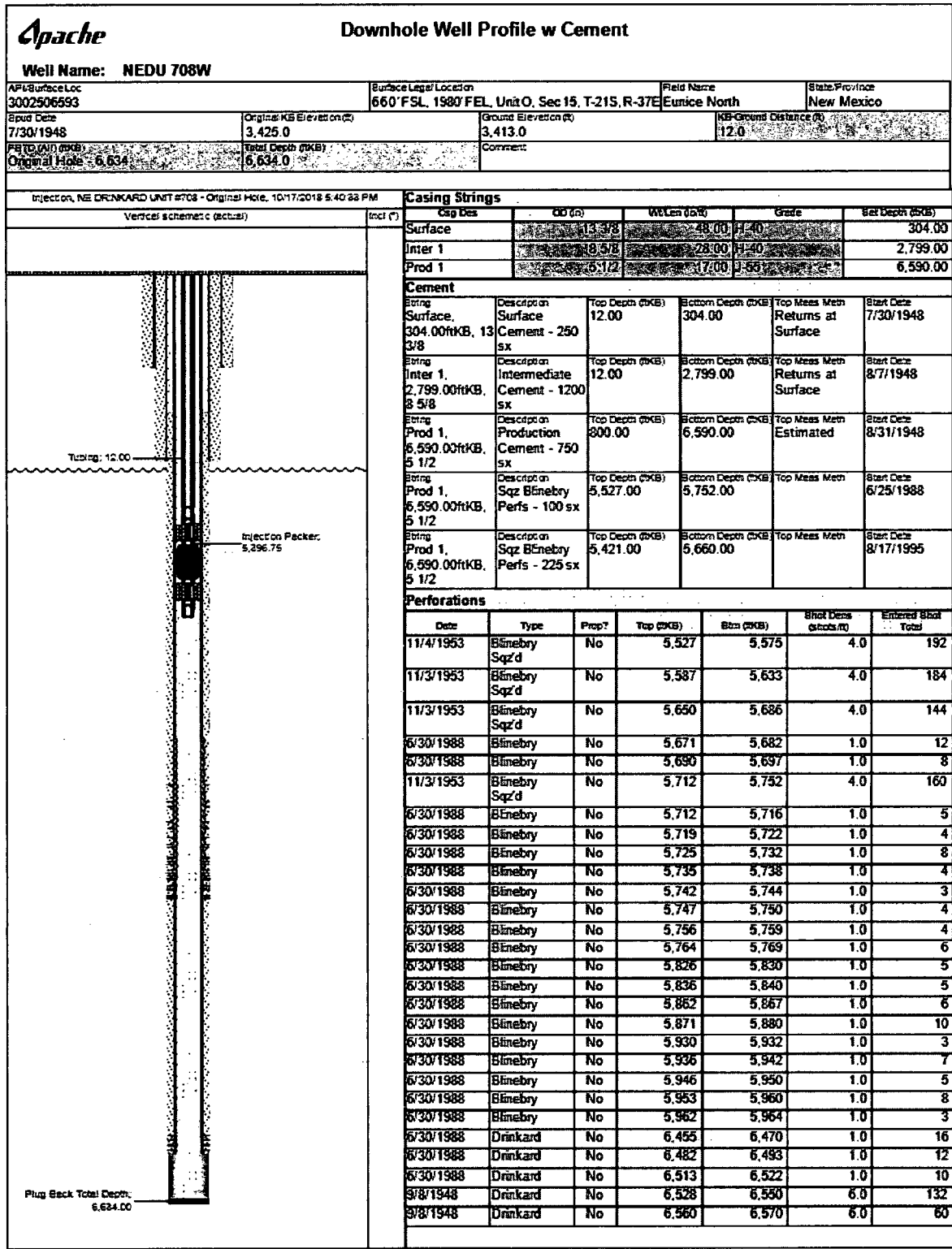
OBJECTIVE: ISOLATE DRINKARD FOR INJECTION

Scenario 1: Dual Packer Isolation

1. POOH w 2-3/8" injection tubing and 5-1/2" injection packer
2. PU workstring and RIH w bit and clean out well to PBTD at 6634'.
3. Make casing scraper run to around 6620' (Proposed bottom perf). POOH
4. Run casing inspection log and cement bond log from top of Drinkard to surface. POOH.
5. RIH w/ wireline and perforate Drinkard formation f/ 6450'-6620' (actual depths TBD). POOH.
6. RIH w/ workstring and treating packer to acid stimulate Drinkard formation w/ 5000 gals 15% HCl using rock salt for diversion. POOH.
7. MIRU wireline. RIH w/ 5-1/2" permanent packer and set in good casing between Blinebry and Drinkard (Depth dependent on casing inspection log)
8. PU 700-800' of 2-3/8" IPC externally coated tubing w/ 5-1/2" hydraulic packer on top and tie into permanent packer. Ensure hydraulic packer is at or within 100' of top perf. Pressure up tubing to set hydraulic packer. Test casing to 500 psi.
9. Perform MIT for NMOCD and place well on injection.

Scenario 2: Cement 4" FJ liner from Blinebry to TD

1. POOH w 2-3/8" injection tubing and 5-1/2" injection packer
2. PU workstring and RIH w/ bit and clean out well to PBTD at 6634'. Deepen another +/- 50'. POOH
3. MIRU cement and casing crew and PU 1500' of 4" casing (including float shoe, float collar, landing collar and liner hanger) using 2-7/8" L-80 workstring.
4. RIH and tag TD. Set TOL around 250-300' above top Blinebry perf. Pump spacer followed by 50-100 SX of cement. Flush with fresh water.
5. Release workstring from liner. Reverse circulate to clean hole. POOH
6. If no cement circulated to surface, PU packer and attempt squeeze liner top or RIH w/ liner packer and sting into tie back tool. Set liner packer and test casing.
7. PU bit and drill out cement to float collar. Pressure test casing. Continue drilling out cement if needed to perforate. POOH.
8. MIRU wireline. Run CBL from PBTD to surface
9. PU wireline guns and perforate Drinkard formation f/6450'—6620' (Depths TBD). POOH
10. PU 4" treating packer w/ ~40 jts of 2-3/8" followed by remaining 2-7/8" workstring to surface. Set packer ~100' above top perf and load backside.
11. Acid stimulate Drinkard formation w/ 5000 gals 15% HCl using 1.1 SG ball sealers for diversion. Release packer and knock off balls. POOH.
12. RIH w 4" injection packer and ~6500' of 2-3/8" IPC tubing. Set packer within 20' of top perf. Circulate packer fluid and test backside to 500 psi
13. Perform MIT for NMOCD





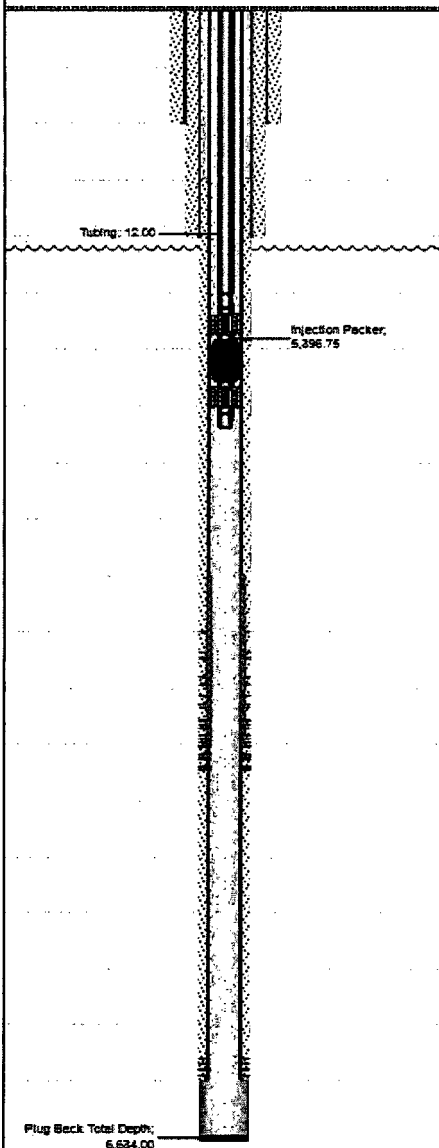
Downhole Well Profile w Cement

Well Name: NEDU 708W

Injection, NE DRINKARD UNIT #708 - Original Hole, 10/17/2018 5:41:10 PM

Vertical schematic (actual)

Inch (")



Proposed Perforations

Date	Type	Prop?	Top (ftKB)	Ben (ftKB)	Shot Dens (shots/ft)	Entered Shot Total
	Drinkard - Cased Hole	Yes	6,513	6,521	2.0	18
	Drinkard - Cased Hole	Yes	6,527	6,550	2.0	48
	Drinkard - Cased Hole	Yes	6,553	6,556	2.0	8
	Drinkard - Cased Hole	Yes	6,559	6,569	2.0	22
	Drinkard - Cased Hole	Yes	6,572	6,585	2.0	28
	Drinkard - Open Hole	Yes	6,591	6,617	2.0	54

Tubing Strings

Tubing Description		Run Date		String Length (ft)		Set Depth (ft)(B)	
Tubing - Injection		7/30/1948		5,392.00		5,404.0	
Item Des	Jts	Make	Model	OD (in)	WT (lb/ft)	Grade	Len (ft)
Tubing	16			2 3/8			5,384.75
Injection Packer	1			2 3/8			7.25

Rod Strings

Rod Description	Run Date	String Length (ft)	Set Depth (ftKB)				
Item Des	Jts	Make	Model	OD (in)	WT (lb/ft)	Grade	Len (ft)

Other In Hole

Description	OD (in)	Top (ftKB)	Run Date

Plug Back Total Depths

Date	Type	Depth (ftKB)	Depth (ft/ft) (ftKB)
		6,634	

Comments

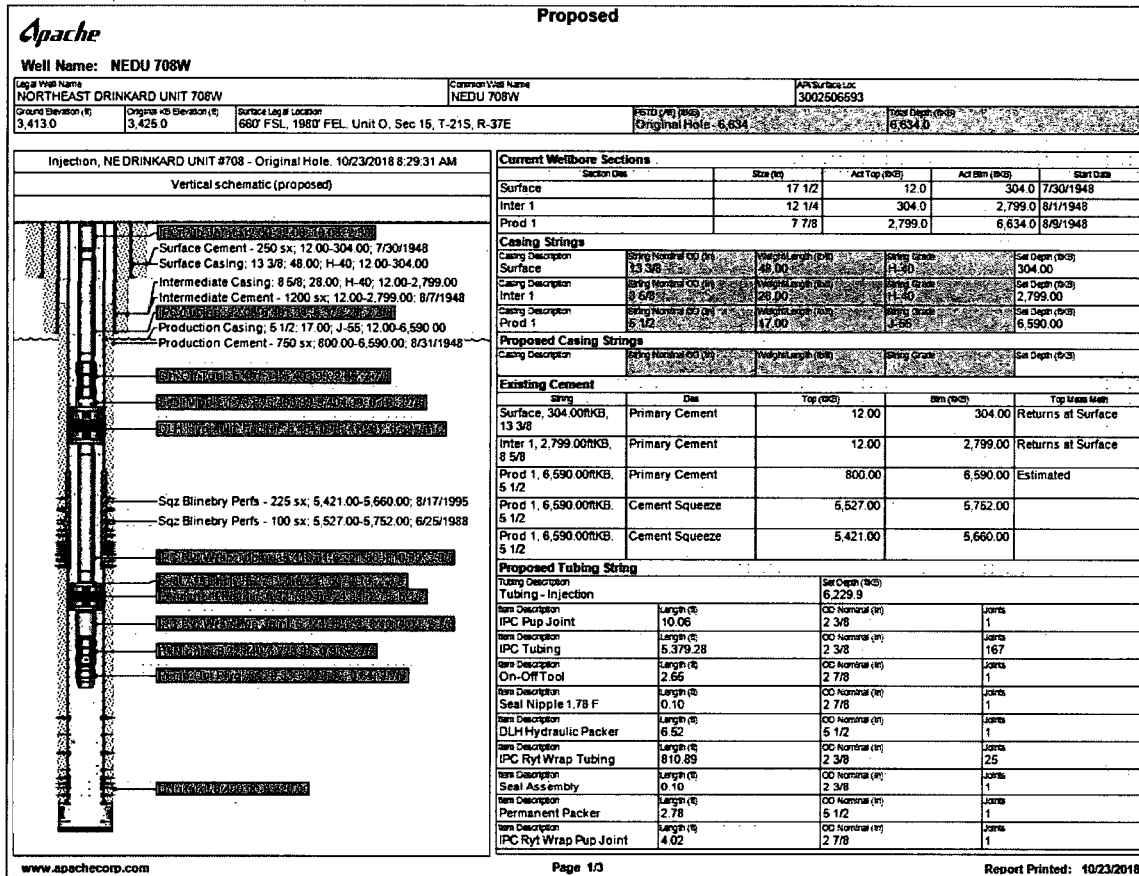
Comment
9/7/1948: initial completion - az w/ 500 gal mud acid + 2000 gal 15% acid across 6590-6634' - perf Drinkard 6560-6570' w/ 6 SPF (60 holes) - az 6560-6570' w/ 1000 gal 15% acid - perf 6528-6550' w/ 6 SPF (132 holes) - az 6528-6550' w/ 1500 gal 15% acid

Comment
10/30/1953: perf Blinbry 5587-5752' w/ 4 JSPF (488 holes) - az Blinbry w/ 3000 gal 15% HCL + 500 gal mud acid - az Blinbry gas zone 5527-5575' w/ 4 JSPF (192 holes) - az Blinbry 5527-5575' w/ 2000 gal 15% HCL - dual complete as Blinbry Drinkard producer

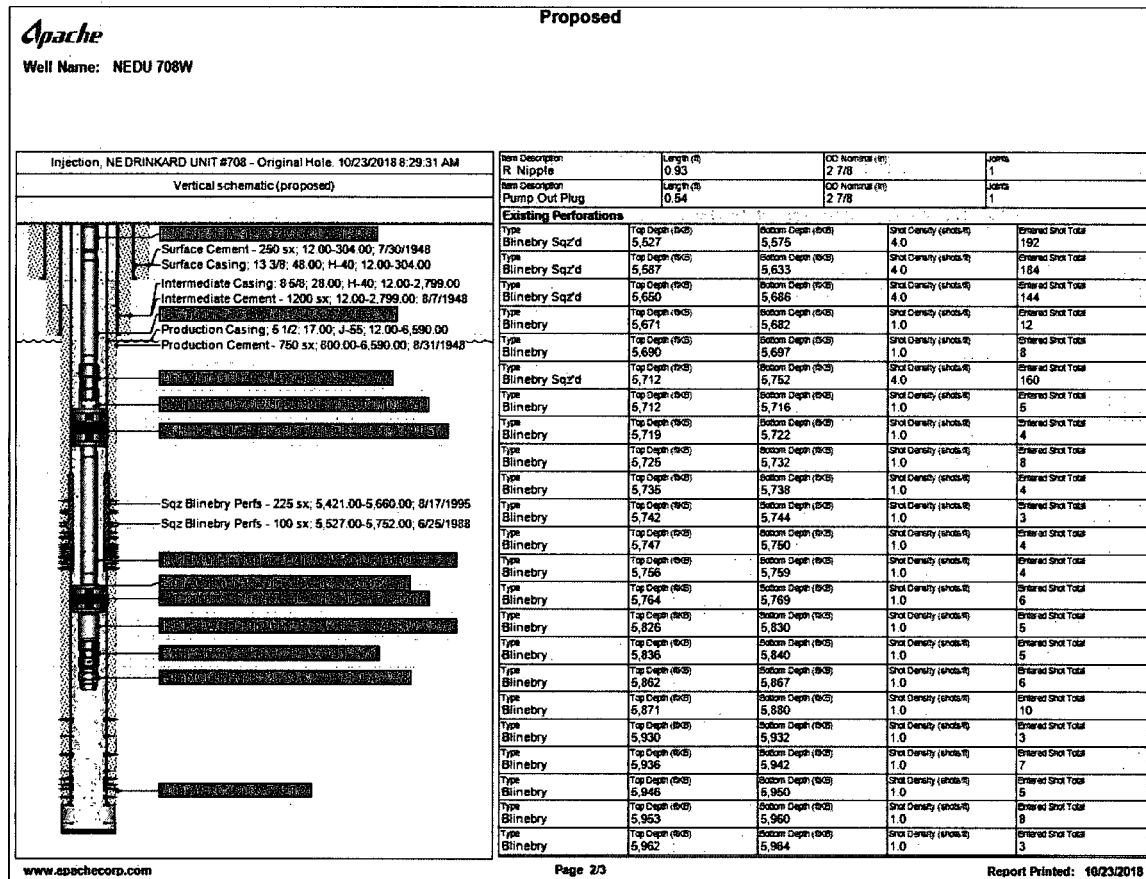
Comment
6/24/1988: pump 100 sx cmt into Blinbry perfs to sqz 5527-5752' - perf Drinkard 6455-6522' w/ 1 JSPF - perf Blinbry 5671-5964' w/ 1 JSPF - az Drinkard perfs 6455-6522' & OH 6590-6630' w/ 7350 gal 15% NEFE acid + 1000# RS - az Blinbry perf 5671-5964' w/ 6300 gal 15% HCL acid + 2000# RS

Comment
8/7/1995: pump 4250 gal 20% HCL + 500# RS across 6375-6580' - pump 3780 gal 20% HCL across 5484-5901' - spot 125 gal 20% acid across 5826-5880' pump 1050 gal 20% HCL + 800# RS across 5658-5901' - pump 225 sx CLC cmt across 5421-5660'

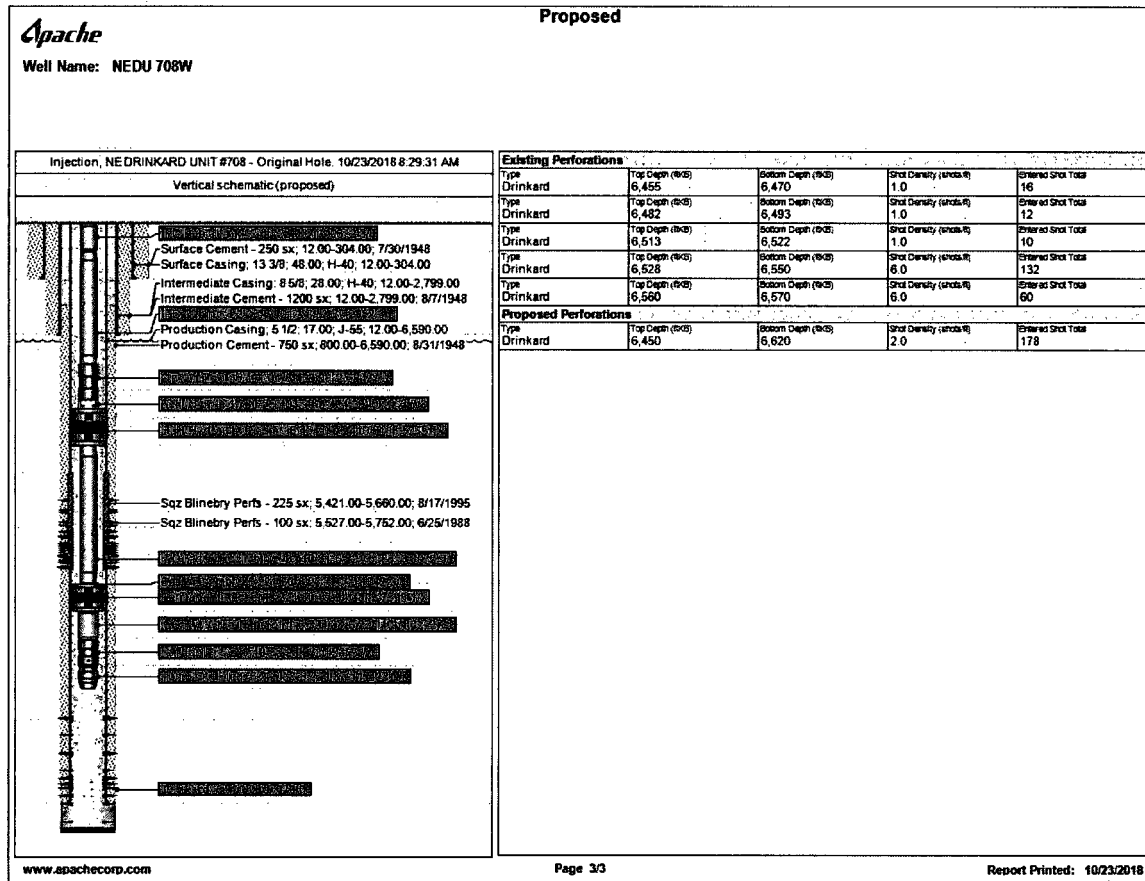
Scenario 1: Dual Packer Proposed WBD (~~Proposed Cemented Wellbore~~)



Scenario 1: Dual Packer Proposed WBD ()



Scenario 1: Dual Packer Proposed WBD



Scenario 2: FJ Liner Proposed WBD ()



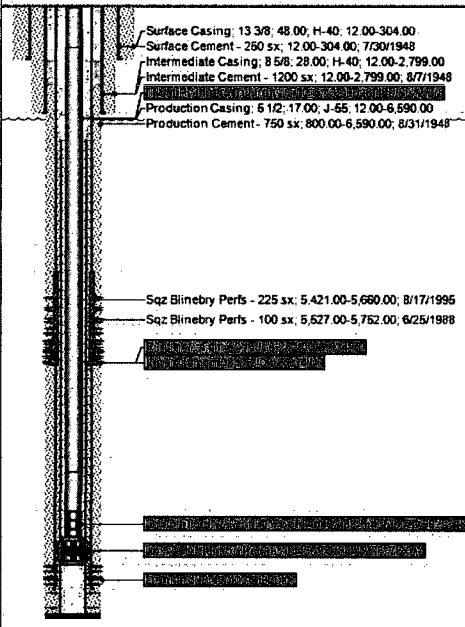
Proposed

Well Name: NEDU 708W

Legal Well Name NORTHEAST DRINKARD UNIT 708W		Common Well Name NEDU 708W		API Surface Loc 3002506593	
Ground Elevation (ft) 3,413.0	Original KB Elevation (ft) 3,425.0	Surface Legal Location 660' FSL, 1980' FEL, Unit O, Sec 15, T-21S, R-37E		Depth (ft) (ft) Original Hole: 6,634	Depth (ft) (ft) 6,593.0

Injection, NE DRINKARD UNIT #708 - Original Hole, 10/23/2018 8:37:45 AM

Vertical schematic (proposed)



Current Wellbore Sections				
Section Data	Size (in)	Act Top (ft)	Act Btm (ft)	Start Date
Surface	17 1/2	12.0	304.0	7/30/1948
Inter 1	12 1/4	304.0	2,799.0	8/1/1948
Prod 1	7 7/8	2,799.0	6,634.0	8/5/1948

Casing Strings				
Casing Description	Size Nominal (OD) (in)	Weight (lb/ft)	Length (ft)	Set Depth (ft)
Surface	13 3/8	48.00	48.00	304.00
Intermediate Casing	8 5/8	28.00	28.00	2,799.00
Prod 1	5 1/2	17.00	17.00	6,590.00

Proposed Casing Strings				
Casing Description	Size Nominal (OD) (in)	Weight (lb/ft)	Length (ft)	Set Depth (ft)
Prod Lnr 1	4	11.50	11.50	6,634.00

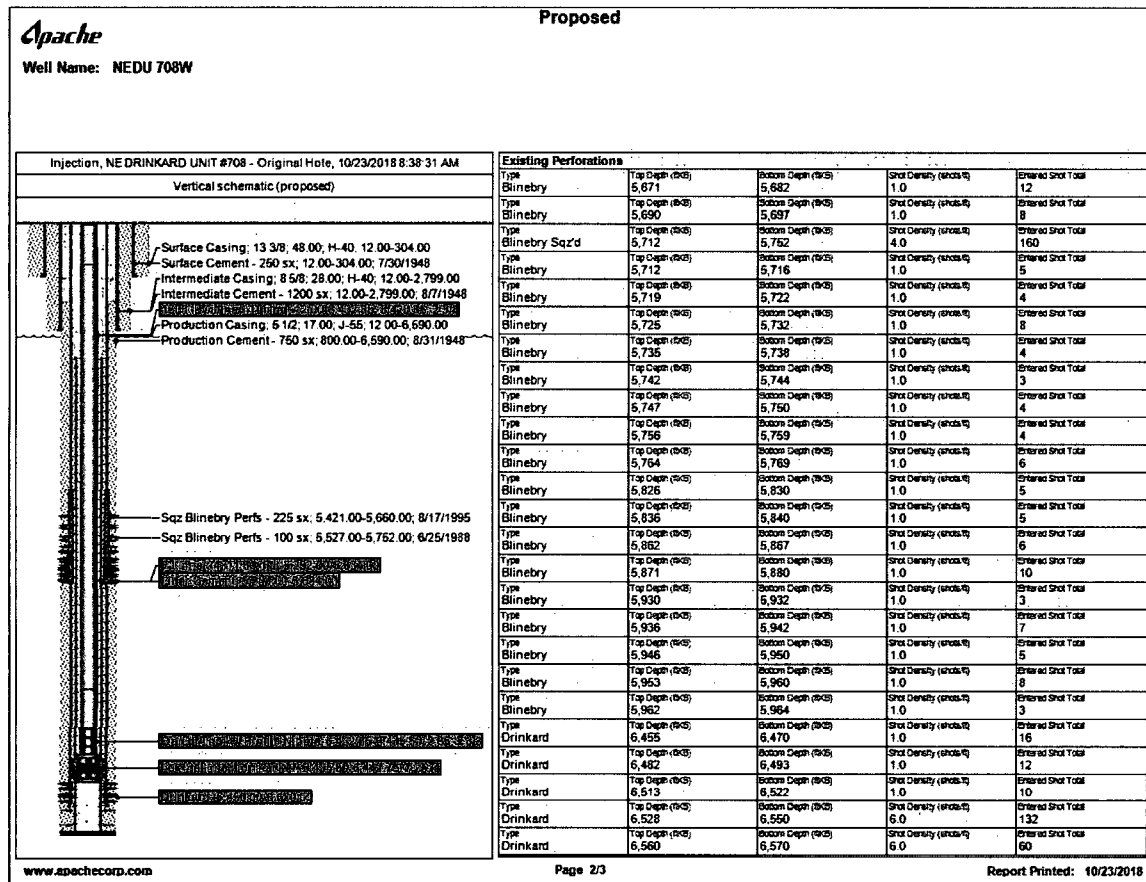
Existing Cement				
String	Date	Top (ft)	Btm (ft)	Top Measurement
Surface, 304.00ftKB, 13 3/8	Primary Cement	12.00	304.00	Returns at Surface
Inter 1, 2,799.00ftKB, 8 5/8	Primary Cement	12.00	2,799.00	Returns at Surface
Prod 1, 6,590.00ftKB, 5 1/2	Primary Cement	800.00	6,590.00	Estimated
Prod 1, 6,590.00ftKB, 5 1/2	Cement Squeeze	5,527.00	5,752.00	
Prod 1, 6,590.00ftKB, 5 1/2	Cement Squeeze	5,421.00	5,660.00	

Proposed Cement				
String	Description	Top Depth (ft)	Bottom Depth (ft)	Top Measurement Method
Prod Lnr 1, 6,634.00ftKB, 4	Primary Liner Cement	5,252.00	6,634.00	

Proposed Tubing String				
Tubing Description	Length (ft)	OD Nominal (in)	Set Depth (ft)	Joints
Tubing - Injection	6,442.85	2 3/8	199	
1505 IPC Lined Tubing	2.65	2 3/8	1	
On/Off Toolw/ Profile Nipple	7.25	4	1	

Existing Perforations				
Type	Top Depth (ft)	Bottom Depth (ft)	Shot Density (shots/ft)	Entered Shot Total
Blinetry Sqzd	5,527	5,575	4.0	192
Blinetry Sqzd	5,587	5,633	4.0	194
Blinetry Sqzd	5,650	5,686	4.0	144

Scenario 2: FJ Liner Proposed WBD



Scenario 2: FJ Liner Proposed WBD (REDACTED)

