submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
98 MAR 13 PM 1:33
070 FARMINGTON, NM

RECEIVED
SEP 8 1998
OIL CON. DIV.
DIST. 3

Sundry Notices and Reports on Wells

1. **Type of Well**
GAS

5. **Lease Number**
NM - 03863

6. **If Indian, All. or Tribe Name**

Unit Agreement Name
San Juan 28-4 Unit

2. **Name of Operator**
BURLINGTON RESOURCES OIL & GAS COMPANY

Well Name & Number
San Juan 28-4 Unit #36

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

9. **API Well No.**
30-039-20674

4. **Location of Well, Footage, Sec., T, R, M**
700' FSL, 1470' FWL, Sec. 29, T-28-N, R-4-W, NMPM

10. **Field and Pool**
Blanco MV/Basin DK

11. **County and State**
Rio Arriba Co, NM

12. **CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA**

Type of Submission	Type of Action		
_X_ Notice of Intent	___ Abandonment	___ Change of Plans	
	_X_ Recompletion	___ New Construction	
___ Subsequent Report	___ Plugging Back	___ Non-Routine Fracturing	
	___ Casing Repair	___ Water Shut off	
___ Final Abandonment	___ Altering Casing	___ Conversion to Injection	
	___ Other		

13. **Describe Proposed or Completed Operations**

It is inteded to recomplete the subject well in the Mesaverde formation according to the attached procedure and wellbore diagram.

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

Signed Peggy Bradfield Title Regulatory Administrator Date 3/13/98

VKH

(This space for Federal or State Office use)

APPROVED BY /S/ Duane W. Spencer Title _____ Date SEP - 3 1998

CONDITION OF APPROVAL, if any:

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-1
Revised February 21, 19
Instructions on ba
Submit to Appropriate District Offi
State Lease - 4 Copi
Fee Lease - 3 Copi

☐ AMENDED REPOR

98 MAR 13 PM 1:33

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-039-20674	72319/71599	Blanco Mesaverde/Basin Dakota

⁴Property Code	⁵Property Name	⁶Well Number
7459	SAN JUAN 28-4 UNIT	36

⁷OGRID No.	⁸Operator Name	⁹Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	7305'

¹⁰ Surface Location

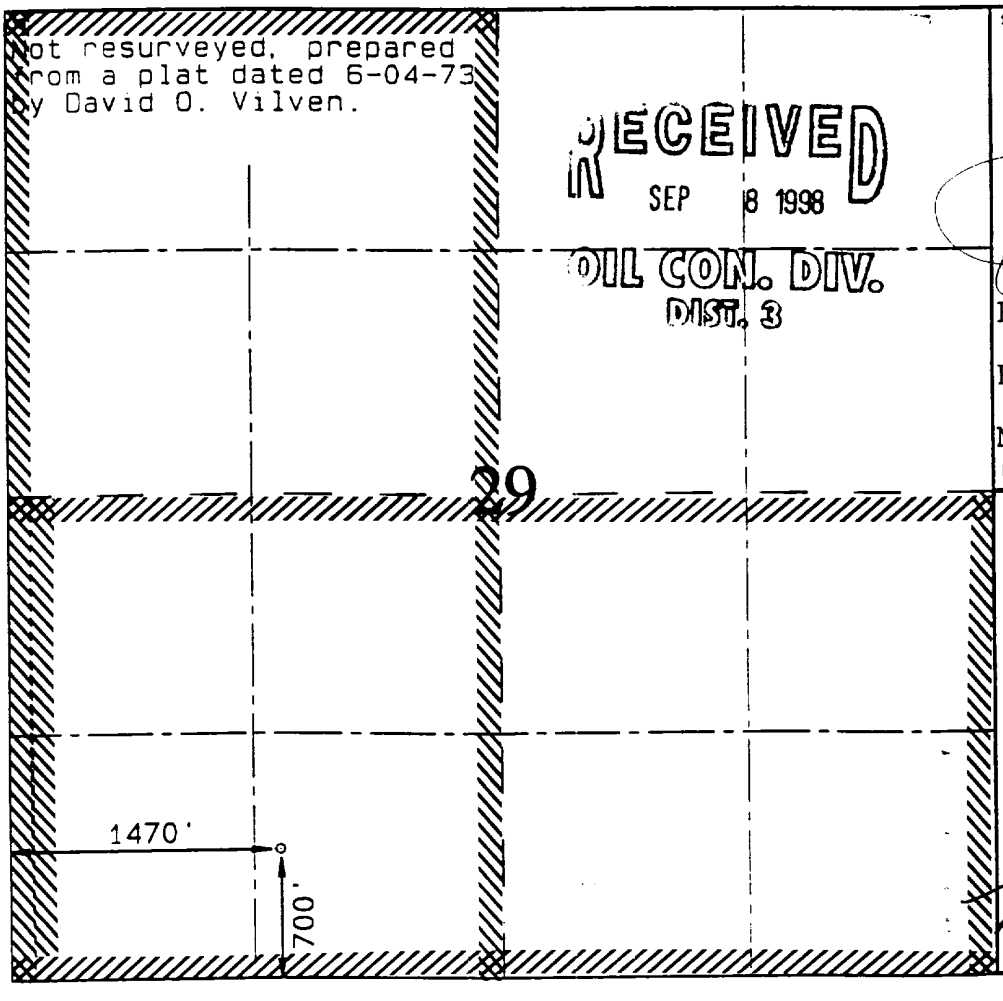
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	29	28N	4W		700	SOUTH	1470	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
MV-S/320 DK-W/320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

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

Signature

Peggy Bradfield
Printed Name

Regulatory Administrato
Title

March 12, 1998
Date

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 10, 1998
Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

6857
Certificate Number

San Juan 28-4 Unit #36

Mesaverde Recompletion Procedure
Unit N, Section 29, T28N, R4W
Lat: 36° - 37.49358'/Long: 107° - 16.6434'

It is intended to recomplete the Mesaverde in this Dakota wellbore. The Mesaverde interval will be sand fracture stimulated in two stages, Point Lookout and Cliffhouse/Menefee, using a total of 120,000 gals 30 lb linear gel and 180,000 lbs 20/40 sand.

1. Inspect location and test rig anchors. Comply with all NMOCD, BLM, Forestry & BR rules and regulations. Dig flowback pit or set flowback tank. Haul to location a new or inspected 6600' 2-3/8" production string, a 1900', 2-3/8" work string, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, 6550', 2-7/8" N-80 buttress frac string and 10, 400 bbl frac tanks

2. MIRU. Record and report SI pressures on tubing, casing and bradenhead. Lay blowdown line. Blow well down and kill with 2% KCL water as necessary. ND WH and NU BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.

3. TOOH with 1-1/2" Dakota production string set at ± 8687' and LD. Send tubing in to be inspected and salvaged if possible. Note and report any scale in/on tubing.

4. PU and RIH with a 3-7/8" bit, 4-1/2" (10.5 lb/ft) casing scraper on 2-3/8" production and work strings hauled to location. Clean out to PBTD (~8704') with air. Attempt to obtain a stabilized Dakota pitot gauge up the 2-3/8" string. **If the pitot is greater than 140 MCFD, go to step 5a, otherwise proceed with step 5b.** TOOH.

5a. RU wireline. Set a 4-1/2" CIBP at 6700'. RD wireline. Fill casing with 2% KCL water. **Proceed with Step 6.**

5b. RIH with 4-1/2" CIBP on the 2-3/8" workstring. Set CIBP at 8470'. RU cementing contractor. Spot 4 sx (~50') on top of CIBP. RD cementing contractor. PUH and reverse circulate tubing clean. Close rams and PT casing to 1000 psi. TOOH. **Proceed with Step 6.**

6. MIRU logging company. Run GR-CBL-CCL from 6650' to top of cement. Evaluate CBL. Top of good cement must be above 5950' to continue with procedure.

Point Lookout:

7. TIH with 4-1/2" packer and 2-3/8" tubing string. Set packer just above CIBP or cement plug. PT to 3600 psi. Release packer and PUH. Spot 120 gals of 15% HCL across Point Lookout perf interval from 6408' to 6540'. TOOH.

   All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

8. RU wireline. Perforate Point Lookout as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges (Av. perf diameter - 0.29", Av. pen. -16.64" in concrete). Be sure to perforate from top down (20 holes total).

6408', 6410', 6428', 6430', 6432', 6436', 6438', 6440', 6456', 6472', 6486', 6488', 6494', 6496', 6498', 6514', 6516', 6520', 6539', 6540'

RDMO wireline company.

9. Fill all ten 400 bbl frac tanks with 2% KCL water. Filter all water to 25 microns if brought from sources with known solids contimination. Filtration is not necessary for city water. Eight tanks (four per frac stage) are for gel and two tanks (one per frac stage) are for breakdown and flush.

10. TIH with 4-1/2" packer, tubing tester, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, and remaining 2-7/8", 6.5 lb/ft N-80 buttress frac string. Set packer at 6200'. Pressure test surface lines to 7500 psi. Close tubing tester and test frac string to 6500 psi.

11. RU stimulation company. Hold 500 psi on annulus. Breakdown and attempt to balloff Point Lookout perforations with 1500 gals 15% HCL and 200% excess RCN 7/8" 1.3 specific gravity perf balls to 3600 psi. Lower packer to 6550' to knock off perf balls. Reset packer at 6300'.

All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

12. RU stimulation company. Hold a tailgate safety meeting. **Maximum surface treating pressure is 6500 psi.** Hold 500 psi on annulus, behind packer, and monitor during the job. Fracture stimulate Point Lookout with 90,000 lbs 20/40 Arizona sand in 60,000 gals 30 lb linear gel at **30 BPM**. Average surface treating pressure will be 5100 psi. Estimated tubing friction pressure will be 3833 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush (slickwater)	1,600	
Totals	**61,600**	**90,000**

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

Frac with the following additives per 1000 gals frac fluid. **Gel will be mixed on the fly.**

*	7.5 gal	LGC-8	Gel
*	1 gal	SSO-21	Surfactant
*	0.18 lb	BE-6	Biocide
*	0.4 lb	SP	Oxidizing Breaker

*	0.2 lb	GBW-3	Enzyme Breaker

RDMO stimulation company.

13. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. **Take pitot gauges when possible.** When pressures allow, release packer and TOOH.

Cliffhouse & Menefee:

14. PU and RIH with 4-1/2" CIBP, packer and 2-3/8" workstring. Set CIBP at 6350'. Set packer just above CIBP and pressure test to 3600 psi. Release packer and PUH to 6264'.

15. Spot 170 gals 15% HCL across Cliffhouse and Menefee perf interval from 6066' to 6264'. TOOH.

All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

16. RU wireline. Perforate Cliffhouse and Menefee as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges (Av. perf diameter - 0.29", Av. pen. -16.64" in concrete). Be sure to perforate from top down (20 holes total).

6066', 6068', 6070', 6088', 6090', 6092', 6154', 6162', 6164', 6167', 6182', 6232', 6234', 6236', 6248', 6250', 6252', 6260', 6262', 6264'

RDMO wireline company.

17. Be sure there is enough water in four tanks for gel and one tank for breakdown and flush.

18. TIH with 4-1/2" packer, tubing tester, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, and remaining 2-7/8", 6.5 lb/ft N-80 buttress frac string. Set packer at 5850'. Pressure test surface lines to 7500 psi. Close tubing tester and pressure test frac string to 6500 psi.

19. RU stimulation company. Hold 500 psi on annulus. Breakdown and attempt to balloff Cliffhouse and Menefee perforations with 1500 gals 15% HCL and 200% excess RCN 7/8" 1.3 specific gravity perf balls to 3600 psi. Lower packer to 6270' to knock off perf balls. Reset packer at 5950'.

All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

20. RU stimulation company. Hold a tailgate safety meeting. **Maximum surface treating pressure is 6500 psi.** Hold 500 psi on annulus behind packer and monitor during the job. Fracture stimulate the Cliffhouse and Menefee with 90,000 lbs 20/40 Arizona sand in

60,000 gals 30 lb linear gel at **30 BPM**. Average treating pressure will be approximately 4900 psi. Estimated tubing friction pressure will be 3621 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush (slickwater)	1,500	
Totals	**61,500**	**90,000**

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

Frac with the following additives per 1000 gals frac fluid. **Gel will be mixed on the fly.**

*	7.5 gal	LGC-8	Gel
*	1 gal	SSO-21	Surfactant
*	0.18 lb	BE-6	Biocide
*	0.4 lb	SP	Oxidizing Breaker
*	0.2 lb	GBW-3	Enzyme Breaker

RDMO stimulation company.

21. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. **Take pitot gauges when possible.** When pressures allow, release packer and TOOH. LD packer, 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" crossover and 2-7/8" N-80 tubing.

22. TIH with 3-7/8" bit on 2-3/8" tubing and cleanout with air/mist to CIBP at 6350'. Monitor gas and water returns. **Take pitot gauges when possible.** When well is sufficiently clean, drill out CIBP at 6350'. Continue to cleanout with air/mist to 6650'. TOOH.

23. TIH with an expendable check, one 2-3/8" joint, standard SN and remaining 2-3/8" tubing. Broach tubing while running in hole. Land tubing at 6540'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in. If the Dakota had a pitot gauge greater than 140 MCFD in Step 4, engineering will apply for a commingling application and will drill out the CIBP at 6700' once approval is received.

Recommended: _____ Production Engineer

Approved: _____ 12/31/97 Drilling Superintendent

Approved: _____ 12/16/97 Team Leader

Jennifer Dobson 599-4026 (work) 564-3244 (home) 324-2461 (pager)

San Juan 28-4 Unit #36
Pertinent Data Sheet
Lat: 36° - 37.49358'/Long: 107° - 16.6434'

General Well Information:
Location: 700 FSL, 1470 FWL, Unit N, Section 29, T28N, R4W, Rio Arriba County, NM.

Federal Lease #: NM-03863
Property #: 007972900

DP #: TBA
GWI/NRI: 66.12/41.22

Current Field: Basin Dakota
Spud: 9/30/73
GL Elevation: 7305'
TD: 8710'

Completed: 10/23/73
KB Elevation: 7316'
PBTD: 8704'

Casing Record:

Hole Size	Csg Size	Weight	Grade	Depth Set	Cmt Vol	Cmt Top
13-3/4"	9-5/8"	32.3 lb/ft	H-40	230'	250	Circ. to sur.
8-3/4"	7"	20 lb/ft 23 lb/ft	J-55 J-55	0-4163' 4163-4589'	103 sx	4100' (TS)
6-1/4"	4-1/2"	10.6 lb/ft 11.6 lb/ft 11.6 lb/ft	J-55 J-55 N-80	0-6369' 6369-7911' 7911-8710'	346 sx	3100' (TS)

Tubing Record:

Tubing Size	Weight	Grade	Depth Set	Number of Jts
1-1/2"	2.9 lb/ft	J-55	8653'	263
Norris Pump SN			8654'	1
1-1/2"	2.9 lb/ft	J-55	8655'	1
Baker Expendable Check			8687'	1

Formation Tops:

Pictured Cliffs:	4268'	Gallup:	7445'	Dakota:	8565'
Mesaverde:	6040'	Greenhorn:	8385'		
Point Lookout:	6395'	Granerous:	8440'		

Logging Record:
Dresser Atlas Induction-Gamma Ray log (10/12/73) and Dresser Atlas Compensated Densilog (10/12/73).

Completion:
Perforated the Dakota at 8502', 8552', 8578', 8580', 8636', 8638', 8670' and 8672' (1 SPF) in 300 gals 7-1/2% HCL. Broke down perfs with 1200 gals 15% HCL using 12 balls for diversion. Frac'd the entire zone with 79,500 gals water and 78,000 lbs 40/60 sand at 17 BPM and 3800 psi.

Workover History:
May 1980 changed out 18 bad joints.

June 1985 changed out 66 bad joints. Tubing had massive amounts of corrosion and pits. Several small holes and pits in the upper 2100' of tubing.

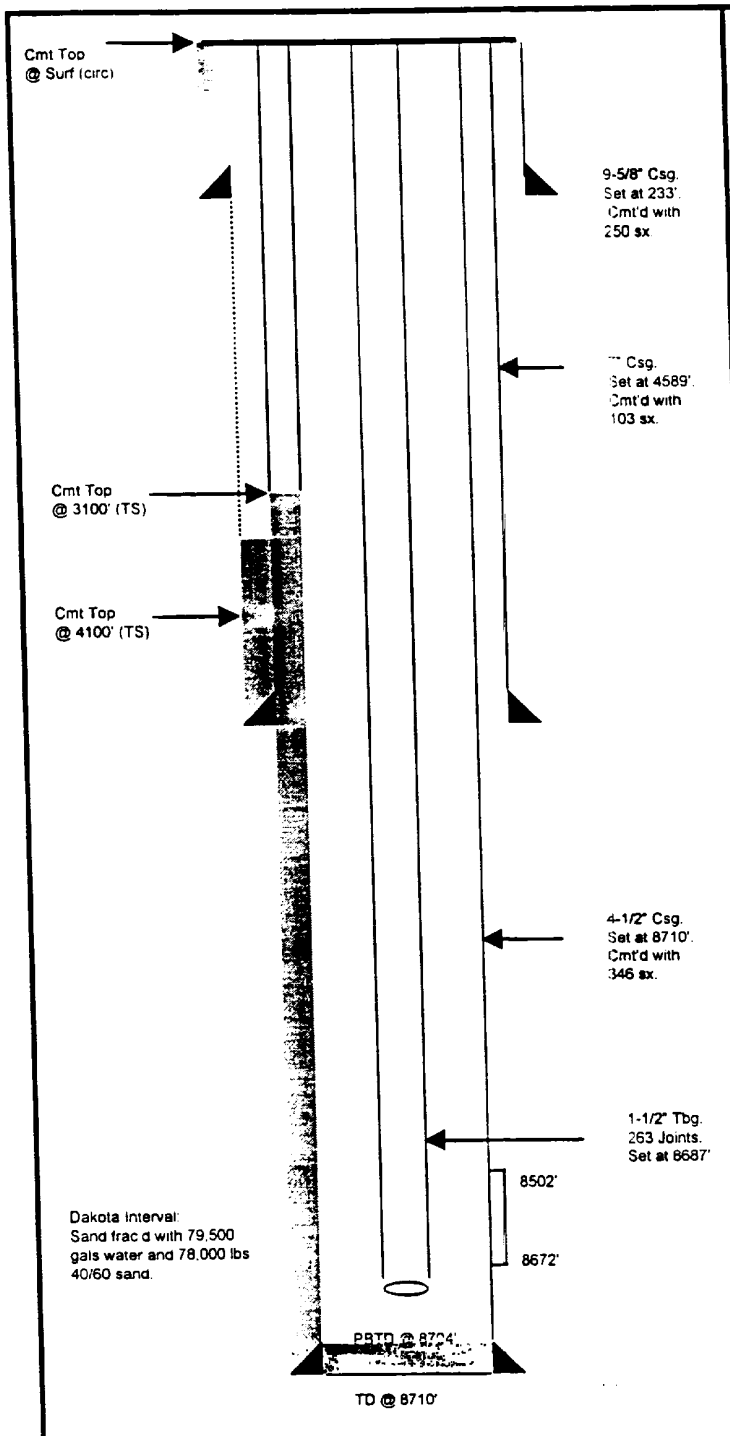
Production History:
Currently a shut in Dakota well.

Pipeline: Williams Field Service

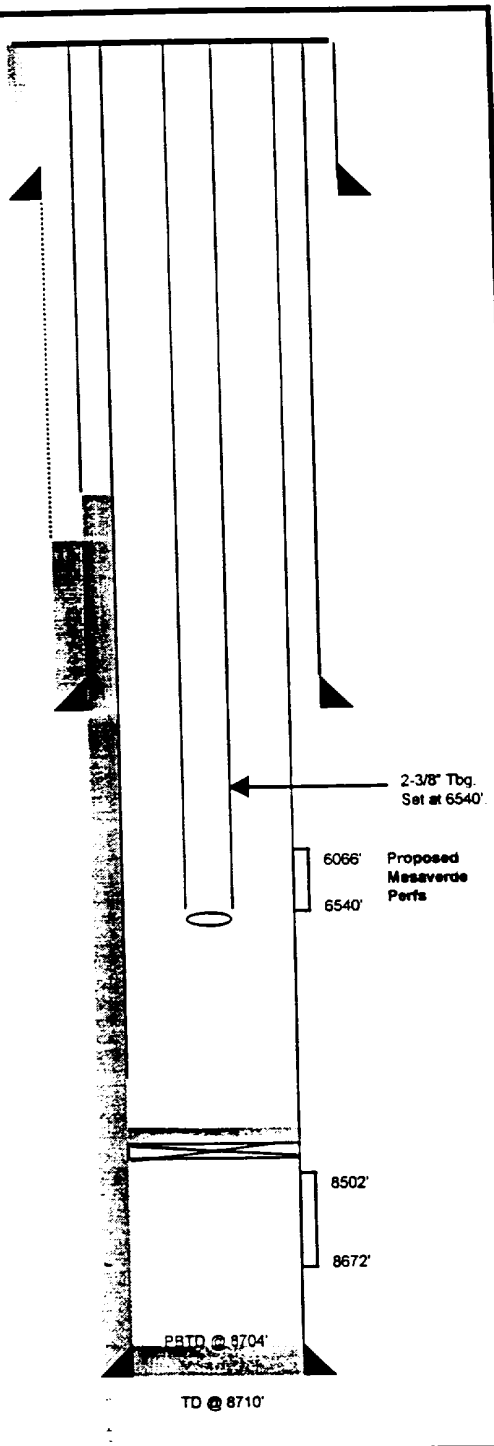
San Juan 28-4 Unit #36

Unit N, Section 29, T28N, R4W
Lat: 36°-37.49358'/ Long: 107°-16.6434'
Rio Arriba County, NM

Current Schematic



Proposed Schematic



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
1235 La Plata Highway
Farmington, New Mexico 87401

IN REPLY REFER TO:

Attachment to Notice of

Intention to Workover

Re: Plug Back and Recomplete

Well: 36 San Juan 28-4 Unit

CONDITIONS OF APPROVAL

In addition to the Dakota cement plug, place a cement plug across the top of the Gallup formation.

1. Place a cement plug from 7487' to 7387' inside the 4 1/2" casing. (12 sks.) (top of Gallup at 7437')

2. **Mike Flaniken** with the Farmington District Office is to be notified at least 24 hours before the workover operations commence (505) 599-8907.