

Form 3160-3
(March 2012)

HOBBS OCD

OCD Hobbs
JUL 05 2013FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

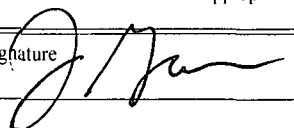
APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM-57285	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name N/A	
2. Name of Operator NADEL AND GUSSMAN HEYCO, LLC		7. If Unit or CA Agreement, Name and No.	
3a. Address 500 N. MAIN, SUITE ONE ROSWELL, NM 88202		8. Lease Name and Well No. <40003> BLUE QUAIL 23 FEDERAL #1H	
3b. Phone No. (include area code) <258462> 575-623-6601		9. API Well No. 30-025-41269	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660 FSL, 330 FEL - UL P At proposed prod. zone 660 FSL, 330 FWL - UL M		10. Field and Pool, or Exploratory LEA; BONE SPRING <37580>	
11. Sec., T. R. M. or Bk. and Survey or Area SEC. 23, T-19-S, R-34-E		12. County or Parish LEA	
13. State NM		14. Distance in miles and direction from nearest town or post office* 24 MILES WEST OF HOBBS NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330		16. No. of acres in lease 1,280.00	
17. Spacing Unit dedicated to this well 160		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,470 FT FROM BLUE QUAIL 26 FED1H	
19. Proposed Depth 15,262 MD; 10,852 TVD		20. BLM/BIA Bond No. on file NM # 000520	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3781 GL		22. Approximate date work will start* 08/01/2013	
23. Estimated duration 45 DAYS		24. Attachments	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed/Typed) JASON GOSS	Date 01/15/2013
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Title
DRILLING ENGINEER

Approved by (Signature) /s/George MacDonell	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date JUL 2 2013
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL 

JUL 18 2013

**DRILLING AND OPERATIONS PLAN
NADEL AND GUSSMAN HEYCO, L.L.C.
BLUE QUAIL 23 FEDERAL #1H**

Surface: 660' FSL & 330' FEL, UL P

BHL: 660' FSL & 330' FWL, UL M

Sec 23, T-19-S, R-34-E

Lea County, New Mexico.

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1. Geological Surface Formation: **Qal/Vegitated Dunes at surface. Drill with rotary tools. Horizontal oil well with no pilot hole.**

Estimated depth of Fresh Water 30-120ft; data from WAIDs: water wells in sec 11 and 25 of T19S - R34E

2. **TOPS OF IMPORTANT GEOLOGICAL MARKERS: TVD**

Rustler	1800'	
Salado-Top Salt	1935'	
BX (base salt)	3275'	
Yates	3500'	
Seven Rivers	4040'	
Bowers	4485'	
Queen	4700'	
Grayburg	5285'	
San Andres	5680'	
Delaware	6160'	
Bone Springs Ls	8190'	
1 st Bone Springs Sand	9535'	
2 nd Bone Springs Sand	10,040'	
3 rd Bone Springs Sand	10,671'	
Bone Springs (Target)	10,820'	*Deepest formation, will not penetrate Wolfcamp
Top Wolfcamp (Projected)	11,010'	

3. **Estimated Depth of Anticipated/Possible Water, Oil or Gas:**

Qal	30-120'	Fresh Water
Yates-Queen	3500'	Water
Grayburg	5285'	Oil, Gas & Water
San Andres	5680'	Oil, Gas & Water
Delaware	6160'	Oil, Gas & Water
Bone Springs	8190'-10,820'	Oil, Gas & Water

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 1825' and circulating cement back to surface, all other intervals will be isolated by the 9 5/8 intermediate and 7" production casing.

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4. Proposed Casing ProgramSee
COA

HOLE SIZE	CASING SIZE	WT./GRADE	THREAD/COLLAR	SETTING DEPTH (MD)	TOP CEMENT
Conductor	20"	94# H-40	8rd STC	120'	Surface
17.5"	13 3/8" (new)	54.5# J-55	8rd STC	1,825' 1900'	Surface
12.25"	9 5/8" (new)	40# J-55	8rd LTC	4,040'	Surface
8.75"	7" (new)	26# P-110HC	8rd BTC	11,100'	3,540'
6.125"	4 1/2" (new)	13.5# P-110HC	8rd BTC	10,200'-15,262'	10,200'

** 4.5" casing will be set at 10,200 MD with Baker Liner Hanger/packer w/ cement up to liner hanger.

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.****A. 13 3/8"****SURFACE****CEMENT TO SURFACE 100% EXCESS OVER CALCULATED**

LEAD 1250 SACKS CLASS "C" +4% BENTONITE +2% CACL +.25# CELLO-FLAKE+.25% DEFOAMER, 13.5 PPG, 1.75 YIELD

TAIL: 250 SACKS CLASS "C"+2%CACL+.25# CELLO-FLAKE+.25% DEFOAMER, 14.8 PPG, 1.35 YIELD

B. 9 5/8"**INTERMEDIATE****CEMENT TO SURFACE 50% EXCESS OVER CALCULATED**

LEAD 850 SACKS CLASS "C" 35/65 +6% BENTONITE+5% SALT+.25% DEFOAMER 12.8 PPG, 1.9 YIELD

TAIL 250 SACKS CLASS "C" + .25% DEFOAMER, 14.8 PPG, 1.33 YIELD

C. 7"**PRODUCTION**

CEMENT TO 3,540' (WILL RUN FLUID CALIPER) 25% EXCESS OVER FLUID CALIPER, OR 50% OVER CALCULATED.

LEAD 950 SACKS CLASS C 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 "H" STAR BOND+.5% FL-10+.2%C-20, +3# GILSONITE+.25% DEFOAMER+3% SALT 13.2 PPG, 1.6 YIELD

D.**4.5"****LINER:**

600 SACKS CLASS H 50:50 POZ, 14.2 PPG, 1.3 YIELD 50% EXCESS, ADDITIVES AS RECOMMENDED BY CEMENT COMPANY DETERMINED BY WELLBORE CONDITIONS

JUL 05 2013

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

A 2000# WP Annular will be installed after running the 13-3/8" casing and tested to 1500#. 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" BOP 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 1st test, will test again as per BLM Onshore Oil and Gas order #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 1,825'. 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 1,825' to 4,040' 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 4,040' to 11,100' 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 6000' to TD (8.4 to 8.9 ppg), control filtrate with starch and water loss additives. Clean hole with pre-hydrated freshwater bentonite sweeps as necessary. System properties: viscosity 32-24, fluid loss <20 ml/30min.

Drill 6 1/8" horizontal production hole from 11,100'-15,262' with **fresh water (8.4-8.7 ppg)**, control filtrate and increase viscosity with Xanthan gum and Poly Anionic Cellulose. Clean hole with high viscosity sweeps and lubricants as necessary. System Properties viscosity 34-36, 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.

Mud monitoring system: Mud will be maintained and checked daily for mud weight, viscosity, API water loss, pH, etc. Additional electronic monitoring will include a pit volume totalizer to monitor mud volume in active system, pump rate, and mud return flow percentage. H2S monitors will be located on rig floor, shale shakers, and mud tanks. Gas chromatograph with monitor hydrocarbon gas content of mud from 3,000' to TD.

Auxiliary Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times
- 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:

- a. Testing: No DST's will be conducted.
- b. Open hole logs are planned for TD of vertical hole (KOP, 10,375' TVD).
 - 1. Dual lateral log and gamma ray, compensated neutron, caliper log.
- c. Mud logging will take place from 3,000ft to TD 10ft samples
- d. Gyro survey will be run at KOP of 10,375'
- e. MWD (directional) and LWD (gamma) surveys will be taken from KOP (10,375') to TD

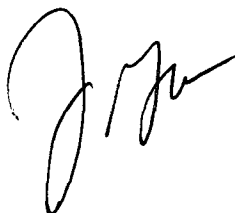
POTENTIAL HAZARDS:

No significant hazards are expected, no abnormal pressures or temperatures are expected, no loss circulation is expected. **Expected pressure gradient will be less than .433 psi/ft, Estimated BHP of 3,500 psi, BHT of 140 degrees F.** Lost circulation may occur, no H₂S is expected, but the operator will utilize a 3rd party H₂S monitoring package from 1,825' to TD. If H₂S 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 Permian, LLC anticipates drilling operations to begin around August 01, 2013 and completed in 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 Permian, LLC



2/27/13
Date

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Nadel & Gussman HEYCO, LLC

Lea County, NM

Sec 23,T19S,R34E

Blue Quail 23 Federal #1H

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Wellbore #1

Plan: Design #1

DDC Well Planning Report

22 January, 2013



DDC Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Nadel & Gussman HEYCO, LLC
Project: Lea County, NM
Site: Sec 23,T19S,R34E
Well: Blue Quail 23 Federal #1H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Site Sec 23,T19S,R34E
TVD Reference: WELL @ 3781.00ft (Patriot)
MD Reference: WELL @ 3781.00ft (Patriot)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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Project	Lea County, NM	System Datum:	Mean Sea Level
Map System:	US State Plane 1927 (Exact solution)		
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 23,T19S,R34E				
Site Position:		Northing:	597,586.6000 ft	Latitude:	32° 38' 24.896 N
From:	Map	Easting:	749,463.4000 ft	Longitude:	103° 31' 22.560 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.44 °

Well	Blue Quail 23 Federal #1H					
Well Position	+N/-S	0.00 ft	Northing:	597,586.6000 ft	Latitude:	32° 38' 24.896 N
	+E/-W	0.00 ft	Easting:	749,463.4000 ft	Longitude:	103° 31' 22.560 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	3,781.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/16/2013	7.40	60.54	48,711

Design	Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	269.614	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
10,374.54	0.00	0.000	10,374.54	0.00	0.00	0.000	0.000	0.000	0.00	
11,124.54	90.00	269.614	10,852.01	-3.21	-477.45	12.000	12.000	-12.051	269.61	
15,262.38	90.00	269.614	10,852.00	-31.07	-4,615.20	0.000	0.000	0.000	0.00	PBHL Blue Quail 23

DDC Well Planning Report



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MD Reference: WELL @ 3781.00ft (Patriot)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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JUL 05 2013

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Build 12° / 100'									
10,374.54	0.00	0.000	10,374.54	0.00	0.00	0.00	0.000	0.000	0.000
10,400.00	3.06	269.614	10,399.99	0.00	-0.68	0.68	12.000	12.000	0.000
10,425.00	6.06	269.614	10,424.91	-0.02	-2.66	2.66	12.000	12.000	0.000
10,450.00	9.06	269.614	10,449.69	-0.04	-5.95	5.95	12.000	12.000	0.000
10,475.00	12.06	269.614	10,474.26	-0.07	-10.53	10.53	12.000	12.000	0.000
10,500.00	15.06	269.614	10,498.56	-0.11	-16.39	16.39	12.000	12.000	0.000
10,525.00	18.06	269.614	10,522.52	-0.16	-23.51	23.51	12.000	12.000	0.000
10,550.00	21.06	269.614	10,546.08	-0.21	-31.88	31.88	12.000	12.000	0.000
10,575.00	24.06	269.614	10,569.16	-0.28	-41.47	41.47	12.000	12.000	0.000
10,600.00	27.06	269.614	10,591.71	-0.35	-52.25	52.25	12.000	12.000	0.000
10,625.00	30.06	269.614	10,613.67	-0.43	-64.20	64.20	12.000	12.000	0.000
10,650.00	33.06	269.614	10,634.97	-0.52	-77.28	77.28	12.000	12.000	0.000
10,675.00	36.06	269.614	10,655.56	-0.62	-91.46	91.46	12.000	12.000	0.000
10,700.00	39.06	269.614	10,675.38	-0.72	-106.69	106.69	12.000	12.000	0.000
10,725.00	42.06	269.614	10,694.37	-0.83	-122.94	122.95	12.000	12.000	0.000
10,750.00	45.06	269.614	10,712.48	-0.94	-140.17	140.17	12.000	12.000	0.000
10,775.00	48.06	269.614	10,729.67	-1.07	-158.32	158.32	12.000	12.000	0.000
10,800.00	51.06	269.614	10,745.89	-1.19	-177.34	177.34	12.000	12.000	0.000
10,825.00	54.06	269.614	10,761.09	-1.33	-197.19	197.19	12.000	12.000	0.000
10,850.00	57.06	269.614	10,775.23	-1.47	-217.80	217.80	12.000	12.000	0.000
10,875.00	60.06	269.614	10,788.27	-1.61	-239.13	239.13	12.000	12.000	0.000
10,900.00	63.06	269.614	10,800.17	-1.76	-261.10	261.11	12.000	12.000	0.000
10,925.00	66.06	269.614	10,810.91	-1.91	-283.68	283.68	12.000	12.000	0.000
10,950.00	69.06	269.614	10,820.46	-2.07	-306.78	306.79	12.000	12.000	0.000
10,975.00	72.06	269.614	10,828.78	-2.22	-330.35	330.36	12.000	12.000	0.000
11,000.00	75.06	269.614	10,835.85	-2.39	-354.32	354.33	12.000	12.000	0.000
11,025.00	78.06	269.614	10,841.67	-2.55	-378.64	378.64	12.000	12.000	0.000
11,050.00	81.06	269.614	10,846.20	-2.71	-403.22	403.23	12.000	12.000	0.000
11,075.00	84.06	269.614	10,849.44	-2.88	-428.00	428.01	12.000	12.000	0.000
11,100.00	87.06	269.614	10,851.37	-3.05	-452.93	452.94	12.000	12.000	0.000
EOB @ 90° Inc / 269.614° Azm / 10852' TVD									
11,124.54	90.00	269.614	10,852.01	-3.21	-477.45	477.47	12.000	12.000	0.000
11,200.00	90.00	269.614	10,852.00	-3.72	-552.91	552.92	0.000	0.000	0.000
11,300.00	90.00	269.614	10,852.00	-4.39	-652.91	652.92	0.000	0.000	0.000
11,400.00	90.00	269.614	10,852.00	-5.07	-752.91	752.92	0.000	0.000	0.000
11,500.00	90.00	269.614	10,852.00	-5.74	-852.91	852.92	0.000	0.000	0.000
11,600.00	90.00	269.614	10,852.00	-6.41	-952.90	952.92	0.000	0.000	0.000
11,700.00	90.00	269.614	10,852.00	-7.09	-1,052.90	1,052.92	0.000	0.000	0.000
11,800.00	90.00	269.614	10,852.00	-7.76	-1,152.90	1,152.92	0.000	0.000	0.000
11,900.00	90.00	269.614	10,852.00	-8.43	-1,252.90	1,252.92	0.000	0.000	0.000
12,000.00	90.00	269.614	10,852.00	-9.11	-1,352.89	1,352.92	0.000	0.000	0.000
12,100.00	90.00	269.614	10,852.00	-9.78	-1,452.89	1,452.92	0.000	0.000	0.000
12,200.00	90.00	269.614	10,852.00	-10.45	-1,552.89	1,552.92	0.000	0.000	0.000
12,300.00	90.00	269.614	10,852.00	-11.13	-1,652.89	1,652.92	0.000	0.000	0.000
12,400.00	90.00	269.614	10,852.00	-11.80	-1,752.89	1,752.92	0.000	0.000	0.000
12,500.00	90.00	269.614	10,852.00	-12.47	-1,852.88	1,852.92	0.000	0.000	0.000
12,600.00	90.00	269.614	10,852.00	-13.15	-1,952.88	1,952.92	0.000	0.000	0.000
12,700.00	90.00	269.614	10,852.00	-13.82	-2,052.88	2,052.92	0.000	0.000	0.000
12,800.00	90.00	269.614	10,852.00	-14.49	-2,152.88	2,152.92	0.000	0.000	0.000
12,900.00	90.00	269.614	10,852.00	-15.16	-2,252.87	2,252.92	0.000	0.000	0.000
13,000.00	90.00	269.614	10,852.00	-15.84	-2,352.87	2,352.92	0.000	0.000	0.000
13,100.00	90.00	269.614	10,852.00	-16.51	-2,452.87	2,452.92	0.000	0.000	0.000

DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
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Project: Lea County, NM
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Wellbore: Wellbore #1
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13,200.00	90.00	269.614	10,852.00	-17.18	-2,552.87	2,552.92	0.000	0.000	0.000
13,300.00	90.00	269.614	10,852.00	-17.86	-2,652.86	2,652.92	0.000	0.000	0.000
13,400.00	90.00	269.614	10,852.00	-18.53	-2,752.86	2,752.92	0.000	0.000	0.000
13,500.00	90.00	269.614	10,852.00	-19.20	-2,852.86	2,852.92	0.000	0.000	0.000
13,600.00	90.00	269.614	10,852.00	-19.88	-2,952.86	2,952.92	0.000	0.000	0.000
13,700.00	90.00	269.614	10,852.00	-20.55	-3,052.86	3,052.92	0.000	0.000	0.000
13,800.00	90.00	269.614	10,852.00	-21.22	-3,152.85	3,152.92	0.000	0.000	0.000
13,900.00	90.00	269.614	10,852.00	-21.90	-3,252.85	3,252.92	0.000	0.000	0.000
14,000.00	90.00	269.614	10,852.00	-22.57	-3,352.85	3,352.92	0.000	0.000	0.000
14,100.00	90.00	269.614	10,852.00	-23.24	-3,452.85	3,452.92	0.000	0.000	0.000
14,200.00	90.00	269.614	10,852.00	-23.92	-3,552.84	3,552.92	0.000	0.000	0.000
14,300.00	90.00	269.614	10,852.00	-24.59	-3,652.84	3,652.92	0.000	0.000	0.000
14,400.00	90.00	269.614	10,852.00	-25.26	-3,752.84	3,752.92	0.000	0.000	0.000
14,500.00	90.00	269.614	10,852.00	-25.93	-3,852.84	3,852.92	0.000	0.000	0.000
14,600.00	90.00	269.614	10,852.00	-26.61	-3,952.84	3,952.92	0.000	0.000	0.000
14,700.00	90.00	269.614	10,852.00	-27.28	-4,052.83	4,052.92	0.000	0.000	0.000
14,800.00	90.00	269.614	10,852.00	-27.95	-4,152.83	4,152.92	0.000	0.000	0.000
14,900.00	90.00	269.614	10,852.00	-28.63	-4,252.83	4,252.92	0.000	0.000	0.000
15,000.00	90.00	269.614	10,852.00	-29.30	-4,352.83	4,352.92	0.000	0.000	0.000
15,100.00	90.00	269.614	10,852.00	-29.97	-4,452.82	4,452.92	0.000	0.000	0.000
15,200.00	90.00	269.614	10,852.00	-30.65	-4,552.82	4,552.92	0.000	0.000	0.000
TD @ 15262' MD / 10852' TVD									
15,262.38	90.00	269.614	10,852.00	-31.07	-4,615.20	4,615.30	0.000	0.000	0.000

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Design Targets

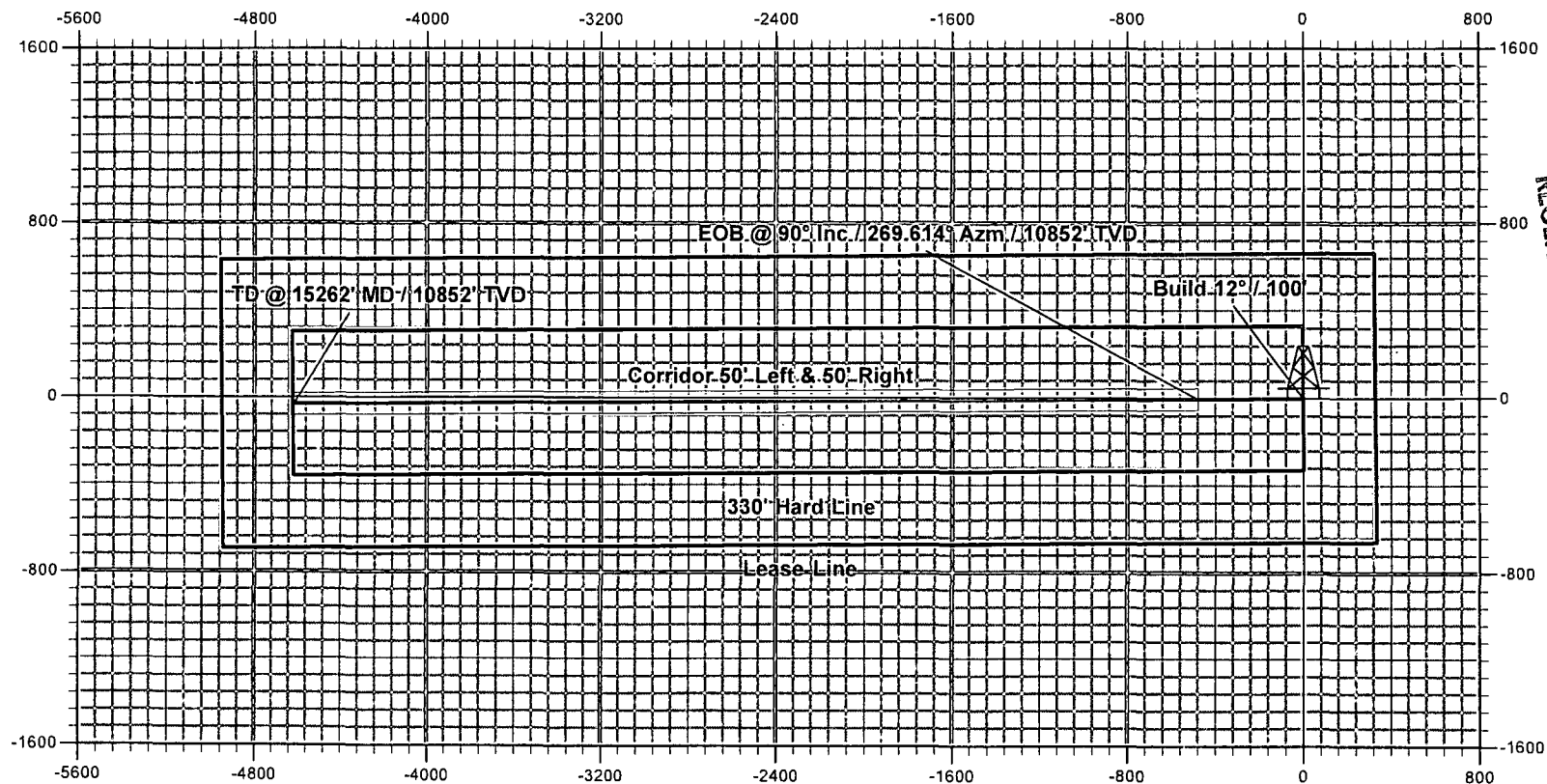
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL Blue Quail 23 F	90.00	269.614	10,852.00	-31.07	-4,615.20	597,555.5337	744,848.1999	32° 38' 24.934 N	103° 32' 16.533 W
- plan hits target center									
- Rectangle (sides W100.00 H0.00 D4,137.84)									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,374.54	10,374.54	0.00	0.00	Build 12° / 100'
11,124.54	10,852.01	-3.21	-477.45	EOB @ 90° Inc / 269.614° Azm / 10852' TVD
15,262.38	10,852.00	-31.07	-4,615.20	TD @ 15262' MD / 10852' TVD

Nadel and Gussman HEYCO, LLC

Lea County, NM
Blue Quail 23 Federal #1H
Quote 130063
Design #1



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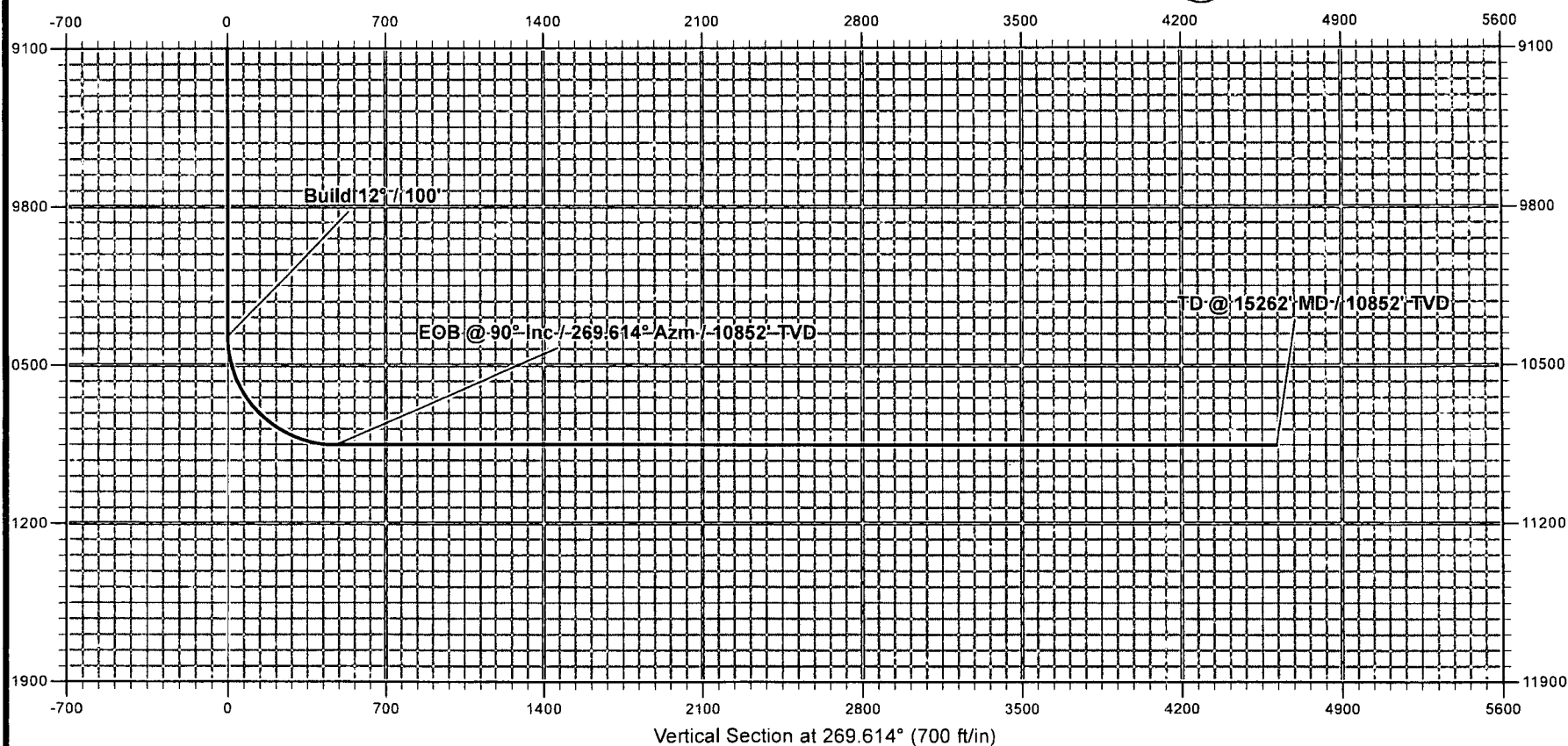
JUL 05 2013

HOES OGD

Nadel and Gussman HEYCO, LLC

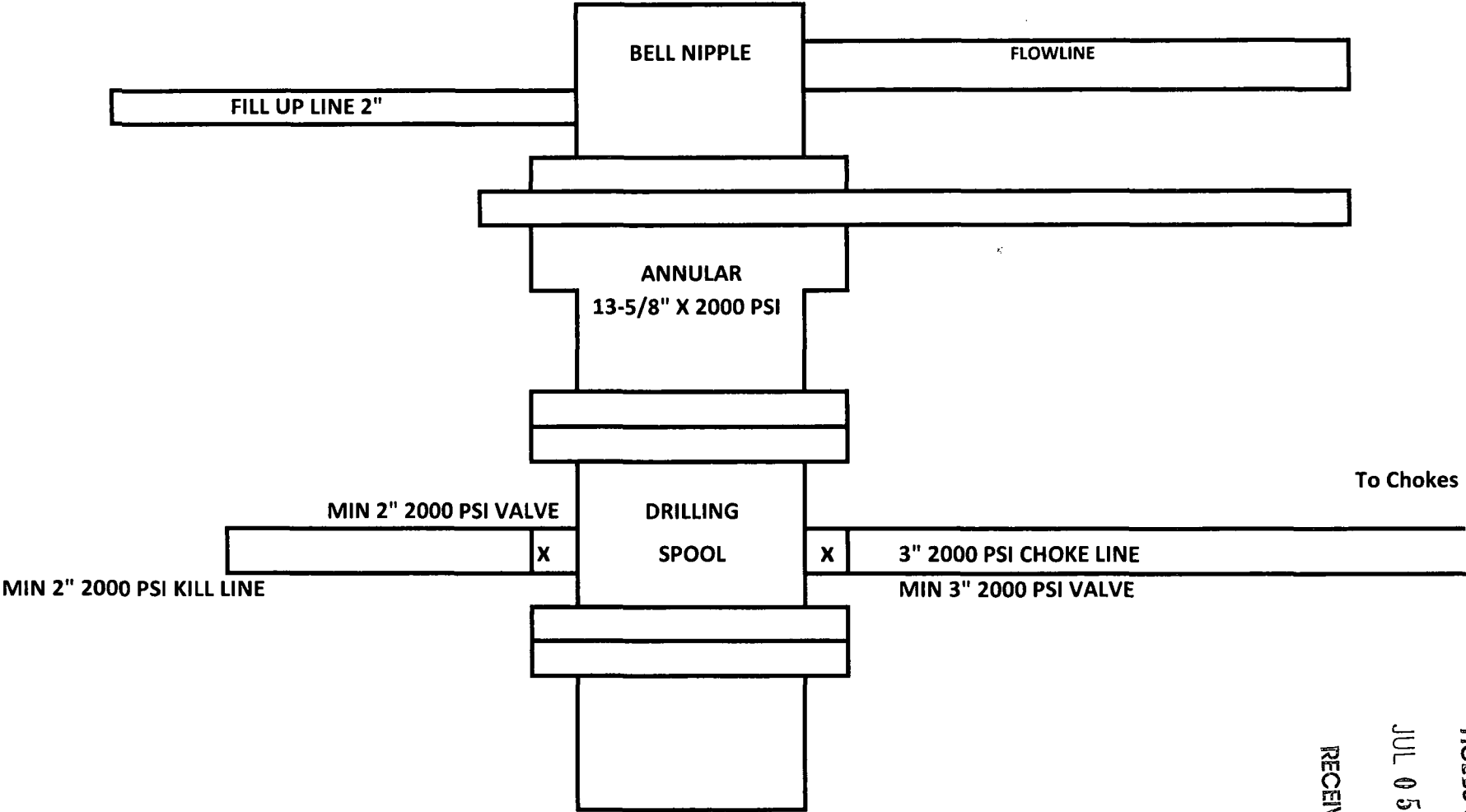
Lea County, NM
Blue Quail 23 Federal #1H
Quote 130063
Design #1

HOBBBS OCD
JUL 05 2013
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Well Blue Quail 23 Federal #1H
660 FSL, 330 FEL, Sec. 23, 19S, 34E
Lea County New Mexico

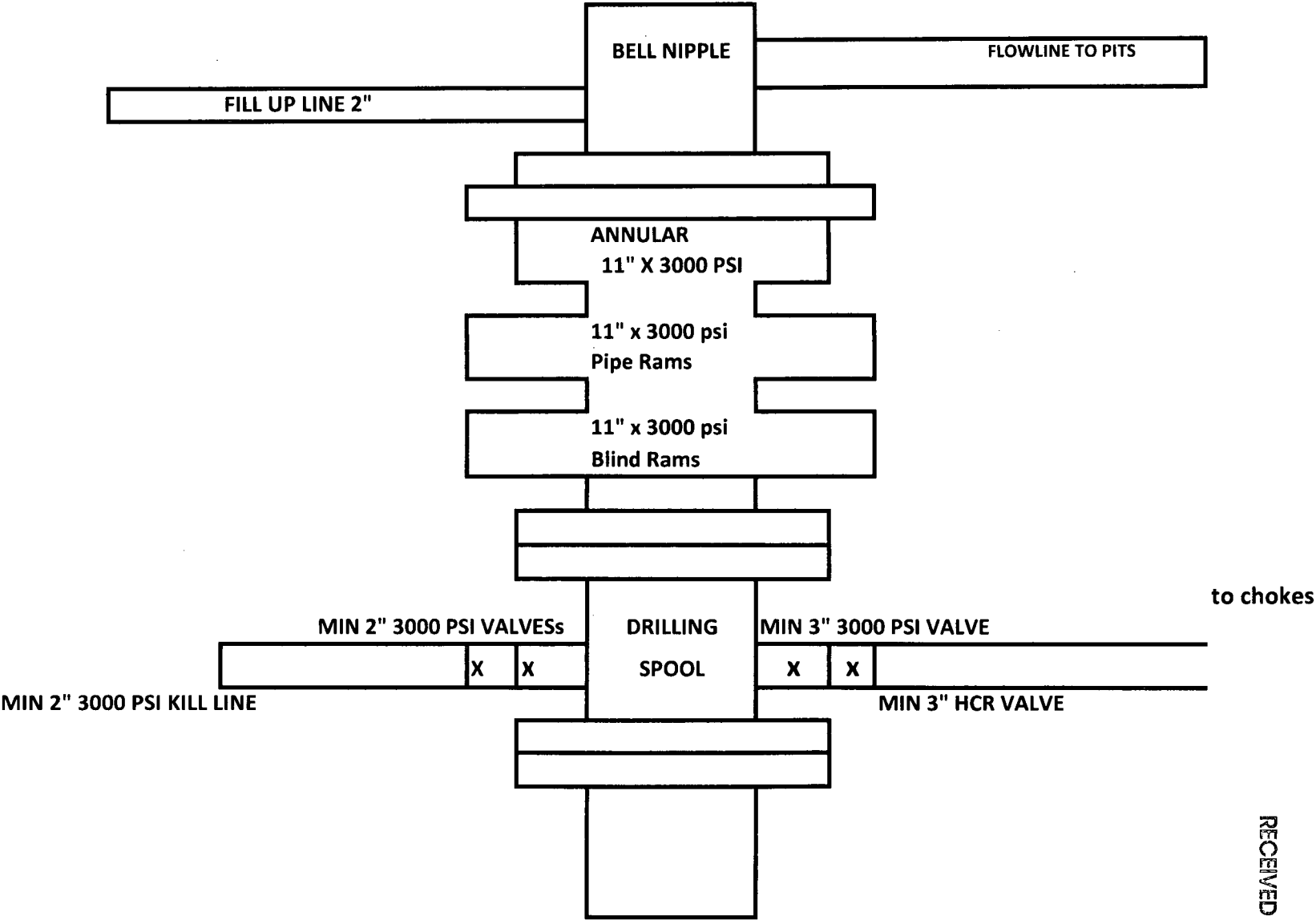
Nadel and Gussman Permian, L.L.C.
BOP Scematic 12.25" hole



HOBBES OCD
JUL 05 2013
RECEIVED

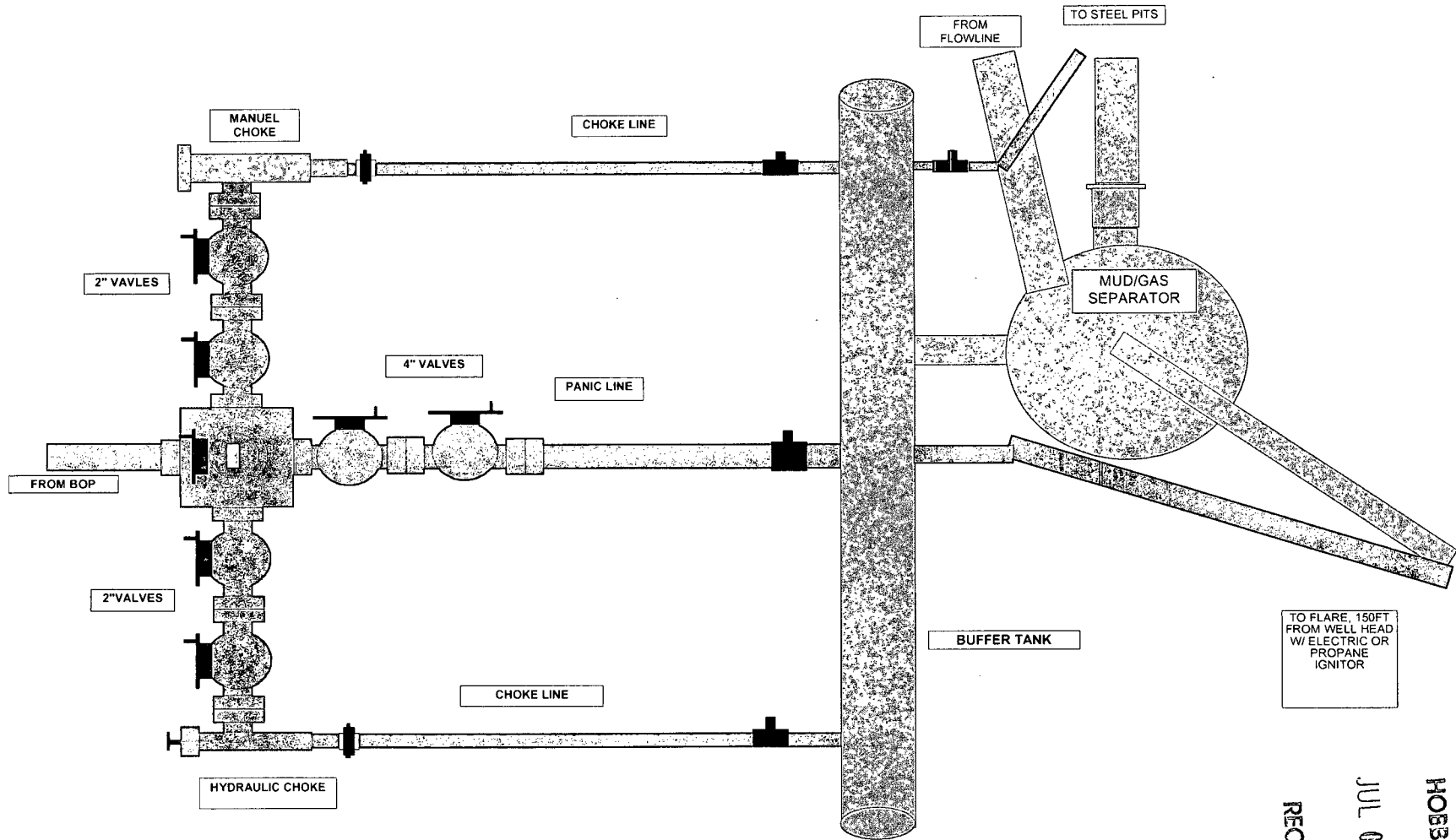
Well Blue Quail 23 Federal #1H
660 FSL, 330 FEL, Sec. 23, 19S, 34E
Lea County New Mexico

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



HOESS OCD
JUL 05 2013
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Blue Quail 23 Federal #1H
3000 psi BOP Manifold System

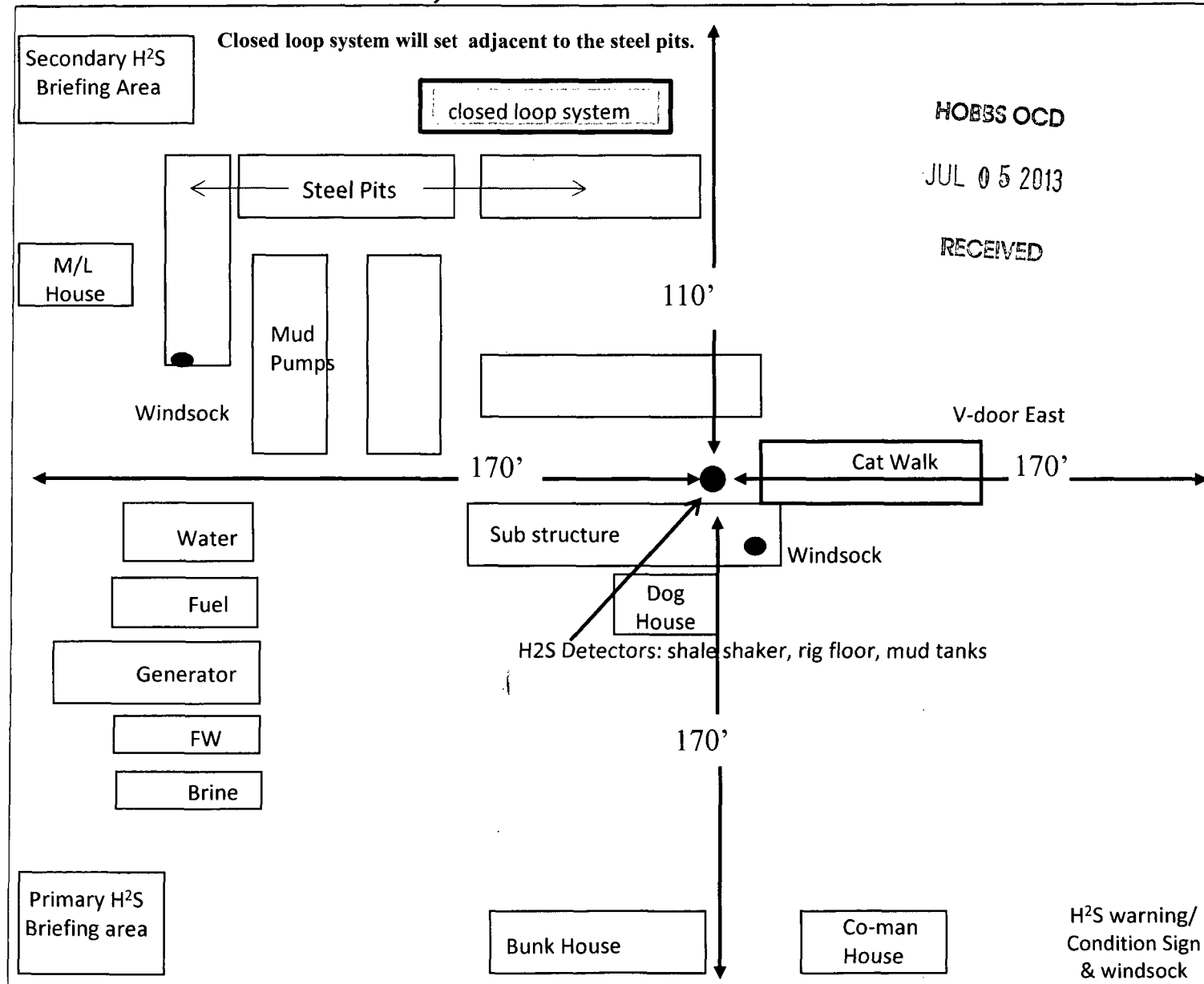


TO FLARE, 150FT
FROM WELL HEAD
W/ ELECTRIC OR
PROPANE
IGNITOR

HOBS OCD
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Secondary egress: southwest to COG Tusk Federal

Prevailing wind out of SW



Nadel and Gussman HEYCO pad layout 270' x 340'

North



terrain: sandy soil, scattered dunes

Blue Quail 23 Federal #1H

Sec. 23, T-19S, R-34E
Lea County NM

Location Road to Pre-existing lease road