

Form 3160-3  
(April 2004)

OCD

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NMOCD ARTESIA

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

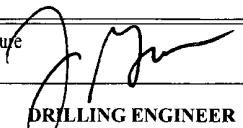
## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6 If Indian, Allottee or Tribe Name N/A
1b Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7 If Unit or CA Agreement, Name and No N/A
2 Name of Operator NADEL AND GUSSMAN HEYCO, L.L.C. <i>&lt; 2589627</i>		8 Lease Name and Well No. MESQUITE BUSH FED COM #1H <i>&lt; 394767</i>
3a Address P.O. BOX 1936 ROSWELL NM 88202	3b. Phone No. (include area code) 575-623-6601	9 API Well No. 30-015-40046
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface 510' FSL, 990' FWL, UL M; SEC 2, T18-S, R31-E At proposed prod zone 510' FSL, 1650' FWL UL N; SEC 3, T18-S, R31-E		10 Field and Pool, or Exploratory SHUGART N., BONE SPRINGS <
14 Distance in miles and direction from nearest town or post office* 8 MILES SOUTH OF MALJAMAR NEW MEXICO		11 Sec., T R M. or Blk and Survey or Area SECTION 3, T-18-S, R-31-E
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 510'	16 No of acres in lease See Below	17 Spacing Unit dedicated to this well 120 BLM ACRES, 160 TOTAL
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1000ft	19 Proposed Depth See Below	20 BLM/BIA Bond No. on file NM# 000520
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3757' GL	22 Approximate date work will start* 07/01/2012	23 Estimated duration 45 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.   | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)    |
| 2 A Drilling Plan   | 5 Operator certification   |
| 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) | 6 Such other site specific information and/or plans as may be required by the authorized officer |

25. Signature 	Name (Printed/Typed) JASON GOSS	Date 02/01/2011
Title DRILLING ENGINEER		
Approved by (Signature) <i>/s/ Don Peterson</i>	Name (Printed/Typed) <i>/s/ Don Peterson</i>	Date SEP 10 2012
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 USC Section 1001 and Title 43 USC 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)

## Capitan Controlled Water Basin

NO. 16: NMNM-89882 640.26 Acres  
NMNM-89879 640.14 Acres  
Total BLM 1280.4

Approval Subject to General Requirements  
& Special Stipulations Attached

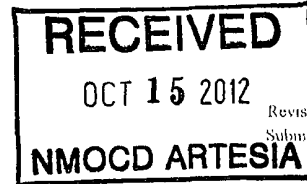
NO. 19

TVD: 8375' MD: 12,830' } horizontal  
MAX TVD: 8455'  
Pilot hole: 9,150' } vertical

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

DISTRICT I  
1625 N. FRENCH DR., HOBBBS, NM 88240  
DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210  
DISTRICT III  
1000 RIO BRAZOS RD., AZTEC, NM 87410  
DISTRICT IV  
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505



Form C-102  
Revised July 16, 2010  
Submit to Appropriate  
District Office  
☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-015-40046</b>	Pool Code <b>56405</b>	Pool Name <b>Shugart N., Bone Spring</b>
Property Code <b>39476</b>	Property Name <b>MESQUITE BUSH FEDERAL COM</b>	
OGRID No <b>258462</b>	Operator Name <b>NADEL AND GUSSMAN HEYCO, LLC.</b>	Well Number <b>1H</b>
		Elevation <b>3757'</b>

Surface Location

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	18-S	31-E		510	SOUTH	990	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
N	3	18-S	31-E		510	SOUTH	1650	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No
<b>160</b>			

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>SECTION, QUARTER &amp; SIXTEEN 1/4 CORNER COORDINATES</p> <p>(A) - Y=645211.3 N, X=650404.8 E (B) - Y=643890.5 N, X=650412.2 E (C) - Y=643880.8 N, X=649092.3 E (D) - Y=643855.2 N, X=645133.0 E (E) - Y=645175.7 N, X=645125.3 E</p> <p>GEODETIC COORDINATES NAD 27 NME</p> <p>SURFACE LOCATION Y=644398.0 N X=650079.1 E LAT.=32 770591" N LONG.=103 845074" W</p> <p>BOTTOM HOLE LOCATION Y=644367.2 N X=645459.7 E</p>	<p><b>OPERATOR CERTIFICATION</b></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>Signature: <i>J. Gross</i> Date: <i>10/11/12</i> Printed Name: <b>JASON GROSS</b> E-mail Address: <b>j.gross@naguss.com</b></p>
<p>SCALE: 1" = 2000'</p> <p>GRID AZ = 269°37'05" HORIZ DIST. = 4620.6'</p> <p>DETAIL: 3760.2', 3767.7', 3758.6', 3759.0', 600', 600'</p>	<p><b>SURVEYOR CERTIFICATION</b></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>SEPTEMBER 10, 2011</p> <p>Date of Survey Signature &amp; Seal of Professional Surveyor <i>Gary G. Eidson</i> 10/26/11 Certificate Number: Gary G. Eidson 12641, Ronald J. Eidson 3239 DSS: WSC W.O. 11 13 2322</p>

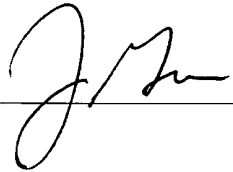
Federal STATE

## OPERATOR CERTIFICATION

I certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal Laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true, and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed the 8 day of December 2011.

Name: Jason Goss  
Position: Drilling Engineer  
Address: P.O. BOX 1936  
Roswell NM 88202  
Telephone: 575-623-6601  
Email: jgoss@naguss.com

Signed: \_\_\_\_\_



12-8-11

**DRILLING AND OPERATIONS PLAN  
NADEL AND GUSSMAN HEYCO, L.L.C.  
MESQUITE BUSH FEDERAL COM. #1H**

Surface: 510' FSL & 990' FWL  
UL M Sec 2, T-18-S, R-31-E (State Lands)  
BHL: 510' FSL & 1650' FWL  
UL N Sec 3, T-18-S, R-31-E (Federal BLM Lands)  
Eddy County, New Mexico.

**ELEVATION:** GL 3,757'

**GEOLOGICAL NAME OF SURFACE FORMATION:** PERMIAN

**Type of Well:** Horizontal

**PROPOSED DRILLING DEPTH:** 12,830' MD, 8,375' TVD, Kick of curve at ~7882', drill lateral to 12,830' see directional plan: Exhibit #2, Vertical TD of possible pilot hole 9,150ft.

**TOPS OF IMPORTANT GEOLOGICAL MARKERS:** TVD

Rustler	800'	San Andres	4,260'	
Top Salt	1,050'	Delaware Cherry Cyn	4,490'	
BX (base salt)	2,060'	Delaware Brushy Cyn	4,830'	
Yates	2,225'	Bone Spring LS	5,550'	
Seven Rivers	2,670'	1 <sup>st</sup> Sand	7,490'	
Bowers	3,100'	B-Zone (2 <sup>nd</sup> Bone SPG Carb.)	7,720'	
Queen	3,850'	Bone Springs 2 <sup>nd</sup> Sand	8,070'	
Penrose	3,550'	Bone Springs	8,455'	Target pay
Grayburg	3,830'	<b>PILOT HOLE TOPS</b>		
		C-Zone (3 <sup>rd</sup> Bone SPG Carb.)	8,740'	
		Bone Springs 3 <sup>rd</sup> Sand	8,970'	
		<b>TD (pilot hole)</b>	<b>9,150'</b>	

**Estimated Depth of Anticipated Water, Oil or Gas:**

Rustler	800'	Water
Yates	2,225'	Oil
Delaware	4,490'	Oil
Bone Springs	7,490'	Oil
1 <sup>st</sup> Sand	7,490'	Oil
2 <sup>nd</sup> Sand	8,070'	Oil
"B-Bench"	8,455'	Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water will be protected by setting 13 3/8" casing at 860' and circulating cement back to surface, all other intervals will be isolated by the 9 5/8" intermediate and 7" production casing.

- **Option 1:** (proposed at this time): no pilot hole. Drill to kick off point of 7,882' vertically and drill horizontally at 8,455' TVD to BHL TVD 8,375' at 510' FSL and 1650' FWL in Section 3 T18S, R31E, in Bone Springs "B-Bench".

- **Option 2:** Drill vertically to 9,150', open hole log, spot bottom plug & kick off plug and kick off to TVD revised by open hole logs in Bone Springs "B-Bench".

**CASING PROGRAM:**

HOLE SIZE	CASING SIZE	WT./GRADE	THREAD/COLLAR	SETTING DEPTH	TOP CEMENT
	20"	94# H-40	8rd STC	120'	Surface
17.5"	13 3/8" (new)	54.5# J-55	8rd STC	860'	Surface
12.25"	9 5/8" (new)	36# J-55	8rd LTC	<del>2,100</del> 2180	Surface
8.75"	7" (new)	26# P-110HC	8rd BTC	8,800'	1,600ft
6.125"	4 1/2" (new)	13.5# P-110HC	8rd BTC & LTC*	8,500'-12,830'	N/A**

\* 4.5" casing: 500ft BTC/8rd in curve (8,500' – 9,000') and LTC 8rd in Lateral 9,000' - 12,830ft.

\*\* Packer Plus completion 20 stages. No cement, packers and frac port open hole completion with liner hanger.

**Possible pilot hole plug back procedure (option 2):** Vertical hole has been drilled to a TD of 9,150ft. Well will be logged with Halliburton Triple Combo and Horizontal target will be revised. Spot 200ft Class H plug on bottom. WOC 12 hours or 500 psi compressive strength and tag plug. Pull up hole to KOP and spot 225 sack Class H plug at least 100ft above and 200ft below KOP at 7,882'. Kick off and continue with plan.

**MINIMUM SAFETY FACTORS:**                      **BURST 1.125      COLLAPSE 1.125              TENSION 1.8**

**ALL CASING WILL BE NEW API APPROVED**

**CEMENT PROGRAM-ALL CEMENT BLENDS WILL BE TESTED TO BLM MINIMUM REQUIREMENTS.**

<b>A. 13 3/8"</b>	<b>SURFACE</b>	<b>CEMENT TO SURFACE      100% EXCESS OVER CALCULATED</b>
		LEAD 600 SACKS CLASS "C" +4% BENTONITE +2% CaCL +.25# CELLO-FLAKE+.25% DEFOAMER, 13.5 PPG, 1.75 YIELD
		TAIL: 200 SACKS CLASS "C"+2%CaCL+.25# CELLO-FLAKE+.25% DEFOAMER, 14.8 PPG, 1.35 YIELD
<b>B. 9 5/8"</b>	<b>INTERMEDIATE</b>	<b>CEMENT TO SURFACE      50% EXCESS OVER CALCULATED</b>
		LEAD 500 SACKS CLASS "C" 35/65 +6% BENTONITE+5% SALT+.25% DEFOAMER 12.8 PPG, 1.9 YIELD
		TAIL 200 SACKS CLASS "C" + .25% DEFOAMER, 14.8 PPG, 1.33 YIELD
<b>C. 7"</b>	<b>PRODUCTION</b>	<b>CEMENT TO 1,600FT (WILL RUN FLUID CALIPER) 25% EXCESS OVER FLUID CALIPER, OR 50% OVER CALCULATED.</b>
		LEAD 650 SACKS CLASS H 50/50 +10% BENTONITE +.15% C-20 RETARDER +3# STAR SEAL +.3% C-12 FLUID LOSS+3% SALT+.25% DEFOAMER, 11.8 PPG, 2.37 YIELD
		TAIL 250 SACKS CLASS "C" STAR BOND+.5% FL-10+.2%C-20, +3# GILSONITE+.25% DEFOAMER+3% SALT 13.2 PPG, 1.6 YIELD

## PILOT HOLE PLUGS (OPTION 2)

D. BOTTOM HOLE PLUG:

E. KICK OFF PLUG

See  
COA

Neat Class H not "C"

100 SACKS CLASS H, 13.7 PPG, 1.33 YIELD, ADDITIVES AS  
~~RECOMMENDED BY CEMENT COMPANY~~ 50% EXCESS225 SACKS CLASS H, 16.9 PPG, 1.0 YIELD, ADDITIVES AS  
~~RECOMMENDED BY CEMENT COMPANY~~ 100% EXCESS

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

A 2000# WP Annular will be installed after running the 13-3/8" casing. A 3,000# WP Double Ram BOP and 3,000 annular will be installed after running the 9-5/8" and 7" casing. Pressure test will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the Kelly is not in use. 7" and 9-5/8" casing will be tested to 3000# and the annular to 1500# with a third party testing company before drilling below each shoe. If operations last more than 30 days from 1<sup>st</sup> test, will test again as per BLM Onshore Oil and Gas order #2, this pressure control system will be used for both well options without pilot hole (option 1) or with pilot hole (option 2).

## MUD PROGRAM:

Spud and drill 17 1/2" surface hole with **fresh water (8.4 to 8.7 ppg)** to a depth of approx 860'. Control lost circulation with paper and LCM pills. Viscosity 28-55, no fluid loss control. Fresh water gel sweeps.

Drill 12 1/4" hole from 860' to <sup>2130</sup>~~2100~~' with **Brine (9.5 to 10.0 ppg)**. Control lost circulation with paper and LCM pills. Viscosity 28-30, no fluid loss control. Salt water gel sweeps.

Drill 8 3/4" production hole from <sup>2130</sup>~~2100~~' to **9,150'** (9,150 TVD of Pilot hole, 8,800' MD of Curve) 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 sweeps, as necessary. System properties: viscosity 32-24, fluid loss <20 ml/30min.

Drill 6 1/8" production hole from 8,800' to <sup>12830</sup>~~12860~~' with **fresh water (8.4-8.7 ppg)**, control filtrate and increase viscosity with Xanthan gum and Poly Anionic Cellulose. Clean hole high with viscosity sweeps and lubricants as necessary. System Properties viscosity 32-34, fluid loss <20 ml/30min.

All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

## Auxiliary Equipment

- A. A Kelly cock will be in the drill string at all times. BOP and fittings must be in good condition with minimum of 2000 psi working pressure on 13-3/8" casing and 3000 psi working pressure on 9-5/8" and 7" casing. Accumulator will be at least 40 gallon capacity with 2 independent sources of pressure on closing unit and meet all other API specifications.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times with 3000 psi working pressure.
- C. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 4 1/2" liner is run and set and rigging down operations have begun.

TESTING, LOGGING & CORING PROGRAM: See COA

- a. Testing: No DST's are expected.
- b. Open hole logs are planned at KOP (7,882) TD of vertical hole in option #1.  
Open hole logs are also planned for option #2 to 9,150ft TD of vertical pilot hole.
  1. Halliburton Triple Combo, for option #1 and #2.
- c. Mud logging will take place from 4,000ft to TD 10ft samples
- d. Gyro survey will be run at KOP of 7,882'
- e. MWD (directional) and LWD (gamma) surveys will be taken from KOP (7,882') to TD

**POTENTIAL HAZARDS:**

No significant hazards are expected to vertical TD of 9,155ft, no abnormal pressures or temperatures are expected, **Expected pressure gradient will be that of .433 psi/ft (8.33 PPG FW) or less.** Lost circulation may occur, no H<sub>2</sub>S is expected, but the operator will utilize a 3<sup>rd</sup> party H<sub>2</sub>S monitoring package from 860' to TD. If H<sub>2</sub>S is encountered the operator will comply with the provisions of onshore oil and gas order no 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

**ANTICIPATED STARTING DATE & DURATION:**

Nadel & Gussman HEYCO, LLC anticipates drilling operations to begin ASAP after receiving approved APD. Expected time to complete is approximately 45 days. An additional 15 days will be needed for completion activities. Road and location construction will begin after the BLM has approved the APD.

  
\_\_\_\_\_  
Jason Goss, Drilling Engineer  
Nadel & Gussman HEYCO, LLC2-27-12  
\_\_\_\_\_  
Date

# **Nadel & Gussman HEYCO, LLC**

**Eddy County, New Mexico**

**Sec 2 T18-S 31E**

**Mesquite Bush Fed Com #1H**

**Wellbore #1**

**Plan: Design #2**

## **DDC Well Planning Report**

**14 December, 2011**





**DDC**  
Well Planning Report



<b>Database:</b>	EDM 5000 1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Mesquite Bush Fed Com #1H
<b>Company:</b>	Nadel & Gussman HEYCO, LLC	<b>TVD Reference:</b>	WELL @ 3757.0usft (Original Well Elev)
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	WELL @ 3757.0usft (Original Well Elev)
<b>Site:</b>	Sec 2 T18-S 31E	<b>North Reference:</b>	Grid
<b>Well:</b>	Mesquite Bush Fed Com #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

<b>Project</b>	Eddy County, New Mexico		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Sec 2 T18-S-31E		
<b>Site Position:</b>		<b>Northing:</b>	644,398.00 usft
<b>From:</b>	Map	<b>Easting:</b>	650,079.10 usft
<b>Position Uncertainty:</b>	0 0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 46' 14.127 N
		<b>Longitude:</b>	103° 50' 42.266 W
		<b>Grid Convergence:</b>	0.26 °

<b>Well</b>	Mesquite Bush Fed Com #1H		
<b>Well Position</b>	+N/-S	0 0 usft	<b>Northing:</b> 644,398.00 usft
	+E/-W	0 0 usft	<b>Easting:</b> 650,079.10 usft
<b>Position Uncertainty</b>	0 0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 32° 46' 14.127 N
			<b>Longitude:</b> 103° 50' 42.266 W
			<b>Ground Level:</b> 3,757.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/8/2011	7.69	60.63	48,865

<b>Design</b>	Design #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0 0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0 0	0.0	0.0	269.62

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0 0	0 00	0 00	0.0	0 0	0 0	0 00	0.00	0.00	0.00	
7,882.2	0 00	0 00	7,882.2	0 0	0 0	0.00	0.00	0.00	0.00	
8,793.6	91.14	269.62	8,455.0	-3.9	-584.3	10.00	10.00	-9.92	269.62	
12,829.5	91.14	269.62	8,375.0	-30.8	-4,619.4	0.00	0.00	0.00	0.00	PBHL Mesquite Bu:

**DDC**  
Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Mesquite Bush Fed Com #1H
<b>Company:</b>	Nadel & Gussman HEYCO, LLC	<b>TVD Reference:</b>	WELL @ 3757'0usft (Original Well Elev)
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	WELL @ 3757'0usft (Original Well Elev)
<b>Site:</b>	Sec 2 T18 S 31E	<b>North Reference:</b>	Grnd
<b>Well:</b>	Mesquite Bush Fed Com #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (%/100usft)	Build Rate (%/100usft)	Turn Rate (%/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

**DDC**  
Well Planning Report



<b>Database:</b>	EDM 5000 1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Mesquite Bush Fed Com #1H
<b>Company:</b>	Nadel & Gussman HEYCO, LLC	<b>TVD Reference:</b>	WELL @ 3757.0usft (Original Well Elev)
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	WELL @ 3757.0usft (Original Well Elev)
<b>Site:</b>	Sec 2, T18-S 31E	<b>North Reference:</b>	Gnd
<b>Well:</b>	Mesquite Bush Fed Com #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Build 10°/100' @ 7882' MD</b>									
7,882.2	0.00	0.00	7,882.2	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	1.78	269.62	7,900.0	0.0	-0.3	0.3	10.00	10.00	0.00
8,000.0	11.78	269.62	7,999.2	-0.1	-12.1	12.1	10.00	10.00	0.00
8,100.0	21.78	269.62	8,094.8	-0.3	-40.9	40.9	10.00	10.00	0.00
8,200.0	31.78	269.62	8,184.0	-0.6	-85.9	85.9	10.00	10.00	0.00
8,300.0	41.78	269.62	8,263.9	-1.0	-145.7	145.7	10.00	10.00	0.00
8,400.0	51.78	269.62	8,332.3	-1.5	-218.5	218.5	10.00	10.00	0.00
8,500.0	61.78	269.62	8,387.1	-2.0	-302.0	302.0	10.00	10.00	0.00
8,600.0	71.78	269.62	8,426.4	-2.6	-393.8	393.8	10.00	10.00	0.00
8,700.0	81.78	269.62	8,449.3	-3.3	-491.0	491.0	10.00	10.00	0.00
<b>EOB @ 8794' MD / 91.14° Inc / 269.62° Azm / 8455' TVD</b>									
8,793.6	91.14	269.62	8,455.0	-3.9	-584.3	584.3	10.00	10.00	0.00
8,800.0	91.14	269.62	8,454.9	-3.9	-590.7	590.7	0.00	0.00	0.00
8,900.0	91.14	269.62	8,452.9	-4.6	-690.7	690.7	0.00	0.00	0.00
9,000.0	91.14	269.62	8,451.0	-5.3	-790.7	790.7	0.00	0.00	0.00
9,100.0	91.14	269.62	8,449.0	-5.9	-890.7	890.7	0.00	0.00	0.00
9,200.0	91.14	269.62	8,447.0	-6.6	-990.7	990.7	0.00	0.00	0.00
9,300.0	91.14	269.62	8,445.0	-7.3	-1,090.6	1,090.7	0.00	0.00	0.00
9,400.0	91.14	269.62	8,443.0	-7.9	-1,190.6	1,190.6	0.00	0.00	0.00
9,500.0	91.14	269.62	8,441.0	-8.6	-1,290.6	1,290.6	0.00	0.00	0.00
9,600.0	91.14	269.62	8,439.1	-9.3	-1,390.6	1,390.6	0.00	0.00	0.00
9,700.0	91.14	269.62	8,437.1	-9.9	-1,490.5	1,490.6	0.00	0.00	0.00
9,800.0	91.14	269.62	8,435.1	-10.6	-1,590.5	1,590.6	0.00	0.00	0.00
9,900.0	91.14	269.62	8,433.1	-11.3	-1,690.5	1,690.5	0.00	0.00	0.00
10,000.0	91.14	269.62	8,431.1	-11.9	-1,790.5	1,790.5	0.00	0.00	0.00
10,100.0	91.14	269.62	8,429.1	-12.6	-1,890.5	1,890.5	0.00	0.00	0.00
10,200.0	91.14	269.62	8,427.2	-13.3	-1,990.4	1,990.5	0.00	0.00	0.00

# DDC Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Mesquite Bush Fed Com #1H
<b>Company:</b>	Nadel & Gussman HEYCO, LLC	<b>TVD Reference:</b>	WELL @ 3757.0usft (Original Well Elev)
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	WELL @ 3757.0usft (Original Well Elev)
<b>Site:</b>	Sec 2 T18-S 31E	<b>North Reference:</b>	Grid
<b>Well:</b>	Mesquite Bush Fed Com #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	91.14	269.62	8,425.2	-13.9	-2,090.4	2,090.5	0.00	0.00	0.00
10,400.0	91.14	269.62	8,423.2	-14.6	-2,190.4	2,190.4	0.00	0.00	0.00
10,500.0	91.14	269.62	8,421.2	-15.3	-2,290.4	2,290.4	0.00	0.00	0.00
10,600.0	91.14	269.62	8,419.2	-15.9	-2,390.3	2,390.4	0.00	0.00	0.00
10,700.0	91.14	269.62	8,417.2	-16.6	-2,490.3	2,490.4	0.00	0.00	0.00
10,800.0	91.14	269.62	8,415.3	-17.3	-2,590.3	2,590.4	0.00	0.00	0.00
10,900.0	91.14	269.62	8,413.3	-17.9	-2,690.3	2,690.3	0.00	0.00	0.00
11,000.0	91.14	269.62	8,411.3	-18.6	-2,790.3	2,790.3	0.00	0.00	0.00
11,100.0	91.14	269.62	8,409.3	-19.3	-2,890.2	2,890.3	0.00	0.00	0.00
11,200.0	91.14	269.62	8,407.3	-19.9	-2,990.2	2,990.3	0.00	0.00	0.00
11,300.0	91.14	269.62	8,405.3	-20.6	-3,090.2	3,090.3	0.00	0.00	0.00
11,400.0	91.14	269.62	8,403.4	-21.3	-3,190.2	3,190.2	0.00	0.00	0.00
11,500.0	91.14	269.62	8,401.4	-21.9	-3,290.2	3,290.2	0.00	0.00	0.00
11,600.0	91.14	269.62	8,399.4	-22.6	-3,390.1	3,390.2	0.00	0.00	0.00
11,700.0	91.14	269.62	8,397.4	-23.3	-3,490.1	3,490.2	0.00	0.00	0.00
11,800.0	91.14	269.62	8,395.4	-23.9	-3,590.1	3,590.2	0.00	0.00	0.00
11,900.0	91.14	269.62	8,393.4	-24.6	-3,690.1	3,690.1	0.00	0.00	0.00
12,000.0	91.14	269.62	8,391.5	-25.3	-3,790.0	3,790.1	0.00	0.00	0.00
12,100.0	91.14	269.62	8,389.5	-25.9	-3,890.0	3,890.1	0.00	0.00	0.00
12,200.0	91.14	269.62	8,387.5	-26.6	-3,990.0	3,990.1	0.00	0.00	0.00
12,300.0	91.14	269.62	8,385.5	-27.3	-4,090.0	4,090.1	0.00	0.00	0.00
12,400.0	91.14	269.62	8,383.5	-27.9	-4,190.0	4,190.0	0.00	0.00	0.00
12,500.0	91.14	269.62	8,381.5	-28.6	-4,289.9	4,290.0	0.00	0.00	0.00
12,600.0	91.14	269.62	8,379.6	-29.3	-4,389.9	4,390.0	0.00	0.00	0.00
12,700.0	91.14	269.62	8,377.6	-29.9	-4,489.9	4,490.0	0.00	0.00	0.00
12,800.0	91.14	269.62	8,375.6	-30.6	-4,589.9	4,590.0	0.00	0.00	0.00
12,829.5	91.14	269.62	8,375.0	-30.8	-4,619.4	4,619.5	0.00	0.00	0.00

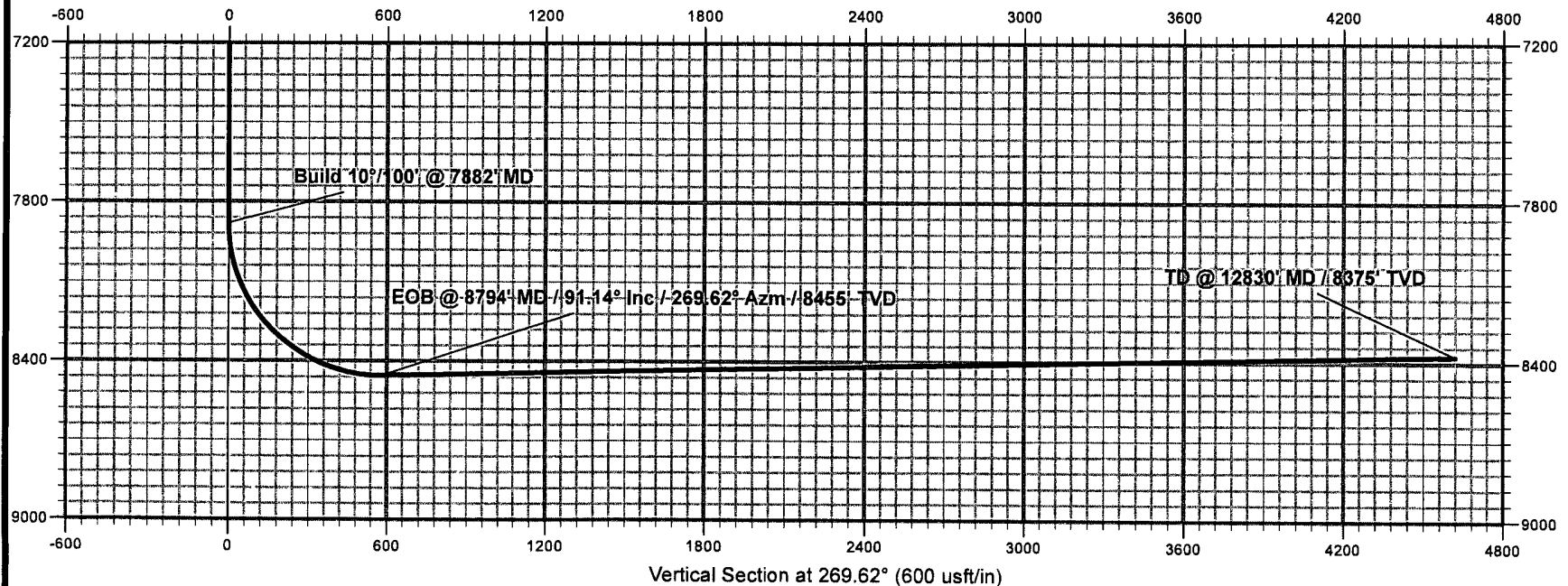
Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
PBHL Mesquite Bush	hit	0.00	0.00	8,375.0	-30.8	-4,619.4	644,367.20	645,459.70	32° 46' 14.030 N 103° 51' 36.369 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
7,882.2	7,882.2	0.0	0.0	Build 10°/100' @ 7882' MD
8,793.6	8,455.0	-3.9	-584.3	EOB @ 8794' MD / 91.14° Inc / 269.62° Azm / 8455' TVD
12,829.5	8,375.0	-30.8	-4,619.4	TD @ 12830' MD / 8375' TVD

# Nadel & Gussman HEYCO



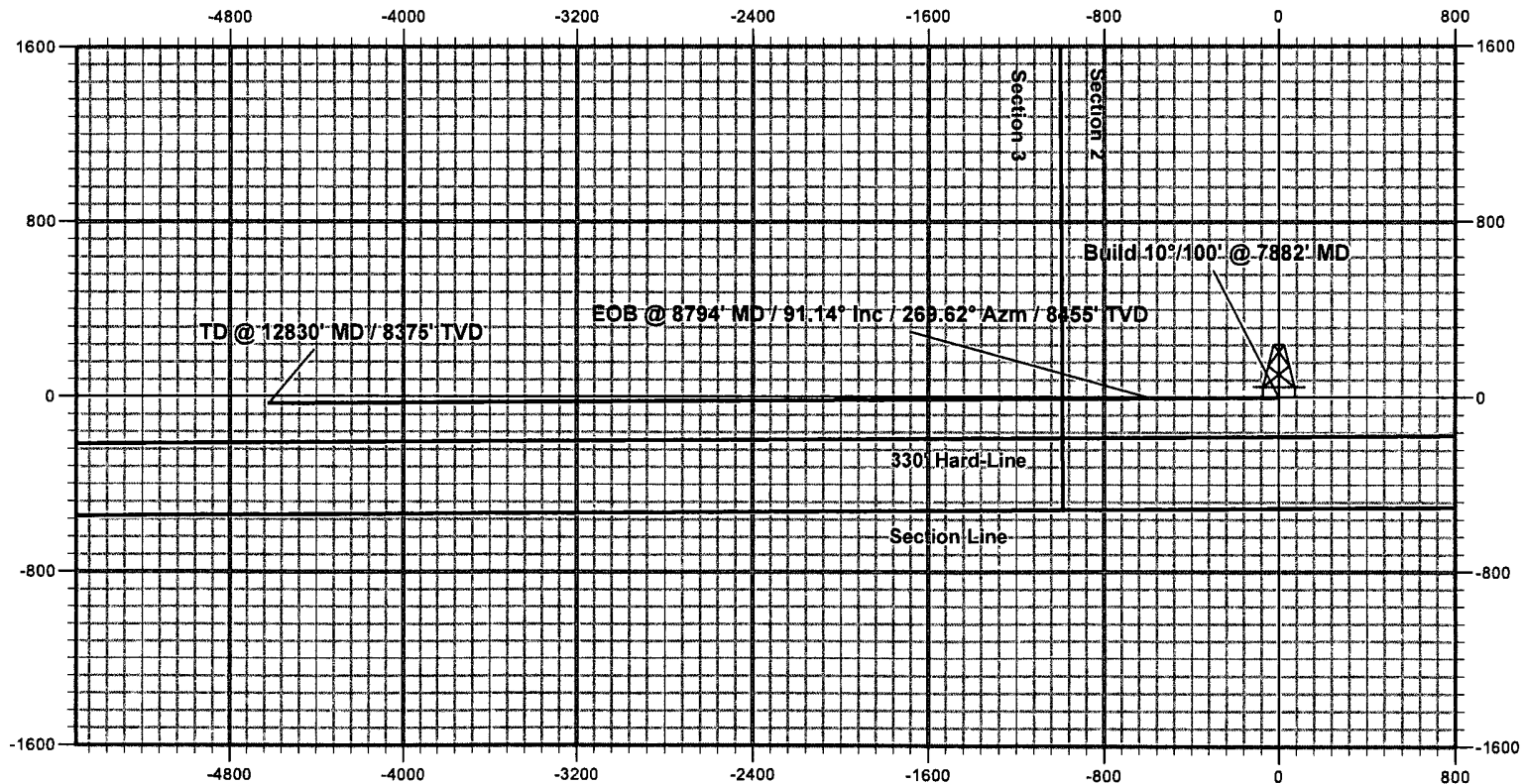
Eddy County, New Mexico  
Sec 2 T18-S 31E  
Mesquite Bush Fed Com #1H  
Design #2



# Nadel & Gussman HEYCO

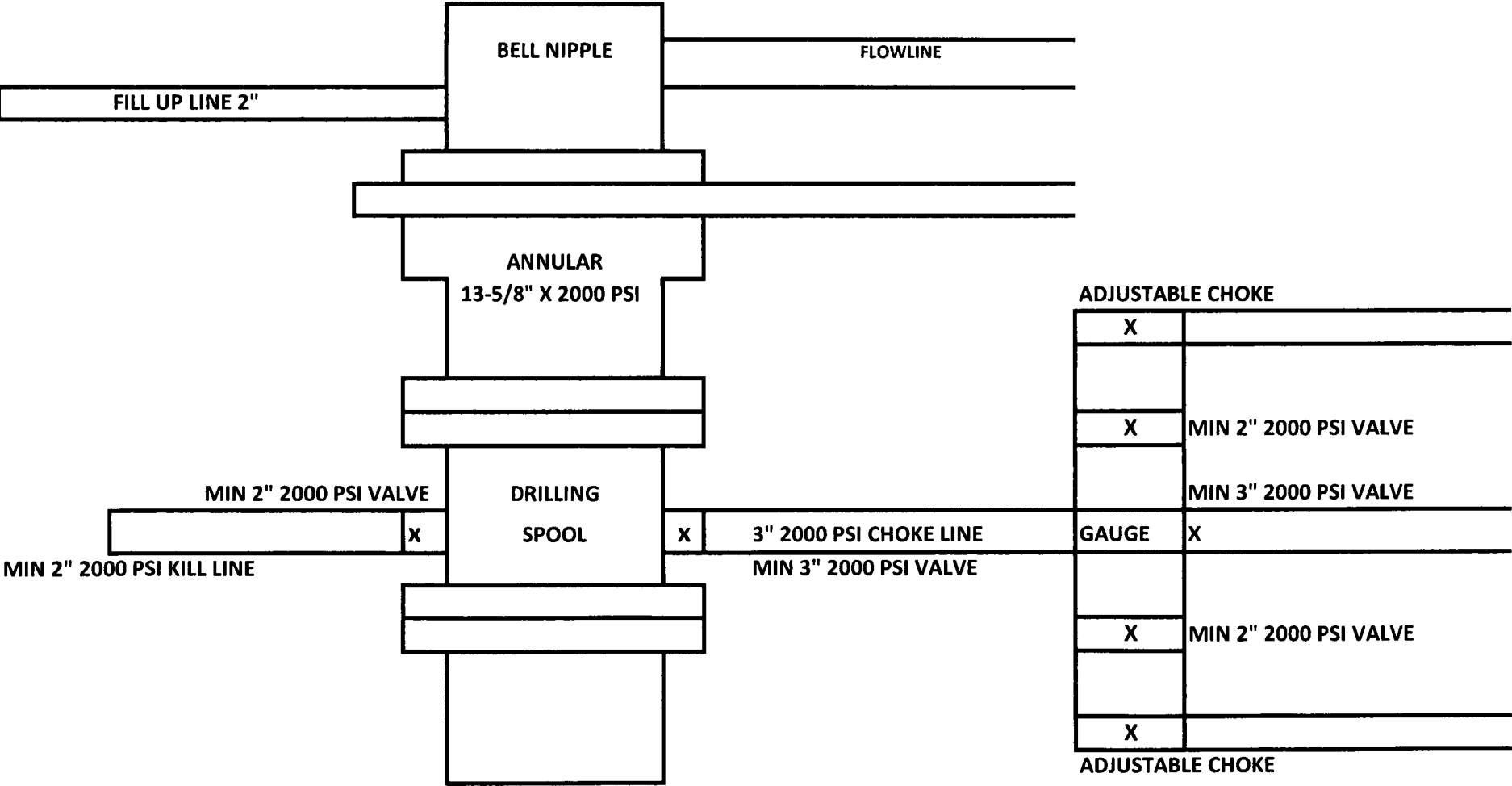


Eddy County, New Mexico  
Sec 2 T18-S 31E  
Mesquite Bush Fed Com #1H  
Design #2



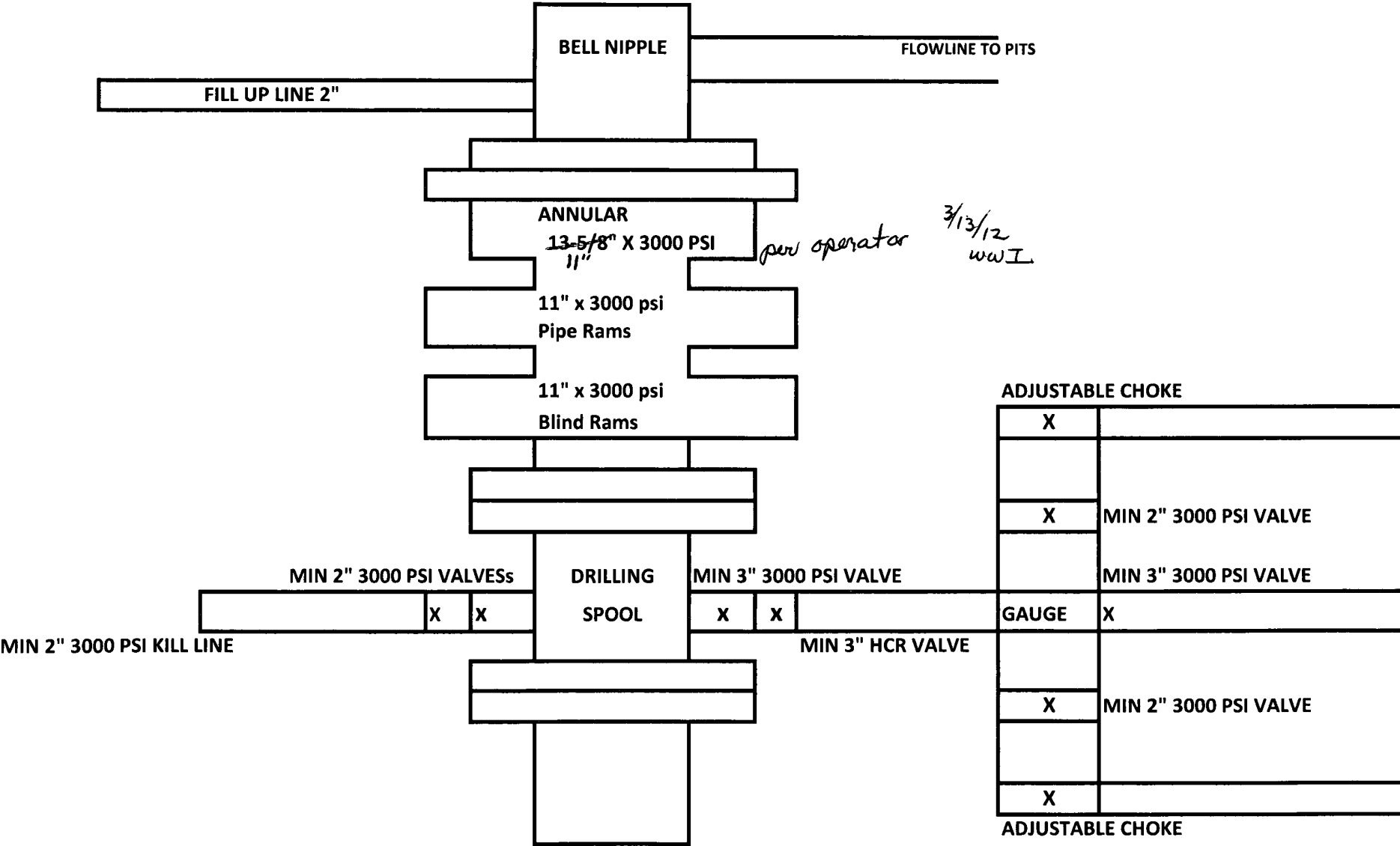
Well: Mesquite Bush Federal Com #1H  
510 FSL, 990 FWL, Sec. 2, 18S, 31E  
Eddy County New Mexico

Nadel and Gussman HEYCO, L.L.C.  
BOP Scematic 12.25" hole



Well Mesquite Bush Federal Com #1H  
510' FSL, 990 FWL, Sec. 2, 18S, 31E  
Eddy County New Mexico

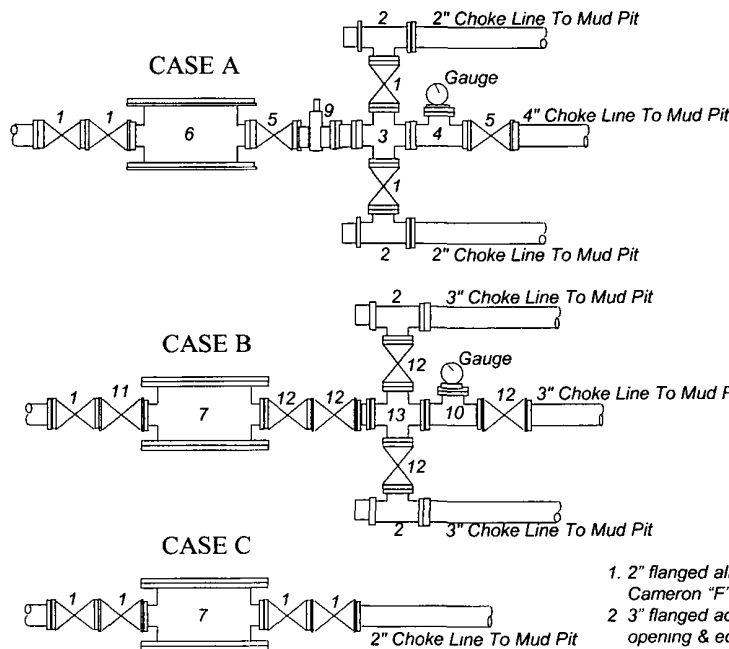
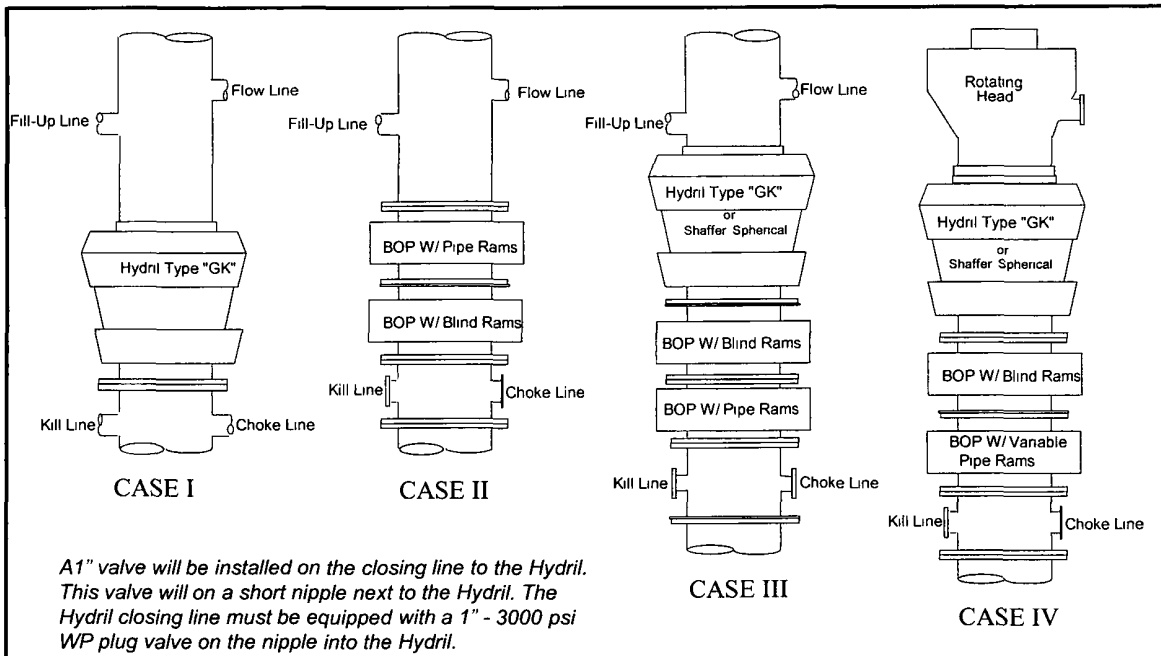
Nadel and Gussman HEYCO, L.L.C.  
BOP Scematic 8.75" & 6.125" hole





# Nadel and Gussman HEYCO, LLC

## MINIMUM BLOWOUT PREVENTER REQUIREMENTS



BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13-3/8"	I	2000 psi	B
11"	IV	3000 psi	B

**\*Rotating head required**

Bradenhead
Mfr: _____
Size: _____ Type: _____

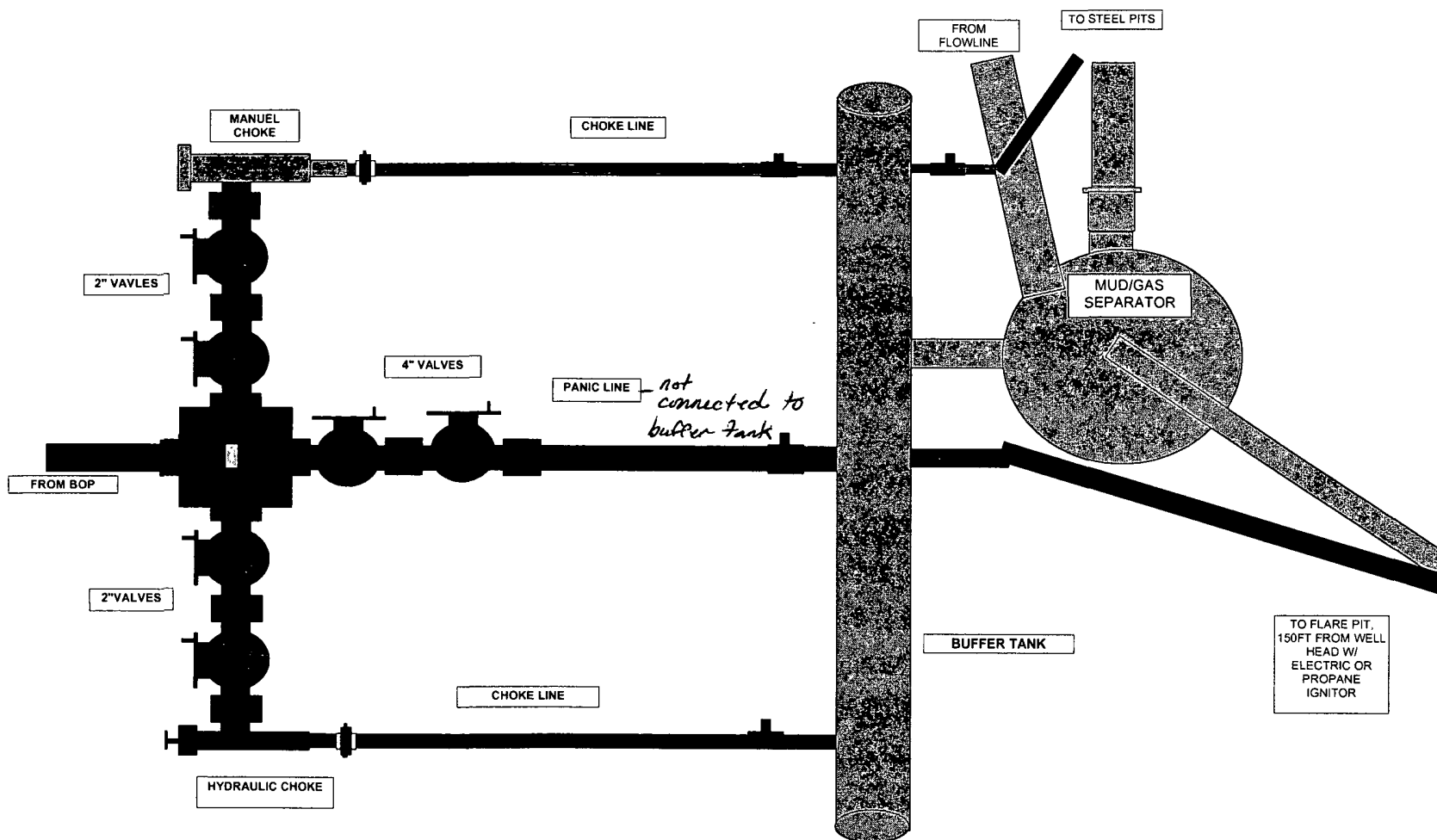
### Notes

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.

### Legend

1. 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
2. 3" flanged adjustable chokes, min 1" full opening & equipped 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" Flanged Kill inlet, & 3" flanged choke outlet.
8. 2" x 2" flanged steel cross.
9. 4" pressure operated gate valve
10. 3" flanged steel tee.
11. 2" Flanged check valve
12. 3" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
13. 3" x 3" flanged steel cross

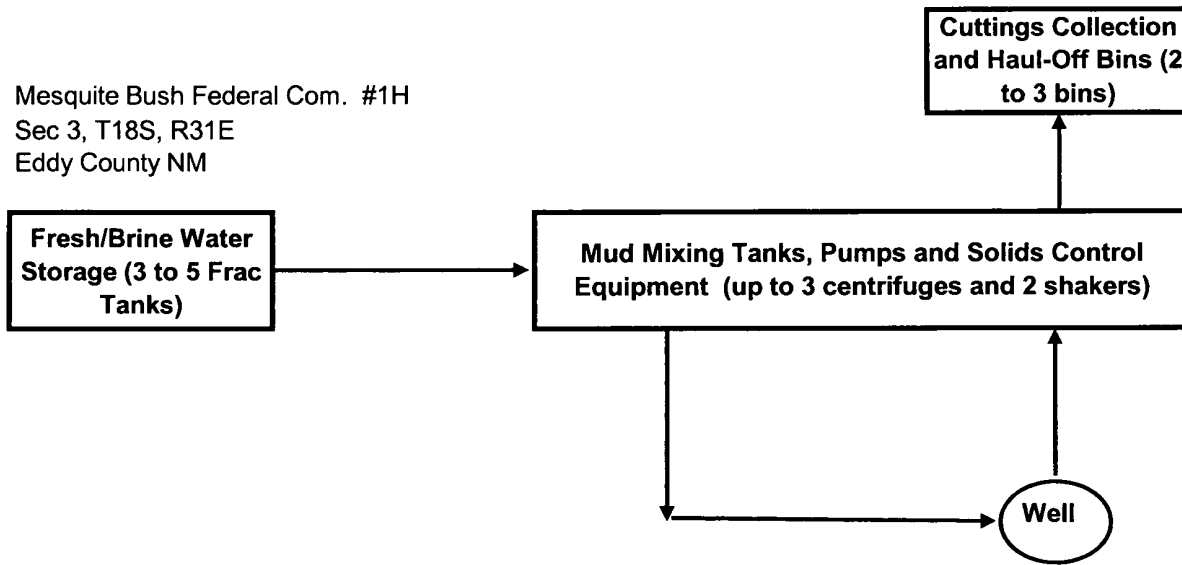
Mesquite Bush Federal Com #1H  
3000 psi BOP Manifold System



# **CLOSED-LOOP SYSTEM**

## **Design Plan:**

Mesquite Bush Federal Com. #1H  
Sec 3, T18S, R31E  
Eddy County NM



## **Operating and Maintenance Plan:**

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluid and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

## **Closure Plan:**

During drilling operations, third party service companies will haul-off drill solids and fluids to an approved disposal facility as noted on the C-144 form. At the end of the well, all closed loop equipment will be removed from the location.

**NADEL AND GUSSMAN HEYCO, L.L.C.**  
**P.O. Box 1936**  
**Roswell, NM 88202**  
**(575) 623-6601 (Office)**

12/8/11

Mr. Ingram  
Carlsbad BLM Field Office  
620 E. Greene St.  
Carlsbad, NM 88220

**Re: Mesquite Bush Federal Com no. 1H**  
**Sec. 3, T18S, R31E**  
**Eddy, NM**  
**Rule 118 H2S Exposure**

Dear Mr. Ingram,

Nadel and Gussman HEYCO, LLC have evaluated this well and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to drilling out the surface casing and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

Sincerely,



Jason Goss  
Drilling Engineer

**Hydrogen Sulfide Drilling Operations Plan**  
**Mesquite Bush Federal Com. No. 1H**  
**Sec 3, T18S, R31E**  
**Eddy Co. N.M.**

1. Company and contract personnel admitted on location should be trained by a qualified H<sub>2</sub>S safety instructor to the recognize and handle following:
  - A. Characteristics of H<sub>2</sub>S gas
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems
  - D. Principle and operation of H<sub>2</sub>S 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. Supervisory personnel will be trained in the following areas:
  - A. Effects of H<sub>2</sub>S on metal components.
  - B. Corrective action and shut in procedures, blowout prevention, and well control procedure.
  - C. Contents of Hydrogen Sulfide Drilling Operations Plan.
3. H<sub>2</sub>S Detection and Alarm Systems (will be in place after setting surface casing and will not drill within 500ft of Grayburg formation without alarm system working)
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, shale shaker and on derrick floor or doghouse installed and maintained by third party safety company.
  - B. Thirty minute self-contained work unit located in dog house and at briefing areas.
3. Windsock and/or Wind Streamers
  - A. Windsock at mud pit area (high enough to be visible)
  - B. Windsock on dog house (high enough to be visible)
4. Condition Flags and Signs
  - A. H<sub>2</sub>S 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<sub>2</sub>S Present in High Concentrations" *admit only emergency personnel*
5. Well Control Equipment
  - A. See BOP, Choke, and Mud/Gas Separator exhibit.
  - B. Blow out preventers will be equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit. Annular type blowout preventer will also be in place. Supplemental fuel will be provided for flaring noncombustible gas.
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 (**not planned**)
  - A. Exhausts watered
  - B. Flare line equipped with electric Igniter/propane pilot light in case gas reaches surface

PUBLIC PROTECTION PLAN FOR EMERGENCY CONTACTS

**NADEL AND GUSSMAN HEYCO, LLC** (432) 682-4429

**Company Personnel**

Jason Goss	Drilling Engineer	432-682-4429
		512-784-2613
Keith Cannon	Drilling Supt.	575-623-6601
		575-626-1936

**ARTESIA N.M.**

Ambulance	911
State Police	575-746-5000
City Police	575-746-5000
Sheriff's Office	575-746-9888
Fire Department	575-746-5050 or 575-746-5051
N.M.O.C.D	575-748-1283

**CARLSBAD N.M.**

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-885-3125 or 575-885-2111
Carlsbad BLM	575-887-6544

**HOBBS N.M.**

Ambulance	911
State Police	575-392-5588
City Police	575-397-9265
Sheriff's Office	575-396-3611
Fire Department	575-397-9308
N.M.O.C.D	575-393-6161
Hobbs BLM	575-393-3612

Flight for Life (Lubbock Tx)	806-743-9911
Aerocare (Lubbock Tx)	806-747-8923
Med flight air Ambulance (Albuq NM)	505-842-4433
SB air Med Services (Albuq NM)	505-842-4949

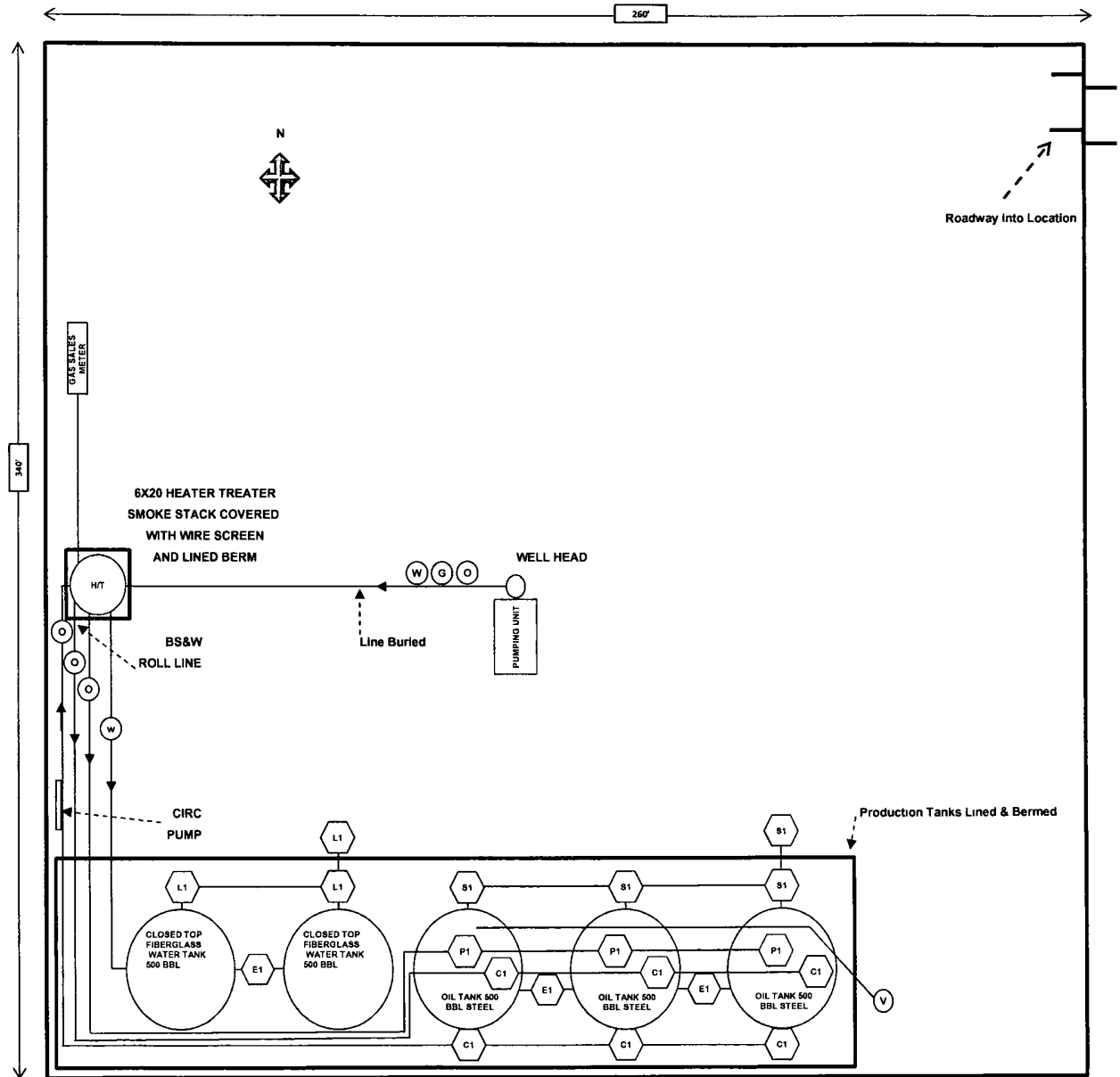
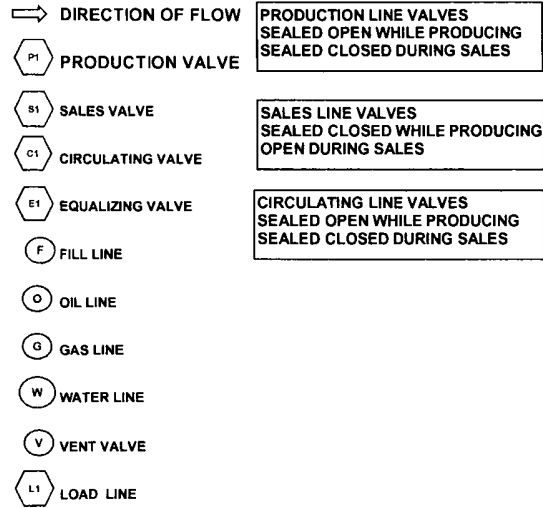
Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd Pressure Control	915-699-0139 or 915-563-3356
BJ Services (Artesia NM)	575-746-3569
(Hobbs NM)	575-392-5556

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
24 Hour	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

# Production Facility Layout

Mesquite Bush Federal Com #1H  
 SHL: 510' FSL & 990' FWL SEC 2-T18S-R31E  
 BHL: 510' FSL & 1650' FWL SEC 3-T18S-R31E  
 Eddy Co, NM

NADEL AND GUSSMAN HEYCO, LLC  
 P.O. Box 1936  
 ROSWELL, NM



## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	NADEL & GUSSMAN HEYCO, LLC
LEASE NO.:	NM89879
WELL NAME & NO.:	1H MESQUITE BUSH FEDERAL COM
SURFACE HOLE FOOTAGE:	510' FSL & 990' FWL (Sec. 2)
BOTTOM HOLE FOOTAGE:	510' FSL & 1650' FWL (Sec. 3)
LOCATION:	Section 2, T.18 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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