

12-442

OCD-HOBBS  
HOBBS OCD

Form 3160-3  
(August 2007)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

MAY 10 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER  
RECEIVED

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

5. Lease Serial No.  
NMNM-108973

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit or CA Agreement, Name and No.  
CA APPLN. FILED W/ APD

8. Lease Name and Well No.  
HARRIER 35 FEDERAL.COM 15 **392147**

9. API Well No.  
30-025- **40572**

10. Field and Pool, or Exploratory  
WILDCAT; BONE SPRING **<97903>**

11. Sec., T. R. M. or Blk. and Survey or Area  
SWNE 35-25S-32E NMPM = SHL  
SWNE 34-25S-32E NMPM = BHL

12. County or Parish  
LEA

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 VPR OPERATING LLC

3a. Address 1406 CAMP CRAFT ROAD, SUITE 106  
AUSTIN, TX 78746

3b. Phone No. (include area code)  
512 327-8776

4. Location of Well (Report location clearly and in accordance with any State requirements \*)  
At surface 1980' FNL & 1500' FEL 35-T25S-R32E  
At proposed prod. zone 1980' FNL & 2310' FEL 34-T25S-R32E

14. Distance in miles and direction from nearest town or post office\*  
26 AIR MILES WSW OF JAL, NM

15. Distance from proposed\* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 1500'

16. No. of acres in lease 1,160

17. Spacing Unit dedicated to this well  
SWNE & S2NW4 35-25S-32E NMPM  
S2NE4 34-25S-32E NMPM

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. 1320' (P&A)

19. Proposed Depth 10,000' TVD & 15,794' MD  
PILOT TD 12,200'

20. BLM/BIA Bond No on file  
NMB000600

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3,363' UNGRADED

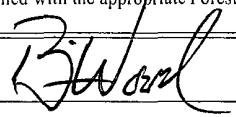
22. Approximate date work will start\*  
03/31/2012

23. Estimated duration  
8-9 WEEKS

24. Attachments

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

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM

25. Signature  Name (Printed/Typed) BRIAN WOOD (505 466-8120) Date 03/28/2012

Title CONSULTANT (FAX 505 466-9682)

Approved by (Signature) **/s/ James Stovall** Name (Printed/Typed) Date **MAY 09 2012**

Title FIELD MANAGER Office CARLSBAD FIELD OFFICE

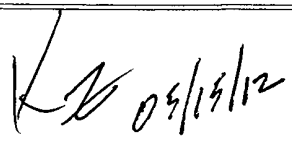
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 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)

 05/15/12

Carlsbad Controlled Water Basin

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Approval Subject to General Requirements  
& Special Stipulations Attached

MAY 16 2012

## Drilling Plan

### 1. Estimated Tops of Geologic Markers

Name	Depth	Water/Mineral
Quaternary	0'	Fresh Water
Rustler	740'	Fresh Water
Top Salt	1,100'	
Base Salt	4,400'	
Top Lamar	4,620'	
Base Lamar	4,670'	
Bell Canyon	4,670'	Oil
Cherry Canyon	5,850'	Oil
Brushy Canyon	7,550'	Oil
Bone Spring	8,820'	Oil
Upper Avalon Shale	8,830'	Oil
Middle Avalon Shale	9,020'	Oil
Lower Avalon Shale	9,400'	Oil
1st Bone Spring Sand	9,830'	Oil
2nd Bone Spring Sand	10,470'	Oil
3rd Bone Spring Sand	11,470'	Oil
Wolfcamp	11,970'	
TD Pilot Hole	12,200'	
MD (TVD 10,000')	15,794'	

### 2. Possible Mineral and Water Bearing Formations

Fresh water will be protected by setting surface casing a minimum of 25' into the Rustler. Depth to ground water per the Office of the State Engineer (PRRC Mapping Portal); there is one record in the area to the west of our location in section 32 of 25S 32E that reports depth to ground water is 290'.

This well is prospective for oil and gas from the top of the Delaware to the base of the 3<sup>rd</sup> Bone Spring sand.

### 3. Pressure control Equipment

A 13-5/8" 5000 psi working pressure BOP consisting of one set of blind rams, one set of pipe rams and a 5000 psi annular type preventer will be utilized. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system will be installed. A rotating head will be used below 5,465'. A I.B.O.P. will be utilized as part of the Top Drive maintained in operable condition. A drill string safety valve in

the open position will be available on the rig floor. Mud gas separator will be available if drilling in H2S areas.

See COA  
VPR Operating requests a variance for Pinpoint Drilling, rig #12 to use a co-flex line between the BOP and choke manifold for this well. The manufacturer of the line is MSM and the serial number of the line is 1UAAP5L111/04503946. The co-flex is 44' long with 4 1/16" 5k psi flanges, has a 5k psi wp rating, and has anchors at both ends. The co-flex will be tested with the other BOPE equipment to Onshore Order #2 requirements.

BOP unit will be hydraulically operated. BOP will be nipped up and operated at least once a day while drilling. The blind rams will be operated when out of the hole during trips. No abnormal pressure or temperature is expected. From the base of the 13 3/8" surface pipe to TD, the well will be equipped with a 5M BOP stack system with 3M rotating head.

Before drilling out of 13 3/8" surface pipe the ram preventers will be tested to 250 psi low and 3000 psi high by an independent service company. The annular preventer will be tested to 250 psi low and 1500 psi high. Before drilling out of intermediate pipe the ram preventers will be tested to 250 psi low and 5000 psi high by an independent service company. The annular preventer will be tested to 250 psi low and 2500 psi high. Choke manifold and associated valves will be tested to 5,000 psi high and 250 psi low. A Coflex (specs attached) line will be utilized from the B.O.P stack to the choke manifold and will be tested to 5,000 psi high and 250 psi low. An electro-hydraulic choke (Super Choke) Unit will also be utilized on choke manifold.

#### 4. Casing & Cement

Yield used 0.94  
See COA  
After setting surface and intermediate casing, VPR plans to drill a pilot hole to a depth of 12,200' and log the hole. VPR will then set an isolation cement plug from 12,200' - 11,300' consisting of 400 sacks Class H + 0.4% PF65 + 0.5% PF13. A kick-off plug will then be set from 8,700' - 9,400'. This plug will consist of 400 sacks Class H + 0.4% PF65 + 0.4% PF13. Density = 17.5, yield = 0.94, and water = 3.37. Excess over the open hole = 25%. Excess in the cased hole = 10%.

VPR will then dress off the cement and kick off an 8-3/4" lateral at 9,283', build an 8°/100' curve to an inclination of 90° landing at 10,000' tvd, and drill horizontally to a TD of 15,794' MD. VPR will then run 5-1/2" from 0 - 15,794' and cement to at least 4,400' (i. e., tie back into 9 5/8" intermediate casing with at least 200' overlap).

VPR Operating LLC  
 Harrier 35 Federal Com 1H  
 SHL: 1980' FNL & 1500' FEL Section 35  
 BHL: 1980' FNL & 2310' FEL Section 34  
 T. 25 S., R. 32 E., Lea County, NM

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Casing design factors: collapse = 1.125, burst = 1.125, and tension = 1.6

The casing program will be:

Hole Size	O. D.	lb/ft	Grade	Age	Collar	Range
20.0"		conductor				0' - 40'
17.5"	13.375"	54.5	J-55	New	STC	0' - 1,000' 850
12.25"	9.625"	40	J-55	New	LTC	0' - 4,635'
8.75"	5.5"	20	HCP-110	New LTC		0' - 9,100'
8.75"	5.5"	20	HCP-110	New BTC		9,100' - 15,794

If hole conditions require, then an alternate hole and casing design described below will be used:

Hole Size	O. D.	lb/ft	Grade	Age	Collar	Range
20.0"		conductor				0' - 40'
17.5"	13.375"	54.5	J-55	New	STC	0' - 1,000' 850
12.25"	9.625"	40	J-55	New	LTC	0' - 4,635'

**Drilling liner, if required:**

8.75"	7.0"	29	P-110	New	UFL	4,435' - 10,409'
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(minimum 200' tie back)

**Long string:**

6.125"	4.5"	11.60	HCP-110	New	LTC	0' - 9100'
6.125"	4.5"	11.60	HCP-110	New	BTC	9100' - 15794

Surface casing will be cemented to the surface with >100% excess. Lead with 650 sacks (1,137 cubic feet) Class C+ 4% PF20 + 2% PF1 + .125#/sack PF 29 + 0.25#/sack PF46. Density = 13.5, yield = 1.75, and water = 9.15. Tail with 200 sacks Class C (268 cubic feet) Class C. Density = 14.8, yield = 1.34, and water = 6.35. Centralizers will be run in compliance with Onshore Order 2 (at a minimum, on bottom 3 joints starting with shoe joint).

Intermediate casing will be cemented to the surface with 100% excess. Lead with 835 sacks 35/65 Poz/C + 5% PF44 (BWOW) + 6% PF20 +3#/sack PF 42+0.125#/sack PF29 + 0.25% PF 46+0.2%PF 13. Density = 12.6, yield = 2.06, and water = 11.00. Tail with 200 sacks (266 cubic feet) Class C + 0.3% PF13. Density = 14.8, yield = 1.33, and water = 6.35. Centralizers will be run on the first 3 joints and then every third joint back to the surface.

Production casing (5.5") will be cemented to surface with 35% excess in 2 stages using a stage tool set @ 9000'. **Stage 1:** 1530 sacks PVL + 1.3% PF44(BWOW) +5% PF174 +0.5% PF606 +0.8% PF13+0.2% PF153+0.25#/sack PF 46. Density =13.0, Yield 1.48, H2O 7.57. **Stage 2 lead:** 550 sacks 35/65 P/H +5% PF44(BWOW) +6% PF 20 +2#/sack PF 42 +0.4% PF 13 + 0.125#/sack PF 29 + 0.25#/sack PF46. Density 12.6, yield 2.06, H2O 11.06. **Stage 2 tail:** 200 sacks (296 cubic feet) PVL + 1.3% PF-44(BWOW) +5% PF 174 +0.5% PF606 + 0.8% PF13 + 0.2% PF153+0.25#/sack PF 46. Density 13.0, Yield 1.48 H2O 7.57. Gamma log interpretation will determine centralizer locations.

**If the alternate hole and casing design are needed the alternate casing will be cemented as follows:**

#### 7" Drilling liner:

Cement will tie back to Intermediate with a minimum of 200' of overlap using a 25% excess with 675 sacks (999 cubic feet) PVL + 1.3% PF-44(BWOW) +5% PF174 +0.5% PF 606 + 0.2% PF 153 + 0.8% PF 13. Density 13.0, Yield 1.48, H2O 7.57.

#### 4.5" Casing:

Production casing (4.5") will be cemented to surface with 35% excess in 2 stages using a stage tool set @ 9000'. **Stage 1:** 550 sacks (814 cubic feet) PVL + 1.3% PF44(BWOW) +5% PF174 +0.5% PF606 +0.8% PF13+0.2% PF153. Density =13.0, Yield 1.48, H2O 7.57. **Stage 2 lead:** 900 sacks (1854 cubic feet) 35/65 Poz/H +5% PF-44(BWOW) +6% PF 20 +2#/sack PF 42 +0.4% PF 13 + 0.12#/sack PF 29 + 0.25#/sack PF46. Density 12.6, yield 2.06, H2O 11.06. **Stage 2 tail:** 200 sacks (296 cubic feet) PVL + 1.3% PF44(BWOW) +5% PF 174 +0.5% PF606 + 0.8% PF13 + 0.2% PF153. Density 13.0, Yield 1.48 H2O 7.57. Gamma log interpretation will determine centralizer locations.

#### 5. Proposed Mud System

Interval	Density	Plastic Viscosity	Viscosity	Yield Point	pH	API Filtrate	Solids	Chloride
40-1000 <sup>850</sup>	8.5-9.2	32-36	8-12	8-12	10.5	NC	<5	1k-5k
1000-4635	10.0-10.1	28-29	N/A	N/A	10.5	NC	<2	185k
4635-8700	8.8-9.2	28-29	N/A	N/A	10.5	N/A	<2	45k-95k
8700-9700	8.8-9.2	29-30	N/A	N/A	10.5	10-12	<2	45k-95k
9700-TD	8.8-9.2	29-30	N/A	N/A	10.5	10-12	<2	115k-140k

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run drill stem tests, open hole logs, and casing; the viscosity and water loss may have to be adjusted in order to meet these needs.

## 6. CORES, TESTS, & LOGS

See  
COA Dual Laterolog, Neutron/Density, Gamma Ray, and Caliper open hole logs will be run from the pilot hole TD to the 9-5/8" casing shoe. Gamma Ray and Neutron logs will be run from the 9-5/8" casing shoe back to the surface. A Gamma Ray and survey tool will be run via MWD through the curve build and the lateral.

A mud logger will be rigged up on the hole at 3,900' and remain on the hole to TD.

No cores or drill stem tests are planned at this time.

## 7. DOWN HOLE CONDITIONS

No abnormal pressures or temperatures are expected. VPR does not anticipate that there will be enough H<sub>2</sub>S from the surface of the Bone Spring formations to require an H<sub>2</sub>S plan. Nevertheless, as a precaution, an H<sub>2</sub>S plan is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP = 4,200 psi. Estimated BHT = 150° F.

## 8. OTHER INFORMATION

Construction will begin upon approval. Spud date will be once the pad is built. Drilling is expected to take 30-35 days. If production casing is run, then an additional 30 days will be required to complete the well and construct surface facilities.

A communitization agreement for the S2NE4 Section 34 and S2NW4 & SWNE Section 35 is being filed simultaneous with the APD. The aliquot parts described above are parts of BLM leases NMNM-108972 and NMNM-108973.

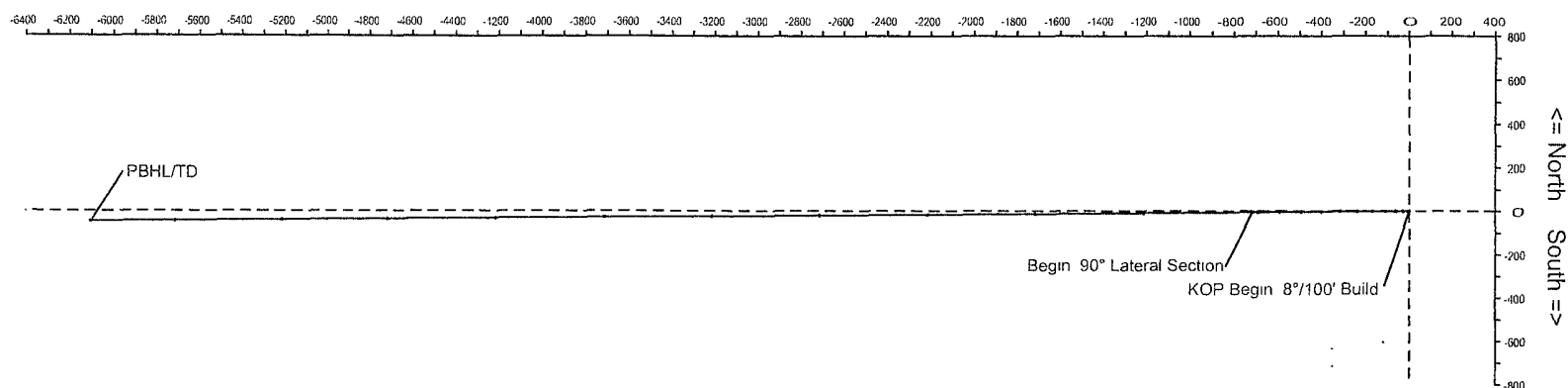
This APD replaces an earlier APD dated 12/11/2011 for a well named Harrier Federal Com 1H as discussed between John Maxey and Wesley Ingram. That well was staked at 330 FNL & 660 FWL 35-25s-32e and its BHL was 330 FSL & 330 FEL 34-25s-32e.

# VPR Operating

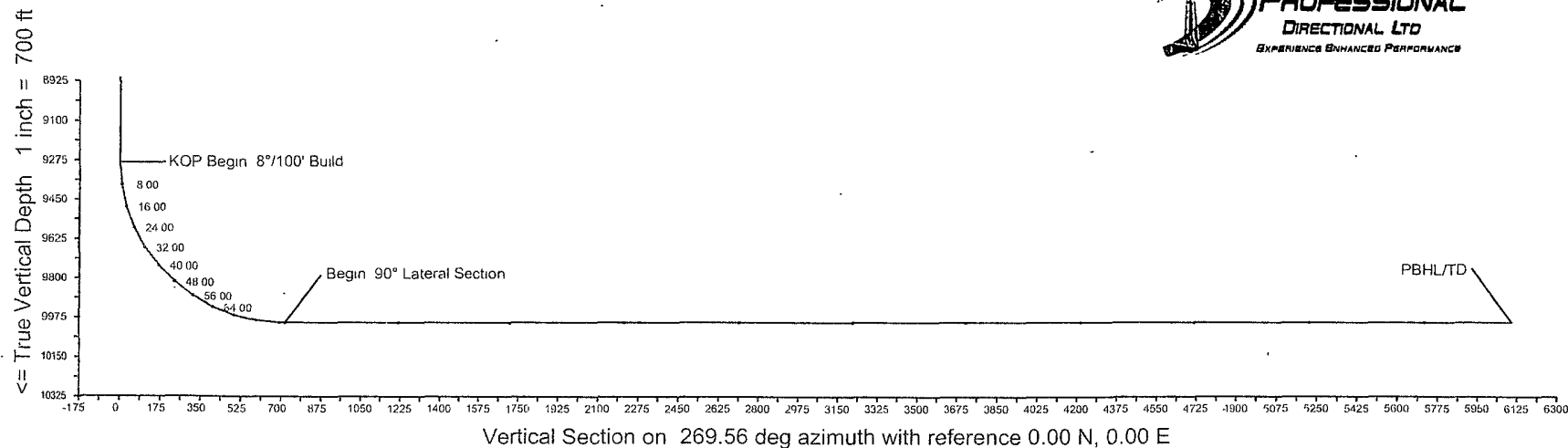
## Harrier 35 Federal #1H

### Lea County, New Mexico

1 inch = 800 ft <= West East =>



WELL PROFILE DATA rev1								
MD	Inc	Azi	TVD	N/-S	E/-W	DLS	Comment	02-28-2012
9284	0.00	269.57	9284	0	0	0.00	KOP Begin 8°/100' Build	
10409	90.00	269.57	10000	-5	-716	8.00	Begin 90° Lateral Section	
15794	90.00	269.57	10000	-46	-6101	0.00	PBHL/TD	



Vertical Section on 269.56 deg azimuth with reference 0.00 N, 0.00 E

# Professional Directional, Ltd

Company: VPR Operating LLC  
Well: Harrier 35 Federal 1  
Location: Lea County, New Mexico Sect35-25S-32E

Date: 28-Feb-2012

Rev 1

Page 1

Job# : 6392

NAD83 NM East gr elev=3363

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 269.57° Az (feet)	Grid Y	Grid X	Comments
Surface Location								396726.67	755434.67	1980 FNL 1500 FEL
9283.80	0.00	269.57	9283.80	0.00	0.00	0.00	0.00	396726.67	755434.67	KOP Begin 8°/100' Build
9383.80	8.00	269.57	9383.48	-0.05	-6.97	8.00	6.97	396726.62	755427.70	
9483.80	16.00	269.57	9481.21	-0.21	-27.74	8.00	27.74	396726.46	755406.92	
9583.80	24.00	269.57	9575.11	-0.47	-61.92	8.00	61.92	396726.20	755372.75	
9683.80	32.00	269.57	9663.33	-0.82	-108.82	8.00	108.83	396725.84	755325.84	
9783.80	40.00	269.57	9744.17	-1.27	-167.55	8.00	167.56	396725.40	755267.11	
9883.80	48.00	269.57	9816.04	-1.80	-236.96	8.00	236.97	396724.87	755197.71	
9983.80	56.00	269.57	9877.56	-2.39	-315.70	8.00	315.70	396724.28	755118.97	
10083.80	64.00	269.57	9927.52	-3.05	-402.23	8.00	402.24	396723.62	755032.44	
10183.80	72.00	269.57	9964.95	-3.75	-494.87	8.00	494.88	396722.92	754939.80	
10283.80	80.00	269.57	9989.12	-4.48	-591.81	8.00	591.83	396722.18	754842.85	
10383.80	88.00	269.57	9999.56	-5.24	-691.18	8.00	691.20	396721.43	754743.49	
10408.80	90.00	269.57	10000.00	-5.43	-716.18	8.00	716.20	396721.24	754718.49	Begin 90° Lateral Section
10908.80	90.00	269.57	10000.00	-9.22	-1216.16	0.00	1216.20	396717.45	754218.51	
11408.80	90.00	269.57	10000.00	-13.00	-1716.15	0.00	1716.20	396713.67	753718.52	
11908.80	90.00	269.57	10000.00	-16.79	-2216.13	0.00	2216.20	396709.88	753218.53	
12408.80	90.00	269.57	10000.00	-20.58	-2716.12	0.00	2716.20	396706.09	752718.55	
12908.80	90.00	269.57	10000.00	-24.37	-3216.11	0.00	3216.20	396702.30	752218.56	
13408.80	90.00	269.57	10000.00	-28.16	-3716.09	0.00	3716.20	396698.51	751718.58	
13908.80	90.00	269.57	10000.00	-31.95	-4216.08	0.00	4216.20	396694.72	751218.59	
14408.80	90.00	269.57	10000.00	-35.73	-4716.06	0.00	4716.20	396690.93	750718.61	
14908.80	90.00	269.57	10000.00	-39.52	-5216.05	0.00	5216.20	396687.15	750218.62	
15408.80	90.00	269.57	10000.00	-43.31	-5716.03	0.00	5716.20	396683.36	749718.64	
15793.96	90.00	269.57	10000.00	-46.23	-6101.18	0.00	6101.36	396680.44	749333.49	PBHL/TD





Harrier 35 Fed Com #1  
Section 35, T25S-R32E  
Lea Co., New Mexico

Surface Location: 1980' FNL, 1500' FEL, Section 35, T25S-R32E  
BHL: 1980' FNL, 2310' FEL, Section 34, T25S-R32E

Possible  
Deviation 0-5 degrees

20" Cond @ 40'  
26" Hole

13-3/8" CSG @ 1,000'  
54.5 # J-55 STC  
17.5" Hole

9 5/8" / 40#  
J-55 LTC SPDF  
@ 4635'  
12 1/4" Hole

KOP @ +/- 9,284'

Plug back  
to +/- 8,800' - 9,500'

Drill  
8 3/4" hole to 10,000' TVD  
15,794' MD

#### Formation Tops

Rustler	740'
Top Salt	1100'
Base Salt	4400'
Top Lamar	4620'
Base Lamar	4670'
Bell Canyon	4670'
Cherry Canyon	5850'
Brushy Canyon	7550'
Bone Spring	8820'
Upper Avalon Shale	8830'
Middle Avalon Shale	9020'
Lower Avalon Shale	9400'
1 <sup>st</sup> Bone Spring Sand	9830'
2nd Bone Spring Sand	10470'
3rd Bone Spring Sand	11470'
Wolcamp	11970'
TD Pilot Hole	12200'
MD TD	15,794'

KOP @ +/- 9,283'

MD @ EOC = 10,409', 90 Degrees  
TVD @ EOC = 10,000'  
Projected MD @ EOL = 15,794'  
Projected TVD @ EOL = 10,000'

#### Casing Program

13-3/8"	0-1,000'	12 459" drift
9 5/8" 40#/J-55/STC	0-4635'	8 75" special Drift
5 1/2" P-110 20# HC/BTC & LTC	15,794'	

#### Cement Program

Surface casing will be cemented to the surface with >100% excess. Lead with 650 sacks (1,137 cubic feet) Class C+ 4%  
% PF20 + 2% PF1 + 125#/sack PF 29 + 0 25#/sack PF46 Density = 13 5, yield = 1 75, and water = 9 15  
Tail with 200 sacks (268 cubic feet) Class C Density = 14 8, yield = 1 34, and water = 6 34  
Centralizers will be run in compliance with Onshore Order 2 (at a minimum, on bottom 3 joints starting with shoe joint)

Intermediate casing will be cemented to the surface with 35% excess. Lead with 835 sacks 35/65 Poz/C  
+ 5% PF44 (BWOW) + 6% PF20 + 3#/skPF42+0 125#/skPF29+0 25%PF46+0 2%PF13 Density = 12 6, yield = 2 06, and water = 11 00  
Tail with 200 sacks Class C + 0 3% PF13 Density = 14 8, yield = 1 33, and water = 6 35  
Centralizers will be run on the first 3 joints and then every third joint back to the surface

Isolation Plug/Kick Off Plug will be cemented using 25% over open hole volume and 10% excess in the cased hole or by using recommended excess over caliper log

Isolation Plug: 400sks H+0 4%PF65+0 5%PF13 Density=17 5, Yield=0 94, and water H2O= 3 37

Kick Off Plug: 20 bbls Chemical Wash Ahead--400sks H+0 4% PF65+0 4%PF13 Density=17 5, Yield=0 94, and H2O=3 37

Production casing (5 5") will be cemented to surface with 35% excess in 2 stages using a stage tool set @ 9000'

20 bbls chemical Wash

Stage 1: 1530 sacks PVL + 1 3% PF44(BWOW) +5% PF174 +0 5% PF606 +0 8% PF13+0 2% PF153+0 25#/skPF46  
Density = 13 0, Yield 1 48, H2O 7 57

Stage 2 lead: 550 sacks 35/65 P/H +5% PF44(BWOW) +6% PF 0 +2#/sack PF42 +0 4% PF13 +  
0 125#/sack PF29 + 0 25#/sack PF46 Density 12 6, yield 2 06, H2O 11 06

Stage 2 tail: 200 sacks PVL + 1.3% PF44(BWOW) +5% PF174 +0 5% PF606 + 0 8% PF13 + 0 2% PF153+0 25#/skPF46  
Density 13 0, Yield 1 48 H2O 7 57 Gamma log interpretation will determine centralizer locations

#### Mud Program

Interval Depth	Density	Viscosity	Plastic Viscosity	Yield Point	pH	Filtrate-API Solids	Chloride
40' - 1,180'	8 5 - 9 2	32 - 36	8 - 12	8 - 12	10 5	NC	< 5 1k - 5k
1,180' - 4,635'	10 0 - 10 1	28 - 29	NA	NA	10 5	NC	< 2 185k
± 4,635' - ± 8,700'	8 8 - 9 2	28 - 29	N/A	N/A	10 5	N/A	< 2 45k - 95k (*)
± 8,700' - 9,700'	8 8 - 9 2	29 - 30	N/A	N/A	10 5	10 - 12	< 2 45k - 95k (*)
9,700' - 15,794'	8 8 - 9 2	29 - 30	N/A	N/A	10 5	10 - 12	< 2 115k - 140k (*)

5 1/2" P-110 20# HC/ LTC 0 - 9,100'  
1/2" P-110 20# HC BTC 9,100' - 15,794'  
8 3/4" Hole

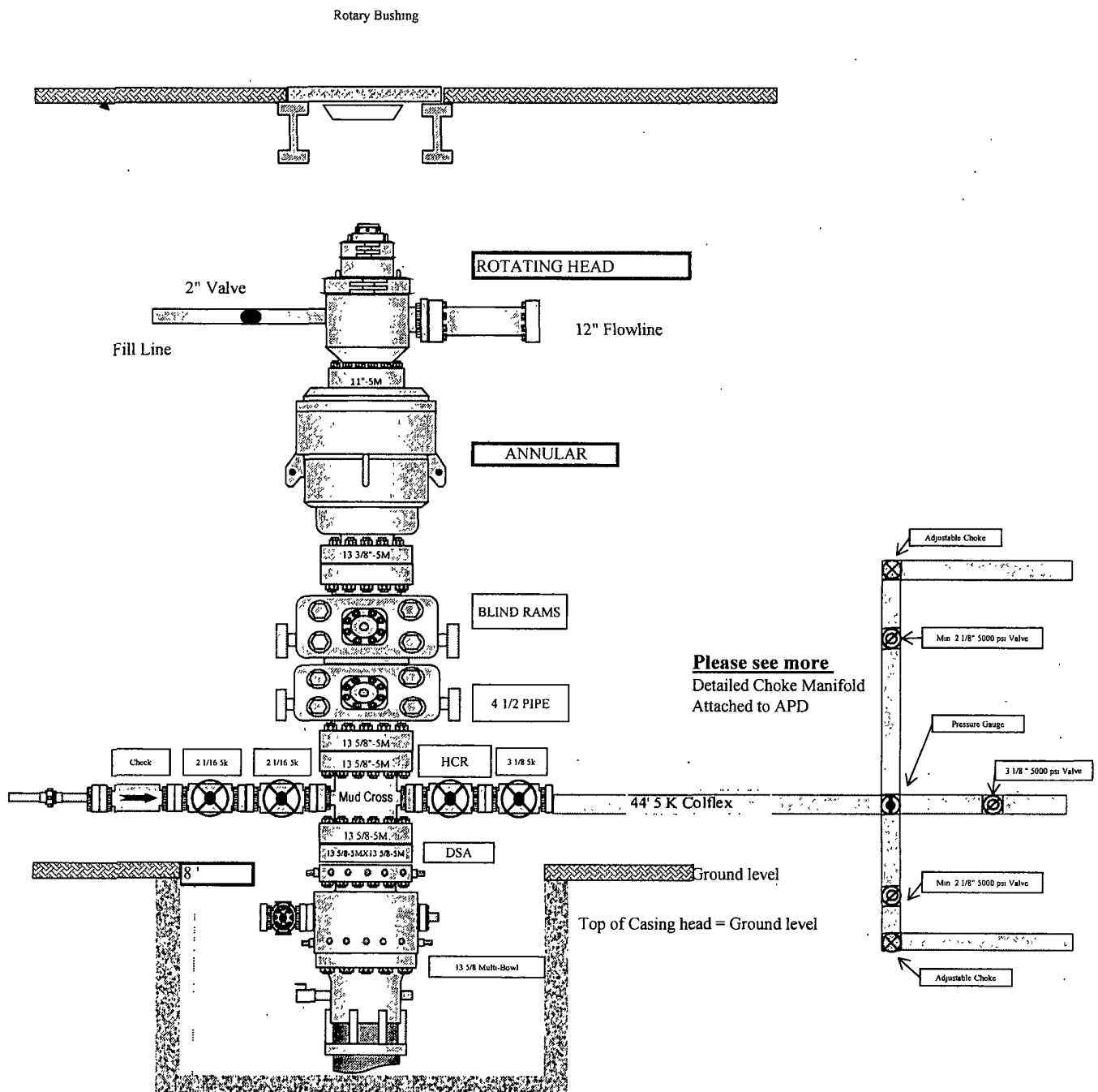
5

#### Projected EOL Depths

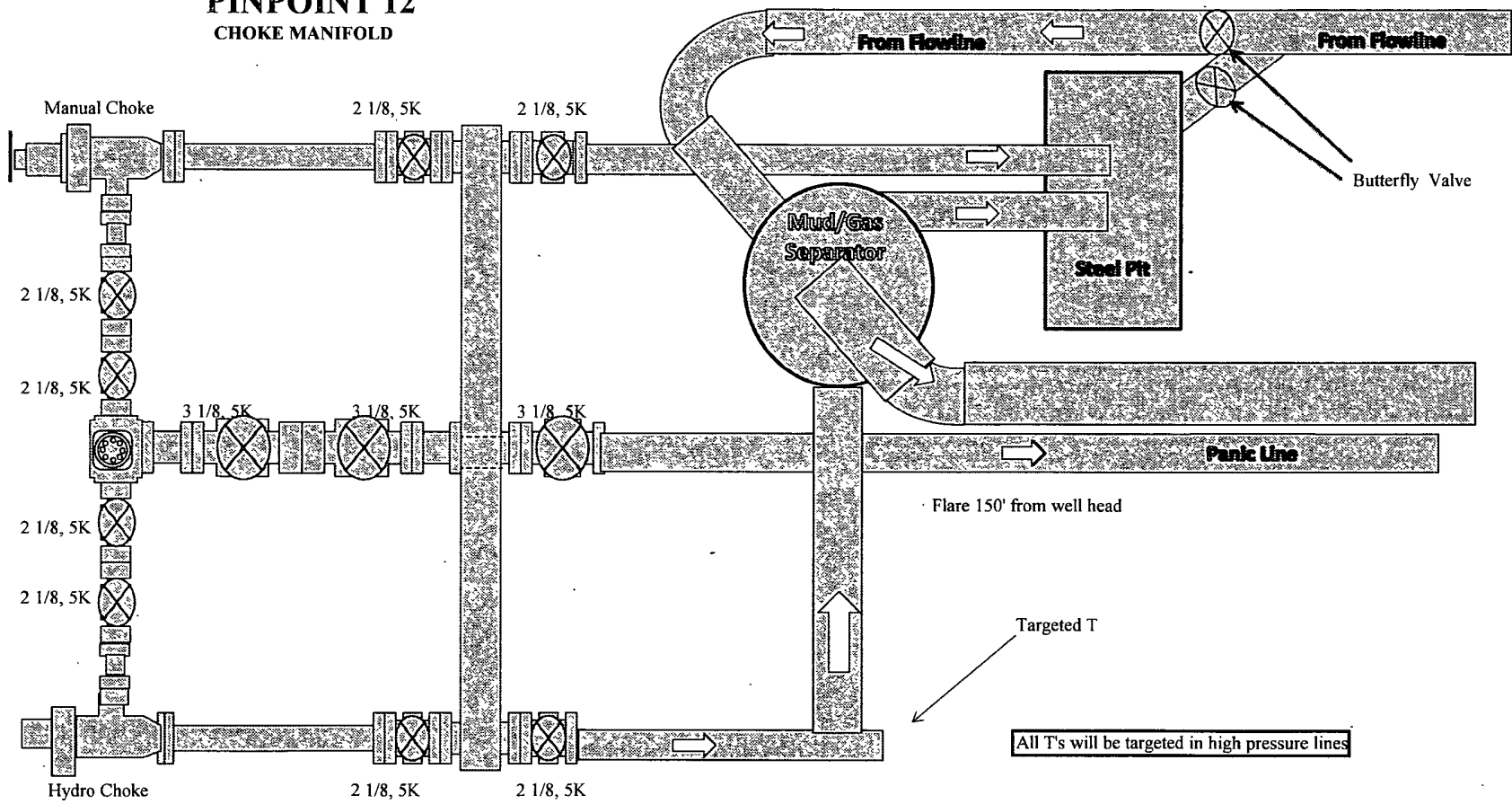
MD = 15,794'  
TVD = 10,000'

Operator VPR OPERATING  
Harrier 35 Fed Com #1

Date : \_\_\_\_\_



# **PINPOINT 12** **CHOKE MANIFOLD**





Midwest Hose  
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: PINPOINT		Customer P.O. Number:
HOSE SPECIFICATIONS		
Type: Rotary / Vibrator Hose C & K / API 7K		Hose Length: 50 FEET
I.D. 3.5 INCHES	O.D. INCHES	
WORKING PRESSURE 5,000 PSI	TEST PRESSURE 5,000 PSI	BURST PRESSURE N/A PSI
COUPLINGS		
Part Number 4 1/16 5K 4 1/16 5K	Stem Lot Number	Ferrule Lot Number
Type of Coupling: Swage-It	Die Size:	
PROCEDURE		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
TIME HELD AT TEST PRESSURE 9 3/4 MIN.	ACTUAL BURST PRESSURE: N/A PSI	
Hose Assembly Serial Number:	Hose Serial Number:	
Comments:		
Date: 4/12/2012	Tested: JOE PROCTOR	Approved: KIM THOMAS



Midwest Hose  
& Specialty, Inc.

## Internal Hydrostatic Test Graph

April 11, 2012

Customer: Pinpoint

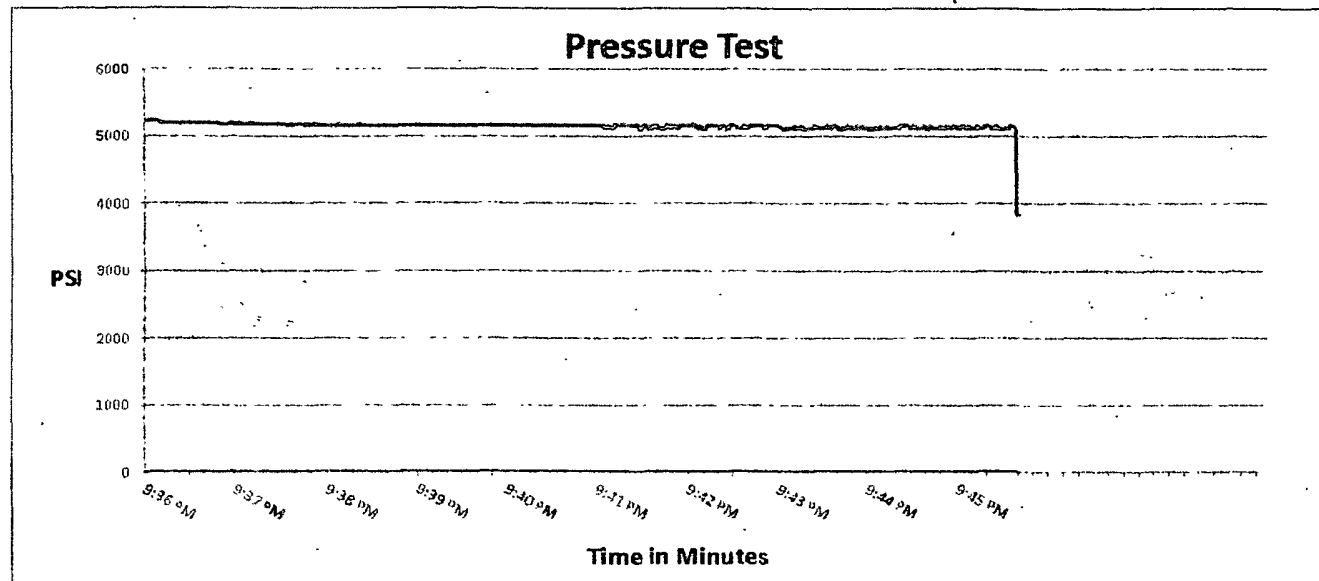
Pick Ticket #: 41010

### Hose Specifications

<u>Hose Type</u>	<u>Length</u>
C & K	50'
<u>I.D.</u>	<u>O.D.</u>
3.5"	0
<u>Working Pressure</u>	<u>Burst Pressure</u>
5000 PSI	Standard Safety Multiplier Applies.

### Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
41/16 5K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
0	0
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
0	0



Test Pressure  
5000 PSI

Time Held at Test Pressure  
9 3/4 Minutes

Actual Burst Pressure

Peak Pressure  
5493 PSI

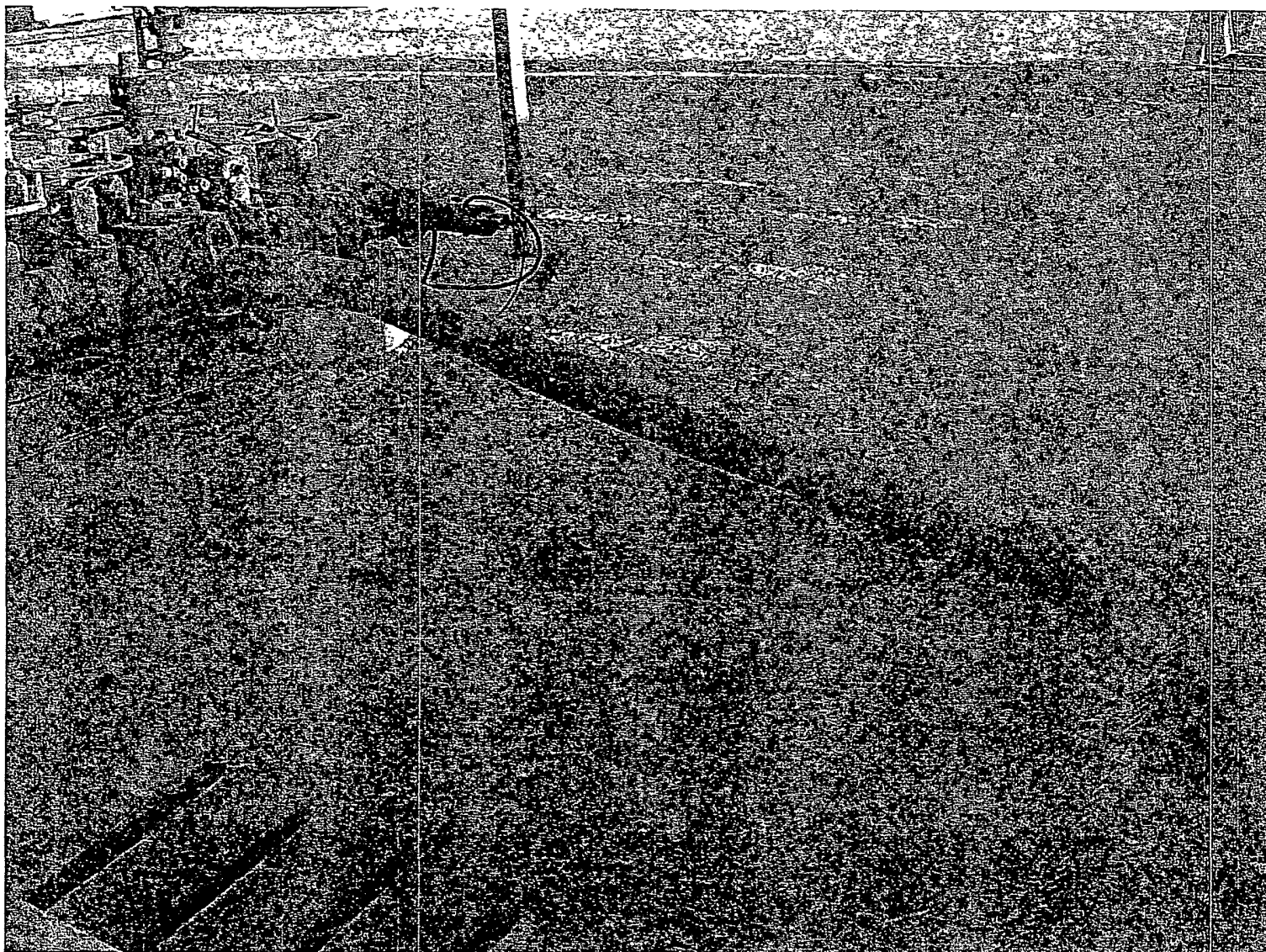
**Comments:** Hose assembly pressure tested with water at ambient temperature.

**Tested By:** Joe Proctor

**Approved By:** Kim Thomas

x Joe Proctor

x Kim Thomas



5K Coflex Pinpoint Rig 12  
Manufacturer: MSM  
Serial # 1UAAP5L111/04503946