

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

2007 MAY 7 AM 9 34

RECEIVED

070 FARMINGTON NM

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF-078899
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator MERRION OIL & GAS CORPORATION		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 610 REILLY AVE. FARMINGTON, NM 87401	3b. Phone No. (include area code) (505) 324-5300	8. Lease Name and Well No. BLACKROCK C 1-E
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 760' FSL & 1618' FWL At proposed prod. zone SAME		9. API Well No. 30-045- 34306
14. Distance in miles and direction from nearest town or post office* 16 AIR MILES SOUTH OF BLOOMFIELD		10. Field and Pool, or Exploratory GAL'GOS GAL'P & BAS. DAK.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 298' (560' & 760' to CA)	16. No. of acres in lease 960	11. Sec., T. R. M. or Blk. and Survey or Area N 21-26N-11W NMPM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 101' (Jazz Com 2)	17. Spacing Unit dedicated to this well 80 320 S2SW4 (Gallup) & W2 (Dakota)	12. County or Parish SAN JUAN
19. Proposed Depth 6,200'	20. BLM/BIA Bond No. on file NM-0883	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,208' GL	22. Approximate date work will start* 10/01/2007	23. Estimated duration 2 WEEKS

H

24. Attachments

RCVD DEC 20 '07  
OIL CONS. DIV.

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

DIST. 3

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 05/05/2007
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Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed)	Date 12/18/07
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Title AAM	Office FFO
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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, are attached.

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

\*(Instructions on page 2)

✓

HOLD CIG FOR NSL in Gallagos 6/1/07

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

This action is subject to technical and  
procedural review pursuant to 43 CFR 3168.3  
and appeal pursuant to 43 CFR 3165.4

NMOC

B 12/26/07

2007 MAY 7 AM 9 34

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88220  
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 & Mining Resources Department  
OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C - 102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

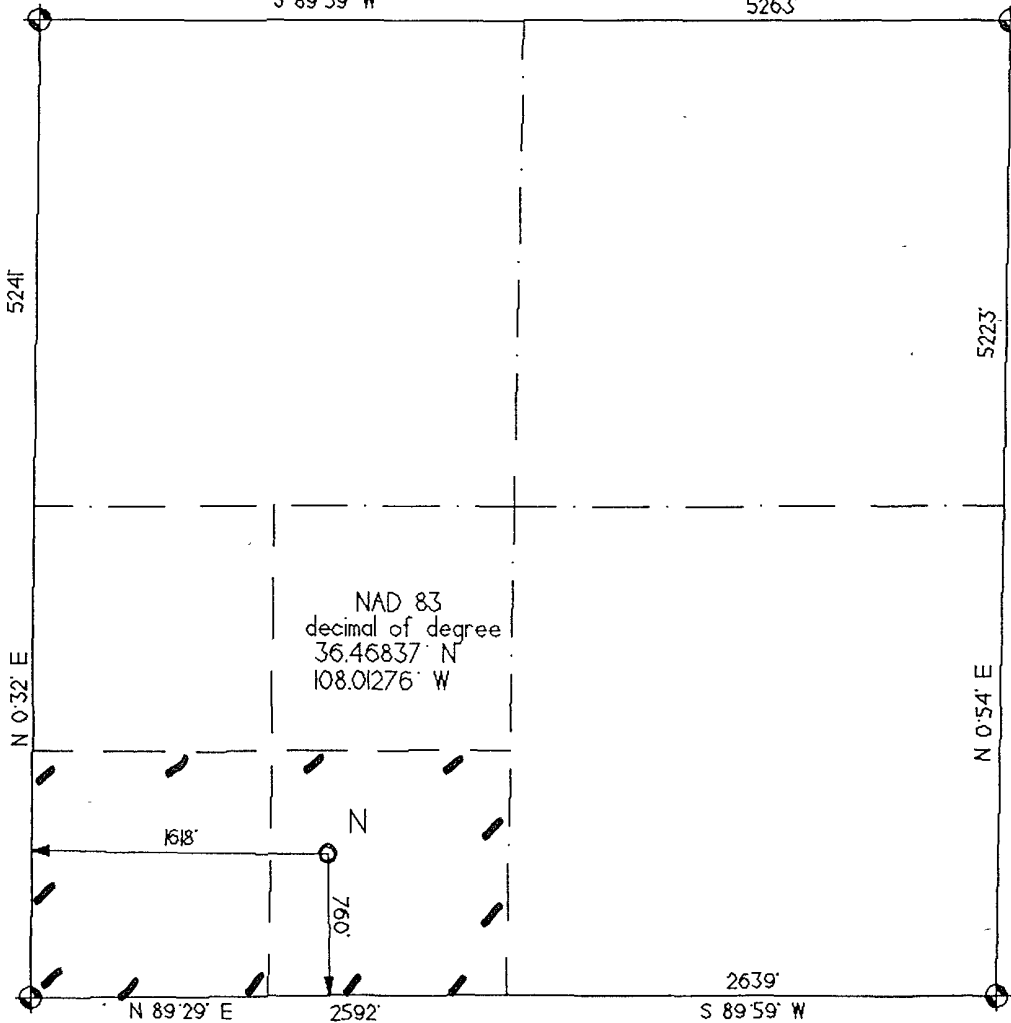
APA Number <b>30-045-34306</b>		Pool Code <b>26980</b>	Pool Name <b>GALLEGOS GALLUP (ASSOC.)</b>
Property Code <b>30962</b>	Property Name <b>Blackrock C</b>		Well Number <b>IE</b>
OGRD No. <b>014634</b>	Operator Name <b>MERRION OIL &amp; GAS CORPORATION</b>		Elevation <b>6208'</b>

Surface Location									
UL or Lot	Sec.	Top.	Rge.	Lot lch.	Feet from >	North/South	Feet from >	East/West	County
N	21	26 N.	11 W.	.	760'	South	1618'	West	San Juan

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Top.	Rge.	Lot lch.	Feet from >	North/South	Feet from >	East/West	County

Dedicated Acres <b>80</b>	Joint or Infill	Consolidation Code <b>C</b>	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.  
S 89°59' W 5263'



<b>OPERATOR CERTIFICATION</b> 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 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 pool agreement or a compulsory pooling order heretofore entered by the division.	
Date	<b>MAY 5, 2007</b>
Signature	<i>Brian Wood</i>
Printed Name	<b>BRIAN WOOD</b>
<b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Date of survey	<b>FCO-020507</b>
Signature and Seal of Professional Surveyor	<i>Gerald W. Coleston</i>
Certificate Number	<b>6844</b>

District I  
 1625 N. French Dr., Hobbs, NM 88240  
 District II  
 1301 W. Grand Ave., Artesia, NM 88220  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
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 1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals & Mining Resources Department  
 OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

2007 MAY 7 AM 9:34  
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 070 FARMINGTON NM

Form C - 102  
 Revised October 12, 2005  
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WELL LOCATION AND ACREAGE DEDICATION PLAT

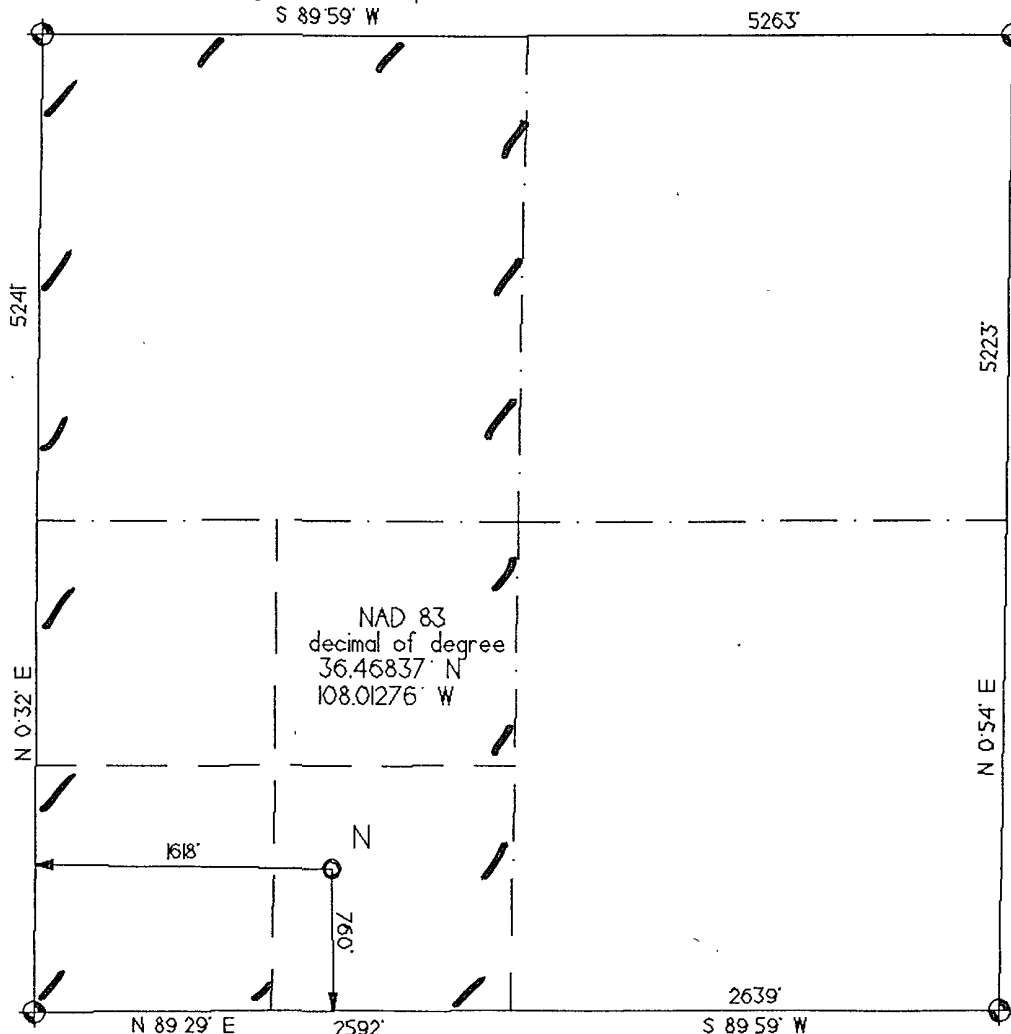
APA Number <b>30-045-34306</b>	Pool Code <b>71599</b>	Pool Name <b>BASIN DAKOTA</b>
Property Code <b>30962</b>	Property Name <b>Blackrock C</b>	Well Number <b>IE</b>
OGRD No. <b>014634</b>	Operator Name <b>MERRION OIL &amp; GAS CORPORATION</b>	Elevation <b>6208'</b>

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	County
.N	21	26 N.	. II W.		760'	South	1618'	West	San Juan

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	County

Dedicated Acres <b>320</b>	Joint or Infill	Consolidation Code <b>C</b>	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.



**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 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.

Date **MAY 5, 2007**

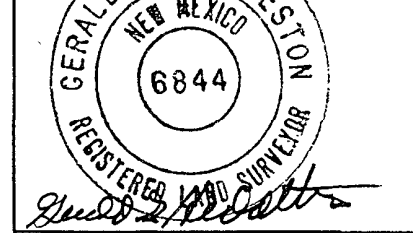
Signature *Brian Wood*

Printed Name **BRIAN WOOD**

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

Date of survey **FCV-020507**

Signature and Seal of Professional Surveyor



Certificate Number **6844**



Merrion Oil & Gas Corporation  
 Blackrock C 1-E  
 760' FSL & 1618' FWL  
 Sec. 21, T. 26 N., R. 11 W.  
 San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+6,208'
Ojo Alamo	377'	389'	+5,831'
Kirtland Shale	535'	547'	+5,673'
Fruitland	1,132'	1,144'	+5,076'
Main Fruitland	1,387'	1,399'	+4,821'
Pictured Cliffs	1,407'	1,419'	+4,801'
Lewis Shale	1,530'	1,542'	+4,678'
La Ventana	2,317'	2,329'	+3,891'
Menefee Shale	3,097'	3,109'	+3,111'
Point Lookout Sandstone	3,909'	3,921'	+2,299'
Mancos Shale	4,132'	4,144'	+2,076'
Gallup Sandstone	4,960'	4,972'	+1,248'
Greenhorn Limestone	5,820'	5,832'	+388'
Dakota Sandstone	5,985'	5,997'	+223'
Total Depth (TD)	6,200'	6,212'	+8'

2. NOTABLE ZONES

Gas & Oil Zones

Fruitland  
 Pictured Cliffs  
 Gallup  
 Dakota

Water Zones

Nacimiento  
 Fruitland

Coal Zones

Fruitland

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

### 3. PRESSURE CONTROL

The drilling contract has not been awarded. Thus, the exact BOP model to be used is not yet known. (A typical double ram 2,000 psi model is on PAGE 3.) Minimum working pressure will be 2,000 psi. Pressure calculations are:

$$\begin{aligned} 0.29 \text{ psi/foot} \times 6,200' &= 1,798 \text{ psi maximum expected bottom hole pressure} \\ &\quad - \underline{0.22 \text{ psi/foot} \times 6,200' = 1,364 \text{ psi gas cut column}} \\ &= 434 \text{ psi maximum expected surface pressure} \end{aligned}$$

BOP pressure tests will be conducted at time of installation and before drilling out the surface casing shoe. Ram type preventer will be tested to  $\approx 1,000$  psi. The BOP will be activated on each bit trip and the activation recorded in the driller's log. A 2,000 psi working pressure choke manifold, kill line from the mud pump, and kelly cock valve will be installed. Stabbing valves for drill pipe and drill collars will be available on the rig floor.

### 4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Pounds/Foot</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24	J-55	New	ST & C	320'
7-7/8"	4-1/2"	11.6	J-55	New	LT & C	6,200'

Surface casing will be cemented to surface with  $\approx 264$  cubic feet ( $\approx 224$  sacks) Class B neat + 1/4 pound per sack cello-flake + 2% to 4% CaCl<sub>2</sub>. Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Excess = 100%. A centralizer will be placed on the bottom joint.

Production casing hole will be cemented in two stages to the surface with  $\approx 2,142$  cubic feet. Excess:  $\geq 50\%$  (actual volumes will be based on caliper survey). DV tool will be  $\approx 50'$  below the top of the Mancos shale. Thus, DV tool will be set at  $\approx 4,185'$ . Will install 2 centralizers to bracket DV tool,  $\approx 6$  centralizers over Dakota, and  $\approx 8$  centralizers over Gallup.

Merrion Oil & Gas Corporation  
Blackrock C 1-E  
760' FSL & 1618' FWL  
Sec. 21, T. 26 N., R. 11 W.  
San Juan County, New Mexico

PAGE 4

First stage ( $\approx 2,015'$ ) of long string cement will cover Gallup and Dakota zones. Lead with  $\approx 235$  sacks Premium light high strength with 2% KCl + 0.2% CD-32 + 0.5% FL-52 + 1/2 pound per sack cello flake + 2% pheno seal (= 2.01 cubic feet per sack & 12.5 pounds per gallon). Tail with  $\approx 150$  sacks Type III + 0.3% CD-32 + 0.2% FL-52 + 5% A-10 + 1/4 pound per sack cello flake 2% pheno seal (= 1.54 cubic feet per sack & 14.2 pounds per gallon).

Second stage of cement will cover  $\approx 4,185'$  from DV tool to surface. Lead with  $\approx 500$  sacks Type III + 1/4 pound per sack flake + 8% gel + 2% pheno seal (= 2.60 cubic feet per sack & 11.9 pounds per gallon). Tail with  $\approx 100$  sacks Type III neat (= 1.39 cubic feet per sack & 14.5 pounds per gallon).

#### 5. MUD PROGRAM

Surface hole will be drilled with fresh water based spud mud at  $\approx 8.4$  pounds per gallon. Lime and gel will be added as needed for viscosity. Production hole will be drilled with a fresh water based low solids non dispersed mud with a weight of  $< 9.0$  pounds per gallon and water loss of  $< 10$  cc. Starch will be added as needed. Producing or sensitive zones will be air drilled.

#### 6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL-FDC-GR logs will be run from TD to the base of the surface casing.

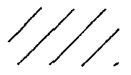


#### 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected.

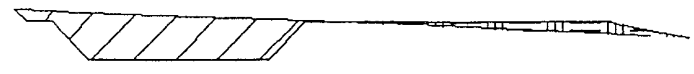
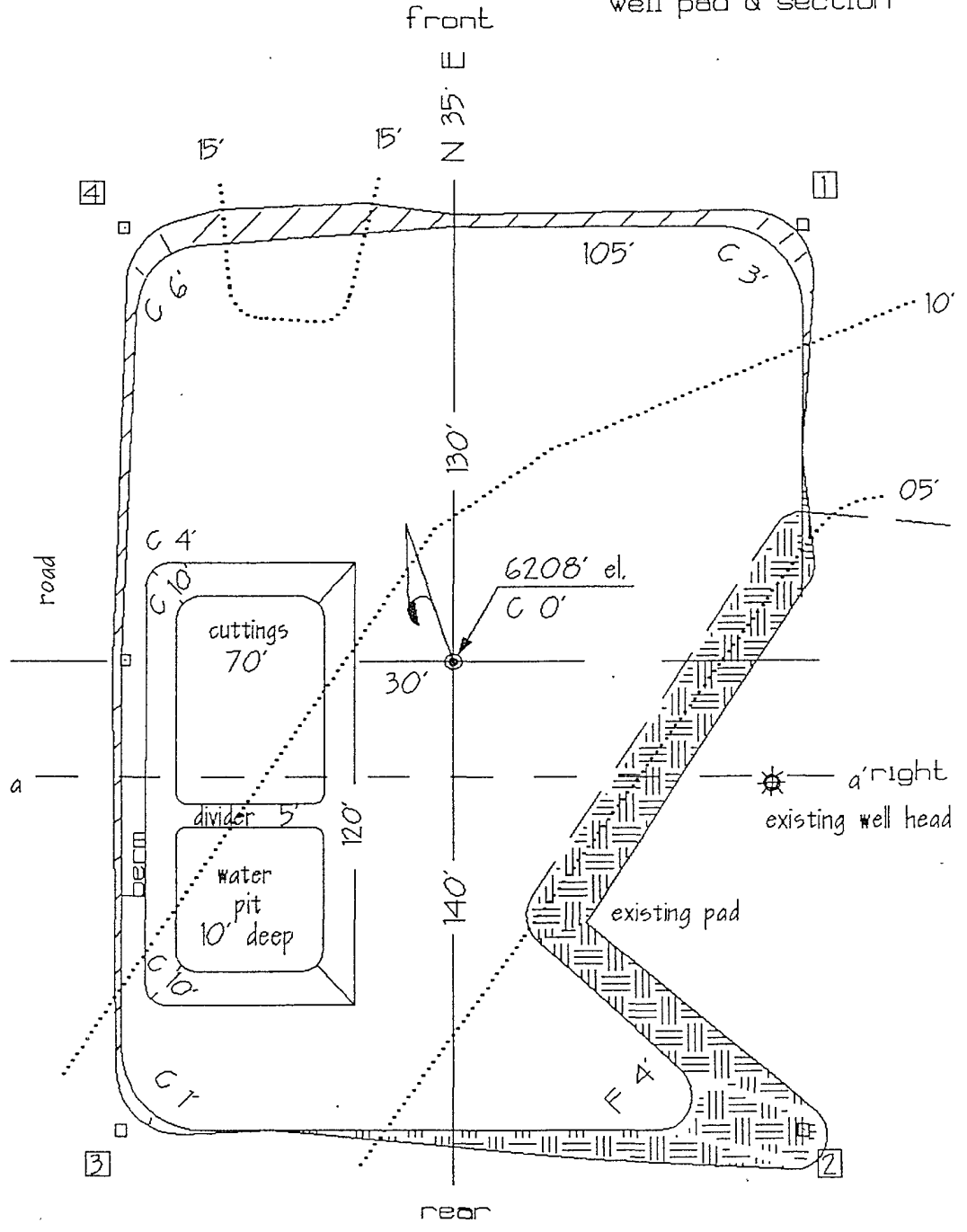
Blackrock C # 1 E  
well pad & section



0' 50'  
Scale 1" = 50'

-  cut slope
-  fill slope
-  stake/pin flag

field edge

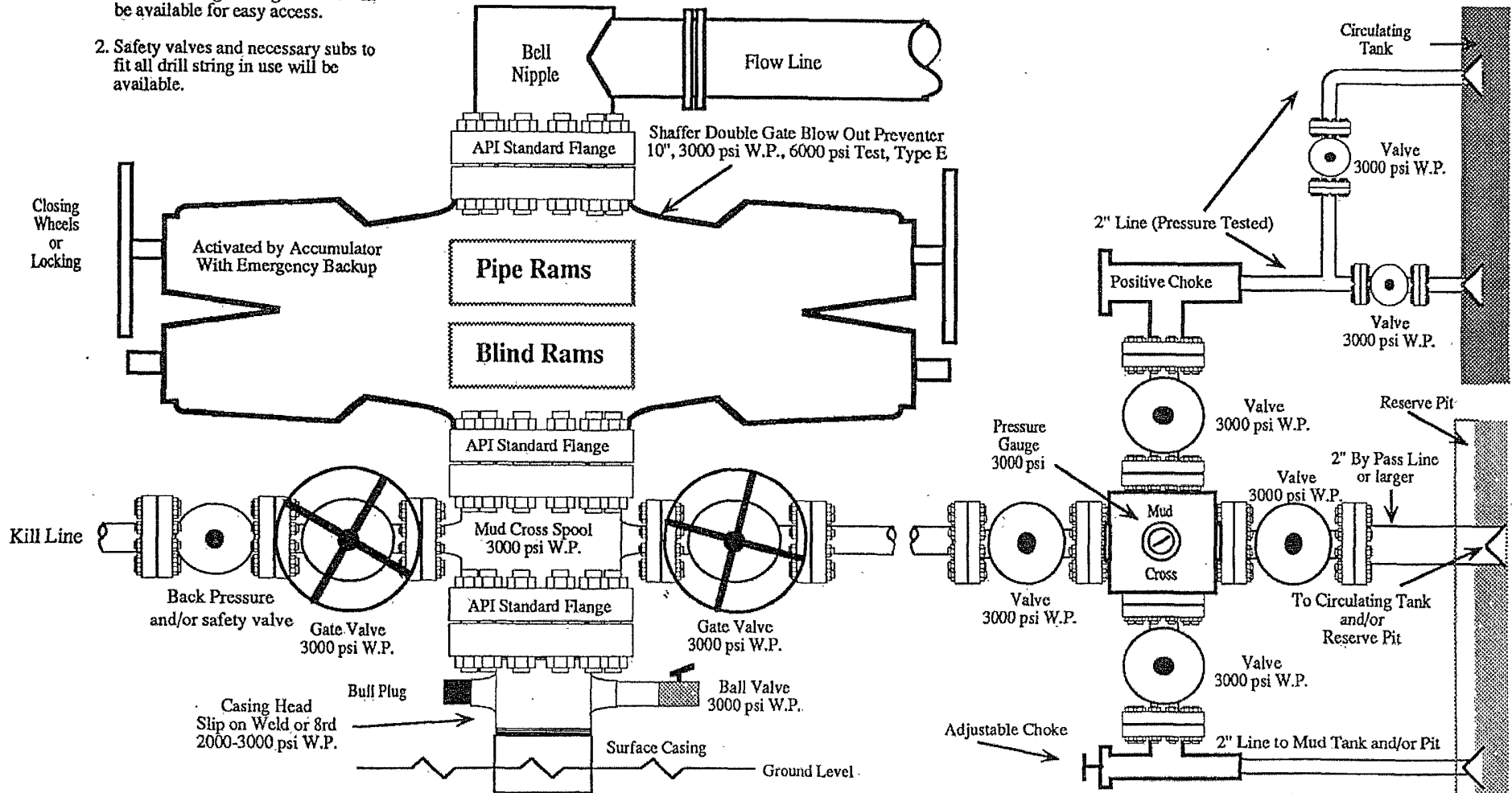


a Cross section a'



# 2,000 PSI BOP SYSTEM

- Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.