

MERRION

OIL & GAS

NEW MEXICO OIL CONSERVATION DIVISION
RECEIVED
JUN 10 1993 8 31

CERTIFIED RETURN RECEIPT REQUESTED

June 9, 1993

Mr. William LeMay
New Mexico Oil Conservation Division
P. O. 2088
Santa Fe, New Mexico 87503

RE: **HIGH HOPES No. 1**
1220' FNL & 1300' FEL
Section 28, T20N, R5W
McKinley, New Mexico

Dear Mr. LeMay:

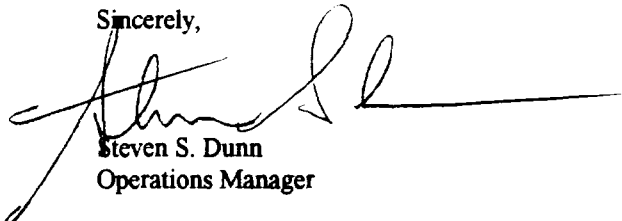
This letter is to request administrative approval for a non-standard oil well located in the Ojo Encino Entrada Pool.

Merrion Oil & Gas Corporation plans to drill and complete the High Hopes No. 1, located 1220' FNL & 1300' FEL, McKinley County, New Mexico. The well is non-standard due to topographic considerations, the original location would have fallen in an arroyo 40 feet wide and 10 feet deep. To comply with the New Mexico Oil Conservation's rules, Merrion is submitting the following for your approval of this non-standard location:

1. Application for Permit to Drill
2. C-102 plat showing the location of this well;
3. Plat showing offset owners/operators;
4. Affidavit of notification of offset owners/operators.

A copy of this application is being submitted to all offset owners/operators by certified mail with a request that they furnish your Santa Fe Office with a Waiver of Objection, and return one copy to this office.

Sincerely,



Steven S. Dunn
Operations Manager

WAIVER

_____ hereby waives objection to Merrion Oil & Gas Corporation's application for a non-standard location for their High Hopes No. 1 well as pospoed.

By: _____

Date: _____

SSD/eg

Enclosures

XC: Well File

Distribution: 0+4 (BLM-F. ington; 1- Well File)

Form 3160-3
(November 1983)
(formerly 9-331C)SUBMIT IN TRI VTE*
(Other instructions on
reverse side)Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corporation

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, New Mexico 87499

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

1220' FNL & 1300' FEL (NENE)

At proposed prod. zone

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

± 21 miles South of Counselors, New Mexico

15. DISTANCE FROM PROPOSED*

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

1220'

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

6040'

20. ROTARY OR CABLE TOOLS

Rotary

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

6762' GR

22. APPROX. DATE WORK WILL START*

July 15, 1993

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8", J-55	36#/ft	240'	150 sxs
8-3/4"	7", J-55	23#/ft	6040'	740 sxs (2 stages)

We propose to drill 12-1/4" surface hole to 240 ft and set 240 ft of 9-5/8", 36#, J-55 surface casing with 150 sx Class B (177 cu.ft.) 2% CaCl₂. Will wait on cement 10 hrs, press test to 600 psi for 15 minutes. Will drill 8-3/4" hole to 6040 ft. Will run open hole logs. If well appears productive, we will run 6040 ft of 7", 23#, J-55 casing and cement 1st Stage with 290 sx (597 cu.ft.) Class B, 2% Sodium Metasilicate (yield 2.06 cu.ft.), followed by 75 sx (92 cu.ft.) Class H with 2% gel (yield 1.22 cu.ft./sx). Will circulate 3-4 hrs between stages. Second stage tool in Mancos at ± 2850'. Will cement with 275 sx (567 cu.ft.) Class B, 2% Sodium Metasilicate (yield 2.06 cu.ft./sx), followed by 100 sx (122 cu.ft.) Class H with 2% gel (yield 1.22 cu.ft./sx). Estimated top of cement is at the surface. We will perforate and stimulate as necessary to test the potentially productive intervals.

Additional drilling technical details are attached.

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

24.

SIGNED

Steven S. Dunn

TITLE

Operations Manager

DATE

6-4-93

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

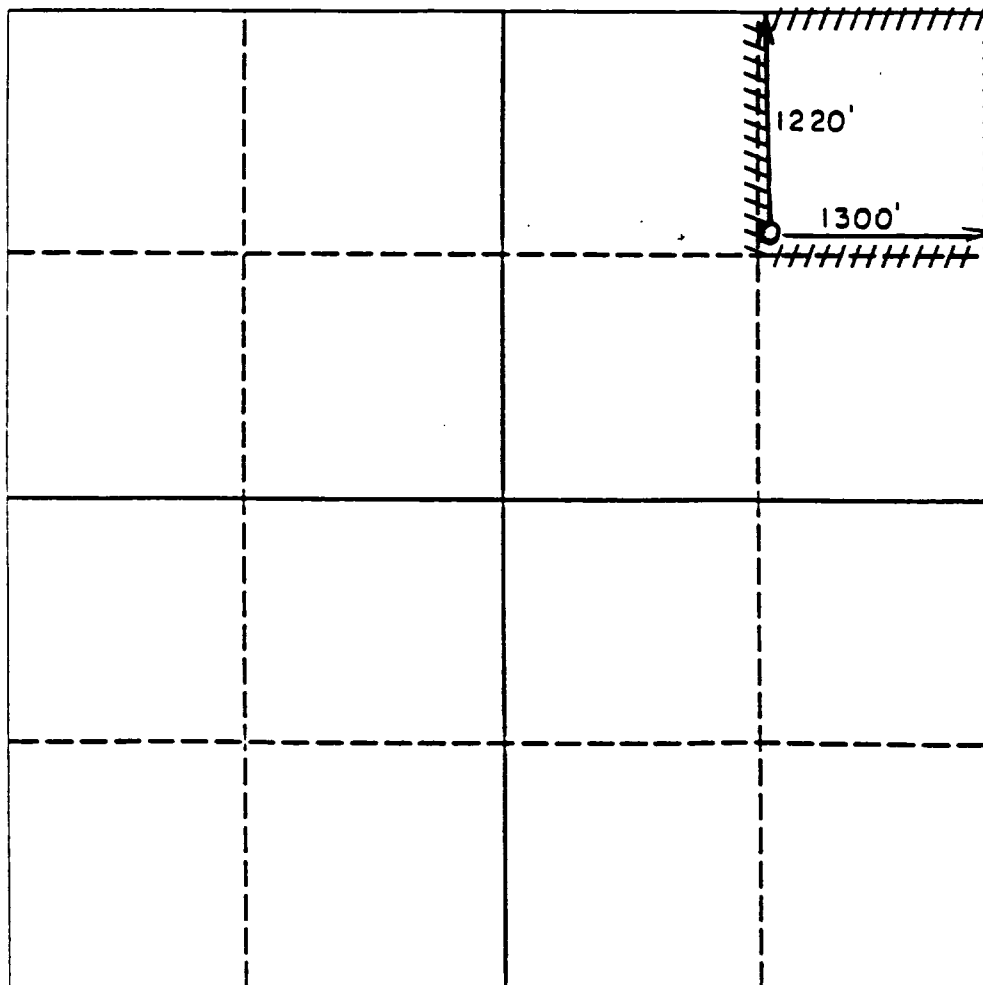
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator MERRION OIL & GAS CORPORATION			Lease High Hopes		Well No. 1
Unit Letter A	Section 28	Township 20 N.	Range 5 W.	County McKinley	NMPM
Actual Footage Location of Well: 1220 feet from the North line and 1300 feet from the East line					
Ground level Elev. 6762'	Producing Formation Entrada		Pool Ojo Encino		Dedicated Acreage: 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, 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.

Signature _____

Printed Name
Steven S. Dunn

Position
Operations Manager

Company
Merrion Oil & Gas Corp.

Date
6-4-93

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 knowledge and belief.

Date Surveyed _____

Signature of Registered Professional Surveyor _____

Certificate No. **6844**

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

MERRION OIL & GAS CORPORATION

DRILLING TECHNICAL PROGRAM

ATTACHMENT TO FORM 3160-3

HIGH HOPES NO. 1

1220' FNL & 1300' FEL (NENE)

Section 28, T20N, R5W

McKinley County, New Mexico

1. ESTIMATED FORMATION TOPS:

FORMATION	DEPTH	FORMATION	DEPTH
Fruitland	Surface	Greenhorn	4658'
Pictured Cliffs	423'	Graneros	4745'
La Ventana	1291'	Dakota	4862'
Menefee	1389'	Morrison	4967'
Point Lookout	2603'	Todilto	5823'
Mancos	2837'	Entrada	5858'
Gallup	3636'	Total Depth	6040'
Sanostee	4322'		

2. WELL CONTROL SYSTEM

- A. Proposed blowout preventer system (schematic drawings attached) is a series 900 double ram with choke and kill manifold, and will be used in 2M service.
- B. Minimum required working pressure rating for BOP stack is 2000 psi.
- C. BOP pressure testing will be conducted at time of installation and prior to drillout of surface casing shoe. The BOP's will be activated at minimum on each trip for a bit and recorded in driller's log.

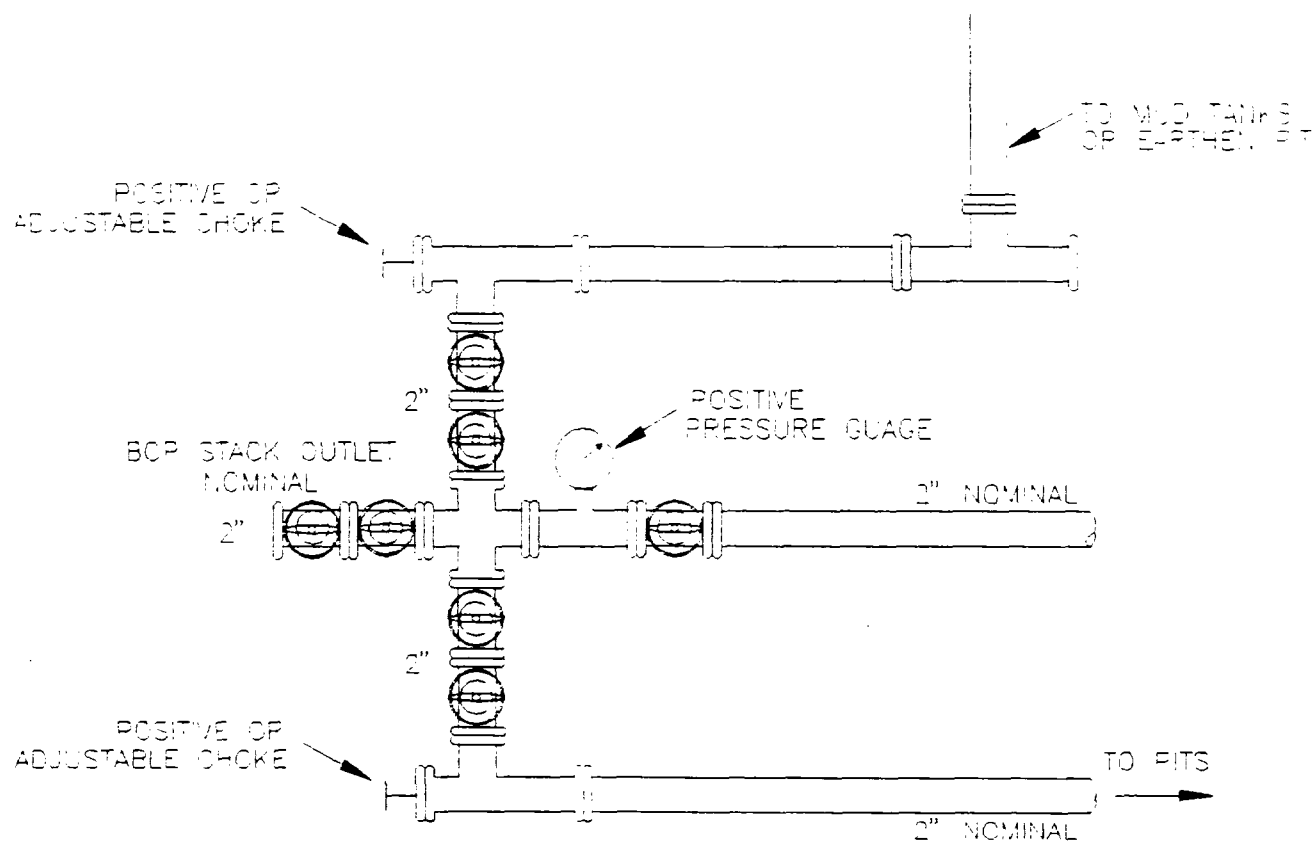
3. DRILLING MUD PROGRAM

- A. Surface hole will be drilled with fresh water - gel system, lime added to provide viscosity as needed.
- B. A 8-3/4" hole will be drilled to total depth utilizing a low solids, non-dispersed gel-water mud system. Additives such as starch, cmc, soda ash and others will be used to control mud characteristics as necessary. No materials of a hazardous nature will be added to the drilling fluid in hazardous quantities.

Lost circulation materials will be stored on location, as necessary, for use in restoring lost circulation.

MERRION OIL AND GAS CORPORATION
 CHOKE MANIFOLD SCHEMATIC
 (ATTACHMENT TO DRILLING TECHNICAL PROGRAM)

HIGH HOPES #1
 1,220' FNL & 1,300' FEL
 SECTION 28, T20N, R5W
 MCKINLEY COUNTY, N.M.



FOR 3,000 PSI RATED
 WORKING PRESSURE

UPPER KELLY COCK VALVE WITH HANDLE AVAILABLE

SAFETY VALVE AND GUBS TO FIT ALL DRILL
 STRINGS IN USE WILL BE AVAILABLE

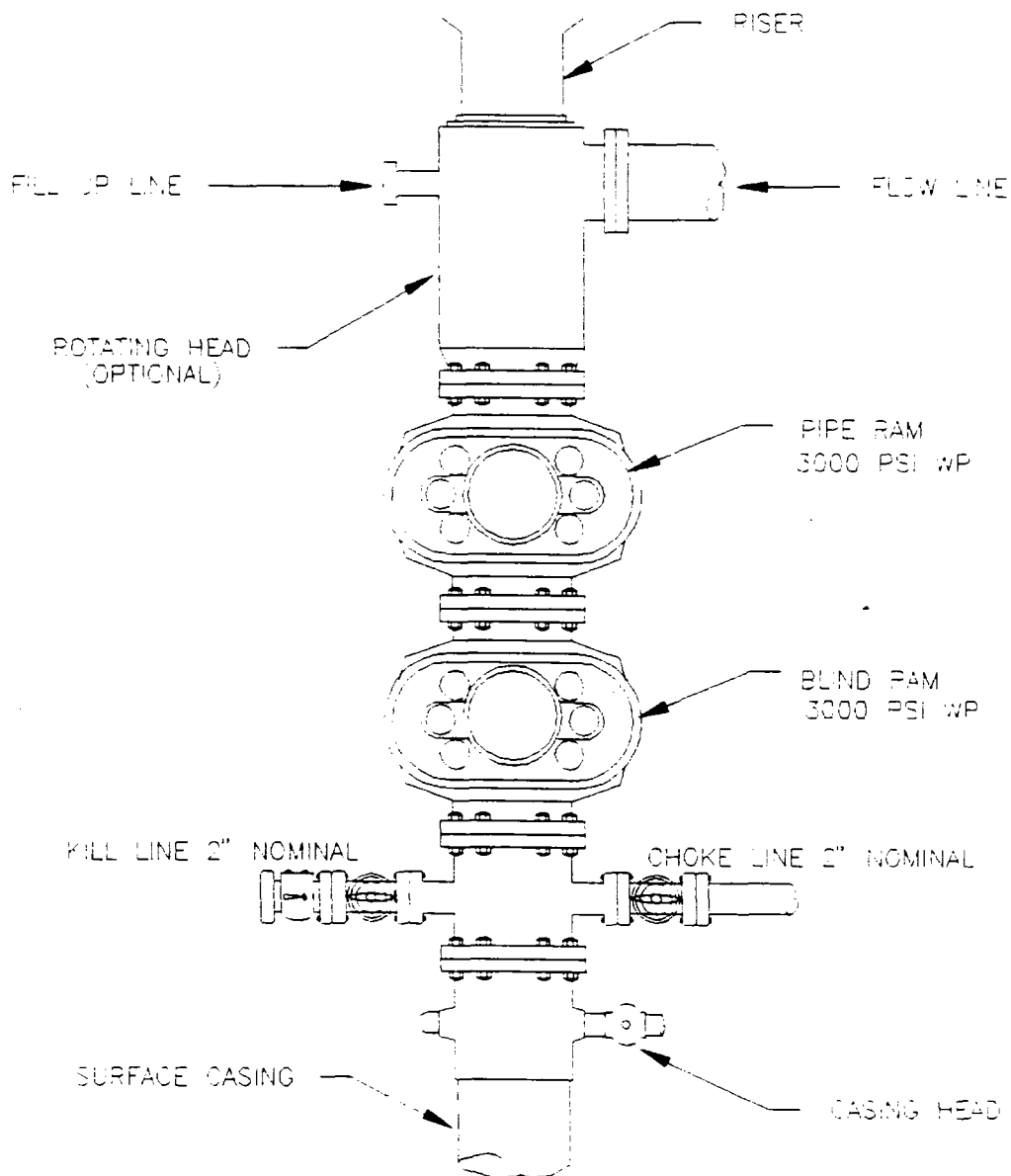
ENG STEVE DUNN DRPT. D.R.G.
 DATE 6-4-83

MERRION OIL & GAS CORPORATION

610 REILLY AVE., FARMINGTON, N.M. (505) 327-9801

BLOWOUT PREVENTER SCHEMATIC FOR 2M SERVICE

(ATTACHMENT TO DRILLING TECHNICAL PROGRAM)



MERRION OIL & GAS

WELL NAME

LOCATION

DATE: 6-4-93
ENG: STEVE DUNN
DRFT: S.R.G.

HIGH HOPES #1

1,220' FNL & 1,300' FEL
SECTION 28, T20N, R5W
MCKINLEY COUNTY, N.M.

<u>INTERVAL</u>		<u>MUD SYSTEM</u>	<u>WEIGHT #/GAL</u>	<u>VISCOSITY SEC/OT</u>	<u>WATER LOSS CC</u>
Vert	0 - 210'	Gel-Lime	9.0	35-45	NA
Vert	240'-6020'±	Gel-Wtr ND	8.4-9.0	28-45	≤ 12

C. Mud trip monitoring will be done visually.

4. HAZARDS

- A. No abnormal pressure is anticipated. However, 2M BOPs will be used under surface casing to total depth. Normal pressure gradient is <0.38 psi/ft of depth in this area.
- B. Lost circulation is not expected to be a major problem in this area. However, lost circulation materials will be stored on location during drilling.
- C. No H₂S is expected to be encountered. However, should H₂S be found during drilling, detection and warning equipment will be installed.
- D. Unintentional hole deviation is not expected to be a problem. Single shot surveys giving hole inclination will be run a minimum of every 500 feet.

5. LOGGING AND TESTING

- A. An IES Induction Log will be run from TD to surface. A Compensated Density Log will be run to cover zones of interest. A sonic log may be run if warranted.
- B. Drill stem tests will be run as necessary to test hydrocarbon shows. Two tests are possible.
- C. No core is anticipated.
- D. Plans call for using a mud logging unit during drilling.

MERRION OIL AND GAS CORP.
WELLBORE SCHEMATIC
HIGH HOPES #1

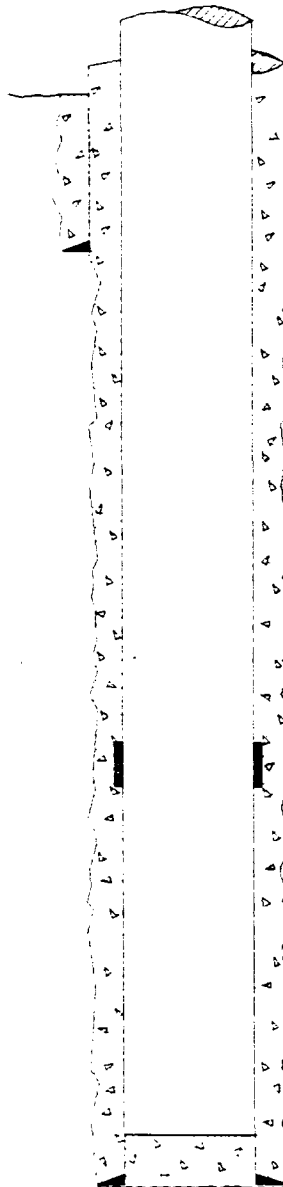
1,220' FNL & 1,300' FEL (NENE)
SECTION 28, T20N, R5W
MCKINLEY COUNTY, NEW MEXICO

ENG: STEVE DUNN DRFT: S.P.G.
DATE: 6-4-93

ELEVATION
GL: 6762'
KB: 6775'

FORMATION TOPS: (KB)

FRUITLAND	SURFACE
PICTURED CLIFFS	423'
LA VENTANA	1291'
MENEFEE	1389'
POINT LOOKOUT	2603'
MANCOS	2837'
GALLUP	3636'
SANOSTEE	4322'
GREENHORN	4658'
GRANEROS	4745'
DAKOTA	4862'
MORRISON	4967'
TODILTO	5823'
ENTRADA	5858'
TOTAL DEPTH	6040'



TOC @ SURFACE BOTH
CASING STRINGS

12 1/4" B.T. SIZE

SURFACE 3 5/8" 36# @ 240'
W/150 SX

8 3/4" B.T. SIZE

STAGE TOOL @ 2850'
2ND STAGE - 375 SX (689 CU FT)

PROD - 7" 20 & 13 # @ 6040' KB
1ST STAGE - 365 SX (689 CU FT)

PBTD: 5850'
TD: 6040'

CAPACITIES:

12 1/4" x 3 5/8" ANNULUS	0.0559	0.3131
8 3/4" x 7" ANNULUS	0.0288	0.1503
12 1/4" CH	0.1458	0.8134
8 3/4" CH	0.0744	0.4176
7" CH	0.0773	0.4341
6 1/2" CH	0.0405	0.2273
6" CH	0.0394	0.2210

BBL/FT

CUFT/FT

MERRION OIL & GAS CORPORATION
SURFACE USE AND OPERATIONS PLAN

Pursuant to NTL-6

(ATTACHMENT TO FORM 3160-1)

HIGH HOPES NO. 1
1220' FNL & 1300' FEL (NENE)
Section 28, T20N, R5W
McKinley County, New Mexico

1. EXISTING ROADS

- A. The proposed well site and elevation plats are attached.
- B. Directions: From Counselors south on dirt access 21.5 miles to Ojo Encino School. Right at intersection past school. Two miles to Ojo Encino Field. Left thru Federal 21-4 location to High Hopes location.
- C. All roads to location are indicated on attached map.
- D. Improvement and maintenance: Maintenance will be performed as required to keep existing roads in same or better condition.

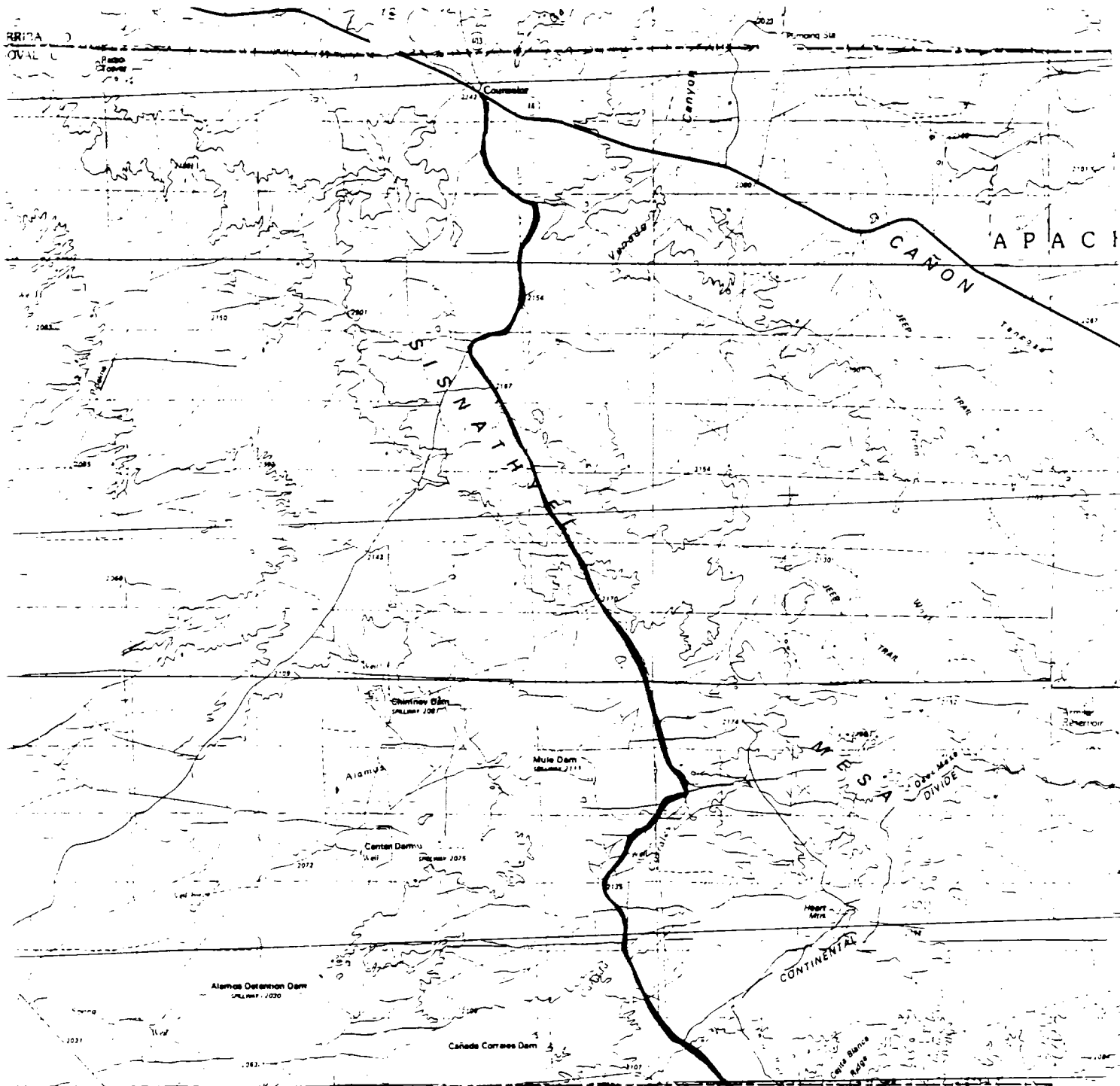
2. PLANNED ACCESS ROADS

400 feet of new or upgraded access road may be required. (Shown on topographic map enclosed). New access road will have approximately a 14' running surface with a 4' to 1' grade ditch on both sides. Road will have no turnouts. Road surface will be constructed of existing materials.

3. LOCATION OF EXISTING WELLS

For all existing wells within one mile radius of location, see attached topographic map.

- A. There are no water wells within a one mile radius of this location.
- B. There are 5 abandoned well in this one mile radius..
- C. There are no temporarily abandoned wells.
- D. There is 1 disposal well.
- E. There are no wells presently being drilled.
- F. There is 1 producing well within this one mile radius.



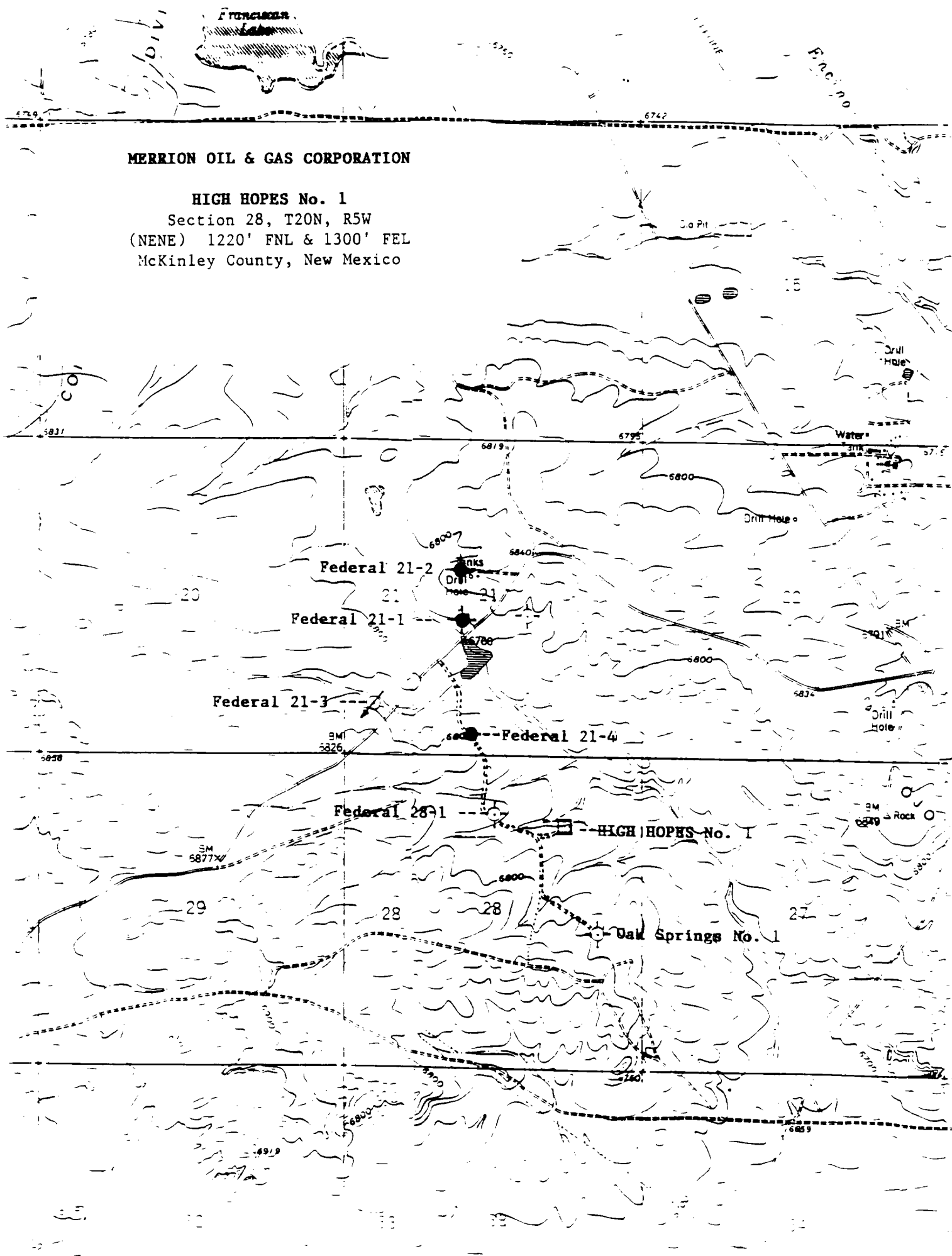
MERRION OIL & GAS CORPORATION

HIGH HOPES No. 1

Section 28, T20N, R5W
(NENE) 1220' FNL & 1300' FEL
McKinley County, New Mexico

● <-- HIGH HOPES #1

HIGH HOPES No. 1
Section 28, T20N, R5W
(NENE) 1220' FNL & 1300' FEL
McKinley County, New Mexico



G. There are no shut-in wells.

H. There are no injection wells.

I. There are no monitoring or observation wells for other uses.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. With a one mile radius of location, the following existing facilities are owned or controlled by lessee/operator:

- 1) Tank Batteries: On Federal 21-4 wellsite.
- 2) Production Facilities: On Federal 21-1 and Federal 21-4 wellsites.
- 3) Oil Gathering Lines: From Federal 21-4 to Federal 21-1 well.
- 4) Gas Gathering Lines: Chaco Slope Surface Gas Line
- 5) Injection Lines: None
- 6) Disposal Lines: From Federal 21-1 to Federal 21-3 well.

B. If production is obtained, new facilities will be as follows:

- 1) All production facilities will be located at the High Hopes No. 1 proposed location.
- 2) A production flowline will be installed on location.
- 3) Drill pad size will be approximately 300 feet long and 150 feet wide.
- 4) No construction materials for battery site and pad will be necessary.
- 5) Any necessary pits will be fenced on three sides during drilling and the fourth side upon completion.
- 6) Rehabilitation whether well is productive or dry, will be made on all unused areas in accordance with BLM or appropriate agency recommendations.

5. LOCATION AND TYPE OF WATER SOURCE

- A. The source of water will be Ojo Encino produced water at the central disposal facility for Ojo Encino, Section 21, T20N, R5W. A backup source is Johnson's Trading Post.
- B. Water will be transported by truck over existing roadways.
- C. No water well is to be drilled on this lease.

6. CONSTRUCTION MATERIALS

- A. No construction materials are needed for drilling and access roads into the drilling location. The existing surface materials will be sufficient and will be provided by the Dirt Contractor as needed.
- B. No construction materials will be taken off Federal or Indian lands.
- C. No surface materials for construction of access roads are required.
- D. All major access roads presently exist as shown on topographic map.

7. HANDLING OF WASTE MATERIALS AND DISPOSAL

- A. Drill cuttings will be placed in the drill pit and covered, when appropriate.
- B. Drilling fluids will be disposed of in the drill pit.
- C. Any fluids recovered during drilling tests or while making production tests will be collected in a test tank if possible. If a test tank is not available during drilling, fluids will be handled in drill pit. Any excessive spills or oil, gas, salt waters or other noxious fluids will be cleaned up and removed.
- D. Latrine facilities will be provided for human waste.
- E. Garbage and non-flammable waste and salts and other chemical produced during drilling or testing will be handled in trash pit. Flammable waste will be disposed of in burn pit if necessary. Drill fluids, water, drilling mud and tailings will be kept in drill pit. Drill pit will be fenced on three sides and the fourth side fenced upon removal of rig.
- F. After the rig moves out, location will be cleaned up and no dangerous materials will be left on location. Drill pit will be fenced on three sides during drilling and after drilling completely fenced until such time as the pit is buried.

8. ANCILLARY FACILITIES

- A. No air strip, camp or other facilities will be built during drilling of this well.

9. WELL SITE LAYOUT

- A. Drill pad layout attached.

The drill pad layout is a diagram of the proposed rig and equipment reserve pit, burn and trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be several trailers on site.

- B. The reserve pit will be lined. Steel drilling pits will be used during drilling operations.

10. PLANS FOR RESTORATION

- A. Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils material will be fenced, buried, or hauled away as soon as practical after drilling and completion work is finished. If production is obtained, the unused area will be restored as soon as possible.
- B. Any banked soil material, if removal required, will be spread over the area. Revegetation will be accomplished by planting seed mix as per surface managing agencies requirements.
- C. Three sides of the reserve pit will be fenced during drilling operations. As soon as practical after drilling the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from becoming entrapped; and the fencing will be maintained until burying and cleanup is accomplished.
- D. The rehabilitation operations will begin as soon as practical after the drilling rig is removed. Cleanup will be done as needed. Planting and revegetation is normally required to be done from July 15 to September 15, unless requested otherwise.

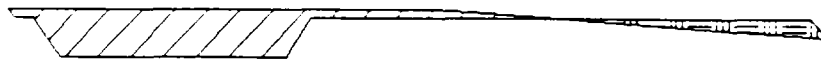
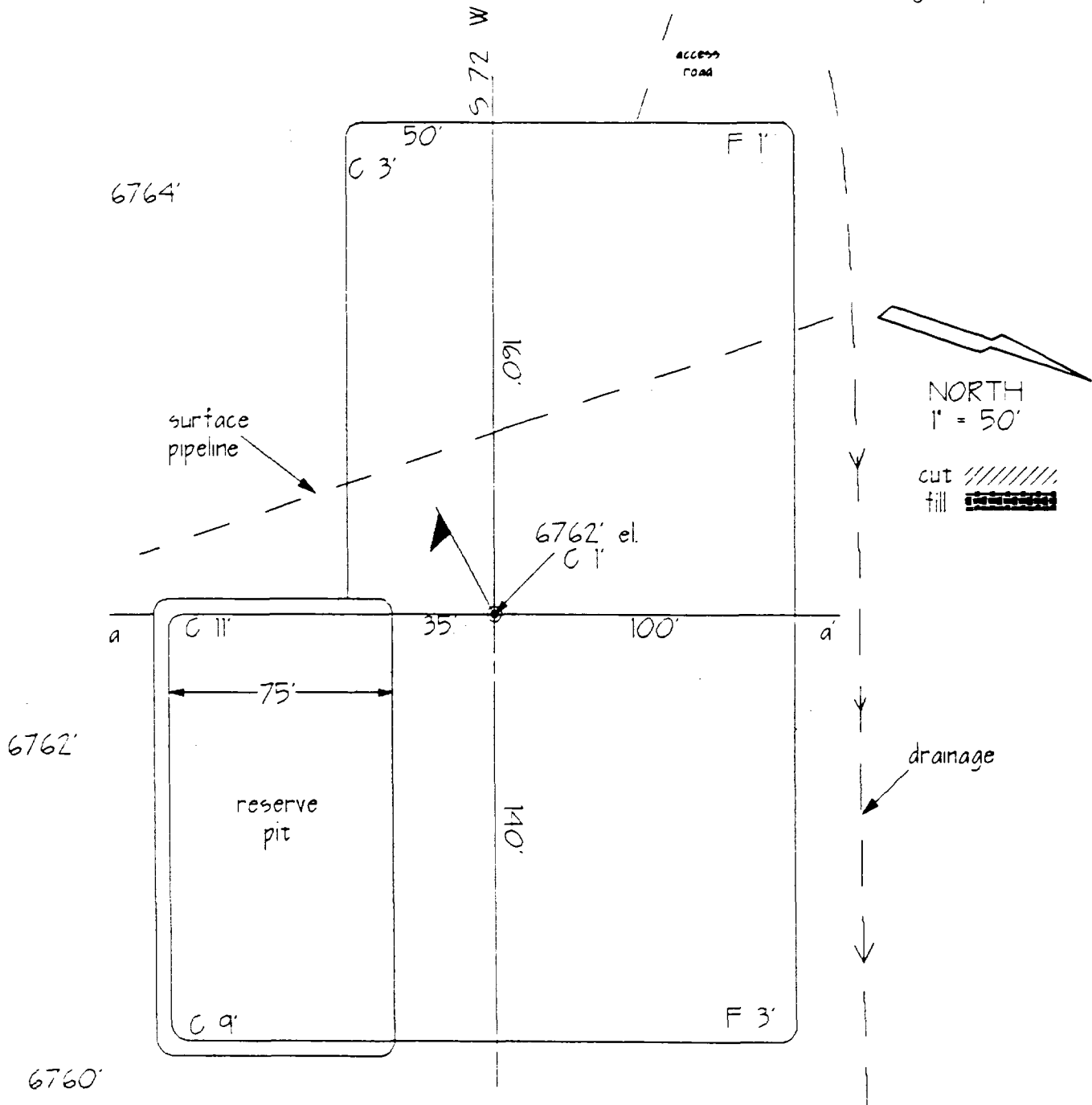
11. OTHER INFORMATION

- A. Soil - Sandy/Loam.

Vegetation - Sagebrush, grasses and other native vegetation.

- B. The primary surface use is for grazing. The surface is owned by the Bureau of Land Management.

High Hopes # 1



cross section

D. Restrictions: None. Operator has all rights.

E. Drilling is planned for on or about July 15, 1993. Drilling operations should be completed within 60 days.

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Steven S. Dunn, Operations Manager
Merrion Oil & Gas Corporation
P. O. Box 840
Farmington, New Mexico 87499
Telephone: (505) 327-9801

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Merrion Oil and Gas Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

6-4-93
Date


Steven S. Dunn, Operations Manager

High Hopes #1
1220' FNL & 1300' FEL
ENTRADA FORMATION
McKinley County, New Mexico

6/9/93

R 5 W

T
20
N

Billie Robinson HBP NM-15646		Ruth Zager 1/1/97 NM-67399		Open Federal
21		22		
Merrion Oil & Gas HBP NM-5980	Merrion Oil 6/1/97 NM-89020	Yates 11/1/95 NM-85813	Open Federal	
28		27		
Merrion Oil & Gas HBP NM-7509		Ruth Zager 1/1/97 NM-67399		Open Federal
				Indian Allotted

Is your RETURN ADDRESS completed on the reverse side? SENDER: <ul style="list-style-type: none"> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • 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: Yates Petroleum Corporation 105 So. 4th Street Artesia, NM 88210		4a. Article Number P 081 445 007	
5. Signature (Addressee) 6. Signature (Agent)		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
		7. Date of Delivery	
		8. Addressee's Address (Only if requested and fee is paid)	
PS Form 3811, December 1991 ★U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT			

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side? SENDER: <ul style="list-style-type: none"> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • 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: Ms. Ruth Zager 237 Hamilton Road Merion Station, PA 19066		4a. Article Number P 081 445 008	
5. Signature (Addressee) 6. Signature (Agent)		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
		7. Date of Delivery	
		8. Addressee's Address (Only if requested and fee is paid)	
PS Form 3811, December 1991 ★U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT			

Thank you for using Return Receipt Service.

TOWNSHIP 20 North RANGE 5 West NMPM

Description: NW 1/4, NE 1/4, SW 1/4, Sec 2, (R-5330, 12-7-76)
 Evt. SE 1/4 SW 1/4 Sec 2, (R-5330, 12-7-76)

ILLEGIBLE