

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

OCD-ARTESIA

982

ATS-07-524

JUL 26 2007 APPROVED
OMB No. 1004-0137
Expires March 31, 2007

OCD-ARTESIA
5. Lease Serial No.
LC-069157

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No. 35709
Dublin Federal 23 #3

9. API Well No.
30-015- 35729

10. Field and Pool, or Exploratory
Herradura Bend Detachment, E. 37

11. Sec., T. R. M. or Blk. and Survey or Area

S23, T22S, R28E

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
Marshall & Winston, Inc.

3a. Address PO Box 50880, Midland, TX 79710-0880

3b. Phone No. (include area code)
432-684-6373

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 2180' FNL and 1980' FEL

At proposed prod. zone CARLSBAD CONTROLLED WATER BASIN

14. Distance in miles and direction from nearest town or post office*
10 from SE Carlsbad

12. County or Parish
Eddy

13. State
NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 660'

16. No. of acres in lease
320

17. Spacing Unit dedicated to this well
40

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 1138'

19. Proposed Depth
5,000'

20. BLM/BIA Bond No. on file
NM0877

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3184' GL

22. Approximate date work will start*
08/01/2007

23. Estimated duration
20 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 an 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 Tom M Brandt

Name (Printed/Typed)
Tom Brandt

Date
06/19/07

Title
Vice President

Approved by (Signature) /s/ Don Peterson

Name (Printed/Typed)
/s/ Don Peterson

Date
JUL 24 2007

Title
FIELD MANAGER

Office
CARLSBAD 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 conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO 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 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)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

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 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 30670	Pool Name Herradura Bend; Detuwan, East
Property Code 35709	Property Name DUBLIN FEDERAL 23	Well Number 3
OGRID No. 14187	Operator Name MARSHALL & WINSTON, INC.	Elevation 3184' GL

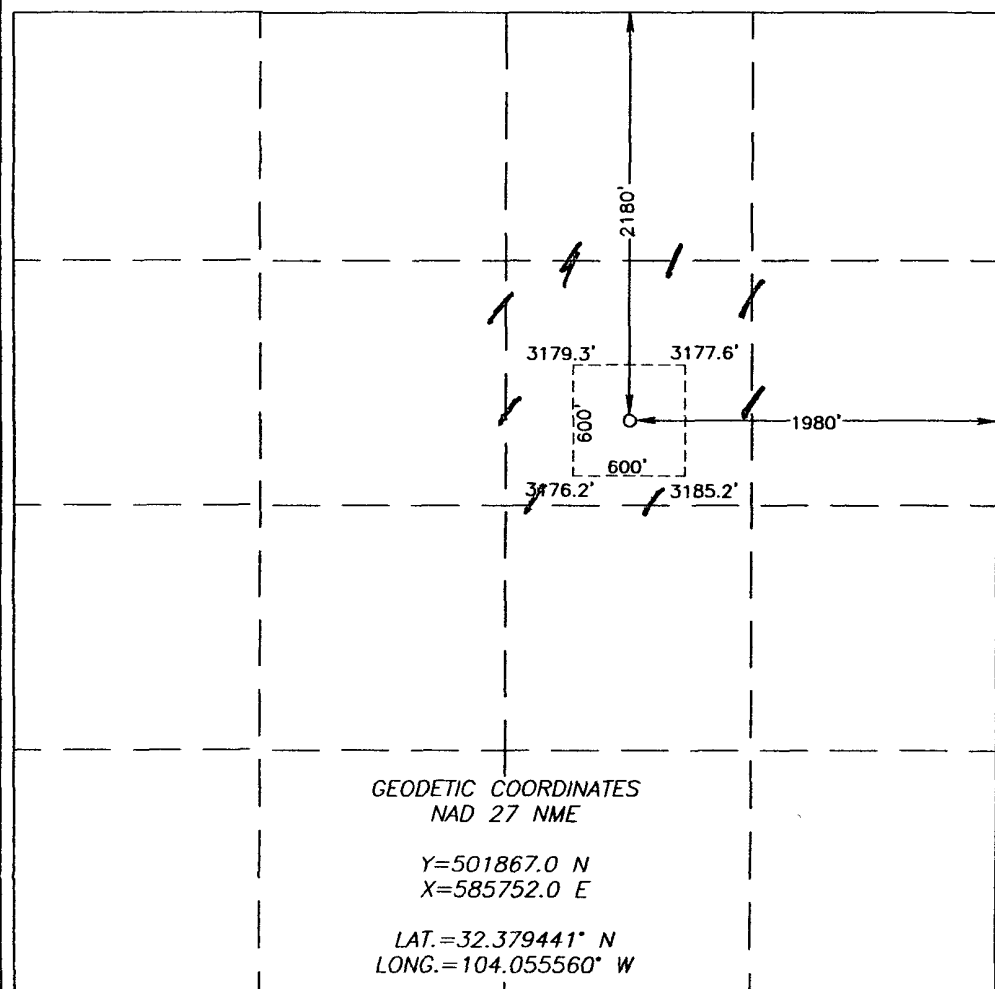
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	23	22-S	28-E		2180	NORTH	1980	EAST	EDDY

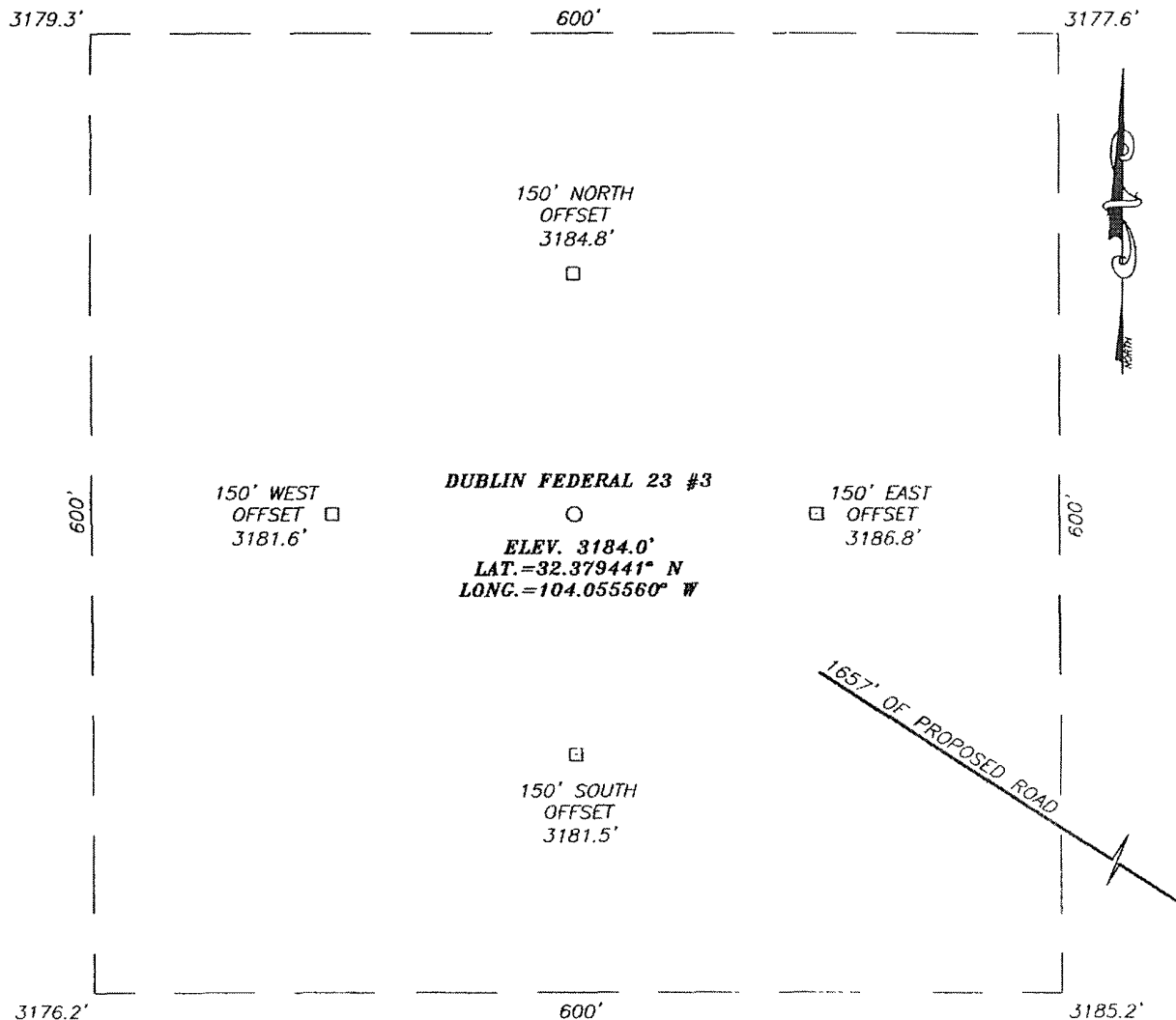
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

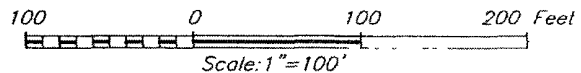
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Tom M Brandt 5/19/07 Signature Date</p> <p>Tom M. Brandt, V.P. Ops. Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>MARCH 15, 2007</p> <p>Date Surveyed JR</p> <p>Signature & Seal of Professional Surveyor Ronald J. Eidson 3/23/07 07.11.0278</p> <p>Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239</p>
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=501867.0 N X=585752.0 E</p> <p>LAT.=32.379441° N LONG.=104.055560° W</p>	

SECTION 23, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

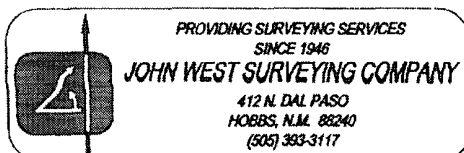
FROM THE INTERSECTION OF ST. HWY #31 AND CO. RD. #606 (U.S. REFINERY RD.) GO NORTH ON CO. RD. #606 APPROX. 3.6 MILES. TURN RIGHT AND GO NORTHEAST APPROX. 0.5 MILES, VEER LEFT AND CONTINUE NORTHEAST APPROX. 0.8 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.2 MILES, VEER RIGHT AND GO NORTHEAST APPROX. 0.2 MILES, VEER LEFT AND GO NORTH APPROX. 0.4 MILES TO THE EXISTING DUBLIN FEDERAL 23 #1 WELL. FOLLOW PROPOSED ROAD SURVEY APPROX. 3364 FEET TO THIS LOCATION.



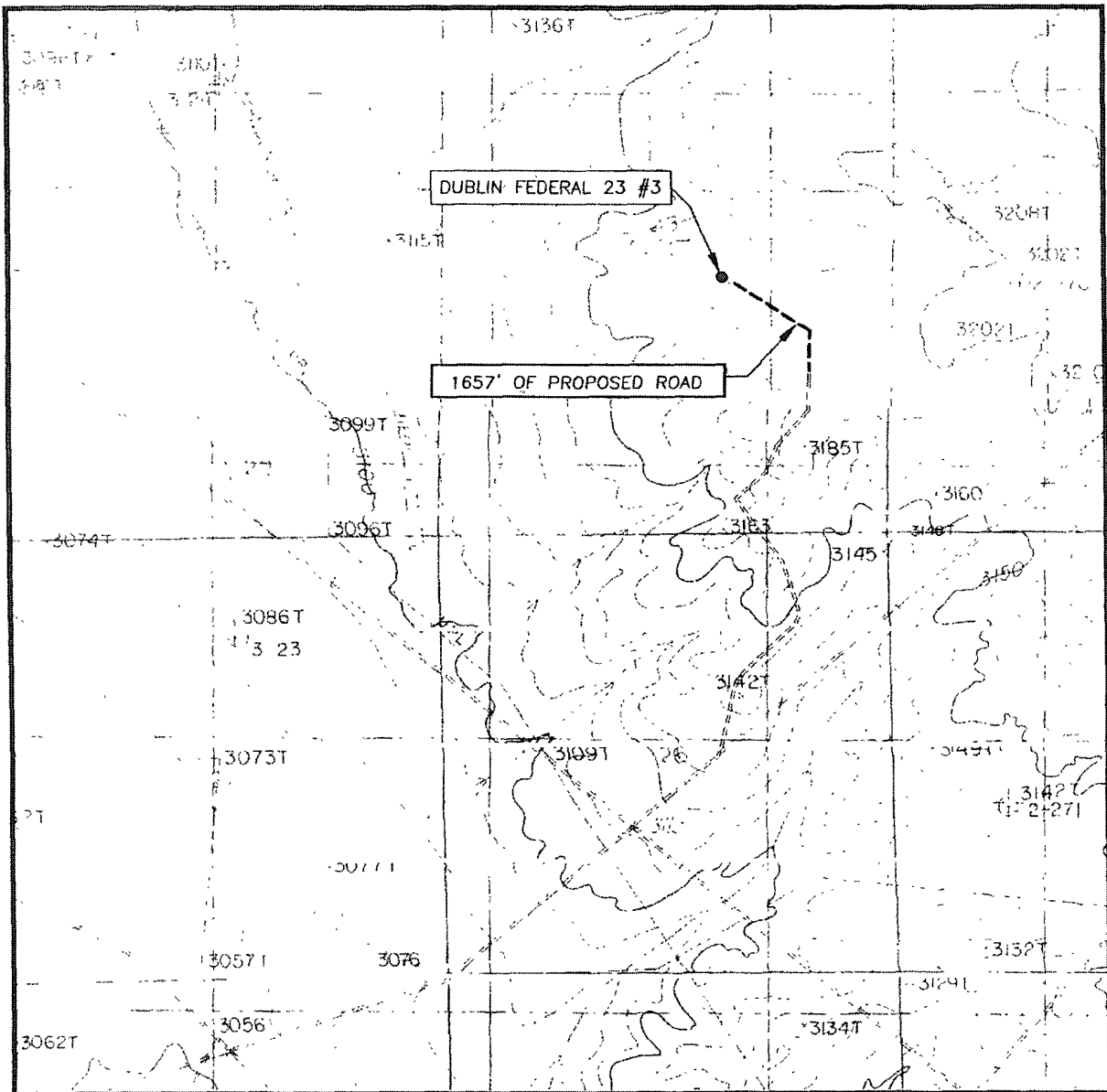
MARSHALL & WINSTON, INC.

DUBLIN FEDERAL 23 #3 WELL
 LOCATED 2180 FEET FROM THE NORTH LINE
 AND 1980 FEET FROM THE EAST LINE OF SECTION 23,
 TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 03/15/07	Sheet 1 of 1 Sheets
W.O. Number: 07.11.0278	Dr By: J.R.
Date: 03/21/07	Disk: CD#7
07110278	Scale: 1"=100'



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LOVING, N.M. - 10'
INDIAN FLAT, N.M. - 10'

SEC. 23 TWP. 22-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

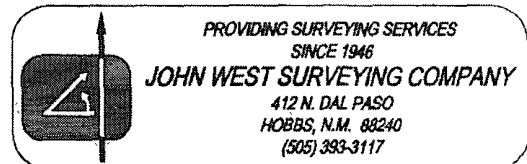
DESCRIPTION 2180' FNL & 1980' FEL

ELEVATION 3184'

OPERATOR MARSHALL & WINSTON, INC.

LEASE DUBLIN FEDERAL 23

U.S.G.S. TOPOGRAPHIC MAP
INDIAN FLATS, N.M.



MARSHALL & WINSTON, INC.

DRILLING PLAN

DUBLIN FEDERAL 23 No. 3
LEASE No.: LC-069157

EDDY COUNTY, NEW MEXICO: U/L G S23 T22S R28E 2180' FNL, 1980' FEL

1. SURFACE:

GL 3,184': Tan/red & tan/brown/gray, loamy silty sands mixed with caliche and lag gravels.

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS: (Est. KB: 3196')

Formation	Est. Top from KB	Est. Subsea Top	BERINGS
T/Salt	470'	+2702'	Barren
B/Salt	2760'	+412'	Barren
T/Lamar Lm.	2780'	+392'	Barren
T/Bell Canyon	2804'	+368'	Oil/Gas
T/Cherry Canyon	3670'	- 498'	Oil/Gas

Freshwater zones will be protected by setting surface casing at +/- 450' and circulating cement to surface.

Hydrocarbon zones will be protected by setting production casing at approximately 5000' and circulating cement to surface.

3. CASING PROGRAM:

Proposed Drilling Depth: 5,000' TVD

Hole Size	Type	Intervals	Purpose	Condition
24"	20"	0-40'	Conductor	Cont. Discretion
12 1/4"	8 5/8", 32#, J-55, STC	0-450'	Surface	New
7 7/8"	5 1/2", 15.5#, J-55, STC	0-5,000'	Production	New
		Collapse	Burst	Tension
	8 5/8"	2530 psi	3930 psi	312,000 lbs.
	5 1/2"	4040 psi	4810 psi	208,000 lbs.

4. MUD PROGRAM:

Depth	Mud Type	Weight	FV	PV	YP	FL	Ph
0-450'	FW	8.5-9.2ppg	45-35	NC	NC	NC	9.5
450'-3500'	BW	10.0-10.2	28-30	NC	NC	NC	9.5
3500'-5000'	BW/Polymer	10.0-10.5	32-55	12-20	12-22	10-15	9.5-10.0

5. TESTING, LOGGING AND CORING PROGRAM:

TESTING:

Drill stem tests may be performed on significant shows in zones of interest, but none are anticipated.

LOGGING:

Run No. 1: GR – DLL - MGRD TD to surface casing.

Run No. 2: GR – DSNSD TD to base of salt.

CORING:

No cores are anticipated.

6. CEMENT PROGRAM:

Interval: Surface Casing

0-450' cement circulated to surface

Cement Volume: 300sx (390 ft³) 100% excess

Slurry Weight: 14.8 ppg

Slurry Yield: (ft³/sx) 1.3

Amount of Water: 6.36 gps

Type of Cement: Class "C" + 2% bwoc CaCl

Interval: Production Casing Program (Two stage DV tool @ 3,000')

1st Stage: 5,000'-3,000'

Cement Volume: 400 sx (520 ft³) 50% excess

Slurry Weight: 14.8 ppg

Slurry Yield: (ft³/sx) 1.3

Amount of Water: 6.36 gps

Type of Cement: Class "C"

2nd Stage: 3,000'-0' circulate cement to surface

Cement Volume: 780 ft³ 50% excess

Lead Slurry: 600 sx (35:65) Poz (Fly Ash) Class "C" Cement
+ 1% bwoc CaCl + 0.25 lbs./sx Cello Flake

Tail Slurry: 100 sx Class "C" Cement

	Lead Slurry	Tail Slurry
Slurry Weight (ppg)	12.50	14.8
Slurry Yield (ft ³ /sx)	1.96	1.33
Amount of Water (gps)	10.22	6.33

*Volumes may be altered after actual borehole volumes are circulated from open hole caliper log.

Estimated BHP: Normal pressures are anticipated with max BHP in Cherry Canyon at 1860 psi (equivalent mud weight 8.4 ppg)

7. PRESSURE CONTROL EQUIPMENT:

A BOP equivalent to attached BOP diagram will be nipped up on the surface casinghead and the BOP stack, choke, kill lines, Kelly cocks, inside BOP etc. will be hydrostatically tested to 70% of internal yield pressure of casing or 2500 psig whichever is less with rig pump. Due to depth of well and normal anticipated pressures, BOP equipment will be tested and utilized as 2000# equipment.

← See
COA

A function test to insure that the preventers are operating correctly will be performed on each trip.

8. HYDROGEN SULFIDE GAS: Not anticipated

9. START DATE/COMPLETION DATE: 8/1/07 / completion approx. 20 days

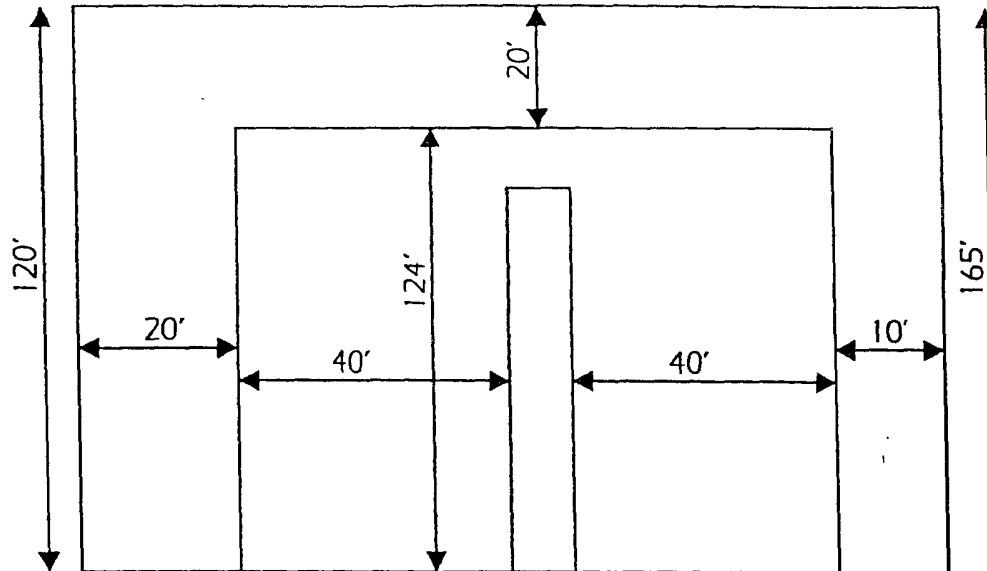
10. LOCATION ACCESS DIRECTIONS: See plat.

RIG

First wall on reserve @
back of cellar on pump side

*Pite East Southeast
V-Door South Southeast*

6' x 6'
Cellar



150'

170'

45'

150'

Rathole/Mousehole

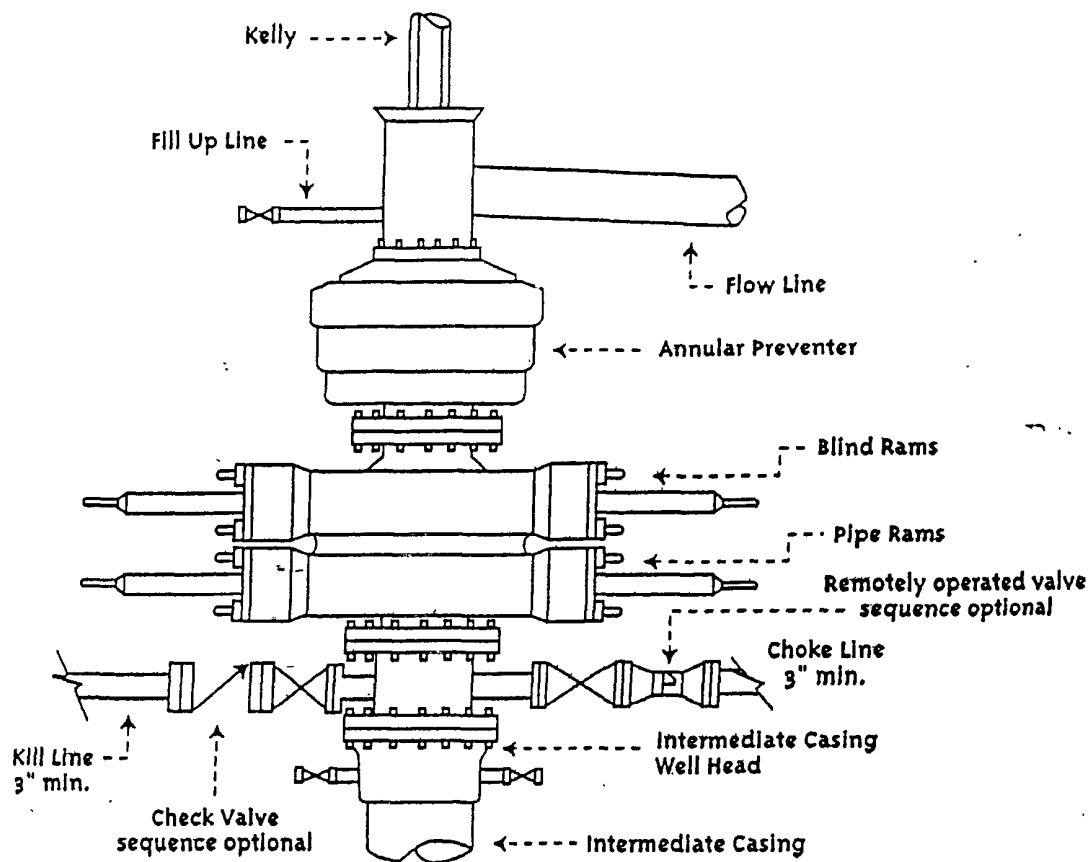
S 5' 5" → M 20' @ 3 deg

8' 2" →
7' 8" ↓

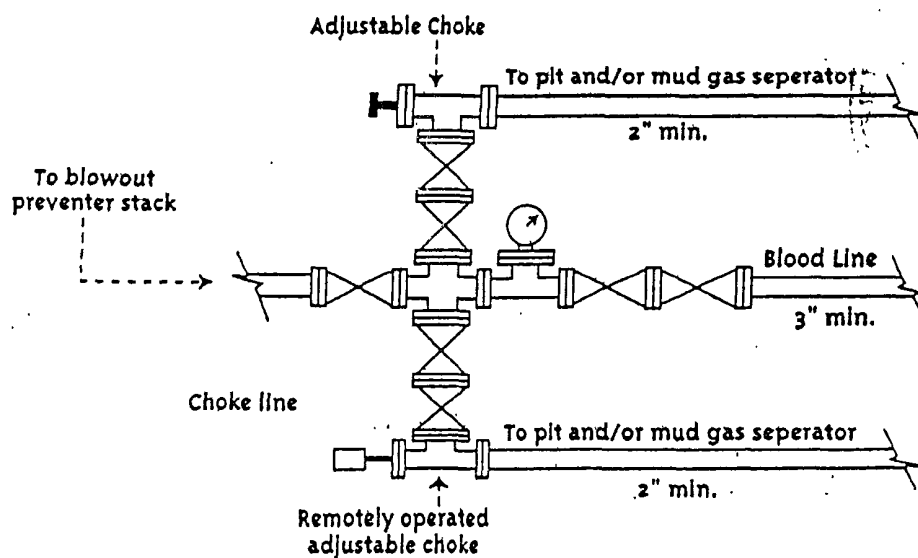
R 30' @ 6 deg



Typical 5,000 psi Pressure System Schematic Annular Double Ram Preventer Stack



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



SURFACE USE PLAN

Dublin Federal 23 No. 3

LOCATION: U/L G Sec. 23, T22S, R28E 2180 FNL and 1980 FEL
Lease No. : LC 069157

EXISTING ROADS: (see Vicinity Map)

Directions to the location follow: From intersection of SH 31 and CR 606 (US Refinery Road) travel northwest on CR 606 approximately 3.5 miles following plat from this point to the northeast.

ACCESS ROAD: A new access road of approximately 1,657' will be built to the location. This access road has been archeologically surveyed and cleared for construction. (see Arch report)

EXISTING WELLS: The Dublin Federal 23 No. 1 also exists in Section 23.

LOCATION OF EXISTING OR PROPOSED FACILITIES: Flow lines will run parallel to the existing roads where the archeological surveys have been completed and cleared for development. This activity shall exist within the lease boundary of the Dublin Federal 23 No. 1 in Section 23.

SOURCE OF CONSTRUCTION MATERIALS: Construction material (caliche) required for the access road and well site pad will be obtained on location, if available, or from an approved pit. No surface materials shall be disturbed except those necessary for actual grading and construction of the drill site and access road.

METHODS FOR HANDLING WASTE DISPOSAL: All drilling fluids and cuttings shall be disposed of pursuant to the NMOCD Regulatory Performa. Drilling pits shall be lined as per the C-144. All other waste generated by drilling, completion and testing of this well will be removed from the location within 30 days of completion activities. A Porta-John will be provided fro the crews which shall be properly maintained at all times.

ANCILLARY FACILITIES: Drilling, completion and/or testing of this well will require temporary test facilities. Any oil produced during completion will be stored in tanks until sold.

WELLSITE LAYOUT: Refer to the "Drilling Pad Layout" attached for details.

SURFACE RESTORATION: Surface reclamation shall be in accordance with BLM requirements and infield decisions at the time.

OTHER INFORMATION: Surface ownership and drill-site access is under the jurisdiction of the BLM, 620 E. Greene St., Carlsbad, NM 88220 (505-887-6544) or Barry Hunt 505-361-4078 (cell). The Drilling Contractor has not yet been determined.

OPERATOR'S REPRESENTATIVE

Dublin Federal 23 No. 3 APD

The field representative responsible for assuring compliance with the approved surface use and drilling operations plan is as follows:

Mr. Tom Brandt
Marshall & Winston, Inc.
PO Box 50880
Midland, TX 79710-0880

432-684-6373 (office)
432-553-9747 (cell)

CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Marshall & Winston, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of 18 USC 1001 for the filing of a false statement.



Tom Brandt, Vice President
Marshall & Winston, Inc.

Date: _____

6/19/07

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Marshall and Winston, Inc
Well Name & No. 3-Dublin Federal 23
Location: 2180' FNL, 1980' FEL, Sec. 23, T-22-S, R-28-E, Eddy County, NM
Lease: LC-069157

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I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 2 hours in advance for a representative to witness:
1. Spudding well
 2. Setting and/or Cementing of all casing strings
 3. BOPE tests
- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822.
- B. No Hydrogen Sulfide has been reported in the area.
- C. 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.

II. CASING:

- A. The 8-5/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 450 feet and cemented to the surface.
1. If cement does not circulate to the surface, the appropriate BLM 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.
 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours, 24 hours in the potash area or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 4. **If cement falls back, remedial action will be done prior to drilling out that string.**

**Possible lost circulation in the Delaware and Bone Spring formations.
Medium cave/karst potential.**

- B. The minimum required fill of cement behind the 5-1/2 inch production casing is **for cement to come to surface. Both stages to circulate.** If cement does not circulate see A.1 thru 4.
- C. 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.

III. PRESSURE CONTROL:

- A.** All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- B.** The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - 1. The tests shall be done by an independent service company.**
 - 2.** The results of the test shall be reported to the appropriate BLM office.
 - 3.** 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 appropriate BLM office.
 - 4.** 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.

IV. Drill Stem Test

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

Engineer on call phone (after hours): Carlsbad - 505-706-2779

WWI 072007