



Santa Fe Energy Resources, Inc.

DHC 2-19-96

Oil Conservation Division
APL 100

100 08 52

January 29, 1996

Michael Stogner
New Mexico Oil Conservation District
P. O. Box 1980
Hobbs, NM 88240

Dear Mr. Stogner:

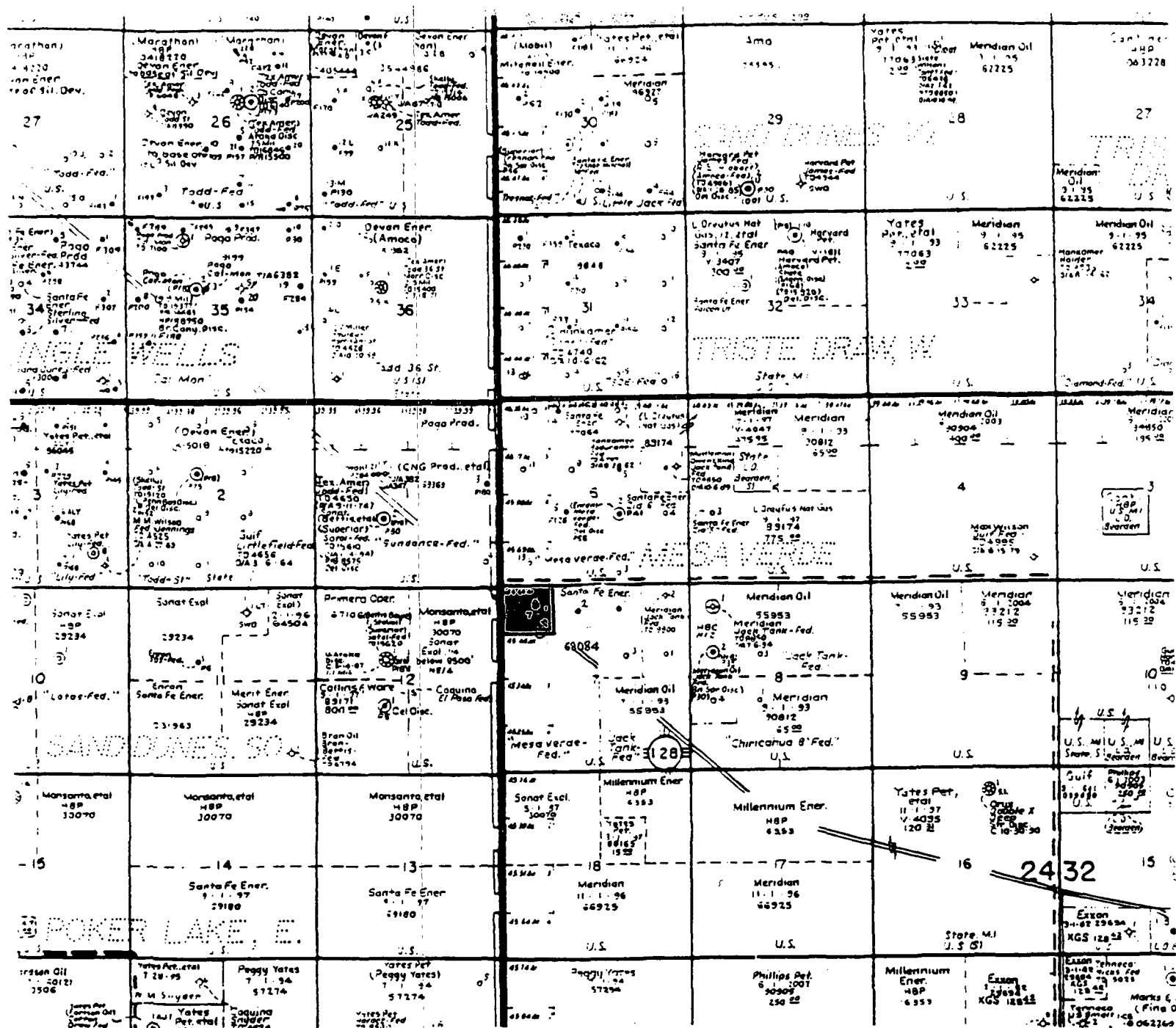
Santa Fe Energy Resources hereby requests approval to commingle Bone Spring and Delaware production in the Mesa Verde "7" Federal #7, located 990' FWL & 330' FNL of Sec 7, T24S, R32E, in Lea County, NM. A plat of the area is attached. Daily production from December for the Bone Spring zone is also attached. The Delaware was only swab tested for a short time. The estimated bottom-hole pressure for each zone is around 1500 psi. Both zones produce 42° to 41° API gravity oil and the water analysis from each zone is attached. The value of the commingled oil will be the same. The oil is currently commingled at the battery from different wells.

The production will be allocated on a percent basis with 20% allocated to the Delaware and 80% to the Bone Spring.

Santa Fe Energy Resources operates all the offset proration units and the BLM has been notified in writing of the proposed commingling.

Sincerely,

James Blount
Production Engineer



Mesa Verde "7" Fed # 7
330' FNL & 990' FWL
Section 7, T-24-S, R-32-E
40 Acre Proration

SFER, INC. Offset Acreage



Santa Fe Energy Resources, Inc.
Central Division
Midland, Texas

LEA COUNTY, NEW MEXICO

OSPREY PROSPECT

DATE: 10/31/95

FILE:

SCALE: 1"=4000'

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Laboratory Services, Inc.

1031 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

WATER ANALYSIS

COMPANY Enron Oil & Gas Company

SAMPLE Mesa Verde 7 Federal #2 DUNE SPRING

SAMPLED BY Ray Gallagher - Pro Well

DATE TAKEN 9/23/94 4:30PM

REMARKS

Barium as Ba	0.00	
Carbonate alkalinity PPM	0	
Bicarbonate alkalinity PPM	1,680	
pH at Lab	7.39	
Specific Gravity @ 60° F	1.079	
Magnesium as Mg	2,842	
Total Hardness as CaCO3	4,900	
Chlorides as Cl	62,481	
Sulfate as SO4	1,775	
Iron as Fe	40.25	
Potassium	16.25	
Hydrogen Sulfide	0.00	
Resistivity Ohms	0.1150	23.4° C
Total Dissolved Solids	91,750	
Calcium as CA	2,058	
Nitrate	33.00	

Results reported as Parts per Million unless stated

Langelier Saturation Index +1.69

Analysis by Roland Perry

Date 09-25-94



Laboratory Services, Inc.

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

RECEIVED NOV 9 1995

WATER ANALYSIS

COMPANY Santa Fe Energy

SAMPLE Mesa Verde 7-2

SAMPLED BY

DATE TAKEN

REMARKS

Barium as Ba 5.00

Carbonate alkalinity PPM 0

Bicarbonate alkalinity PPM 104

pH at Lab 6.45

Specific Gravity @ 60° F 1.165

Magnesium as Mg 22,910

Total Hardness as CaCO₃ 39,500

Chlorides as Cl 150,025

Sulfate as SO₄ 375

Iron as Fe 186.25

Potassium 53.75

Hydrogen Sulfide 0.00

Resistivity Ohms 0.0420 23.3° C

Total Dissolved Solids 213,750

Calcium as CA 16,590

Nitrate 13.20

Results reported as Parts per Million unless stated

Langelier Saturation Index +0.9

Analysis by Rolland Perry

Date: 11-01-95

HISTORY
RUN DATE : 01/24/96

THE OILFIELD WORKSTATION
MONTHLY WELL DETAIL
SANTA FE ENERGY RESOURCES
31-DAY PRODUCTION

FOREMAN NAME : ROY HANNIGAN
PUMPER NAME : CARLSBAD ROUTE 1 (JOE H.)
LEASE NAME : MESA VERDE 7 FED #7
WELL NAME : MESA VERDE 7 FED #7
PRODUCING METHOD : SR - SUCKER ROD

DAY	CHOKE --SITP---			TUB		CAS		SEP		LINE		DOWN		REASON DESCRIPTION	OIL			GAS		WATER		COMMENTS
	SPM	PSI	HRS	PSI	PSI	PSI	PSI	PRESS	HRS	RS	RS	RS	RS		PROD	PROD	PROD	PROD	PROD	PROD	PROD	
2	8.0	0	0	250	120	0	0	0	0	0	0	0	0		35.11	209.38	5.80					
3	8.0			250	120			0	0	0	0	0	0		41.17	211.48	7.19					
4	8.0			250	120			0	0	0	0	0	0		49.45	211.62	8.29					
5	8.0	0	0	250	120	0	0	0	0	0	0	0	0		47.68	207.28	4.86					
6	8.0			250	120			0	0	0	0	0	0		53.75	205.82	4.77					
7	8.0			250	120			0	0	0	0	0	0		44.78	201.47	3.68					
8	8.0			250	120			0	0	0	0	0	0		29.61	192.78	3.68					
9	8.0			250	120			0	0	0	0	0	0		3.30	175.38	0.65					
10	8.0			250	120			0	0	0	0	0	0		34.12	154.37	3.80					
11	8.0	0	0	250	120	0	0	0	0	0	0	0	0		39.48	129.54	1.70					
12	8.0			250	120			0	0	0	0	0	0		55.78	129.43	0.54					
13	8.0			250	120			0	0	0	0	0	0		32.92	122.44	0.87					
14	7.0	0	0	250	120	0	0	0	0	0	0	0	0		35.58	125.05	3.70					
15	6.5			250	120			0	0	0	0	0	0		26.69	126.26	1.06					
16	6.5			250	120			0	0	0	0	0	0		43.12	138.83	10.96					
17	6.5			250	120			0	0	0	0	0	0		43.61	144.05	14.32					
18	6.5	0	0	250	120	0	0	0	0	0	0	0	0		50.16	127.74	14.35					
19	6.5			250	120			0	0	0	0	0	0		47.60	132.06	9.05					
20	6.5			250	120			0	0	0	0	0	0		44.59	140.20	5.72					
21	6.5			250	120			0	0	0	0	0	0		39.01	133.90	8.18					
22	6.5			250	120			0	0	0	0	0	0		44.58	131.08	9.87					
23	6.5			250	120			0	0	0	0	0	0		44.59	117.61	6.87					
24	6.5	0	0	250	120	0	0	0	0	0	0	0	0		37.31	106.97	17.72					
25	6.5	0	0	250	120	0	0	0	0	0	0	0	0		42.91	102.92	2.14					
26	6.5			250	120			0	0	0	0	0	0		56.21	109.93	2.40					
27	6.5			250	120			0	0	0	0	0	0		50.59	109.35	1.75					
28	6.5			250	120			0	0	0	0	0	0		54.88	108.18	3.70					
29	6.5			250	120			0	0	0	0	0	0		44.71	104.67	3.55					
30	6.5			250	120			0	0	0	0	0	0		42.67	102.34	3.80					
31	6.5			250	120			0	0	0	0	0	0		50.87	101.17	3.85					
1	6.5			250	120			0	0	0	0	0	0		45.52	106.43	2.42					

TOTALS : 1312.35 4419.73 171.24

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONSERVATION DIVISION

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

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

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Santa Fe Energy Resources, Inc.

3. Address and Telephone No.

550 W. Texas, Suite 1330, Midland, TX 79701 915-686-6614

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

(D), 330' FNL & 990' FWL, Sec. 7, T-24S, R-32E

5. Lease Designation and Serial No.

NM-68084

6. Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Mesa Verde "7"
Federal #7

9. API Well No.

30-025-33103

10. Field and Pool, or exploratory Area

Mesa Verde (Bone Spring)
Mesa Verde (Delaware)

11. County or Parish, State

Lea NM

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

TYPE OF SUBMISSION

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

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Downhole commingle
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ 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.)*

Santa Fe Energy resources recently completed the Mesa Verde 7 Federal #7 in the Bone Spring formation (perfs 8522'-8544') and produced the interval for 1-1/2 months. The production from the zone was economic, but would not payout the well. A RBP was set above the Bone Spring interval and a Delaware zone at 7284'-7303' was perforated, acidized and swab tested. The production from the Delaware interval swab tested at 16 BOPD and 48 BWPD. It was decided not to fracture treat the Delaware zone for fear of high water production and the RBP was pulled to produce the Bone Spring. We are now respectfully submitting a request to commingle the two zones instead of squeezing off the Delaware.

SUBJECT TO
LIKE APPROVAL
BY STATE

RECEIVED
JAN 30 11 25 AM '96
CARLSBAD RESOURCE
AREA HEADQUARTERS

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

Signed Shannon J. Shaw Title Sr. Production Clerk

Date Jan. 26, 1996

(This space for Federal or State office use)

Approved by Orig. Signed by Shannon J. Shaw

Title PETROLEUM ENGINEER

Date 3/8/96

Conditions of approval, if any:

Submit Completion Report for Delaware.

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.

MESA VERDE "7" FEDERAL #7
DOWN HOLE COMMINGLING REQUEST DATA

- 1) The total combined daily oil production from the zones will be less than 50 BOPD. The Bone Spring zone at 8600' had a stabilized production averaging 45 BOPD and the Delaware zone at 7300' swab tested at 16 BOPD declining daily.
- 2) Both zones require artificial lift.
- 3) The Bone Spring zone produced 3 BWPD and the Delaware tested at 60 BWPD.
- 4) The fluids are compatible with the oil 41 to 42 gravity in each zone.
- 5) The total value of the crude will not be reduced by commingling. The oil is currently commingled at the battery from the two intervals in different wells. Both zones have API gravity oil in the 41 to 42 degree range.
- 6) Ownership of the zones is common.
- 7) The commingling will not jeopardize the efficiency of the recovery operations. It will allow each zone to be produced to a lower level than if the zones were produced separately. If the Delaware zone has to be squeezed, it could risk the recovery of the Bone Spring production.