Form 3160-3 (September 2001)

*(Instructions on reverse)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

000

RECEIVED

JUL 2 1 2006

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

5. Lease Serial No.

NM NM 98795 & NM NM 96814

li a tat	14141	307	3J G	14141	14141	300	
1 6	If I.	dian	Alla	ttaa c	· Tri	ho N	am

APPLICATION FOR PERMIT TO DR				PAN		CA A	+ Name and Na
ia. Type of Work: DRILL REENTER	ork: DRILL REENTER						t, Name and No.
).
1b. Type of Well: Oil Well Gas Well Other	e of Well: Oil Well Gas Well Other Single Zone Multiple Zone						35550
2. Name of Operator					9. API Well	-	46
ladel and Gussman Permian, L.L.C. 1556/	5						- 35049
Ba. Address	3b. Phone No	•	ea code)		10. Field and Pool, or Exploratory		
01 N. Marienfeld Suite 508, Midland, TX 79701	(432) 682-4				Wildcat Mens War Survey or Area		
4. Location of Well (Report location clearly and in accordance with a		rements. *)			11. Sec., F., I	K., M., OI DIK.	and Survey of Alea
At surface UL Sec. 26 T20S R23E 1,969.4' FSL & 670.1	6' FEL						
At proposed prod. zone					Sec. 26, T20	S-R23E	
4. Distance in miles and direction from nearest town or post office*					12. County of	r Parish	13. State
8 miles South of Hope, NM					Eddy County	<u>/</u>	NM
5. Distance from proposed* location to nearest property or lease line, ft.	16. No. of A	Acres in lease		17. Spacin	ing Unit dedicated to this well		
(Also to nearest drig. unit line, if any) 670.6' FEL	11711	1,400 acres 320 (E/2)			<u> </u>		
8. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Propose	d Depth		20. BLM/I	I/BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approx	imate date v	ork will st		23. Estimate	d duration	
GL4,093'	June 1, 200				30		
	24. Atta	chments					
he following, completed in accordance with the requirements of Onshor	re Oil and Gas	Order No.1,	shall be att	ached to thi	s form:		
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).	Lands, the	Item 5. Operat 6. Such	20 above). tor certifica	ation. pecific info		·	ing bond on file (se
5. Signature // Z	Name	Name (Printed/Typed)			Date	;	
Jan Trans	Josh	Fernau	nau 06/27/06			27/06	
ide							
staff Engineer							
Approved by (SIGNATICE) SGD.) ALEXAS C. SWODODA	Name	e (Printed/Ty	red)		·	Date	JUL 18 2
PETROLEUM ENGWEER	Office	e DAC	.\ ~ : :	F: 1	to o	COCK	

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

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.

>9.1

DISTRICT I 1625 N. French Dr., Hobbs, NM 66240 DISTRICT II 811 South First, Artesia, NM 88210 State of New Mexico

Form C-102 Revised March 17, 1999

Submit to Appropriate District Office

State Lease — 4 Copies Fee Lease — 3 Copies

DISTRICT III 1000 Rio Benzon Rd., Anteo. NM 67410

DISTRICT IV 2040 South Fachero, Manta Fe, NM 87505 OIL CONSERVATION DIVISION

2040 South Pacheco

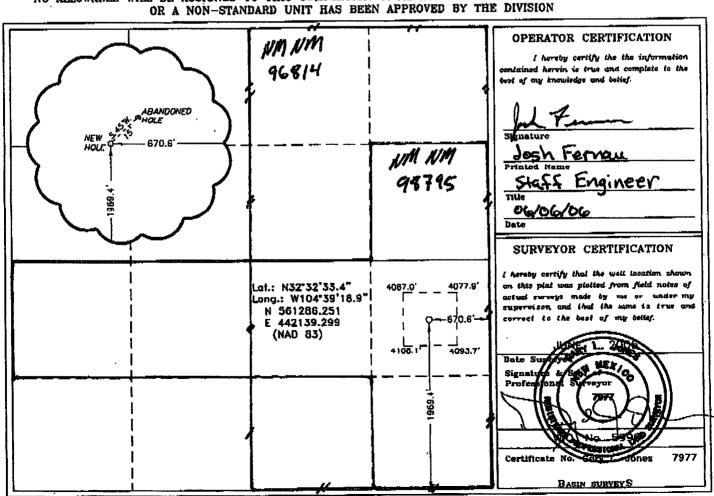
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Cod	le j		Pool Name			
			9607	0	Wilde	I Menn		
Property (Code	T '		Property Name			Well Number	
			CALLAHAN FEDERAL				1 y	
OGRID N	0.		Operator Name				Elevation	
	NADEL AND GUSSMAN PERMIAN						409	13,
		_ 		Surface L	ocation			
UL or lot No.	Section	Township	Range Lot ld	n Feet from the	Morth/South line	Feet from the	East/West line	County
l	26	20 \$	23 E	1969.4	SOUTH	670.6	EAST	EDDY
			Bottom Hole	Location If Di	fferent From Sur	face		
UL or lot No.	Section	Township	Range Lot ld	n Feet from th	e North/South line	Feet from the	East/West line	County
Dedicated Acre	s Joint	or Infill Co	nsolidation Code	Order No.				
120	1							

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



.., Hobbs, NM 88240

State of New Mexico Energy Minerals and Natural Resources

Form C-144 June 1, 2004

1 Avenue, Artesia, NM 88210

, Brazos Road, Aztec, NM 87410 <u>st IV</u> S. St. Francis Dr., Santa Fe, NM 87505 Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure Is pit or below-grade tank covered by a "general plan"? Yes \(\subseteq \text{No} \(\subseteq \)

Type of action: Registration of a pit of	or below-grade tank 🔼 Closure of a pit of below-gra	de tank 📋
Operator:Nadel and Gussman Permian, LLCTelephone:432-68	2-4429e-mail address:joshf@nagu	iss.com
Address:601 N. Marienfeld, Suite 508 Midland, TX 70701		
Facility or well name:Callahan Federal #1_API #: 30-015-3	<i>5049</i> U/L or Qtr/QtrI Sec26 '	T20S R23E
County:Eddy, NM LatitudeN32 deg 32' 33.3" Longitude W104	deg 39' 18.8" NAD: 1927 ☐ 1983 ☑ Surface Ow	ner: Federal 🛭 State 🗋 Private 🗋 Indian 🗋
Pit	Below-grade tank	
Type: Drilling Production Disposal	Volume:bbl Type of fluid:	RECEIVED
Workover ☐ Emergency ☐	Construction material:	MAR 2 8 2006
Lined 🛭 Unlined 🗌	Double-walled, with leak detection? Yes If no	t, explain why not.
Liner type: Synthetic M Thickness20mil Clay [
Pit Volume20,000bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet	(20 points)
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)X
	100 feet or more	(0 points)
Wallhard metastian area. (Lore than 200 feet from a mirror democratic	Yes	(20 points)
Wellhead protection area: (Less than 200 feet from a private domestic	No	(0 points)X
water source, or less than 1000 feet from all other water sources.)		100
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)X
	Ranking Score (Total Points)	10
If this is a pit closure: (1) Attach a diagram of the facility showing the pit your are burying in place) onsite offsite for fisite, name of facility_remediation start date and end date. (4) Groundwater encountered: No offsite is a pit closure.	. (3) Attach a general of Yes I If yes, show depth below ground surface	description of remedial action taken including
(5) Attach soil sample results and a diagram of sample locations and excava	tions.	
Additional Comments:		
·		
I hereby certify that the information above is true and complete to the best has been/will be constructed or closed according to NMOCD guideline	of my knowledge and belief. I further certify that t	he above-described pit or below-grade tank
and and an analysis of the second and to the order and the second	· · · · · · · · · · · · · · · · · · ·	and ocpaphing han .
Date:02/09/06	Λι -1	
Printed Name/TitleJosh Fernau Staff Engineer	Signature wh Felnan	
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve to regulations.	not relieve the operator of liability should the contents the operator of its responsibility for compliance with a	of the pit or tank contaminate ground water or ny other federal, state, or local laws and/or
Approval: Printed Name/Title	Signature	MAR 2 8 2006
	O'BIRCUITO	Date.

NADEL AND GUSSMAN PERMIAN, L.L.C.

601 N. Marienfeld, Suite 508 Midland, TX 79701 Office: (432) 682-4429

Fax: (432) 682-4325

02/09/06

Bureau of Land Management Lands & Minerals 620 W. Greene St. Carlsbad, NM 88220 Attn: Ms. Linda Denniston

Dear Ms. Denniston,

Nadel and Gussman Permian, LLC, as operator, requests permission to drill the Callahan Federal #1, (SHL) 1,980' FSL & 660' FEL, UL I Sec. 26, T20S-R23E, Eddy Co., NM. We plan to develop a production pad for our surface location. The following items are attached:

Form 3160-3 C-144 Lease Responsibility Statement 13 Point Surface Use and Operation Plan 13 Point Drilling Plan Hydrogen Sulfide Drilling Operations Plan

Exhibits:

- 1. 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. A Cultural Resource Survey

This surface location was approved by Barry Hunt of the BLM on an on-site staking meeting with NGP Teddy Rowland and Basin Surveyors on 11/29/05. A Cultural Resource Survey has been performed and the report was negative. The permit holder recommends clearance for this operation. If you have any questions, contact Josh Fernau at the letterhead telephone number. **Plan to spud June 1, 2006.**

Your prompt attention to this APD will be greatly appreciated.

Sincerely.

Josh Fernau Staff Engineer

UNITED STATES DEPARTMENT OF INTERIOR

Bureau of Land Management Carlsbad Field Office 620 W. Greene St. Carlsbad, New Mexico 88220

Statement Accepting Responsibility for Operations

Operator Name:

Nadel and Gussman Permian, L.L.C.

Address:

601 N. Marienfeld, Suite 508

City, State:

Midland, Texas

Zip Code:

79701

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:

Callahan Federal #1

Lease Number: NM NM 96814 and NM NM 98795

Legal Description of Land: (SHL) 1,980' FSL & 660' FEL, Sec. 26, T20S-R23E, Eddy Co., NM

Lease Covers: NM NM 96814, T20S R23E, Eddy Co., NM Sec. 25 All & Sec. 26 N/2-N/2,

SW/4NE/4 and S/2NW/4

NM NM 98795, T20S R23E, Eddy Co., NM Sec. 24 N/2S/2, S/2SE/4 & Sec. 26

SE/4NE/4, N/2S/2 & SE/4SE/4

Formations: Wolfcamp, Strawn, Atoka, and Morrow

Bond Coverage: Statewide

BLM Bond File Number: NM 2812

Land is federally owned.

Authorized Signature:

Name:

Josh Fernau

Title:

Staff Engineer

Date:

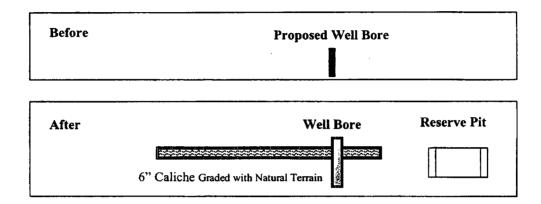
02/09/06

13 Point Land Use Plan

- Existing Roads This location is located in UL I Sec. 26 T20S R23E, SHL 1,980' FSL & 660' FEL.
 A small scale vicinity map is attached (Exhibit #3) which shows the location of this well in relation to an aerial view of surrounding townships and ranges. A larger scale topographical map is (Exhibit #4) shows the location of the well. From the junction of CO. RD. 12 and CO. RD. 25, Go southeast for 3.8 miles to the end; thence drive through gate and continue southeast for +/- 200'; thence left by pins and follow 2 track road to proposed location.
- 2. <u>Planned Access Roads</u> There is an existing access road from the location to the nearest exit leaving the lease, which is shown on (Exhibit #2 -A, B & C). The parts of the lease are fenced and a cattle guard or gate may be needed.
- 3. <u>Location of Existing Wells</u>—The Foster Unit #1, drilled by Magnolia Petroleum Company is located in Section 26, T20S-R23E, 660' FSL & 1,880' FWL well is P & A'd.
- 4. Location of Tank Batteries, Production Facilities & Lines -
 - We anticipate gas production from the Morrow, Atoka and Strawn, with possible volumes of
 produced oil or water. We will build a battery with a minimum of two 210 Bbl steel tanks, one for
 oil and one for water.
 - Pipe lines will be used to transport the sales of natural gas using the permitted access road to location.
 - We will also have a Stack-Pack separator or line heater and separator on location. All produced fluids from the Morrow, Atoka or Strawn will be hauled off lease by road. There are no initial plans for oil pipelines, LACT units or SWD lines.
 - We do not anticipate a need for electrical service on the lease at this time.
- 5. <u>Location & Type- of Water Supply</u> Fresh and salt water will be trucked from Carlsbad by a third-party contractor.
- 6. Source of Construction Material Primary source of caliche will be the closed most economical existing pit used followed by the proper documentation and approval.
- 7. Methods of Handling Waste Disposal A 20 mil lined reserve pit will be 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 and leveled. All trash and debris will be removed from the location.
- 8. Ancillary Facilities There are no camps or airstrips planned.

9. 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 limestone rock and some soil, covered by sparse native vegetation. The drilling pad will be graded and cut to the north and to the south and covered by 6" caliche and native rock from grade cut. The drilling pad will blend in with the terrain since the topography is generally hilly.

Cross section – Before and After is shown below:



10. Plans for Restoration of Surface - Commercial Well:

- Reshaped Topography Rubbish will be hauled off upon completion of drilling operations. All future rubbish will be removed by the subcontractor generating same.
- Caliche Pad Caliche drilling pad will remain intact until well is 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.

11. Other Information -

- Topography A north/south trending ridge that overlooks North Prong Long Draw to the north.
- Soil Characteristics The surface is limestone w/ little soil development.
- <u>Flora</u> Vegetation includes scattered juniper, soto, creosote, little leaf sumac, acacia, bear-grass, yucca prickly pear cactus and mixed grasses.
- <u>Fauna</u> rabbits, mice, rats, birds, deer and snakes.
- Other Surface Use Activities Ranching.
- Surface Ownership Federal.
- Water Wells No windmills within 1000' of the location.
- <u>Lakes, Streams, Ponds</u> There are several draws (Exhibit #5).
- <u>Dwellings</u> There are no inhabited structure within 1,000' of the location.

Archeological Summary - Drilling location and lease roads are covered under sent BLM report completed by Don Clifton. The report was negative and the cultural resource use permit holder recommends clearance for this operation. Drilling and production will be conducted in a manner so as not to disturb the surrounding environment.

12. Operator's Representative -

Josh Fernau	Office Phone Home Phone Mobile Phone	(432) 682-4429 (806) 978-1523 (432) 238-2874
Teddy Rowland	Office Phone Home Phone Mobile Phone	(505) 746-1428 (505) 746-4970 (505) 513-1499
Joel Martin	Office Phone Home Phone Mobile Phone	(432) 682-4429 (432) 694-2569 (432) 238-9969

13. Certification - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site and access route; that I am familiar with the condition which presently exists; 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 Diamond Back Disposal Company or their contractors and sub-contractors in conformity with this plan.

Date: 02/09/06

13 Point Drilling Plan:

- 1. <u>Location:</u> (SHL) 1,980' FSL & 660' FEL, UL I Sec. 26, T-20-S, R-23-E, Eddy County, New Mexico (Exhibit #1 Form C-102).
- 2. Elevation: 4,093' GL.
- 3. Geological Name of Surface Formation: Limestone Rock.
- 4. Type of Drilling Tools to be utilized: Rotary Tools.
- 5. Proposed Drilling Depth: 9,400' TVD.
- 6. Tops of Important Geological Markers: TVD

Glorieta	1,680'	Wolfcamp	5,200°	Atoka	8,420°
Clearfork	1,990'	Cisco	6,230'	Morrow	8,700'
B/Abo Shale	4,210'	Strawn	7,230'	Chester	9,000'

7. Estimated Depth of Anticipated Water, Oil or Gas: TVD

Oil and Gas	-Wolfcamp	5,200'
Gas	-Strawn	7,230'
Gas	-Atoka	8,420'
Gas	- Morrow	8,700'

8. Casing Program:

•	9 5/8"	40#	N-80	@	2,000'	2000 sx, circulated to surface
•	5 1/2"	17#	P-110	@	9,400'	TOC to be determined

The 9 5/8" casing strings will be cemented to the surface. The TOC on the 5 1/2" casing will be determined after running open hole logs.

9. Specifications for Pressure Control Equipment: (Exhibit #5)

This rig will have a 13 5/8" 5M BOP Shaffer with pipe rams and blind rams, kill line, 5,000 psi choke manifold, Camron hydraulic controls, and accumulator with remote controls. When setting up, will test casing, BOP and choke to 1,500psi with 3rd party tester, will operate BOP once a day or as directed by the company representative. The surface and intermediate will be witnessed by a BLM representative.

10. Mud Program:

Spud and drill with fresh water or air to a depth of approx 2,000'. Control lost circulation with paper and LCM pills and maintain a Ph of 10. Drill from 2,000' to 9,200' with cut brine at approximately 9.2 to 10 PPG. Use starch and XCD polymer for filtrate control and mix pre-hydrated freshwater gel slurry to clean and condition hole prior to running electric logs.

11. Testing, Logging & Coring Program:

- a. Testing: No DST's are expected.
- b. Coring: no coring is planned.
- c. Logging: open hole logs will be run prior to running production casing. The standard suite will be a 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 hole section.

12. Potential Hazards:

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

13. Anticipated starting date & duration:

Plans are to begin drilling operations about June 1, 2006; approximately 30 days will be required to drill the well and 10 days will be needed for the completion.

Josh Fernau Staff Engineer

Date: 02/09/06

Hydrogen Sulfide Drilling Operations Plan

- 1. Company and Contract personnel admitted on location should be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S.
 - B. Physical Effects and Hazards.
 - C. Proper Use of Safety Equipment and Life Support Systems.
 - D. Principle and Operation of H₂S Detectors, Warning System and Briefing.
 - E. Evacuation Procedure, Routes and First Aid.
 - F. Proper Use of 30 minute Pressure Demand Air Pack.

2. H₂S Detection and Alarm Systems

- A. H₂S 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 Should be High Enough to be Visible.
 - B. Windsock at Briefing Area Should be High Enough to be Visible.
 - C. There Should be a Windsock at Entrance to Location.
- 4. Condition Flags and Signs
 - A. Warning Sign on Access Road to Location.
 - B. Flags to be Displayed on Sign at Entrance to Location.
 - 1. Green Flag, Normal Safe Condition.
 - 2. Yellow Flag, Indicates Potential Pressure and Danger.
 - 3. Red Flag, Danger H₂S Present in Dangerous Concentration Only Emergency Personnel Admitted to Location.
- 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 Radio or Cell Phone will be Used to Communicate off Location in Case of Available at Most Drilling Foreman's Trailer or Living Quarters.
- 7. Drillstem Testing
 - A. Exhausts will be Watered.
 - B. Flare Line will be Equipped with an Electric Igniter or a propane pilot light in case gas reaches the surface.
 - C. If Location is near any Dwelling a Closed DST will be Performed.
- 8. Drilling Contractor Supervisor will be Required to be Familiar with the Effects H₂S has on tubular goods and other mechanical equipment.
- 9. If H₂S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H₂S Scavengers if Necessary.

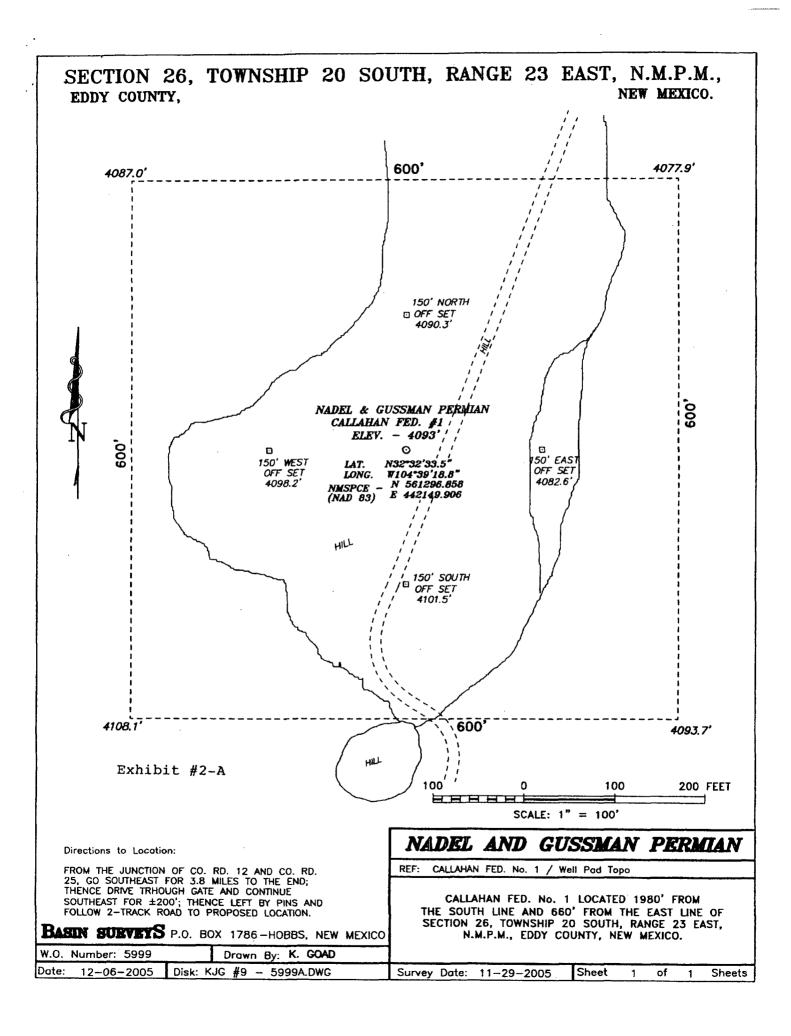
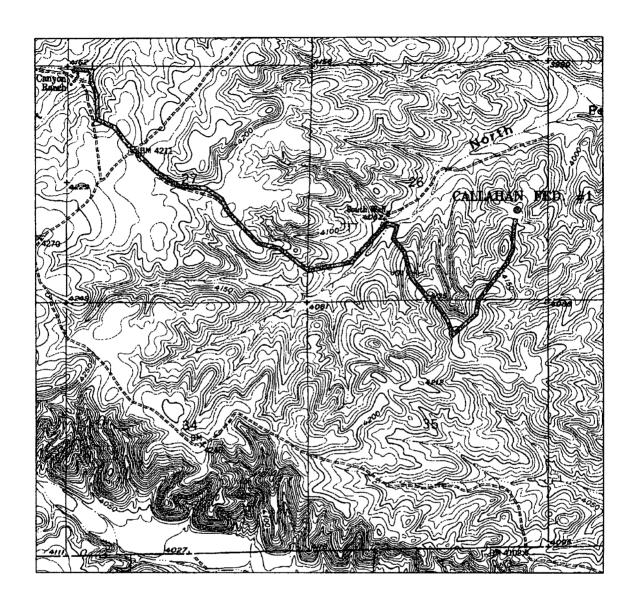


Exhibit #4-B



LEASE ROAD TO THE CALLAHAN FEDERAL #1 Located at 1980' FSL and 660' FEL Section 26, Township 20 South, Range 23 East, N.M.P.M., Eddy County, New Mexico.

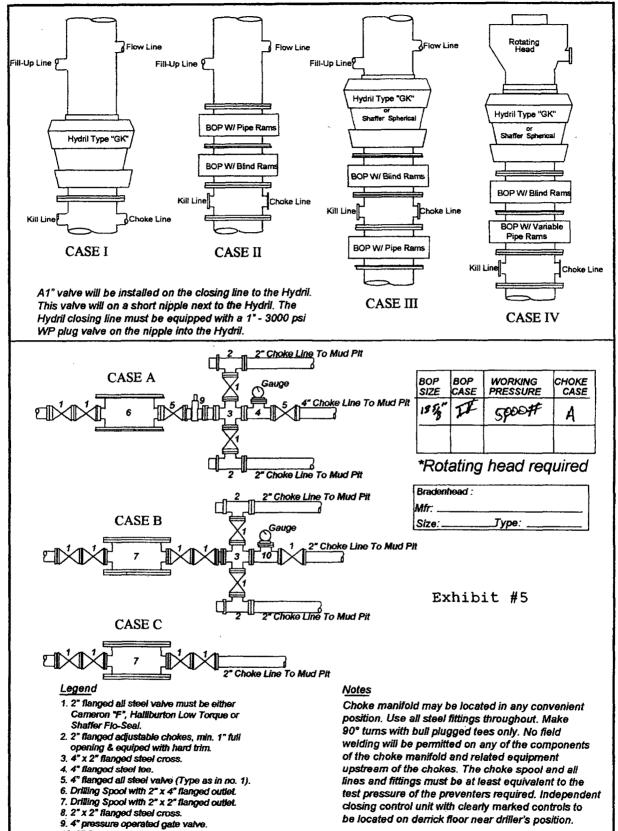


P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number:	5999BB - KJG #1
Survey Date:	11-29-2005
Scale: 1" = 2	000'
Date: 12-06-	-2005

NADEL AND GUSSMAN PERMIAN, L.L.C.

Nadel and Gussman Permian MINIMUM BLOWOUT PREVENTER REQUIREMENTS



10. 2" flanged steel tee.

be located on derrick floor near driller's position.

(10-31-96) WTXBOPS.PPT

160 **50**. 12 ← 3' High + 6' High 25' 120' 20, 80, 25' 10, ထ် 100 40, 148, 10

Exhibit #8 Not to Scale

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Nadel & Gussman Permian LLC

Well Name & No: Callahan Fed Com No. 01

Location: Surface: 1980' FSL & 660' FEL, Sec.26, T. 20 S. R. 23 E.

Lease: NMNM 2812 98795 Eddy County, New Mexico

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; 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:

- A. Spudding
- B. Cementing casing: 9 1/2 inch; 5 1/2 inch;
- C. BOP Tests
- 2. A Hydrogen Sulfide (H2S) Drilling Plan shall be in operations from 2000 ft of depth to TD..
- 3. 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.
- 4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 6. A Communitization Agreement shall be approved by this office prior to any sales from this office.

II. CASING:

- 1. The 9 % inch shall be set at 2000 Feet with cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 3. The minimum required fill of cement behind the $5\frac{1}{2}$ inch Production casing is to Place TOC at least 200 feet above the top of the Wolf amp; estimation, 5000 ft.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 9½ inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3 M psi.

III. Pressure Control Con't:

- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.
- -The test shall be done by an independent service company
- -The results of the test shall be reported to the appropriate BLM office.
- -Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures.
- -Use of drilling mud for testing is not permitted since it can mask small leaks.

The first of the second of the

1967年1月1日 - 1987年 - 1

- -Testing must be done in safe workman-like manner. Hard line connections shall be required.
- -Both low pressure and high pressure testing of BOPE is required.