RECEIVED
JUL 8 2010
NMOCD ARTESIA

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(August 2008)

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **NM-37604**

6 If Indian, Allottee or Tribe Name

7 If Unit or CA Agreement, Name and No

1a Type of Work: [X] DRILL [ ] REENTER

8 Lease Name and Well No (38236) **Boomer AHU Federal #2**

1b Type of Well. [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

2 Name of Operator **Abo Petroleum Corporation OGRID # 149**

9. API Well No. 30-005-64130

3a Address **105 South Fourth Street, Artesia, NM 88210**

3b. Phone No *(include area code)* **505-748-1471**

10 Field and Pool, or Exploratory (96036) WILDCAT; UPPER PENN Cisco

4. Location of well *(Report location clearly and In accordance with any State requirements *)*
At surface (L) **1980' FSL and 660 FWL**
At proposed prod zone **Same as above.**

11 Sec , T , R., M , or Blk And Survey or Area **Section 10, T15S-R29E**

14 Distance in miles and direction from the nearest town or post office* **Approximately 17 miles north of Loco Hills, New Mexico.**

12 County or Parish **Chaves**

13 State **New Mexico**

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any)	16. No of acres in lease	17 Spacing Unit dedicated to this well
660'	**400.00**	**NW/SW/4**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth	20 BLM/ BIA Bond No on file
.1 of a mile.	**8900'**	**NATIONWIDE BOND #NMB000434**
21 Elevations (Show whether DF, KDB, RT, GL, etc)	22 Aproximate date work will start*	23 Estimated duration
3870' GL	**June 29, 2010.**	**45 days.**

24 Attachments **ROSWELL CONTROLLED WATER BASIN**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1 shall be attached to this form

1 Well plat certified by a registered surveyor
2 A Drilling Plan
3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4 Bond to cover the operations unless covered by existing bond on file(see item 20 above)
5 Operator certification
6 Such other site specific information and/ or plans as may be required by the BLM

25 Signature	Name *(Printed/ Typed)*	Date
Cy Cowan	Cy Cowan	6/7/10 ~~6/11/2010~~

Title **Agent for Abo Petroleum Corporation.**

Approved By *(Signature)*	Name *(Printed/ Typed)*	Date
/s/ Jerry Dutchover	/s/ Jerry Dutchover	JUL 0 1 2010

Title	Office
acting Assistant Field Manager, Lands And Minerals	ROSWELL FIELD OFFICE

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 cc operations thereon
Conditions of approval, if any, are attached.

APPROVED FOR 2 YEARS

Title 18 U S C Section 1001 and Title 43 U S C Section 1212, make it a crime for any person knowingly and wilfully to make to any department or agency of the Unitec States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

* *(Instructions on page 2)*

DECLARED WATER BASIN

CEMENT BEHIND THE 13 3/8" CASING MUST BE CIRCULATED

WITNESS

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 15, 2009

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-005-64130	96036	WILDCAT UPPER PENN Undesignated Cisco

Property Code	Property Name	Well Number
38236	BOOMER "AHU" FEDERAL	2

OGRID No.	Operator Name	Elevation
149	ABO PETROLEUM CORP.	3870'

Surface Location

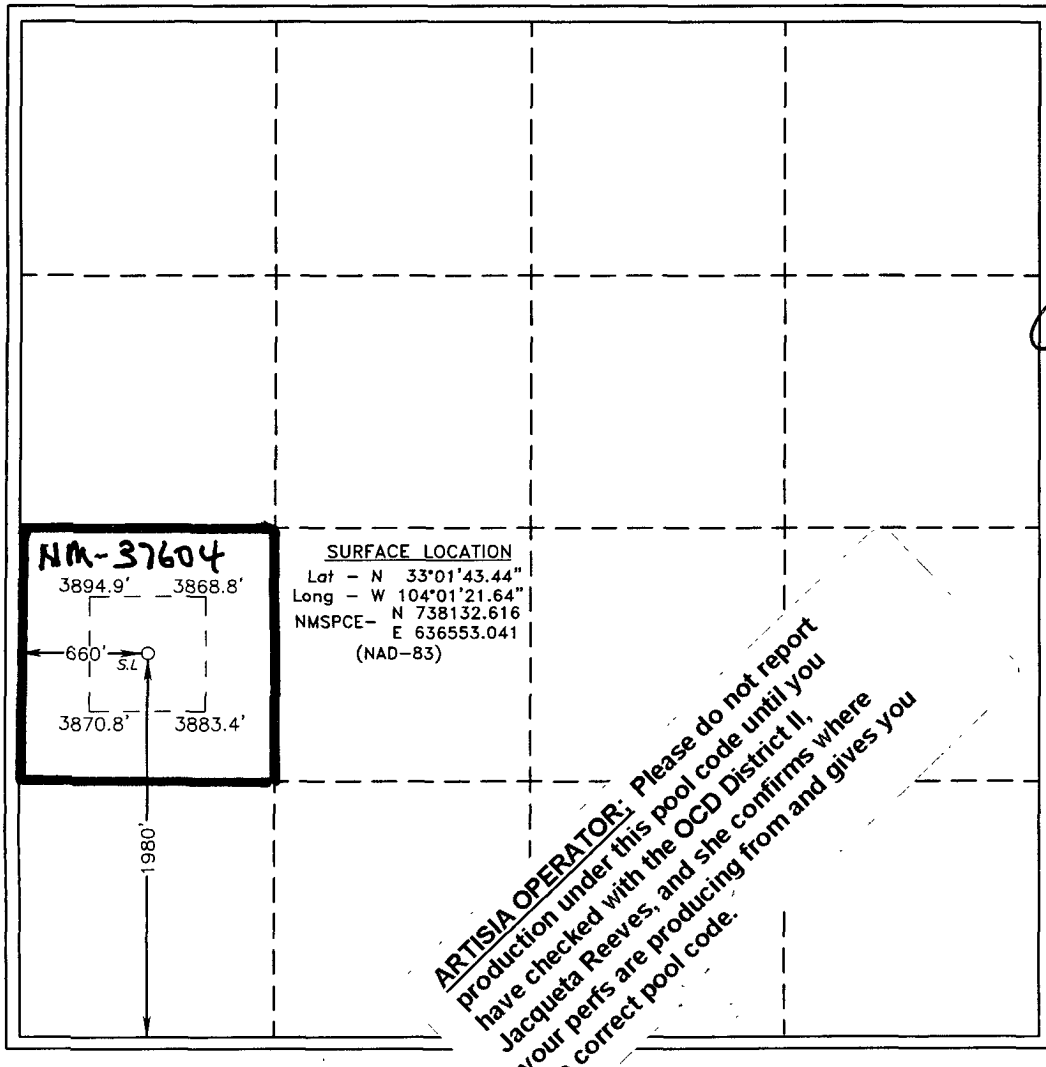
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	10	15 S	29 E		1980	SOUTH	660	WEST	CHAVES

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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



ARTISIA OPERATOR: Please do not report production under this pool code until you have checked with the OCD District II, Jacqueta Reeves, and she confirms where your perfs are producing from and gives you the correct pool code.

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 6/11/10 Date

Cy Cowan, Agent
Printed Name

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 supervison, and that the same is true and correct to the best of my belief.

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

W.O. NO. 22869

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL and 660' FWL
Section 10-T15S-R29eE
Chaves County, New Mexico

1. The estimated tops of geologic markers are as follows:

Yates	1055	Glorieta	4000'
Seven Rivers	1575'	ABO	6020'-Oil
Queen	1800'-Gas	Wolfcamp	7300'-Oil
San Andres	2500'-Gas	Cisco	8010'-Oil
		TD	8900'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:
   Water: 100'
   Oil or Gas: See above.

3. Pressure Control Equipment: BOPE will be installed on the the 9 5/8" casing and rated for 3000# BOP System. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

4. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when Kelly is not in use.

5. THE PROPOSED CASING AND CEMENTING PROGRAM:

   A. Casing Program: All new casing to be used

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	48#	H-40	ST&C	0-300'	300'
11"	8 5/8"	32#	J-55	ST&C	0-100'	100'
11"	8 5/8"	24#	J-55	ST&C	100'-2200'	2100'
11"	8 5/8"	32#	J-55	ST&C	2200'-2600'	400'
7 7/8"	5 1/2"	17#	J-55	LT&C	0'-100'	100'
7 7/8"	5 1/2"	15.5#	J-55	LT&C	100'-7200'	7100'
7 7/8"	5 1/2"	17#	J-55	LT&C	7200'-8900'	1700'

Minimum Casing Design Factors: Burst 1.0, Tensile Strength 1.8, Collapse 1.125

B. CEMENTING PROGRAM:

Surface Casing: 325 sacks Class C w/CaCl2 (Yld 1.34 Wt. 14.80). TOC Surface.

Intermediate Casing: Lead with 540 sacks C Lite (Yld 2.04 Wt 12.50). Tail in with 200 sacks Class C w/CaCl2 (Yld 1.33 Wt. 14.80 YLD). TOC surface

Production Casing: Lead with 500 sacks 50:50:10C (Yld 2.43 Wt 11.60). Tail in 850 sacks Pecos Valley Lite (Yld 1.41 Wt. 13.00) TOC 2100'.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Type	Weight	Viscosity	Fluid Loss
0-300'	Fresh Water Gel	8.60-9.00	32-34	N/C
300'-2600'	Brine Water	10.00-10.20	28-28	N/C
2600'-5950'	Cut Brine	8.70-9.20	28-28	N/C
5950'-8900'	Cut Brine	8.70-9.20	28-28	<=15

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Rig personnel will check mud hourly.

7. EVALUATION PROGRAM:

Samples: Every 10' from intermediate casing to TD
Logging: CNL/LDT/NGT TD to intermediate casing, CNL/GR TD to surface, DLL-MSFL TD to surface, BHC-Sonic TD toSurface casing.
Coring: None anticipated
DST's: None Anticipated
Mudlogging: Yes

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Maximum Anticipated BHP:

0'-300'	140 PSI
300'-2600'	1380 PSI
2600'-8900'	4260 PSI

Abnormal Pressures Anticipated: None
Lost Circulation Zones Anticipated: None.
H2S Zones Anticipated: None Anticipated
Maximum Bottom Hole Temperature: 150 F

9. ANTICIPATED STARTING DATE:
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL & 660' FWL
Section 10-T15S-R29E
Chaves County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 17 miles north of Loco Hills, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS: Go north of Loco Hills on the Hagerman Cutoff for approximately 14 miles. At this point there will be a existing lease road on the left side of the road. Turn left on the existing lease road and go west for approximately 2.2 miles. At this point the lease road will turn right at a well location. Turn right here and go approximately .3 of a mile. Turn left here and go west for approximately .2 of a mile. Turn right here and go north for approximately .2 of a mile the road will make a 'Y" going to the right will go to the Boomer Federal #1 well location. The new access road will start at the 'Y' and go to the northeast for approximately .1 of a mile to the southwest corner of the proposed well location.

2. PLANNED ACCESS ROAD:

A. The proposed new access will be approximately .1 of a mile in length from the point of origin to the southeast corner of the drilling pad.
B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
C. The new road will be bladed with drainage on both sides. Traffic turnouts may be needed.
D. The route of the road is visible.
E. Existing roads will be maintained in the same or better condition. Yates' has road right-of-way NM-84346 coming west from Hagerman Cutoff crossing Public Lands west to the well location.

3. LOCATION OF EXISTING WELL:

A. There is drilling activity within a one-mile radius of the well site.
B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. There are production facilities on this lease at the present time. However, if production facilities are needed for this well they will be placed on the location as determined by Yates' Production Department. Placement has not been determined at this time.
B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power until an electric power line can be built if needed.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will be responsible for finding a source of material for construction of road and pad and will obtain any permits that may be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. This well will be drilled with a closed loop system
B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the "Pit Rule" 19.15.17 NMAC.
C. Drilling fluids will be removed after drilling and completions are completed.
D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
E. Oil produced during operations will be stored in tanks until sold.
F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: NONE

9. WELLSITE LAYOUT:

A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, pulling unit orientation and access road approach. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the "Pit Rule" 19.15.17 NMAC.
B. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION:

A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
B. If the proposed well is plugged and abandoned, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.
C. See attached plans for interim and final reclamation.

Plans for Interim and Final Surface Reclamation.
Boomer AHU Federal #2

1. Well location will be contoured to resemble the original topography as closely as possible. Surface reclamation measures will be taken to avoid new erosion on the well location and the area surrounding the well location. These measures will be overseen by Yates' personnel following a structured plan for the reclamation of each individual site.
2. Major drainage systems will be avoided as determined at the onsite with the BLM. Minor drainages may be rerouted around the well site within the 600' x 600' cleared area to avoid moving the well location.
3. Segregation of topsoil or like soils will be placed in low lift rows rather than in a stockpile just off the caliche well pad. Placement of these lift rows will be determined at the BLM onsite or at the time of construction by Yates Personnel.
4. Yates will use prudent oil field practices when constructing well locations and related facilities. Yates personnel will determine the size of the well location needed for safe working conditions for personnel during all aspects on the drilling and production process.
5. Back fill requirements for above ground reserve pits will be met by using cut, fill, and contouring of available top soil and like soils from the pit area. Should additional material be needed it will be brought in from a BLM approved source.
6. All topsoil will be spread over the area reclaimed during interim reclamation using a front end loader. For final reclamation enough topsoil will be evenly distributed between the interim reclaimed area and the final reclaimed area. This method of soil stabilization should help maintain the productivity and viability of the topsoil.
7. Soil treatments will be determined at the time of final reclamation by Yates' Environmental Specialist or other designated personnel to meet BLM final reclamation goals.
8. Reseeding of disturbed areas will be accordance with the seed mixtures attached to the approved APD as Conditions of Approval. Planting and soil preparation will be done during the rainy season between June 1st and September 1st.
9. Yates' personnel will control weeds during the productive period through final abandonment of the well. Yates may also use the option to hire a third party to be in charge of weed control or participate in the Chaves Soil and Water District program to pool monies for weed control.
10. Well pads, roads and related facilities with caliche or other surfacing material will be picked up or turned over at the time of final abandonment. These materials may be used on other projects in the area if possible or placed back in the caliche pit or other designated site. Buried pipelines will be left in place after being bled down and purged. Above surface support equipment will be removed or cut down below plow depth and removed. Pipeline right-of-ways will be reseeded according to BLM Best Management Practices.
11. After the well has been drilled and completed Yates' Production Department Personnel will meet with BLM Personnel on each individual well location to discuss the specifics of downsizing the well pad at that time. This information will not be available at the time the Application for Permit to Drill is submitted to the Bureau of Land Management office.

11. SURFACE OWNERSHIP:

Surface Estate: Managed by the Bureau of Land Management, 2909 West Second Street, Roswell, New Mexico 88201
Mineral Estate: Bureau of Land Management, 2909 West Second Street, Roswell, New Mexico 88201.

12. OTHER INFORMATION:

A. The primary use of the surface is for grazing.

B. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.

CERTIFICATION
ABO PETROLEUM CORPORATION
Boomer AHU Federal #2H

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; and an someone under employment of Abo Petroleum Corporation has full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 7th ~~11th~~ day of June 2010

Signature

Name Cy Cowan

Position Title Agent for Abo Petroleum Corporation

Address 105 South Fourth Street, Artesia, New Mexico 88210

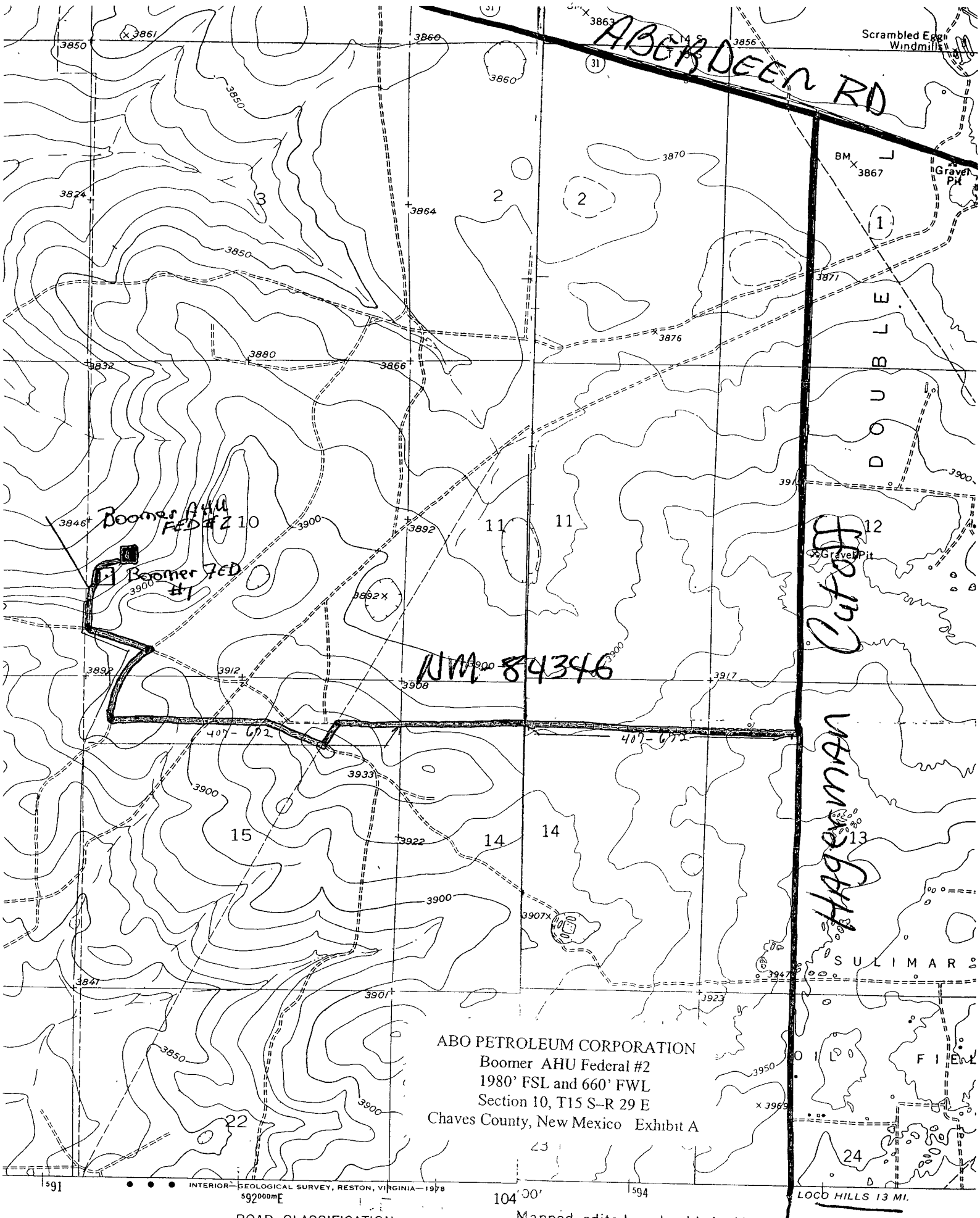
Telephone (505) 748-4372

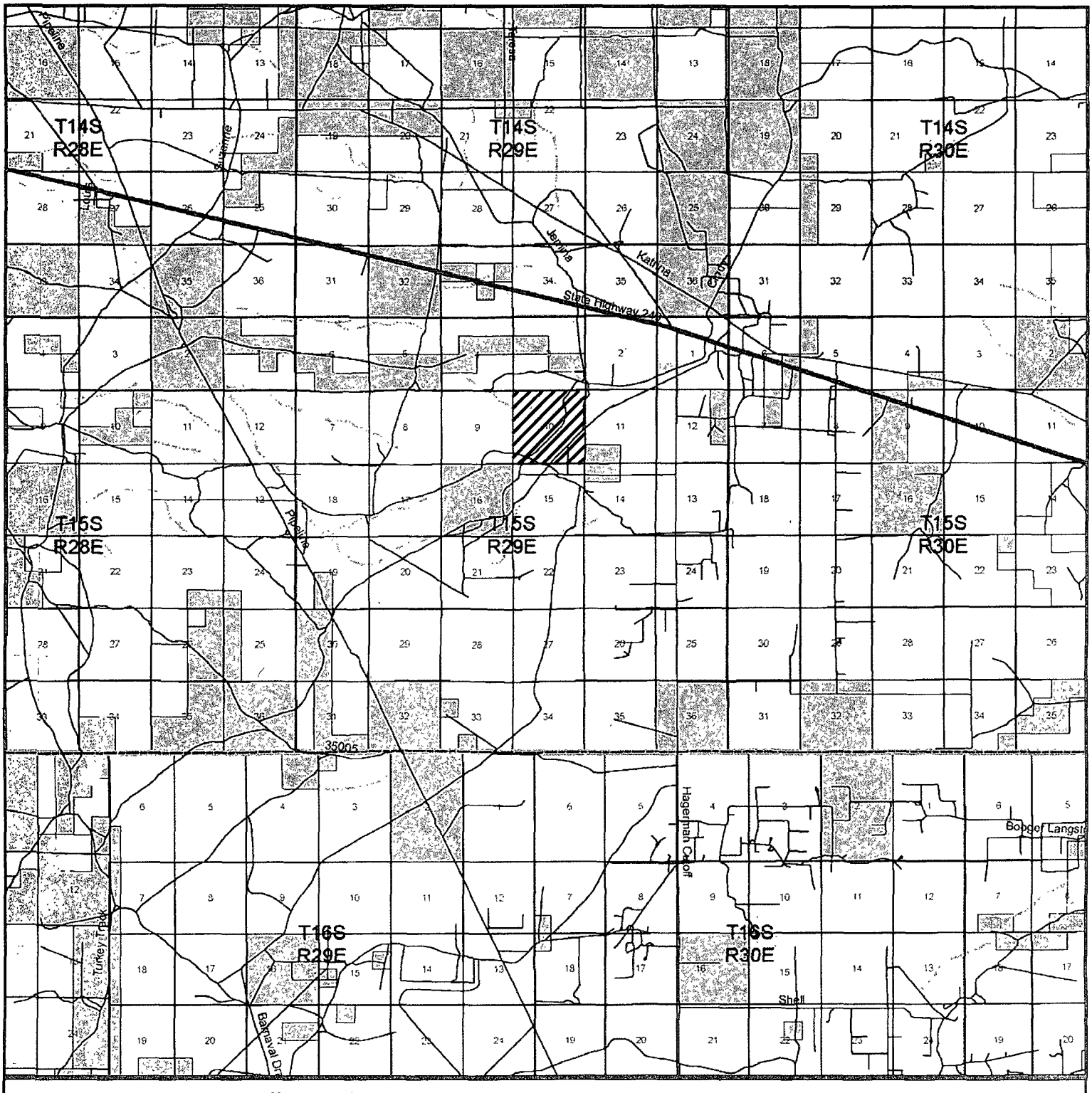
Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor

Address (if different from above) Same as above.

Telephone (if different from above) (505) 748-4221

E-mail (optional) cy@yates petroleumcorporation.com


ABERDEEN RD
DOUBLE L
Scrambled Egg Windmill
Gravel Pit
Boomer AHU FED #2
Boomer FED #1
NM-84346
Cutoff
Hagerman
SULIMAR
LOCO HILLS 13 MI.
ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL and 660' FWL
Section 10, T15 S–R 29 E
Chaves County, New Mexico Exhibit A
INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1978
ROAD CLASSIFICATION
Primary highway, all weather, hard surface
Secondary highway, all weather,
Light-duty road, all weather, improved surface
Unimproved road, fair or dry
Mapped, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1972. Field checked 1973



BOOMER "AHU" FEDERAL #2
Located 1980' FSL and 660' FWL
Section 10, Township 15 South, Range 29 East,
N.M.P.M., Chaves County, New Mexico.

Basin Surveys
focused on excellence in the oilfield

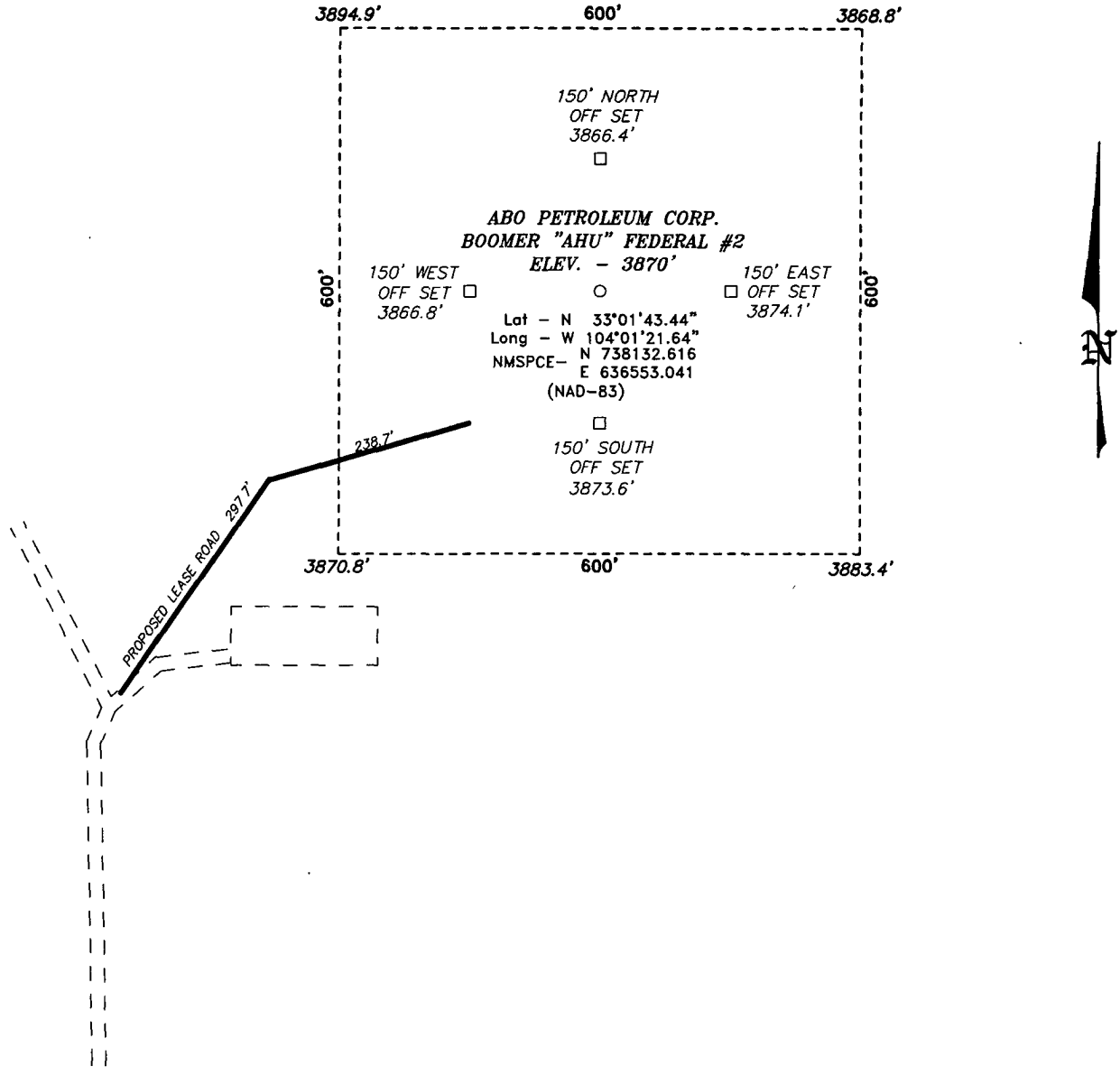
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 22869
Survey Date:	05-28-2010
Scale:	1" = 2 Miles
Date:	06-02-2010

N

ABO PETROLEUM CORP.

SECTION 10, TOWNSHIP 15 SOUTH, RANGE 29 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.



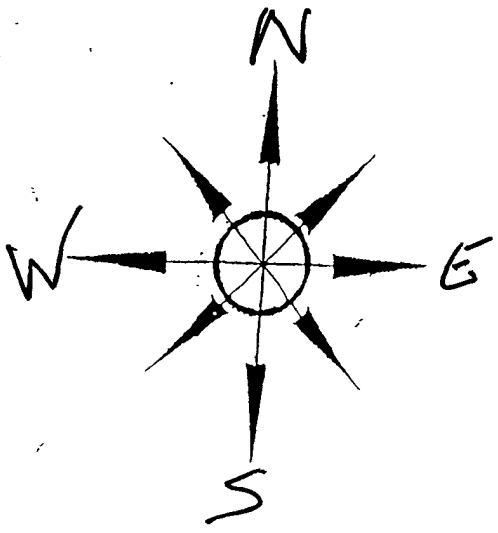
ABO PETROLEUM CORP.

REF: BOOMER "AHU" FEDERAL #2 / WELL PAD TOPO

THE BOOMER "AHU" FEDERAL #2 LOCATED 1980' FROM THE SOUTH LINE AND 660' FROM THE WEST LINE OF SECTION 10, TOWNSHIP 15 SOUTH, RANGE 29 EAST, N.M.P.M., CHAVES COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number. 22869	Drawn By: J. SMALL		
Date: 06-02-2010	Disk: 22869	Survey Date: 05-28-2010	Sheet 1 of 1 Sheets

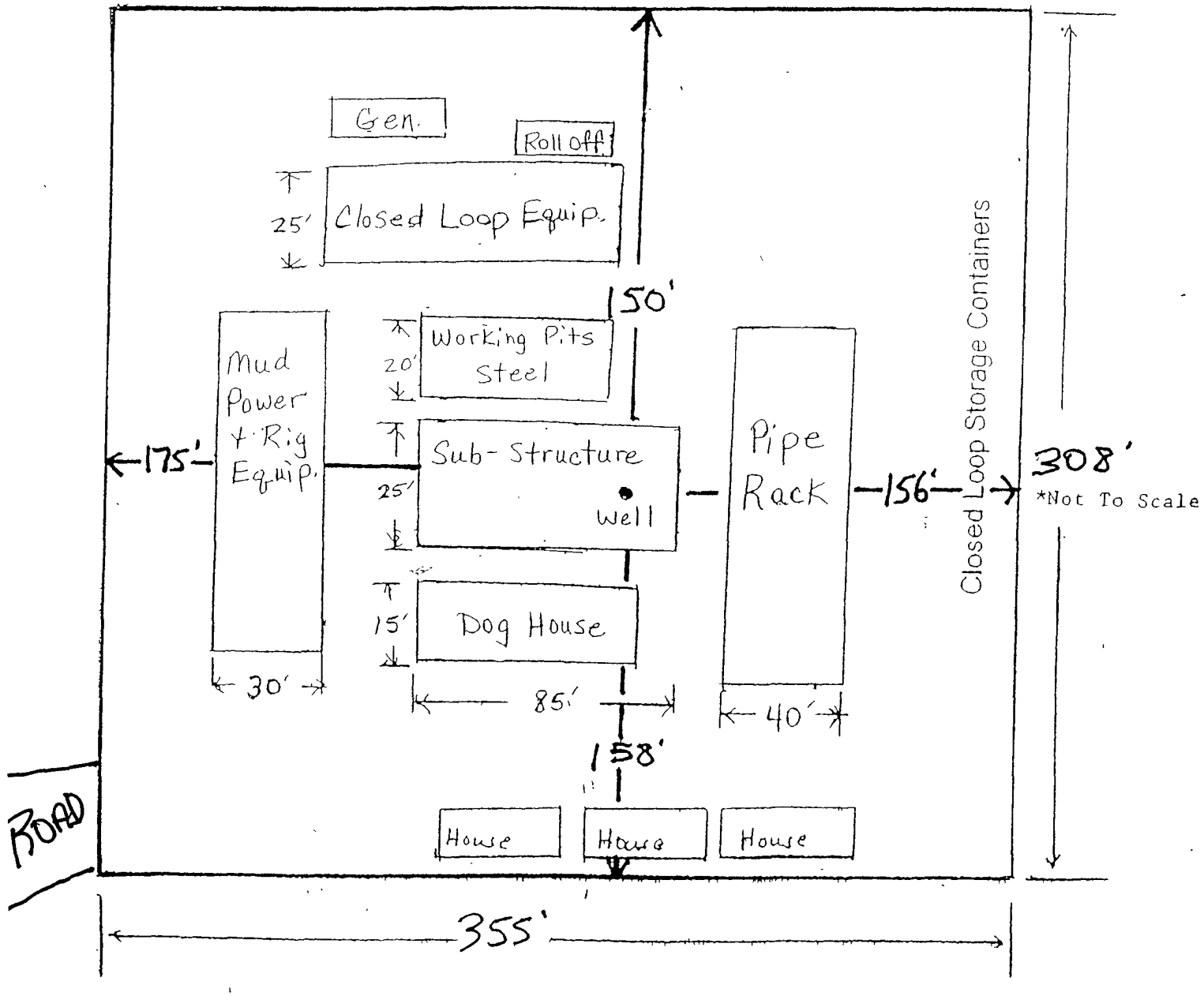


Abo Petroleum Corporation

Location Layout for Permian Basin

Closed Loop Design Plan

ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL and 660' FWL
Section 10, T15 S–R 29 E
Chaves County, New Mexico Exhibit B

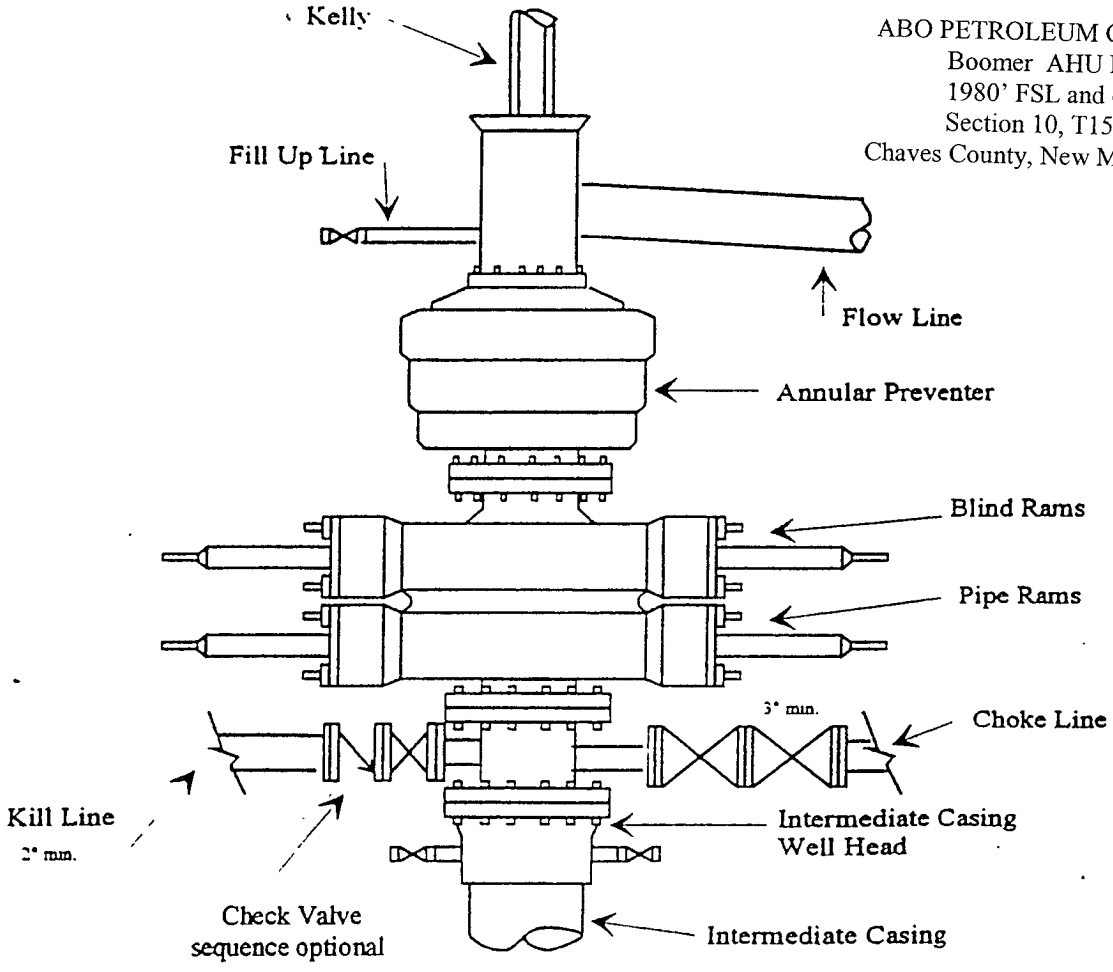


Abo Petroleum Corporation

BOP-3

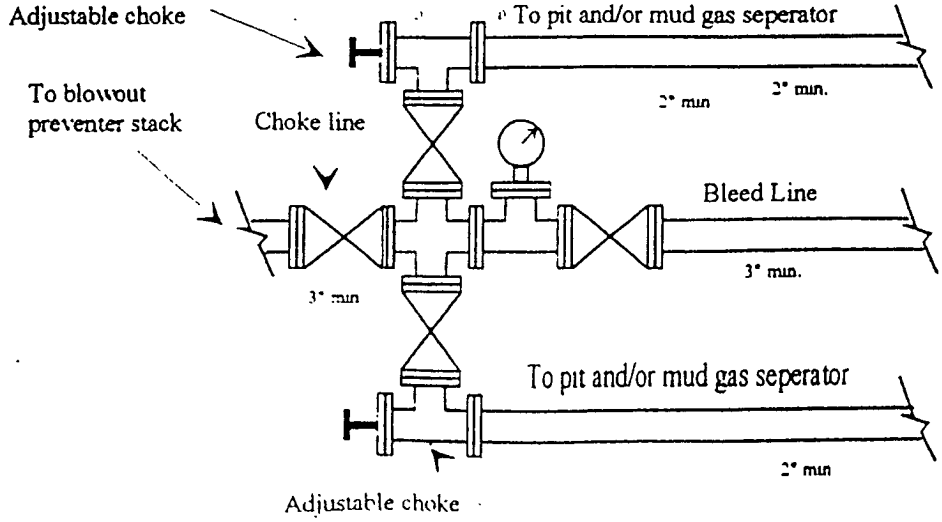
Typical 3,000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack

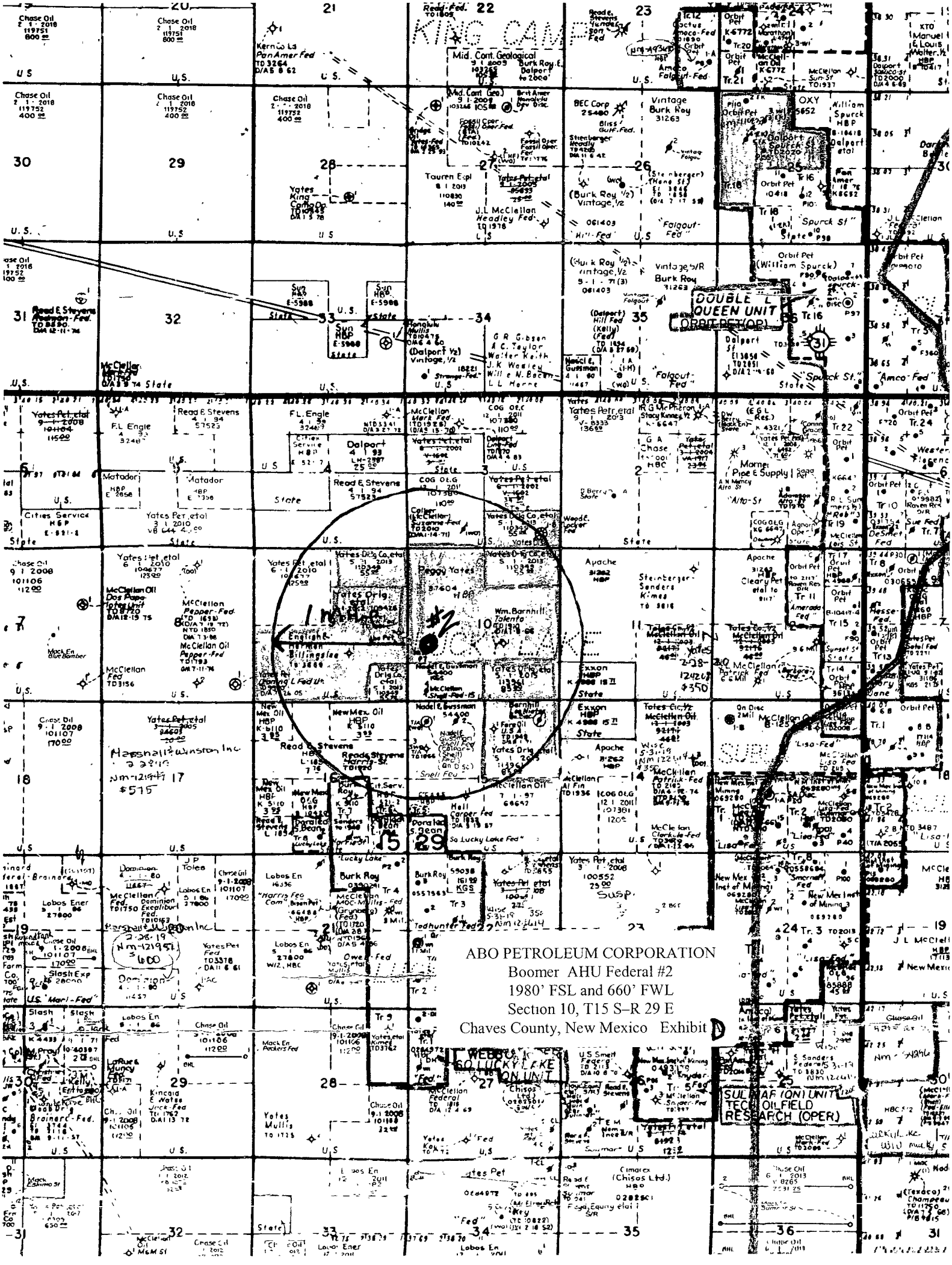
ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL and 660' FWL
Section 10, T15 S–R 29 E
Chaves County, New Mexico Exhibit C



Note: The flare line(s) discharge shall be located not less than 100 feet from the wellhead, having straight lines unless turns are targeted with running tees, and shall be positioned downwind from the prevailing wind direction and shall be anchored.

Typical 3,000 psi choke manifold assembly with at least these minimun features



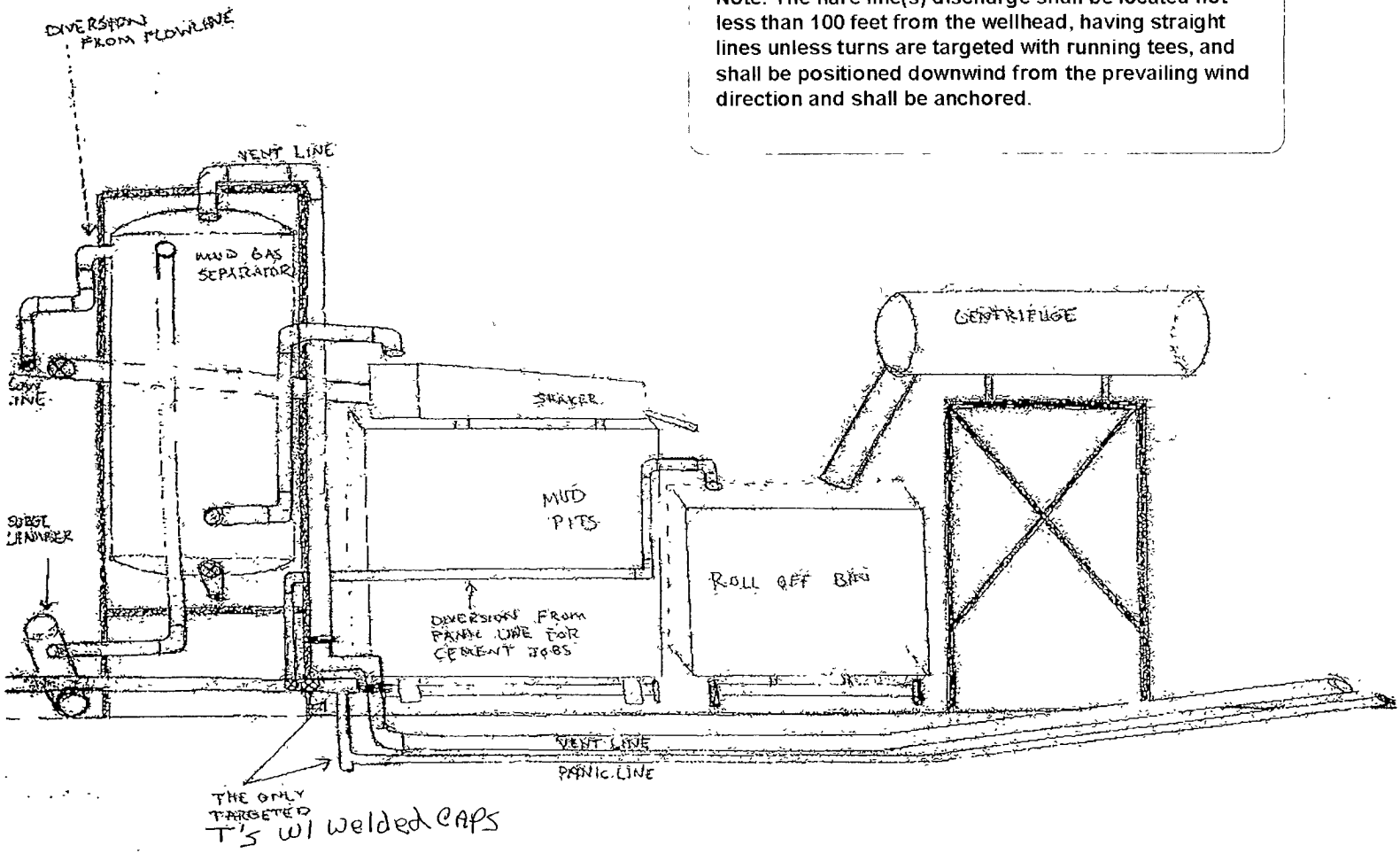

ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL and 660' FWL
Section 10, T15 S–R 29 E
Chaves County, New Mexico Exhibit D

Abo Petroleum Corporation

Piping from Choke Manifold
to the Closed-Loop Drilling Mud System

ABO PETROLEUM CORPORATION
Boomer AHU Federal #2
1980' FSL and 660' FWL
Section 10, T15 S–R 29 E
Chaves County, New Mexico Exhibit 5

Note: The flare line(s) discharge shall be located not less than 100 feet from the wellhead, having straight lines unless turns are targeted with running tees, and shall be positioned downwind from the prevailing wind direction and shall be anchored.



CONDITIONS OF APPROVAL

June 30, 2010

OPERATORS NAME: **Abo Petroleum Corporation**
LEASE NO.: **NM- 37604**
WELL NAME & NO: **Boomer AHU Federal #2**
SURFACE HOLE FOOTAGE: **1980' FSL & 660' FWL**
LOCATION: **Section 10, T. 15 S., R. 29 E., NMPM**
COUNTY: **Chaves County, New Mexico**

GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (575) 627-0272 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil in shallow rows adjacent to the constructed well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad. The topsoil will not be used to construct the containment structure or earthen dike that is constructed and maintained on the outside boundaries of the constructed well pad.

C. CLOSED SYSTEMS OR STEEL TANKS:

A closed system or steel tanks will be used in lieu of reserve pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT:

Payment shall be made to the BLM prior to removal of any federal mineral materials from any site. Call the Roswell Field Office at (575) 627-0236.

E. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need.

F. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The on lease access road shall be constructed to access the southeast corner of the well pad.

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

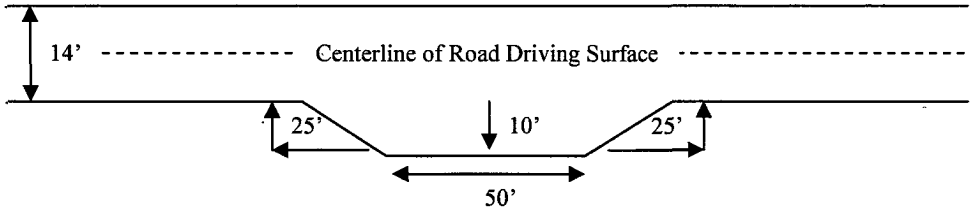
Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View

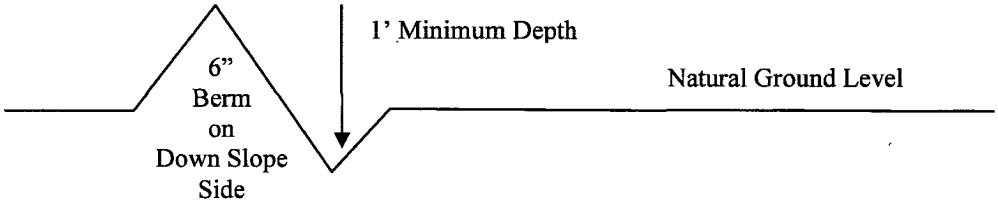


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section Of Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula For Spacing Interval Of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

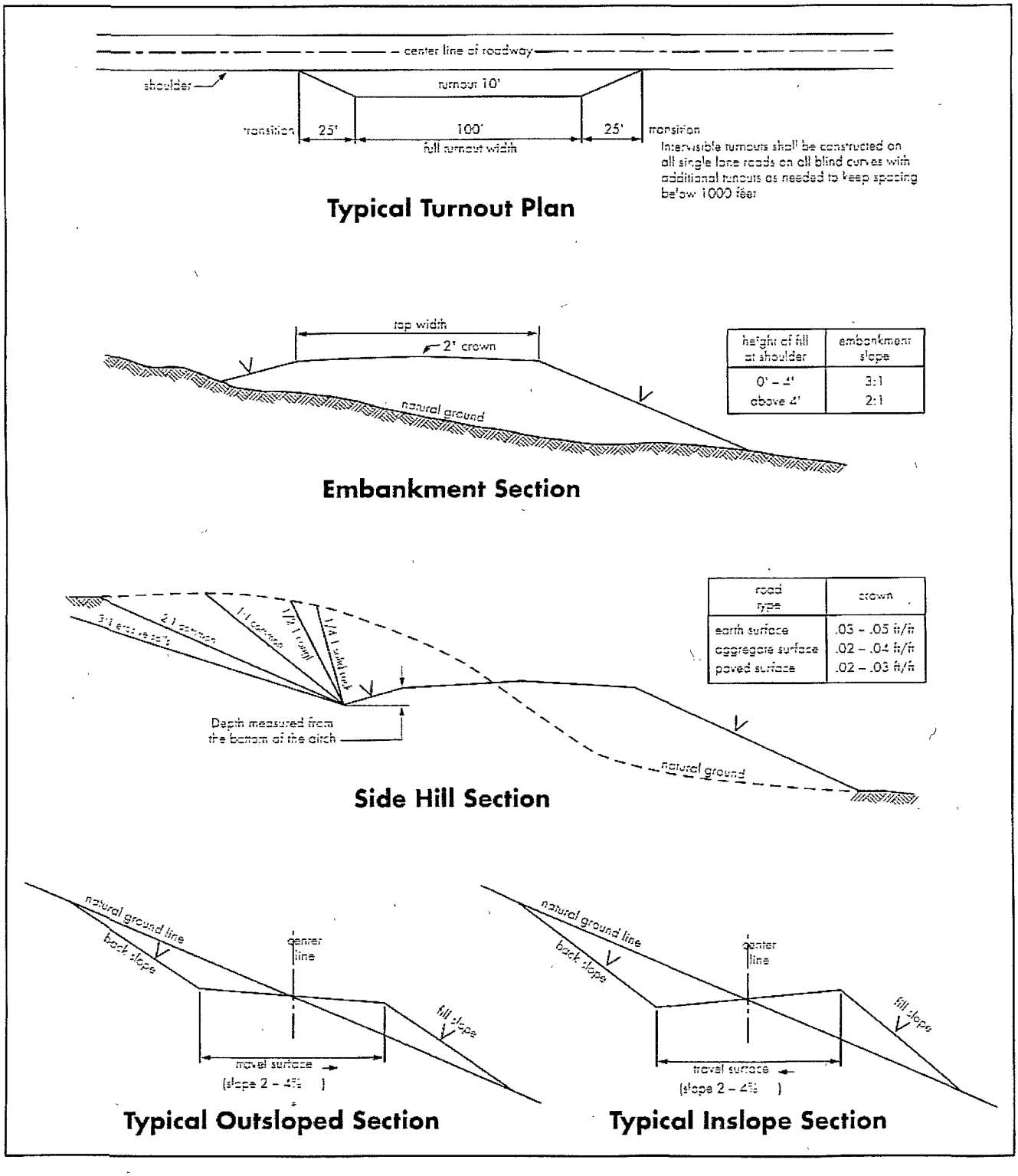
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



V. DRILLING

OPERATOR'S NAME:	**Abo Petroleum Corporation**
LEASE NO.:	**NM-37604**
WELL NAME & NO.:	**Boomer AHU Federal Well No. 2**
SURFACE HOLE FOOTAGE:	**1980' FSL & 660' FWL**
BOTTOM HOLE FOOTAGE	**1980' FSL & 660' FWL**
LOCATION:	**Section 10, T. 15 S., R. 29 E., NMPM**
COUNTY:	**Chaves County, New Mexico**

A. DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 420-2832. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.

2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

BOPE Tests

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.

5. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion

6. Fresh water gel and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING

1. The **13-3/8 inch** usable water protection casing string(s) shall be set at approximately **250 feet** to **300 feet** in competent bedrock. **Contacted the operator's landman Cy Cowan and told him I (JSS) project encountering the Rustler Anhydrite at an approximate depth of 250 ft. The proposal to set surface casing at 300 feet is permissible under the condition Halite (salt) is not encountered. In the event salt is encountered before surface casing set it shall be placed 25 feet above the salt.**

a. If cement does not circulate to the surface, the Roswell Field Office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is **sufficient to circulate to the surface.** If cement does not circulate see B.1.a-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **sufficient to tie back 500 feet above the uppermost perforation in the pay zone**. If cement does not circulate, a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

5. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

C. PRESSURE CONTROL

1. Before drilling below the **13-3/8** inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the **8-5/8** inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.

2. Before drilling below the **13-3/8** inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the **8-5/8** inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.

3. The BOPE shall be installed before drilling below the **13-3/8** inch surface casing shoe and the **8-5/8** inch intermediate casing shoe, and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

b. The tests shall be done by an independent service company.

c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

d. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

VI. PRODUCTION

Placement of Production Facilities

Production facilities should be located on the Boomer Federal #1 to maximum interim recontouring and revegetation of the Boomer AHU Federal #2 well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, Juniper Green (Standard Environmental Color Chart June 2008).

VRM Facility Requirement

Low-profile steel tanks not greater than eight-feet-high shall be used.

VII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses. Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting). The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

a) Upon abandonment of the well and/or when the access road is no longer in service, a Notice of Intent for Final Abandonment with the proposed surface restoration procedure must be submitted for approval.

b) On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the Private Surface Land Owner agreements and a copy of the release is to be submitted upon abandonment.

c) Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).

d) d. Surface Reclamation must be completed within 6 months of well plugging. If the operator proposes to modify the plans for surface reclamation approved on the APD, the operator must attach these modifications to the Subsequent Report of Plug and Abandon using Sundry Notices and Reports on Wells, Form 3160-5.

IX. PIPELINE PROTECTION REQUIREMENT

Precautionary measures shall be taken by the operator during construction of the access road to protect existing pipelines that the access road will cross over. An earthen berm; 2 feet high by 3 feet wide and 14 feet across the access road travelway (2' X 3' X 14'), shall be constructed over existing pipelines. The operator shall be held responsible for any damage to existing pipelines. If the pipeline is ruptured and/or damaged the operator shall immediately cease construction

operations and repair the pipeline. The operator shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.

X. SEASONAL DRILLING REQUIREMENT or ATTACH SENM-22

A. Lesser Prairie Chicken Stipulation:

The Roswell Approved Resource Management Plan and Record of Decision address the preservation of the Lesser Prairie Chicken wildlife habitat.

1. There shall be no earthmoving construction activities, well exploratory and/or developmental drilling, well completion, plugging and abandonment activities, **between March 1st through June 15th**, of each year. During that period, other activities, including the operation and maintenance of oil and gas facilities, will not be allowed between **3:00 A.M.** and **9:00 A.M.**. To the extent practicable, activities occurring for a short period of time may be conducted so long as they do not commence until after **9:00 A.M.**. Any deviation from this stipulation must be approved in writing by the Roswell Field Office Manager or the appropriate Authorized Officer.

2. All motors or engines that produce high noise levels shall have mufflers installed that effectively reduce excessive noise levels within prairie chicken habitat. High noise levels produced by motors or engines shall be reduced and muffled so as not to exceed **75 db** measured at 30 feet from the source of the noise.

3. Upon abandonment of the well, reclamation activities can be conducted between **March 1st through June 15th**, so long as reclamation work shall not be conducted between the hours of **3:00 AM** to **9:00 AM**. Any deviation from this requirement shall require prior approval by the Authorized Officer.

4. In an emergency situation, the Authorized Officer can allow a pit to be constructed for the purpose of collecting crude oil for removal. To prevent wildlife from entering the pit, netting of adequate size to deter access by wildlife shall cover the pit until it is no longer a threat to wildlife, and the pit is reclaimed.