

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

CONOCO INC.

3 Address and Telephone No

10 DESTA DR. STE. 100W, MIDLAND, TX. 79705-4500 (915) 686-5424

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

Section 30, T-32-N R-10-W, F
1650' FNL & 1650' FWL

5 Lease Designation and Serial No

SF 076554

6 If Indian, Allottee or Tribe Name

7 If Unit or CA. Agreement Designation

8 Well Name and No

Hamilton #2A

9 API Well No

300-045-21643

10 Field and Pool, or Exploratory Area

Blanco Mesaverde

11 County or Parish, State

San Juan, NM

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

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Repon

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other

Sidetrack

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracuring

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Repon result 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.)*

It is proposed to sidetrack this well according to the attached procedure.

14 I hereby certify that the foregoing is true and correct

Signed

Kay Maddox

Title

Kay Maddox

Regulatory Agent

Date

March 26, 1998

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval if any

BLM(6), NMOC(1), SHEAR, PONCA, COST ASST, FILE ROOM

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

*See Instruction on Reverse Side

NMOC

AFE : Hamilton 2A Sidetrack

COST:

Total gross: \$450M

Breakdown:	Drilling rig cost ---	\$180M
	Directional company--	\$80M
	Cementing ---	\$40M
	Logging ---	\$30M
	Perforating --	\$20M
	Day rig (prep/compl)	\$50M
	Frac stimulation	\$50M

JUSTIFICATION & ECONOMICS:

The Hamilton 2A well is currently an under-performing MesaVerde well, producing at a rate less than 150 MCFPD. The 2A well has 7" casing from surface to 3187', w/ squeezed PC perfs @ 2908'. Top of 4 1/2" liner is @ 2975' (Refer to attached Wellview skematic for mechanical history/ wellbore diagram.)

Based on 3 D seismic analysis, the Hamilton 2A is adjacent to a highly fractured MV fairway, which can be accessed by drilling a high angle sidetrack. It is therefore recommended to plug-back the well, using a daylight rig, then move a drilling rig in and high angle sidetrack.

Gross funds requested for this project is \$450M. Economics are based on an incremental IP of 300 MCFPD over existing completion rate.

(Refer to geological justification for more details)

(Refer to economic case for details)

SIDETRACK PROCEDURE:

PREPARATION WORK -- DAYLIGHT RIG

1. Check location to ensure adequate size for sidetrack rig operations. If pad extension necessary, obtain necessary approvals from BLM, etc.
2. Install and test anchors. MIRU.
3. Blow down well & kill if necessary. NDWH. NUBOPS.
4. TOO H w/ tbg. . RIH w/ bit and scrapper & gage inside 7" to TOL.
5. RU wireline. RIH w/ CBL, GR, CCL and log in 7" from TOL for min reqd interval. POOH. Run directional survey (gyro). If necessary, perform remedial cementing.
6. TIH w/ tbg and 4 1/2" packer and set in TOL. Pressure test backside to ensure pressure integrity of 7", squeeze perfs, and liner top. If OK, circulate inhibited brine & POOH.
7. RIH w/ CIBP on wireline and set @ window target, a min of 5' above or 20' below collar. (Note: plug may be integral w/ whipstock; if so, can skip this step)
8. Pressure test plug/ casing to 1500 psi.
9. RIH w/ oriented whipstock (hinge type: 3 degree) and set on CIBP.
10. Mill out casing window, and drill 1'-3' of open hole. POOH.
11. RD. Prepare location for drilling rig.

DRILLING ----

1. RIH w/ bit, 6 point reamer, drill collars. and drill pipe & drill preliminary sidetrack, taking TOTCO surveys every 300', holding angle at 3 degrees. Drill until 100' above directional kick off point. POOH.
2. RIH w/ bit, air motor, float, non-magnetic drilling collars (MWD inside collars), drilling collars, drill pipe. (Note: no stabilizer used).

3. Proceed to drill w/ mist, w/ EM tool survey every 30' (every connection). Add wrap every joint to drilling to avoid backoff problems. Geolograph and wildcat auto driller to be used.
4. Note flow tests at every connection. If highly fractured MV hit, flow tests will indicate.
5. After TD, pull up in casing and perform final flow test, running temp & GR open hole log (to identify specific crack depth).

CASING ----

NOTE: Minimize fluid on formation during this operation!

1. Based on flow tests highly fractured MV is encountered (ie, flow test 4 MMCF/D or above), 4 1/2" casing to be run to TD, w/ ECP above MV (and diverting tool above ECP). After casing run, set plug and inflate ECP. Test. If OK, proceed to cement above ECP to just above window.
2. If flow test less than 4 MMCF/D, proceed to run 4 1/2" casing WITHOUT ECP to TD. Circulate light slurry cement (or foam cement) to cover to across window. (may elect to back-off 4 1/2" casing above window after completion).

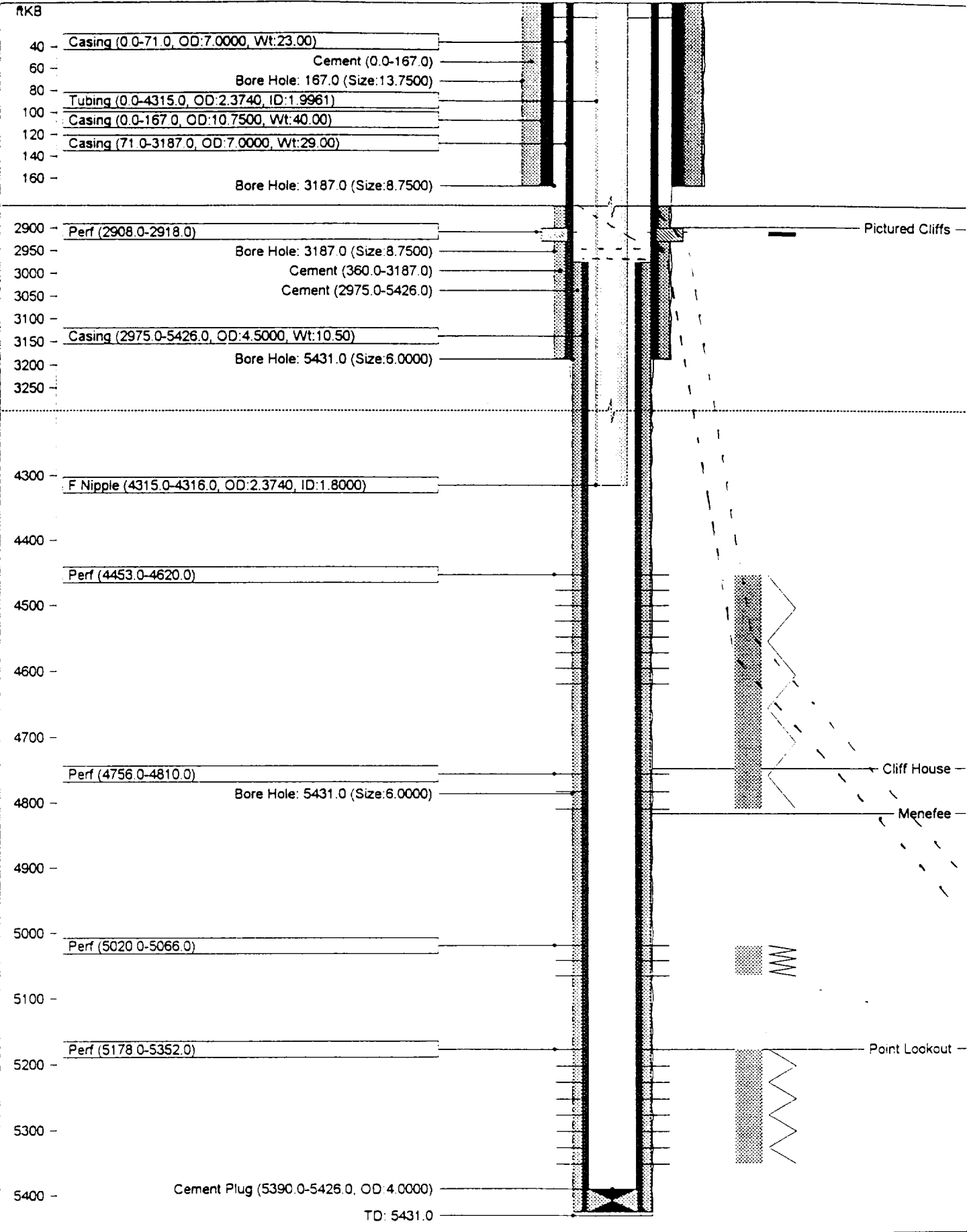
COMPLETION ---

1. RU completion rig, and RIH w/ bit and scrapper and cleanout to PBTD.
2. If ECP completion, only GR/CCL log required. If standard completion, run TDT log for correlation.
3. Perforate MV. If standard completion, proceed to fracture stimulate, as per BJ procedure.
4. Clean out ; unload well; and put to production.

Hamilton 2A

TD @ BHL = 5450' TVD (655' above S.L.)
BHL 2501' FWL; 2007' FNL; Sec 30

HAMILTON 2A (GMH 10/8/97)



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API Code	300452164300	Field Code	676380663
TD	5431.0 ftKB	Basin	SAN JUAN BASIN
PBTD	5390.0 ftKB	Basin Code	580
State	New Mexico	Permit	24-Dec-74
County	SAN JUAN	Spud	07-Feb-75
District	San Juan O.U.	Finish Dri	21-Feb-75
Permit No.		Completion	08-May-75
TD Measured	5436 ftKB	Abandon	
Reservoir	Mesaverde		
Field	BLANCO MV		

Location

Meridian	NM	Top Latitude	36.95897
Township	32N	Top Longitude	107.9265
Range	10W	Top NS Distance	1650.0 ft N
Section	30	Top EW Distance	1650.0 ft W
Quarter	NW SE NW	Bottom Latitude	0
		Bottom Longitude	0
		Btm NS Distance	0.0 ft
		Btm EW Distance	0.0 ft

Elevations

KB	6128.0 ft	Cas Fing	0.0 ft
Grd	6115.0 ft	Tub Head	0.0 ft
KB-Grd	13.0 ft		

Bore Hole Data

Depth (ftKB)	Size (in)
167.0	13.7500
3187.0	8.7500
5431.0	6.0000

Casing String - Surface Casing

Item (in)	Btm (ftKB)	Jnts	ID	Wt	Grd	Thd	Comments
10.7500 in Casing	167.0		10.0600	40.00			Assume 40#

Casing String - Intermediate Casing

Item (in)	Btm (ftKB)	Jnts	ID	Wt	Grd	Thd	Comments
7.0000 in Casing	71.0						
	3187.0						

HAMILTON 2A (GMH 10/8/97)

Stimulations & Treatments (con't)

Date	Type	Zone	Int	Fluid	Comments
06-Mar-75	Acid Squeeze	MV (MEN)	5020.0 - 5066.0	7 1/2% HCl	Spot 250 G, BD @ 250#. Pump 1000 G w/ 36 BS, good BA.
06-Mar-75	Fracture	MV (PLO)	5178.0 - 5352.0	Water	100,000 G w/ 72,000# 20/40 in 4 stgs. Drop 3 sets of 20 BS, @ end of 4th stg drop 20 BS & 300# Ben Ac Flks, no BO. ATP=225-400-1100# @ 30 bpm.
11-Mar-75	Acid Squeeze	MV (CH)	4453.0 - 4810.0	7 1/2% HCl	Displace spot, no BD. Pump 10 BW w/ 16 BS, 500 G acid w/ 32 BS, good action.
11-Mar-75	Fracture	MV (CH)	4453.0 - 4810.0	Water	100,000 G w/ 72,000# 20/40 in 4 stgs w/ 8 BS between stgs, BO on 4th stg. ATP=500-700-1400-1800# @ 32 bpm (23 bpm @ 4th stg)
16-Mar-75	Fracture	Pictured Cliffs	2908.0 - 2918.0	Water	Spot 150 G 15% HCl, BD @ 2100#. POOH w/ tbq, frac w/ 24,000 G w/ 33,000# 20/40. ATP=1300# @ 20 bpm, ISIP=900#
08-Jun-79	Cement Squeeze	Pictured Cliffs	2900.0 - 2930.0	Cement	Sqz w/ 200 sx below a pkr, stgd to 1200#.

Tubing String - Primary Tubing

Item (in)	Top (ftKB)	Len (ft)	Jnts	ID (in)	Wt	Grd	Thd	Comments
2.3740 in Tubing	0.0	4315.0	130	1.9961	4.70			Records indicate 145 jts @ 4813, pulled 15 jts & land tbq but did not give a setting depth.
2.3740 in F Nipple	4315.0	1.0		1.8000	0.00			

Completions & Workovers

Date	Reason for Workover	Failure Cause	Summary
08-Jun-79	Abandon Pictured Cliffs	Cement Squeeze	Abandon Pictured Cliffs - Sqz PC w/ 200 sx below a pkr, stgd to 1200#. DO, test to 1500#, OK. Run 2 3/8" tbq to 4316'.

Formation/Horizon Tops

Top (ftKB)	Formation
1725.0	Ojo Alamo
1770.0	Kirtland
2479.0	Fruitland
2898.0	Pictured Cliffs
4748.0	Cliff House
4817.0	Menefee
5178.0	Point Lookout

Logs Run

Date	Type	Int	Company	Comments
21-Feb-75	IND	160.0 - 5426.0	Dresser	
21-Feb-75	DEN	1500.0 - 3186.0	Dresser	
21-Feb-75	TEMP	3480.0 - 5406.0	Dresser	
04-Mar-75	GR-C	2500.0 - 5390.0	Dresser	

General Notes

Date	Note
08-May-75	Initial Potential: PC: F 200 MCFGPD; MV: F 3496 MCFGPD on 3/4 ck, TP 281, AOF 15.5 MMCF
11-Apr-77	Install PL on MV tbq string
01-Jul-91	Conoco assumed operations from Mesa

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Permit No.		Completion	08-May-75
TD Measured	5436 fKB	Abandon	
Reservoir	Mesaverde		
Field	BLANCO MV		

Event History

Date	Event	Description
01-Jul-91	Note	Conoco assumed operations from Mesa
13-Jun-79	Tub Run	2.3740 in F Nipple, ID: 1.8000in, 2.3740 in Tubing, Jnts: 130, ID: 1.9961in
08-Jun-79	Comp/WO	Abandon Pictured Cliffs, Cement Squeeze, Sqz PC w/ 200 sx below a pkr, stgd to 1200#. DO, test to 1500#. OK. Run 2 3/8" tbg to 4316'
08-Jun-79	Stim/Treat	Cement Squeeze, 2900.0 - 2930.0fKB
11-Apr-77	Note	Install PL on MV tbg string
08-May-75	Note	Initial Potential: PC: F 200 MCFGPD; MV: F 3496 MCFGPD on 3/4 ck, TP 281, AOF 15.5 MMCF
16-Mar-75	Stim/Treat	Fracture, 2908.0 - 2918.0fKB
15-Mar-75	Perf	2908.0 - 2918.0fKB, 1.0/f
11-Mar-75	Stim/Treat	Fracture, 4453.0 - 4810.0fKB, Acid Squeeze, 4453.0 - 4810.0fKB
11-Mar-75	Perf	4756.0 - 4810.0fKB, 1.0/f, 4453.0 - 4620.0fKB, 1.0/f
06-Mar-75	Stim/Treat	Fracture, 5178.0 - 5352.0fKB, Acid Squeeze, 5020.0 - 5066.0fKB, Fracture, 5020.0 - 5066.0fKB
06-Mar-75	Perf	5020.0 - 5066.0fKB, 1.0/f
05-Mar-75	Stim/Treat	Acid Squeeze, 5178.0 - 5352.0fKB
05-Mar-75	Perf	5178.0 - 5352.0fKB, 1.0/f
04-Mar-75	Other Run	Cement Plug, 5390.0 - 5426.0fKB, OD: 4.0000in
04-Mar-75	Log	GR-C, 2500.0 - 5390.0fKB, Dresser
22-Feb-75	Cas Cmmt	Production Liner, Top Found At 2975.0fKB, With 225sx
22-Feb-75	Cas Run	4.5000 in Casing, Jnts: 62, ID: 4.0500in
21-Feb-75	Log	TEMP, 3480.0 - 5406.0fKB, Dresser, DEN, 1500.0 - 3186.0fKB, Dresser, IND, 160.0 - 5426.0fKB, Dresser
21-Feb-75	Bore Hole	6.0000in, Depth 5431.0fKB
15-Feb-75	Cas Cmmt	Intermediate Casing, Top Found At 360.0fKB, With 360sx
15-Feb-75	Cas Run	7.0000 in Casing, Jnts: 78, ID: 6.1900in, 7.0000 in Casing, Jnts: 2, ID: 6.3700in
14-Feb-75	Bore Hole	8.7500in, Depth 3187.0fKB
29-Jan-75	Cas Cmmt	Surface Casing, Top Found At 0.0fKB, With 125sx
29-Jan-75	Cas Run	10.7500 in Casing, ID: 10.0600in
29-Jan-75	Bore Hole	13.7500in, Depth 167.0fKB

MEXICAN CONSERVATION COMMISSION FIELD LOCATION AND ACREAGE DEDICATION PLAT

FORM 1-1952
 Replaces Form 1-1947
 (Revised 1-1952)

U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT

Map Sheet No. _____

Date _____

88271

Section _____ Township _____ Range _____

County _____ State _____

Name of Land _____

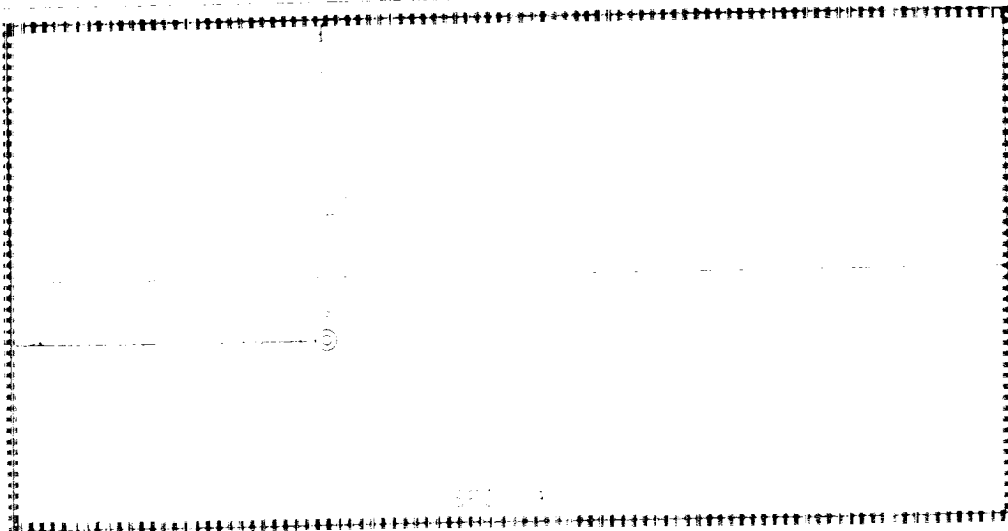
Description of Land _____

(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____



(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____

(Optional) _____

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

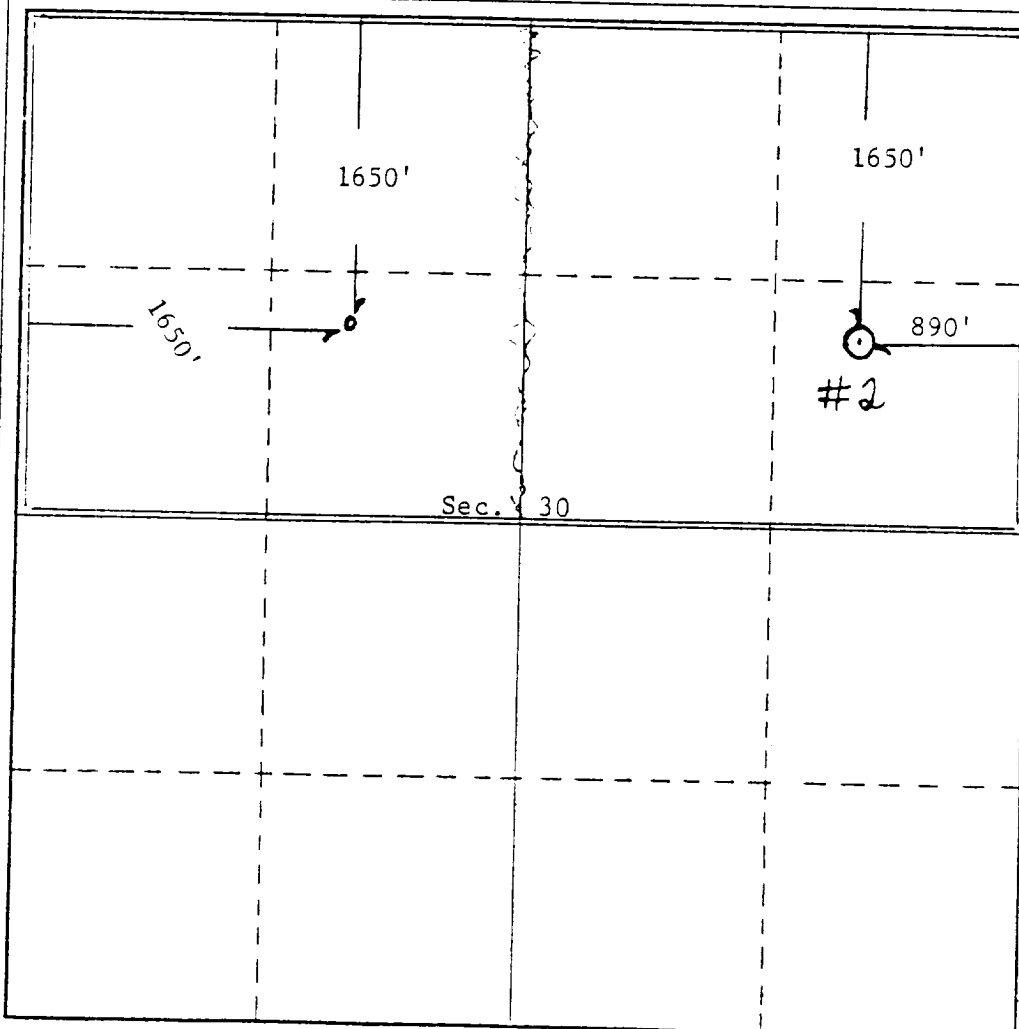
Operator Mesa Petroleum Co.			Lease Hamilton		Well No. 2A
Unit Letter F	Section 30	Township 32 North	Range 10 West	County San Juan	
Actual Footage Location of Well:					
1650 feet from the North line and		1650 feet from the West line			
Ground Level Elev. 6115'	Producing Formation Pictured Cliffs	Pool Blanco	Dedicated Acreage: 160 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name
J. L. Farrell

Position
Operations Manager

Company
Mesa Petroleum Co.

Date
11/7/75

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 knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.