

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

10/19/05 14:08:05  
OGOMES -TPGM  
PAGE NO: 1

Sec : 30 Twp : 29N Rng : 09W Section Type : NORMAL

*Lots 6, 11-13 = 107.57 acres*

*187.16*

1 10.54 Federal owned	<del>40.00</del> Fee owned A A	B 40.00 Fee owned A A	5 44.86 Federal owned
<del>10.47</del> Federal owned	<del>40.00</del> Fee owned A	G 40.00 Fee owned A	7 46.91 Federal owned
11 10.55 Federal owned	10 36.47 Federal owned	9 45.31 Federal owned	8 44.94 Federal owned
12 11.49 Federal owned	13 38.18 Federal owned	14 40.92 Federal owned	15 40.56 Federal owned

*26842 (83.88%)*

*Entered January 30, 1969*

*C.A.P.*

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION TO CONSIDER THE ESTABLISHMENT OF NON-STANDARD GAS PRORATION UNITS AND UNORTHODOX GAS WELL LOCATIONS, WHERE NECESSARY, IN THE AZTEC AND BLANCO-PICTURED CLIFFS GAS POOLS IN SECTIONS 6, 7, 18, 19, 30, AND 31, TOWNSHIPS 29 AND 30 NORTH, RANGES 8 AND 9 WEST, NMPM, SAN JUAN COUNTY, NEW MEXICO.

CASE No. 4032  
Order No. R-3669

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 22, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 30th day of January, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That due to variations in legal subdivisions of the U. S. Public Land Surveys along the west sides of Township 29 North, Range 8 West, Township 29 North, Range 9 West, Township 30 North, Range 8 West, and Township 30 North, Range 9 West, NMPM, San Juan County, New Mexico, the west halves of Sections 6, 7, 18, 19, 30, and 31 in each of said townships are irregular in size.

(3) That said irregularity in size precludes the establishment of standard 160-acre drilling and proration units.

(4) That said irregularity in size precludes the drilling of wells at locations prescribed for standard 160-acre units.

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CASE No. 4032

Order No. R-3669

(5) That the principal gas producing formation in the area is the Pictured Cliffs.

(6) That a standard gas proration unit in the Pictured Cliffs formation in the area of the subject sections is 160 acres.

(7) That the principal gas producing pools in the subject area are the Aztec-Pictured Cliffs Gas Pool and the Blanco-Pictured Cliffs Gas Pool.

(8) That the applicable rules provide that gas wells in the Aztec-Pictured Cliffs and Blanco-Pictured Cliffs Gas Pools be located not closer than 790 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.

(9) That in order to ensure systematic development and thereby prevent waste and protect correlative rights, non-standard gas proration units approximating 160 acres each should be established for the Pictured Cliffs formation along the west side of the subject sections.

(10) That gas wells drilled on said units should be located not closer than 500 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.

(11) That Administrative Order No. NWU 3-75, dated March 18, 1968, approved a non-standard gas proration unit in the Blanco-Pictured Cliffs Gas Pool comprising the W/2 of Section 31, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico.

(12) That Administrative Order No. NWU 3-75 should be superseded by this order.

IT IS THEREFORE ORDERED:

(1) That the following-described non-standard gas spacing and proration units in the Pictured Cliffs formation, San Juan County, New Mexico, are hereby established:

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CASE No. 4032

Order No. R-3669

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM

<u>Unit</u>	<u>Acres</u>	<u>Description</u>
1	131.24	Section 6: Lots 8, 9, 10, 11, and 12
2	159.99	Section 6: Lots 14 and 15 Section 7: Lots 5, 6, 7, and 8
3	168.01	Section 7: Lots 9, 10, 11, and 12 Section 18: Lot 1 and NE/4 NW/4
4	173.87	Section 18: Lots 2, 3, 4, SE/4 NW/4, and E/2 SW/4
5	173.85	Section 19: Lots 1, 2, 3, E/2 NW/4, and NE/4 SW/4
6	173.75	Section 19: Lot 4 and SE/4 SW/4 Section 30: Lots 1, 2, and E/2 NW/4

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

<u>Unit</u>	<u>Acres</u>	<u>Description</u>
1	172.00	Section 6: Lots 8, 9, 10, 11, 12, 13, and 14
2	171.16	Section 6: SE/4 SW/4 Section 7: Lots 5, 6, 7, 9, and E/2 NW/4
3	177.18	Section 7: Lot 8 and SE/4 SW/4 Section 18: Lot 1 and E/2 NW/4
4	169.34	Section 18: Lots 2, 3, 4, and E/2 SW/4 Section 19: Lot 1 and NE/4 NW/4
5	166.18	Section 19: Lots 6, 9, 4, SE/4 NW/4, and E/2 SW/4 Section 30: Lot 1
6	187.16	Section 30: Lots 6, 10, 11, 12, 13, and E/2 NW/4

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CASE No. 4032

Order No. R-3669

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM

<u>Unit</u>	<u>Acres</u>	<u>Description</u>
1	164.28	Section 6: Lots 3, 4, 5, 6, SE/4 NW/4, and NE/4 SW/4
2	166.72	Section 6: Lot 7 and SE/4 SW/4 Section 7: Lots 1, 2, and E/2 NW/4
3	167.32	Section 7: Lots 3, 4, and E/2 SW/4 Section 18: Lot 1 and NE/4 NW/4
4	167.62	Section 18: Lots 2, 3, 4, SE/4 NW/4, and E/2 SW/4
5	169.64	Section 19: Lots 1, 2, 8, E/2 NW/4, and NE/4 SW/4
6	172.90	Section 19: Lot 9 and SE/4 SW/4 Section 30: Lots 6, 2, and E/2 NW/4
7	154.19	Section 30: Lots 3, 10, 11, and NE/4 SW/4 Section 31: Lots 7 and 8
8	128.31	Section 31: Lots 9, 10, 15, 16, 17, and 18

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM

<u>Unit</u>	<u>Acres</u>	<u>Description</u>
1	148.69	Section 6: Lots 4, 5, 6, E/2 NW/4, and NE/4 SW/4
2	151.16	Section 6: Lot 7 and SE/4 SW/4 Section 7: Lots 1, 2, and E/2 NW/4
3	150.94	Section 7: Lots 3, 4, and E/2 SW/4 Section 18: Lot 1 and NE/4 NW/4
4	153.45	Section 18: Lots 2, 3, 4, SE/4 NW/4, and E/2 SW/4

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CASE No. 4032

Order No. R-3669

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM  
(Continued from Page 4)

<u>Unit</u>	<u>Acres</u>	<u>Description</u>
5	155.16	Section 19: Lots 1, 2, 3, E/2 NW/4, and NE/4 SW/4
6	152.48	Section 31: Lots 2, 3, 4, SE/4 NW/4, and E/2 SW/4

(2) That each well drilled to or completed in the Pictured Cliffs formation on one of the above-described units shall be located not closer than 500 feet to any outer boundary of such unit nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.

(3) That Administrative Order No. NWU 3-75 is hereby superseded.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMISTO, Member

A. L. PORTER, Jr., Member & Secretary

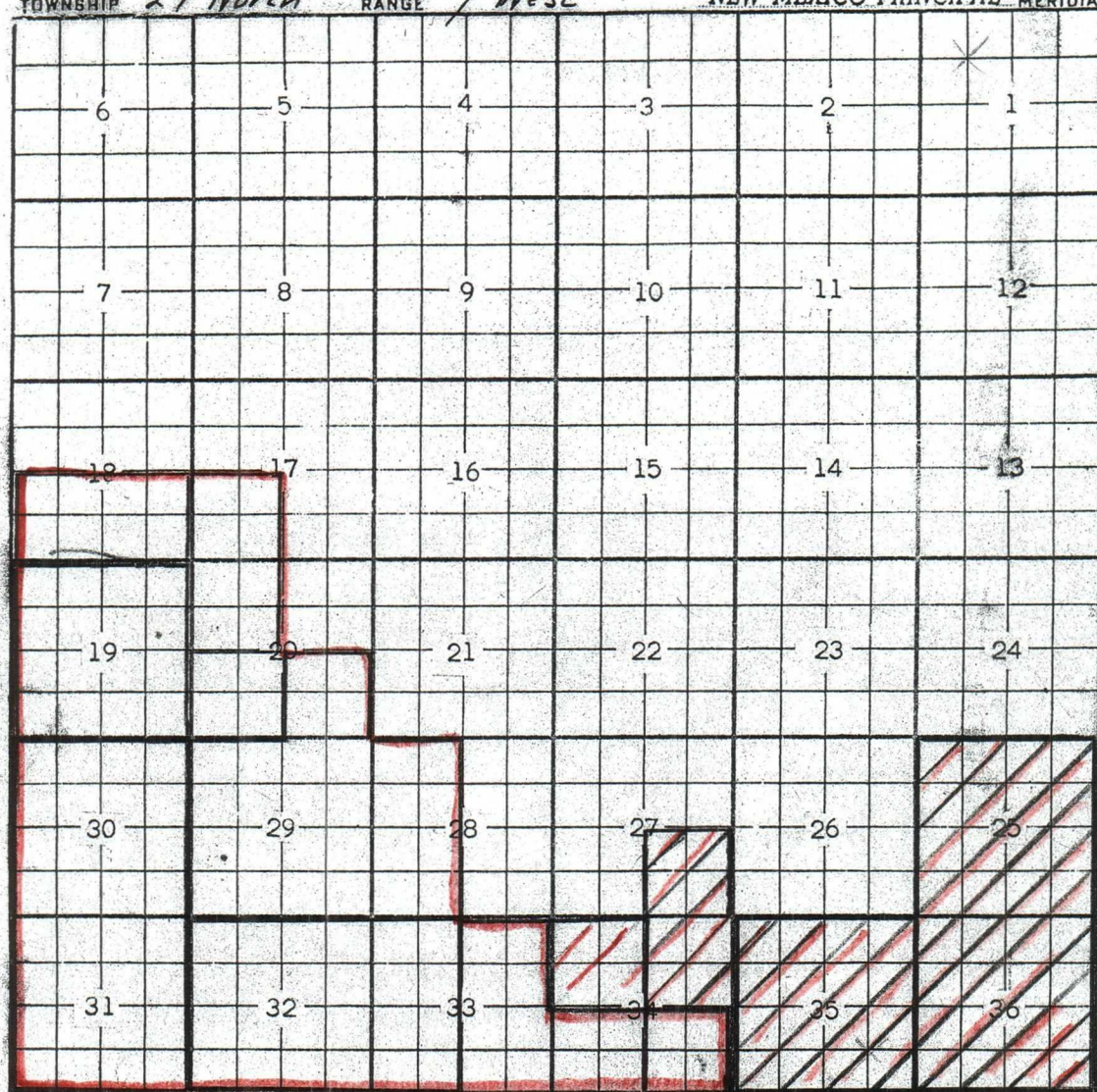
S E A L

esr/



County San Juan Pool Aztec - Pictured Cliffs

TOWNSHIP 29 North RANGE 9 West NEW MEXICO PRINCIPAL MERIDIAN



Description: All Sec. 30 & 31 (R-565, 12-23-54)

Ext: All Sec. 25 & 36 (R-1090, 12-1-57) - All Sec. 35 (R-1175, 6-1-58)

- All Sec. 32; W/2 Sec. 33 (R-1356, 4-1-59) -  $\frac{3}{4}$  Sec. 27;  $\frac{1}{4}$  Sec. 34 (R-2340, 11-1-62)

-  $\frac{3}{4}$  Sec. 20; W/2 Sec. 28; All Sec. 29;  $\frac{1}{2}$  Sec. 33; W/2 Sec. 34 (R-3167, 1-1-67)

Deletion: All Sec. 25;  $\frac{SE}{4}$  Sec. 27;  $\frac{N}{4}$  Sec. 34; All Sec. 35 & 36 (R-4002, 9-1-70)

- All Sec. 19 (R-4108, 3-1-71). Ext:  $\frac{1}{2}$  Sec. 18,  $\frac{SW}{4}$  Sec. 20 (R-4690, 12-1-73)

Ext:  $\frac{SW}{4}$  Sec. 17,  $\frac{NW}{4}$  Sec. 20 (R-5129, 1-1-76)

Ext:  $\frac{NW}{4}$  Sec. 34 (R-6327, 5-1-80)

2005 MAY 26 09 08 13

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK  
079 FARMINGTON, NM

1a. Type of Work DRILL	5. Lease Number NMSF-080781 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator <b>BURLINGTON</b> RESOURCES Oil & Gas Company LP	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name
4. Location of Well Unit N (SESW), 1145' FSL & 1510' FWL Latitude 36° 41.5533'N Longitude 107° 49.3083'W	9. Well Number CAIN #100
	10. Field, Pool, Wildcat Basin Fruitland Coal Aztec Pictured Cliffs.
	11. Sec., Twn, Rge, Mer. (NMPM) N Sec. 30, T29N, R9W API # 30-045-33117
14. Distance in Miles from Nearest Town 11.7 miles from Gobernador	12. County San Juan
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1145'	
16. Acres in Lease	17. Acres Assigned to Well 96.69 SW PC & 268.42 S/2 FC
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 339' - Cain #16	
19. Proposed Depth 2173'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 5644' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Patsy Chizel</u> Sr. Regulatory Specialist	Date <u>5/25/05</u>

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 presentations as to any matter within its jurisdiction.

THIS IS NOT AN HPA WELL

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NMOC

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NSL & NSP in Aztec PC  
079 FARMINGTON, NM



DISTRICT I  
1685 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Branco Rd., Aztec, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045- 33117	<sup>2</sup> Pool Code 71629/ 71280	<sup>3</sup> Pool Name Basin Fruitland Coal/ Aztec Pictured Cliffs
<sup>4</sup> Property Code 18487	<sup>5</sup> Property Name GAIN	<sup>6</sup> Well Number 100
<sup>7</sup> OGHD No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	<sup>9</sup> Elevation 5644'

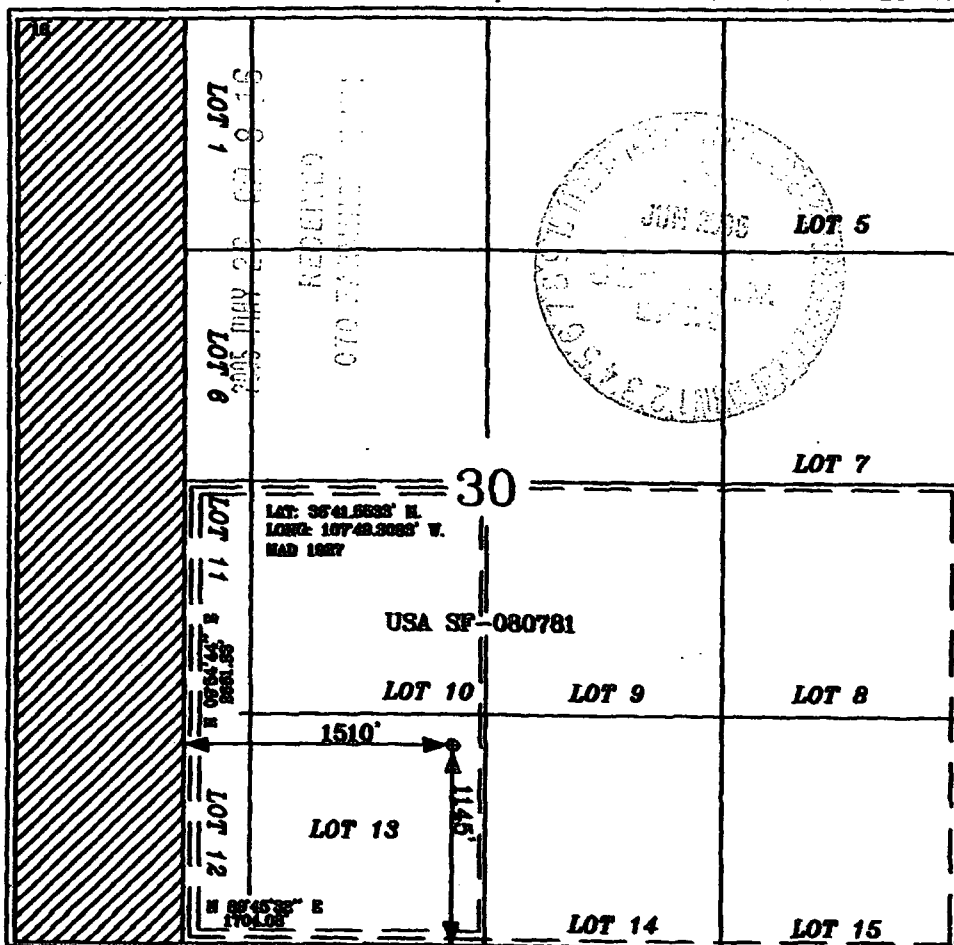
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot 14n	Feet from the	North/South line	Feet from the	East/West line	County
N	30	29-N	9-W		1145'	SOUTH	1510'	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 14n	Feet from the	North/South line	Feet from the	East/West line	County
96.69 SW PC 268.42 S2 FC									

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



<sup>17</sup> OPERATOR CERTIFICATION

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

Amanda Sandoval  
Signature  
Amanda Sandoval  
Printed Name  
Regulatory Assistant II  
Title  
5-17-05  
Date

<sup>18</sup> 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.

Date of Survey 5-17-05  
Signature Galen W. Russell  
Printed Name  
15703  
Certificate Number

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

**OIL CONSERVATION DIVISION**

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-045-

5. Indicate Type of Lease

STATE ☐

FEE ☐

6. State Oil & Gas Lease No.

Federal Lease - NMSF-080781

7. Lease Name or Unit Agreement Name

8. Well Number

Cain #100

9. OGRID Number

14538

10. Pool name or Wildcat

Basin FC / Aztec PC

**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.)

1. Type of Well:

Oil Well ☐

Gas Well ☒

Other

2. Name of Operator

BURLINGTON RESOURCES OIL & GAS COMPANY LP

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter N : 1145 feet from the South line and 1510 feet from the West line  
Section 30 Township 29N Range 9W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

5644' GR

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type new drill Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water <200'

Pit Liner Thickness: 12 mill Below-Grade Tank: Volume          bbls; Construction Material         

**12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data**

**NOTICE OF INTENTION TO:**

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPL ☐

**SUBSEQUENT REPORT OF:**

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

P AND A ☐

CASING/CEMENT JOB ☐

OTHER:

New Drill Pit ☒

OTHER: ☐

13. 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. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

New Drill, Lined:

Burlington Resources proposes to construct a new drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit will be a lined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be lined as per the risk ranking criteria. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD office.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

*Patsy Clugston*

TITLE

Sr. Regulatory Specialist

DATE 5/25/2005

Type or print name  
For State Use Only

Patsy Clugston

E-mail address:

pclugston@br-inc.com

Telephone No.

505-326-9518

APPROVED BY

*[Signature]*

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. 10

DATE

JUN 17 2005

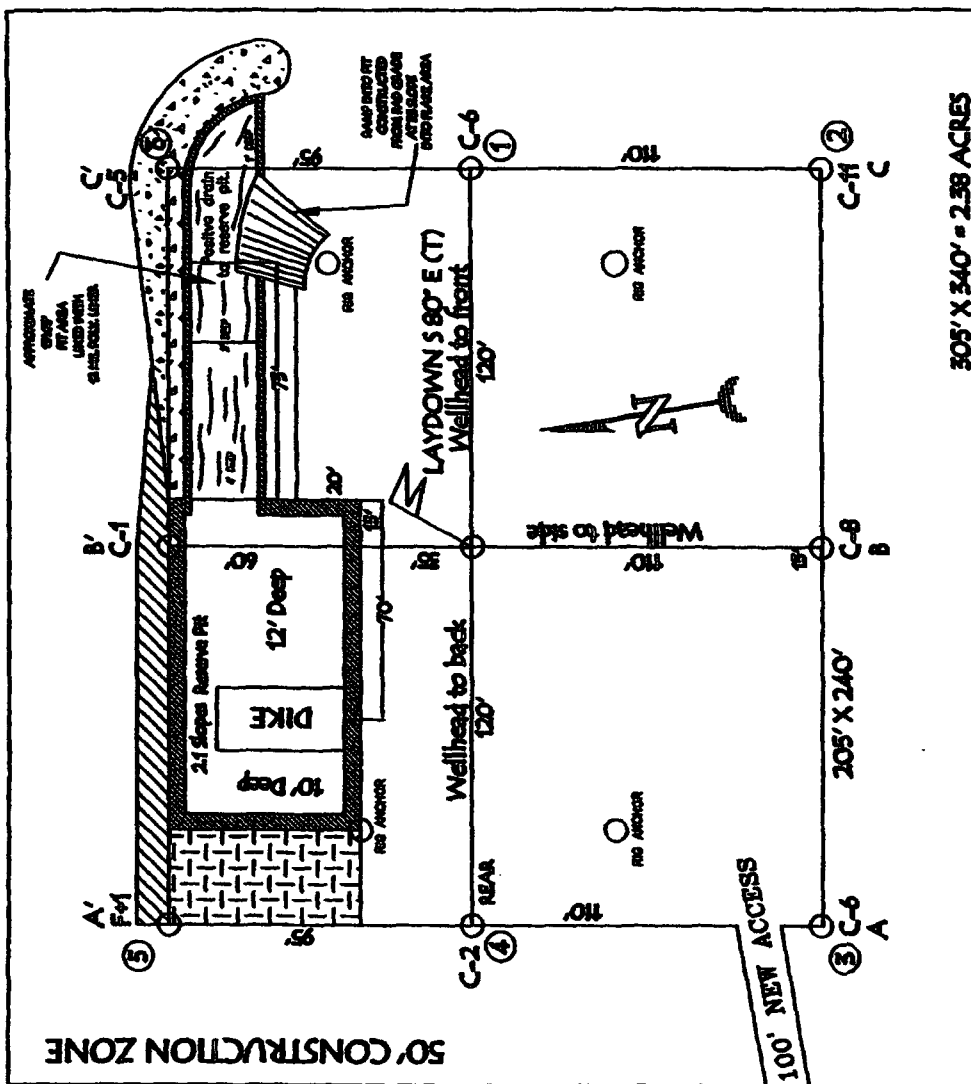
Conditions of Approval (if any):

# BURLINGTON RESOURCES OIL & GAS COMPANY LP

CAIN 100, 1145' FSL & 1510' FWL

SECTION 30, T-29-N, R-9-W, NMPM, SAN JUAN COUNTY, NM

GROUND ELEVATION: 5644', DATE: APRIL 27, 2005



RESERVE PIT DIKE, TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 5' WIDE AND 1' ABOVE SHALLOW SIDE).

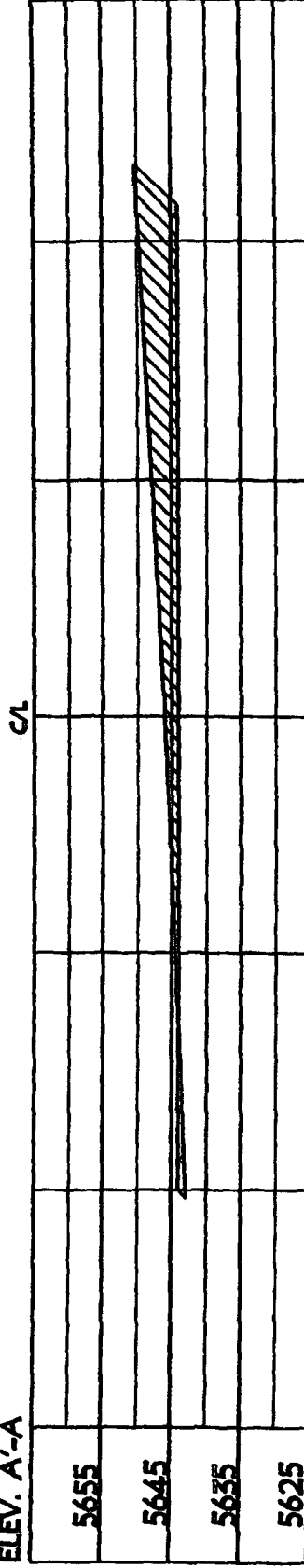
NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

LATITUDE: 36° 41.5533' LONGITUDE: 107° 49.3083' NAD27

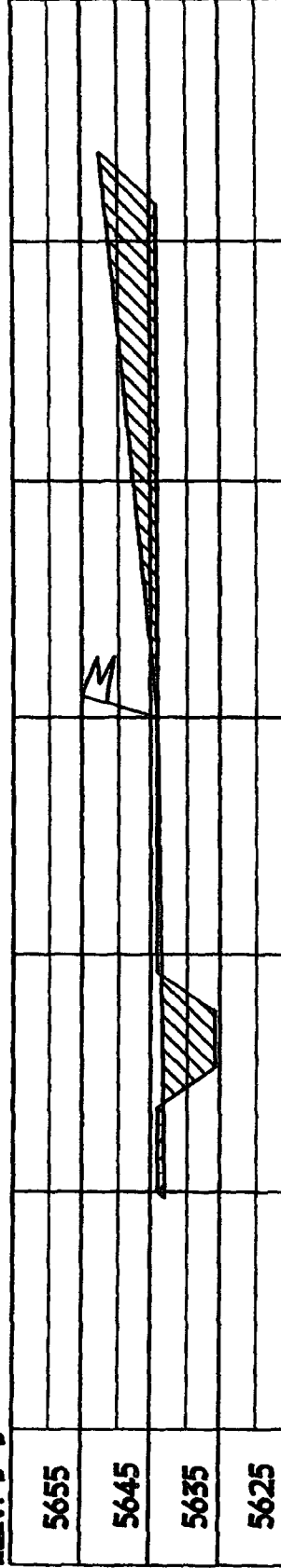
# BURLINGTON RESOURCES OIL & GAS COMPANY LP

CAIN 100, 1145' FSL & 1510' FWL  
SECTION 30, T-29- N, R-9-W, NMPM, SAN JUAN COUNTY, NM  
GROUND ELEVATION: 5644', DATE: APRIL 27, 2005

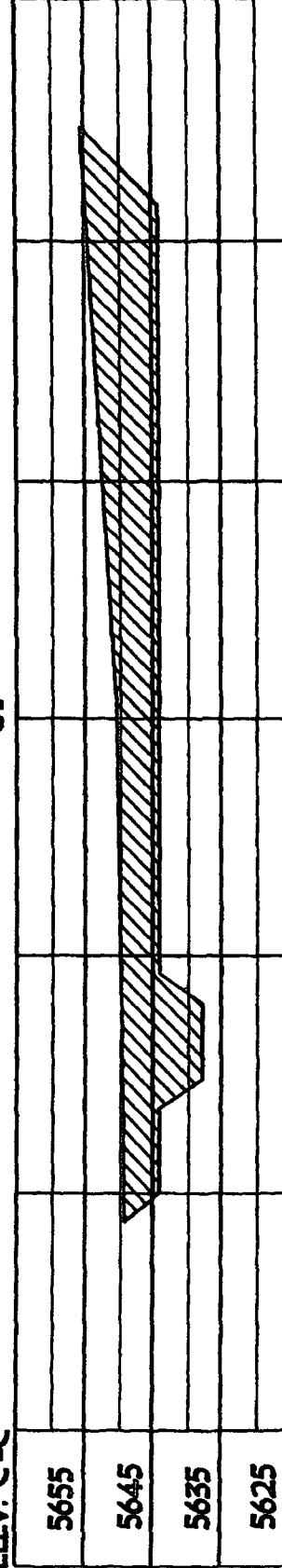
ELEV. A'-A



ELEV. B'-B



ELEV. C'-C



NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.  
CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED  
PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

May 25, 2005

OPERATIONS PLAN

**Well Name:** Cain #100  
**Location:** Unit N (SESW), 1145' FSL & 1510' FWL, Section 30, T29N, R9W  
 San Juan County, New Mexico  
 Latitude 36° 41.5533'N; Longitude 107° 49.3083'W  
**Formation:** Basin Fruitland Coal  
**Elevation:** 5644' GR

Formation:	Top	Bottom	Contents
Surface	San Jose		
Ojo Alamo	840	1007'	
Kirtland	1007'	1768'	gas
T/Fruitland	1768'		gas
B/Fruitland Coal	1972'		gas
Pictured Cliffs	1973'		
<b>Total Depth</b>	<b>2173'</b>		

**Note:** The Total Depth for this well is into the Pictured Cliffs interval, but currently only have plans to complete the Fruitland Coal interval. We could in the near future perforate/stimulate the Pictured Cliffs interval, but only would once Regulatory approval was asked for and received.

**Logging Program:** None

**Mud Program:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis. Fluid Loss</u>
0- 120'	Spud /Air/Air Mist	8.4-8.9	40-50 no control
120-2173'	Non-dispersed	8.4-9.5	30-60 no control

**Casing Program:**

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
8 1/2"	0 - 120'	7"	20.0#	J-55
6 1/2"	0 - 2173'	4 1/2"	10.5#	J/K-55

**Tubing Program:**

0 - 2173'	2 3/8"	4.7#	J-55
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**Float Equipment:** 7" surface casing - guide shoe. Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe and float collar on bottom. Centralizers run every third joint above shoe to the base of the Ojo Alamo @ 1007'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1007'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 7" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

May 25, 2005

**Cementing:**

7" surface casing Pre-Set Drilled - Cement with Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (Bring cement to surface). Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

7" surface casing - Cement with 42 sx Type III cement with 0.25 pps Celloflake, 3% CaCl. (54 cu ft of slurry @ 1.28 yield). 200% excess, bring cement to surface. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.  
**WOC until cement establishes 250 psi compressive strength prior to NU of BOPE.**

4 1/2" production casing - Cement with 100 sx (213 cu ft of slurry @ 2.13 yield) Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack celloflake, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks (124 cu ft of slurry @ 1.38 yield) Type III cmt with 1% calcium chloride, 1/4#/sack Celloflake and 0.2% FL-52. Total of 337 cf - 50% excess to circulate to surface.

**BOP and tests:**

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 1500 psi/30 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

**Additional information:**

- \* The Fruitland Coal formation will be completed.
- \* Anticipated pore pressure for the Fruitland is between 600 - 700 psi.
- \* This gas is dedicated.
- \* The south half of the section is dedicated to this well.
- \* New casing will be utilized.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

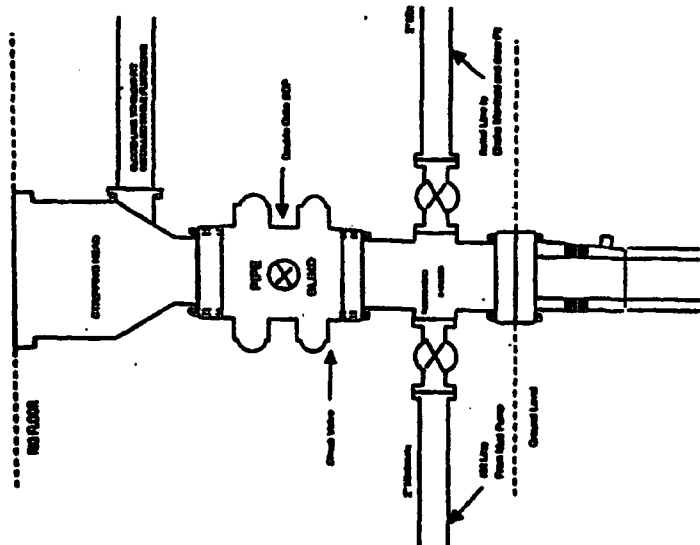
Drilling Engineer

5/25/05  
Date



# BURLINGTON RESOURCES

Completion/Workover Rig  
BOP Configuration  
2,000 psi System

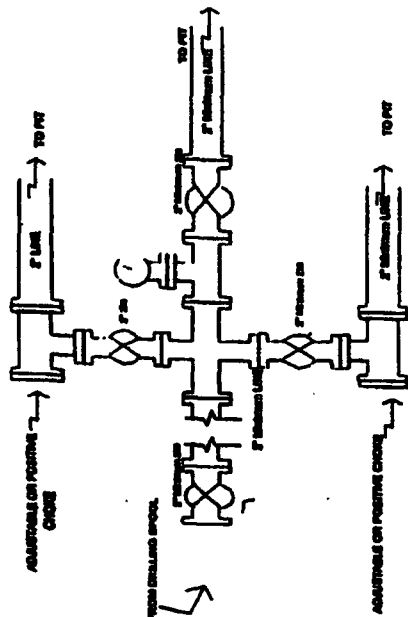


Minimum BOP Installation for all Completion/Workover Operations, 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment to 2000 psi working pressure or greater including 500 psi stripping head.

Figure #2

# BURLINGTON RESOURCES

Drilling Rig  
Choke Manifold Configuration  
2000 psi System

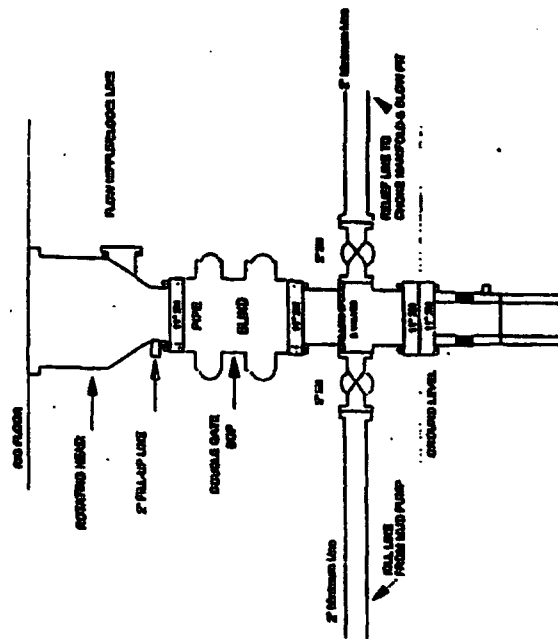


Choke manifold installation from Surface Casing Head to Total Depth, 2,000psi working pressure equipment with two chokes.

Figure #3

# Burlington Resources

Drilling Rig  
2000 psi System



BOP Installation from Surface Casing Head to Total Depth, 1 7/8" Bore 2000 psi minimum working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi stripping head on top of ram prevention. All BOP equipment to 2,000 psi working pressure.

Figure #1

submitted in lieu of Form 3160-5

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells 2005 JUL 13 PM 4 01

1. Type of Well  
GAS

RECEIVED  
070 FARMINGTON NM

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

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

4. Location of Well, Footage, Sec., T, R, M  
Sec., T-N, R-W, NMPM

Unit N (SESW) 1145' FSL & 1510' FWL, Sec. 30, T29N R9W NMPM

5. Lease Number  
NMSF-080781  
6. If Indian, All. or  
Tribe Name  
7. Unit Agreement Name

8. Well Name & Number

Cain 100  
9. API Well No.

30-045-33117

10. Field and Pool

Basin Fruitland Coal/Aztec Pictured Cliffs

11. County and State  
San Juan Co., NM

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

Type of Submission	Type of Action	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection

☒ Other - Dedicated Acreage Change

13. Describe Proposed or Completed Operations

It is intended to correct the Pictured Cliffs acreage submitted on the above approved Application for Permit to Drill from the Southwest half 96.69 acres to the West half 182.16 acres.

HOLD C104 FOR N.S.P.

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

Signed Amanda Sandoval Amanda Sandoval Title Regulatory Compliance Assistant II Date 7/13/05

(This space for Federal or State Office use)

APPROVED BY Adriana Brumley Title Pet. Eng Date 7/18/05

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMSF-080781

**DISTRICT I**  
1626 N. French Dr., Hobbs, N.M. 88240

**State of New Mexico**  
**Energy, Minerals & Natural Resources Department**

**Form C-102**  
**Revised August 15, 2000**

**DISTRICT II**  
**811 South First, Artesia, N.M. 88210**

**Submit to Appropriate District Office**  
**State Lease - 4 Copies**  
**Fee Lease - 3 Copies**

**DISTRICT III**  
**1000 Rio Brazos Rd., Astec, N.M. 87410**

**OIL CONSERVATION DIVISION**  
**2040 South Pacheco**  
**Santa Fe, NM 87505**

**DISTRICT IV**  
**3040 South Pacheco, Santa Fe, NM 87605**

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-33117	*Pool Code 71629/71280	*Pool Name Basin Fruitland Coal/ Aztec Pictured Cliffs
*Property Code 18487	*Property Name CAIN	*Well Number 100
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	*Elevation 5644'

### <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot	Feet from the	North/South line	Feet from the	East/West line	County
N	30	29-N	9-W	14	1145'	SOUTH	1510'	WEST	SAN JUAN

**<sup>11</sup> 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
<sup>23</sup> Dedicated Acres PC 182.16 W2197.70 FC 268.42 S2			<sup>24</sup> Joint or Infill		<sup>25</sup> Consolidation Code		<sup>26</sup> Order No.		

**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**

<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">LOT 1</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">LOT 8</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">LOT 11</div> <div style="border: 1px solid black; padding: 2px;">LOT 12</div>	<div style="border: 1px dashed black; padding: 10px; margin-bottom: 10px;">FEE</div> <div style="border: 1px solid black; padding: 5px;"> LAT: 35°41.6533' N.  LONG: 107°42.2063' W.  RAD 1927 </div>	<div style="border: 1px solid black; padding: 10px; font-size: 2em; margin-bottom: 10px;">30</div> <div style="border: 1px solid black; padding: 5px;">USA SF-080781</div>	<div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 5</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 7</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 8</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 9</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 10</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 13</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 14</div> <div style="border: 1px solid black; padding: 10px; font-size: 1.5em; margin-bottom: 10px;">LOT 15</div>
---	---	--	---

**17 OPERATOR CERTIFICATION**

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

*Amanda Sandoval*

Signature

Amanda Sandoval

Printed Name

Regulatory Assistant II

Title

7-13-05

Date

**18 SURVEYOR CERTIFICATION**

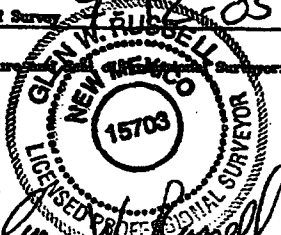
*I hereby certify that the well location shown on this plan was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

7-13-05

Date of Survey

*Glen W. Russell*

Signature



**19**

*I hereby certify that the well location shown on this plan 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.*

*Glen W. Russell*

Signature

15703

Certificate Number

istrict I  
5 N. French Dr., Hobbs, NM 88240  
istrict II  
South First, Artesia, NM 88210  
istrict III  
0 Rio Brazos Road, Aztec, NM 87410  
istrict IV  
0 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-104B  
March 19, 2001

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 copy of the final affected wells  
list along with 1 copy of this form per  
number of wells on that list to  
appropriate District Office

**Change of Operator Name**

OGRID: 167067  
Effective Date: 6/1/2001


**Previous Operator Name and Information:**

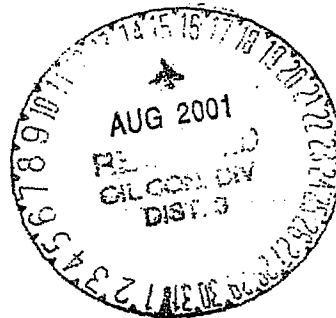
Name: Cross Timbers Operating Company  
Address: 2700 Farmington Ave  
Address: Building K, Suite 1  
City, State, Zip: Farmington, NM 87401

**New Operator Name and Information:**

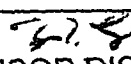
New Name: XTO Energy Inc.  
Address: 2700 Farmington Ave  
Address: Building K, Suite 1  
City, State, Zip: Farmington, NM 87401

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given on  
this form and the attached list of wells is true and complete to the best of my knowledge and belief.

Signature:   
Name: GARY L. MARKESTAD  
Title: VICE-PRESIDENT, SAN JUAN REGION  
Date: 5/23/01 Phone: 505-324-1090 x-4001



**NMOCD Approval**

Signature:   
Printed Name: SUPERVISOR DISTRICT #3  
District: AUG 15 2001  
Date: \_\_\_\_\_

## OIL CONSERVATION COMMISSION

BOX 697

120 EAST CHACO

AZTEC, NEW MEXICO

RECEIVED  
71 FEB 19 AM 8 09

## NOTICE OF GAS CONNECTION

DATE February 17, 1971

THIS IS TO NOTIFY THE OIL CONSERVATION COMMISSION THAT CONNECTION FOR THE PURCHASE OF GAS FROM

THE Amoco Production Company  
OPERATORTexas National Gas Com. #1  
LEASEOK  
WELL UNIT19-29-9  
S-T-RAztec Pictured Cliffs  
POOLEl Paso Natural Gas Company  
NAME OF PURCHASERWAS MADE ON January 29, 1971 , FIRST DELIVERY February 9, 1971  
DATE DATEAOF 2,901  
Choke 2,533  
INITIAL POTENTIALEl Paso Natural Gas Company  
PURCHASER

Original Signed By W. M. Rodgers

REPRESENTATIVE

Chief Dispatcher  
TITLECC: TO OPERATOR Farmington & Denver  
OIL CONSERVATION COMMISSION - SANTA FE  
F. N. WOODRUFF - EL PASO  
~~B. D. ADAMS~~

FILE

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# NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Form C-105  
Revised 1-1-65

5a. Indicate Type of Lease  
State ☐ Fee ☒

5. State Oil & Gas Lease No.

## 1a. TYPE OF WELL

OIL WELL ☐ GAS WELL ☒ DRY ☐

## b. TYPE OF COMPLETION

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐

## 2. Name of Operator

PAN AMERICAN PETROLEUM CORPORATION

## 3. Address of Operator

501 Airport Drive, Farmington, New Mexico 87401

## 4. Location of Well

INITIAL LETTER K LOCATED 1670' FEET FROM THE South LINE AND 820' FEET FROM

THE West LINE OF SEC. 19 TWP. 29N RGE. 9W NMPM

15. Date Spudded 1-30-70 16. Date T.D. Reached 12-3-70 17. Date Compl. (Ready to Prod.) 12-11-70 18. Elevations (DF, RKB, RT, GR, etc.) GL 5540', RDB 5552' 19. Elev. Casinghead 5540'

20. Total Depth 2085' 21. Plug Back T.D. 2045' 22. If Multiple Compl., How Many 0-TD 23. Intervals Drilled By Rotary Tools Cable Tools

## 24. Producing Interval(s), of this completion - Top, Bottom, Name

1918-47', Pictured Cliffs

## 26. Type Electric and Other Logs Run

Gamma Ray-Neutron in casing

25. Was Directional Survey Made No  
27. Was Well Cored No

## 28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	211'	12-1/4"	200 sx	-
2-7/8"	6.5#	2075'	6-3/4"	600 sx	-

## 29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
						None	

## 31. Perforation Record (Interval, size and number)

918-23', 1937-47' x 2 SPF

## 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
1918-47'	100 gal. 10% Acetic Acid.
	SWHYF x 5660 gal. trt water &
	5000 lb. 10-20 sn., 500 gal. 15%
	acid. SWHYF x 20,650 gal. trt
	water & 25,000 lb 10-20 sn.

## 33. PRODUCTION

Date First Production 12-18-70 Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing Well Status (Prod. or Shut-in) Shut In

Date of Test 12-18-70 Hours Tested 3 Choke Size 3/4" Prod'n. For Test Period 2533 (AOF 2901) Oil - Bbl. Gas - MCF Water - Bbl. Gas - Oil Ratio  
Flow Tubing Press. Casing Pressure 197 psig Calculated 24-Hour Rate 2533 (AOF 2901) Oil Gravity - API (Corr.)

## 34. Disposition of Gas (Sold, used for fuel, vented, etc.)

To be sold to El Paso Natural Gas Co.

## 35. List of Attachments

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

SIGNED [Signature] TITLE Area Engineer DATE December 29, 1970



## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission 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 30 through 34 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 _____ 1907'	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 Qtzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation

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OPERATOR	1

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65 30-045-20723

5A. Indicate Type of Lease
STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.

## 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

PAN AMERICAN PETROLEUM CORPORATION

3. Address of Operator

501 Airport Drive, Farmington, New Mexico 87401

4. Location of Well

UNIT LETTER K

LOCATED 1670'

FEET FROM THE South

LINE

AND 820'

FEET FROM THE West

LINE OF SEC. 19

TWP. 29N

RGE. 9W

NMPM

7. Unit Agreement Name

8. Farm or Lease Name

Texas National Gas Com

9. Well No.

1

10. Field and Pool, or Wildcat

Aztec Pictured Cliffs

12. County

San Juan

19. Proposed Depth

2100'

19A. Formation

Pictured Cliffs

20. Rotary or C.T.

Rotary

21. Elevations (Show whether DF, RT, etc.)

5540' GL

21A. Kind & Status Plug. Bond

State Wide

21B. Drilling Contractor

Arapahoe Drilling Co.

22. Approx. Date Work will start

11-30-70

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/4"	8-5/8"	24#	200'	200	Surface
6-3/4"	2-7/8"	6.4#	2100'	550	Surface

Well to be drilled through Pictured Cliffs and casing completion based upon in-casing Gamma Ray-Neutron log.

Copy of Location Plat attached.

Copy of logs will be furnished upon completion of the well.

Non-Standard Unit approved under NMOCC Order No. R-3669.

Verbal approval received Mr. Emery Arnold, NMOCC, to Joe Pridgeon, Pan American, 11-30-70.

(Since well location was moved, please void Form C-101 dated 11-25-70)

1. ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Emery Arnold Title Area Engineer Date November 30, 1970

(This space for State Use)

APPROVED BY Emery Arnold TITLE Sup. Dist. III DATE 11-30-70

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL VALID FOR 90 DAYS UNLESS DRILLING COMMENCED, EXPIRES 2-28-71



**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-192  
Supersedes C-128  
Effective 1-1-65  
AM 8-25

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

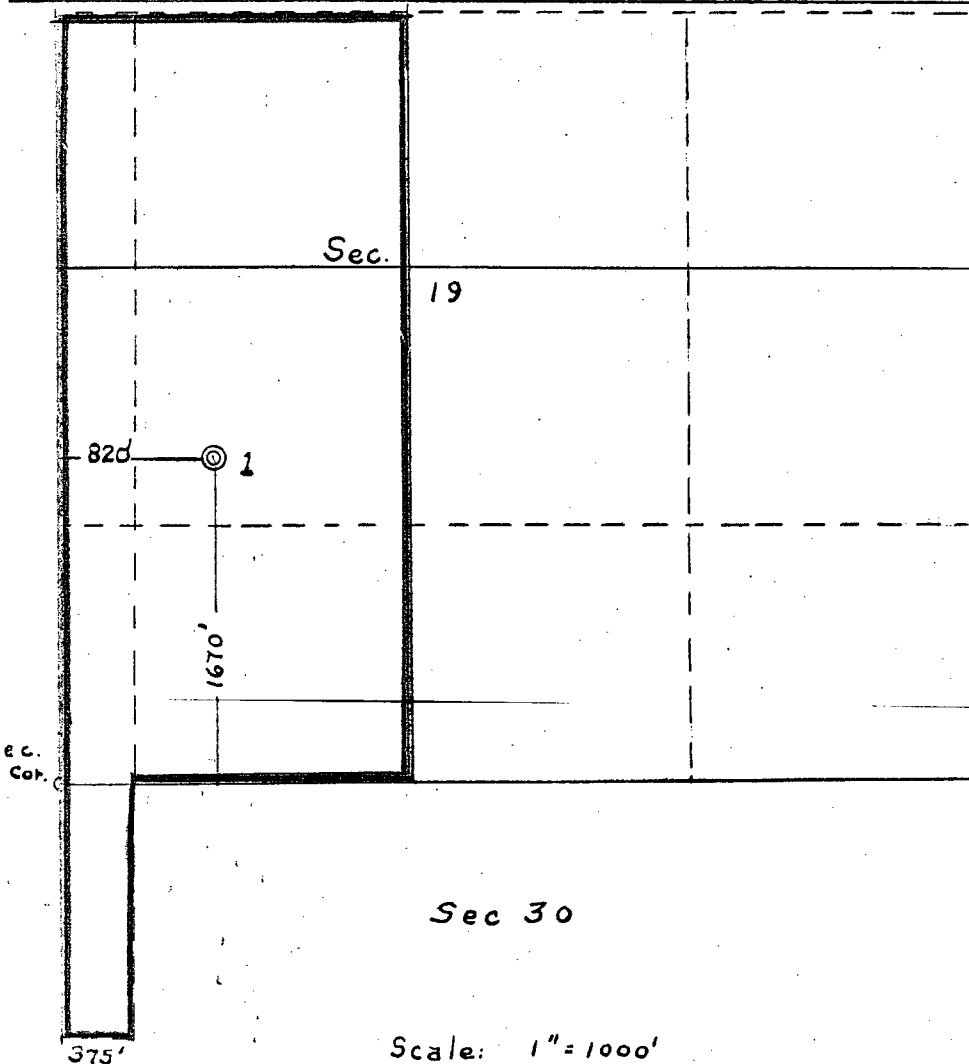
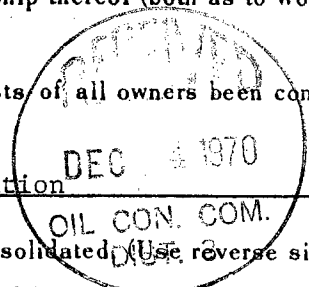
Operator <b>Pan American Petroleum Corp.</b>			Lease <b>Texas National Gas Com</b>		Well No.
Unit Letter <b>K</b>	Section <b>19</b>	Township <b>29N</b>	Range <b>9W</b>	County <b>San Juan</b>	
Actual Footage Location of Well:					
<b>1670</b> feet from the <b>South</b> line and		<b>820</b> feet from the <b>West</b> line			
Ground Level Elev. <b>5540</b>	Producing Formation <b>Pictured Cliffs</b>	Pool <b>Aztec Pictured Cliffs</b>	Dedicated Acreage * <b>166.18</b> 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 Communitization

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. \*Non-Standard Proration Unit approved under N.M.O.C.C. Order No. R-3669.



<b>CERTIFICATION</b>	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	<b>D. A. Wayhan</b>
Position	<b>Area Engineer</b>
Company	<b>PAN AMERICAN PETROLEUM CORP.</b>
Date	<b>November 30, 1970</b>
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	<b>November 28, 1970</b>
Registered Professional Engineer and/or Land Surveyor	<b>Fred B. Kerr Jr.</b>
Certificate No.	<b>2020</b>

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FILE	1
U.S.G.S.	2
LAND OFFICE	
OPERATOR	1

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65 30-045-20723

5A. Indicate Type of Lease  
STATE ☐ FEE ☒

5. State Oil & Gas Lease No.

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

a. Type of Work

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. Type of Well

OIL WELL ☐

GAS WELL ☒

OTHER

SINGLE ZONE ☒

MULTIPLE ZONE ☐

c. Name of Operator

PAN AMERICAN PETROLEUM CORPORATION

d. Address of Operator

501 Airport Drive, Farmington, New Mexico 87401

e. Location of Well

UNIT LETTER K LOCATED 1670' FEET FROM THE South LINE

AND 1340' FEET FROM THE West LINE OF SEC. 19 TWP. 29N RGE. 9W NMPM

7. Unit Agreement Name

8. Farm or Lease Name

Texas National Gas Com

9. Well No.

1

10. Field and Pool, or Wildcat

Aztec Pictured Cliffs

12. County

San Juan

19. Proposed Depth

2100'

19A. Formation

Pictured Cliffs

20. Rotary or C.T.

Rotary

21. Elevations (Show whether DF, RT, etc.)

Will report later

21A. Kind & Status Plug. Bond

State wide

21B. Drilling Contractor

Arapahoe Drilling Co.

22. Approx. Date Work will start

11-28-70

### PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/4"	8-5/8"	24#	200'	200	Surface
6-3/4"	2-7/8"	6.4#	2100'	550	Surface

Well to be drilled through Pictured Cliffs and casing set.

Completion based upon in-casing Gamma Ray-Neutron log.

Copy of Location Plat attached.

Copy of logs will be furnished upon completion of the well.

Non-Standard Unit approved under NMOCC Order No. R-3669.

Verbal approval received Mr. Emery Arnold, NMOCC, to Joe Pridgeon, Pan American, 11-25-70.

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, GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

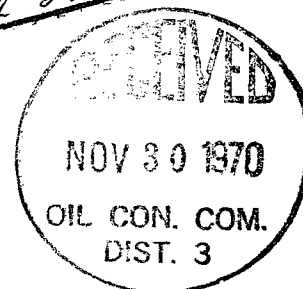
Signed [Signature] Title Area Engineer Date November 25, 1970

(This space for State Use)

APPROVED BY [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL VALID  
FOR 90 DAYS UNLESS  
DRILLING COMMENCED,  
EXPIRES 2-28-71



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 <b>Pan American Petroleum Corp.</b>		Lease <b>Texas National Gas Com</b>		Well No. <b>1</b>
Unit Letter <b>K</b>	Section <b>19</b>	Township <b>29N</b>	Range <b>9W</b>	County <b>San Juan</b>
Actual Footage Location of Well:				
<b>1670</b> feet from the <b>South</b> line and		<b>1340</b> feet from the <b>West</b> line		
Ground Level Elev. <b>5553'</b>	Producing Formation <b>Pictured Cliffs</b>	Pool <b>Aztec Pictured Cliffs</b>	Dedicated Acreage <b>166.18</b>	* Acres

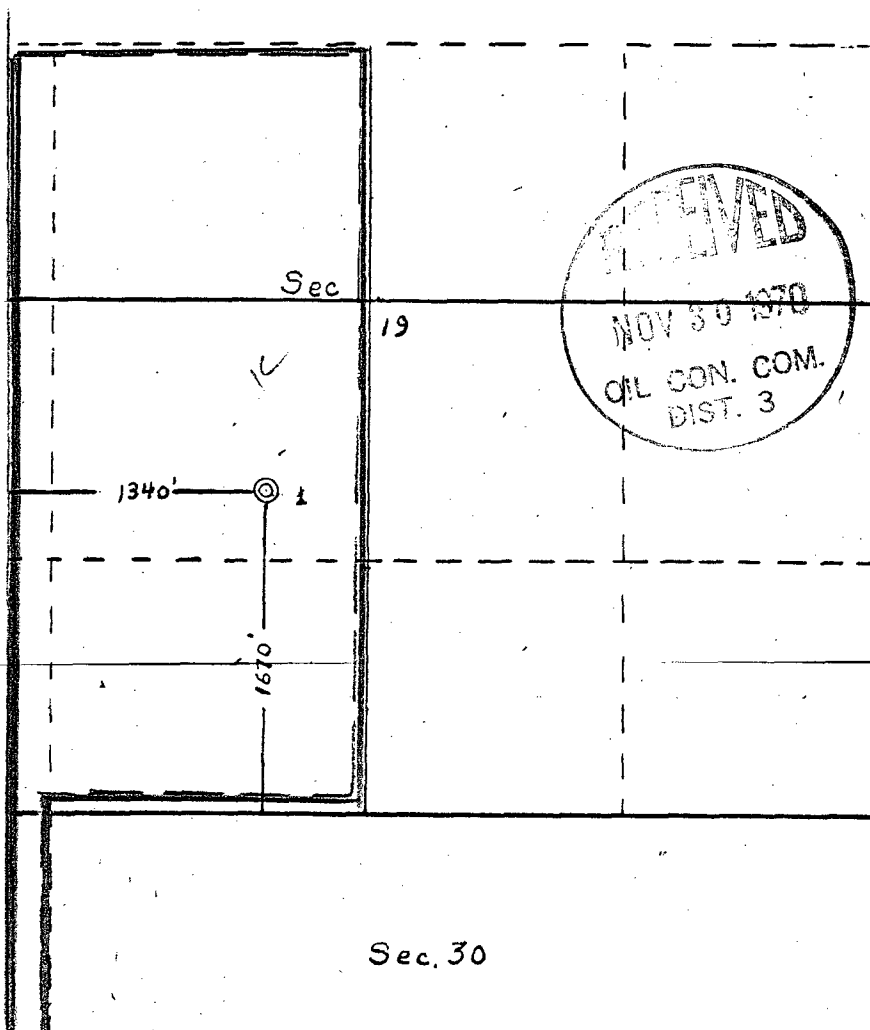
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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 Communitization

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.

\*Non-Standard Proration Unit approved under N.M.O.C.C. Order No. R-3669.



CERTIFICATION

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

Name  
**D. A. Wayhan**

Position  
**Area Engineer**

Company  
**PAN AMERICAN PETROLEUM CORP.**

Date  
**November 25, 1970**

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  
**November 25, 1970**

Registered Professional Engineer  
and State Surveyor  
**Fred B. Kern Jr.**

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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65 30-045-30185

5A. Indicate Type of Lease
STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name <b>Cerk Gas Com "D"</b>	
2. Name of Operator <b>PAN AMERICAN PETROLEUM CORPORATION</b>		9. Well No. <b>1</b>	
3. Address of Operator <b>501 A Airport Drive, Farmington, New Mexico 87401</b>		10. Field and Pool, or Wildcat <b>Aztec Pictured Cliffs</b>	
4. Location of Well UNIT LETTER <b>C</b> LOCATED <b>700</b> FEET FROM THE <b>North</b> LINE AND <b>920</b> FEET FROM THE <b>West</b> LINE OF SEC. <b>30</b> TWP. <b>29N</b> RGE. <b>9W</b> NMPM		12. County <b>San Juan</b>	
19. Proposed Depth <b>2100'</b>		19A. Formation <b>Pictured Cliffs</b>	
20. Rotary or C.T. <b>Rotary</b>		21. Elevations (Show whether DF, RT, etc.) <b>Will Report Later</b>	
21A. Kind & Status Plug. Bond <b>State Wide</b>		21B. Drilling Contractor	
22. Approx. Date Work will start <b>8-17-70</b>			

23.

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/4"	8-5/8"	24#	200	200	Surface
6-3/4"	4-1/2"	10.5#	2100	450	Surface

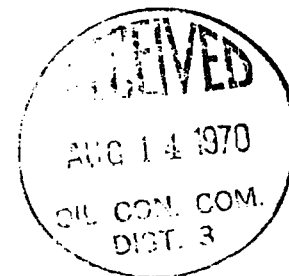
Well to be drilled through Pictured Cliffs and casing set. Completion based upon in-casing Gamma Ray-Neutron Log.

Copy of Location Plat attached.

Copy of logs will be furnished upon completion of the well.

Non-Standard Unit approved under NMOC Order No. R-3669

APPROVAL VALID  
FOR 90 DAYS UNLESS  
DRILLING COMMENCED,



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE BLOWOUT PREVENTER PROGRAM, IF ANY. EXPIRES Aug 12, 1970

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

Original Signed By

Signed G. W. EATON, JR.

Title Area Engineer

Date 8-13-70

(This space for State Use)

APPROVED BY

Ernest A. [Signature]

TITLE

Reg. [Signature]

DATE

8-14-70

CONDITIONS OF APPROVAL, IF ANY:



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 <b>Pan American Petroleum Corp.</b>		Lease <b>Gerk Gas Com "D"</b>		Well No. <b>1</b>
Unit Letter <b>C</b>	Section <b>30</b>	Township <b>29N</b>	Range <b>9W</b>	County <b>San Juan</b>
North-South Location of Well: <b>700</b> feet from the <b>North</b> line and <b>920</b> feet from the <b>West</b> line				
Ground Level Elev. <b>REPORT LATER</b>	Producing Formation <b>Pictured Cliffs</b>	Pool <b>Aztec Pictured Cliffs</b>	Dedicated Acreage: * <b>187.16</b> 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 (including 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 Communitization **OIL CON. COM. DIST. 3**

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.

\*Non-Standard Proration Unit Approved Under NMOCC ORDER NO. R-3669.

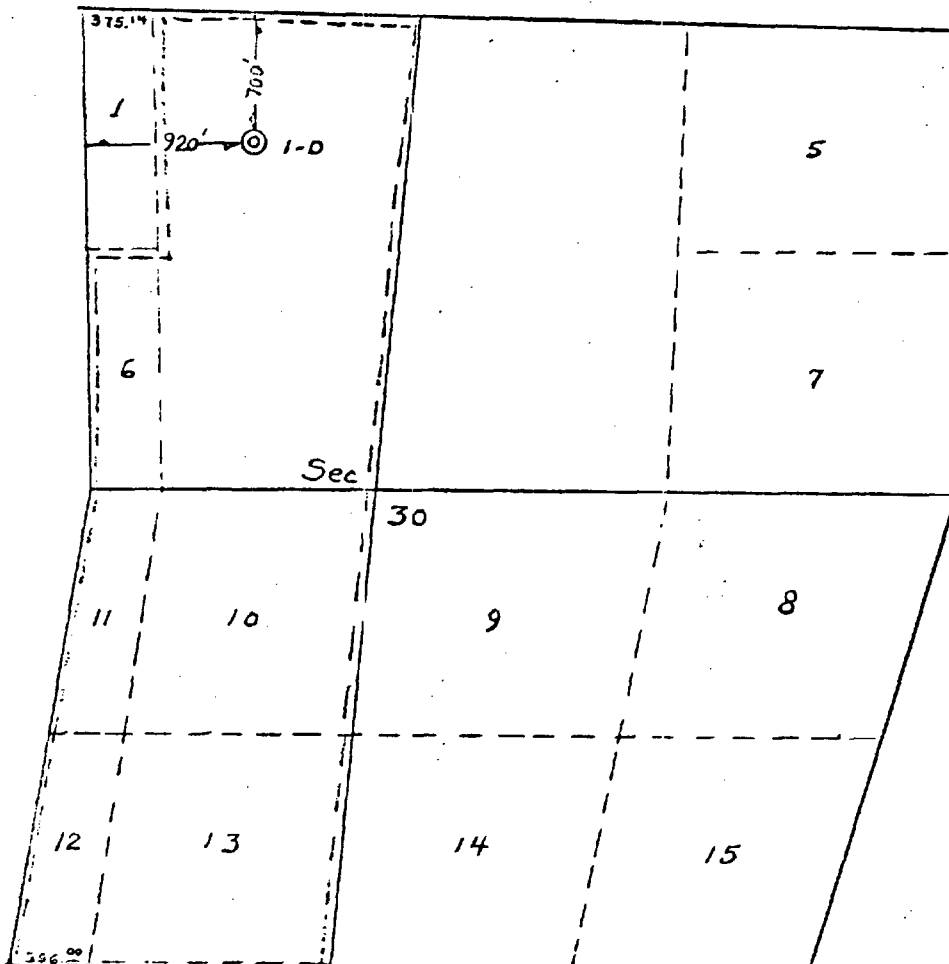
CERTIFICATION

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

Name G. W. Eaton, Jr.  
Position Area Engineer  
Company PAN AMERICAN PETROLEUM CORP.  
Date August 13, 1970

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 August 10, 1970  
Regulator of Geological Survey and/or Land Survey Fred B. Kerr Jr.  
Certificate No. 3950



Scale: 1" = 1000'

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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

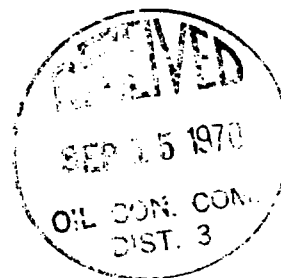
## SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT - 1" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER-	7. Unit Agreement Name
2. Name of Operator <b>PAN AMERICAN PETROLEUM CORPORATION</b>	8. Farm or Lease Name <b>Gerk Gas Com "D"</b>
3. Address of Operator <b>501 Airport Drive, Farmington, New Mexico 87401</b>	9. Well No. <b>1</b>
4. Location of Well UNIT LETTER <b>C</b> <b>700</b> FEET FROM THE <b>North</b> LINE AND <b>920</b> FEET FROM THE <b>West</b> LINE, SECTION <b>30</b> TOWNSHIP <b>29-N</b> RANGE <b>9-W</b> NMPM.	10. Field and Pool, or Wildcat <b>Aztec Pictured Cliffs</b>
15. Elevation (Show whether DF, RT, GR, etc.) <b>GL 5588', RDB 5601'</b>	12. County <b>San Juan</b>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data			
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. 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.

A 12-1/4" hole was spudded 9-10-70 and drilled to 212'. The 8-5/8" casing was set at 212' with 200 sacks Type "A" cement with 2% CaCl. The cement circulated.



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

SIGNED *[Signature]* TITLE Area Engineer DATE September 11, 1970

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

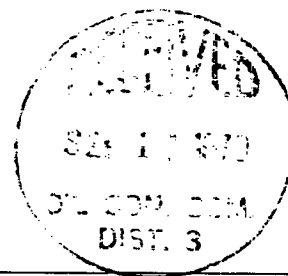
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <small>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT --" (FORM C-101) FOR SUCH PROPOSALS.)</small>		5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-		5. State Oil & Gas Lease No.
2. Name of Operator <b>PAN AMERICAN PETROLEUM CORPORATION</b>		7. Unit Agreement Name
3. Address of Operator <b>501 Airport Drive, Farmington, New Mexico 87401</b>		8. Farm or Lease Name <b>Cark Gas Com "D"</b>
4. Location of Well UNIT LETTER <b>C</b> , <b>700</b> FEET FROM THE <b>North</b> LINE AND <b>920</b> FEET FROM THE <b>West</b> LINE, SECTION <b>30</b> TOWNSHIP <b>29-N</b> RANGE <b>9-W</b> NMPM.		9. Well No. <b>1</b>
15. Elevation (Show whether DF, RT, GR, etc.) <b>GL 5588', RDB 5601'</b>		10. Field and Pool, or Wildcat <b>Aztec Pictured Cliffs</b>
12. County <b>San Juan</b>		

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> OTHER <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> CASING TEST AND CEMENT JOB <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> <b>Setting 4-1/2" casing</b>	ALTERING CASING <input type="checkbox"/> PLUG AND ABANDONMENT <input type="checkbox"/>

17. 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.

TD 2080'.

The 4-1/2" casing was set at 2059' with 400 sacks Type "C" cement with 50-50 Pozmix and 6% Gel and 2 pounds medium Tuf Plug followed by 100 sacks Type "C" Neat. The cement circulated. Tested casing with 3200 psi OK.



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

SIGNED \_\_\_\_\_ TITLE **Area Engineer** DATE **September 16, 1970**

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. 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.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-		7. Unit Agreement Name
2. Name of Operator <b>PAN AMERICAN PETROLEUM CORPORATION</b>		8. Farm or Lease Name <b>Gerk Gas Com "D"</b>
3. Address of Operator <b>501 Airport Drive, Farmington, New Mexico 87401</b>		9. Well No. <b>1</b>
4. Location of Well UNIT LETTER <b>C</b> , <b>700</b> FEET FROM THE <b>North</b> LINE AND <b>920</b> FEET FROM THE <b>West</b> LINE, SECTION <b>30</b> TOWNSHIP <b>29-N</b> RANGE <b>9-W</b> NMPM.		10. Field and Pool, or Wildcat <b>Aztec Pictured Cliffs</b>
15. Elevation (Show whether DF, RT, GR, etc.) <b>GL 5588', RDB 5601'</b>		12. County <b>San Juan</b>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐  
OTHER ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPNS. ☐  
CASING TEST AND CEMENT JOBS ☐  
OTHER ☒ **Perf & Frac**

17. 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.

**TD 2080', PBD 2023'.**

Moved in service unit September 15, 1970. Ran tubing to PBD and cleaned out. Displaced hole with water with 0.8% KCl and 7 pounds Gel per 1000 gallons. Spotted 7-1/2% HCl at 1983'. Perforated 1963-73' and 1983-88' with 2 SPF. Sand-water fraced with 16,800 gallons water containing 0.8% KCl and 7 pounds Gel per 1000 gallons and 30,000 pounds 10-20 sand. Breakdown pressure 1400. Treating pressures: Maximum 1400 psi, minimum 1200 psi and average 1250 psi. AIR 31 BPM.



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

ORIGINAL SIGNED BY

SIGNED **D. A. WAYMAN**

TITLE **Area Engineer**

DATE **September 17, 1970**

APPROVED BY

TITLE

DATE

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Form C-105  
Revised 1-1-68

# NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

1a. TYPE OF WELL						7. Unit Agreement Name	
b. TYPE OF COMPLETION CIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/> NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>						8. Farm or Lease Name	
2. Name of Operator						9. Well No.	
PAN AMERICAN PETROLEUM CORPORATION						1	
3. Address of Operator						10. Field and Pool, or Wildcat	
501 Airport Drive, Farmington, New Mexico 87401						Aztec Pictured Cliffs	
4. Location of Well						12. County	
UNIT LETTER <u>C</u> LOCATED <u>700</u> FEET FROM THE <u>North</u> LINE AND <u>920</u> FEET FROM						San Juan	
THE <u>West</u> LINE OF SEC. <u>30</u>		TWP. <u>29-N</u>		RGE. <u>9-W</u>		NMPM	
15. Date Spudded		16. Date T.D. Reached		17. Date Compl. (Ready to Prod.)		18. Elevations (DF, RKB, RT, GR, etc.)	
9-10-70		9-13-70		9-21-70		GR 5588', RKB 5601'	
19. Total Depth		21. Plug Back T.D.		22. If Multiple Complet., How Many		23. Intervals Drilled By	
2080'		2023'				Rotary Tools 0-TD	
24. Producing Interval(s), of this completion - Top, Bottom, Name						25. Was Directional Survey Made	
1963-88'. Pictured Cliffs						No	
26. Type Electric and Other Logs Run						27. Was Well Cored	
Gamma Ray-Neutron Correlation with offsets						No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED		
8-5/8"	24	212	12-1/4"	200 sx (circ)	None		
4-1/2"	9.5	2059	6-3/4"	500 sx (circ)	None		
29. LINER RECORD							
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	30. TUBING RECORD		
					SIZE	DEPTH SET	PACKER SET
					1-1/4"	1963'	
31. Perforation Record (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
1963-73' x 1983-88' x 2 SPF				DEPTH INTERVAL      AMOUNT AND KIND MATERIAL USED 1963-88' - 250 gal. HCl x 16,800 gal. water x 30,000 lb. 10-20 sand			
33. PRODUCTION							
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)	
		Flowing				Shut IN	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
9-27-70	3 hr.	3/4"					
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	
102 psig	358 psig			1384 (AOF 2012)			
34. Disposition of Gas (Solid, used for fuel, vented, etc.)						Test Witnessed By	
To be sold to El Paso Natural Gas Co.							
35. List of Attachments							
36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.							
SIGNED <u>Area Engineer</u>				DATE <u>October 13, 1970</u>			

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission 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 30 through 34 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 <b>1962</b>	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 Qtzite _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinberry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

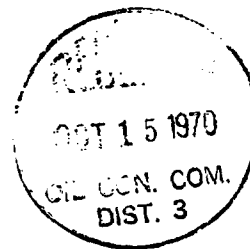
FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
1962	2016	54'	Pictured Cliffs				



TABULATION OF DEVIATION TESTS  
GERK GAS COM "D" NO. 1  
PAN AMERICAN PETROLEUM CORPORATION

<u>DEPTH</u>	<u>DEVIATION</u>
215'	0°
793'	1/4°
1246'	1/2°
2028'	1°
2080'	1-1/2°



A F F I D A V I T

THIS IS TO CERTIFY that to the best of my knowledge the above tabulation details the deviation test taken on PAN AMERICAN PETROLEUM CORPORATION'S GerK Gas Com "D" No. 1 located in the NW/4 NW/4 (700' FNL and 920' FWL) Section 30, T-29-N, R-9-W, San Juan County, New Mexico.

Signed *D. A. Wayhan*  
Title Area Engineer

THE STATE OF NEW MEXICO)  
                                  ) SS.  
COUNTY OF SAN JUAN        )

BEFORE ME, the undersigned authority, on this day personally appeared D. A. Wayhan known to me to be Area Engineer for Pan American Petroleum Corporation and to be the person whose name is subscribed to the above statement, who, being by me duly sworn on oath, states that he has knowledge of the facts stated herein and that said statement is true and correct.

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for said County and State this 13th day of October, 1970.

*Beverly Riley*  
Notary Public

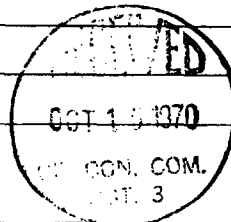
My Commission Expires: Sept. 1, 1974

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	GAS	
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**NEW MEXICO OIL CONSERVATION COMMISSION**  
**REQUEST FOR ALLOWABLE**  
**AND**  
**AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS**

Form C-104  
 Supersedes Old C-104 and C-110  
 Effective 1-1-65

Eff. 2-1-71,  
 Pan American Petro. Corp.  
 has changed its name to  
 AMOCO PROD. CO.



**I. OPERATOR**  
**PAN AMERICAN PETROLEUM CORPORATION**  
 Address  
**501 Airport Drive, Farmington, New Mexico 87401**  
 Reason(s) for filing (Check proper box)  
 New Well ☒ Change in Transporter of:  
 Recompletion ☐ Oil ☐ Dry Gas ☐  
 Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐  
 Other (Please explain)

If change of ownership give name  
 and address of previous owner

**II. DESCRIPTION OF WELL AND LEASE**

Lease Name <b>Gerk Gas Com "D"</b>	Well No. <b>1</b>	Pool Name, including Formation <b>Aztec Pictured Cliffs</b>	Kind of Lease State, Federal or Fee <b>Fee</b>	Lease No.
Location Unit Letter <b>C</b> : <b>700</b> Feet From The <b>North</b> Line and <b>920</b> Feet From The <b>West</b> Line of Section <b>30</b> Township <b>29-N</b> Range <b>9-W</b> , NMPM, <b>San Juan</b> County				

**III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS**

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
<b>El Paso Natural Gas Co.</b>	<b>P. O. Box 990, Farmington, New Mexico 87401</b>	
If well produces oil or liquids, give location of tanks.	Unit	Sec. Twp. Rge. Is gas actually connected? When
		<b>No</b>

If this production is commingled with that from any other lease or pool, give commingling order number:

**IV. COMPLETION DATA**

Designate Type of Completion - (X)	Oil Well <input type="checkbox"/>	Gas Well <input checked="" type="checkbox"/>	New Well <input checked="" type="checkbox"/>	Workover <input type="checkbox"/>	Deepen <input type="checkbox"/>	Plug Back <input type="checkbox"/>	Same Rest'v. <input type="checkbox"/>	Diff. Rest'v. <input type="checkbox"/>
Date Spudded <b>9-10-70</b>	Date Compl. Ready to Prod. <b>9-21-70</b>		Total Depth <b>2080'</b>		P.B.T.D. <b>2023'</b>			
Elevations (DF, RKB, RT, GR, etc.) <b>GR 5588', RKB 5601'</b>	Name of Producing Formation <b>Pictured Cliffs</b>		Top Oil/Gas Pay <b>1962'</b>		Tubing Depth <b>1963'</b>			
Perforations <b>1963-73' x 1983-88' x 2 SPF</b>					Depth Casing Shoe <b>2059'</b>			
<b>TUBING, CASING, AND CEMENTING RECORD</b>								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			
<b>12-1/4"</b>	<b>8-5/8"</b>		<b>212'</b>		<b>200 ex</b>			
<b>6-3/4"</b>	<b>4-1/2"</b>		<b>2059'</b>		<b>500 ex</b>			
	<b>1-1/4"</b>		<b>1963'</b>					

**V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL**

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

**GAS WELL**

Actual Prod. Test-MCF/D <b>1384 (AOF 2612)</b>	Length of Test <b>3 hr.</b>	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.) <b>Open Flow</b>	Tubing Pressure (shut-in) <b>608 psig</b>	Casing Pressure (shut-in) <b>608 psig</b>	Choke Size <b>3/4"</b>

**VI. CERTIFICATE OF COMPLIANCE**

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

ORIGINAL FILED IN  
 D. A. WILSON

(Signature)

Area Engineer

(Title)

October 13, 1970

(Date)

**OIL CONSERVATION COMMISSION**

APPROVED **OCT 13 1970**, 19

BY **Original Signed by Emory C. Arnold**

TITLE **SUPERVISOR DIST. #3**

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

## ENERGY AND MINERALS DEPARTMENT

## OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-78

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OPERATOR	

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fed <input checked="" type="checkbox"/>

5. State Oil &amp; Gas Lease No.

## SUNDRY NOTICES AND REPORTS ON WELLS

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

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL OTHER-	7. Unit Agreement Name
2. Name of Operator Amoco Production Company	8. Farm or Lease Name Gerk Gas Com "D"
3. Address of Operator 501 Airport Drive, Farmington, NM 87401	9. Well No. 1
4. Location of Well UNIT LETTER C 700 FEET FROM THE North LINE AND 920 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 29N RANGE 9W N.M.P.M.	10. Field and Pool, or Wildcat Aztec Pictured Cliffs
15. Elevation (Show whether DF, RT, GR, etc.) 5588' GR	12. County San Juan

## Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☒  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐

OTHER Repair

## SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPNS. ☐  
CASING TEST AND CEMENT JOBS ☐

ALTERING CASING ☐  
PLUG AND ABANDONMENT ☐

OTHER ☐

17. 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.

Amoco Production Company requests approval to repair the subject well according to the attached procedure.

RECEIVED  
OCT 01 1984  
OIL CON. DIV.  
DIST. 3

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

Original Signed By

SIGNED B. D. ShawTITLE Administrative SupervisorDATE 9/25/84APPROVED BY Original Signed by FRANK T. CHAVEZTITLE SUPERVISOR DISTRICT # 3DATE OCT 01 1984

CONDITIONS OF APPROVAL, IF ANY:

FARMINGTON DISTRICT WORKOVER

DATE: 9/12/84

OPERATIONS TO BE PERFORMED: (CIRCLE ONE) RECOMPLETION REPAIR SERVICE  
 LEASE AND WELL GERK Gas Com D No. 1 FIELD AZTEC PICTURED CLIFFS  
 FORMATION Pictured Cliffs LOGS Gamma-Ray, Neutron  
 LOCATION 700' FILL x 920' FILL, Section 30, T29N, R9W, San Juan Co, NM  
 COMP. DATE 9/21/70 EL: 5601' KB TD: 2080' PBD: 2023'  
 CSG: 8 5/8" 24 # K-55 @ 212' : 4 1/2" 9.5 # K-55 @ 2059'  
 COMP. INT. 1963'-73' x 1983-88 x 2 spf ORIG. STIM. SWF 16,800 gal H<sub>2</sub>O x 30,000' 10-20 sand  
 IP 1384 MCFD CURRENT PROD. INT. SAME  
 PURPOSE: repair suspected casing leak

WJH TKA TWE

GOM  
DHS

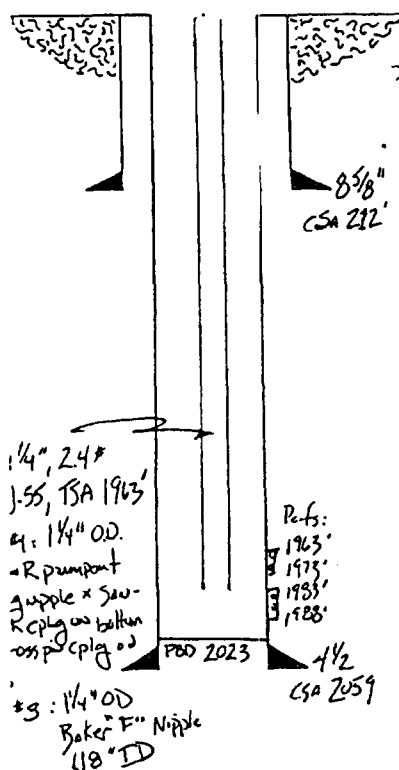
MCH  
RGH  
BVD  
GMK

5/PERMITTING DESK

ENGR FILE

WELLBORE SKETCH

PROCEDURE



1. ME x RUSU, ND WELLHEAD, NU BOID. TI x tubing x tag for fill
- \* 2. If no fill is present, TO x tbg, TI x tbg x retrievmatic packer x set at 1925' x put on production x test separator AND GOR meter. We will perform back pressure tests on this well during this test period
3. If fill is present, CO x N<sub>2</sub> to PBD. TO x tbg. Run in hole x BAKER Model D, size 24-19 production packer x Model B expandab plug. Wireline set at 1950'. Dump SAND on top of.
4. TI x retrievmatic packer x tubing x set at 1890 Pressure up on tubing to 1500 psi to determine integrity of production packer Pressure test backside to 1500 psi to determine falloff AND injection rate. Begin moving uphole while alternately pressuring up casing x tubing to determine source of leak. Source of leak is most likely the OJO Alamo between 800'-1200'.

DISTRICT MANAGER W. J. Holcomb  
 DISTRICT ENGINEER Jim Altman  
 DISTRICT FOREMAN Tom T. Egan  
 ENGINEER Quinn Schott

DATE

ENG SPE

ENG-40

5. Squeeze leak by displacing 50 sx Class B Neat cement x 2% CaCl<sub>2</sub> to within 500' of the end of tubing. Set packer x bullhead cement into leak. Wait 1 hr and pressure up on cement, wait 1 hr and pressure up on cement again.

6. TO x tubing x packer. TI x bit x clean out cement plug. Pressure test squeeze to 1500 psi. If pressure bleeds off, repeat Step 5 above. If not, TO x tubing, TI x tubing x 21-19 seal assembly. Circulate sand of packer, Displace 1200 gals water x 4 gal WA 840 x 1.5 gal WA 872 down annulus as a packer fluid. String into packer and put well on production test as outlined in Step 2.

Note: Casing rating is 2000 psi

\* If no fill is present, we will squeeze suspected casing leak after flow test. TI x the Baker Model D production packer (see 24-19) x Model B expendable plug, set at 1950', dump sand on top of and proceed with program at Step 4.

## OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-76

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5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. 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.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		7. Unit Agreement Name
2. Name of Operator Amoco Production Company		8. Farm or Lease Name Gerk Gas Com "D"
3. Address of Operator 501 Airport Drive, Farmington, NM 87401		9. Well No. 1
4. Location of Well UNIT LETTER <u>C</u> <u>700</u> FEET FROM THE <u>North</u> LINE AND <u>920</u> FEET FROM THE <u>West</u> LINE, SECTION <u>30</u> TOWNSHIP <u>29N</u> RANGE <u>9W</u> NMPM.		10. Field and Pool, or Wildcat Aztec Pictured Cliffs
15. Elevation (Show whether DF, RT, GR, etc.) 5588' GR		12. County San Juan

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
DRAW OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>

## SUBSEQUENT REPORT OF:

REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
CASING TEST AND CEMENT JOBS <input type="checkbox"/>	
OTHER <input type="checkbox"/>	

17. 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.

Moved in and rigged up service unit 10/10/84. Total depth of the well is 2059' and plugback depth is 2023'. Tested backside to 1300-1600 psi. Injected 50,000 scf N<sub>2</sub> in 1963'-1988', waited 30 minutes and blew back, no gas. Pulled doughnut while stinging out of the production packer Model D. Let water up the backside and swabbed water out of the well. Injected 100,000 scf N<sub>2</sub> in 1963'-1988', waited 30 minutes and blew back. Tried to flare gas with no success. Decided not to squeeze. Shut in the well for evaluation (possible P x A).

*TA approved until  
5/16/85*

NOV 14 1984  
OIL CON. DIV.  
D.O. S.

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

Original Signed By

E. D. FERN

TITLE Administrative Supervisor

DATE 11/9/84

Original Signed By FRANK T. CHAVEZ

SUPERVISOR DISTRICT # 3

DATE NOV 14 1984

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ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-78

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	
7. Unit Agreement Name	
8. Farm or Lease Name	
Gerk Gas Com "D"	
9. Well No.	
1	
10. Field and Pool, or Wildcat	
Aztec Pictured Cliffs	
12. County	
San Juan	

**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.)

1. OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> WELL <input type="checkbox"/> OTHER <input type="checkbox"/>
2. Name of Operator
Amoco Production Company
3. Address of Operator
501 Airport Drive, Farmington, NM 87401
4. Location of Well
UNIT LETTER <u>C</u> <u>700</u> FEET FROM THE <u>North</u> LINE AND <u>920</u> FEET FROM THE <u>West</u> LINE, SECTION <u>30</u> TOWNSHIP <u>29N</u> RANGE <u>9W</u> N.M.P.M.
15. Elevation (Show whether OF, RT, GR, etc.)
5588' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Amoco Production Company requests approval to repair the subject well according to the attached procedure.

**RECEIVED**  
FEB 01 1985  
OIL CON. DIV.  
DIST. 3

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

Original Signed By B. D. Shaw TITLE Administrative Supervisor DATE 1/29/85

Original Signed By FRANK T. CHAVEZ TITLE SUPERVISOR DISTRICT 3 DATE FEB 01 1985

NOTIONS OF APPROVAL, IF ANY:

FARMINGTON DISTRICT WORKOVER

DATE: 1/17/85

OPERATIONS TO BE PERFORMED: (CIRCLE ONE) RECOMPLETION REPAIR SERVICE  
 LEASE AND WELL GERK GAS Com. D No. 1 FIELD Aztec Pictured Cliffs  
 FORMATION Pictured Cliffs LOGS GAMMA Ray-Neutron  
 LOCATION 700' ENL x 920' ENL, Section 30, T29N, R9W, San Juan Co, NM  
 COMP. DATE 9/21/70 EL: 5601' KB TO: 2080' PBD: 2023'  
 CSG: 8 7/8" 24 # K-55 @ 212' : 4 1/2" 9.5 # K-55 @ 2059'  
 COMP. INT. 1963-73, 1983-88 x 2.5 ft ORIG. STIM. SWAF 1680 gal 140 x 3000' 10-20  
 IP 1384 MCFD CURRENT PROD. INT. SAVE SAWD  
 PURPOSE: repair casing leak and Form FEAR

WJH TKA

GOM  
DHS

MCH  
RGH  
BVD  
GMR

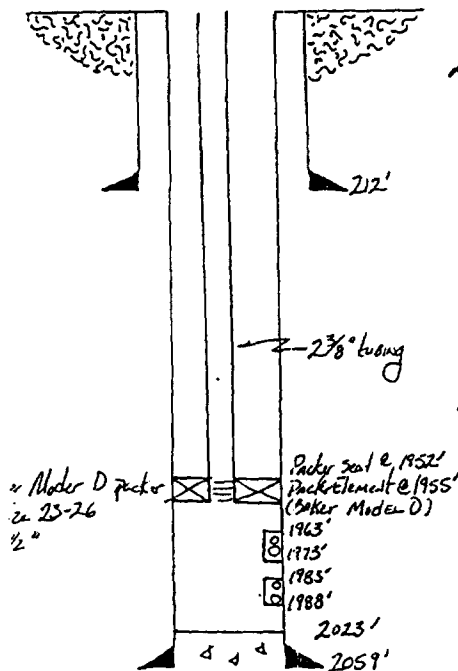
5/PERMITTING DESK

DWJ  
ENGR

FILE

WELLBORE SKETCH

PROCEDURE



1. MI x RUSU. ND WELLHEAD (See Note 1), NU BOP

2. TO x tubing x Sealbase assembly. TI x Model D packer plug, Baker Fullbore Packer x 2 3/8" tubing. Set Model D packer plug in w Model D packer. TO 1 joint, set fullbore packer and pressure test to 1500 psi. Dump a mixture of sand and barite on top of Model D packer and plug - enough to ADEQUATELY COVER RETRIEVING HEAD

3. After sand has settled on top of packer AND plug, start searching for casing leak with fullbore packer. I expect the leak to be across the CVO Annular at approximately 700'. It might be lower at the 800-1200' interval.

4. After leak has been located, set fullbore packer 200' above leak (this will give you 3.25 barrels of volume above leak in the 4 1/2 inch casing). FullHEAD 50 ex Class B cement containing 10% Cal-Seal, 2% CaCl<sub>2</sub> and 5.2 gallons of water / ex yield is 1.24 cu ft / ex for a total of 62 cu ft or 11.04 bbls into casing leak.

DISTRICT MANAGER

W. J. H. H.

DISTRICT ENGINEER

Farm. Q. H. H.

DISTRICT FOREMAN

Farm. Q. H. H.

ENGINEER

David W. Schott

DATE

1/18/85



Pump <sup>top of</sup> thixotropic cement to 100' above leak (1.5 bbls)  
 So that top of Cement is midway between bottom of packer and top  
 of leak. Keep pressure up on CEMENT AND hold pressure for  
 60 minutes. Thickening time of this slurry at 80°  
 is 1:15.

5. WOC override. Pull out cement x bit x casing  
 SCRAPER x pressure test casing to 1500 psi.  
 TO x bit x scraper. TI x tubing and retrieving  
 head. Circ sand off packer plug and retrieve same.  
 TO x packer plug. TI x tubing and land at  
 1750' open ended.

6. Refrac Pictured Cliffs down tubing and annulus  
 with 45,000 gallons 70 quality foam and  
 70,000 lb 10-20 mesh ~~brake~~ sand. Use  
 2% filtered KCl water containing 20 lb/1000 gal  
 gel. Pump water, sand and 10% of N<sub>2</sub> down  
 annulus AND remaining N<sub>2</sub> down tubing. Pump as  
 follows (See Note 2):

Foam Volume (GAL/BBL)	Water Volume (GAL/BBL)	Slurry Volume (GAL/BBL)	Stage	Conc. (PPG) (Foam/Slurry)
5000/119	1500/36	1500/36	1	PAO
5000/119	1500/36	1614/38	2	.5/1.7
5000/119	1500/36	1728/41	3	1.0/3.33
5000/119	1500/36	1841/44	4	1.5/5.0
15000/357	4500/107	5865/140	5	2.0/6.7
10000/238	3000/71	4138/99	6	2.5/8.33
			7	Finish

7. Shut-in well a minimum of 24 hours. May want to shut-down the entire day after the frac.
8. Clean out to top of Model D packer x Nitrogen, string into Sumex seal assembly and swab well in to kick off. After well has cleared up, mix 2 bbls inhibitor and .5 bbls oxygen scavenger with 21 bbls water. This is our packer fluid, Dump packer fluid down backside. KEEP ANY WATER OFF FORMATION AFTER FRAC.
7. Put well on 7-day flow test with 50 psi backpressure on tubing. Record results on daily morning report. Put well back into selective.

Notes:

1. There is 9000 lb. compression on the tubing when it was last landed in the Model D packer.
2. Expected treating pressures are 1200 psi on backside and 2500 psi down tubing. Expected bottom hole treating pressure is 1800 psi.  $N_2$  injection rate is 2700 scf/min and 1411 scf/bbl liquid. Have about .5 million scf  $N_2$  on location. Squeeze will have been tested to 1500 psi. Absolute Maximum Pressure <sup>rating</sup> on casing should be 1750 psi. Maximum rating on tubing is 6000 psi.
3. If we cannot get into the formation below tubular limits set down above. String into packer x seal assembly and frac down <sup>2700</sup> tubing with same frac pump schedule shown in step 6 only add 5000 gals. to pad volume and pump at

15 BPM. Expected treating pressures down tubing are 3600-3700 psi.

4. Total Pump rate for triple entry job is 30 BPM (21 BPM  $N_2$  pump rate  $\times$  9 BPM liquid pump rate).  
Total pump rate if it is necessary to go down tubing is 15 BPM (10.5 BPM  $N_2$   $\times$  4.5 BPM water)

Thanks  
Dane

QUALITY CONTROL:

1. Please Check

a. Sieve ANALYSIS

b. Steam Clean all frac tanks

c. FILTER ALL WATER to 1 micron before it goes into well

d. Use brady seal

2. Record load recovered and load yet to be recovered

Amoco Production Company  
**WELL REPAIR AUTHORIZATION AND REPORT**

ORIGINAL BLANK	<input type="checkbox"/>
CORRECTION 6	<input type="checkbox"/>
DELETION 9	<input type="checkbox"/>
FLAC (WELL) NO.	
HORIZON CODE	
CONTROL DATE	MO DAY YR

LEASE/UNIT NAME AND WEL. NUMBER <b>G2K Gas Com D No. 1</b>		HORIZON NAME <b>PICTURED CLIFFS</b>	
FIELD <b>Artec PICTURED CLIFFS</b>	COUNTY <b>SAN JUAN</b>	STATE <b>N.M.</b>	
OPERATOR <b>Amoco</b>	DISTRICT <b>FARMINGTON</b>	ELEVATION <b>5401'</b>	ELEV. REFERENCE PT. <b>KB</b>
LAST PRODUCING WEL. ON LEASE <b>YES</b>		T.D. <b>2080'</b>	P.B.T.D. <b>2023</b>
		LOCATION <b>700' FNL x 920' FNL, Sec 30, 27N9W Co. NM</b>	
Amoco WORKING INTEREST <b>42.7</b>	OTHER WORKING INTERESTS <b>SOUTHLAND ROYALTY (.513)</b>		
Amoco NET INTEREST <b>32.4</b>	TOTAL REPAIR HORIZONS <b>1</b>	STATUS AFTER REPAIR <b>PRODUCING</b>	INJECTION <input checked="" type="checkbox"/>
		PRODUCTION INCREASE EXPECTED <b>YES</b>	NO <input type="checkbox"/>

TYPE JOB SELECT ONE MAJOR (1) AND MAXIMUM THREE MINOR (2)

ESTIMATED COST

CONVERT TO INJECTION... <input type="checkbox"/>	CONVERT TO PROD... <input type="checkbox"/>	DEEPEN... <input type="checkbox"/>
WATER FRAC... <b>2</b>	OIL FRAC... <input type="checkbox"/>	ACID FRAC... <input type="checkbox"/>
ACIDIZE... <input type="checkbox"/>	REPAIR CASING... <input type="checkbox"/>	WHIPSTOCK... <input type="checkbox"/>
PLUG BACK... <input type="checkbox"/>	PERFORATE... <input type="checkbox"/>	CEMENT SQUEEZE... <b>1</b>
WASHING SAND... <input type="checkbox"/>	SAND CONTROL... <input type="checkbox"/>	OTHER... <input type="checkbox"/>
SET LINER OR SCREEN... <input type="checkbox"/>	PULL LINER OR SCREEN... <input type="checkbox"/>	
TREATING VOLUME - GAL. <b>45,000</b>	AREA REPAIR CODE <input type="checkbox"/>	

<b>INTANGIBLES</b>	
RIG COST	\$ <b>18,000</b>
EQUIPMENT RENTAL	
CIRCULATING MEDIA	<b>1,000</b>
CEMENT AND SERVICE	<b>5,000</b>
PACKERS AND EQUIPMENT	<b>5,000</b>
PERFORATE, LOG, WIRELINE	
STIMULATION	<b>60,000</b>
LABOR	<b>3,000</b>
SPECIAL EQUIPMENT	
FISHING	
OTHER INTANGIBLES	<b>18,400</b>
TOTAL INTANGIBLES	\$ <b>110,400</b>
<b>TANGIBLES</b>	
CSG., TBG., HEAD, ETC.	\$

REPAIR DESCRIPTION <b>SQUEEZE CASING LEAK &amp; Repair</b>		MAXIMUM 25 SPACES	
GROSS PRODUCTION	BEFORE	ANTICIPATED	UNIT PRICE
OIL - - - BOPD			\$/BBL
WATER - - BOPD	<b>0</b>	<b>1</b>	
GAS - - - MCFD	<b>0</b>	<b>100</b>	\$/MCF <b>4.80</b>
OTHER - - /DAY			\$/UNIT
EXPECTED PAYOUT MONTHS			

<b>TOTAL GROSS COST</b>	
\$ <b>110,400</b>	
Amoco WORKING INTEREST COST \$ <b>47,140</b>	

<b>GROSS INJECTION</b>	
WATER <input type="checkbox"/>	GAS <input type="checkbox"/> LPG <input type="checkbox"/> AIR <input type="checkbox"/> STEAM <input type="checkbox"/> OTHER <input type="checkbox"/>
BEFORE	
RATE - - BPD OR MCFD	ANTICIPATED
PRESSURE - - - PSIG	

REASON FOR WORK

THIS WELL DEVELOPED A CASING LEAK IN 1982. IN September 1984, A RIG WAS MOVED IN THE WELL TO determine if the well would produce to atmosphere under a packer, this test showed extensive damage caused by the leak and the well will not flow. Since the has rec. only .3 BCF and total reserve are .79 BCF, this well will have its casing repaired and be refraced x N<sub>2</sub> foam

REPAIR RESULT DATE REPAIR COMPLETED	SUCCESS <input type="checkbox"/> FAILURE <input type="checkbox"/>	MO. DAY YR.
GROSS PRODUCTION DURING PAYOUT		
OIL - - - BOPD	GAS - - - MCFD	
WATER - - BOPD	OTHER - - /DAY	
GROSS INJECTION		
RATE - - BPD OR MCFD	PRESSURE - - PSIG	
ESTIMATED FINAL GROSS COST \$		

RECOMMENDED <i>[Signature]</i>	DATE <b>1/25/85</b>
AUTHORIZED <i>[Signature]</i>	MO. DAY YR. <b>2 12 5 85</b>

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

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LAND OFFICE	
OPERATOR	

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-75

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.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER-	5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
2. Name of Operator Amoco Production Co.	5. State Oil & Gas Lease No.
3. Address of Operator 501 Airport Drive, Farmington, N M 87401	7. Unit Agreement Name
4. Location of Well UNIT LETTER C 700 FEET FROM THE North LINE AND 920 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 29N RANGE 9 W NMPM.	8. Farm or Lease Name Gerk Gas Com D
	9. Well No. 1
	10. Field and Pool, or Wildcat Aztec Pictured Cliffs
11. Elevation (Show whether DF, RT, GR, etc.) 5581' GR	12. County San Juan

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
BULL OR ALTER CASING ☐  
OTHER ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐  
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPER. ☐  
CASING TEST AND CEMENT JOBS ☐  
OTHER ☒ Repair Sundry

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Moved in and rigged up service unit on 3/8/85. Total depth of the well is 2080' and plugback depth is 2023'. Squeezed casing at 735' with 59 cu. ft. Class B Neat. Pressure tested production casing to 1500 psi. Fraced interval 1963'-1988' with 45,000 gal 70 quality foam and 70,000 # 10-20 sand.

Released the rig on 3/20/85.

RECEIVED  
APR 18 1985  
OIL CON. DIV.  
DIST. 3

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

Signed BDS Haw TITLE Adm. Supervisor DATE 4/15/85  
Original Signed by CHARLES CHOLSON DEPUTY CONSERVATOR, DIST. #3 DATE APR 18 1985  
CONDITIONS OF APPROVAL, IF ANY:

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

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.  
300452068500

5. Indicate Type of Lease  
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Gerk Gas Com D

8. Well No.

1

9. Pool name or Wildcat  
Aztec Pictured Cliffs

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.)

1. Type of Well:

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

2. Name of Operator

Amoco Production Company

Attention:

Gail M. Jefferson, Rm 1942

3. Address of Operator

P.O. Box 800

Denver

Colorado

80201

(303) 830-6157

4. Well Location

Unit Letter C : 700 Feet From The North Line and 920 Feet From The West Line

Section

30

Township

29N

Range

9W

NMPM

San Juan

County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11.

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☒

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

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.

Amoco Production Company requests permission to plug and abandon the above referenced well per the attached procedures.

If you have any technical questions, please contact Mike Kutas at (303) 830-5159 or myself for any administrative questions.

RECEIVED  
MAY - 5 1995  
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

*Gail M. Jefferson*

TITLE

Sr. Admin. Staff Asst.

DATE

05-04-1995

TYPE OR PRINT NAME

Gail M. Jefferson, Rm 1942

TELEPHONE NO. (303) 830-6157

(This space for State Use)

APPROVED BY

*Johnny Robinson*

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. #3

DATE

MAY - 5 1995

CONDITIONS OF APPROVAL, IF ANY: ☒

Notifying in time to witnesses

**Gerk Gas Com D #1**

**Orig. Comp. 9/70**

**TD=2080', PBTD = 2023'**

**Page 2 of 2**

1. Check location for anchors. Install if necessary. Test anchors.
2. MIRUSU. Blow down well. Kill if necessary with fresh water. NDWH NUBOP.  
Caution: This well has H<sub>2</sub>S.
3. Squeeze perms at 1963' to 1988 through model D packer at 1952 with 19 cuft cement.  
Pull up and place cement plug to 1500' with 46 cuft cement.
4. Pull up hole and spot cement plug from 1000' to surface with 92 cuft cement.
5. NDBOP. Cut off casing and wellhead. Install PXA marker according to BLM or State requirements.
6. Turn over to John Schwartz for reclamation.
7. Rehabilitate location according to BLM or State requirements.

# Amoco Production Company

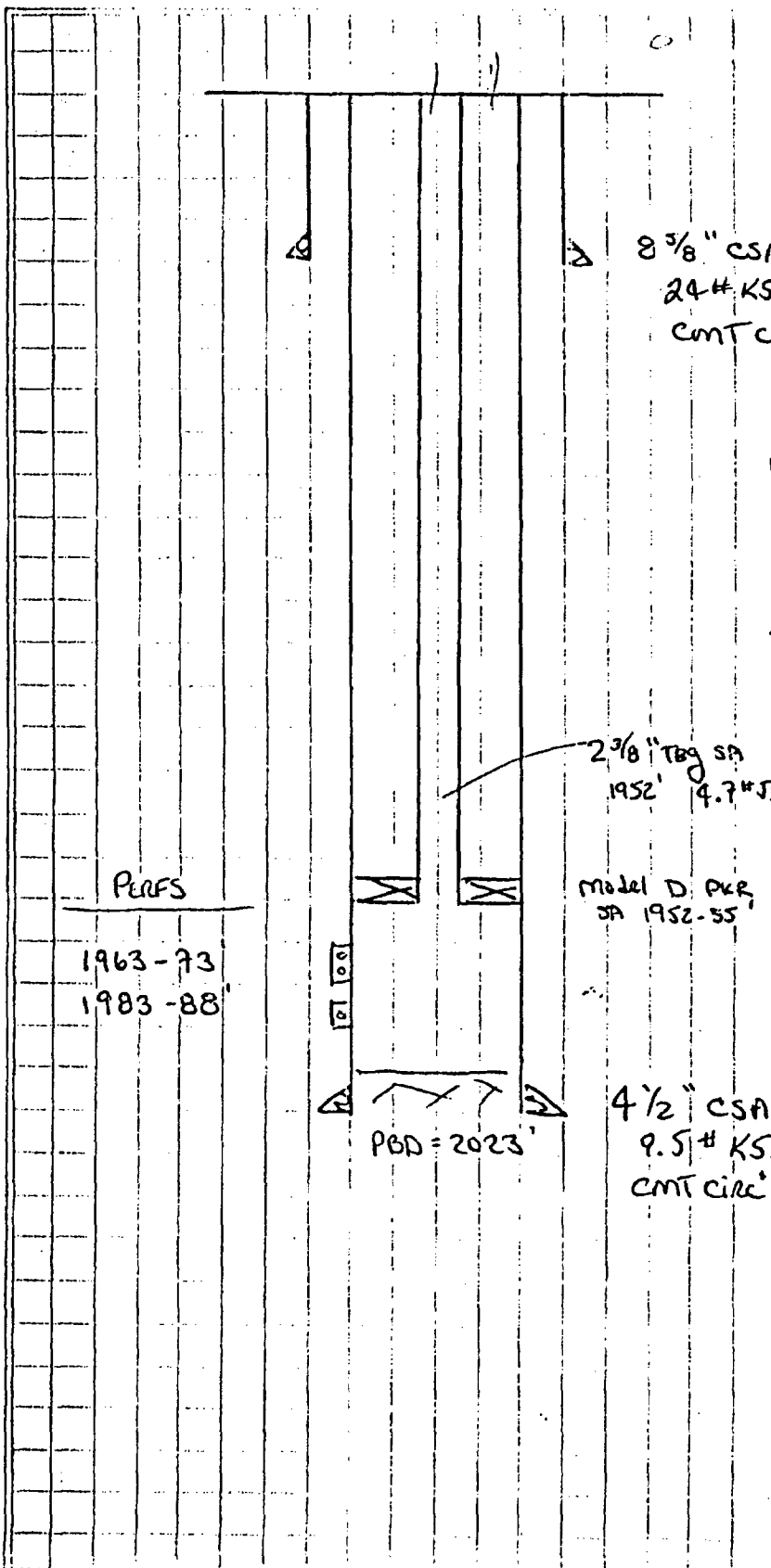
## ENGINEERING CHART

Sheet No. \_\_\_\_\_ of \_\_\_\_\_  
 File \_\_\_\_\_  
 Appn \_\_\_\_\_  
 Date 3-14-95  
 By GMLK

SUBJECT

GRILL GCD 1

Jupiter 200



8 3/8" CSA 212'  
 24# K55  
 CMT Circ'd

10/84 c/o Fill FUM 2011' TO PBD, SET  
 MODEL D PKR @ 1955', PRS TST  
 CASING TO 1300-1600 psi - Results?  
 DECIDED NOT TO SQZ

3/85 - FOUND HOLE @ 735', SQZ w/  
 50 SKS CLASS B CMT, FSP = 2000\*  
 - DELOUT: PRS TEST TO 1500 psi  
 - REFRACT W/ 45 mgd 70 Q PM +  
 70 M# 20-40 80  
 - RUN 2 1/8" TBG, SET IN PKR, LARD  
 BACKSIDE w/ TRTD FLUID

2 3/8" TBG SA  
 1952' 4.7# J55

Model D PKR  
 SA 1952-55'

PERFS

1963-73  
 1983-88

PBD = 2023'

4 1/2" CSA 2059'  
 9.5# K55  
 CMT Circ'd



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1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO. 300452068500
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name  Gerk Gas Com D
8. Well No. #1
9. Pool name or Wildcat Aztec Pictured Cliffs
10. Elevation (Show whether DF, RKB, RT, GR, etc.)

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.)	
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	
2. Name of Operator Amoco Production Company Gail M. Jefferson, Rm 1295C	
3. Address of Operator P. O. Box 800, Denver, Colo. 80201 (303) 830-6157	
4. Well Location Unit Letter C : 700 Feet From The North Line and 920 Feet From The West Line Section 30 Township 29N Range 9W NMPM San Juan County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.)	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data			
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:		
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG-AND-ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.

MIRUSU 2/9/96. Pulled 62 joints of 1.25" tbgr.

Squeezed perms from 1782'-1988' with 75 sxs Class B neat. Avg rate 1.5 bpm, max rate 2.0 bpm. SD WOC. TIH tag TOC at 1782'. Load and pressure test production casing to 750# for 15 mins. Held ok.

Cemented inside production casing from 1500'-1782' with 20 sxs Class B. Average rate 1.5 bpm, max rate 2.0 bpm. Cemented from 0-1000' inside production casing with 62 sxs Class B. Avg rate 1.5 bpm, max rate 2.0 bpm.

Cut off well head, install marker. RDMOSU 2/12/96.

RECEIVED  
FEB 28 1996

OIL CON. DIV.

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

SIGNATURE Gail M. Jefferson TITLE Sr. Admin. Staff Asst. DATE 2/26/96

TYPE OR PRINT NAME \_\_\_\_\_ TELEPHONE NO. \_\_\_\_\_

(This space for State Use)

APPROVED BY James Carlson TITLE N.M. & C.D. Deputy Oil & Gas Inspector DATE 3-29-96

CONDITIONS OF APPROVAL, IF ANY: