DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		COTTON DRAW BRUSHY CANYON

Property Code	Property Name	Well Number
	HARACZ "AMO" FEDERAL	2H

OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORP.	3549'

Surface Location

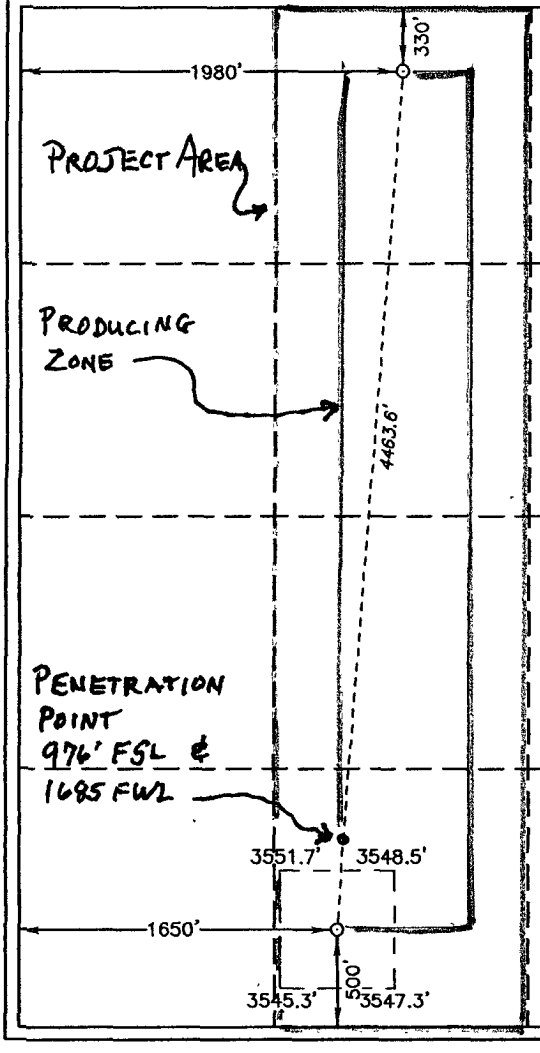
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	24	24 S	31 E		500	SOUTH	1650	WEST	EDDY

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
C	24	24 S	31 E		330	NORTH	1980	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



BOTTOM HOLE LOCATION
Lat – N 32°12'33.27"
Long – W 103°44'01.11"
NMSPCE– N 440373.425
E 726813.249
(NAD-83)

SURFACE LOCATION
Lat – N 32°11'49.23"
Long – W 103°44'04.89"
NMSPCE– N 435920.9
E 726512.8
(NAD-83)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Clifton May 8/21/09
Signature Date

CLIFTON MAY
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

AUGUST 13, 2009
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

NM PS No. 21603

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

YATES PETROLEUM CORPORATION
Haracz "AMO" Federal #2H
330' FSL and 1650' FWL, Surface Hole
330' FNL & 1980' FWL, Bottom Hole
Section 24-T24S-R31E
Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

Rustler	680'	Brushy Canyon	6640'-oil
Top of Salt	1020'	Brushy Canyon MKR	8142'-oil
Base of Salt	4270'	Basal Sand Target	8637'-oil
Bell Canyon	4560'	TVD	8365'
Cherry Canyon	5470'-oil	TMD	12622'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 160'
Oil or Gas: Oil Zones: 5470', 6640', 8142' & 8637'.

3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" casing and on the 9 5/8" casing and rated for 3000# BOP System. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

4. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when Kelly is not in use.

5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: All new casing to be used

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	48#	H-40	ST&C	0-900'	900'
12 1/4"	9 5/8"	40#	J-55	ST&C	0-100'	100'
12 1/4"	9 5/8"	36#	J-55	ST&C	100-3300'	3200'
12 1/4"	9 5/8"	40#	J-55	ST&C	3300-4300'	1000'
12 1/4"	9 5/8"	40#	HCK-55	ST&C	4300-4400'	100'
**8 3/4"	5 1/2"	17#	HCP-110	LT&C	0'-12622'	12622'

**Well will be drilled vertically to 7887'. At 7887' well will be kicked off and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 8637' MD (8365' TVD). If hole conditions dictate, 7" casing will be set and cemented. A 6 1/8" hole will be drilled to 12622' MD (8365' TVD) where 41/2"casing will be set and cemented. If 7" casing is not set, then the hole will be reduced to 7 7/8" and drilled to 12622' MD (8365' TVD) where 5 1/2" will be set and cemented. Penetration point of producing zone will be encountered at 976' FSL & 1685' FWL, 24-T24S-R31E. Deepest TVD in the well is 8365' in the lateral.

1. Minimum Casing Design Factors: Burst 1.0, Tensile Strength 1.8, Collapse 1.125

B. CEMENTING PROGRAM:
Surface Casing: Lead with 500 sacks C Lite (Wt. 12.50 Yld 1.96). Tail in 200 sacks C/2%CaCl2 (WT 14.80 YLD 1.34). TOC surface.

Intermediate Casing: 1250 sacks of C Lite (WT 12.60 YLD 2.00) Tail in with 200 sacks C (WT 14.80 YLD 1.34). TOC surface

Production Casing: Stage One: 1350 sacks PecosVilt (WT 13.00 YLD 1.41). Top of Cement approx. 7800'. DV Tool set about 7800'.

Second Stage: Lead with 750 sacks PecosViLt (WT 13.00 YLD 1.41). Top of Cement approximately 5700'. DV Tool at 5700'.

Third Stage: Lead in with 300 sacks LiteCrete (WT 9.90 YLD 2.66). Tail in with 100 sacks PecosViLt (WT 13.00 YLD 1.41). TOC about 3900'.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Type	Weight	Viscosity	Fluid Loss
0-900	Fresh Water	8.60-9.20	32-35	N/C
900-4400	Brine Water	10.00-10.20	28-28	N/C
4400-7887	Cut Brine	8.50-8.80	28-29	N/C
7887-12622	Cut Brine(Curve&Lateral Section)	8.50-8.80	28-29	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Rig personnel will check mud hourly.

7. EVALUATION PROGRAM:

Samples: Thirty foot samples to 4500' Every 10' from 4500' to TD
Logging: Platform Hals; CMR
Coring: None anticipated
DST's: None Anticipated
Mudlogging: Yes: From out of surface casing.

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Maximum Anticipated BHP:
0'-900' 430 PSI
900'-4400' 2335 PSI
4400'-8365' 3830 PSI
Abnormal Pressures Anticipated: None
Lost Circulation Zones Anticipated: Lost circulation and/or water flow 6900'-7500'.
H2S Zones Anticipated: H2S water flow possible below 2800'
Maximum Bottom Hole Temperature: 150 F

9. ANTICIPATED STARTING DATE:
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 20 days.

HARACZ AMO FEDERAL #2H

Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 8,637' MD (8,365' TVD). A 6 1/8" hole will then be drilled to 12,622' MD (8,365' TVD) where 4 1/2" casing will be set and cemented with one stage.

2nd Intermediate

0 ft to 300 ft				Make up Torque ft-lbs			Total ft = 300
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367,000 #		415,000 #		6.151	

300 ft to 5,800 ft				Make up Torque ft-lbs			Total ft = 5,500
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	23 #/ft	J-55	LT&C	3130	2350	3910	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
3,270	4,360 psi	313,000 #		366,000 #		6.25	

5,800 ft to 8,100 ft				Make up Torque ft-lbs			Total ft = 2,300
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367,000 #		415,000 #		6.151	

8,100 ft to 8,637 ft				Make up Torque ft-lbs			Total ft = 537
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	L-80	LT&C	5110	3830	6390	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
5,410 psi	7,240 psi	511,000 #		604,000 #		6.151	

DV tools placed at 7800' & 5700'.
Stage I: Cemented w/175sx PVL (YLD 1 41 Wt 13) TOC= 7800'
Stage II: Cemented w/450sx PVL (YLD 1 41 Wt 13) TOC= 5700'
Stage III: Cemented w/150sx Lite Crete (YLD 2.78 Wt 9.9), tail w/100sx PVL (YLD 1.41 Wt 13) TOC= 3900'

Production

0 ft to 12,622 ft				Make up Torque ft-lbs			Total ft = 12,622
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	HCP-110	LT&C	3020	2270	3780	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
8,650 psi	10,690 psi	279,000 #		367,000 #		3.875	

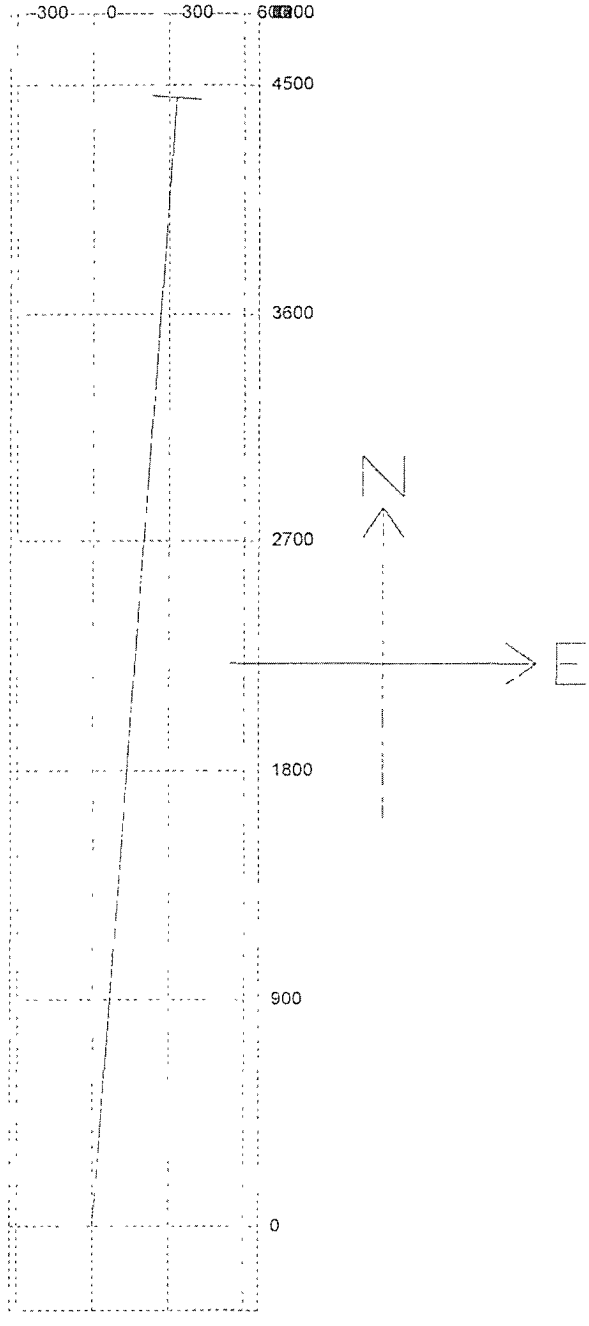
DV tool placed at approx. 7800' and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 7800'.
Cemented w/650sx PVL (YLD 1.41 Wt 13) TOC= 7800'

M.D.	Inclination	Azimuth	T.V.D.	N+/S-	E+/W-	D.L.S.	ToolFace	T.F. Ref [HS/GN]	
0	0	0	0	0	0	0			
680	0	0	680	0	0	0			RUSTLER
1,020	0	0	1,020	0	0	0			TOP OF SALT
4,270	0	0	4,270	0	0	0			BASE OF SALT
4,560	0	0	4,560	0	0	0			BELL CANYON
5,470	0	0	5,470	0	0	0			CHERRY CANYON
6,640	0	0	6,640	0	0	0			BRUSHY CANYON
7887	0	0	7887	0	0	12	4	GN	KOP
7900	1.56	4.24	7900	0.18	0 01	12	0	HS	
7925	4 56	4 24	7924 96	1 51	0 11	12	360	HS	
7950	7 56	4 24	7949.82	4.14	0 31	12	360	HS	
7975	10.56	4.24	7974.5	8.06	0.6	12	0	HS	
8000	13.56	4.24	7998.95	13.27	0 98	12	360	HS	
8025	16 56	4.24	8023.09	19.75	1.46	12	360	HS	
8050	19 56	4.24	8046.85	27 48	2 04	12	360	HS	
8075	22.56	4.24	8070.18	36.44	2 7	12	0	HS	
8100	25.56	4 24	8093	46.6	3.46	12	0	HS	
8125	28.56	4.24	8115.27	57.94	4.3	12	0	HS	
8142	30.6	4.24	8130.05	66.31	4 92	12	360	HS	BRUSHY CANYON MARKER
8150	31 56	4.24	8136.9	70.43	5.22	12	0	HS	
8175	34 56	4.24	8157.85	84 03	6.23	12	0	HS	
8200	37.56	4.24	8178.06	98.7	7.32	12	0	HS	
8225	40.56	4.24	8197 47	114.41	8.48	12	0	HS	
8250	43.56	4.24	8216.03	131 11	9 72	12	0	HS	
8275	46.56	4.24	8233.69	148.75	11.03	12	0	HS	
8300	49.56	4.24	8250.39	167.3	12 41	12	360	HS	
8325	52.56	4.24	8266.1	186.69	13.84	12	0	HS	
8350	55.56	4.24	8280.78	206.87	15 34	12	0	HS	
8375	58 56	4 24	8294.37	227.79	16.89	12	0	HS	
8400	61 56	4.24	8306.84	249 39	18.49	12	0	HS	
8425	64.56	4.24	8318.17	271.62	20.14	12	0	HS	
8450	67 56	4 24	8328.31	294.4	21 83	12	360	HS	
8475	70.56	4 24	8337.25	317 68	23.56	12	360	HS	
8500	73.56	4.24	8344 95	341.4	25 32	12	0	HS	
8525	76.56	4.24	8351.39	365.48	27.1	12	0	HS	
8550	79.56	4.24	8356.56	389.87	28.91	12	0	HS	
8575	82 56	4.24	8360.45	414.5	30.74	12	0	HS	
8600	85.56	4.24	8363.03	439.29	32 58	12	0	HS	
8625	88.56	4.24	8364.32	464.19	34.42	12	0	HS	
8636.94	89.99	4.24	8364.47	476.09	35.31	0			TARGET-BASAL SAND
12621.76	89.99	4.24	8365	4450	330	0			LATERAL TD

Well will be drilled vertically to 7887'. At 7887' well will be kicked off at 12 degrees per 100' with a 8 3/4" hole to 8637' MD (8 365' TVD) If hole conditions dictate, 7" casing will be set A 6 1/8" hole will then be drilled to 12,622' MD (8,365' TVD) where 4 1/2" casing will be set and cemented If 7" is not set, then hole size will be reduced to 7 7/8' and drilled to 12,622' MD (8,365' TVD) where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be encountered at 976' FSL and 1685' FWL, 24-24S-31E. Deepest TVD in the well is 8365' in the lateral.

3D³ Directional Drilling Planner - 3D View

Company: **Yates Petroleum Corporation**
Well: **Haracz AMO Federal #2H**



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3D³ Directional Drilling Planner - 3D View

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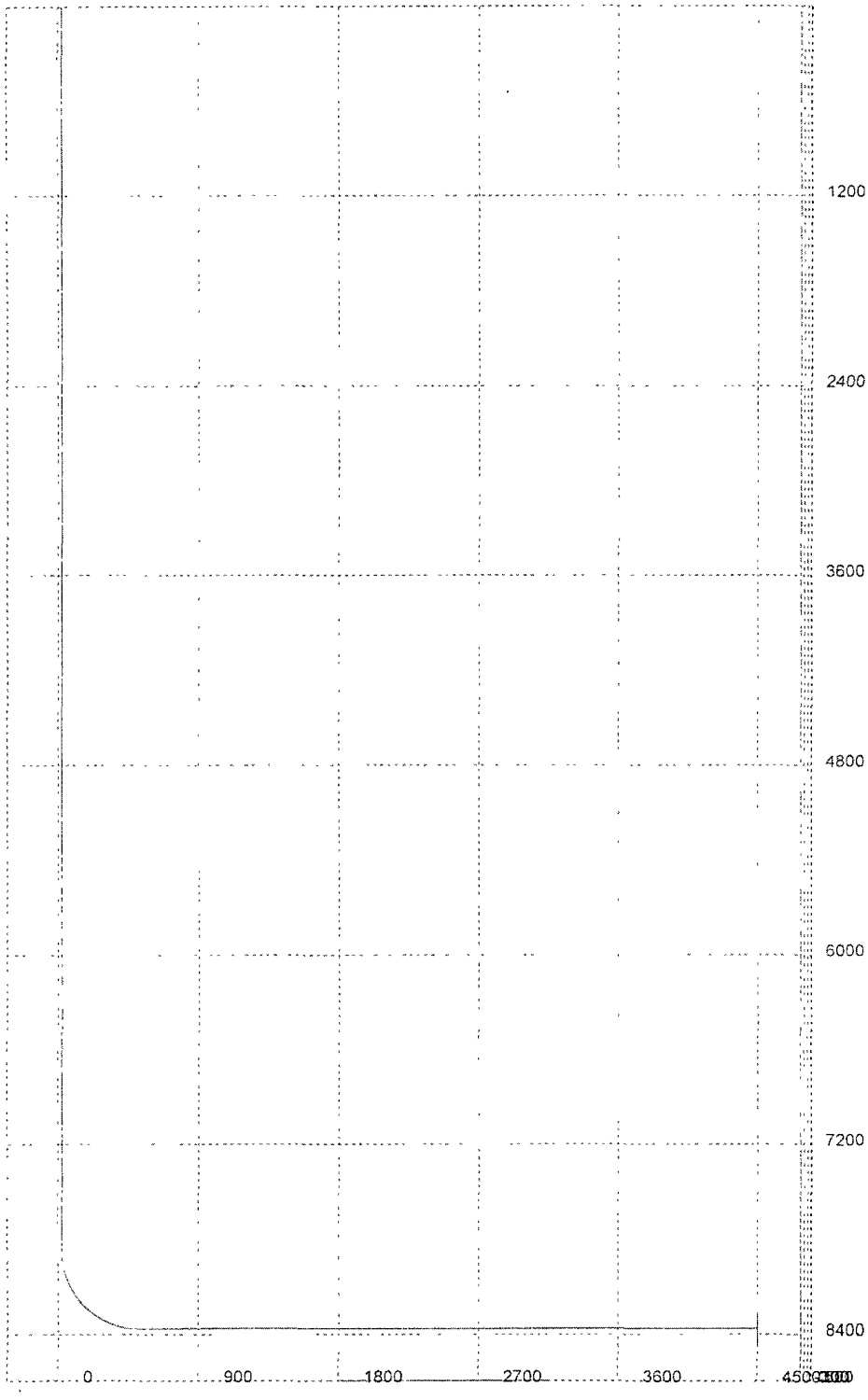

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MULTI-POINT SURFACE USE AND OPERATIONS PLAN
YATES PETROLEUM CORPORATION
Haracz "AMO" Federal #2H
330' FSL & 1650' FWL, Surface Hole
330' FNL & 1980' FWL, Bottom Hole
Section 24-T24S-R31E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 38 miles east of Calsbad, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS: Go east out of Carlsbad, NM on Highway 62/180 to State Road 31. Turn south on 31 and go to Highway 128 (Jal Highway). Turn left on HWY 128 and go east for approximately 18.7 miles to the intersection of Highway 128 and Buck Jackson Road. Turn right on Buck Jackson Road and go approximately 2.9 miles. Turn left here at a cattle guard and lease road and go approximately 0.5 of a mile to the Cotton Draw AJT Fed. #2 well location. Continue southeast to the Haracz AMO Fed. #9H. Go east approximately 0.45 of a mile to the southwest corner of the proposed pad.

2. PLANNED ACCESS ROAD:

A. The proposed new access will be approximately 2400' in length from the point of origin to the southwest corner of the drilling pad.
B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
C. The new road will be bladed with drainage on both sides. No traffic turnout may be needed.
D. The route of the road is visible.
E. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL:

A. There is drilling activity within a one-mile radius of the well site.
B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. There are production facilities on this lease at the present time.

B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power until an electric line can be built, if needed.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a brine water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will be responsible for finding a source of material for construction of road and pad and will obtain any permits that may be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. A closed loop system will be used to drill this well.
B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the "Pit Rule" 19.15.17 NMAC.
C. Drilling fluids will be removed after drilling and completions are completed.
D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
E. Oil produced during operations will be stored in tanks until sold.
F. Current laws and regulations pertaining to the disposal of human waste will be complied with.

G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: NONE

9. WELLSITE LAYOUT:

A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, pulling unit orientation and access road approach. Note: Pits to north.
B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the "Pit Rule" 19.15.17 NMAC.
C. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION:

A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
B. Unguarded pits, if any, containing fluids will be fenced until they have dried and have been leveled.
C. If the proposed well is plugged and abandoned, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits, if any, will be filled level after they have evaporated and dried. Pit reclamation will meet 19.15.17 requirements.

11. SURFACE OWNERSHIP:

Federal Lands under the supervision of the Carlsbad BLM. .

12. OTHER INFORMATION:

A. The primary use of the surface is for grazing.

B. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.

CERTIFICATION
YATES PETROLEUM CORPORATION
Haracz "AMO" Federal #2H

I hereby certify that I or the company I represent, have inspected the drill site and access route proposed herein; that the company I represent is familiar with the conditions which currently exist; that 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 the company I represent is 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 this 21st day of August, 2009.

Printed Name Clifton May

Signature Clifton May

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone **575-748-4372—call Cy Cowan with any questions**

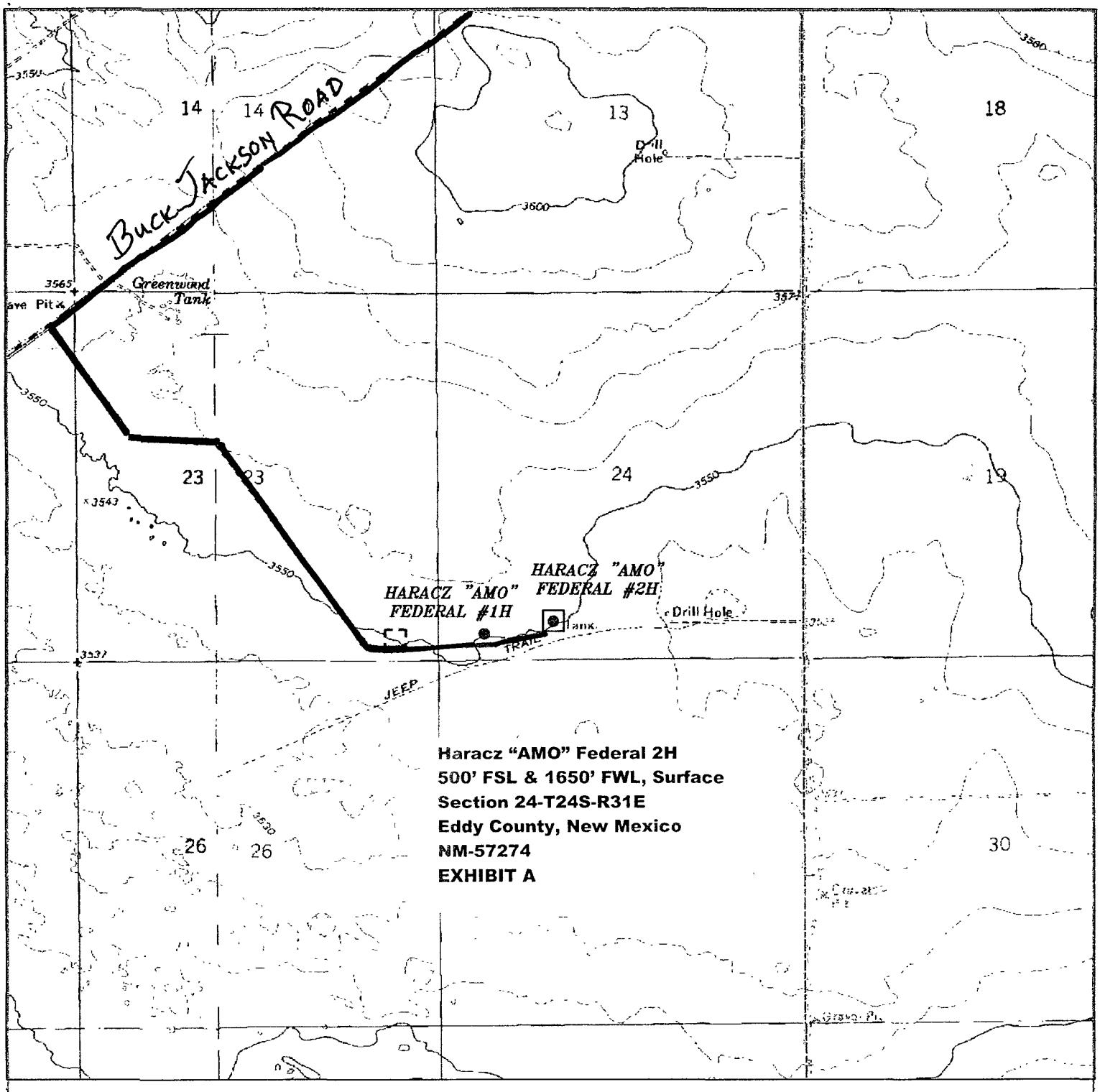
E-mail (optional) cyc@yatespetroleum.com

Field Representative (if not above signatory) Tim Bussell

Address (if different from above) Same

Telephone (if different from above) 575-748-4221

E-mail (optional)



HARACZ "AMO" FEDERAL #2H

Located 500' FSL and 1650' FWL
Section 24, Township 24 South, Range 31 East,
N.M.P.M., Eddy County, New Mexico.

Basin Surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number	JMS 21608
Survey Date	08-03-2009
Scale	1" = 2000'
Date	08-04-2009

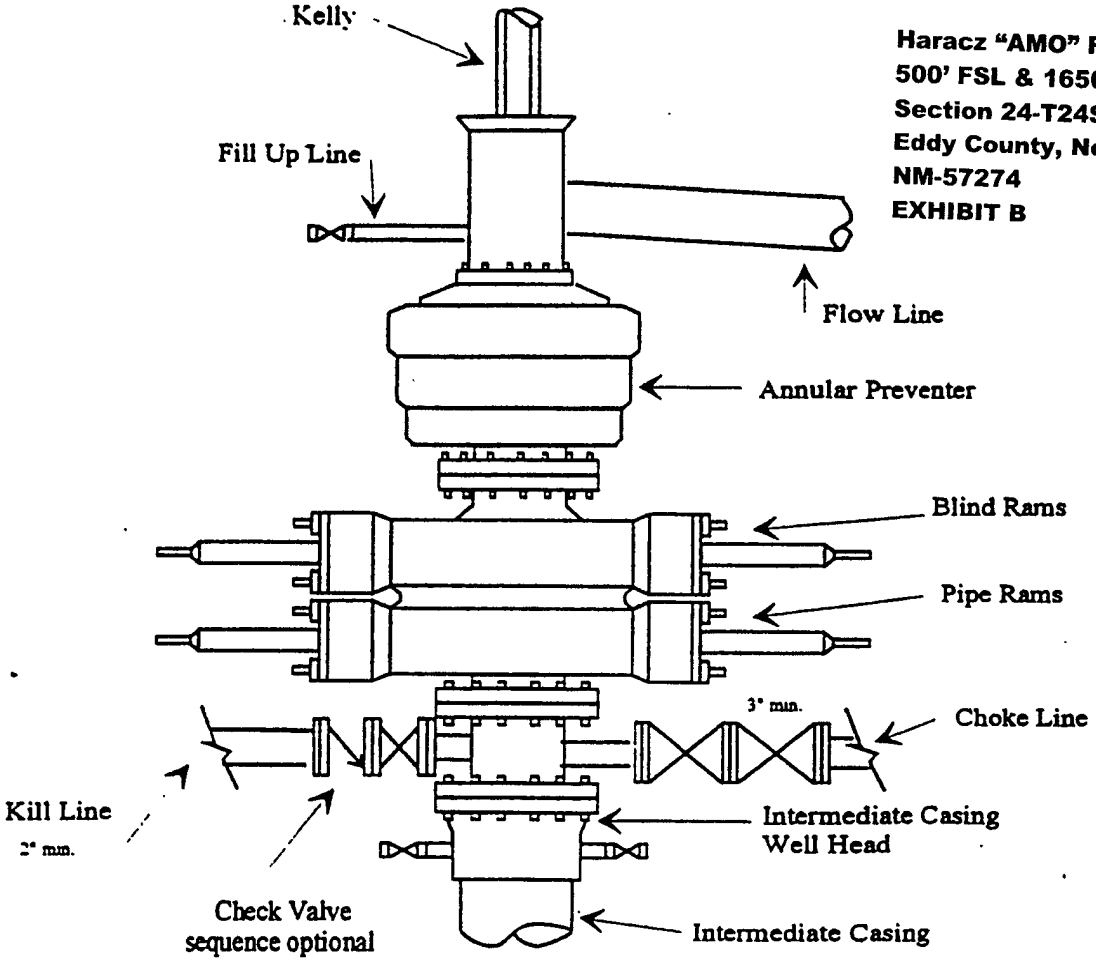
N

YATES PETROLEUM CORP.

Yates Petroleum Corporation

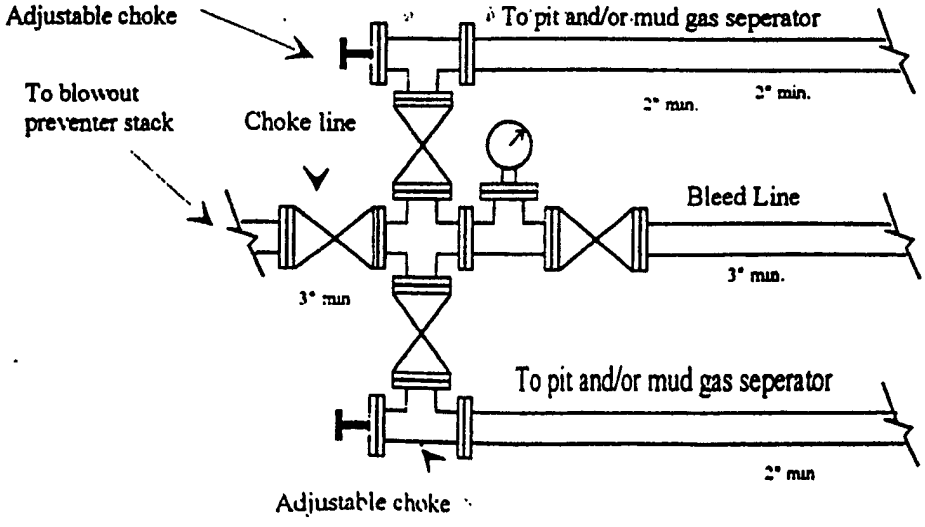
BOP-3

Typical 3,000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack



Haracz "AMO" Federal 2H
500' FSL & 1650' FWL, Surface
Section 24-T24S-R31E
Eddy County, New Mexico
NM-57274
EXHIBIT B

Typical 3,000 psi choke manifold assembly with at least these minimun features

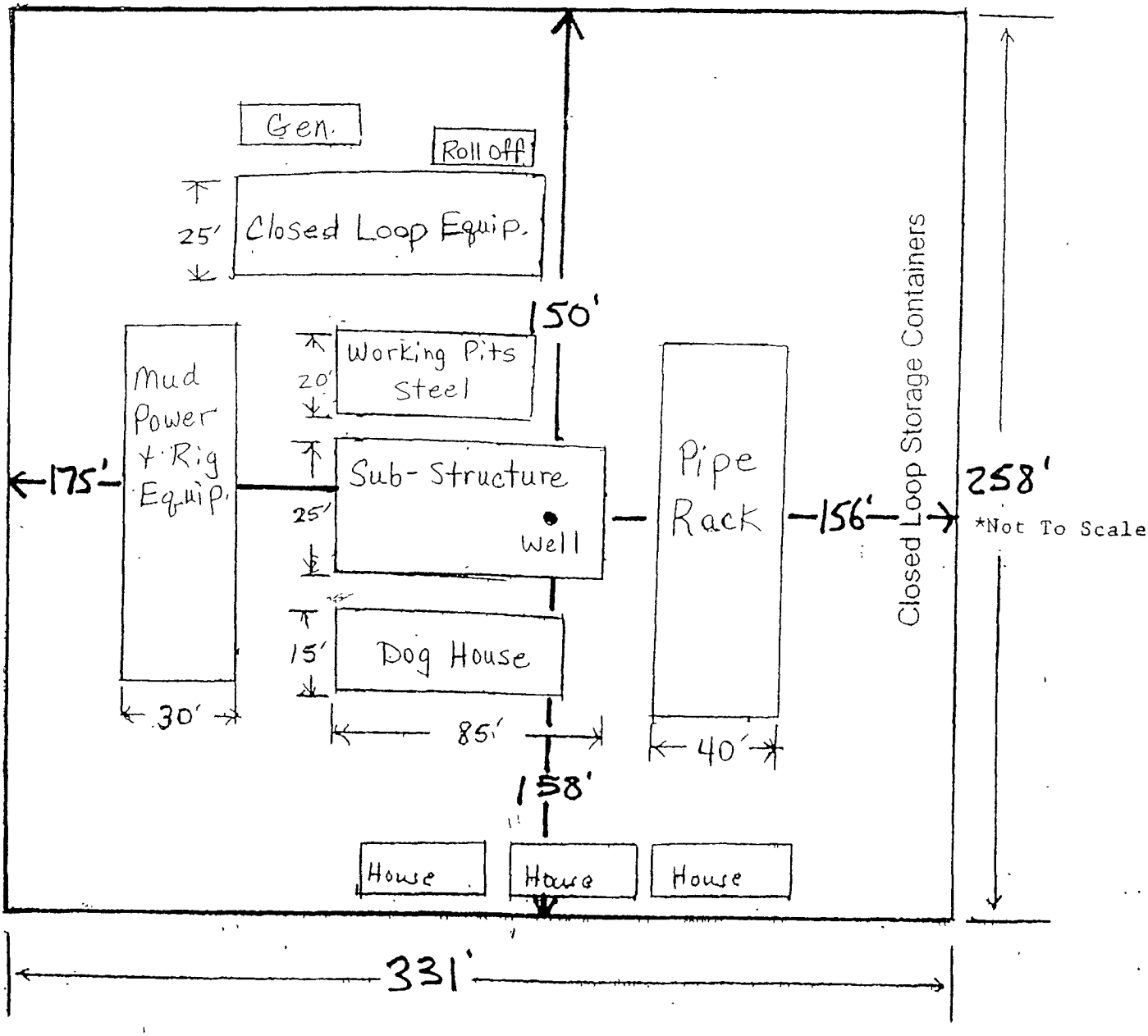


Yates Petroleum Corporation

Location Layout for Permian Basin

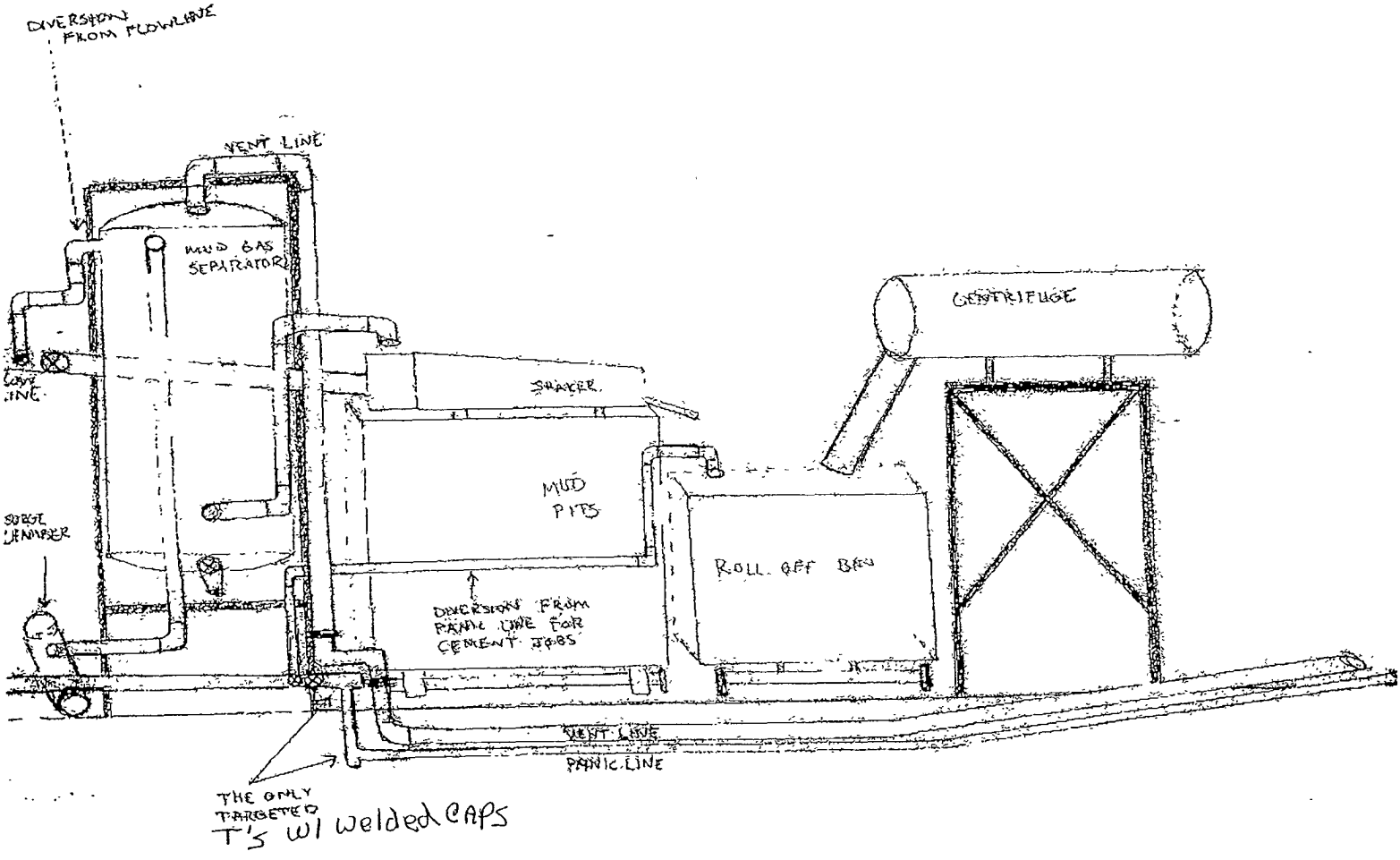
Closed Loop Design Plan

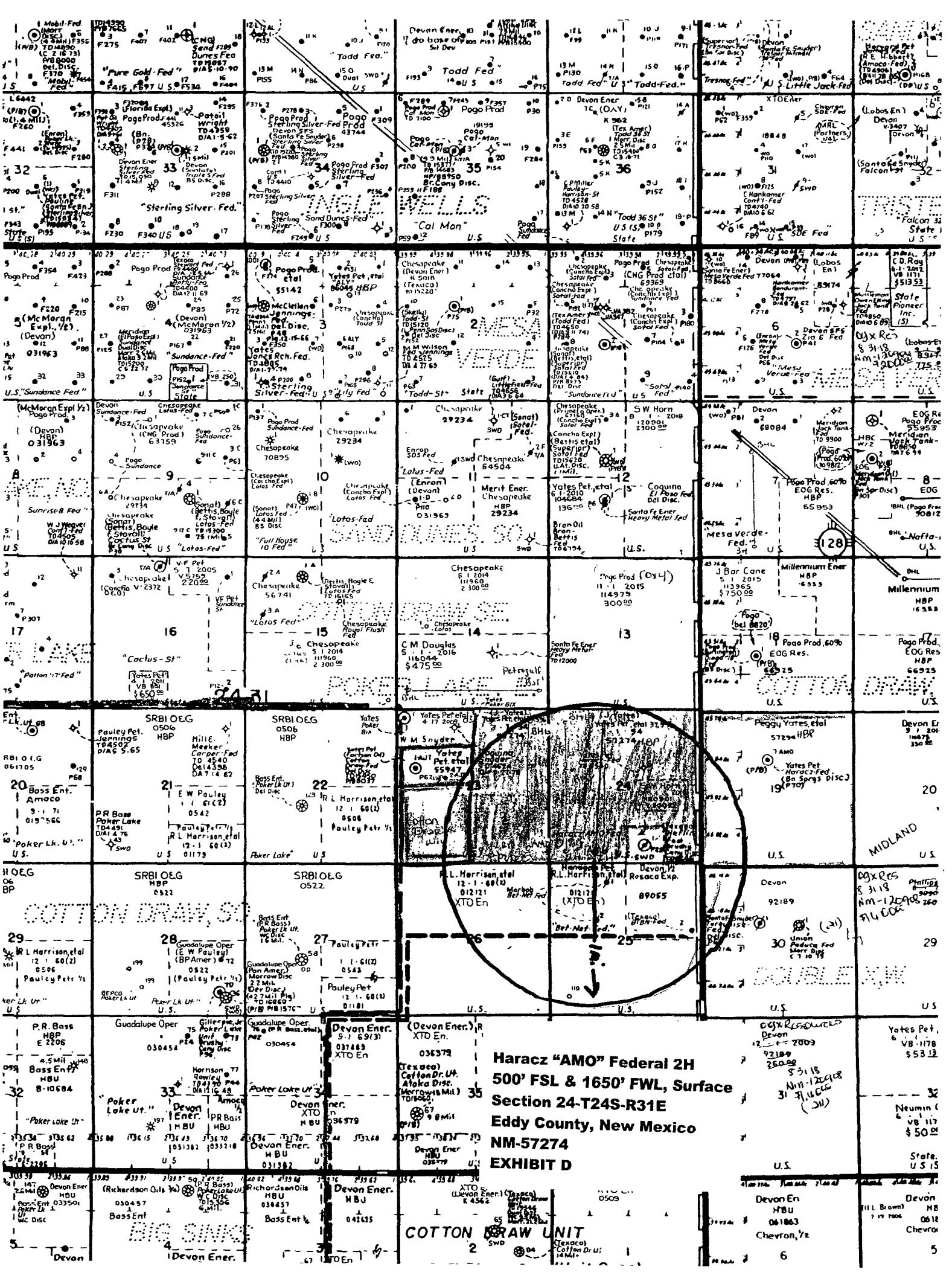
Haracz "AMO" Federal 2H
500' FSL & 1650' FWL, Surface
Section 24-T24S-R31E
Eddy County, New Mexico
NM-57274
EXHIBIT C



YATES PETROLEUM CORPORATION
Piping from Choke Manifold
to the Closed-Loop Drilling Mud System

Haracz "AMO" Federal 2H
500' FSL & 1650' FWL, Surface
Section 24-T24S-R31E
Eddy County, New Mexico
NM-57274
EXHIBIT C1




Haracz "AMO" Federal 2H
500' FSL & 1650' FWL, Surface
Section 24-T24S-R31E
Eddy County, New Mexico
NM-57274
EXHIBIT D

Yates Petroleum Corporation

105 S. Fourth Street
Artesia, NM 88210

Hydrogen Sulfide (H_2S) Contingency Plan

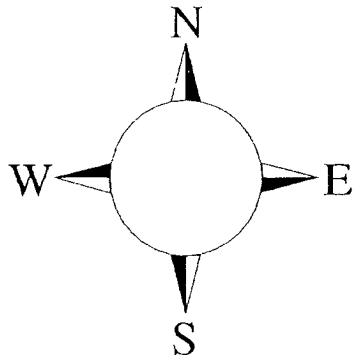
For

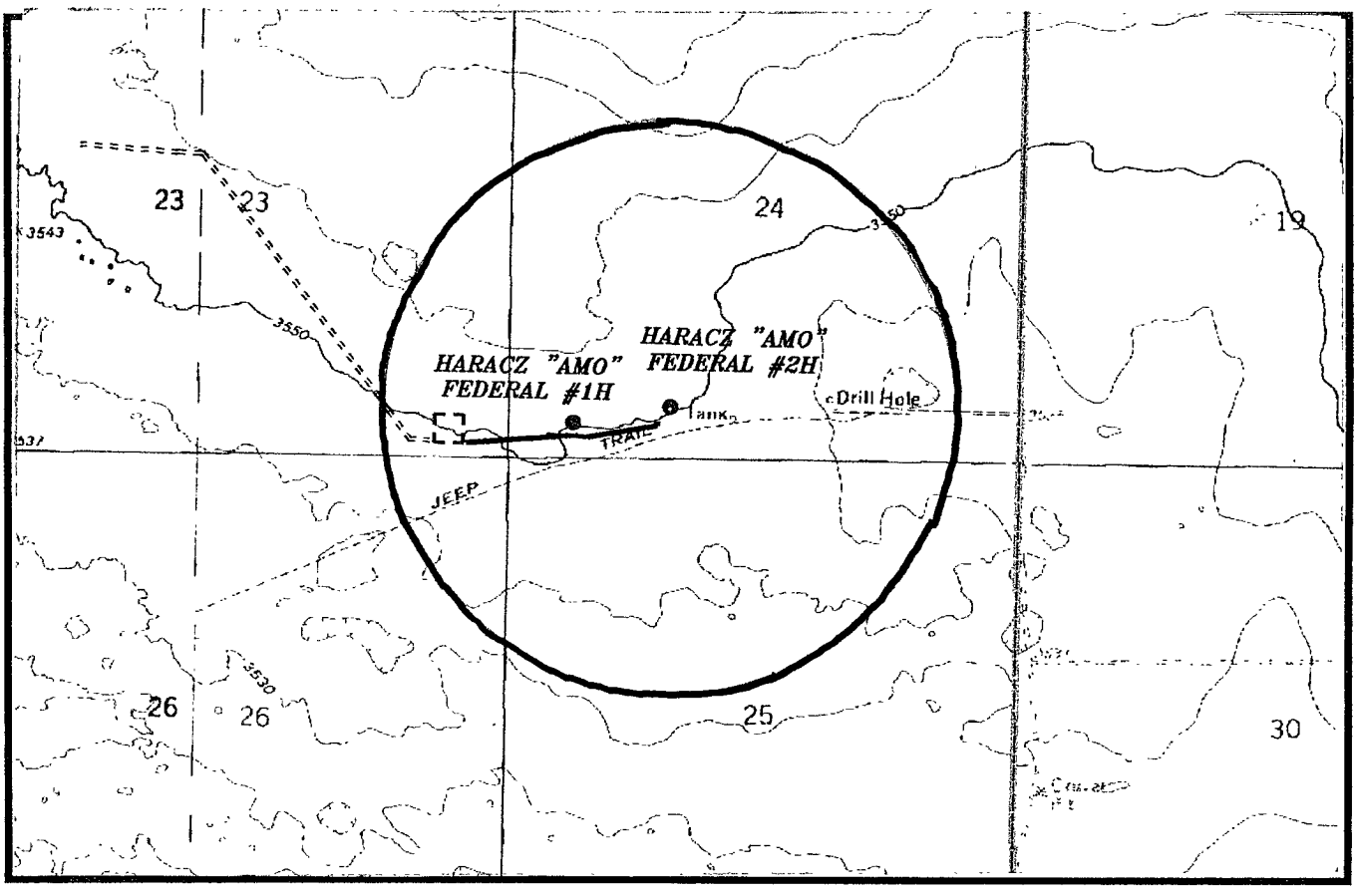
Haracz AMO Federal #2H

330' FSL and 1650' FWL Surface Hole Location
330' FNL and 1980' FWL Bottom Hole Location
Section 24, T-24S, R-31E
Eddy County NM

Haracz AMO Federal #2H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

In the case of a release of gas containing H_2S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H_2S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H_2S monitors and air packs in order to control the release. Use the "buddy system' to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentr-ation
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

YPC personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. YPC Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Yates Petroleum Corporation Phone Numbers

YPC Office ..... (505) 748-1471
Paul Ragsdale/Operations Manager ..... (505) 748-4520
Ron Beasley/Production Manager ..... (505) 748-4210
Wade Bennett/Prod Superintendent ..... (505) 748-4236
Mike Lankin/Drilling ..... (505) 748-4222
Paul Hanes/Prod. Foreman/Roswell ..... (505) 624-2805
Tim Bussell/Drilling Superintendent ..... (505) 748-4221
Artesia Answering Service ..... (505) 748-4302
(During non-office hours)

Agency Call List

Eddy County (505)

Artesia

State Police 746-2703
City Police 746-2703
Sheriff's Office 746-9888
Ambulance 911
Fire Department 746-2701
LEPC (Local Emergency Planning Committee) 746-2122
NMOCD 748-1283

Carlsbad

State Police 885-3137
City Police 885-2111
Sheriff's Office 887-7551
Ambulance 911
Fire Department 885-2111
LEPC (Local Emergency Planning Committee) 887-3798
US Bureau of Land Management 887-6544
New Mexico Emergency Response Commission (Santa Fe) (505)476-9600
24 HR ..... (505) 827-9126
New Mexico State Emergency Operations Center ..... (505) 476-9635
National Emergency Response Center (Washington, DC) ...(800) 424-8802

Other

Boots & Coots IWC ..... 1-800-256-9688 or (281) 931-8884
Cudd Pressure Control ..... (915) 699-0139 or (915) 563-3356
Halliburton ..... (505) 746-2757
B. J. Services ..... (505) 746-3569

Flight For Life -4000 24th St, Lubbock, TX ..... (806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX ..... (806) 747-8923
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM ..... (505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM ..... (505) 842-4949

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**YATES PETROLEUM CORPORATION**
LEASE NO.:	**NM-57274**
WELL NAME & NO.:	**Haracz "AMO" Federal #2H**
SURFACE HOLE FOOTAGE:	**500' FSL & 1650' FWL**
BOTTOM HOLE FOOTAGE	**330' FNL & 1980' FWL**
LOCATION:	**Section 24, T. 24 S., R. 31 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**

2. 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.

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

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in Delaware & Bone Spring Formations
Possible H2O flows in Castile, Salado, Delaware & Bone Spring

1. The **13-3/8** inch surface casing shall be set at approximately **900** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

a. First stage to DV tool, cement shall:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

c. Third stage DV tool shall:

☒ Cement should tie-back at least **200** feet into **9-5/8"** casing string. **Operator shall provide method of verification.**

Contingency casing program:

4. The minimum required fill of cement behind the **7** inch intermediate casing is:

☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

5. The minimum required fill of cement behind the **4-1/2** inch production casing is:

☒ Cement to come to DV tool depth. Operator shall provide method of verification.

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8"** intermediate casing shoe shall be **3000 (3M)** psi.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

    c. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

MAK 091709