cc: 3 OCD, 1 Well File

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
30-045-28512

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Santa Fe 20

1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER Dry Hole

8. Well No.
5

2. Name of Operator
Merrion Oil & Gas Corporation

9. Pool name or Wildcat
~~Gallup-Dakota~~ WC Gallup

3. Address of Operator
P. O. Box 840, Farmington, NM 87499

4. Well Location
Unit Letter A : 1150 Feet From The North Line and 720 Feet From The East Line

Section 20 Township 21N Range 8W NMPM San Juan County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
6576' GR, 6589' KB

11. 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. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐		CASING TEST AND CEMENT JOB ☐	
OTHER: ☐		OTHER: Completion ☒	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Attached find a well history for the above well. The wellbore is presently shut-in and temporarily abandoned.

RECEIVED
JUL 19 1991
OIL CON. DIV.
DIST. 3

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

SIGNATURE _____ TITLE Operations Manager DATE 7/17/91

TYPE OR PRINT NAME Steven S. Dunn TELEPHONE NO. 327-9801

(This space for State Use)

APPROVED BY Original Signed by CHARLES GHOLSON TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JUL 19 1991

CONDITIONS OF APPROVAL, IF ANY:

SANTA FE 20 NO. 5

April 16, 1991 Day No. 11

Summary: Finish running casing. Two stage cement job. Set slips. Cut off casing.

Detail: Pick up and run 31 jts of 5-1/2" casing. Set casing @ 3800'. Circ hole w/ rig pump. RU Dowell. Break circ w/ 10 Bbls H_2O. Pump 20 Bbls prewash ahead of 355 sx Class "B" cement 50%, Lite Poz-6 50%, D-20 2%, D-44 10%, D-112 .7%, yield of 1.21 cu ft/sk, weight 13.9 lb/gal. Displace cement w/26 Bbls H_2O followed by 65.8 Bbls of 9 lb. mud. Bump plug 500 over pumping psi. Float held good. Drop bomb. Wait for 15 min to fall, pressure up to 750 psi to open DVT. Circ 4 hrs w/ rig pump. RU Dowell. Break circ w/ 20 Bbls H_2O ahead of 270 sx Class "G" cement w/ 2% D-79, yield 2.06 cu ft/sk, density 12.5 lb/gal followed by 175 sx Class "G" 50/50 Poz, yield 1.21 cu ft/sk, density 13.9 lb/gal. Tail in with 87 sx Class "G" neat cement, yield 1.15 cu ft/sk, density 15.9 lb/gal. Drop plug. Displace cement w/ 64 Bbls H_2O. Bump plug. 1:45 pm 1500 psi over. Plug held good. Circulated throughout job. Light cement to surface, about 15 Bbls. Set slips @ 35,000 lbs. Cut off casing. ND BOP. RD. Release rig. Called for temp survey. Waiting on completion. (ARM)

Casing Guide Shoe		2.00'	3800' KB
1 jt 5-1/2" csg	41.78'		
Float Collar	2.00'	3754' KB	
28 jts 5-1/2" csg	1172.55'		
DVT	3.00'	2578' KB	
62 jts 5-1/2" csg	2585.50	6.83' above KB	
Casing Set			3800' KB

April 17, 1991 Day No. 12

Summary: Move equipment on location.

Detail: Move reverse equipment, pipe racks and tbg on location. SDON. (Waiting on rig.) (ARM)

April 18, 1991

Off report. Waiting on completion. (Fizz)

April 20, 1991 Day No. 13

Summary: MIRU. Drill out DVT.

Detail: Move Ram on location and rig up. NU BOP and rig up floor. Tally and pickup 4-3/4" bit, 5-1/2" casing scraper, 78 jts 2-3/8" tbg. Tag cement @ 2533'. RU swivel. Drill out cement to DVT at 2578'. Drill DVT out. Circ hole clean. (ARM)

April 21, 1991 Day No. 14

Summary: Clean out to PBTD.

Detail: TIH to float collar @ 3754'. Drill float collar. Drill out cement to 3780'. Circ hole clean. Pressure test csg to 3500 psi for 10 min, ok. RUT. Swab fluid level down to 2500'. SDON. (ARM)

SANTA FE 20 NO. 5

April 24, 1991

Summary: Waiting for rig to be repaired. (ARM)

April 25, 1991

Summary: Waiting for rig to be repaired. (ARM)

April 26, 1991 Day No. 15

Detail: Swab fluid level down to 3000'. TOOH with 2-3/8" tbg. SDFN.

April 28, 1991 Day No. 16

Summary: Perforate, breakdown and frac the Gallup Formation.

Detail: MIRU Petro. Run GR correllation log from 3780' PBTD to 1200'. Perforate 3464'-68', 3597.5', 3601.5', 3610'-15', 3670'-73', 3687'-89', 3718'-22', 3742'-44' w/ 2 CJPF (per density log).

RU Western to 5-1/2" csg. Pump 30 Bbls Entrada water to partially load hole. Pump 500 gal 15% HCl w/ corrosion inhibitor, iron control, clay control and nonemulsifier. Drop 75 balls 1.1 S.G. through acid. Displace w/ 106 Bbls Entrada water (21 Bbls over displace). Saw some ball action but did not ball off. (All Entrada water contained 2% KCl, clay control, and nonemulsifier.) Flow back to release balls. Run ball catcher and retrieve 64 balls.

Spot in clean frac tank and load w/ 370 Bbls fresh water. Frac well w/ 50,000# 40/70 sand w/ 33,500 gal 70% N_2 foam at 30 BPM. All fluid contained 2% KCl, clay control, and nonemulsifier. Max press = 2060 psig. Avg press = 1900 psig. ISIP = 1730 psig, 15 min SIP = 1593 psig.

Leave well SI for 3 hrs. Still ± 1600 psi on csg. Open well to flow on 1/4" choke. Leave flowing to pit over night. (GFS)

April 29, 1991 Day No. 17

Summary: Check well. Well dead. Leave open to pit. (GFS)

April 30, 1991 Day No. 18

Summary: Clean out and swab test.

Detail: Check well, not flowing. RD, flowback manifold. TIH w/ sawtooth collar and seating nipple. Hit a sand bridge @ 3140', circ through bridge. TIH. Tag sand @ 3600', clean out sand to PBTD 3780', circ hole clean. Pull off bttm w/ tbg. Wait 1 hr. TIH. Tagged 10' fill, clean out sand. Pull tbg to 3720'. RUTS. Swab test. 1st run FL @ surface. Made 20 swab runs, recovered 87 Bbls fluid. FL dropped to 1100', oil/water cut 1%. Fluid starting to become gas cut bringing back small amounts of sand. SWI. SDON. (ARM)

SANTA FE 20 NO. 5

May 1, 1991 Day No. 19

Summary: Swab test.

Detail: Check pressures: 100 psi csg; 50 psi tbg. First run FL 600'. Swab well. FL dropping from 600' to 2500'.

3:00 pm	Recovered 112 Bbls.		
3:00-4:00 pm	Swabbed 18 Bbls,	FL 2500'-2800',	Oil cut 3-5%.
4:00-5:00 pm	Swabbed 17 Bbls,	FL 2500'-2800',	Oil cut 5-7%
5:00-6:00 pm	Swabbed 14 Bbls,	FL 2500'-2800',	Oil cut 7-10%

Recovered 161 Bbls fluid for day. Total fluid recovered 248 Bbls.

Csg pressure started building.

1:00 pm	200 psi
3:00 pm	275 psi
4:00 pm	320 psi
5:00 pm	350 psi
6:00 pm	400 psi

Well started blowing @ 5 min after each run. Shut tbg in. SDON. (ARM)

May 2, 1991 Day No. 20

Detail: Check pressures: 400 psi csg; 300 psi tbg. First run FL 1,900'. Swab well.

8:00-11:00 am	Averaged 16 bbls/hr; FL dropped to 2,900'
11:00 on	4 runs/hr, well would flow 10 min after each run, averaged 7.5 bbls/hr, oil cut 7-10%, FL 2,900', csg: dropped to 240 psi from 400 psi.

Bleed well off. Tag bttm, about 5' of fill. Swab well. FL 3,300'. Leave well open to pit. Total fluid for day: 81 Bbl. Total fluid recovered: 329 Bbl. SDON. (ARM)

May 3, 1991 Day No. 21

Summary: Land tbg, run rods.

Detail: POH w/ tbg. RIH w/ 2-3/8" production string. Land tbg. ND BOP. NU wellhead. Pick up 1-1/4" pump on 3/4" rod string. Space out pump. Stack rods. RDMO location. Waiting on pumping unit and production equipment. (ARM)

Production String:		2-3/8" Purge Valve	.65'
	1 jt	2-3/8" Tbg	31.90'
		2-3/8" Seating Nipple	1.25'
	114 jts	2-3/8" Tbg	3,713.57'
		KB	11.00'
Rod String:	(68" stroke)	RHAC Pump 1 x 1-1/4 x 2 x 6 x 9 x 11	
	55	3/4" plain	
	93	3/4" patco	
	1 ea	8', 6', 4' Ponys	

May 7, 1991 Day No. 22

Detail: CF&M removed pumping unit from Rita Com #3 and began installing on location. Test equipment being set for Gallup test.

SANTA FE 20 NO. 5

May 8, 1991 Day No. 23

Detail: Completed installation of surface equipment for Gallup test. (TLM)

May 9, 1991 Day No. 24

SIP Tbg/Csg 0/90 psi. Not enough gas to run pumping unit, nitrogen. Blew casing dn trying to get gas.
Will haul propane out tomorrow. Static FL @ 1174'. (TLM)

Daily Cost: $100

AFE Number 90045: $403,365
Cumulative Costs: $247,058

May 10, 1991 Day No. 25

Propane fuel gas hooked up to engine. Well pumped up. No well gas to run separator controls. Will plumb tbg to pit and produce until csg pressure increases. (TLM)

Daily Cost: $0

AFE Number 90045: $403,365
Cumulative Costs: $247,058

May 11, 1991 Day No. 26

Plumbed tbg to pit. Started unit. Making 100% H_2O. No csg pressure. (TLM)

SANTA FE 20 NO. 5

June 22, 1991 Day No. 1

Detail: MIRU Ram. Unseat pump. POH w/ rods and pump. ND wellhead. NU BOP. POH w/ 115 jts 2-3/8" tbg, SN and purge valve. TIH w/ 5-1/2" BP to 3400'. Pressure test pumping in @ 1300 psi rate-1/4 Bbl/min. POH w/ tbg. SDON. (ARM)

Note: 115 jts 2-3/8" on location
92 3/4" patco
55 3/4" plain

June 25, 1991 Day No. 2

Summary: Isolate hole in csg and squeeze.

Detail: TIH w/ 5-1/2" AD-1 pkr. Set pkr @ 2615'. Could not get pkr to set. POH. TIH w/ 5-1/2" fullbore. Set pkr 2615'. Press test BP to 3000 psi, ok. Pull pkr to 2565'. Test csg to 3000 psi, ok. Pumping into DVT 2578' @ 1/4 Bbl/min @ 1300 psi. POH w/ pkr. TIH to CIBP @ 3400'. RU Cementers, Inc. Spot a 10 sk cement plug from CIBP @ 3400' to 3288'. Displace cement w/ 12.8 Bbl water to balance plug. Pull tbg to 2628'. Spot a 25 sk cement plug to 2351'. Displaced cement with 9.2 Bbl water. Pull tbg to 2,000'. SWI. SDON. Est top of cement 2351'. (ARM)

Note: All cement Class "B" yield 1.18 cu ft/sk, density 15.6 lb/gal.

June 26, 1991 Day No. 3

Summary: Perf and swab test 1902'-1912'.

Detail: Pressure test csg to 3000 psi - ok. TIH, tag cement top @ 2450'. RUTS. Swab fluid level dn to 1500' (@ 37 Bbl). POH. RU Petro to perf. Perf interval 1902' to 1912'. TIH w/ packer set 1870'. RUTS. First run FL 1100'. Swabbed tbg dry in 3 runs. Wait 30 min. Had 800' fluid entry. Made 3 runs to swab tbg dry. Continue procedure. Averaged 8 Bbl/hr fluid. Total 43 Bbls water, no oil. Well had a light blow on tbg during, after and between swab runs. SWI. SDON. (ARM)

SANTA FE 20 NO. 5

June 27, 1991 Day No. 4

Summary: Swab test. Perf and swab test interval 1852'-1860'.

Detail: Pressure test tbg to 75 psi. Swab test. First run FL @ 300', 2nd run FL @ 800'. Swab tbg dry. 30 min 800' entry, no oil, slight blow gas. POH w/ pkr. TIH w/ RBP set @ 1890'. Pressure test BP to 2500 psi. Swab fluid level dn to 1500'. POH w/ retrieving head. RU Petro. Perf interval 1852'-1860' w/ 2 SPF. TIH w/ pkr to 1800'. Set pkr. RUTS. Swabbed tbg dry. Made swab run - 30 min @ 600' fluid entry. Blow after swab run, light blow while swabbing, no oil. Recovered 12.5 Bbls fluid out of formation, averaged 4.5 Bbl/hr. Release pkr POH. TIH w/ retrieving head. Move BP above perfs to 1650'. Swab FL dn to 1000'. POH. SWI. SDON. (ARM)

June 28, 1991 Day No. 5

Summary: Perforate and swab test coal intervals 1574'-1582', 1288'-1294'.

Detail: RU Petro to perforate intervals 1574'-1582' and 1288'-1294' w/ 2 SPF. TIH w/ retrieving head and SN to 1600'. RUTS. Swab well, first run FL 300'. Swab FL dn, stabilized 1200' from surface. Made 1 swab run every 15 min - 400' fluid entry avg 6.1 Bbl/hr. Total fluid recovered - 51 Bbls water, no oil, fluid gas cut. SWI. SDON. (ARM)

June 29, 1991 Day No. 6

Summary: Swab test. Lay dn rods and tbg.

Detail: Check pressure - tbg 225 psi, csg 175 psi. Swab well, first run FL 300'. Swab well dn. Fluid stabilized 1100'. Made 1 run every 15 min. Avg 400' fluid entry, avg 6 Bbl/hr. Total fluid recovered - 15 Bbls; total out of formation - 66 Bbls, 100% wtr w/ gas cut. no gas flow. RD. Swab. TIH w/ rods. POH laying dn rods. POH laying dn 2-3/8" tbg. ND BOP. NU wellhead. SWI. RD unit. MOL. (ARM)