APPROVED BY:\_\_\_

## UNITED STATES DEPARTMENT OF THE INTERIOR BURFAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0136 Expires: February 28, 1995

|   | ייייייייייייייייייייייייייייייייייייייי  | TION FOR P   | ERMI  | T TO DRI   | LL OR I  | DEEP   | EN  | 5. Lease Designation and<br>SF-078899-A  | i Seriai No.  |  |  |
|---|--|--|---|--|--|--|---|--|---|--|--|
| T 63W1.   | 20 1:03  |  |   |  |  |  | H 1: 03   | 6. If Indian, Allottee or Tribe Name   |   |  |  |
| a. Type of Work   | DRIL   | L 🛛 🗸  | DEEF  | EN 🗌   |  | en en en en en en<br>Notae en en en en   | kî jî jî li eri <b>ş</b><br>Lik ûş li e kişekş  | 7. If Unit or CA, Agreer   | nent Designation  |  |  |
| Oil Well Gas Well Other Single Well   |  |  |   |  | le Well  | Multiple 2   | Zone  |  | 267   |  |  |
| 2. Name of Opera  | ntor   | Oil & Gas Cor  | noratio   |  |  |  |   | 8. Well Name and No. Alternativ  |   |  |  |
| . Address and To  | elephone No:   |  |   |  | Sec. 18 57 77  | **Base   |   |  | e Ruck #  |  |  |
|   |  | y Ave Farmingto<br>327-9801  | n NM 8  | /401   | 668  |  | <b>\</b>  | 9. API Well No.  | 5-302   |  |  |
| Location of Wel   |  | fnl & 1640' fwl (ne  | e nw)   |  | SEP 2  | 000  |   | 10. Field and Pool, or Ex<br>Gallegos S. F   | ruitland/PC   |  |  |
| At proposed prod. zone Same   |  |  |   |  | C.   | 11. Sec., T., R., M., or BLK.<br>and Survey or Area<br>Section 20, T26N, R11W  |   |  |   |  |  |
| <del> </del>  |  |  |   | 100  |  | ;<br>————————————————————————————————————  | <del>y</del>  | Section 20, 12   | 2011, KTTVV   |  |  |
|   |  | ns from Nearest Town or Post<br>uth of Bloomfield,   |   | ar Hilltop Thrif   | 7<br>Wales 12  | وهياليا  |   | San Juan   | 13. Stete<br>NM   |  |  |
| 15.Distance from  | Proposed (Also   | to nearest drlg. unit line, if a   |   |  | - Complete C | <u> </u>   | 17.No. of Acres Assig   | gned to This Well  |   |  |  |
|   | Location to Nearest Property or Lease Line, Ft 905'  |  |   | 16   | 0 acres  |  | 160 acres   |  |   |  |  |
|   | 8 Distance from Proposed Location  |  |   | osed Depth   |  |  | 20.Rotary or Cable Tools  |  |   |  |  |
| to Nearest Well Drilling, Completed, or Applied for, on this Lease, FT ~100'  |  |  |   | 15   | 12'  |  | Rotary  |  |   |  |  |
| 21 Elevations (Sho  | ow whether DF, R   |  | E' DICE   |  |  | 1  | 22. Approximate Date Work will Start  |  |   |  |  |
|   |  | 6150' GR, 615  | D KKB   |  |  |  | As s  | oon as permitted   |   |  |  |
|   |  |  |   | CASING AND   |  |  |   | OVER VIEW OF   | CEMENT  |  |  |
| 8-3/4"  | FHOLE  | 7" J55   | SIZE & GRADE OF CASING WEIGHT PER FOOT SETTING 7" J55 23 ppf ~120' KB   |  |  |  |   | ~30 sx (35 cuft)   |   |  |  |
|   | ,  | 4-1/2" J55 10.5 ppf ~1512' KB  |   |  |  |  | ~115 sx (184 cuft)  |  |   |  |  |
| 6-1/4"  |  |  |   | 10.5 ppr   |  | ~1512'   | KB -  | ~115 sx (184 cut   | t)  |  |  |
| N<br>surface wi   | ith ~30 sx 'E  | ooses to drill 8-3/4"<br>3' w/ 2% CaCl2 (35  | cuft). W  | native mud to  | ole to TD @  | and set 7  | 7" 23# J55 sui<br>512' KB with l  | rface casing, cem  | ent to  |  |  |
| surface wi<br>mud syste<br>sx 'B' (113<br>circulate to<br>A<br>not reach<br>V<br>operations                                   | ith ~30 sx 'E<br>em. Run op<br>B cuft) lead :<br>o surface (w<br>A water spac<br>surface, a t<br>Vill test Pict<br>s below surf  | poses to drill 8-3/4" B' w/ 2% CaCl2 (35) en hole surveys. V slurry and tail in wit will adjust volumes to cer will be pumped emperature log or of tured Cliffs through face casing will be chnical details attach   | cuft). W<br>Vill set 4-<br>th 60 sx 'I<br>based up<br>ahead of<br>cement b<br>perforate<br>conducte                                     | native mud to<br>ill drill 6-1/4" ho<br>1/2" 10.5 ppf J!<br>3' (71 cuft) cen<br>on caliper log).<br>the lead slurry<br>ond log will be<br>ed casing. Will  | ble to TD @ :<br>55 production<br>nent to fill fro<br>to prevent r<br>run to deterr<br>fracture stim   | and set approx 15 approx 1 | 7" 23# J55 sur<br>512' KB with lifrom TD to sur<br>epth to surfact<br>amination of the comment.<br>If put on for programs and the comment.  | rface casing, cemow solids non-disprace. Will cemere. Top of Cementhe cement. If centeduction test. Dries  | ent to persed it with 55 t should nent does   |  |  |
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\_TITLE\_

\_DATE \_

PO Box 1980, Hobbs, NM 88241-1980 · District II 10 Drawer DD, Artesia, NM 88211-0719 District III

1000 Rie Brazes Rd., Aztec, NM 87410

District IV

## Energy, Minerals & Natural Resources Department

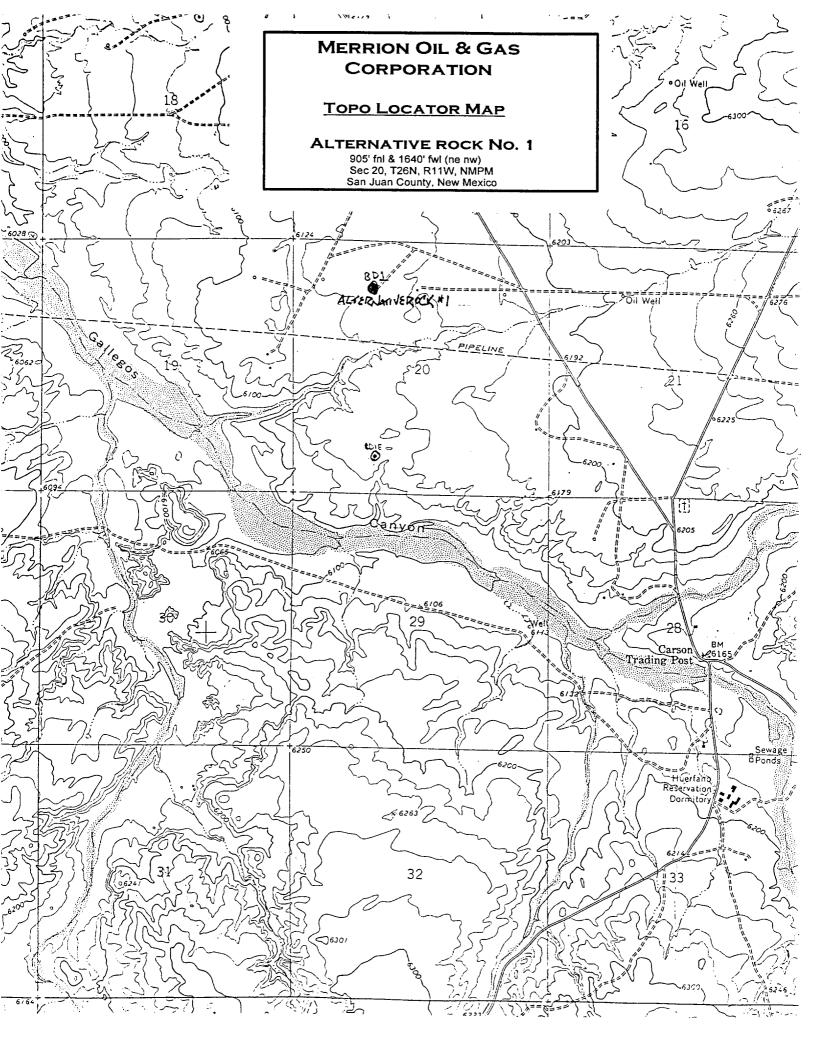
Revised February 21, 1994 Instructions on back

# OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

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Fee Lease - 3 Copies

| 17) Box 2088, Sar                       | sta Fe, NM   | N7504-208                               | ¥                  |   |       |               |                   |       |  | ייני ממנ | · 1 ·  | 2 93 1:        | es C         | AME          | NDED REPORT                                    |
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| API Number                              |              |   |                    | 1 Pool Code                             |       |               | Pool Name Sand    |       |  |          |  |                |              |              |  |
| 1 Property                              | 30-045-30250 |   | Gall Property Name |   |       |               |                   |       | allegos South Furitland Pic. Cliffs CX   |          |  |                |              |              |  |
| 26702                                   |              |   | Alternate Rock     |   |       |               |                   |       |  |          |  |                | 1            |              |  |
| OGRID No.                               |              | Oper *                                  |                    |   |       |               |                   |       |  |          |  |                | * Elevation  |              |  |
| 014634                                  |              | MERRION O                               |                    |   |       |               | IL & GAS          |       |  |          |  |                | 6150         |              |  |
|   |              |   |                    |   |       |               | 10 Sur            | face  | Location   | 1        |  |                |              |              |  |
| UL or lot no.                           | Section      | Townsh                                  | ip                 | Range                                   | Lot   | lda           | Feet (com         | the   | North/Sou  | th line  | Fee  | t from the     | East/Wes     | t line       | County   |
|   | 20           | 26                                      | N                  | 11 W                                    | NE    |               | 905               |       | Nort   |          |  | 640            | West         | ;            | San Juan                                       |
|   | <del>,</del> | <del>,</del>                            |                    |   |       |               |                   |       | f Differe  |          |  |                |              |              |  |
| UL or lot no.                           | Section      | Townshi                                 | ip                 | Range                                   | Lot   | Ida           | Feet from         | the   | North/Sou  | ith line | Fee  | et from the    | East/Wes     | t line       | County   |
| 12 Dedicated Acr                        | '' Joint     | or lulill                               | 14 C               | nsolidatio                              | n Cod | د ۱٬۰ ٥       | rder No.          |       | <u> </u>   | ·        | <u> </u>   |                | l            | <del></del>  | .1   |
| 160                                     |              |   |                    |   |       |               |                   |       |  |          |  |                |              |              |  |
| NO ALLO                                 | VABLE        |   |                    |   |       |               |                   |       |  |          |  | ERESTS H       |              | EN CO        | NSOLIDATED                                     |
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| ×                                       | ↑ ×          |   |                    |   |       |               |                   |       | 17 OPERATOR CERTIFICATION  I hereby certify that the information contained herein is |          |  |                |              |              |  |
| ××××××××××××××××××××××××××××××××××××××× |              |   | 905'               |   |       |               |                   |       |  |          | true and complete to the best of my knowledge and belief |                |              |              |  |
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| X 10401                                 |              | ├ <b>-</b>                              |                    |   | X     |               |                   |       |  |          |  | LA VO          |              |              |  |
| <u> </u>                                |              |   |                    |   | XI.   |               | 3 <sup>55</sup> 4 | 4     | (-2 <u>)</u>   |          |  | Alex           | ~~           | 1 4          |  |
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|   |              |   |                    |   |       | <b>Gr.</b> 00 |                   |       |  |          | Title  |                | od Manager   |              |  |
|   |              |   |                    |   | X     |               |                   |       |  |          |  |                | 000          |              |  |
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| SXXXXXX                                 | <u> </u>     |   | AAZ                | <u> </u>                                |       |               |                   |       |  |          |  | 18SURV         | /EYOR        | CER'         | TIFICATION                                     |
|   |              |   |                    |   |       |               |                   |       |  |          |  |                | • •          |              | on shown on this plat                          |
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|   |              |   |                    |   |       |               |                   |       |  |          |  | correct to the | best Sing    | 18-95        | 810  |
|   |              |   |                    |   |       |               |                   |       |  |          |  | Date of Sury   | (** \st      | MERIC        | <u> </u>                                       |
|   |              |   |                    | -                                       |       |               |                   |       |  |          | Signature as   | 13 0 H         | 68°474       | survey SE    |  |
|   |              |   |                    |   |       |               |                   |       |  |          |  | 9              |              | 2 He         | uto  |
|   |              |   |                    |   |       | •             |                   |       |  |          |  |                | FIERE        | THE I        | SWELL  |
|   |              |   |                    |   |       |               |                   |       |  |          |  |                |              | 844          |  |
|   |              |   |                    |   |       |               |                   |       |  |          |  | Certificate N  |              | 744          |  |



## MERRION OIL & GAS CORPORATION

## DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

#### Alternative Rock No. 1

905' fnl & 1640' fwl (ne nw) Section 20, T26N, R11W, NMPM San Juan County, New Mexico

#### 1. ESTIMATED FORMATION TOPS:

| DEPTH KB | EST PSI   |
|----------|---|
| Surface  |   |
| 296'     |   |
| 443'     |   |
| 929'     |   |
| 1333'    | 347 psi   |
| 1362'    | 354 psi   |
| ~1512'   | _   |
|          | Surface<br>296'<br>443'<br>929'<br>1333'<br>1362' |

## 2. WELL CONTROL SYSTEM

- A. Proposed blowout preventer system (schematic drawings attached) is a Bag type preventer, and will be used in 1000 psi service. Merrion requests a waiver from O&G Order No. 2 requirements for 2M service because the well is shallow and low pressure, with the surface pressure not expected to exceed ~393 psig at the wellhead. Such moderate conditions lower any chance of uncontrolled gas flow.
- B. Minimum required working pressure rating for BOP stack is 1000 psi. Maximum anticipated bottomhole pressure = 393 psi. Well Control Anticipated Surface Pressure (ASP) = 393 psi (0.22 \* 1512') = 60 psi, assuming a partially gas cut column per BLM guidelines.
- C. BOP pressure testing will be conducted at time of installation and prior to drillout of surface casing shoe. Bag type preventer will be tested to 250 psi. The BOPs will be activated on each trip for a bit and recorded in the driller's log. A choke manifold will be installed (Refer to schematic drawing). Working pressure for choke manifold is minimum 1000 psi. In addition, a kill line from the mud pump will be installed.
- D. Stabbing valves for drill pipe and drill collars will be available. Merrion requests an exception to the requirement for an upper kelly cock valve to be utilized during drilling; pull-down type rig to be used will not allow use of kelly cock valve.
- E. Anticipated formation pressures average 0.26 psi/ft gradient and formation fracture pressures are anticipated to exceed the maximum mud weight of 9.1 ppg.