

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-039-21873

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒OTHER ☐SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

PO Box 990, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1850'S, 1740'E

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

16 miles East of Blanco, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

790'

16. NO. OF ACRES IN LEASE

Unit

17. NO. OF ACRES ASSIGNED

TO THIS WELL

E 320.00

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

3000'

19. PROPOSED DEPTH

6090'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6665' GR

22. APPROX. DATE WORK WILL START*

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13 3/4"	9 5/8"	32.3#	200'	224 cu.ft. to circulate
8 3/4"	7"	20.0#	3860'	266 cu.ft. to cover Ojo Alan
6 1/4"	4 1/2" liner	10.5#	3710-6090'	415 cu.ft. to fill to 3710'

Selectively perforate and sandwater fracture the Mesa Verde formation.

A 3000 psi WP and 6000 psi test double gate preventer equipped with
blind and pipe rams will be used for blow out prevention on this well.This gas is dedicated.

The E/2 of Section 18 is dedicated to this well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

A. G. Suarez

TITLE

Drilling Clerk

DATE August 17, 1978

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

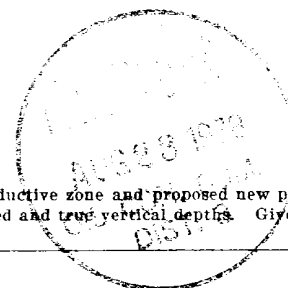
APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side



RECEIVED

AUG 22 1978

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-122
Effective 1-1-65

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

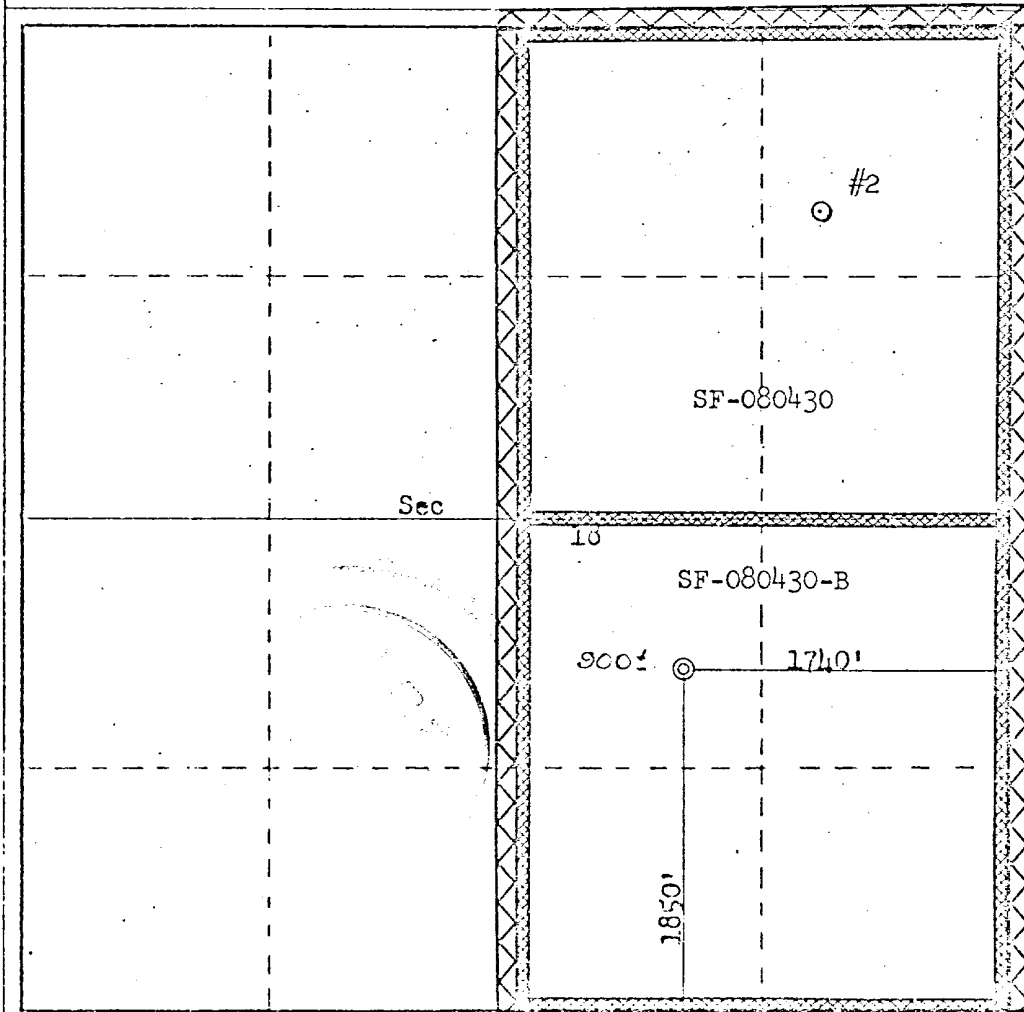
Operator EL PASO NATURAL GAS COMPANY			Lease SAN JUAN 28-6 UNIT (SF-080430-B)		Well No. 2A
Tract Letter J	Section 18	Township 28N	Range 6W	County Rio Arriba	
Actual Footage Location of Well: 1850 feet from the South line and 1740 feet from the East line					
Ground Level Elev. 6665	Producing Formation Mesa Verde		Pool Blanco Mesa Verde	Dedicated Acreage: 320.00 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Unitization

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.

D. P. Hisco

Drilling Clerk

El Paso Natural Gas Co.

August 18, 1978

Date

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 July 25, 1978

Registered Professional Engineer and Licensed Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

3950 FARR, JR.

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960

Multi-Point Surface Use Plan
San Juan 28-6 Unit #2A

1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Map No. 2.
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 1 and No. 2. Map No. 2 shows the existing gas gathering lines. Map No. 1 shows the existing roads and new proposed access roads. All known production facilities are shown on these two maps.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from 28-6 Water Well #1.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1,

7. cont'd. will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.
8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to the attached Plat No. 1.
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
11. Other Information - The terrain is rolling hills and sagebrush flats with sagebrush growing. Cattle graze the proposed project site.
12. Operator's Representative - W.D. Dawson, PO Box 990, Farmington, NM
13. Certification - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by El Paso Natural Gas Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.



D. C. Walker
Project Drilling Engineer

August 21, 1978

Operations Plan
San Juan 28-6 Unit #2A

I. Location: 1850'S, 1740'E, Section 18, T-28-N, R-6-W, Rio Arriba County, N

Field: Blanco Mesa Verde

Elevation: 6665'GR

II. Geology:

A. Formation Tops:	Surface	San Jose	Lewis	3660'
	Ojo Alamo	2680'	Mesa Verde	5110'
	Kirtland	2770'	Menefee	5280'
	Fruitland	3200'	Point Lookout	5640'
	Pic.Cliffs	3460'	Total Depth	6090'

B. Logging Program: GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 5100', 5270', 5630' and at Total Depth.
Also gauge any noticeable increase in gas. Record all gauges in daily drilling report and on morning report.

III. Drilling:

A. Mud Program: mud from surface to 3860'. Gas from intermediate casing to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Casing Size</u>	<u>Wt.&Grade</u>
	13 3/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	3860'	7"	20.0# K-55
	6 1/4"	3710-6090'	4 1/2"	10.5# K-55

B. Float Equipment: 9 5/8" surface casing - Pathfinder guide shoe (Part #2006-1-012).

7" intermediate casing - Pathfinder guide shoe (Part #1003-1-007) and Pathfinder self-fill insert float valve (Part #2010-6-007), 5 Pathfinder stabilizers (Part #107-10) every other joint above shoe. Run float two joints above shoe.

4 1/2" liner - 4 1/2" liner hanger with neoprene packoff. Pathfinder geyser shoe (Part #2017-1-050) and Larkin flapper type float collar (fig. 404 M&F).

C. Tubing: 6090' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple one joint above bottom. Tubing will be open ended.

D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" 900 x 6" 900 xmas tree.

Operations Plan - San Juan 28-6 Unit #2A

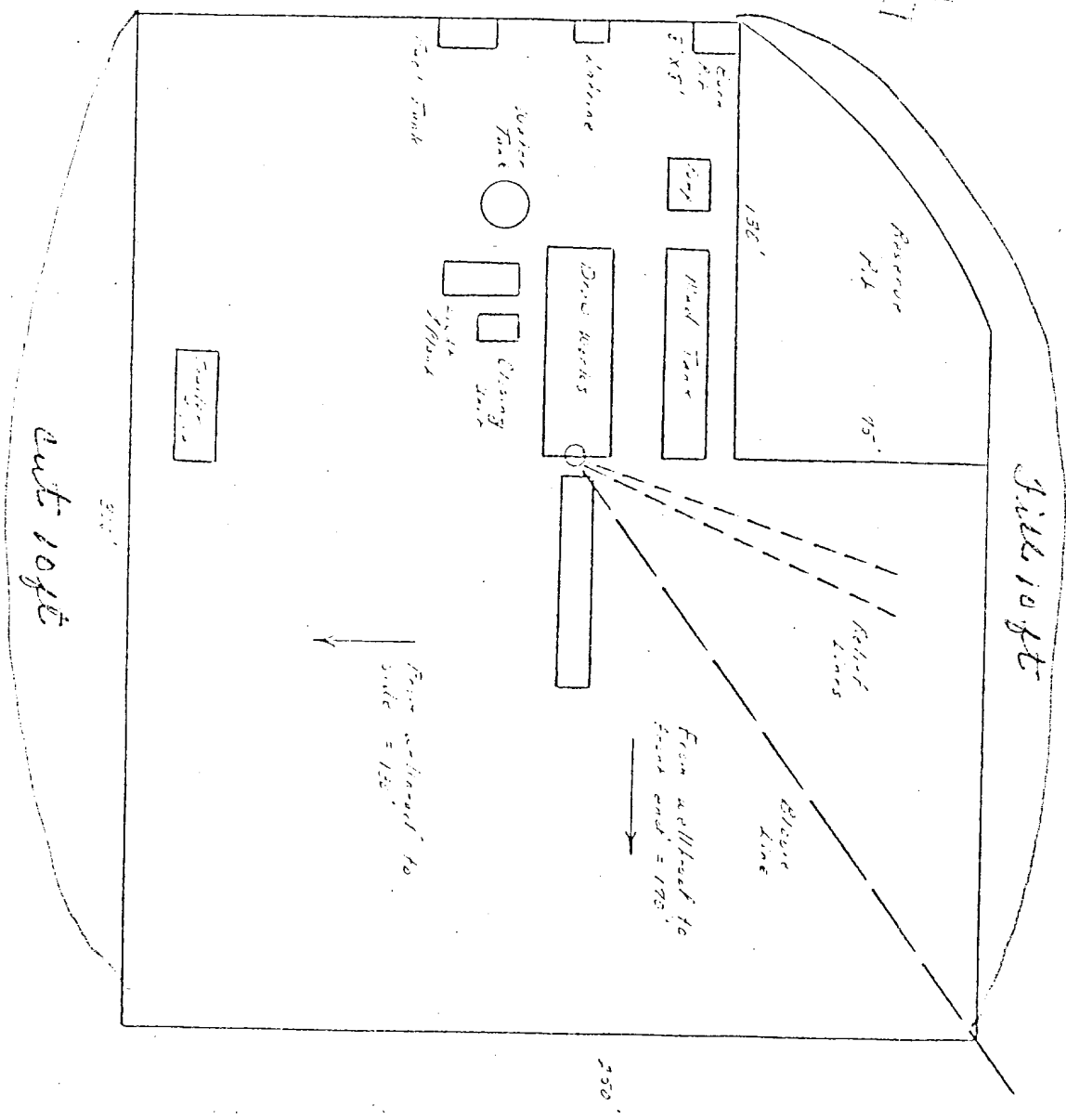
V. Cementing:

9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

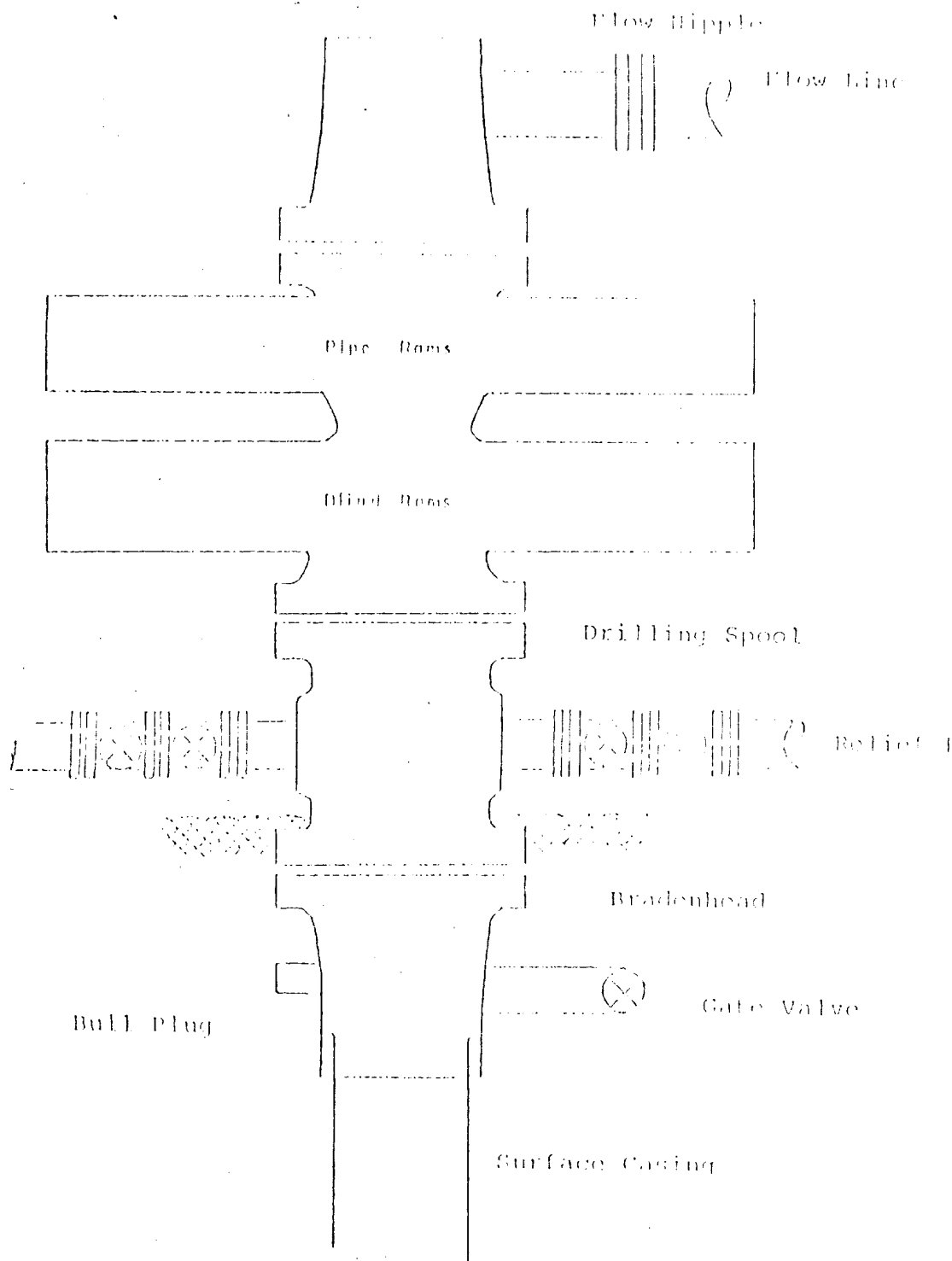
7" intermediate casing - use 91 sks. of 65/35 Class "B" Poz with 6% gel and 2% calcium chloride (8.3 gallons of water per sack) followed by 100 sks. of Class "B" with 2% calcium chloride (266 cu.ft. of slurry, 50% excess to cover Ojo Alamo). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.

4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 299 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (415 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.

El Paso Natural Gas Company
Good location for gas well and water tank
Well Name: San Juan 28-6 N. 34
SE 18-20.6



Typical B.O.P. Installation for Mega Verde Well

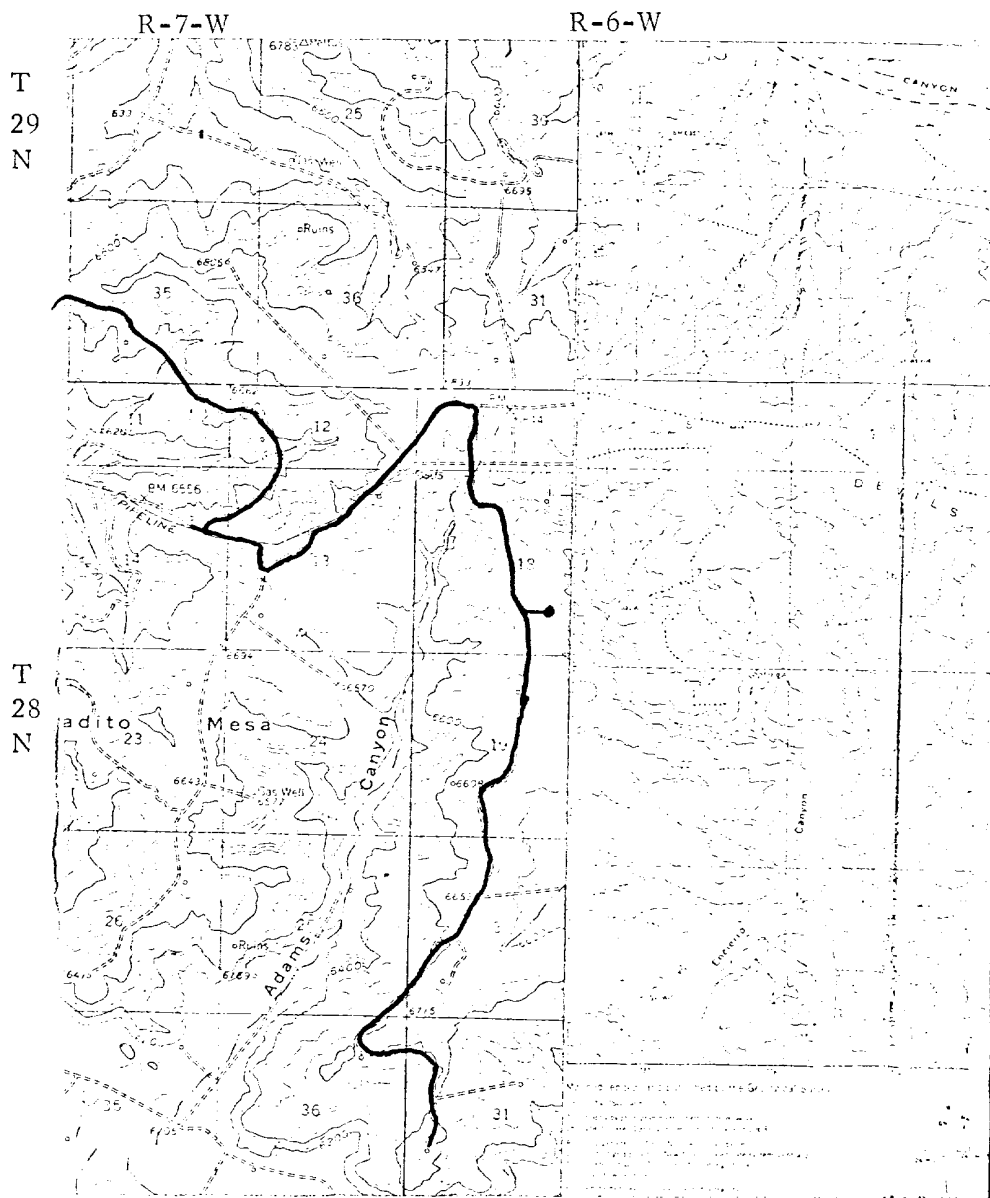


Series 900 Double Gate BOP, rated
at 3000 psi Working Pressure
When gas drilling operations begin a Shaffer type 50
or equivalent rotating head is installed on top of the
flow nipple and the flow line is converted into a blowie line

EL PASO NATURAL GAS COMPANY

San Juan 28-6 Unit #2A

SE 18-28-6



MAP #1

LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS	— — — — —
EXISTING PIPELINES	+ + + + +
EXISTING ROAD & PIPELINE	+ + + + +
PROPOSED ROADS	— — — — —
PROPOSED PIPELINES	+ + + + +
PROPOSED ROAD & PIPELINE	+ + + + +

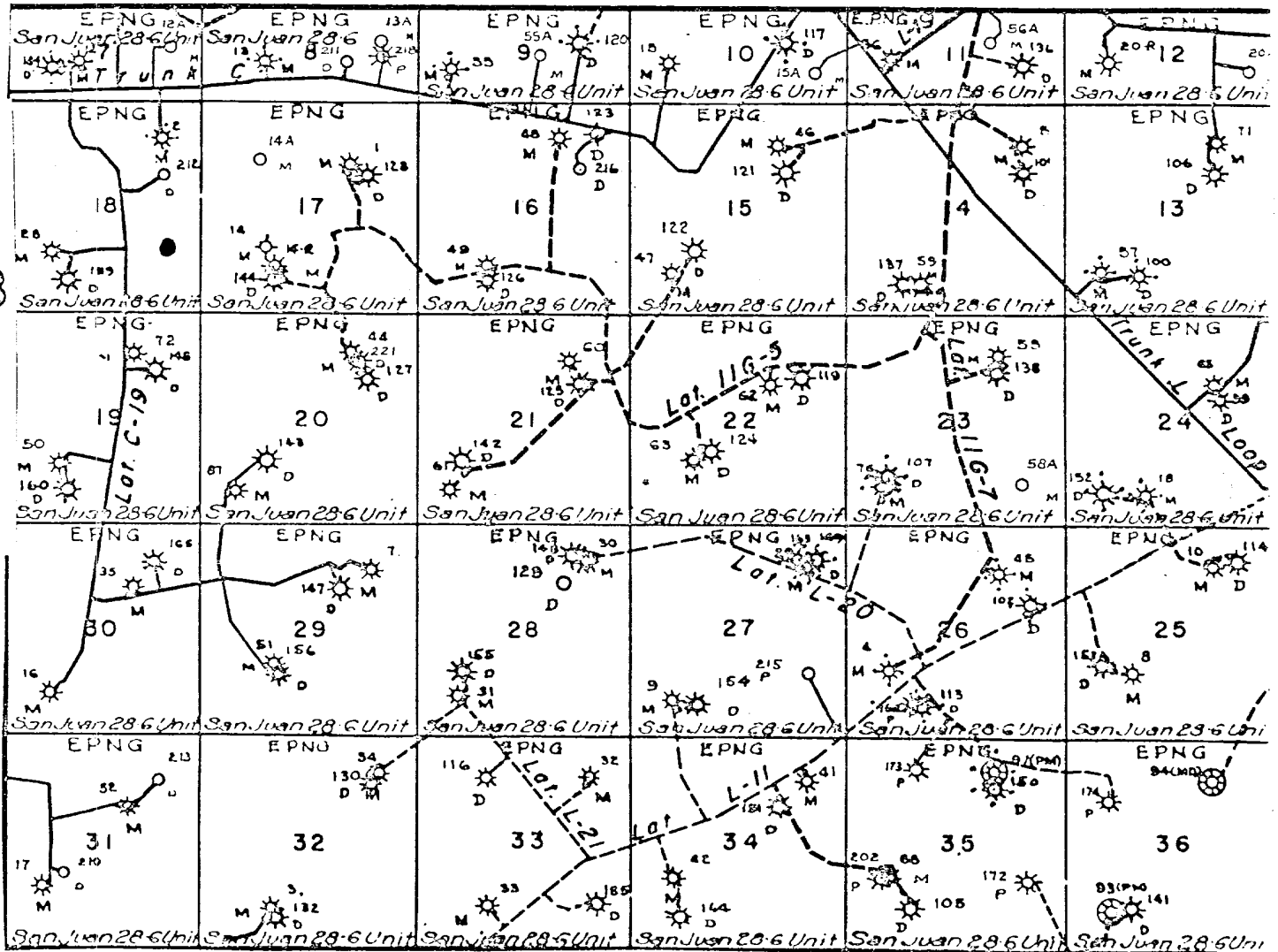
EL PASO NATURAL GAS COMPANY

San Juan 28-6 Unit #2A

SE 18-28-6

R-6-W

T
28
N



Map #2

Proposed Location ●

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil ☐ well gas ☒ well other ☐
2. NAME OF OPERATOR
El Paso Natural Gas Company
3. ADDRESS OF OPERATOR
P.O. Box 289, Farmington, New Mexico 87401
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1850'S, 1740'E
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* ☐
(other) ☐

SUBSEQUENT REPORT OF:

☒
☐
☐
☐
☐
☐
☐
☐
☐

17. 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.)*

6-3-79: Spudded well. Drilled surface hole.

6-4-79: Ran 5 jts. 9 5/8", 36#, K-55 surface casing, 212' set at 225'. Cemented w/224 cu. ft. cement. Circulated to surface. WOC 12 hours; held 600#/30 minutes.

Subsurface Safety Valve: Manu. and Type _____

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

SIGNED A. D. Drisco TITLE Drilling Clerk DATE June 5, 1979

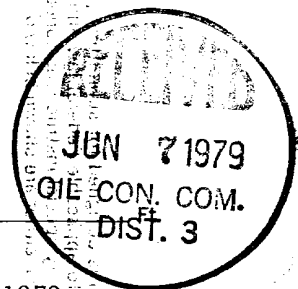
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

5. LEASE SF 080430-B	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME San Juan 28-6 Unit	
8. FARM OR LEASE NAME San Juan 28-6 Unit	
9. WELL NO. 2A	
10. FIELD OR WILDCAT NAME Blanco M.V.	
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 18, T-28-N, R-6-W N.M.P.M.	
12. COUNTY OR PARISH Rio Arriba	13. STATE New Mexico
14. API NO.	
15. ELEVATIONS (SHOW DF, KDB, AND WD) 6665' GL	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)



1979

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form Approved.
Budget Bureau No. 42-R1424

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 Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other
2. NAME OF OPERATOR El Paso Natural Gas Company
3. ADDRESS OF OPERATOR P.O. Box 289, Farmington, New Mexico 87401
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) AT SURFACE: 1850'S, 1740'E AT TOP PROD. INTERVAL: AT TOTAL DEPTH:
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF ☐	☒
FRACTURE TREAT ☐	☐
SHOOT OR ACIDIZE ☐	☐
REPAIR WELL ☐	☐
PULL OR ALTER CASING ☐	☐
MULTIPLE COMPLETE ☐	☐
CHANGE ZONES ☐	☐
ABANDON* ☐	☐
(other)	

5. LEASE SF 080430B	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME S.J. 28-6 Unit	
8. FARM OR LEASE NAME S.J. 28-6 Unit	
9. WELL NO. 2A	
10. FIELD OR WILDCAT NAME Blanco M.V.	
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 18, T-28-N, R-6-W N.M.P.M.	
12. COUNTY OR PARISH Rio Arriba	13. STATE New Mexico
14. API NO.	
15. ELEVATIONS (SHOW DF, KDB, AND WD) 6665' G.L.	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. 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.)*

6-09-79: TD 3857'. Ran 101 jts. 7", 20#, J-55 intermediate casing, 3845' set at 3857'. Cemented w/272 cu. ft. cement. WOC 12 hours, held 1200#/30 minutes. Top of cement at 2700'.

6-12-79: TD 6097'. Ran 73 jts. 4 1/2", 10.5#, K-55 casing liner, 2381' set 3716-6097'. Float collar set at 6081'. Cemented w/421 cu. ft. cement. WOC 18 hours.

Subsurface Safety Valve: Manu. and Type _____

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

SIGNED Bradford TITLE Drilling Clerk

DATE 6-12-79

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____ DATE _____

*See Instructions on Reverse Side

JUN 14 1979
OIL CON. COM.
DIST. 3
Set @ _____ Ft.
JUN 13 1979

FORM 432-2

WILSON

SERVICE COMPANY

TEMPERATURE SURVEY

COMPANY..... El Paso Natural Gas Co.
WELL..... 2A..... LEASE..... San Juan 28-6
COUNTY..... Rio Arriba..... STATE..... New Mexico
SEC..... 1..... TWP..... 3 N..... RGE..... 6 E

APPROX. TOP CEMENT..... 2700'

Survey Begins at..... 2000'..... Ft. Ends at..... 3760'..... Ft.

Approx. Fill-Up..... Max. Temp.

Log Measured From..... KB..... Run No.

Casing Size	Casing Depth	Diam of Hole
7" from..... to.....	8 3/4" from..... to.....	from..... from.....

Date of Cementing..... 6/9/79..... Time..... 1:30 AM

Date of Survey..... 6/9/79..... Time..... 9:30 AM

Amount of Cement..... 95 Scks 65/35 Class B Poz 6% Gel 2% CACL + 100

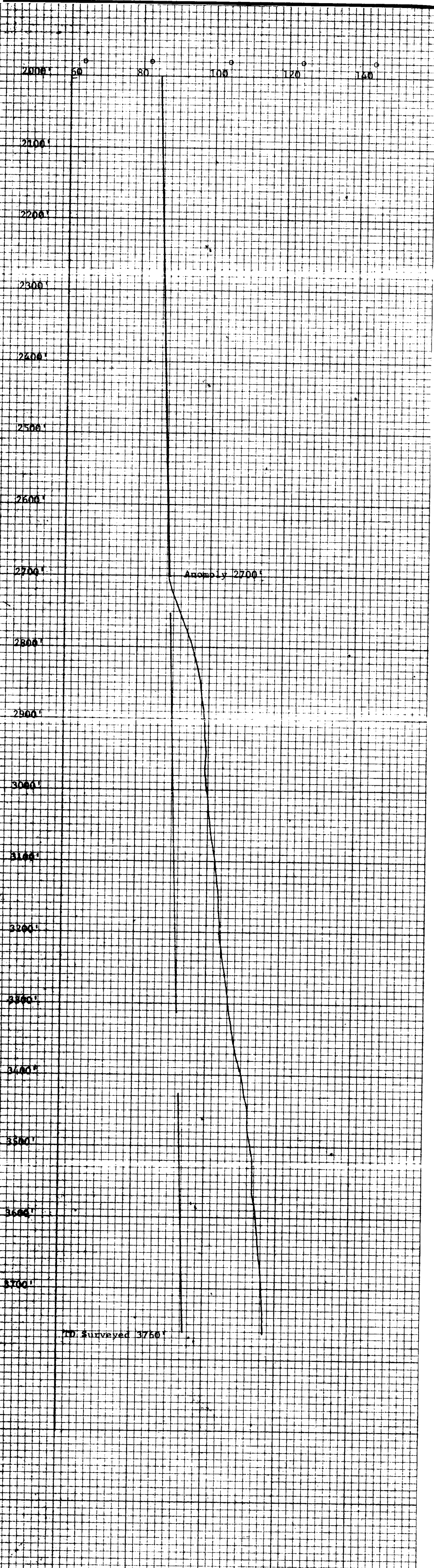
Scks Class B w/2% CACL.

Recorded by..... Griffey..... Witnessed by.....

REMARKS OR OTHER DATA

Ojo Alamo 2680'.

TEMPERATURE IN DEGREES FAHRENHEIT



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil ☐ gas ☒ other ☐
2. NAME OF OPERATOR
El Paso Natural Gas Company
3. ADDRESS OF OPERATOR
P.O. Box 289, Farmington, New Mexico 87401
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1850'S, 1740'E
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* ☐
(other) ☐

SUBSEQUENT REPORT OF:

- ☒
☐
☐
☐
☐
☐
☐
☐

17. 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.)*

7-3-79: PBTD 6081'. Tested casing to 3500#, OK. Perfed Mass. & Lower PL-5597, 5606, 5649, 5655, 5671, 5678, 5697, 5704, 5710, 5717, 5724, 5730, 5745, 5752, 5765, 5781, 5793, 5802, 5828, 5866, 5887, 5905, 5975, 5997, 6025, 6046'. w/1 SPZ. Fraced w/90,000# 20/40 sand 180,000 gal. water. Flushed w/7800 gal. water. Perfed C.H. & Men. 5057, 5096, 5110, 5117, 5123, 5146, 5162, 5189, 5196, 5209, 5217, 5235, 5243, 5254, 5262, 5270, 5372, 5385, 5392, 5398, 5419, 5425, 5522'. w/1SPZ. Fraced w/83,000# 20/40 sand, 166,000 gal. water. Flushed w/7200 gal. water.

Subsurface Safety Valve: Manu. and Type _____

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

SIGNED D. G. Buico TITLE Drilling Clerk DATE July 5, 1979

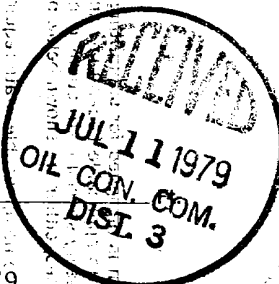
(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____ DATE _____

5. LEASE SF080430B
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME San Juan 28-6 Unit
8. FARM OR LEASE NAME San Juan 28-6 Unit
9. WELL NO. 2A
10. FIELD OR WILDCAT NAME Blanco MV
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 18, T-28-N, R-6-W N.M.P.M.
12. COUNTY OR PARISH R.A.
13. STATE N.M.
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD) 6665' GL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE July 16, 1979

Operator El Paso Natural Gas Company		Lease San Juan 28-6 Unit #2A	
Location NW 18-28-06		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 6097'	Tubing: Diameter 2 3/8	Set At: Feet 6033'
Pay Zone: From 5057	To 6046	Total Depth: 6097'	Shut In 7-7-79
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing

Choke Size, Inches		Choke Constant: C			
Shut-In Pressure, Casing, PSIG 727	+ 12 = PSIA 739	Days Shut-In 9	Shut-In Pressure, Tubing PSIG 390	+ 12 = PSIA 402	
Flowing Pressure: P PSIG	+ 12 = PSIA		Working Pressure: P _w PSIG	+ 12 = PSIA	
Temperature: T = °F Ft =	n =		Fpv (From Tables)	Gravity Fg =	

$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

Q =

= _____ MCF/D

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = Q \left(\frac{\quad}{\quad} \right)^n =$$

Aof = _____ MCF/D

TESTED BY J. Easley

WITNESSED BY _____

C.R. Wagner
Well Test Engineer

EL PASO NATURAL GAS CO.

DEVIATION REPORT

Name of Company El Paso Natural Gas Company		Address P. O. Box 289, Farmington, New Mexico 87401			
Lease San Juan 28-6 Unit	Well No. 2A	Unit J	Sec. 18	Township 28-N	Range 6-W
Pool Blanco Mesa Verde			County Rio Arriba		

DEPTH	DEVIATION
225'	1/2°
730'	1/2°
1230'	1/2°
1728'	1°
2131'	3/4°
2609'	1°
3000'	1°
3525'	3/4°
3860'	3/4°
4356'	1°
4850'	1°
5362'	1/2°
5860'	3/4°
6090'	3/4°



I, the undersigned, certify that I, acting in my capacity as Petroleum Engineer of El Paso Natural Gas Company, am authorized by said Company to make this report; and that this report was prepared by me or under my supervision and directions and that the facts stated therein are true to the best of my knowledge and belief.

W. H. Lawrence

Subscribed and sworn to before me this 18th day of July, 1979.

Edley G. Larrick
Notary Public in and for San Juan County, New Mexico

My Commission expires, January 4, 1981
~~October 5, 1980~~

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE July 18, 1979

Operator El Paso Natural Gas Company		Lease San Juan 28-6 Unit 210	
Location SW 31-28-6		County Rio Arriba	State NEW MEXICO
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7767	Tubing: Diameter 1 1/2	Set At: Feet 7741
Pay Zone: From 7582	To 7756	Total Depth: 7767	Shut In 6-27-79
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing

Choke Size, Inches		Choke Constant: C			
Shut-In Pressure, Casing, PSIG 2634	+ 12 = PSIA 2646	Days Shut-In 22	Shut-In Pressure, Tubing PSIG 2634	+ 12 = PSIA 2646	
Flowing Pressure: P PSIG	+ 12 = PSIA		Working Pressure: P _w PSIG	+ 12 = PSIA	
Temperature: T = °F Ft =	n =		F _{pv} (From Tables)	Gravity F _g =	

$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = \text{_____ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = Q \left(\text{_____} \right)^n =$$

$$Aof = \text{_____ MCF/D}$$

TESTED BY Joe Easley

WITNESSED BY _____

C. R. Wagner
Well Test Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R455.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____		5. LEASE DESIGNATION AND SERIAL NO. SF 080430-B	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR El Paso Natural Gas Company		7. UNIT AGREEMENT NAME San Juan 28-6 Unit	
3. ADDRESS OF OPERATOR Box 289, Farmington, New Mexico		8. FARM OR LEASE NAME San Juan 28-6 Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1850'S, 1740'E At top prod. interval reported below At total depth		9. WELL NO. 2A	
14. PERMIT NO.		DATE ISSUED	
15. DATE SPUDDED 6-3-79		16. DATE T.D. REACHED 6-12-79	
17. DATE COMPL. (Ready to prod.) 7-16-79		18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 6665' GL	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 6097'	
21. PLUG, BACK T.D., MD & TVD 6081'		22. IF MULTIPLE COMPL., HOW MANY*	
23. INTERVALS DRILLED BY →		24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5057'-6046' (Mesa Verde)	
25. WAS DIRECTIONAL SURVEY MADE NO		26. TYPE ELECTRIC AND OTHER LOGS RUN IL-GR; , Temperature Survey; CDL-GR.	
27. WAS WELL CORED NO		28. CASING RECORD (Report all strings set in well)	
Casing Size		Weight, lb./ft.	
9 5/8"		36#	
7"		20#	
Depth Set (MD)		Hole Size	
225'		13 3/4"	
3857'		8 3/4"	
Cementing Record		Amount Pulled	
224 cu. ft.			
272 cu. ft.			
29. LINER RECORD		30. TUBING RECORD	
Size		Top (MD)	
4 1/2"		3716'	
Bottom (MD)		Sacks Cement*	
6097'		421 cf	
Screen (MD)		Size	
		2 3/8"	
Depth Set (MD)		Packer Set (MD)	
6034'			
31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
5057, 5096, 5110, 5117, 5123, 5146, 5162, 5189, 5196		Depth Interval (MD)	
5209, 5217, 5235, 5243, 5254, 5262, 5270, 5372, 5385		Amount and Kind of Material Used	
5392, 5398, 5419, 5425, 5522, w/l SPZ, 5597, 5606		5057-5522'	
5649, 5655, 5671, 5678, 5697, 5704, 5710, 5717, 5724		83,000# Sd, 186,000 gal. wtr.	
5730, 5745, 5752, 5765, 5781, 5793, 5802, 5828, 5866		5597-6046'	
5887, 5905, 5975, 5997, 6025, 6046' w/l SPZ.		90,000# Sd, 180,000 gal. wtr.	
33. PRODUCTION		WELL STATUS (Producing or shut-in)	
Date First Production		Shut-in	
Production Method (Flowing, gas lift, pumping—etc and type of pump) After Frac Gauge 2779 MCF/D			
Date of Test		Hours Tested	
7-16-79			
Flow. Tubing Press.		Casing Pressure	
SI 402		SI 739	
Calculated 24-Hour Rate		Oil—BBL.	
		Gas—MCF.	
		Water—BBL.	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)		TEST WITNESSED BY J. Easley	
35. LIST OF ATTACHMENTS		36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records	
SIGNED <i>James Bradfield</i>		TITLE Drilling Clerk	
DATE JUL 25 1979		DATE 7-18-79	

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. **Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
				Mesa Verde	5093	
				Point Lookout	5631	