





**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

Lori Wrontenberg, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Dear Ms. Wrotenberg:

Vastar Resources, Inc. hereby seeks administrative approval pursuant to the provisions of Rule 8 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool adopted on October 17, 1988, of an unorthodox well location for its 2 A Well No. 11, to be drilled in the Fruitland Coal formation at an unorthodox well location 2,405 feet from the South line and 1,880 feet from the West line of Section 19, Township 32 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico. A non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 will be dedicated to the well. This is necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys in Section 2.

The well will be drilled to a depth of approximately 3,230 feet to test the Fruitland Coal formation, Basin-Fruitland Coal Gas Pool.

This location in the Fruitland Coal formation is unorthodox because Rule 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool (Order No. R8768, as amended) provides for wells to be located in the NE/4 or SW/4 of a single governmental section and located no closer than 660 feet to any outer boundary of the proration unit nor closer than 10 feet to any interior quarter-quarter section line or subdivision inner boundary.

Lori Wrontenberg, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
Carracas 2 A #11 Well  
June 19, 2000  
Page 2

This unorthodox location is required by topographic conditions and Carson National Forest requirements. When Vastar field personnel met at the well site with representatives of the Forest Service, the Forest Service requested the well pad be built at end of the existing road and to not extend the road as previously planned across a large drainage wash to gain access to the central portion of the section. This drainage wash is highly eroded with unstable banks as it carries the waters of Orcones Canyon into Bancos Canyon.

Attached hereto as Exhibit A is a topographical map showing no standard location is available for the well on this spacing unit. Attached as Exhibit B and C are the C-102 Plat and the APD as filed with the Aztec District Office reflecting request of approval of a non-standard 368.6-acre Fruitland Coal spacing unit. . These exhibits show that the unorthodox location is supported by the surface topography of the area.

Attached hereto as Exhibit D is a plat as required by Rule 104.F(3) showing the subject spacing unit, the proposed unorthodox well location, the offsetting wells and the diagonal and adjoining spacing units. Exhibit F lists parties affected by this application. A copy of this application, including a copy of the plat described above has been sent to these affected parties by certified mail-return receipt requested in accordance with Rule 1206(A)(5) advising them that if they have an objection to this application it must be filed in writing within twenty days from the date this notice was sent.

Copy of this request have also been provided to the Aztec Office and the Bureau of Land Management, Farmington District Office.

Very truly yours,

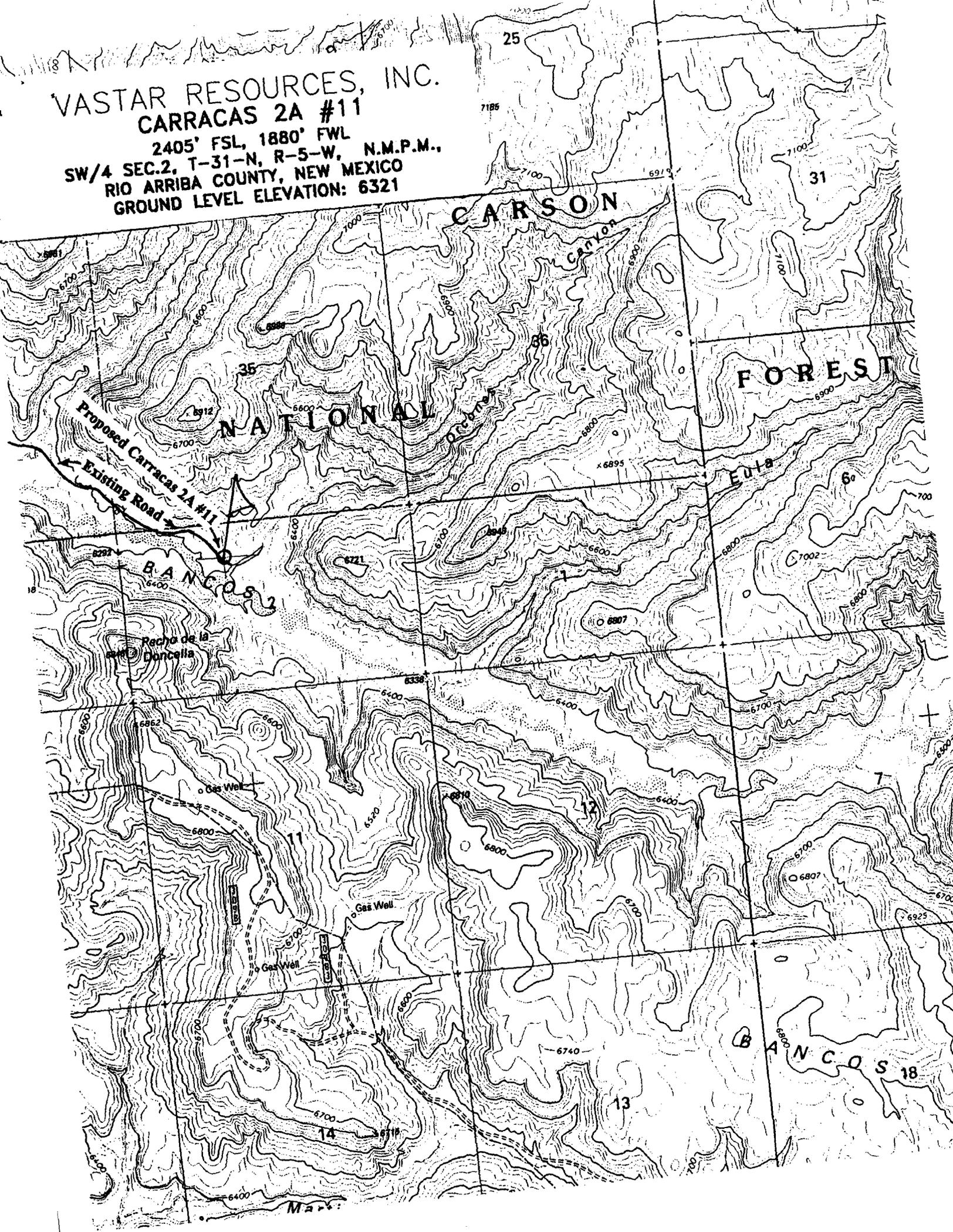
A handwritten signature in black ink, appearing to read "Michael Rodgers", with a long horizontal flourish extending to the right.

Michael Rodgers, CPL

Direct Line: (281) 584-3230  
Fax: (281) 584-6370  
E-mail: mrodger@vastar.com

Enclosures

VASTAR RESOURCES, INC.  
CARRACAS 2A #11  
2405' FSL, 1880' FWL  
SW/4 SEC.2, T-31-N, R-5-W, N.M.P.M.,  
RIO ARriba COUNTY, NEW MEXICO  
GROUND LEVEL ELEVATION: 6321



District I  
171 Box 1980, Hobbs, NM 88241-1980  
District II  
111 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. A.M. Number		2. Pool Code 71629		3. Pool Name Basin Fruitland Coal	
4. Property Code		5. Property Name CARRACAS 2A			6. Well Number 11
7. OGRID No. 36619		8. Operator Name VASTAR RESOURCES, INC.			9. Elevation 6321

10. Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	2	31N	5W		2405'	SOUTH	1880'	WEST	RIO ARRIBA

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.

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

<p>16</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Charles W. Knight, Jr.</i> Signature Charles W. Knight, Jr. Printed Name Engineer Title June 9, 2000 Date</p>	
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>06/06/00 Date of Survey</p> <p>Signature and Seal of Surveyor: <i>Henry P. Broadhurst</i> HENRY P. BROADHURST NEW MEXICO PROFESSIONAL SURVEYOR Certificate Number: 1337</p>	
	<p>South</p>	
	<p>3042.60'</p>	



**Vastar Resources, Inc.**

1816 E. Mojave St  
Farmington, New Mexico 87401  
505 599-4300  
505 599-4328 Fax

June 10, 2000

Bureau of Land Management  
Farmington District Office  
1235 La Plata Highway  
Farmington, New Mexico 87401

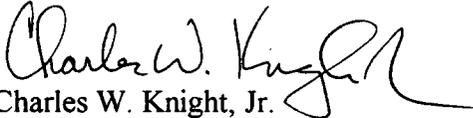
Re: APD – Carracas 2 A #11

Attached please find an APD package for the proposed Carracas 2 A #11 well located in the Carson National Forest in Rio Arriba County, New Mexico. Included are the following items:

- APD form 3160-3
- Surveyors plat with well location and elevation
- USGS Topographic Orientation Map
- Eight part Drilling Plan
- Thirteen part Surface Use Plan
- Drill site location/rig layout and site crosssection
- Offset well identifier map showing wells within a one mile radius
- BOP stack diagram
- Choke manifold diagram
- Surface production facilities diagram

A notice of staking was filed with your office on May 19, 2000 and an onsite review was performed with Cam Hooley of the Forest Service and Charlie Knight representing Vastar. The Forest Service requested a change in location of the well (to avoid crossing Orcones Canyon). The new site was arch surveyed with no findings and an arch report will be available within the next few days. Please note the attached plat and support materials are for the new location and not for the site referenced with the NOS.

Please contact Charlie Knight at Vastar in Farmington at (505) 599-4308 or Dave Reid at Vastar in Houston at (281) 584-3702 if further information is needed to process the attached application.

  
Charles W. Knight, Jr.  
Engineer

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.  
NM 68762

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.  
CARRACAS 2A #11

9. AP WELL NO.

10. FIELD AND POOL, OR WILDCAT  
BASIN FRUITLAND COAL

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
SEC. 2, T-31N, R-5W

12. COUNTY OR PARISH | 13. STATE  
RIO ARRIBA | NM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
DRILL  DEEPEN

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
VASTAR RESOURCES, INC.

3. ADDRESS AND TELEPHONE NO.  
1816 E. MOJAVE, FARMINGTON NM 87401 (505) 599-4300

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
At surface 2405' FSL & 1880' FWL  
At proposed prod. zone SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
39 MILES EAST-NORTHEAST OF BLOOMFIELD, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)	634'	16. NO. OF ACRES IN LEASE	368.6	17. NO. OF ACRES ASSIGNED TO THIS WELL	368.6
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	NONE	19. PROPOSED DEPTH	3230'	20. ROTARY OR CABLE TOOLS	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6321' GL

22. APPROX. DATE WORK WILL START\*  
JULY, 2000

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	400'	300 sx (354 cf.) Circ. to Surf.
7-7/8"	5-1/2"	15.5#	3230'	900 sx (1730 cf.) Circ. to Surf.

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

24. SIGNED Charles W. Knight, Jr. TITLE ENGINEER (505) 599-4308 DATE 6/12/00  
CHARLES W. KNIGHT, JR.  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

\*See Instructions On Reverse Side

District I  
191 Box 1980, Hobbs, NM 88241-1980  
District II  
111 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
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4 Property Code		5 Property Name CARRACAS 2A			6 Well Number 11
7 OGRID No. 36619		8 Operator Name VASTAR RESOURCES, INC.			9 Elevation 6321

10 Surface Location

Ul. or lot no. K	Section 2	Township 31N	Range 5W	Lot Idn	Feet from the 2405'	North/South line SOUTH	Feet from the 1880'	East/West line WEST	County RIO ARRIBA
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11 Bottom Hole Location If Different From Surface

Ul. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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

16				17 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>	
				Signature <i>Charles W. Knight, Jr.</i> Charles W. Knight, Jr.	
				Printed Name Engineer	
				Title June 9, 2000	
				Date	
				18 SURVEYOR CERTIFICATION <i>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.</i>	
				Date of Survey 06/06/00	
				Signature and Seal of Surveyor:  Certificate Number	



# TABLE OF CONTENTS

Carracas 2 A #11

<b>DRILLING PLAN</b>	<b>PAGE</b>
1. Formation Tops	1
2. Anticipated Depth of Oil, Gas, and Water	1
3. Blow Out Preventor Requirements	1
4. Casing and Cement Program	2
5. Mud Program	2
6. Testing, Logging, and Coring	3
7. Abnormal Pressures and H <sub>2</sub> S Gas	3
8. Other Information and Notification Requirements	3
<b>SURFACE USE PLAN</b>	
1. Existing Roads	4
2. Access Roads to be Constructed or Reconstructed	4
3. Location of Wells within One Mile	5
4. Proposed Production Facilities	6
5. Water Supply	6
6. Construction Materials	6
7. Waste Disposal	6
8. Ancillary Facilities	7
9. Wellsite Layout	7
10. Reclamation	7
11. Surface/Mineral Ownership	8
12. Other Information	8
13. Certification	9

Vastar Resources, Inc.  
Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

Page 1

## **DRILLING PLAN**

### **1. FORMATION TOPS: The estimated tops of geologic markers as follows:**

Ojo Alamo	2468'
Kirkland	2564'
Fruitland	2920'

### **2. ANTICIPATED DEPTHS OF OIL, GAS, AND WATER:**

Ojo Alamo	2468' - Water
Fruitland	2920' - Gas

All zones capable of oil, gas, or water production will be protected with 8 5/8" or 5 1/2" casing and cemented to surface.

### **3. BLOWOUT PREVENTOR REQUIREMENTS:**

<u>Interval</u>	<u>Pressure Control Equipment</u>
Surface - 400'	No equipment necessary
400' - TD	10" 2000 psi Double Ram preventor, rotating head and choke manifold.

All BOPE will be hydraulically pressure tested when nipped up, after well control use and every thirty days. Pressure tests will be to the lesser of 2000 psi or to 70% of the minimum internal yield pressure of the casing.

Blind rams will be functioned on each trip out of the hole. All BOPE checks will be noted on the daily drilling reports.

Additional BOPE equipment includes a kelly cock, FO safety valve and an inside BOP.

SEE ATTACHED BOP DIAGRAM

4. **CASING AND CEMENTING PROGRAM:**

The proposed casing program will be as follows:

<u>Hole Section</u>	<u>Hole Size</u>	<u>Interval</u>	<u>Casing Size</u>	<u>Casing Specs</u>
Surface	12-1/4"	Surface to 400'	8-5/8"	24# J-55 STC
Production	7-7/8"	400' to 3230'	5-1/2"	17# J-55 LTC

<u>Hole Section</u>	<u>Slurries</u>
Surface	300 sx Class B with 3% CaCl <sub>2</sub> & 1/4 lb/sk CF (354 cu. ft., 1.18 yield)
Production	Lead 800 sx 35:65 Class B:poz + 5#/sx Gilsonite + 1/4 lb/sk CF (1592 cu. ft., 1.99 yield) Tail 100 sx 50:50 Class B:poz + 5#/sx Gilsonite + 0.4% FLA + 1/4 lb/sk CF (138 cu. ft., 1.38 yield)

5. **MUD PROGRAM:** The proposed circulating mediums to be employed in drilling are as follows:

<u>Depth</u>	<u>Mud Type</u>	<u>Density</u>	<u>Funnel Vis</u>	<u>Fluid Loss</u>
Surface to 400'	Spud Mud	8.3 to 9.5 ppg	30 to 60	No Control
400' to 2600'	Water	8.3 to 8.7 ppg	28 to 35	No Control
2600' to TD	LSND	8.7 to 9.2 ppg	35 to 45	≤ 20 cc

Vastar Resources, Inc.  
Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

Page 3

6. **TESTING, LOGGING, AND CORING:** The anticipated type and amount of testing, logging, and coring are as follows:

- a. Drill stem tests are not anticipated.
- b. The electric wireline logging program will be as follows:  
  
Temperature survey if cement does not circulate.  
Cased hole GR/CCL/CNL
- c. Mud logging: 2600' to TD.
- d. Coring program: No cores are anticipated.

7. **ABNORMAL PRESSURES AND H<sub>2</sub>S GAS:**

No abnormal conditions are anticipated during the drilling and completion of this well. Standard well control practices and equipment will be used for the duration of this well.

8. **OTHER INFORMATION & NOTIFICATION:**

- a. Vastar Resources, Inc. is operating under our United Pacific national bond on file with the BLM. That BLM bond number is ES 0309.
- b. Construction operations are planned to start pending approval of the APD. Location preparation is estimated to take 2 to 3 days. The drilling activity should take 6 days. The drilling rig may be used for the completion portion of the well. The completion activities are anticipated to take 9 days. Total duration of activities preparing this well to produce should take an estimated 23 days.
- c. In the event of an emergency, contact the following:

Charlie Knight  
Project Engineer  
(505) 599-4308 (office)  
(281) 599-4338 (fax)

Dave Reid  
Project Engineer  
(281) 584-3702 (office)  
(281) 584-6810 (fax)

Vastar Resources, Inc.  
Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

Page 4

### **SURFACE USE PLAN**

Entry permission was obtained & the surface location was staked by Henry Broadhorst, Jr. Registered Professional Surveyor with United Field Services, Inc. located in Farmington, N.M. at (505) 344-0408.

#### **1. EXISTING ROADS:**

- a. The proposed well site is located about 39 miles east-northeast of Bloomfield, New Mexico (this distance is direct and not by road). See attached USGS Topographic orientation map and offset well map for reference.
- b. Road Directions to the location are as follows:  
From Bloomfield, NM: Go east on Hwy 64 about 48 miles to the 114-1/2 mile marker and turn left on Forest Road 310. Go north on FR 310 for 18.7 miles at which point the road becomes FR 218. Continue northward for another 7.6 miles to a Y in the road at Carracas 18 B #13. Take the left fork which will be FR 2188 and go southwest about 6-1/4 miles to fork in the road near Williams compressor station. Turn left off main road onto Carracas 2 A #11 access road and go southeast about 1-3/4 mile along Bancos Canyon to pad location for the proposed Carracas 2 A #11.
- c. For location of existing access roads within a 2 mile radius, see attached maps.
- d. Improvement to the existing access will not be necessary.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. Existing roads and newly constructed roads on surface under the jurisdiction of any Surface Managing Agency shall be maintained in accordance with the standards of the SMA.

#### **2. ACCESS ROADS TO BE CONSTRUCTED OR RECONSTRUCTED:**

A new lease road will not be required since well location is located at the end of an existing road.

Vastar Resources, Inc.  
Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

3. **LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS OF THE PROPOSED LOCATION :**

Reference attached maps for the location of offsetting wells below:

a. Producing wells -

<u>T31N, R5W</u>	<u>Well #</u>	<u>Producing Formation</u>
Section 11	Rosa #40	Dakota

b. Drilling Wells - none

c. Plugged Wells & Dry Holes

<u>T31N, R5W</u>	<u>Well #</u>
Section 2	Schalk 58 #1

<u>T32N, R5W</u>	<u>Well #</u>
Section 35	San Juan 32-5 Unit #2

4. **LOCATION OF TANK BATTERIES AND PRODUCTION FACILITIES:**

Production facilities will be installed as per the attached facilities diagram. The production equipment to be utilized will be a separator, water tank, and a gas meter run.

5. **LOCATION AND TYPE OF WATER SUPPLY:**

- a. All water needed for drilling purposes will be fresh water purchased from commercial sources and treated with Biocide as needed.
- b. No water well is to be drilled on this lease.

6. **SOURCE OF CONSTRUCTION MATERIAL:**

- a. Surface and subsoil materials will be hauled in from the immediate area.
- b. Any gravel used will be obtained from a commercial source and transported in on the designated access route.

7. **METHODS OF HANDLING WASTE DISPOSAL:**

- a. Drill Cuttings will be handled in the reserve pit and buried during reclamation operations. The pit will be fenced on three sides during drilling and the fourth side fenced upon removal of the drilling rig.
- b. Garbage and nonflammable waste produced during the drilling or testing will be handled in a trash bin.
- c. Toilet facilities will be provided for human waste.
- d. Drilling fluids will be handled in the reserve pit.

Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

- e. Any fluids produced during drilling or production tests will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in the reserve pit. Any spills of oil, gas, salt water, or other noxious fluids will be cleaned-up and removed. If the well is productive, produced water will be disposed of on site for 90 days. After that time, application will be made for approval of permanent disposal methods.

**8. ANCILLARY FACILITIES:**

There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

**9. WELL SITE LAYOUT:**

- a. The reserve pit will be located on the north side of the location.
- b. Access to the wellpad will be along an existing lease road.
- c. The location of mud tanks, reserve pit, flare pit, and pipe racks will be as shown on the wellpad layout plat.
- d. See pad cross-section plat for proposed cut and fill of the drill pad.

**10. PLANS FOR RESTORATION OF SURFACE:**

Producing Location

- a. Immediately upon completion of drilling operations, the location and surrounding area will be cleared of all unused tubulars, equipment, debris, materials, trash and junk not required for production and "back dragged" in readiness for completion operations.

Vastar Resources, Inc.  
Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

Page 8

- b. Immediately upon well completion, any stimulation fluids collected in the test tank will be disposed of. As this is a dry gas well, no production of liquid hydrocarbons is expected.
- c. Cuttings will be buried in the reserve pit. The pits and any portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours, fertilized, and seeded.

**Plugged and Abandoned Well**

- a. Dry hole reclamation will be coordinated with the BLM at the time of abandonment as to the physical requirements and timing & weather issues.

**11. SURFACE & MINERAL OWNERSHIP:**

Access roads            All existing roads to the lease are maintained and owned by the County, State Highway Department, U.S. Forest Service, and/or the area operator road committee.

Wellsite & Road        The lease road and the wellpad are located on surface owned by:

U.S. Forest Service  
Jicarilla Ranger District  
664 E. Broadway  
Bloomfield, NM 87413

**LEASE INFORMATION:**

BLM Lease Number: NM 68762

**12. OTHER INFORMATION:**

- a. All vehicle traffic will be restricted to the access road, lease road, and well pad. Vastar will prohibit firearms & alcoholic beverages from the location and lease.

Vastar Resources, Inc.  
Carracas 2 A #11  
2405' FSL, 1880' FWL  
Sec 2, T31N, R5W  
Rio Arriba County, New Mexico

Page 9

13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:**

Questions about this permit application or emergency notifications should be directed to:

Permit, Drilling, & Completion Matters

Vastar Resources, Inc.  
1816 E. Mojave  
Farmington, NM 87401  
(505) 599-4300

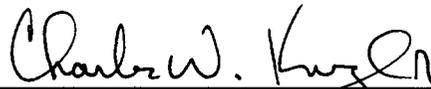
Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; and that the work associated with operations proposed herein will be performed by Vastar Resources, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

This statement is subject to the provisions of 18.U.S.C. 1001 for filing of a false statement.

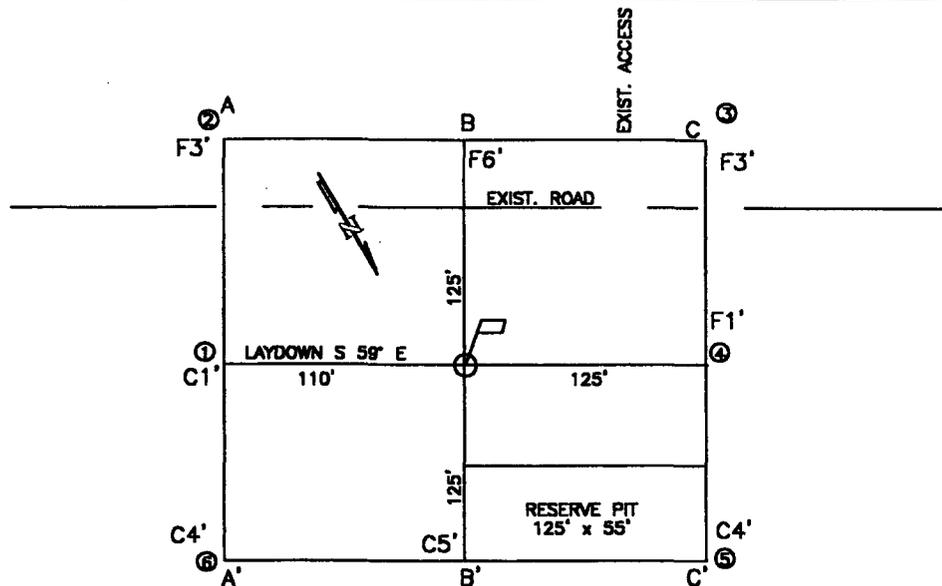
6/12/00

Date



Charles W. Knight, Jr.

For: Joe Garcia  
Vastar Resources, Inc.



ELEVATION A-A'

	C/L			
6341	..	..	..	..
6331	..	..	..	..
6321				
6311	..	..	..	..
6301	..	..	..	..

B-B'

	C/L			
6341	..	..	..	..
6331	..	..	..	..
6321				
6311	..	..	..	..
6301	..	..	..	..

C-C'

	C/L			
6341	..	..	..	..
6331	..	..	..	..
6321				
6311	..	..	..	..
6301	..	..	..	..

COMPANY: VASTAR RESOURCES, INC.

LEASE: CARRACAS 2A #11

FOOTAGE: 2405' FSL, 1880' FWL UNIT K

SEC. 2 TWN. 31-N RNG. 05-W N.M.P.M.

COUNTY, RIO ARRIBA STATE, NM

ELEVATION: 6321

LATITUDE: 36-55-40

LONGITUDE: 107-20-03

VASTAR RESOURCES, INC.  
FARMINGTON, NEW MEXICO

SURVEYED: 6/6/00

REV. DATE:

APP. BY H.B.

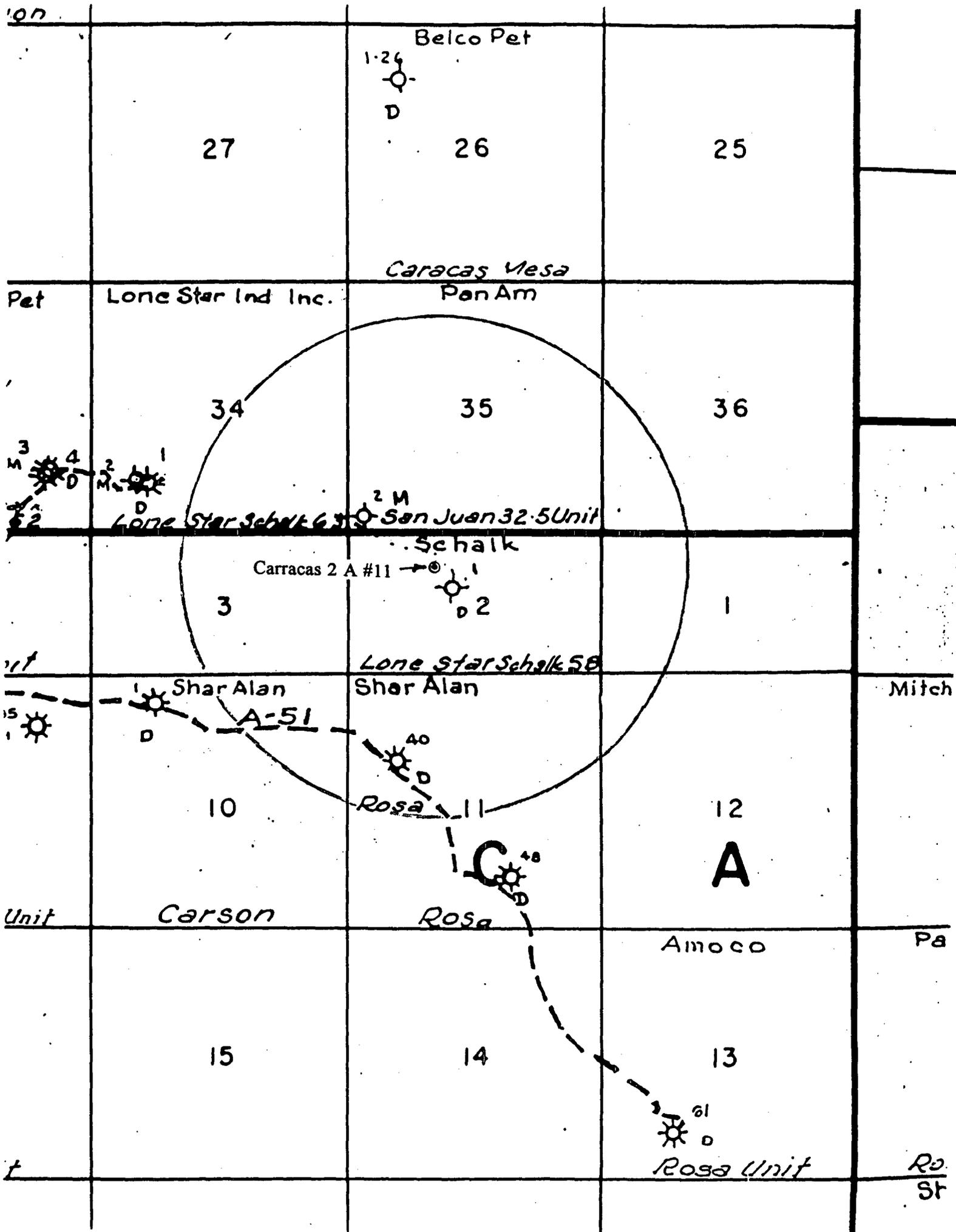
DRAWN BY: T.G.

DATE DRAWN: 6/9/00

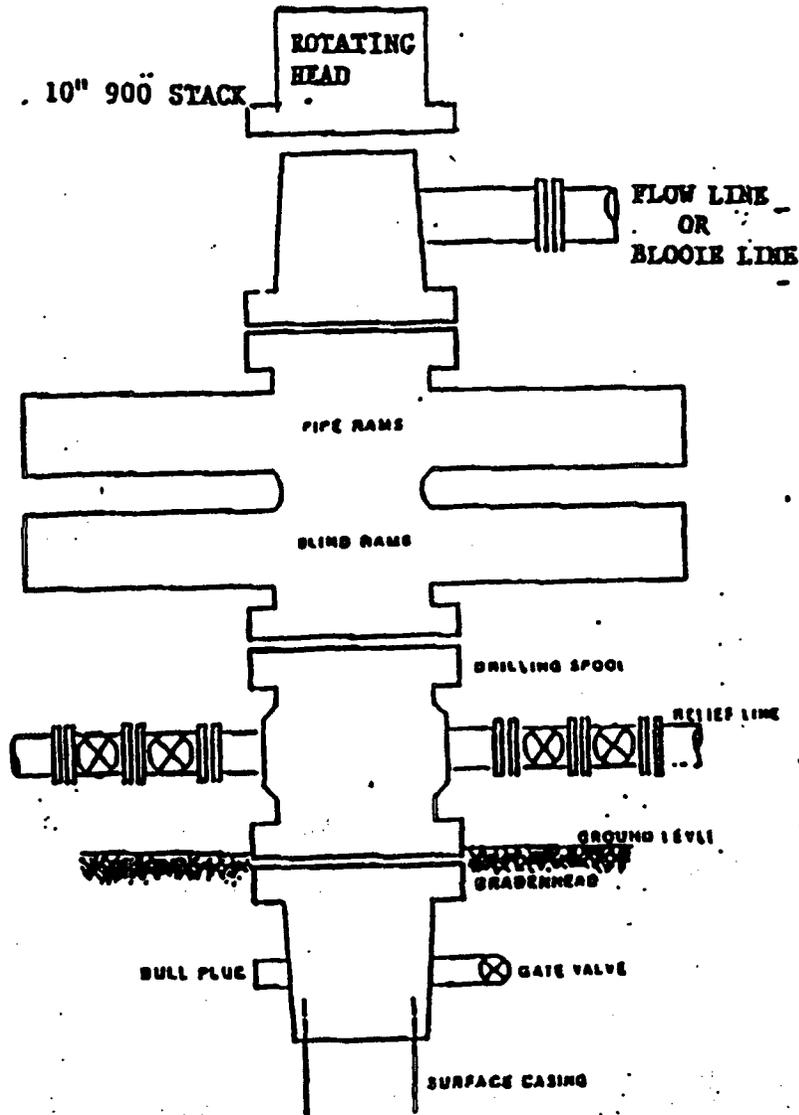
FILE NAME: V0178CF1

UNITED  
FIELD SERVICES INC.

P.O. BOX 3651  
FARMINGTON, NM 87409  
OFFICE: (505)334-0408

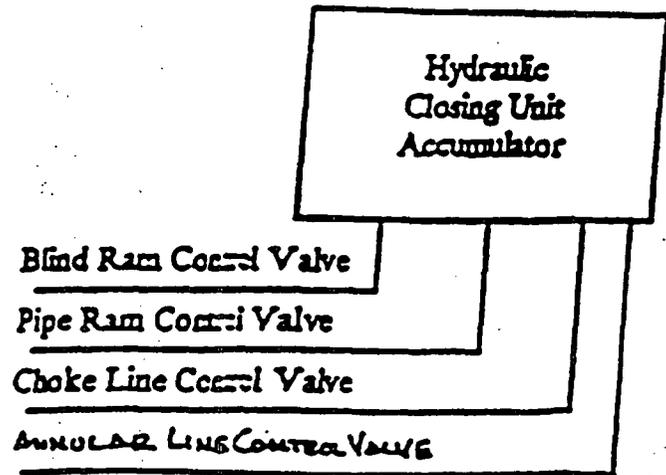
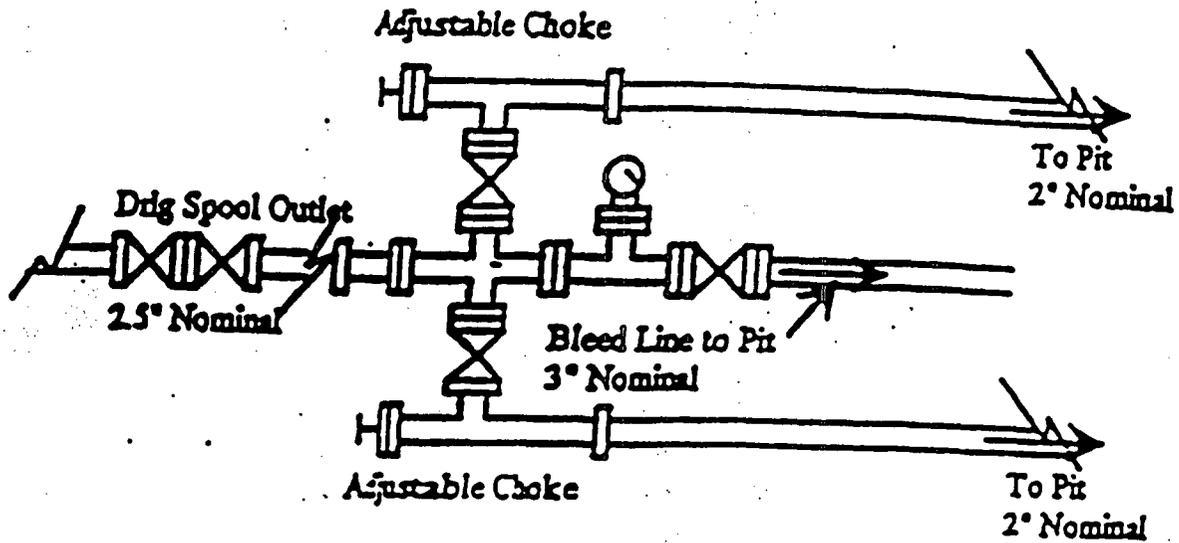


# Figure #1 (BOP)



Series 800 double gate BOP  
used at 3000 psi working pressure

# Choke Manifold and Accumulator Schematic



# Facilities Layout Diagram

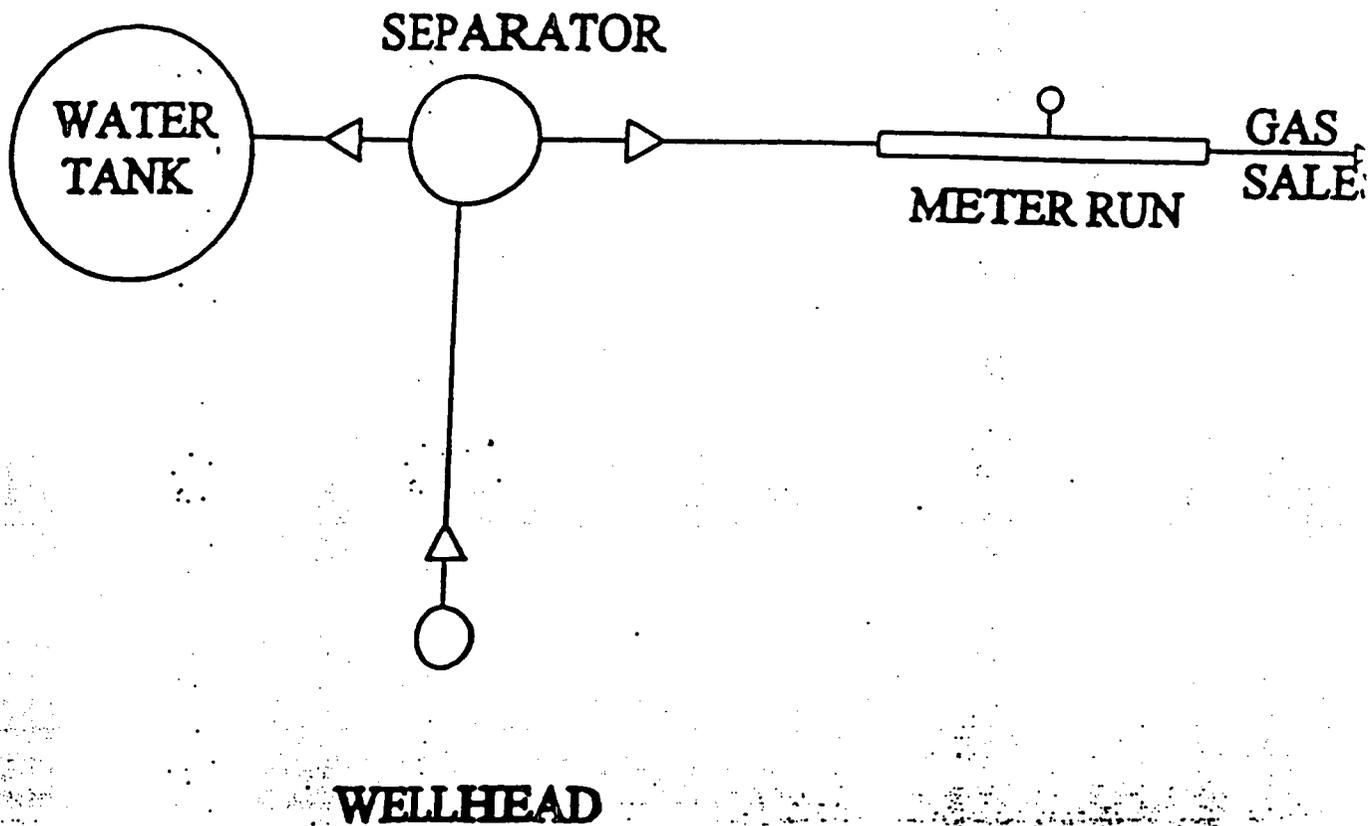
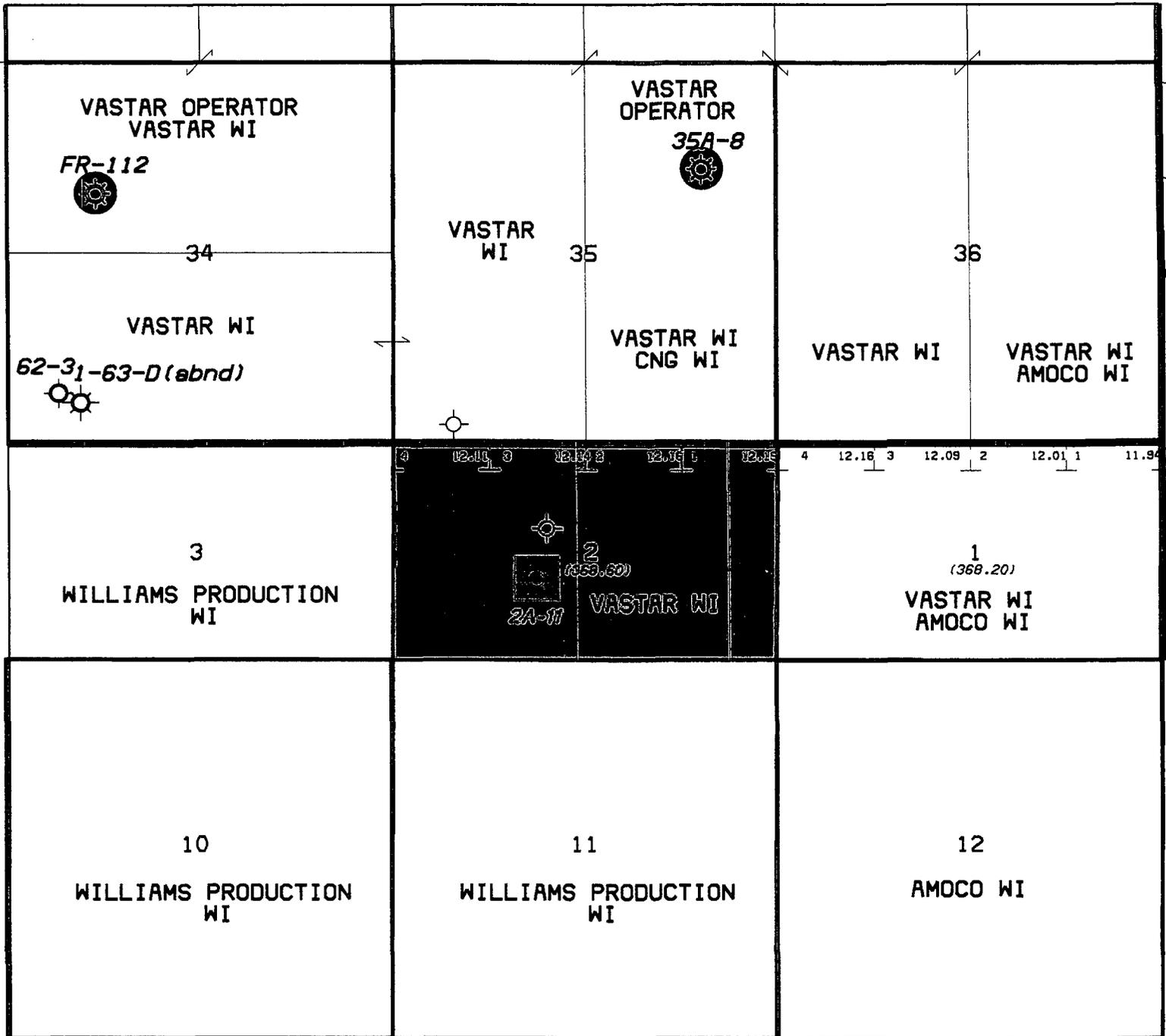


Exhibit D

Request for Administrative Approval of an Unorthodox Location for Vastar's Carracas 2 A #11 Well and a Non-Standard Fruitland Coal Spacing Unit in Fractional Section 2, T31N-R5W, NMPM, Rio Arriba County, New Mexico



## Exhibit E

Request for Administrative Approval of an Unorthodox  
Location for Vastar's Carracas 2 A #11 Well and Non-  
Standard Fruitland Coal Spacing Unit in Fractional Section  
2, T31N-R5W, NMPM, Rio Arriba County, New Mexico

### List of Affected Parties

CNG Producing Company  
Stephen E. Case, CPL  
16945 Northchase Drive – Suite 1750  
Houston, Texas 77060  
(281) 873-1574

Williams Production Company  
Vern Hansen, Landman  
One Williams Center, Box 3102  
Tulsa, OK 74101  
(918) 573-6169

Amoco Production Company  
Max K. Eddington, CPL/ESA  
Post Office Box 3092  
Houston, Texas 77253-3092  
(281) 366-3430

Bureau of Land Management  
Farmington Resource Area  
Authorized Officer  
1235 La Plata Highway – Suite A  
Farmington, New Mexico 87401

NMOCD – Aztec District Office  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

P 066 862 333

US Postal Service  
**Receipt for Certified Mail**

No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

JUN 19 2000

Sent to CNG Resources -Stephen Case	
Street & Number 16945 Northchase Dr - Suite 1750	
Post Office, State, & ZIP Code Houston TX 77060	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

Michael Rodgers, Room 1400

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

P 066 862 333

**MAIL**

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

CNG RESOURCES INC  
STEPHEN CASE, LANDMAN  
16945 NORTHCHASE DR - SUITE 1750  
HOUSTON TX 77060

4a. Article Number  
P 066 862 333

4b. Service Type

Registered                       Certified  
 Express Mail                       Insured  
 Return Receipt for Merchandise    COD

5. Received By: (Print Name)

7. Date of Delivery

6. Signature: (Addressee or Agent)

8. Addressee's Address (Only if requested and fee is paid)

X

Thank you for using Return Receipt Service.



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

**By USPS Certified Mail  
With Return Receipt  
P 066 862 333**

CNG Resources, Inc.  
Stephen Case, Landman  
16945 Northchase Drive – Suite 1750  
Houston, Texas 77060

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Gentlemen:

Notice is hereby given of Vastar Resources, Inc.'s application to the NMOCD for an Unorthodox Fruitland Coal Well Location for the captioned well. A copy of Vastar's application is enclosed. In accordance with NMOCD Rule 1206(A)(5) an objection to this application must be filed in writing within twenty days from the date this notice was sent.

By the enclosed Waiver, Vastar requests your company's waiver of its right to protest the application and the twenty-day period during which it might file a written protest.

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230  
Fax: (281) 584-6370  
E-mail: mrodger@vastar.com

Enclosure



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

CNG Resources, Inc.  
Stephen Case, Landman  
16945 Northchase Drive – Suite 1750  
Houston, Texas 77060

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Gentlemen:

Notice has been given of Vastar Resources, Inc.'s application to the NMOCD for an Unorthodox Fruitland Coal Well Location for the captioned well. In order to facilitate the application and drilling of this well, Vastar requests your company's waiver of its right to protest the application and the twenty-day period during which it might file a written protest.

If CNG Resources, Inc. is willing to waive its right to protest the application, please so indicate by completing the waiver below and forwarding the signed original of this request to the Oil Conservation, Division of the New Mexico Department of Energy, Attention: Mr. Michael Stogner, 2040 South Pacheco Street, Santa Fe, New Mexico 87505. Please forward a copy of this signed waiver to the undersigned at the letterhead address.

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230  
Fax: (281) 584-6370

This \_\_\_\_\_ day of June, 2000, CNG Resources, Inc. hereby waives its right to protest Vastar's application for an unorthodox location for the above referenced Fruitland Coal well.

\_\_\_\_\_  
Title: \_\_\_\_\_

P 066 862 334

US Postal Service  
**Receipt for Certified Mail**

No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to AMOCO PROD CO - MAX EDDINGTON	
Street & Number PO BOX 3092	
Post Office, State, & ZIP Code HOUSTON TX 77253-3092	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

Michael Rodgers, Room 1400

JUN 19 2000

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

P 066 862 334

**MAIL**

Is your RETURN ADDRESS completed on the reverse side?

<b>SENDER:</b> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to:  AMOCO PRODUCTION COMPANY MAX K EDDINGTON POST OFFICE BOX 3092 HOUSTON TX 77253-3092		4a. Article Number P 066 862 334	
		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
5. Received By: (Print Name)		7. Date of Delivery	
6. Signature: (Addressee or Agent) <b>X</b>		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

**By USPS Certified Mail  
With Return Receipt  
P 066 862 334**

Amoco Production Company  
Max K. Eddington, CPL/ESA  
Post Office Box 3092  
Houston, Texas 77253-3092

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Gentlemen:

Notice is hereby given of Vastar Resources, Inc.'s application to the NMOCD for an Unorthodox Fruitland Coal Well Location for the captioned well. A copy of Vastar's application is enclosed. In accordance with NMOCD Rule 1206(A)(5) an objection to this application must be filed in writing within twenty days from the date this notice was sent.

By the enclosed Waiver, Vastar requests your company's waiver of its right to protest the application and the twenty-day period during which it might file a written protest.

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230  
Fax: (281) 584-6370  
E-mail: mrodger@vastar.com

Enclosure



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

Amoco Production Company  
Max K. Eddington, CPL/ESA  
Post Office Box 3092  
Houston, Texas 77253-3092

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Gentlemen:

Notice has been given of Vastar Resources, Inc.'s application to the NMOCD for an Unorthodox Fruitland Coal Well Location for the captioned well. In order to facilitate the application and drilling of this well, Vastar requests your company's waiver of its right to protest the application and the twenty-day period during which it might file a written protest.

If Amoco Production Company is willing to waive its right to protest the application, please so indicate by completing the waiver below and forwarding the signed original of this request to the Oil Conservation, Division of the New Mexico Department of Energy, Attention: Mr. Michael Stogner, 2040 South Pacheco Street, Santa Fe, New Mexico 87505. Please forward a copy of this signed waiver to the undersigned at the letterhead address.

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230

Fax: (281) 584-6370

This \_\_\_\_\_ day of June, 2000, Amoco Production Company hereby waives its right to protest Vastar's application for an unorthodox location for the above referenced Fruitland Coal well.

\_\_\_\_\_  
Title: \_\_\_\_\_

P 066 862 335

US Postal Service  
**Receipt for Certified Mail**

No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to WILLIAMS PROD -VERN HANSEN	
Street & Number ONE WILLIAMS CENTER BOX 3102	
Post Office, State, & ZIP Code TULSA OK 74101	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

Michael Rodgers, Room 1400

JUN 19 2000

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

P 066 862 335

**MAIL**

Is your RETURN ADDRESS completed on the reverse side?

<b>SENDER:</b> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee):  1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to:  WILLIAMS PRODUCTION COMPANY VERN HANSEN, LANDMAN ONE WILLIAMS CENTER, BOX 3102 TULSA OK 74101		4a. Article Number P 066 862 335	
5. Received By: (Print Name)		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
6. Signature: (Addressee or Agent) <b>X</b>		7. Date of Delivery	
		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

**By USPS Certified Mail  
With Return Receipt  
P 066 862 335**

Williams Production Company  
Vern Hansen, Landman  
One Williams Center, Box 3102  
Tulsa, OK 74101

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Gentlemen:

Notice is hereby given of Vastar Resources, Inc.'s application to the NMOCD for an Unorthodox Fruitland Coal Well Location for the captioned well. A copy of Vastar's application is enclosed. In accordance with NMOCD Rule 1206(A)(5) an objection to this application must be filed in writing within twenty days from the date this notice was sent.

By the enclosed Waiver, Vastar requests your company's waiver of its right to protest the application and the twenty-day period during which it might file a written protest.

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230  
Fax: (281) 584-6370  
E-mail: mrodger@vastar.com

Enclosure



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

Williams Production Company  
Vern Hansen, Landman  
One Williams Center, Box 3102  
Tulsa, OK 74101

Re: Application of Vastar Resources, Inc. for Administrative Approval of an Unorthodox Well Location for its Carracas 2 A Well No. 11, to be located 2,405 feet from the South line and 1,880 feet from the West line of Section 2, Township 31 North, Range 5 West, N.M.P.M., in a non-standard 368.6-acre spacing unit comprising the entirety of Fractional Section 2 necessitated by a variation in the legal subdivision of the U.S. Public Land Surveys, Rio Arriba County, New Mexico

Gentlemen:

Notice has been given of Vastar Resources, Inc.'s application to the NMOCD for an Unorthodox Fruitland Coal Well Location for the captioned well. In order to facilitate the application and drilling of this well, Vastar requests your company's waiver of its right to protest the application and the twenty-day period during which it might file a written protest.

If Williams Production Company is willing to waive its right to protest the application, please so indicate by completing the waiver below and forwarding the signed original of this request to the Oil Conservation, Division of the New Mexico Department of Energy, Attention: Mr. Michael Stogner, 2040 South Pacheco Street, Santa Fe, New Mexico 87505. Please forward a copy of this signed waiver to the undersigned at the letterhead address.

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230

Fax: (281) 584-6370

This \_\_\_\_\_ day of June, 2000, Williams Production Company hereby waives its right to protest Vastar's application for an unorthodox location for the above referenced Fruitland Coal well.

\_\_\_\_\_  
Title: \_\_\_\_\_



**Vastar Resources, Inc.**

Joint Ventures and Land

15375 Memorial Drive  
Houston Texas 77079  
281 584-6000

June 19, 2000

Bureau of Land Management  
Farmington Resource Area  
Authorized Officer  
1235 La Plata Highway – Suite A  
Farmington, New Mexico 87401

NMOCD – Aztec District Office  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

Re: Applications of Vastar Resources, Inc. for Administrative Approval of Unorthodox  
Fruitland Coal Well Locations in Carracas Canyon Area, Rio Arriba County, New  
Mexico

Gentlemen:

Enclosed for your records are copies of Vastar Resources, Inc.'s applications to the NMOCD in Santa Fe for Unorthodox Fruitland Coal Well Locations for the following wells.

Carracas 19 B Well No. 4  
Carracas 25 A Well No. 16  
Carracas 2 A Well No. 11 in a non-standard 368.6-acre spacing unit  
Carracas 36 A Well No. 5

Very truly yours,

Michael Rodgers, CPL

Direct Line: (281) 584-3230  
Fax: (281) 584-6370  
E-mail: mrodger@vastar.com

Enclosures