

Well Name: SHARBRO FEDERAL	Well Location: T23S / R32E / SEC 17 / NWNE /	County or Parish/State: LEA / NM
Well Number: 04	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM62223	Unit or CA Name:	Unit or CA Number:
US Well Number: 300253496100S1	Well Status: Producing Oil Well	Operator: FOUNDATION ENERGY MANAGEMENT LLC

Notice of Intent

Type of Submission: Notice of Intent

Type of Action: Plug Back

Date Sundry Submitted: 05/06/2021

Time Sundry Submitted: 08:57

Date proposed operation will begin: 06/14/2021

Procedure Description: Procedure 1. MIRU WO Rig . 2. Unbeam and ND stuffing box. POOH and lay down rods. 3. ND WH. NU BOP. 4. Unseat TAC, hydrotest and tally TBG while POOH. 5. Pick up bit and scraper (caliper tools), make run to 7250' (minimum) 6. POOH with Bit/Scraper, LD tbg. PERFORATING 7. MIRU wireline. NU lubricator, ensure pressure gauge is installed. 8. PU and RIH 5 1/2" (10K rated) CIBP, Set at 7288'. (Ensure to not set on collars, caliper tools) 9. Bail dump 35 ft of cement w/ wireline dump bailer (BLM requires 35 ft. of cement, caliper tools). 10. Wait 2 hours for cement to set. 11. Load well w 2% KCL and pressure test CIBP to 500 psi then increasing by 500 psi (hold 5 min each) until 4000 psi is reached, hold for 15 minutes. 12. Swab down until 500 psi underbalanced, (1100 ft. of water column). 13. PU and RIH with CCL, GR and 3 1/8" gun to perf new zone. (caliper tools) a. Perf – 7106-18' – 3 SPF, 60 Deg. Phasing b. Monitor surface pressure during shot 14. POOH with wireline guns. Ensure all shots have fired. 15. RD Wireline. 16. Setup 5k Frac Valve. 17. RDMO WO rig, move tbg/racks, and other material to edge of location to clear pad for Frac.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Sharbro_4_FLP_for_BLM_NOI_20210504_20210506085706.pdf

Well Name: SHARBRO FEDERAL

Well Location: T23S / R32E / SEC 17 / NWNE /

County or Parish/State: LEA / NM

Well Number: 04

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM62223

Unit or CA Name:

Unit or CA Number:

US Well Number: 300253496100S1

Well Status: Producing Oil Well

Operator: FOUNDATION ENERGY MANAGEMENT LLC

Conditions of Approval

Specialist Review

Plugback_COA_20210506151911.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: JAMES SMITH

Signed on: MAY 06, 2021 08:56 AM

Name: FOUNDATION ENERGY MANAGEMENT LLC

Title: HSE Regulatory Supervisor

Street Address: 15E. 5TH STREET, SUITE 1200

City: TULSA

State: OK

Phone: (918) 526-5592

Email address: JSMITH@FOUNDATIONENERGY.COM

Field Representative

Representative Name: Ithan Navarro

Street Address:

City:

State:

Zip:

Phone: (469)704-2122

Email address: INavarro@foundationenergy.com

BLM Point of Contact

BLM POC Name: Jonathon W Shepard

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752345972

BLM POC Email Address: jshepard@blm.gov

Disposition: Approved

Disposition Date: 05/06/2021

Signature: Jonathon Shepard

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Conditions of Approval for Permanent Abandonment of a Production Zone

1. Notification: Contact the appropriate BLM office at least 24 hours prior to the commencing of any plug back operations. For wells in Eddy County, call 575-361-2822. For wells in Lea County, call 575-393-3612
2. Blowout Preventers: A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,100 feet, a 3M system for a well not deeper than 13,600 feet, or a 5M system for a well not deeper than 22,700 feet (all depths are for measured well depth).
3. Mud Requirement: Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of brine water. Minimum nine (9) pounds per gallon.
4. Cement Requirement: Sufficient cement shall be used to bring any required plug to the approved depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours. In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement (or 35 feet with a bailer). Before pumping cement on top of CIBP, a tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary. Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.
5. Subsequent Plug back Reporting: Within 30 days after plug back work is completed, file a Subsequent Report (Form 3160-5) to BLM. The report should give in detail the manner in which the plug back work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date work was completed. If plugging back to a new zone submit a Completion Report (Form 3160-4) with the Subsequent Report.
6. Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.
7. If well location is within the Timing Limitation Stipulation Area for Lesser Prairie-Chicken: From March 1st through June 15th annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted.

Sharbro Federal #4

Brushy Canyon (Delaware) Frac Recompletion Setup

Purpose of Work

Purpose of this workover is to pull current BHA, set/cement a CIBP on top of the old perforations, and to add up hole perforations in the same Brushy Canyon formation (Brushy Canyon 6). This will all be prep work for a future one stage frac on these new perforations.

Well Location

County and State: Lea, NM

Section – Township – Range: 7H-23S-32E

Latitude/Longitude: 32.3090248, -103.6945877

Diving directions from Carlsbad, New Mexico (55 min Drive)

Follow US Highway 285 S, NM-31 and NM 128E to Red Road

Turn left onto Red Rd

Turn Right (6 miles) onto Mills Rach Road (797)

Follow Road until it dead ends (1 mile)

Turn right when road dead ends

Follow road until it dead ends (0.5 miles)

Turn left when road dead ends

Follow road until it dead ends (1 mile)

Turn right when road dead ends

Follow road (.25 miles) until first Pad reached (Sharbro 5) and turn right

Sharbro 4 Pad is at the end of the road (0.1 miles)

Nearest Hospital (1 hour 10 min from location)

Lea Regional Medical Center

5419 N Lovington Hwy

Hobbs NM 88240

575-492-5000

Carlsbad Medical Center

2430 W. Pierce St.

Carlsbad, NM

575-887-4100

Emergency Services Number (other than 911)

Lea's SHERIFF'S DEPT: (575) 396-3611

Lea's FIRE DEPT: (575) 396-2359

General Information

API: 30-025-34961

Producing Formation: Brushy Canyon

Current Perfs: 7,308-20' (6 holes – SQUEEZED), 7,446-98' (14 holes SQUEEZED), 8,442'-50' (20 holes), 8,477-93' (6 holes)

MD/TVD: 8693'

Wellhead Pressure Rating: 5000 psi

KB: 16'

Estimated Pr: ~ 2500 psi

Assumed Frac Gradient: 0.55 psi/ft (Based on offset data, latest frac BQ3 FG: .52 psi/ft)

BHT: 148 Deg F (.0175 Deg F/ft)

H2S/CO2: 10 ppm/No CO2 report on file

Casing /Tubular Details and Capacities

TUBULAR	Size	Grade	Depth (ft)	Weight (ppf)	Burst (psi)	Yield (K#)	Collapse (psi)	CMT (sx)	TOC (ft)	
Surface Casing	13-3/8"	H-40	880	48	1,730	541	770	500	SFC	Circ
Intermediate Casing	8-5/8"	J-55	4,801	32	3,930	503	2,530	2000	SFC	Circ
Production Casing	5-1/2"	J-55	8,746	15.5	4810	248	4,040	775	4,025	Calc
Producing Tubing	2- 7/8"	J-55	7,460	6.5	7,260	99	7,680	n/a	n/a	n/a

Capacities	OD (in)	ID (in)	Drift(in)	bbl/ft
2 7/8" – J-55	2.875	2.441	2.347	0.00579
2 7/8" – J-55 TBG and 5 1/2" CSG	-	-	-	0.0152
5 1/2" CSG – J-55	5.500	4.892	4.767	0.0232

PROCEDURE

Procedure

1. MIRU WO Rig from Sharbro 4.
2. Unbeam and ND stuffing box. POOH and lay down rods.
3. ND WH. NU BOP.
4. Unseat TAC, hydrotest and tally TBG while POOH.
5. Pick up bit and scraper (caliper tools), make run to 7250' (minimum)
6. POOH with Bit/Scraper, LD tbg.

PERFORATING

7. MIRU wireline. NU lubricator, ensure pressure gauge is installed.
8. PU and RIH 5 ½" (10K rated) CIBP, Set at 7288'. (Ensure to not set on collars, caliper tools)
9. Bail dump 35 ft of cement w/ wireline dump bailer (NM requires 35 ft. of cement, caliper tools).
10. Wait 2 hours for cement to set.
11. Load well w 2% KCL and pressure test CIBP to 500 psi then increasing by 500 psi (hold 5 min each) until 4000 psi is reached, hold for 15 minutes.
12. Swab down until 500 psi underbalanced, (1100 ft. of water column).
 - a) Expected Pr: 2500 psi
 - b) $.433 * 7110 = 3078$ psi
13. PU and RIH with CCL, GR and 3 1/8" gun to perf new zone. (caliper tools)
 - a. Send log to Tulsa for review before perforating.
 - b. Confirm via text that they have been received
 - c. Perf – 7106-18' – 3 SPF, 60 Deg. Phasing
 - d. Monitor surface pressure during shot
14. POOH with wireline guns. Ensure all shots have fired.
15. RD Wireline.
16. Setup 5k Frac Valve.
17. RDMO WO rig, move tbg/racks, and other material to edge of location to clear pad for Frac.

Post-Procedure:

1. Maintain communication with HSE/Regulatory for BLM/NMOCD permit approval.
2. MI tanks/material prefill before frac.
3. Get new SIFL.

CURRENT WBD

Prepared Date: 4/2018
Prepared By: Allie Sullivan

General Info

API #: 30-025-34961
 KB Elevation:
 GL Elevation: 3,634'
 Spud Date: 7/18/2000
 Completion Date: 8/28/2000
 TVD: 8,750'
 MD: 8,750'
 Last PBTD: 8,693'

Tubing Detail

2-7/8 inch (OD)
 6.5 # (weight)
 N-80 grade

Surface Casing

13-3/8 inch (OD)
 48 # (weight)
 H-40 grade
 610' depth from KB
 Surface cement top
 500 sacks of cement
 17 inch (OD) HOLE SIZE

Intermediate Casing

8-5/8 inch (OD)
 32 # (weight)
 K-55 grade
 4,610' depth from KB
 Surface cement top
 2,000 sacks of cement
 12-1/4 inch (OD) HOLE SIZE

Production Casing

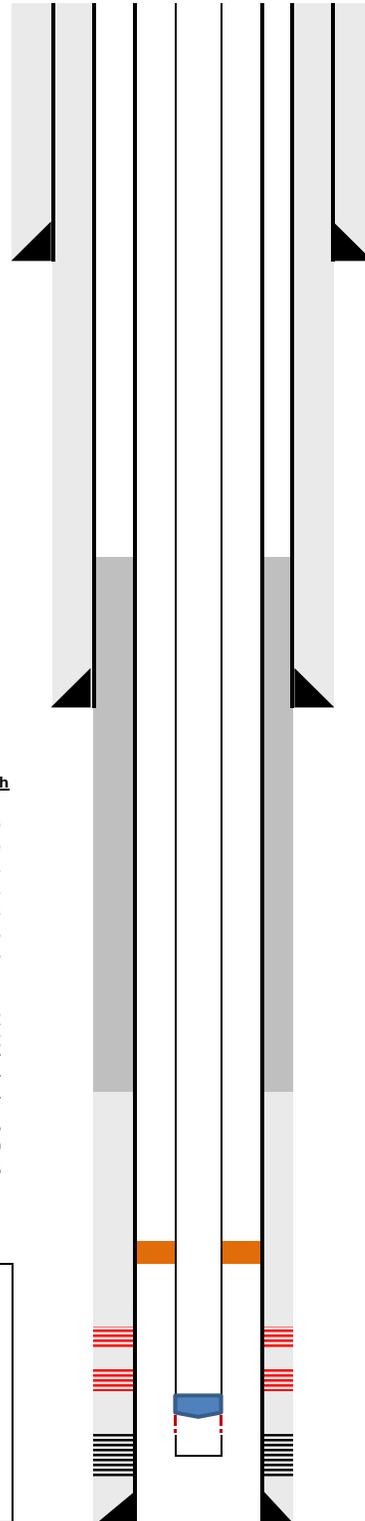
5-1/2 inch (OD)
 15.5 # (weight)
 J-55 grade
 8,746' depth from KB
 4,025' cement top
 775 sacks of cement
 7-7/8 inch (OD) HOLE SIZE

Tubing Tally		Length	Depth
	KB		
223	2 7/8	7256.9	7256.9
2'	TAC	2	7258.9
38	2 7/8	1237.9	8496.8
1	SN	1	8497.8
4	Perf Sub	4	8501.8
	Mud JT	32.5	8534.3
	Bull Plug	1	8535.3

Rod Design		Length	Depth
	Subs	12	12
100	1"	2500	2512
113	7/8"	2825	5337
100	3/4"	2500	7837
24	sinker bars	600	8437
1	Lift Sub	1	8438
1	On/Off Tool	1	8439
1	Pump	24	8463

Pump Details:
 2.5 X 1-1/2 X 24' RHBC insert pump

Pumping Unit Details:
 American 640-365-168

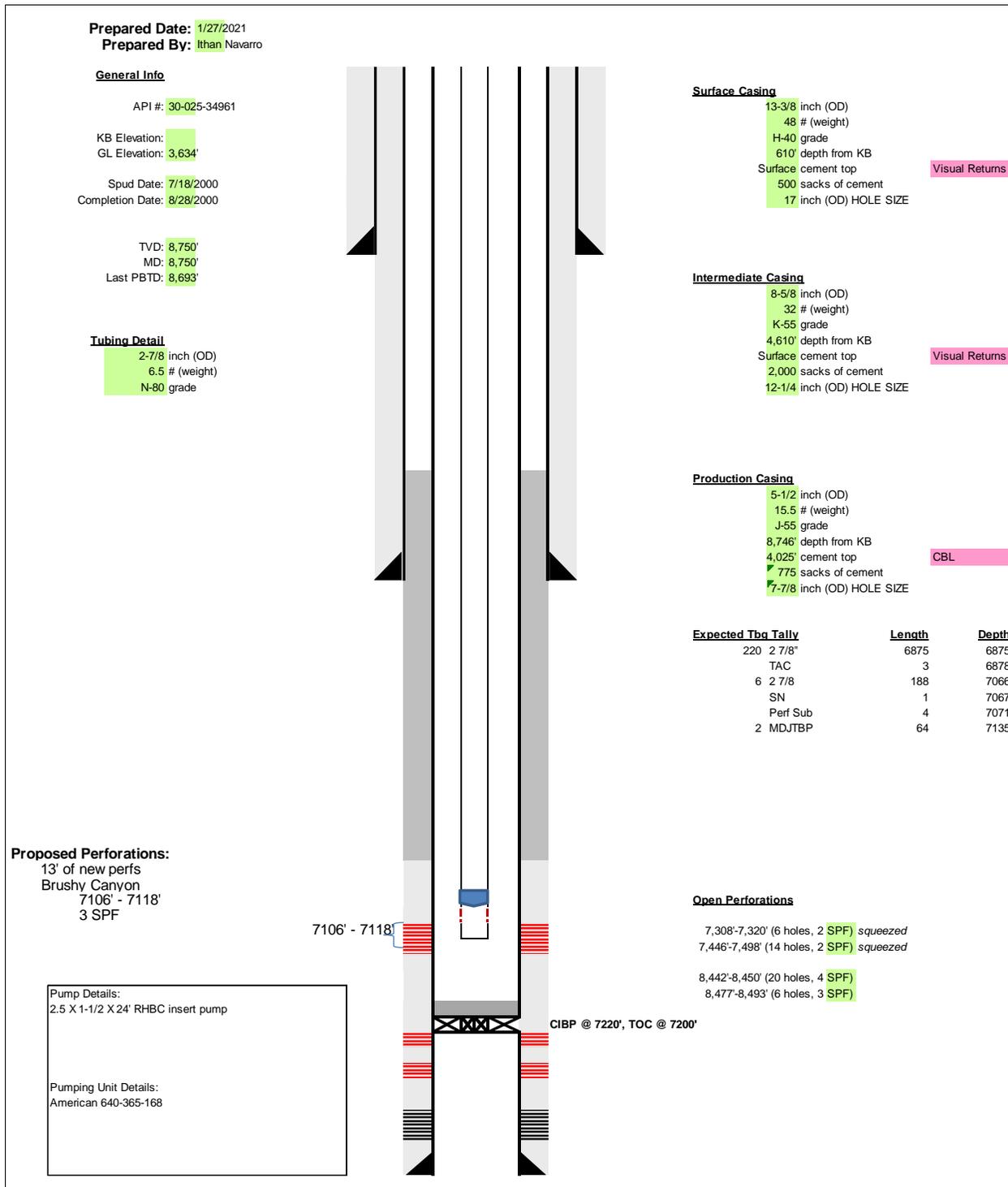


7,308'-7,320' (6 holes, 2 SPF) squeezed
 7,446'-7,498' (14 holes, 2 SPF) squeezed

8,442'-8,450' (20 holes, 4 SPF)
 8,477'-8,493' (6 holes, 3 SPF)

EOT @ 8535.31'

PROPOSED WBD



Foundation Energy Management, LLC

WELLBORE DIAGRAM

Well / Battery	Prospect Name	Total Depth	Current Status
Sharbro Federal #4	Sand Dunes	8,750'	Producing
Location	Sec-Twn-Rng	Producing Horizon	County & State
990' FNL & 1,980' FEL	17-23S-32E	Cherry Canyon/Brushy Canyon	Lea, NM

WELLBORE DIAGRAM

Prepared Date: 4/2018
Prepared By: Allie Sullivan

General Info

API #: 30-025-34961
 KB Elevation:
 GL Elevation: 3,634'
 Spud Date: 7/18/2000
 Completion Date: 8/28/2000
 TVD: 8,750'
 MD: 8,750'
 Last PBTD: 8,693'

Tubing Detail

2-7/8 inch (OD)
 6.5 # (weight)
 N-80 grade

Surface Casing

13-3/8 inch (OD)
 48 # (weight)
 H-40 grade
 610' depth from KB
 Surface cement top
 500 sacks of cement
 17 inch (OD) HOLE SIZE

Visual Returns

Intermediate Casing

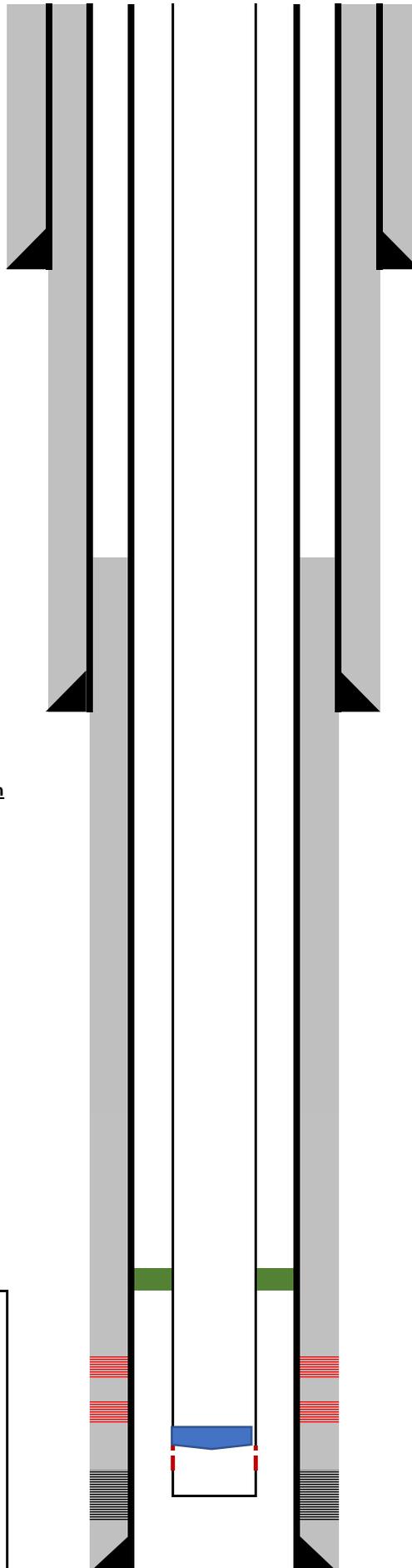
8-5/8 inch (OD)
 32 # (weight)
 K-55 grade
 4,610' depth from KB
 Surface cement top
 2,000 sacks of cement
 12-1/4 inch (OD) HOLE SIZE

Visual Returns

Production Casing

5-1/2 inch (OD)
 15.5 # (weight)
 J-55 grade
 8,746' depth from KB
 4,025' cement top
 775 sacks of cement
 7-7/8 inch (OD) HOLE SIZE

CBL



Tubing Tally

		Length	Depth
223	KB	7257	7257
2'	TAC	2	7259
38	2 7/8	1238	8497
1	SN	1	8498
4	Perf Sub	4	8502
	Mud JT	32.5	8534
	Bull Plug	1	8535

Rod Design

		Length	Depth
	Subs	12	12
100	1"	2500	2512
113	7/8"	2825	5337
100	3/4"	2500	7837
24	sinker bars	600	8437
1	Lift Sub	1	8438
1	On/Off Tool	1	8439
1	Pump	24	8463

Open Perforations

7,308'-7,320' (6 holes, 2 SPF) squeezed
 7,446'-7,498' (14 holes, 2 SPF) squeezed
 8,442'-8,450' (20 holes, 4 SPF)
 8,477'-8,493' (6 holes, 3 SPF)

Pump Details:
 2.5 X 1-1/2 X 24' RHBC insert pump

Pumping Unit Details:
 American 640-365-168

EOT @ 8535.31'

Foundation Energy Management, LLC WELLBORE DIAGRAM

Well / Battery Sharbro Federal #4	Prospect Name Sand Dunes	Total Depth 8,750'	Current Status Producing
Location 990' FNL & 1,980' FEL	Sec-Twn-Rng 17-23S-32E	Producing Horizon Cherry Canyon/Brushy Canyon	County & State Lea, NM

WELLBORE DIAGRAM

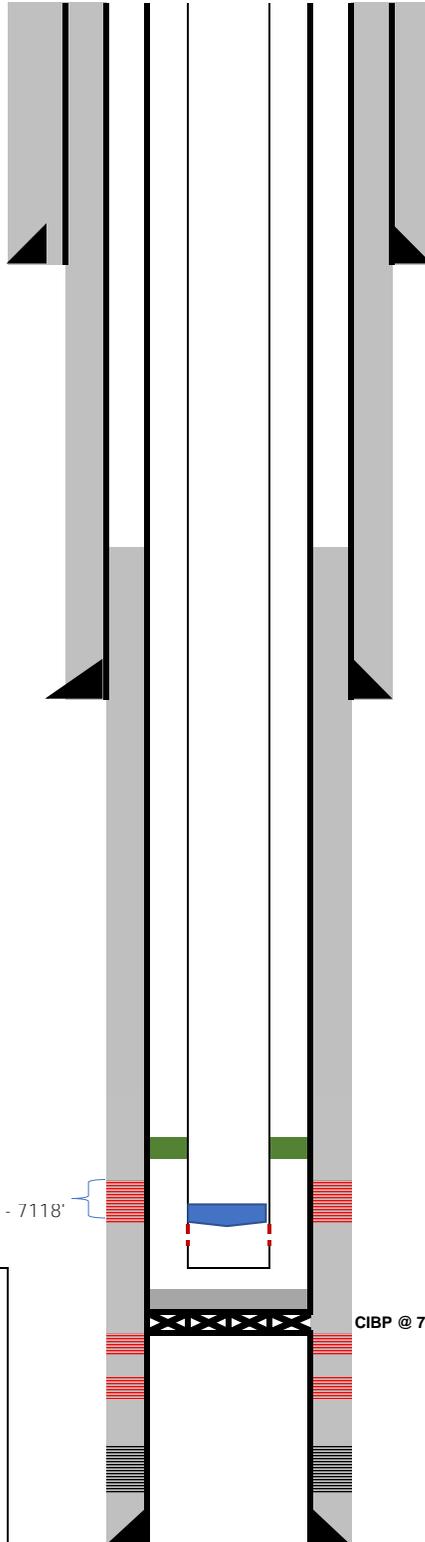
Prepared Date: 1/27/2021
Prepared By: Ithan Navarro

General Info

API #: 30-025-34961
KB Elevation:
GL Elevation: 3,634'
Spud Date: 7/18/2000
Completion Date: 8/28/2000
TVD: 8,750'
MD: 8,750'
Last PBTD: 8,693'

Tubing Detail

2-7/8 inch (OD)
6.5 # (weight)
N-80 grade



Surface Casing

13-3/8 inch (OD)
48 # (weight)
H-40 grade
610' depth from KB
Surface cement top
500 sacks of cement
17 inch (OD) HOLE SIZE

Visual Return

Intermediate Casing

8-5/8 inch (OD)
32 # (weight)
K-55 grade
4,610' depth from KB
Surface cement top
2,000 sacks of cement
12-1/4 inch (OD) HOLE SIZE

Visual Return

Production Casing

5-1/2 inch (OD)
15.5 # (weight)
J-55 grade
8,746' depth from KB
4,025' cement top
775 sacks of cement
7-7/8 inch (OD) HOLE SIZE

CBL

Expected Tbg Tally

		Length	Depth
220	2 7/8"	6875	6875
	TAC	3	6878
8	2 7/8"	250	7128
	SN	1	7129
	Perf Sub	4	7133
1	MDJTBP	32	7165

Proposed Perforations:

12' of new perfs
Upper Brushy Canyon
7106' - 7118'
3 SPF

Open Perforations

7,308'-7,320' (6 holes, 2 SPF) squeezed
7,446'-7,498' (14 holes, 2 SPF) squeezed
8,442'-8,450' (20 holes, 4 SPF)
8,477'-8,493' (6 holes, 3 SPF)

CIBP @ 7220', TOC @ 7200'

Pump Details:
2.5 X 1-1/2 X 24' RHBC insert pump

Pumping Unit Details:
American 640-365-168

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

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

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

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

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

CONDITIONS
 Action 48636

CONDITIONS

Operator: FOUNDATION ENERGY MANAGEMENT, LLC 5057 KELLER SPRINGS RD ADDISON, TX 75001	OGRID: 370740
	Action Number: 48636
	Action Type: [C-103] NOI Workover (C-103G)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	9/14/2021