Form 3160
(September

OCD-ARTESIA EA-582 ATS-07-328

Month - Year
APR 16 2007
OCD - ARTESIA, NM

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.	NM 100524
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No.	Manco Federal #1 36459
9. API Well No.	30-015- 35553
10. Field and Pool, or Exploratory	Undes Little Box Canyon (Morrow), Box Canyon (Upper Penn)
11. Sec., T., R., M., or Blk. and Survey or Area	Sec. 26, T21S-R21E
12. County or Parish	Eddy County
13. State	NM

1a. Type of Work: ☑ DRILL ☐ REENTER

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

2. Name of Operator: Nadel and Gussman Permian, L.L.C. 155615

3a. Address: 601 N. Marienfeld, TX 79701

3b. Phone No. *(include area code)*: (432) 682-4429

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

At surface UL D Sec. 26 T21S R21E 660' FNL & 1,240' FWL

At proposed prod. zone UL D Sec. 26 T21S R21E 660' FNL & 1,240' FWL

14. Distance in miles and direction from nearest town or post office*: 32 miles West of Carlsbad, NM — Roswell Controlled Water Basin

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
660' FNL	600 acres	320 (N2)
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**
n/a	8,800'	NM 2812
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
GL4,640'	April 1, 2007	30 Days

24. Attachments

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 shall 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 authorized officer.

25. Signature	Name *(Printed Typed)*	Date
Terry West	Terry West	2/23/07
Title: Engineer		
Approved by *(Signature)*: /s/ Don Peterson	Name *(Printed Typed)*: /s/ Don Peterson	Date: APR 11 22 2007
Title: ACTING 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 1 YEAR

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 reverse)*

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

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

Nadel and Gussman Permian, L.L.C.
601 N. Marienfeld, Suite 508
Midland, Texas 79701

February 23, 2007

UNITED STATES DEPARTMENT OF INTERIOR
Bureau of Land Management
Carlsbad Field Office
620 E. Greene Street
Carlsbad, NM 88220

RE: STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease Name: Manco Federal No. 1

Lease Number: Federal Lease NM 100524

Legal Description of Land: S26, T21S R21E, (SHL) 660' FNL and 1240' FWL, Eddy County, NM

Lease Covers: All of Section 26, except the NE/4 of the SW/4 of T21S R21E in Eddy County, NM

Formations: Morrow, Upper Pennsylvanian

Bond Coverage: Blanket Statewide

BLM Bond File Number: NM2812

Land ownership: Federal

Terry West
Senior Drilling Engineer

EXHIBIT 1

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	83240	Little Box Canyon (MORROW), Box Canyon (UPPER-PENNSYLVANIAN)

Property Code	Property Name	Well Number
	MANCO FEDERAL	1

OGRID No.	Operator Name	Elevation
	NADEL AND GUSSMAN PERMIAN	4640'

Surface Location

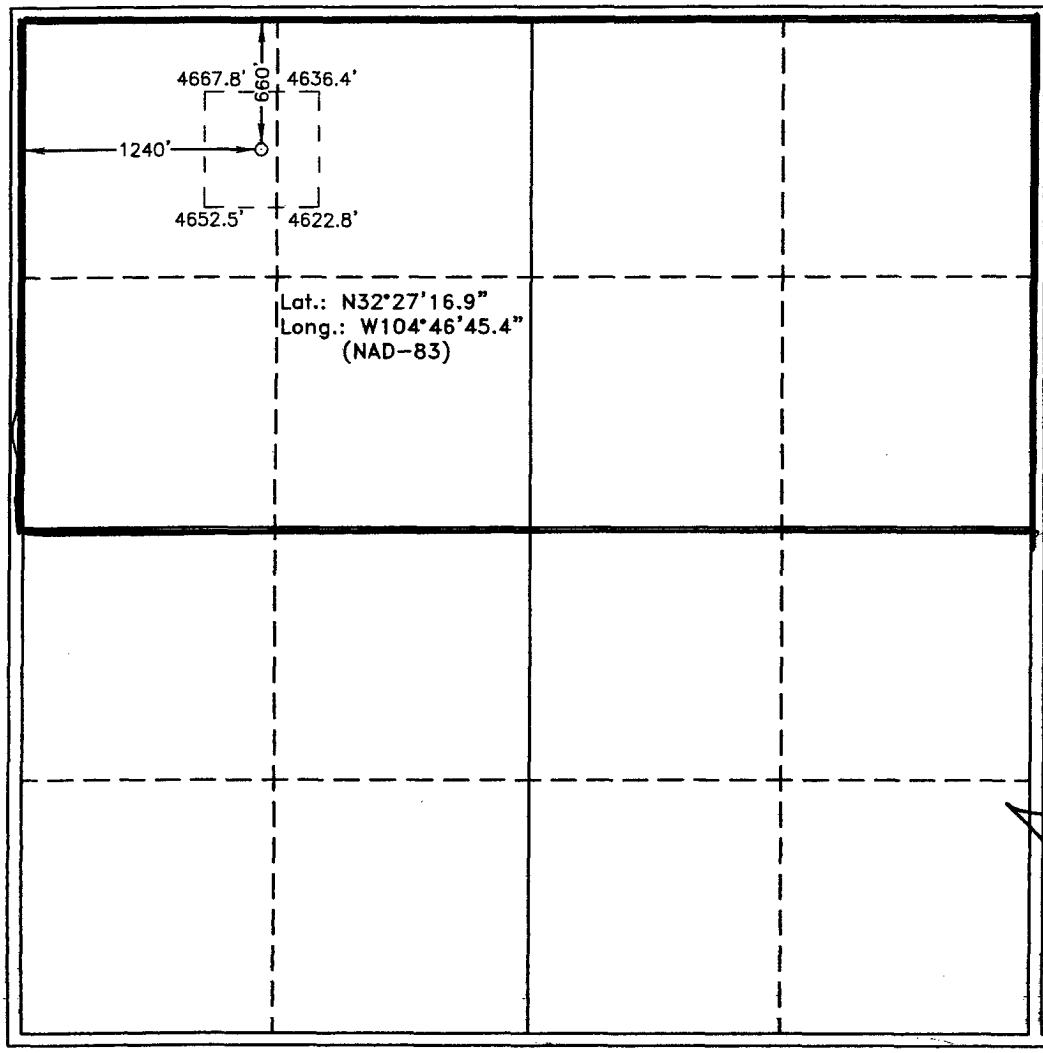
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	26	21 S	21 E		660	NORTH	1240	WEST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
320			

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 proposed bottom hole 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.

Terry West 2/22/07
Signature Date

TERRY WEST
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.

SEPTEMBER 13, 2006
Date Surveyed

Signature & Seal of Professional Surveyor

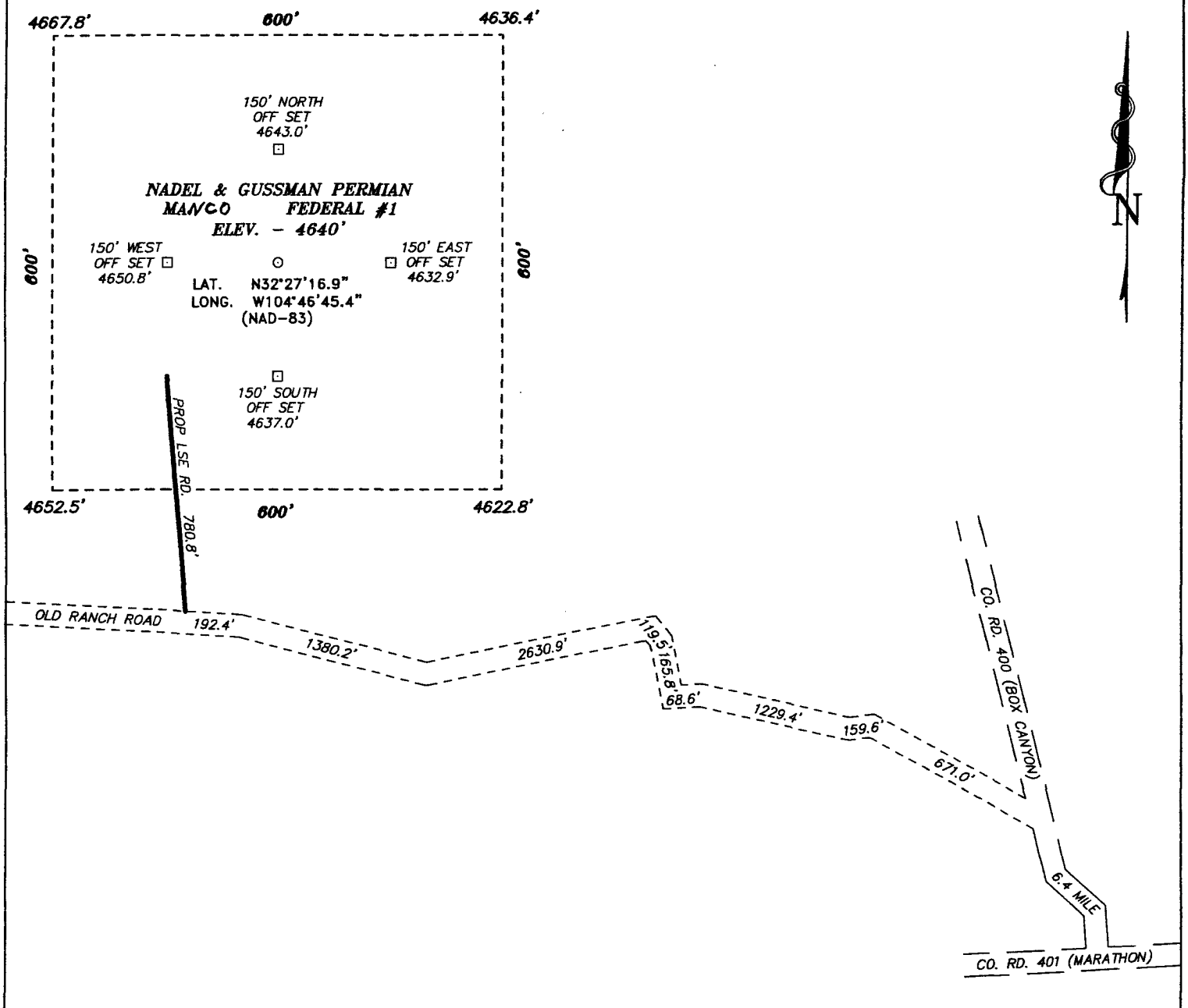
GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR
BASIN SURVEYS

W.O. No. 7062

Certificate No. Gary L. Jones 7977

EXHIBIT 2

SECTION 26, TOWNSHIP 21 SOUTH, RANGE 21 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RD. 401 (MARATHON) AND CO. RD. 400 (BOX CANYON) PROCEED NORTHWEST ON CO. RD. 400 FOR 6.4 MILE TO RANCH ROAD AND PROPOSED LEASE ROAD.

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

W.O. Number: 7062	Drawn By: J. M. SMALL	
Date: 09-14-2006	Disk: JMS 7062W	

NADEL AND GUSSMAN PERMIAN

REF: MANCO FEDERAL #1/ Well Pad Topo

MANCO FEDERAL NO. 1 LOCATED 660' FROM THE NORTH LINE AND 1240' FROM THE WEST LINE OF SECTION 26, TOWNSHIP 21 SOUTH, RANGE 21 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 09-13-2006	Sheet 1 of 1 Sheets

13 POINT DRILLING PLAN
MANCO FEDERAL NO. 1

LOCATION: UL D S26 T21S R21E, 660' FNL & 1240' FWL, Eddy County, New Mexico.

ELEVATION: GL 4,640'

GEOLOGICAL NAME OF SURFACE FORMATION: QUATERNARY ROCK

TYPE OF DRILLING TOOLS TO BE UTILIZED: Rotary tools

PROPOSED DRILLING DEPTH: 8800'

TOPS OF IMPORTANT GEOLOGICAL MARKERS: TVD

Tubb	2,750'	Cisco	5,340'	Atoka	7,400'
Abo	3,350'	Canyon	6,420'	Morrow	7,780'
Wolfcamp	3,450'	Strawn	6,920'	Chester	8,290'

ESTIMATED DEPTH OF ANTICIPATED WATER, OIL OR GAS:

Gas ..... Wolfcamp ..... 3,450'

Oil, Gas & Water ..... Cisco ..... 5,340'

Oil, Gas & Water ..... Morrow ..... 7,780'

CASING PROGRAM:

- 20" 94# H-40 @ 80' Redi-Mix
- 13 3/8" 48# H-40 @ 400' 400 sx, circulated to surface, if string is ran
- 9 5/8" 36# J-55 @ 1,550' 425 sx circulated to surface
- 5 1/2" 17# P-110 @ 8,800' TOC to be determined

see COA

The 20" conductor will be cemented to the surface. The 13 3/8" casing string will only be ran if severe lost circulation or hole problems are encountered. If it is ran, it will be cemented to surface. The 9 5/8" casing string will be ran and cemented to surface. The TOC on the 5 1/2" production casing will be determined after running open hole logs.

SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT: (EXHIBIT ~~#3~~ #5)

3000

The rig will be equipped with a 13 5/8" 5M BOP Shaffer with pipe and blind rams, kill line, ~~10,000~~ psi choke manifold, Cameron hydraulic controls, and accumulator with remote controls. When setting up, the unit will test for casing, BOP and choke to 1,500 psi with 3rd party tester, operate BOP daily or as directed by the company representative. A BLM representative will witness both surface and intermediate zones.

MUD PROGRAM:

Spud and drill 17 ½" surface hole with **fresh water (8.4 to 8.7 ppg) or air** to a depth of approx 400'. Control lost circulation with paper and LCM pills.

Drill 12 ¼" hole from 400' to 1550' with **fresh water (8.4 to 8.7 ppg) or air/mist**. Control lost circulation with paper and LCM pills.

Drill 8 ¾" production hole from 1550' to 6300' with **fresh water (8.4 to 8.7 ppg) or cut brine (8.4 to 9.0 ppg)**. Control lost circulation with paper and LCM pills. From 6300' to TD (8.7 to 9.0 ppg), control filtrate with starch and water loss additives. Clean hole with pre-hydrated freshwater gel slurry sweeps, as necessary.

TESTING, LOGGING & CORING PROGRAM:

a. Testing: No DST's are expected.
b. Coring: no coring is planned.
c. Logging: The standard suite of open hole logs will be run, Dual Lateral/ ML and GR/Density/Neutron combination.
d. Depending on the sand quality, a FMI and/or formation tester may be run.
e. Open hole logs will not be run through the surface or intermediate hole sections.

POTENTIAL HAZARDS:

No significant hazards are expected. Lost circulation may occur, no H_2S expected, but the operator will utilize a 3rd party H_2S monitoring package from 2,000' to TD.

ANTICIPATED STARTING DATE & DURATION:

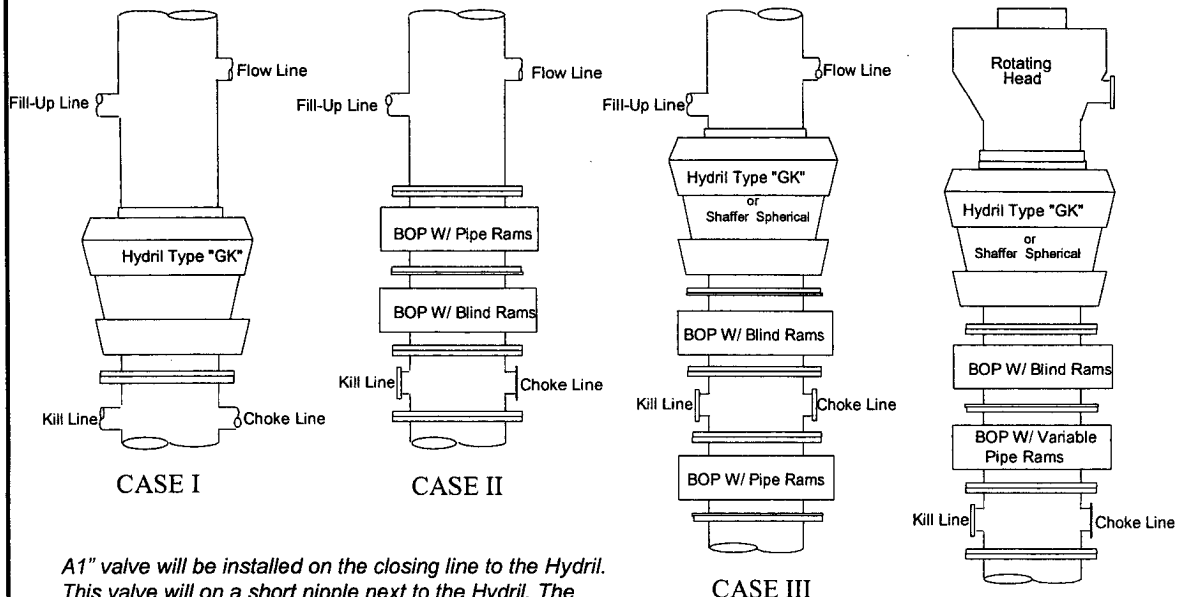
Nadel & Gussman Permian, LLC anticipates drilling operations to begin around April 1, 2007and complete in approximately 30 days. An additional 15 days will be needed for completion activities.

Terry West 2/23/07

Terry West, Senior Drilling Engineer Date
Nadel & Gussman Permian, LLC

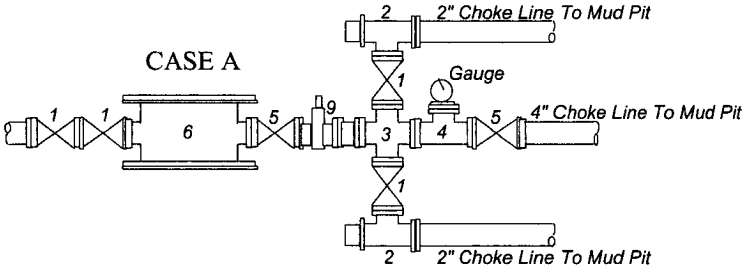
EXHIBIT 5

Nadel and Gussman Permian _____
MINIMUM BLOWOUT PREVENTER REQUIREMENTS



A1" valve will be installed on the closing line to the Hydril. This valve will on a short nipple next to the Hydril. The Hydril closing line must be equipped with a 1" - 3000 psi WP plug valve on the nipple into the Hydril.

CASE A

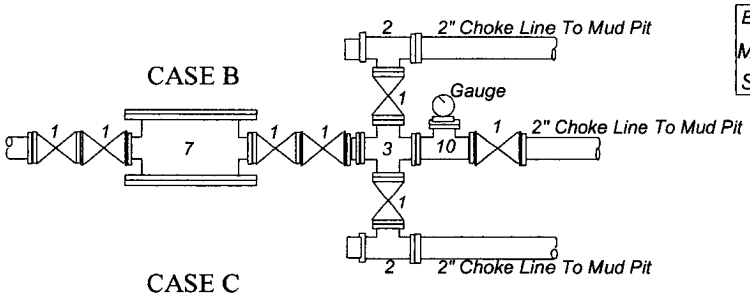


BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13 3/8"	IV	5M	A

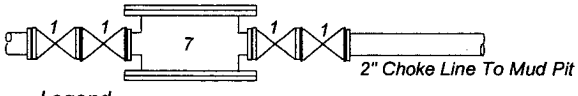
*Rotating head required

Bradenhead :
Mfr: _____
Size: _____ Type: _____

CASE B



CASE C



Legend

1. 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
2. 2" flanged adjustable chokes, min. 1" full opening & equiped with hard trim.
3. 4" x 2" flanged steel cross.
4. 4" flanged steel tee.
5. 4" flanged all steel valve (Type as in no. 1).
6. Drilling Spool with 2" x 4" flanged outlet.
7. Drilling Spool with 2" x 2" flanged outlet.
8. 2" x 2" flanged steel cross.
9. 4" pressure operated gate valve.
10. 2" flanged steel tee.

Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

(10-31-96) WTXBOPS.PPT

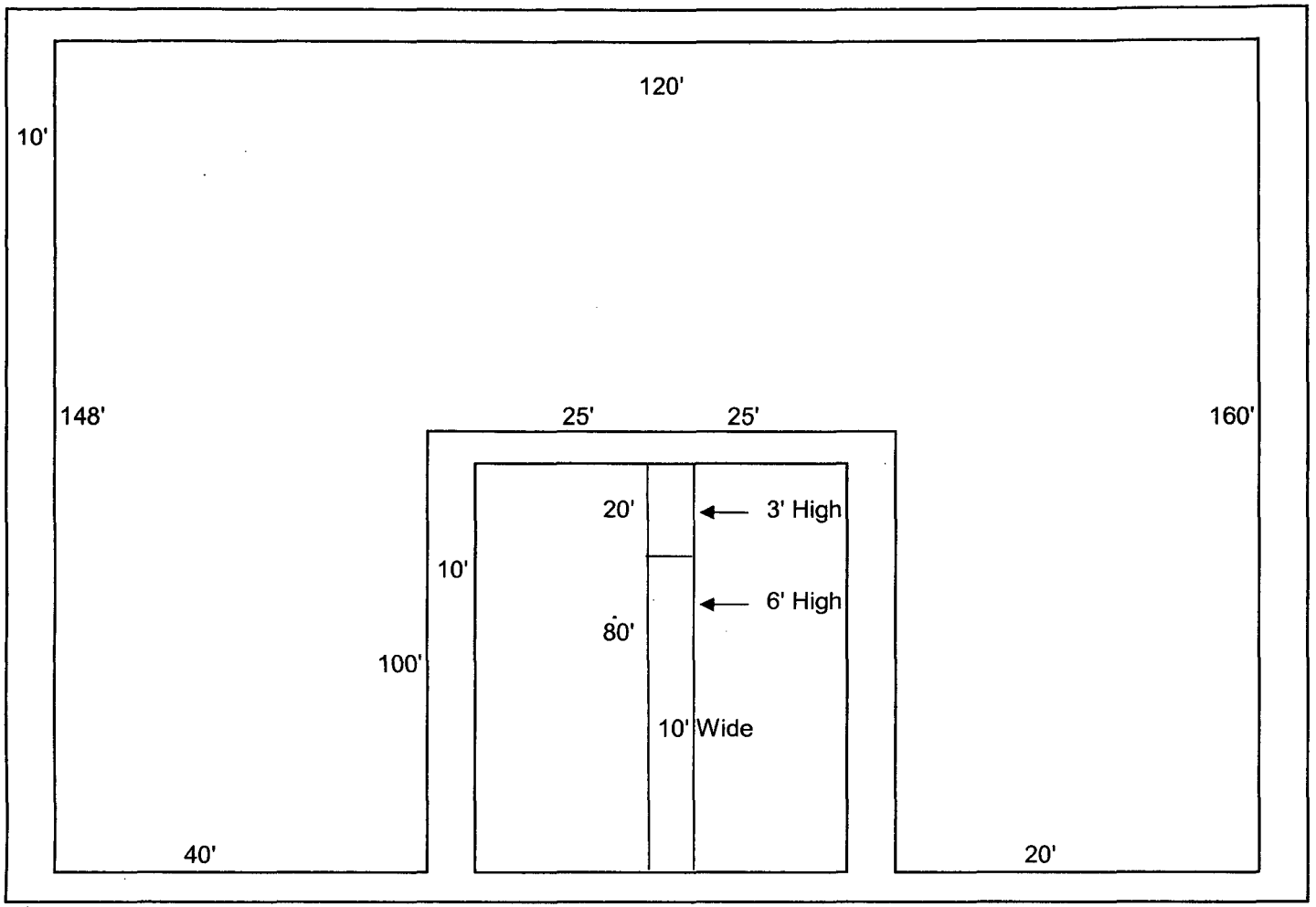
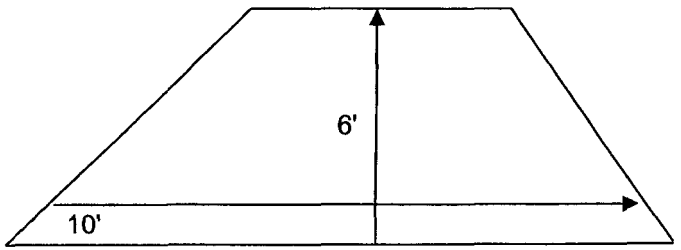


Exhibit #8
Not to Scale



Hydrogen Sulfide Drilling Operations Plan
Manco Federal No. 1

1. Company and contract personnel admitted on location should be trained by a qualified H_2S safety instructor to the recognize and handle following:
   A. Characteristics of H_2S gas
   B. Physical effects and hazards
   C. Proper use of safety equipment and life support systems
   D. Principle and operation of H_2S detectors, warning system and briefing knowledge
   E. Evacuation procedure, routes and first aid support
   F. Proper use of 30 minutes Pressure-on-Demand Air Pack

2. H_2S Detection and Alarm Systems
   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse

3. Windsock and/or Wind Streamers
   A. Windsock at mud pit area (high enough to be visible)
   B. Windsock at briefing area (high enough to be visible)
   C. Windsock at location entrance

4. Condition Flags and Signs
   A. H_2S warning signs on lease access road into location
   B. Flags displayed on sign at location entrance
      1. Green flag indicates "Normal Safe Conditions"
      2. Yellow Flag indicates "Potential Pressure and Danger"
      3. Red Flag indicates "Danger - H_2S Present in High Concentrations" *admit only emergency personnel*

5. Well Control Equipment
   A. See Exhibit #5.

6. Communication
   A. While working under masks chalkboards will be used for communication
   B. Hand signals will be used where chalk board is inappropriate
   C. Two -way radios or cell phones used to communicate off location or minimally in Drilling Foreman's trailer or living quarters

7. Drillstem Testing
   A. Exhausts watered
   B. Flare line equipped with electric Igniter/propane pilot light in case gas reaches surface
   C. If location near dwelling closed DST will be performed

8. Drilling Supervisor required to be familiar with effects of H_2S on tubular goods/mechanical equipment

9. If H_2S encountered, mud system shall be addressed to maintain control of formation. A mud gas separator will be brought into service along with H_2S scavengers, if necessary.

13 POINT SURFACE USE AND OPERATION PLAN
MANCO FEDERAL NO. 1

Existing Roads – This location is located in UL D S26 T21S R21E, 660' FNL & 1240' FWL. A small-scale vicinity map is attached (**Exhibit #3**) which shows the location of the Manco Federal No. 1 well in relation to an aerial view of surrounding townships and ranges. A larger scale (1" – 2,000') topographic map (**Exhibit #4**) further delineates the location of this well. One begins travel from the junction of County Roads 400 (Box Canyon) and 401 (Marathon) and proceeds northwest on County Road 400 for 6.4 miles to a ranch road and proposed lease road.

Planned Access Roads – No access road exists to or from the location. Therefore, the operator will build the proposed lease road on approximately 6617' of an old, two-track, ranch road plus about 780' from the old ranch road to the location. The lease is not fenced and no cattle guard or gate will be needed.

Location of Existing Wells – No known existing wells are within the lease boundary.

Location of Tank Batteries, Production Facilities & Lines –

- Gas production is anticipated from the Morrow and Upper Pennsylvanian with possible volumes of produced oil or water. A battery with a minimum of two 210 bbl steel tanks will be placed on location, one for oil and one for water.
- Pipelines will be used to transport the sale of natural gas using the permitted access road to the location as cited in "Planned Access Roads" above.
- A Stack-Pack separator or line heater and separator will be placed on location. All produced fluids from the Morrow, Atoka or Upper Pennsylvanian will be hauled off lease by road. There are no initial plans for oil pipelines, LACT units or SWD lines.
- No electrical service is anticipated on the lease at this time.

Location & Type- of Water Supply - Fresh and salt water will be trucked from Carlsbad by a third party.

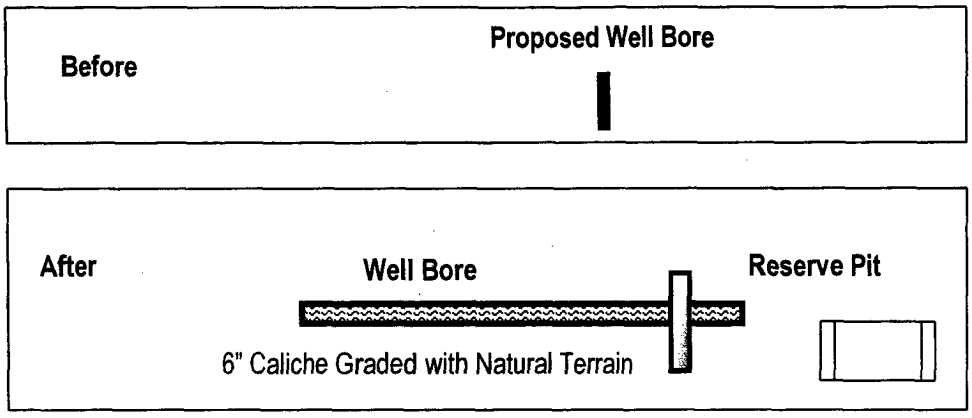
Source of Construction Material – Caliche will be sourced from the closest pit to the location once a permit is obtained from BLM.

Methods of Handling Waste Disposal - An HDPE 12 ml liner shall be placed into the reserve pit dug to handle drill cuttings and fluids. The pit will be lined in accordance with BLM specifications. After sufficient time has elapsed to allow drilling fluids to dry, all pits will be closed pursuant to the C-144 and Closure Plan filed with and approved by the New Mexico, Oil Conservation Division. Once the pit has been closed, the area shall be reseeded per BLM specifications. All trash and debris shall be removed from the location.

Ancillary Facilities – No camps or airstrips planned

- **Well Site Layout** – The well site (**see Exhibit #1 NMOCD C-102 Form**) has been staked and is also indicated on the enclosed maps (**Exhibits #1, #2, #3 & #4**). The drilling site is mainly very shallow, stony and rocky, loamy soils over limestone. The drilling pad will be graded and covered by 6" caliche and native rock. The drilling pad will blend in with the terrain since the topography is hill slope to generally flat.

Cross Section – Before and After Well Site Layout:



PLANS FOR RESTORATION OF SURFACE – COMMERCIAL WELL:

- **Reshaped Topography** – Rubbish will be hauled off upon completion of drilling operations. A subcontractor will remove all future rubbish. The overall pit area shall be reclaimed to match the surrounding topographic relief of the area within 6 months of setting production casing, unless an exception is required and an extension permitted at the time.
- **Caliche Pad** – Caliche drilling pad will remain intact until well is plugged and abandoned.
- **Road** – The road will remain intact as long as there is production on the lease.
- **Timetable** – This well is expected to produce for several years.
- **Plans for Restoration of Surface – Plugged and Abandoned Well:**
  Surface will be restored in accordance with all regulations in effect at the time of abandonment.

OTHER INFORMATION

- **Topography** – hill slope to generally flat topography, ½ mile south of Little Box Canyon, loamy soil/exposed limestone, foot hills along the base of the Guadalupe Mountains..
- **Soil Characteristics** – Classified as Limestone rock land-Ector association: rock land and very shallow, stony and rocky, loamy soils over limestone; on hills and mountains.
- **Flora** – Tar bush, sumac, creosote, stool, lechuguilla, prickly pear, agave, juniper, cane cholla, horse crippler and various grasses.
- **Fauna** – Pronghorn antelope, mule deer, coyote, badger, cotton tail rabbit, quail, roadrunner, pheasant, various snakes, small mammals, birds and reptiles.
- **Other Surface Use Activities** – Ranching
- **Surface Ownership** – Federal
- **Water Wells** – No windmills within 1000' of the location
- **Lakes, Streams, Ponds** –There are several draws **(Exhibit Nos. 3 & 4)**
- **Dwellings** – There are no inhabited structures within 1,000' of the location
- **Archeological Summary** – Boone Archeological Services, Inc. conducted an archeological survey of the lease area and no significant cultural resources were encountered. Drilling and production operations will be conducted in a manner so as not to disturb the surrounding environment.

- **Nadel & Gussman Permian, LLC Representatives:**

Terry West	Office Phone	(432) 682-4429
	Home Phone	(432) 897-1472
	Mobile Phone	(432) 238-2874
Kurt Hood	Office Phone	(505) 746-1428
	Home Phone	(505) 234-2747
	Mobile Phone	(505) 513-1499
Joel Martin	Office Phone	(432) 682-4429
	Home Phone	(432) 694-2569
	Mobile Phone	(432) 238-9969

Certification: I hereby certify that I, Terry West, Senior Drilling Engineer for Nadel & Gussman Permian, LLC or persons under my direct supervision have (1) inspected the proposed drilling site and access route and are familiar with the conditions which presently exist; (2) that the statements made in this plan are to the best of my knowledge, true and correct; and (3) that the work associated with the operations proposed herein will be performed by Diamond Back Disposal Company or their contractors and sub-contractors in conformity with this plan.

Terry West 2-23-07

Terry West, Senior Drilling Engineer Date
Nadel & Gussman Permian, LLC

Nadel & Gussman Permian, LLC
601 N. Marienfeld, Suite 508
Midland, TX 79701
February 23, 2007

Bureau of Land Management
Lands & Minerals Division
620 E. Greene Street
Carlsbad, NM 88220
Attn: Ms. Cathy Queen

Re: Manco Federal No. 1 Application for Permit to Drill

Dear Ms. Queen:

Nadel and Gussman Permian, LLC (NGP), as operator, respectfully requests permission to drill the Manco Federal # 1 at 660' FNL and 1240' FWL of UL D Sec. 26, T21S-R21E in Eddy County, New Mexico. NGP also plans to develop a production pad for the surface location. The following documents and exhibits that constitute our Application for Permit to Drill are attached:

DOCUMENTS:
- APD Form 3160-3
- Drilling Mud Pit Construction Form C-144
- Statement Accepting Responsibility for Operations
- 13 Point Surface Use and Operation Plan
- 13 Point Drilling Plan
- Hydrogen Sulfide Drilling Operations Plan

EXHIBITS:
1. New Mexico Oil Conservation Division Form C-102
2. Directions to Location
3. Lease (Arial View)
4. Topographical Maps
5. BOP and Choke Diagrams
6. Pad Size
7. Rig Plat
8. Reserve Pit Size
9. Cultural Resource Survey

This surface location was approved by Todd Suter and Cody Layton of the BLM on an on-site staking meeting with Kurt Hood (NGP) and Basin Surveyors on September 13, 2006. Also, a Cultural Resource Survey has been performed by Boone Archeological Services and no significant cultural resources were encountered (see Exhibit 9). Should you have questions please call me at 432-682-4429. NGP plans to spud this well on April 1, 2007.

Thank you for your consideration and attention to this request.

Sincerely,

Terry West
Senior Drilling Engineer

MANCO FEDERAL NO. 1

660' FNL & 1240' FWL

UL D S26 T21S R21E

EDDY COUNTY, NEW MEXICO

APPLICATION FOR PERMIT TO DRILL

BUREAU OF LAND MANAGEMENT

FEBRUARY 23, 2007

NADEL & GUSSMAN PERMIAN, LLC

601 MARIENFELD

SUITE 508

MIDLAND, TEXAS 79701

432-682-4429 (OFFICE)

432-682-4325 (FAX)

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Nadel & Gussman Permian LLC
Well Name & No. Manco Federal # 1
Location: 660'FNL, 1240'FWL, SEC26, T21S, R21E, Eddy County,NM
Lease: NM-100524

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance, at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

1. Spudding
2. Cementing casing: **20** inch **13.375** inch **9.625** inch, **5.5** inch
3. BOP tests

B. A Hydrogen Sulfide (H2S) Drilling Plan is N/A.

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.

D. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

E. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The **13.375** inch surface casing shall be set at **400 feet** and cement circulated 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 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, which ever is greater. (This is to include the lead cement)
3. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds of compression strength, which ever is greater.
4. If cement falls back, Remedial cementing shall be completed prior to drilling out that string.

B. The minimum required fill of cement behind the **9.625** inch intermediate casing is **circulate cement to the surface.** If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **5.5** inch production casing is **cement shall extend upward a minimum of 200 feet above the base of the intermediate casing string.**

D. If hard band 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.

B. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the **13.375** inch casing shall be **2000** psi.

C. The appropriate BLM office shall be notified a minimum of 4 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 the 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 in accordance with API RP 53. The test will be held for a minimum of 10 minutes if the test is done with a test plug and 30 minutes without a test plug.
5. A variance to test the **BOP and BOPE** to the reduced pressure of **1500** psi with the rig pumps is approved the BOP/BOPE must be tested by an independent service company.

IV. Hazards:

1. Our geologist has indicated that there is potential for lost circulation in the San Andres, Glorieta and Wolfcamp formations.
2. Our geologist has indicated that there is medium potential for krast features.
3. Our geologist has indicated that there is potential for over pressure in the Wolfcamp, Strawn, Atoka and Morrow formations.

V. Air Drilling Special Stipulations:

Approval is grant for air drilling of the surface and intermediate casing, with the following stipulations; in addition to the equipment already specified elsewhere, the following equipment shall be in place and operational during air/gas drilling:

- The minimum line size for all choke manifold lines is 4 inches
- Properly lubricated and maintained rotating head*
- Spark arresters on engines or water cooled exhaust*
- Blooie line discharge 100 feet from well bore and securely anchored
- Straight run on blooie line unless otherwise approved
- Deduster equipment*
- All cuttings and circulating medium shall be directed into a reserve or blooie pit*
- Float valve above bit*
- Automatic igniter or continuous pilot light on the blooie line*
- Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the well bore
- Mud circulating equipment, water, and mud materials (does not have to be premixed) sufficient to maintain the capacity of the hole and circulating tanks or pits.

Engineering may be contacted at 505-706-2779 for variances if necessary.

FWright 3/6/07