

forty acres energy

March 25, 2020

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

Attention: Mr. Dean McClure
Petroleum Specialist

Re: Injection Pressure Increase Application
Forty Acres Energy, LLC
West Eumont Unit #525
Pool: Yates-& 7 Rivers
Lea County, New Mexico

Dear Mr. McClure,

Forty Acres Energy, LLC ("Forty Acres"; OGRID No. 371416), as current operator of the West Eumont Unit Waterflood Project, requests administrative approval to increase the surface injection pressure for the West Eumont Unit #525, API # 30-025-45482. (WEU #525)

On March 20th, 2020, Forty Acres conducted a step rate injection test on the WEU #525. Attached for your review is the wireline report. During the test, wireline had a malfunction of the surface gauge and was unable to record the later stages of the test. However, surface pressure was measured and recorded by the pumping services truck and we integrated the two data sets to correspond with the appropriate rates.

Following completion of the test, it was observed the fracture gradient had not been reached. *Maximum surface injection pressure during test was recorded as 2,950 psi without yet reaching fracture gradient.* The maximum allowable operating pressure of the WEU injection system is 2,250 psi. Therefore, we would like to request an allowable surface injection pressure of 2,200 psi.

Please feel free to reach out with any questions of concerns.

Regards,



Garret Johnson
Operations Engineer

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & 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

Applicant: <u>Forty Acres Energy</u>	OGRID Number: <u>371416</u>
Well Name: <u>West Eumont Unit #525</u>	API: <u>30-025-45482</u>
Pool: <u>Eumont, Yates-7 Rivers-Queen</u>	Pool Code: <u>22800</u>

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☒ Offset operators or lease holders
- B. ☒ Royalty, overriding royalty owners, revenue owners
- C. ☒ Application requires published notice
- D. ☒ Notification and/or concurrent approval by SLO
- E. ☒ Notification and/or concurrent approval by BLM
- F. ☒ Surface owner
- G. ☒ For all of the above, proof of notification or publication is attached, and/or,
- H. ☒ No notice required

FOR OCD ONLY

☐ Notice Complete
☐ Application
 Content
 Complete

3) 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.

Garret Johnson

Print or Type Name


 Signature

March 25, 2020

Date

918-697-8311

Phone Number

Garret@faenergyus.com

e-mail Address

WEU #525

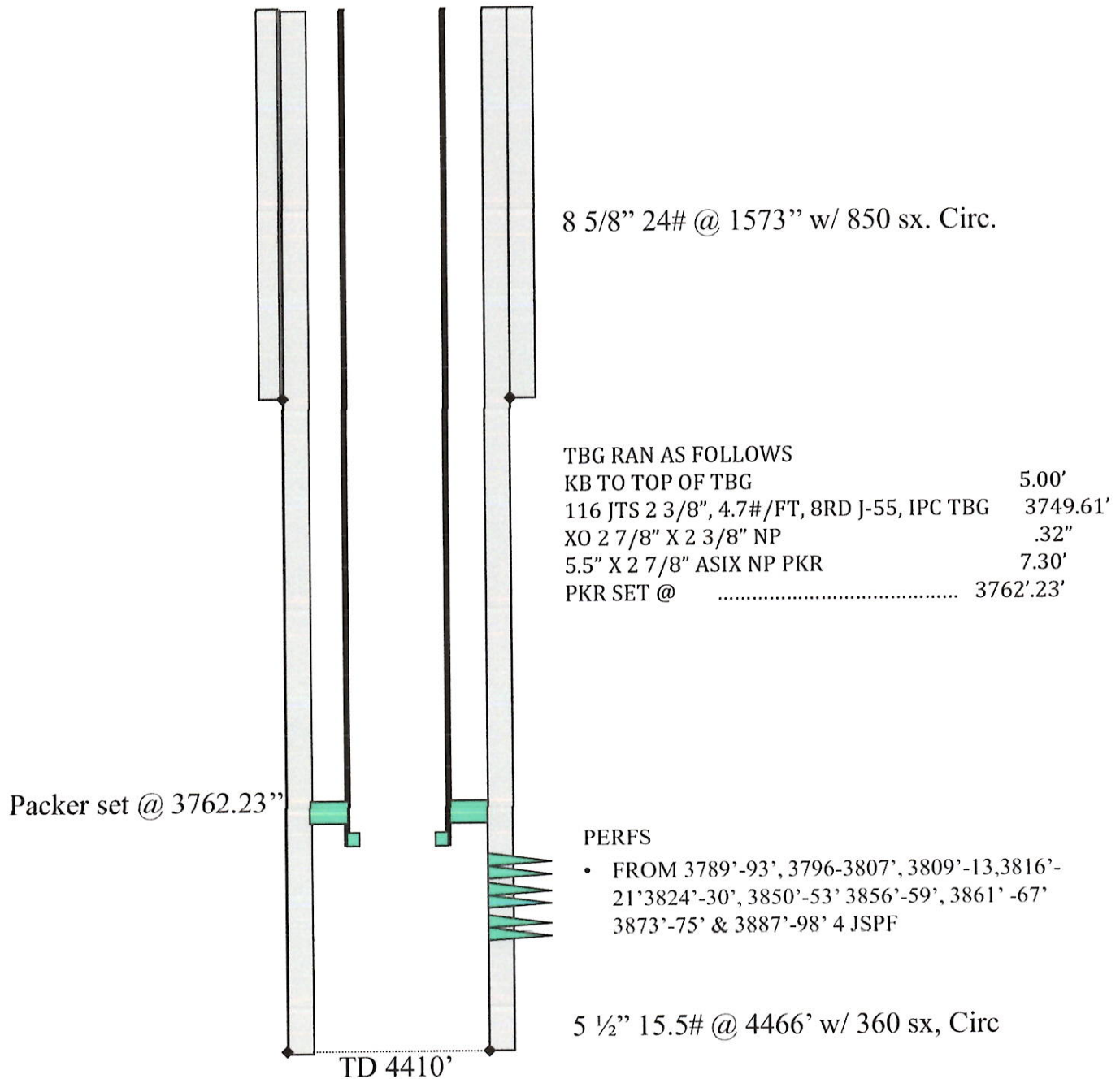
1340' FNL, 1670' FWL, Sec 35

T21S, R35E Lea Co., NM

Eumont Field completion Date: 03/21/2018

KB 6'

API # 30 025 45482



Current

03/18/2020

	Date:	Time:
Truck Called:	3/19/2020	5:00 AM
Arrived at location:	3/19/2020	7:00 AM
Start Job:	3/19/2020	9:00 AM
Finish Job:	3/19/2020	4:00 PM
Leave Location:	3/19/2020	5:00 PM

Job Log

Crain Hot Oil Service		Customer Name: FORTY ACRES		Ticket Number: 6689	
2239 S Main Street		Lease Name: WEU			
Lovington, NM 88260		Well #: 525		Supervisor: LEO SANDOVAL	
OFFICE # (575)396-9702		Type of Job: STEP RATE		County: LEA	
FAX # (575)396-9700		Date: 3/19/2020		CUSTOMER REPRESENTATIVE: JAMES MARTINEZ	
Tubing Size: 2 3/8		Casing size: 5 1/2		Tbg Capacity: 14.56	
Tubing weight: 4.7		Casing weight: 15.5		Top Perf: 0.64	
Tubing bbl/Inft: .00387		Casing bbl/Inft: .0238		Bottom Perf: 3.24	
Packer depth: 3762		Annulus: .0183		Flush Top Perf: 15.20	
End of Tbg: 3762		Total Depth: 4410		Flush Bottom Perf: 17.80	
Top Perf: 3789		Open Hole:		Annular Capacity: 68.84	
Bottom Perf: 3898		Liner Size:		Maximum: . Psi	
Holes in Csg:		Top of Liner			
Max psi: 3050	Min psi: 550	Avg psi: 1440	Max rate: 6	Avg rate: 2.76666667	ISIP: 840
Load to recover		1170		5 min	10 min 15 min

Acid Systems

Acid System:		Gallons		STEP RATE	
Diverter:		Balls		Coarse Rock Salt	
Injection Rate:		Job Pressures		Job Log Remarks:	
Time	Rate:	Bbls in	Tbg psi. Csg psi		
9:00 AM			5000		TEST LINES
9:04 AM	1				ON WATER / 1 BPM VACUUM
9:10 AM		6			WELL STOPPED SUCKING
					STEP RATE
9:40 AM	0.5	0.5	550		PSI / RATE
10:09 AM	0.5	14	680		PSI / RATE
10:10 AM	1	15	780		PSI / RATE
10:39 AM	1	44	730		PSI / RATE
10:40 AM	1.5	45	870		PSI / RATE
11:10 AM	2	90	1050		PSI / RATE
11:40 AM	2.5	150	1130		PSI / RATE
12:10 PM	3	225	1310		PSI / RATE
12:40 PM	3.5	315	1590		PSI / RATE
1:10 PM	4	420	1830		PSI / RATE
1:40 PM	4.5	540	2090		PSI / RATE
2:10 PM	5	675	2400		PSI / RATE
2:40 PM	5.5	825	2700		PSI / RATE
3:10 PM	6	990	3050		PSI / RATE
3:40 PM		1170	840		SHUT DOWN // ISIP=840
SERVICE REPRESENTATIVE: Signature Please				CUSTOMER REPRESENTATIVE: Signature Please	
LEO SANDOVAL				X	

FORTY ACRES
WEU #525 STEP RATE

