

District I
1625 N. French Dr., Hobbs, NM 87240
District II
311 South First, Artesia, NM 87210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

WELL API NO. **30-007-20143**

5. Indicate Type of Lease

STATE ☐ FEE ☒

State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

- a. Type of Well:
OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER_COALBED METHANE _____
- b. Type of Completion:
NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER: INJECTION

7. Lease Name or Unit Agreement Name
VPR 'A'

2. Name of Operator
SONAT RATON, LLC

8. Well No **42**

3. Address of Operator
P.O. BOX 190, RATON, NM 87740

9. Pool name or Wildcat

4. Well Location

Unit Letter F : 1619 Feet From The NORTH Line and 2511' Feet From The WEST Line
Section 01 Township 31N Range 19E NMPM COLFAX County

10. Date Spudded 02/05/00	11. Date T.D. Reached 05/19/00	12. Date Compl. (Ready to Prod.) 05/26/00	13. Elevations (DF, RB, RT, GR, etc.) 8289' (GR)	14. Elev. Casinghead 8289'
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15. Total Depth 7459'	16. Plug Back T.D. open hole	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By Rotary Tools 0 - TD	Cable Tools NONE
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19. Producing Interval(s), of this completion - Top, Bottom.
Vermejo INJECTION WELL

20. Was Directional Survey Made
NO

21. Type Electric and Other Logs Run
Density Log, Induction Log, CBL, Spectra Scan, Micro Log, Shallow Electric Log

22. Was Well Cored
NO

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48#	360'	17 1/2"	100 sx	NONE
10 3/4"	40.5#	2482'	12 1/4"	340 sx	
7 5/8"	29.7#	5396'	9 7/8"	300 sx	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4 1/2	4470'	6878'	300 sx.	
2 7/8	6768'	7459'	N/A	Slotted

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
4 1/2"	4470'	(PBR@ 4470')

26. Perforation record (interval, size, and number)

Slotted liner 6768' - 7459"

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	No stimulation performed

28. PRODUCTION

Date First Production 05/01/00		Injection of produced water			Well Status (Prod. or Shut-in) Prod. Water disposal well		
Date of Test 05/01/00	Hours Tested 24 hrs.	Choke Size full 2"	Prod'n For Test Period injection	Oil - Bbl N/A	Gas - MCF N/A	Water - Bbl. 5700 BPD	Gas - Oil Ratio N/A
Flow Tubing Press. (inject) 130 psi.	Casing Pressure 0 psi	Calculated 24- Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)
Sold, used for fuel N/A

Test Witnessed By
L. Casey

30. List Attachments

31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief

Signature DR Lankford Printed Name DON LANKFORD Title SR. PETROLEUM ENGINEER Date 06/20/00

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy_____	T. Canyon_____	T. Ojo Alamo_____	T. Penn. "B"_____
T. Salt_____	T. Strawn_____	T. Kirtland-Fruitland_____	T. Penn. "C"_____
B. Salt_____	T. Atoka_____	T. Pictured Cliffs_____	T. Penn. "D"_____
T. Yates_____	T. Miss_____	T. Cliff House_____	T. Leadville_____
T. 7 Rivers_____	T. Devonian_____	T. Menefee_____	T. Madison_____
T. Queen_____	T. Silurian_____	T. Point Lookout_____	T. Elbert_____
T. Grayburg_____	T. Montoya_____	T. Mancos_____	T. McCracken_____
T. San Andres_____	T. Simpson_____	T. Gallup_____	T. Ignacio Otzte_____
T. Glorieta_____	T. McKee_____	Base Greenhorn_____	T. Granite_____
T. Paddock_____	T. Ellenburger_____	T. Dakota_____	T. Raton – Surface_300'
T. Blinebry_____	T. Gr. Wash_____	T. Morrison_____	T. Vermejo – see attached
T. Tubb_____	T. Delaware Sand_____	T. Todilto_____	T. Trinidad – _____
T. Drinkard_____	T. Bone Springs_____	T. Entrada_____	T. Pierre – _____
T. Abo_____	T. _____	T. Wingate_____	T. _____
T. Wolfcamp_____	T. _____	T. Chinle_____	T. _____
T. Penn_____	T. _____	T. Permian_____	T. _____
T. Cisco (Bough C)_____	T. _____	T. Penn "A"_____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

From	To	Thickness In Feet	Lithology

El Paso Energy Raton, LLC
GEOLOGIC WELL PROGNOSIS REPORT

DATE: 1/28/00
RIG: Aztec Well Services Rig #124
SUPV: Mark Johnson
REPORT BY: Mike Korte

WELL NAME: VPR A - 42 WDW API number: 30-007-20143

FIELD: RATON BASIN CBM PROJECT SEC: 1 TW: 31N RANGE: 19E
FEET FNL: 1,619 FEET FVL: 2,511 POD: LOG: AREA: CANADIAN RIVER COUNTY: COLFAX STATE: NM
ELEV. GL: 8,289 SPUD: 2/2/00 TD: LOG: PROJECT SPECIFIC: WATER DISP. WELL
MUD LOGGERS: COLUMBINE, 6 3/4" CSG PT. GEOLOGIST: TOM DOUPE OP. HOLE LOGGERS: REEVES WIRELINE

Intermediate 10 3/4"

DRILLERS DEPTH: 2,540	12 1/4" bit 21.5 hrs drilling	Surface Csg.: 13 3/8"	Set @: 350 ft.
LOGGERS DEPTH: 2,540	2 hrs open hole logs, CDL	Intermediate Csg.: 10 3/4"	Set @: 2540 ft.
First significant gas: 1000	subsea: 7289 ft.	Cement Inter. Csg.:	Circ. Cmt.: to surface
RATON FM. TOP: 300	subsea: 7989 ft.		
VERMEJO FM. TOP: 2,200	subsea: 6089 ft.		
TRINIDAD FM. TOP: 2,463	subsea: 5826 ft.		

Raton fm. CBM (ft.)	40.0
Vermejo fm. CBM (ft.)	20.0

Intermediate 7 5/8"

DRILLERS DEPTH: 6,410	9 7/8" bit 2 days drilling	Intermediate Csg.: 7 5/8"	Set @: 6410 ft.
LOGGERS DEPTH: 6,410	4 hrs open hole logs, IND & CDL	Cement Inter. Csg.:	Circ. Cmt.:

First significant gas: 4,340 subsea: 3949 ft.
PIERRE FM. TOP: 2,550 subsea: 5739 ft.
Lower Pierre member: 4,340 subsea: 3949 ft.
NIOBRARA FM. TOP: 5,100 subsea: 3189 ft.
Smokey Hill Member: 5,100 subsea: 3189 ft.
Timpas Member: 5,650 subsea: 2639 ft.
Fort Hayes Member: 5,900 subsea: 2389 ft.
BENTON FM TOP: 5,920 subsea: 2369 ft.
Codell Member: 5,920 subsea: 2369 ft.
Carlile Sh. Member: 5,980 subsea: 2309 ft.
Greenhorn Ls. Member: 6,090 subsea: 2199 ft.
Graneros Sh. Member: 6,150 subsea: 2139 ft.
Dakota silt zone: 6,375 subsea: 1914 ft.
DAKOTA FM TOP: 6,400 subsea: 1889 ft.

SHALE dark gray to black firm mod. calc. carb with minor sandy shale and tr. bent and pyr
SHALE AS ABOVE with silty shale normally first gas flow

dark gray firm hard calcareous shale with minor gray arg ls and sdy sh, tr. bent and pyr
SHALE dark gray calc. firm mica pyr becoming silty in parts, minor arg ls
LS tan microcrystalline to chalky limestone and gray calcareous shale

SH & SS dark gray carb shale, minor fine grained sandstone with thin beds of black limestone
SHALE chalky to limy dark gray calc soft smooth shale with minor ls and calcareous sandy shale
SHALE dark gray abnt pyr limy, minor hard crystalline dark gray ls, minor gray calc shale-arg. Ls
SHALE dark gray to black noncalcareous sli silty, minor bentonite, limestone and silt-fg sandstone
may encounter thin beds of siltstone, brown hard mica carb arg siltstone, minor fg ss
drill no more than 10 feet into Dakota SS. Expect 7 5/8" set @ 6410 feet.

Intermediate 5 1/2"

DRILLERS DEPTH: 7,200	6 3/4" bit 2 days drilling	Production Liner: 5 1/2"	Set @: 7200 ft.
LOGGERS DEPTH: 7,200	4 hrs open hole logs, IND & CDL	Cement Liner in place:	

First Injection zone: 6,990 subsea: 1299 ft.
DAKOTA FM TOP: 6,400 subsea: 1889 ft.
Dakota SS A member: 6,400 subsea: 1889 ft.
Dakota SS B member: 6,465 subsea: 1824 ft.
Purgatoire SS member: 6,520 subsea: 1769 ft.
MORRISON FM TOP: 6,610 subsea: 1679 ft.
Wanakah member: 6,960 subsea: 1329 ft.
ENTRADA FM TOP: 6,990 subsea: 1299 ft.
DOCKUM FM TOP: 7,060 subsea: 1229 ft.
Glorieta ss member: 7,270 subsea: 1019 ft.
Yaso member: 7,390 subsea: 899 ft.
SANGRE DE CRISTO FM: 7,480 subsea: 809 ft.

SS med to coarse grained sli calc, silica cement with minor carbonaceous shale, trace of coal
SS as above A member, mostly crs grained, minor chert conglomeratic ss and carb shale
SS poorly sorted med-crse conglomeratic quartz grained friable, sli calc.
Jurassic Age: SH & SS Variegated shales, red green, gray maroon, minor tan hard ls, wh f-m gr ss
SS f gr wh to orange mod cmt sli calc glauconitic fspr, minor gypsum, fcn oolitic ls
SS wh -lt gn f-m gr calc. well rd and sorted frsted grains minor uncons SS
Triassic Age: SHALE Variegated (red) mica calc, minor thin beds of f gr limy gray SS
Permian Age: SS orange to pink to white med grained silica cement
SS orange and dolomitic cemented silty, may become coarse arkosic ss
SHALE AND ARKOSIC SS (WASH) dominantly red shale, siltstone and red arkosic crs sediments

MUD LOG/GEOLOGIC DRILLING NOTES

NOTE: Injection zones expected to be encountered drilling to a depth of 7,500 feet

Entrada fm SS 6,990' - 7,060' with an estimated 40 feet net porous sand with this interval the primary zone for injection
Glorieta SS 7,270' - 7,390' with an estimated 50 feet net porous sand although no recent tests have been run across this interval in Raton basin

NOTE: water flows of Tr SS behind pipe, reduce wtr on Pierre drlg.

NOTE: Drilling through rock prone to have vertical fractures, more than likely to be associated with gas shows

NOTE: Pierre Shale is prone to swelling and it is suggested to minimize water across the shale for lengthy period

NOTE: VPR A-7 WDW is used in direct correlation for VPR A-42 top prognosis

NOTE: Glorieta SS is expected to be 70 feet below permitted depth