PTS-08-1018

NOV 17 2008

OCD-ARTESIA

OCD-ARTESIA

S

Form 3160-3
(August 2008)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: **NM-101597**

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA Agreement, Name and No.:

1a Type of Work: [X] DRILL [ ] REENTER

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: **Spanglish BLS Federal 1H**

2 Name of Operator: **Yates Petroleum Corporation 025575**

9. API Well No.: 30-015-36786

3a. Address: **105 South Fourth Street, Artesia, NM 88210**

3b. Phone No *(include area code)*: 575-748-1471

10. Field and Pool, or Exploratory: **Wildcat Wolfcamp**

4 Location of well *(Report location clearly and In accordance with any State requirements.*)*

At surface: Roswell Controlled Water Basin
990' FNL and 300' FEL Surface Hole Location

At proposed prod. zone: **370' FNL and 330' FWL Bottom Hole Location**

11. Sec., T , R., M., or Blk. And Survey or Area: **Section 6, T16S-R30E**

14. Distance in miles and direction from the nearest town or post office*: **Approx 9.7 miles north of Loco Hills, New Mexico**

12. County or Parish: **Eddy County**

13. State: **New Mexico**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
300'	**318.61**	**N/2N/2**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/ BIA Bond No. on file
1300'	**TVD 7438' TMD ~~11920'~~ 11930**	**NATIONWIDE BOND #NMB000434**

21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Aproximate date work will start*	23. Estimated duration
3817' GL operator		**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.
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 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)*	Date
Cy Cowan	**Cy Cowan**	**10/9/2008**

Title: **Regulatory Agent**

Approved By *(Signature)*	Name *(Printed/ Typed)*	Date
/S/ DAVID D. EVANS	/S/ DAVID D. EVANS	NOV 14 2008
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 cc operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 4 ... y and wilfully to make to any department or agency of the Unite States any false, fictitious or fraudulent ... tion.

* *(Instructions on page 2)*

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOTIFY OCD of ALL Lost Circulation and Water Flow Zones
NOTIFY OCD per 19.15.3.118 of H2S Values WHILE Drilling.

ENTERED

Horizontal Setback Not Vertical

APPROVAL SUBJECT TO GENERAL REQUIREMENT AND SPECIAL STIPULATI(ATTACHED

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
30-015-36786	96794	Wildcat Wolfcamp Oil

Property Code	Property Name	Well Number
37496	SPANGLISH "BLS" FEDERAL	1H

OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORP.	3817'

Surface Location

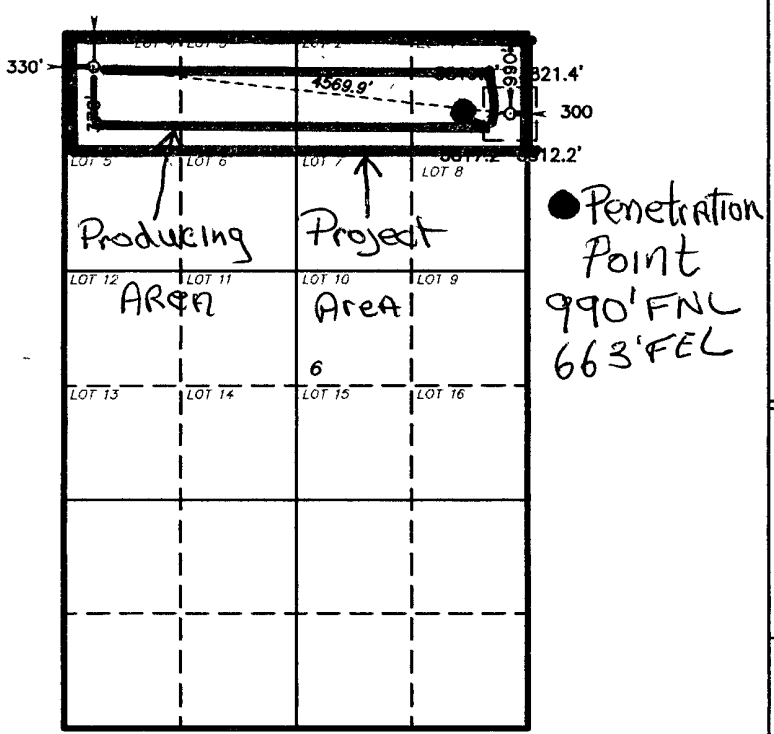
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 1	6	16 S	30 E		990	NORTH	300	EAST	EDDY

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
LOT 4	6	16 S	30 E		370	NORTH	330	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 - N32°57'51.51"
Long - W104°01'06.75"
SPC- N.: 714695.713
E.: 637884.055
(NAD-83)

SURFACE LOCATION
Lat - N32°57'45.28"
Long - W104°00'13.69"
SPC- N.: 714079.399
E.: 642406.518
(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.

Cy Cowan 10/9/08
Signature Date

Cy Cowan
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.

SEPTEMBER 26, 2008
Date Surveyed
Signature & Seal of Professional Surveyor
NEW MEXICO 7977 GARY L. JONES
W.O. Number: 26

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H
990' FNL and 300' FEL, Section 6-16S-30E (Surface Hole Location)
370' FNL and 330' FWL, Section 6-16S-30E (Bottom Hole Location)
Eddy County, New Mexico

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

Yates	1190'		Glorieta	4168'	
Seven Rivers	1320'		Tubb	5330'	
Queen	1843'	Oil/Gas	ABO	6318'	Gas
Grayburg	2409'	Oil	Wolfcamp	7608'	Oil
San Andres	2647'	Oil	TVD	6868'	
			TMD	11932'	

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

See COA

Water: 200'
Oil or Gas: See above

3. **Pressure Control Equipment:** BOPE will be installed on the 8 5/8" casing and rated for 3000 psi BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors 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.

Auxiliary Equipment:

A. 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.

4. **THE PROPOSED CASING AND CEMENTING PROGRAM:**

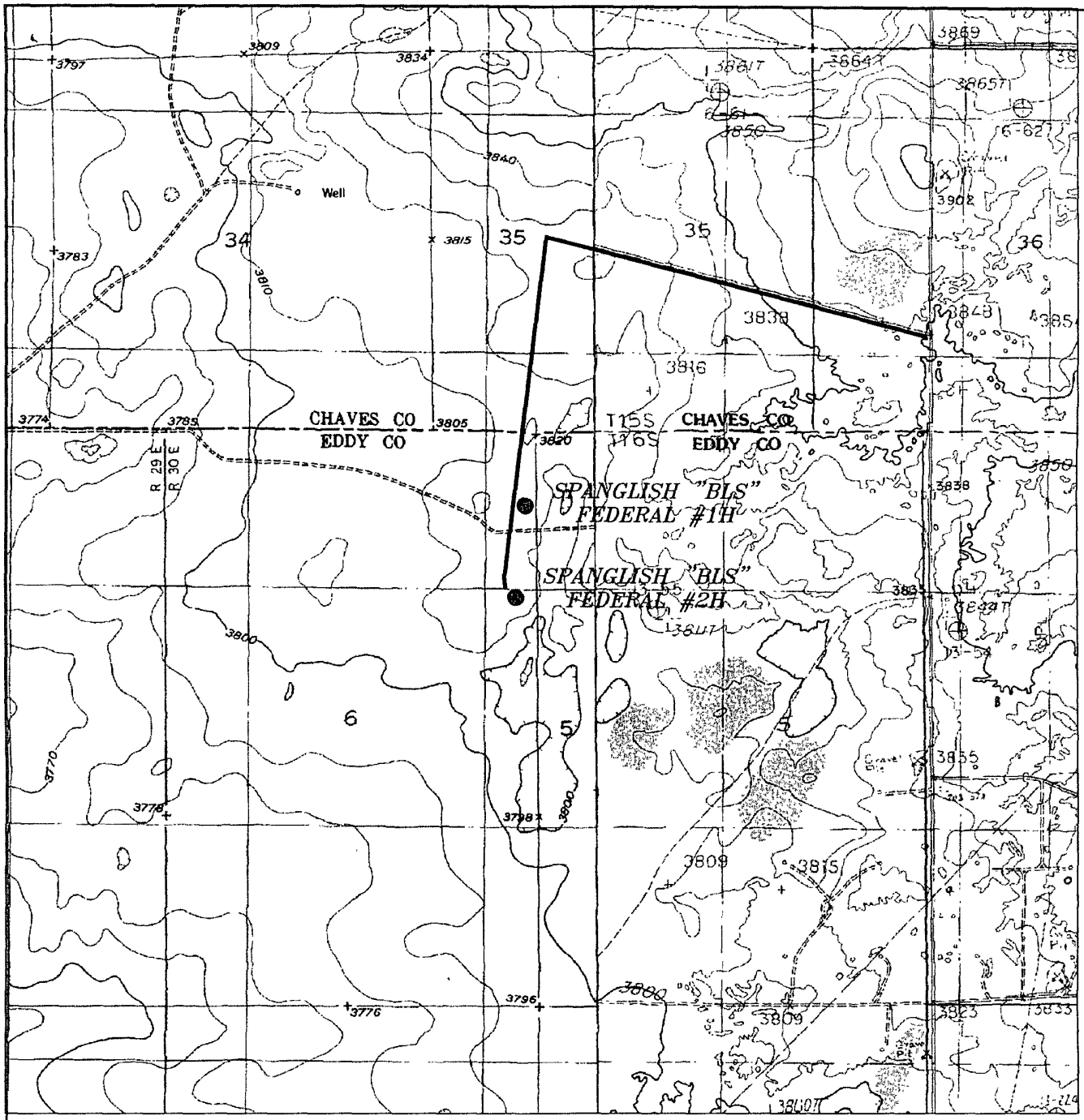
A. Casing Program: (**All New**)

Hole Size	Casing Size	Wt./Ft	Grade	Thread	Interval	Length
14 3/4"	11 3/4"	42#	H-40	ST&C	0-400'	400'
11"	8 5/8"	32#	J-55	ST&C	0-100'	100'
11"	8 5/8"	24#	J-55	ST&C	100-2200'	2100'
11"	8 5/8"	32#	J-55	ST&C	2200-2750'	550'
7 7/8"	5 1/2"	17#	HCP-110	LT&C	0'-11932' MD	11932'

This well will be drilled vertically to approximately 6868'. At 6868' the well will be kicked off and directionally drilled at 12 degrees per 100' with a 7 7/8" hole to 11932' MD with a TVD of 7438' where 5 ½" casing will be set and cemented. The penetration point of producing zone will be encountered at 930' FNL & 663' FEL. The deepest TVD in the lateral will be 7438'. No pilot hole will be drilled. We request a variance be given to test the BOP on the surface casing to 1000 psi using rig pumps.

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

See COA



SPANGLISH "BLS" FEDERAL #2H
Located at 2310' FNL AND 350' FEL
Section 6, Township 16 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

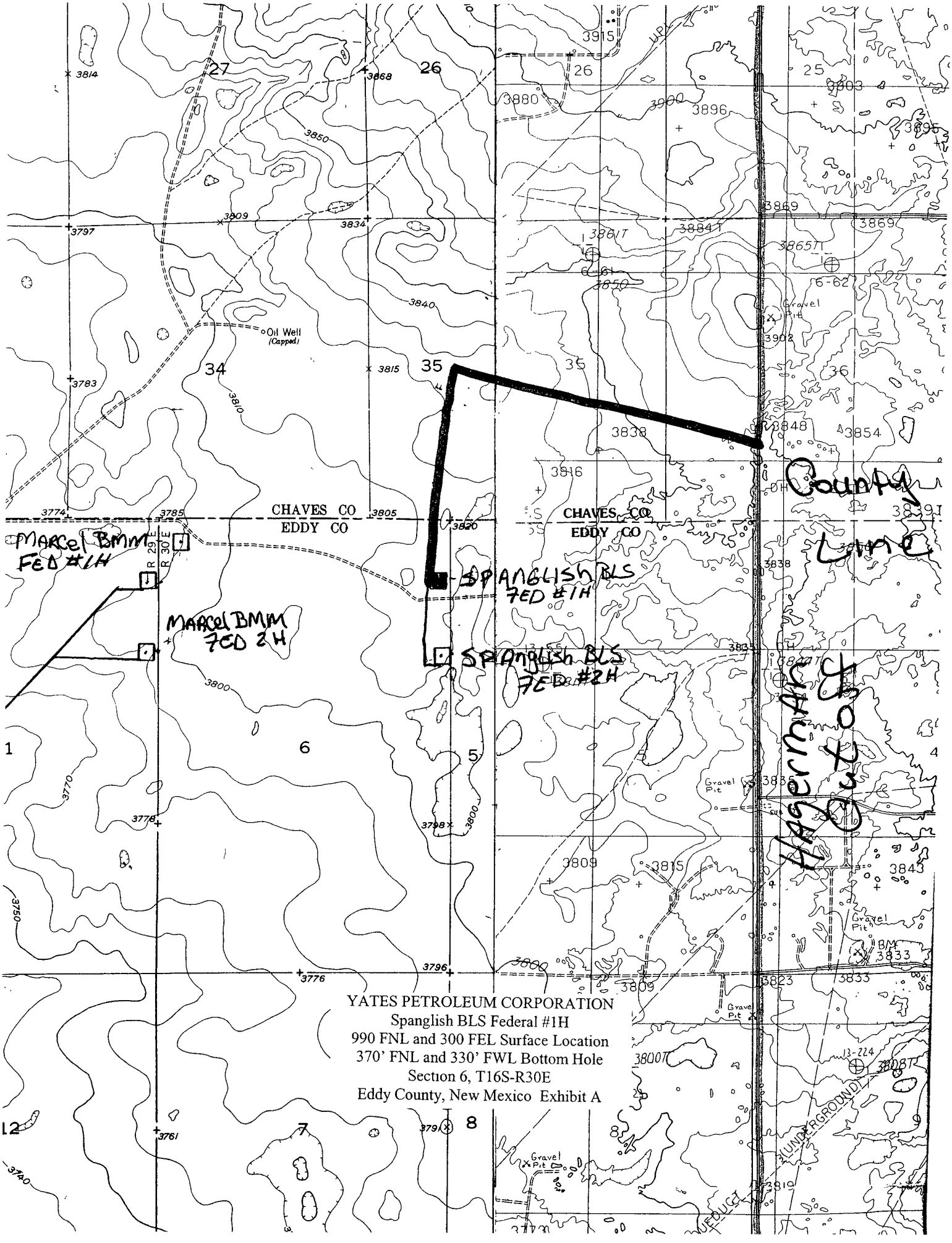
basin surveys
focused on excellence in the oilfield

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

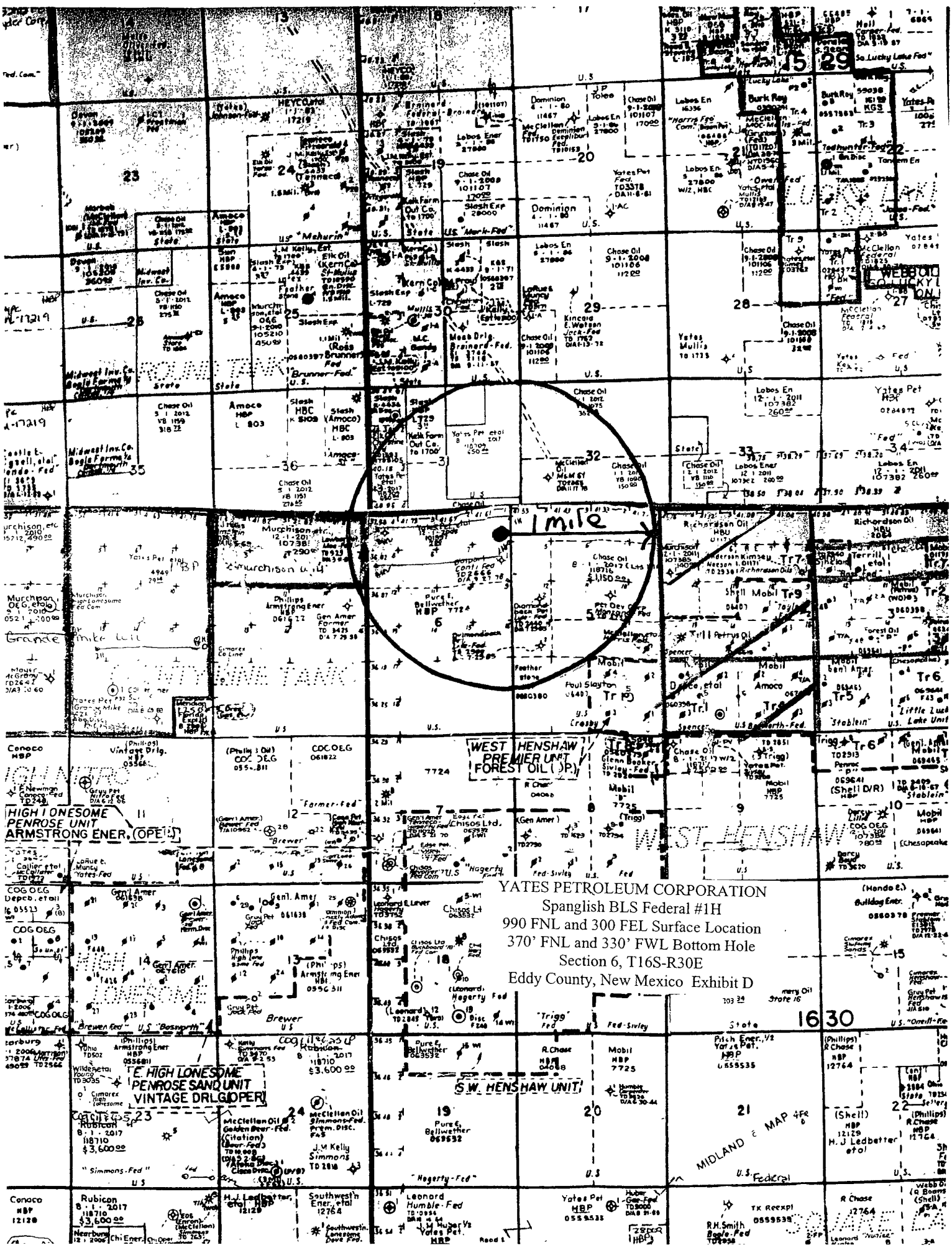
W.O. Number:	20475
Survey Date:	09-26-2008
Scale:	1" = 2000'
Date:	10-02-2008

YATES PETROLEUM

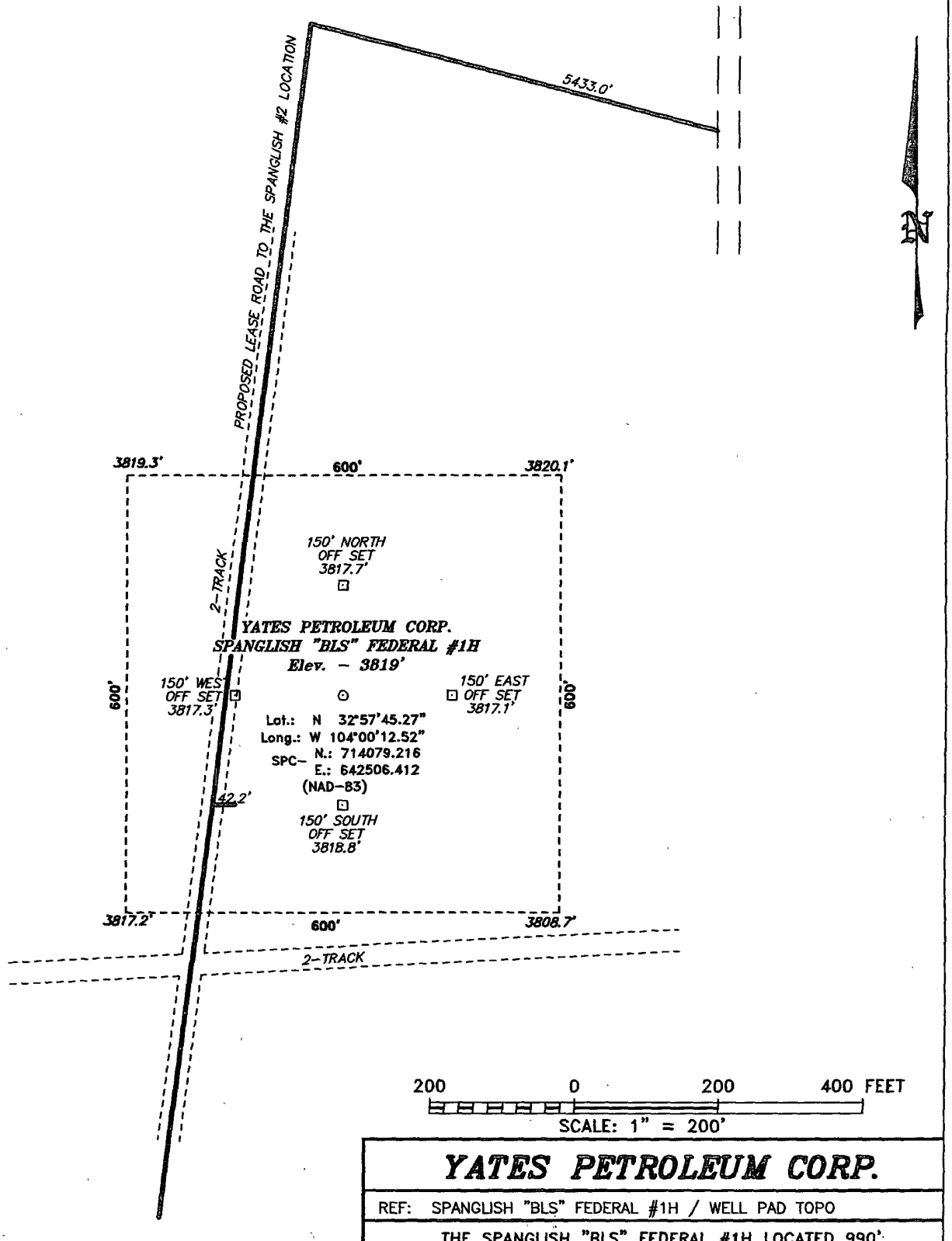
Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "C"



YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H
990 FNL and 300 FEL Surface Location
370' FNL and 330' FWL Bottom Hole
Section 6, T16S-R30E
Eddy County, New Mexico Exhibit A


1 mile
YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H
990 FNL and 300 FEL Surface Location
370' FNL and 330' FWL Bottom Hole
Section 6, T16S-R30E
Eddy County, New Mexico Exhibit D
HIGH LONESOME PENROSE UNIT
ARMSTRONG ENER. (OPER.)
E. HIGH LONESOME PENROSE SAND UNIT
VINTAGE DRLG (OPER.)
WEST HENSHAW PREMIER UNIT
FOREST OIL (OP.)
S.W. HENSHAW UNIT
WEST HENSHAW
MIDLAND MAP 4Fe

SECTION 6, TOWNSHIP 16 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



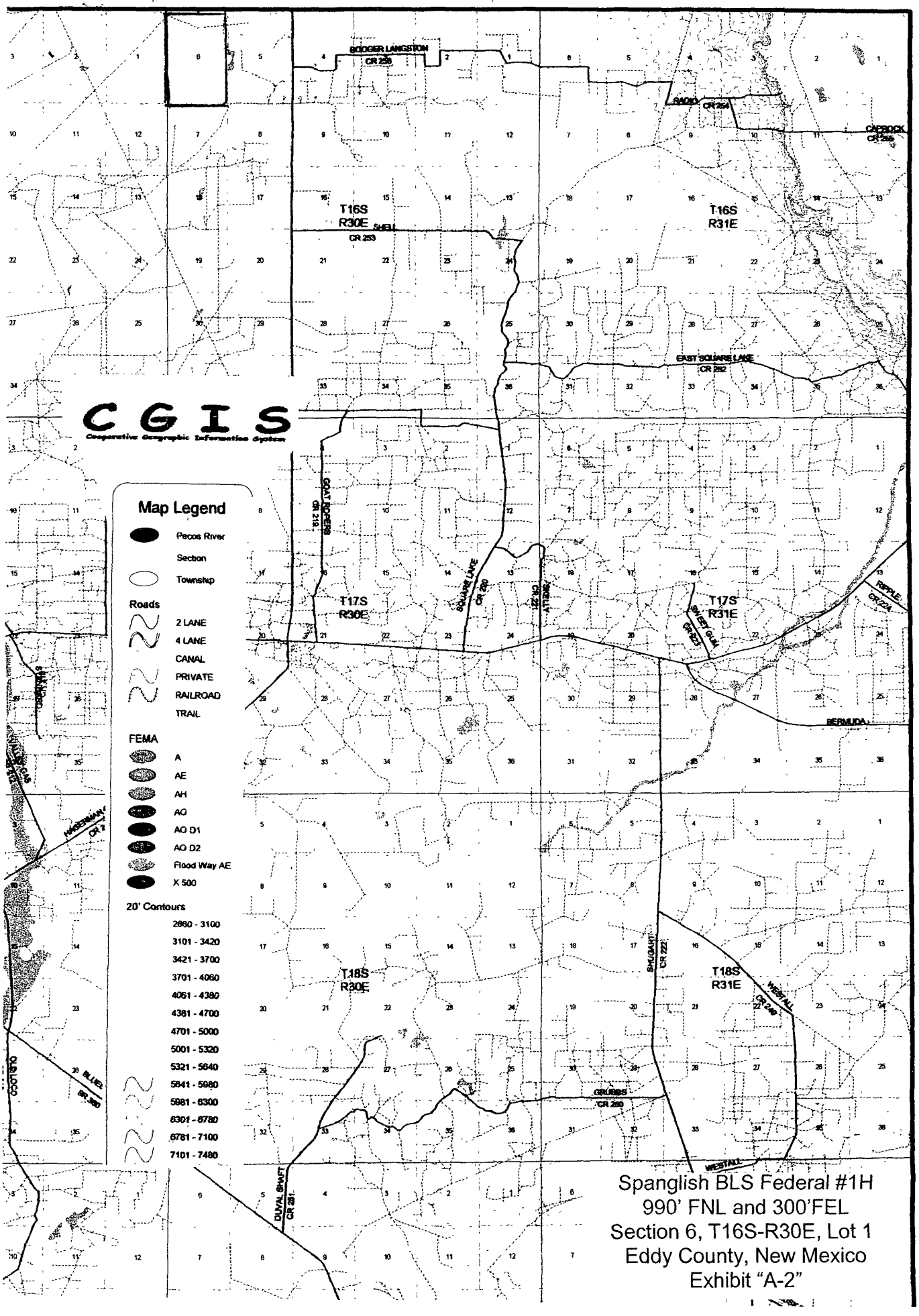
YATES PETROLEUM CORP.

REF: SPANGLISH "BLS" FEDERAL #1H / WELL PAD TOPO

THE SPANGLISH "BLS" FEDERAL #1H LOCATED 990' FROM THE NORTH LINE AND 200' FROM THE EAST LINE OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

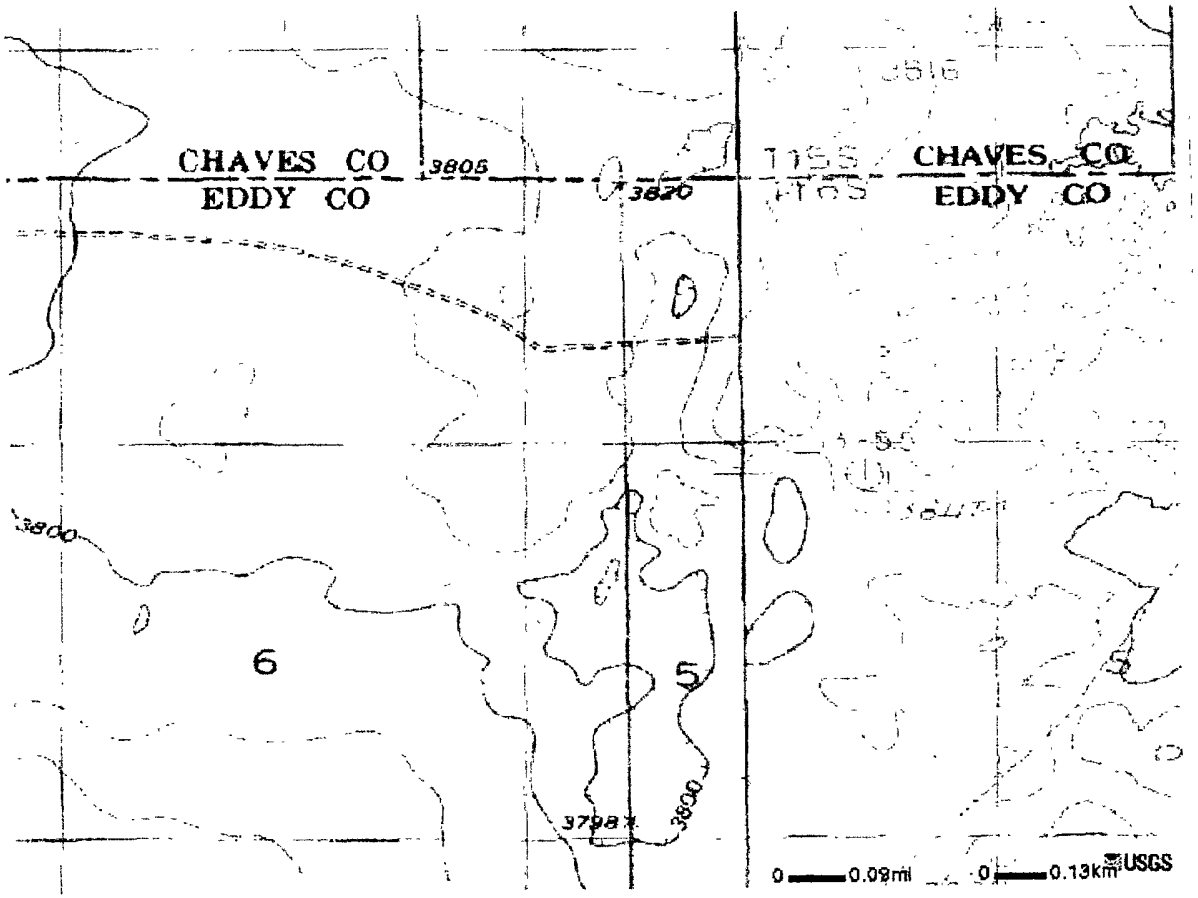
W.O. Number: 20230	Drawn By: J. M. SMALL	Survey Date: 08-13-2008	Sheet 1 of 1 Sheets
Date: 08-14-2008	Disk: 20230 JMS		



Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "A-2"

Mapping
INFORMATION PLATFORM

FEMA



Legend

- Flood Data
  - FEMA Boundaries
  - National Flood Hazard Layer
    - Floodways
    - Flood Hazard Zone Boundaries
    - Flood Hazard Zones
      - Zone A
      - Zone AE
      - Zone AH
      - Zone AO
      - Zone AR
      - Zone A99
      - Zone V
      - Zone VE
      - Zone D
      - 0.2% Annual Chance Flood Hazard Zone
    - General Structures
      - Culverts
      - Foot Bridges
      - Dams
      - Levees
      - Wing Walls
    - Cross Section Lines
      - Cross Sections with NGVD29 datum
      - Cross Sections with NAVD88 datum
      - Cross Sections with other datum
    - Base Flood Elevation
      - BFE with NGVD29 datum
      - BFE with NAVD88 datum
      - BFE with other datum
    - Bench Marks
    - DFIRM Panels
    - LOMR's
    - LOMA and LOMR-F (incomplete data before 2000, locations approximate)
  - Q3 Layers
- Imagery
- Baseman Layers

YATES PETROLEUM CORPORATION

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "A-1"

YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H
990' FNL and 300' FEL, Section 6-16S-30E (Surface Hole Location)
370' FNL and 330' FWL, Section 6-16S-30E (Bottom Hole Location)
Eddy County, New Mexico

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

Yates	1190'		Glorieta	4168'	
Seven Rivers	1320'		Tubb	5330'	
Queen	1843'	Oil/Gas	ABO	6318'	Gas
Grayburg	2409'	Oil	Wolfcamp	7608'	Oil
San Andres	2647'	Oil	TVD	6868'	
			TMD	11932'	

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

See COA

Water: 200'
Oil or Gas: See above

3. **Pressure Control Equipment:** BOPE will be installed on the 8 5/8" casing and rated for 3000 psi BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors 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.

Auxiliary Equipment:

A. 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.

4. **THE PROPOSED CASING AND CEMENTING PROGRAM:**

A. Casing Program: (**All New**)

Hole Size	Casing Size	Wt./Ft	Grade	Thread	Interval	Length
14 3/4"	11 3/4"	42#	H-40	ST&C	0-400'	400'
11"	8 5/8"	32#	J-55	ST&C	0-100'	100'
11"	8 5/8"	24#	J-55	ST&C	100-2200'	2100'
11"	8 5/8"	32#	J-55	ST&C	2200-2750'	550'
7 7/8"	5 1/2"	17#	HCP-110	LT&C	0'-11932' MD	11932'

This well will be drilled vertically to approximately 6868'. At 6868' the well will be kicked off and directionally drilled at 12 degrees per 100' with a 7 7/8" hole to 11932' MD with a TVD of 7438' where 5 ½" casing will be set and cemented. The penetration point of producing zone will be encountered at 930' FNL & 663' FEL. The deepest TVD in the lateral will be 7438'. No pilot hole will be drilled. We request a variance be given to test the BOP on the surface casing to 1000 psi using rig pumps.

See COA

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

B. CEMENTING PROGRAM:

Surface Casing: 275 sx "C" w/CaCl2 (WT 14.80 YLD 1.34). **TOC at surface.**

Intermediate Casing: 575 sx C Lite (Wt. 12.50 YLD 2.04). Tail in with 200 sx C + 2% CaCl2 (Wt 14.80 YLD 1.33). **TOC at surface.**

Production Casing: **TOC 2250'**, Lead w/ 600 sx 50:50:10C (WT 11.60 YLD 2.43). Tail in with 1325 sx 50:50:4C (WT 13.50 YLD 1.46)

5. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
Spud to 400'	Fresh Water Gel	8.6-9.0	32-34	N/C
400'-2750'	Brine Water	10.-10.2	28	N/C
2750'-6300'	Cut Brine	8.7-9.2	28	N/C
6300'-6868'	Cut Brine	8.7-9.2	28	<10-15
6868'-11932	Cut Brine (Lateral Section)	8.7-9.2	28	<10-12

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. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: 10' out from under intermediate casing to TD.
Logging: Horizontal MWD / GR.
Coring: None anticipated.
DST's: None anticipated.
H2S: None anticipated.

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE AND POTENTAL HAZARDS:

Anticipated BHP:

From:	0	TO	400' TVD	Anticipated Max. BHP:	190	PSI
From:	400'	TO	2750' TVD	Anticipated Max. BHP:	1460	PSI
From:	2750'	TO	7438' TVD	Anticipated Max. BHP.	3560	PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 120° F

8. ANTICIPATED STARTING DATE:

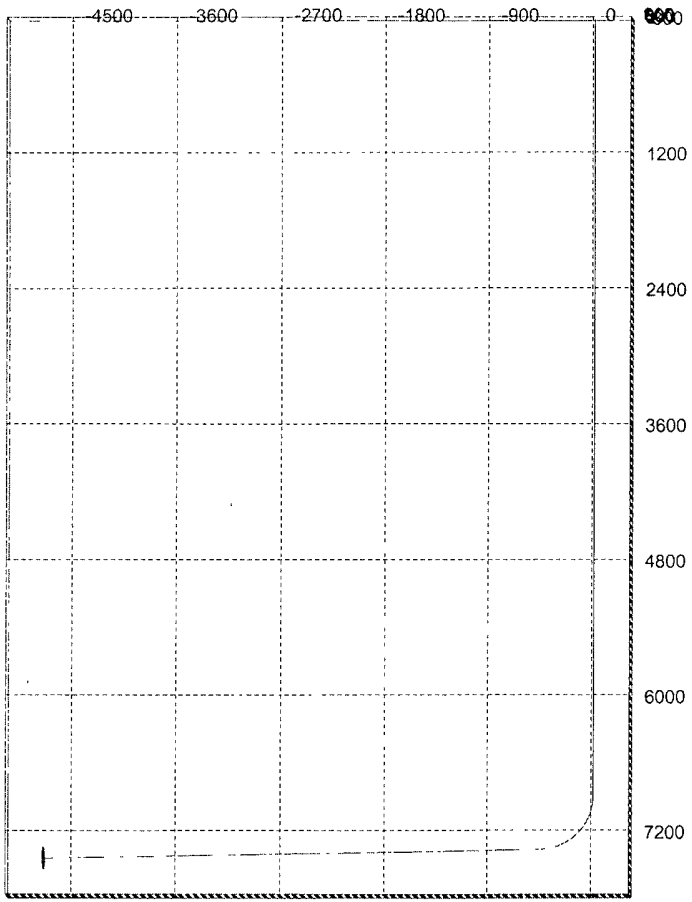
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 30 days.

MD	Inclination	Azimuth	TVD	N+/S-	E+/W-	D.L.S.	ToolFace	T.F. Ref. [HS/GN]	
0	0	0	0	0	0	0			
1,190	0	0	1,190	0	0	0			YATES
1,320	0	0	1,320	0	0	0			SEVEN RIVERS
1,843	0	0	1,843	0	0	0			QUEEN
2,409	0	0	2,409	0	0	0			GRAYBURG
2,647	0	0	2,647	0	0	0			SAN ANDRES
4,168	0	0	4,168	0	0	0			GLORIETA
5,330	0	0	5,330	0	0	0			TUBB
6,318	0	0	6,318	0	0	0			ABO
6868	0	0	6868	0	0	12	277	GN	KOP
6875	0 84	277.44	6875	0.01	-0.05	12	0	HS	
6900	3 84	277 44	6899.98	0.14	-1.06	12	0	HS	
6925	6.84	277 44	6924.87	0.44	-3.37	12	360	HS	
6950	9.84	277.44	6949.6	0.91	-6.96	12	0	HS	
6975	12.84	277.44	6974 11	1.55	-11 84	12	0	HS	
7000	15.84	277.44	6998 33	2.35	-17.98	12	360	HS	
7025	18.84	277.44	7022.19	3.31	-25.37	12	360	HS	
7050	21 84	277 44	7045.63	4 44	-33.98	12	0	HS	
7075	24.84	277.44	7068.58	5.72	-43.8	12	0	HS	
7100	27.84	277.44	7090.98	7.15	-54.8	12	0	HS	
7125	30.84	277.44	7112.77	8.74	-66.94	12	0	HS	
7150	33.84	277.44	7133 89	10 47	-80.2	12	0	HS	
7175	36 84	277 44	7154 28	12 34	-94.54	12	0	HS	
7200	39 84	277.44	7173 89	14.35	-109 92	12	0	HS	
7225	42.84	277 44	7192 65	16.48	-126 29	12	0	HS	
7250	45.84	277.44	7210 53	18.75	-143 61	12	0	HS	
7275	48.84	277.44	7227.47	21.12	-161 84	12	360	HS	
7300	51.84	277.44	7243 43	23 62	-180.92	12	0	HS	
7325	54 84	277 44	7258.35	26.21	-200.81	12	0	HS	
7350	57 84	277 44	7272 21	28 9	-221.44	12	0	HS	
7375	60.84	277.44	7284.95	31.69	-242.76	12	0	HS	
7400	63.84	277.44	7296 56	34.55	-264.71	12	0	HS	
7425	66 84	277.44	7306 99	37.49	-287 24	12	360	HS	
7450	69.84	277.44	7316.21	40.5	-310.28	12	360	HS	
7475	72.84	277.44	7324.21	43.56	-333.76	12	360	HS	
7500	75.84	277 44	7330.96	46.68	-357.63	12	0	HS	
7525	78 84	277 44	7336.44	49.84	-381.81	12	0	HS	
7550	81 84	277 44	7340 63	53 03	-406.25	12	0	HS	
7575	84.84	277.44	7343.53	56 24	-430.87	12	360	HS	
7600	87 84	277.44	7345 13	59 47	-455.6	12	0	HS	
7607.77	88.77	277.44	7345.36	60.47	-463.3	12	0	HS	Producing Zone
11931.82	88.77	277.44	7438	620	-4750	0			Lateral TD

Well will be drilled vertically to approx. 6868'. At 6868' well will be kicked off and directionally drilled at 12 degrees per 100' with a 7 7/8" hole to 11,932' MD 7,438' TVD where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be encountered at 930' FNL and 663' FEL, 6-16S-30E Deepest TVD in the well is 7438' in the lateral. NO PILOT HOLE.

3D³ Directional Drilling Planner - 3D View

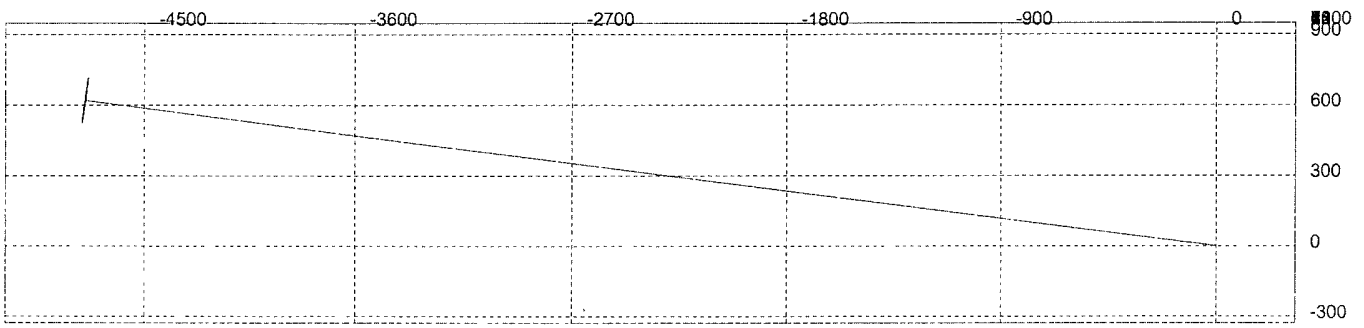
Company: **Yates Petroleum Corporation**
Well: **Spanglish BLS Federal #1H**



File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Horizontal\spanglish1h.wpp

3D³ Directional Drilling Planner - 3D View

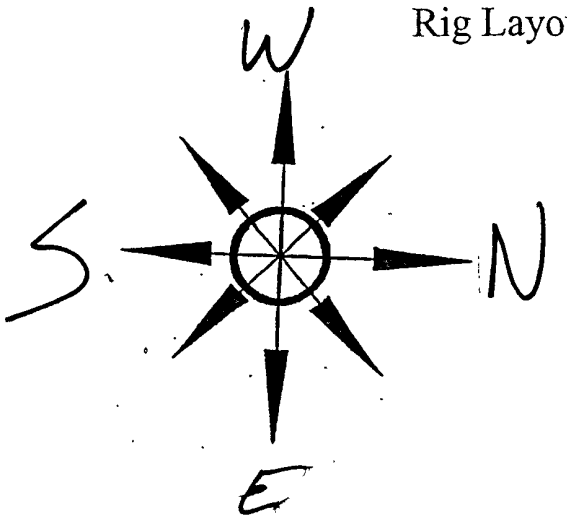
Company: **Yates Petroleum Corporation**
Well: **Spanglish BLS Federal #1H**

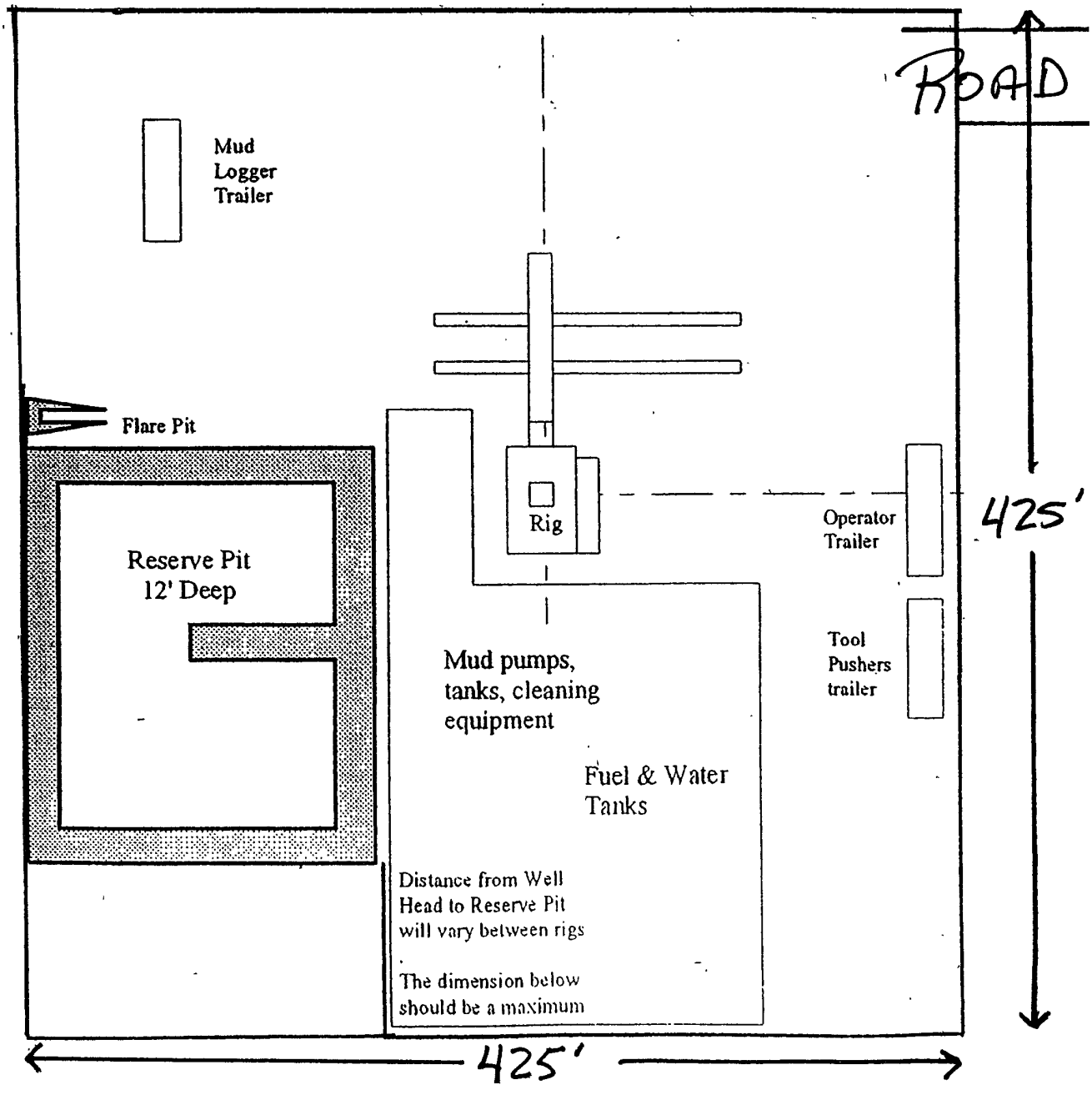


File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Horizontal\spanglish1h.wpp

YATES PETROLEUM CORPORATION
Rig Layout for Horizontal Well Locations

YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H
990 FNL and 300 FEL Surface Location
370' FNL and 330' FWL Bottom Hole
Section 6, T16S-R30E
Eddy County, New Mexico Exhibit B





Yates Petroleum Corporation
Design Requirements For Temporary Reserve Pit

Sign posted on site / location or on the fence of reserve pit identifying the operator, listing their phone #, location of site by ¼ / ¼ or unit letter, and S- T- R.

Pit must be fenced to prevent unauthorized access. Fence must remain in good repair. The fence to be barbed wire, space at 1 foot intervals from 1' to 4' off ground. Pit will be fenced on 3 sides during drilling; the 4th side will be fenced upon removal of drilling rig.

Slope of the pit walls is no greater than two horizontal feet to one vertical foot.

Welded liner seams must run up & down the banks of the pit, not horizontally across them.

Field seams must be welded.

Edges of the liner must be anchored in trenches at least 18 inches deep.
Edge of liner will protrude from the outside edge of the trench.

Pit shall be designed to prevent to run on of surface water.

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "D"

Yates Petroleum Corporation
Drilling Operations Requirements for Temporary Reserve Pit

While the drilling rig is onsite, Operator's representative will inspect the temporary pit daily to ensure that the liner is intact, and that no releases are occurring.
Thereafter, the operator shall inspect at least once weekly as long as liquids remain in the temporary pit.
Operator will maintain a log of such inspections and make the log available to the appropriate NMOCD District office upon request.

A copy of the inspection log shall be filed with the NMOCD when operator closes the pit.

Operator must notify NMOCD if liner is damaged, and must repair or replace the damaged liner. Operator has 48 hours to notify NMOCD and make repairs.

NO HOLES in pit liners – not even in the part of the liner that is not in the reserve pit .

All drilling fluids to be removed from temporary pit within 30 days of rig release date

Hydrocarbon based drilling fluids will be stored in steel pits.

Liner –will be 20mil.,string reinforced with welded seams.

Fluids to be added to pit through a header, diverter, or other hardware that prevents damage to liner by erosion, fluid jets, or impacts from installations and removal of hoses or pipes.

Operator shall have onsite an oil absorbent boom or other device to contain and remove oil from a pits surface.

Operator must maintain a freeboard of at least two feet for a temporary pit.

Pit will be bermed to prevent run on of water into the pit.

Safety:

With the use of a temporary pit operator is better able to conduct flammable and dangerous fluids further away from rig personnel and well bore.

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "E"

Closure Procedure For Temporary Drilling Pits

1. **De-water pit within 30 days of rig release.**

2. **Weekly inspection of fluid level in drilling pit after rig release date until fluids are removed. Weekly levels will be recorded in a log to be submitted to the appropriate OCD district office at time of pit closure.**

3. **All removed pit fluids will be disposed of in an OCD approved manner at one of the listed OCD approved disposal facilities.**

   Disposal Facility:

Gandy Marley	NM-01-0019
Lea Land Farm	WM-1-035
CRI	R-9166

4. **If fluids are reclaimed the appropriate OCD district office will be contacted beforehand for approval to do so.**

5. **Within 6 months of the rig release date and after the removal of all free liquids from the temporary drilling pit, the surface owner will be notified by certified mail, return receipt requested that the operator will close the pit. OCD division office will be notified verbally that waste excavation and removal will begin.**

6. **All impacted contents of the temporary drilling pit will be stabilized by mixing of dry non-waste containing earthen material so that such material will pass a paint filter test.**

7. **All stabilized pit contents, including the synthetic pit liner will be loaded into trucks and transferred to the division-approved facility listed below for proper disposal.**

   Disposal Facility:

Gandy Marley	NM-01-0019
Lea Land Farm	WM-1-035
CRI	R-9166

8. **Once all visually impacted materials have been removed from the temporary drilling pit, testing and analyzing of the soils beneath the pit will be conducted in accordance with 19.15.17.13, B., 1(b) (i) or (ii) whichever is appropriate to determine if a release has occurred during utilization of the pit.**

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "F"

9. **When analysis indicates that the soils within the pit area are within the recommended actions levels backfilling will begin.**

10. **Backfill material will consist of non-waste containing earthen material. The cleaned out drilling pit will be filled with such material to a level which shall allow space for the addition of topsoil which will be equal to the thickness of the background topsoil or one foot whichever is greater as directed in 19.15.17.13, H (1) NMAC.**

11. **The topsoil cover will be placed on to the drilling pit area in a manner of existing grade and will prevent ponding of water and erosion of the cover material.**

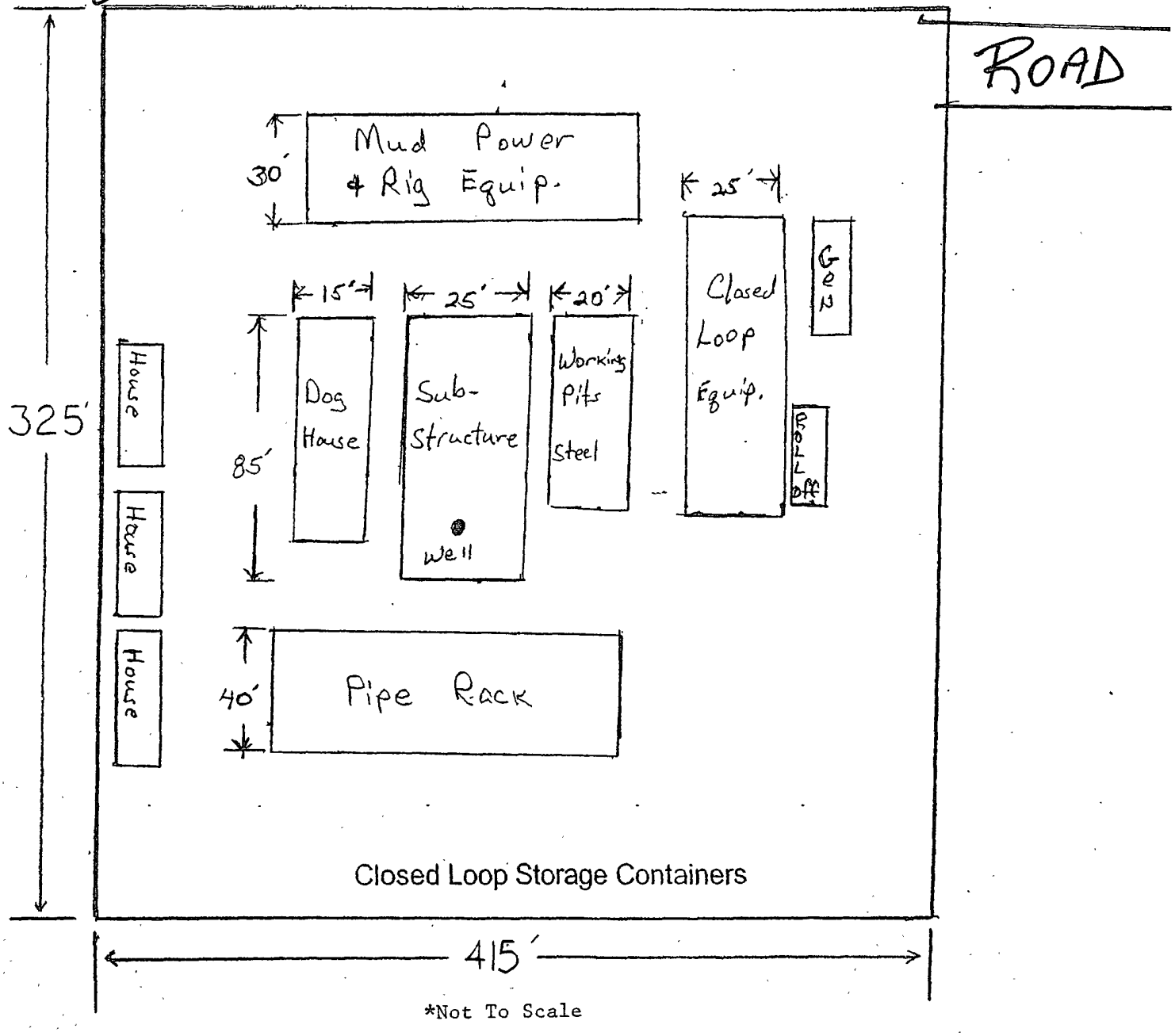
12. **Within 60 days of closure completion a closure report on form C-144 will be submitted to the appropriate district office. The report will contain detailed information on the backfilling, capping. The closure report will also include a plat of the closed pit location on a form C-105.**

13. **Within the first growing season after the approved pit closure seeding of the pit area shall occur. The seeding will be performed in accordance with 19.15.17.13, I, (2) (3) (4) (5).**

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "F"

Yates Petroleum Corporation
Location Layout for Permian Basin

Closed Loop Design Plan



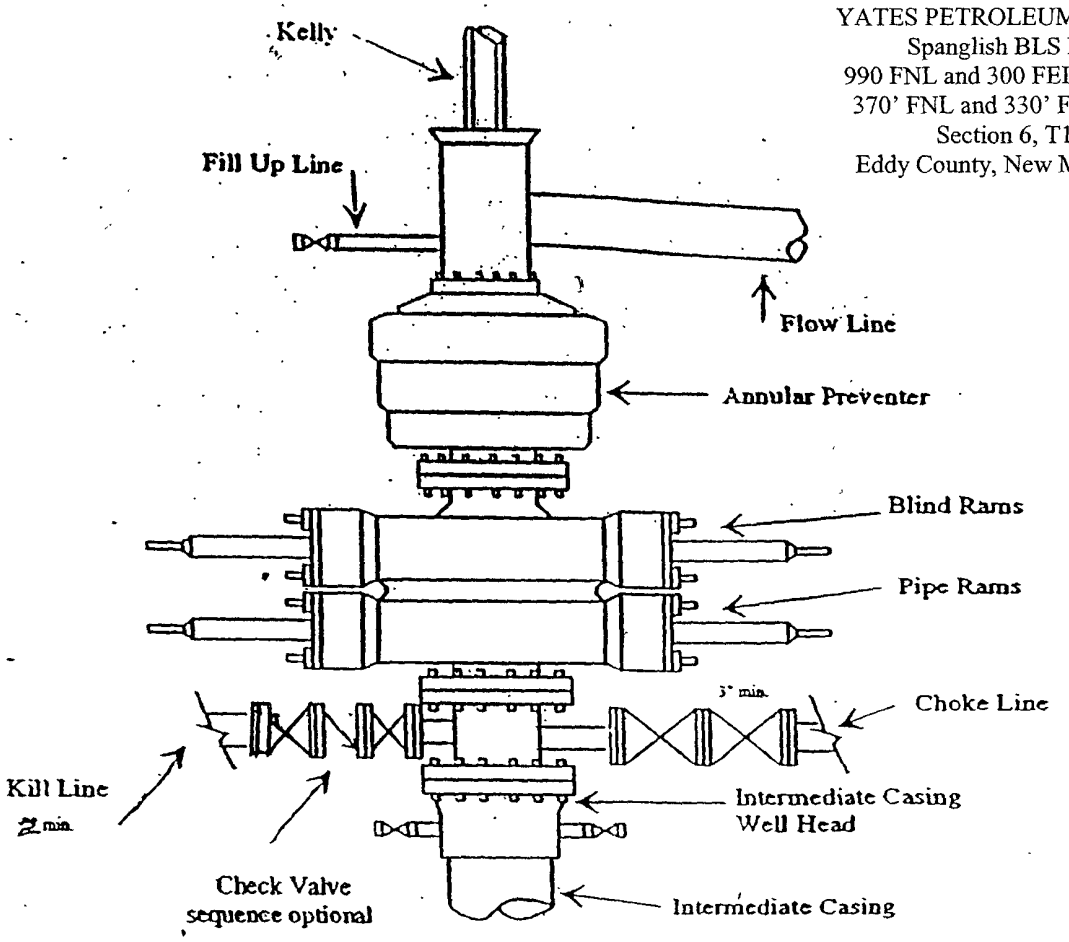
*Not To Scale

Yates Petroleum Corporation

BOP-3

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

YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H
990 FNL and 300 FEL Surface Location
370' FNL and 330' FWL Bottom Hole
Section 6, T16S-R30E
Eddy County, New Mexico Exhibit C



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

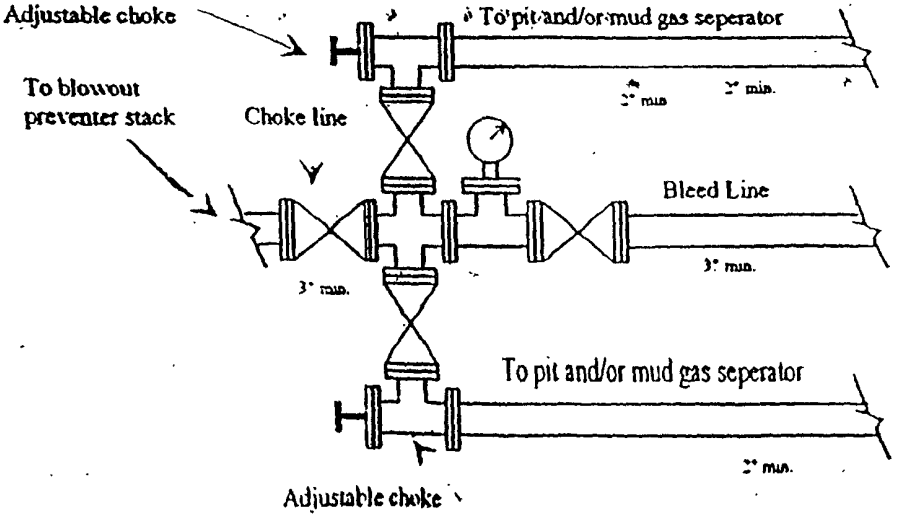


Exhibit "A"

Spanglish BLS Federal #1H - Siting Requirements:

Enclosed herewith are supporting maps and documents to support siting required by 19.15.17.10 NMAC.

Attached is the water data for the area that indicates depth to water is greater than 70 feet (Exhibit B & B-1). From our site inspection of the location there are no continuously flowing watercourse within 300 feet or within 200 feet of any significant watercourse lakebeds, sinkhole or playa lakes. There are no permanent residences, school, hospital, institutions or church in existence within 300 feet or 1000 feet of the location. From iWaters database and visual inspection there are no domestic fresh water wells or springs within 500 horizontal feet or1000 horizontal feet from the well location (Exhibit B-1). The location is not within the incorporated municipal boundaries or within a defined fresh water well field covered under a municipal ordinance and not within 500 feet of a wetland. There are no subsurface mines overlying the area. 100 year flood plain has not been indicated on the FEMA website. Our Regulatory Agent has been on site and location shows no sign to be prone to flooding.

Regulatory Agent

10/9/08

Date

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "A"

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 16S Range: 30E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

POD / Surface Data Report | Avg Depth to Water Report
Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 16S Range: 29E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

POD / Surface Data Report | Avg Depth to Water Report
Water Column Report

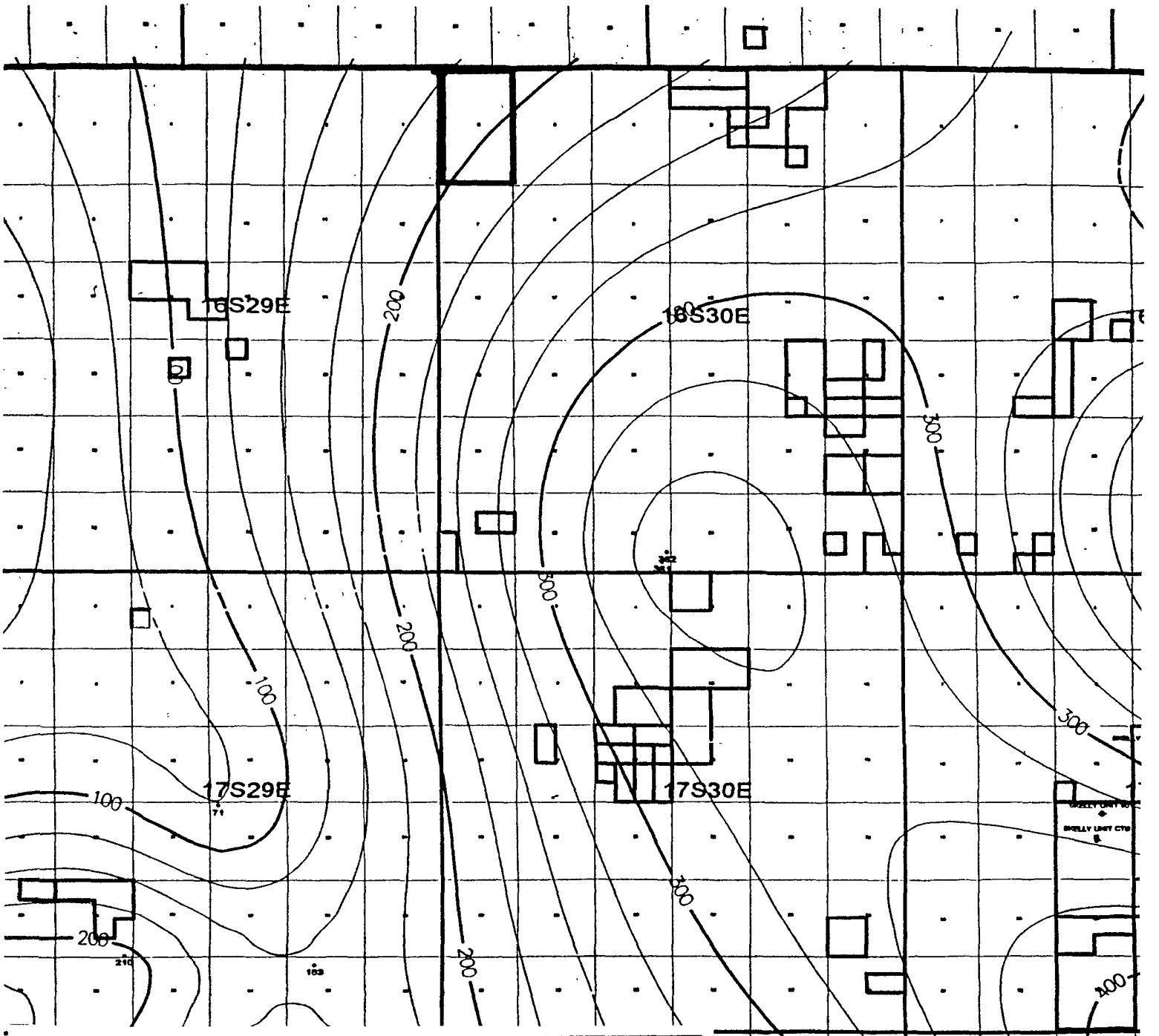
Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg
RA	16S	29E	19				1	110	110	110

Record Count: 1

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "B"



ChevronTexaco

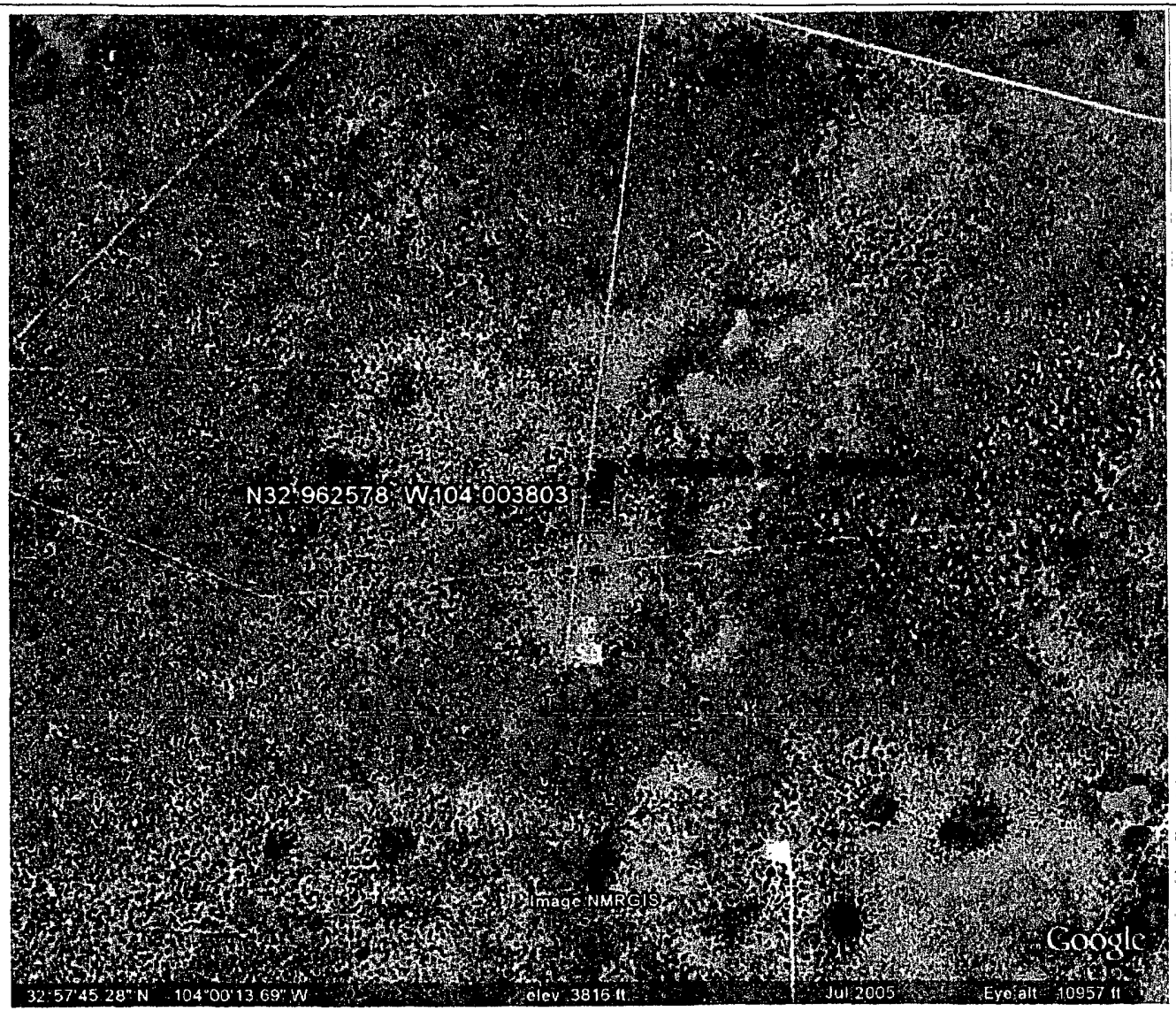
Eddy Co. Depth To Ground Water
Water Wells
Facilities

Wayne Johnson		2/9/2005
	Scale 1:113068.59	

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "B-1"

YATES PETROLEUM CORPORATION

Spanglish BLS Federal #1H
990' FNL and 300'FEL
Section 6, T16S-R30E, Lot 1
Eddy County, New Mexico
Exhibit "C-1"



MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Spanglish BLS Federal #1H
990' FNL and 300' FEL, 6-16S-30E (Surface Hole Location)
370' FNL and 330' FWL, 6-16S-30E (Bottom Hole Location)
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 9.7 miles north of Loco Hills, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go east of Artesia, NM on highway 82 to Loco Hills, NM. Turn north at Loco Hills on the Hagerman cutoff for approximately 8.6 miles to Booger Langston Road. Continue going north on Hagerman Cutoff for approximately 1.1 miles more. There will be a Chaves Co. line marker and a lease road to the left. Turn left here on lease road and go approximately 1 mile. There will be a faint two track road going to the left. (Flags in the bushes). Turn left on two track and go approximately 0.7 of a mile to the southwest corner of the proposed pad. Please note part of the road has a berm across it and has been reclaimed.

2. PLANNED ACCESS ROAD:

A. The proposed new road will go ~~west~~ South for about 0.7 of a mile to the southwest corner of the drilling pad.
B. The new road will be 14' 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 one side. Three traffic turnouts may be built if 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 no 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 power line can be built if needed.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a fresh 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 acquire any materials from the closest source at the time of construction of the well pad.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the reserve pits.
B. The temporary drilling pit 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. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
D. Oil produced during operations will be stored in tanks until sold.
E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
F. 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, rig orientation and access road approach.
B. The temporary drilling pit 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. Form C-144 attached.
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 been leveled.
C. If the proposed well is non-productive, 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 will be filled level within 90 days after abandonment.

11. SURFACE OWNERSHIP: Federal Surface leased for grazing.

12. OTHER INFORMATION:

A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

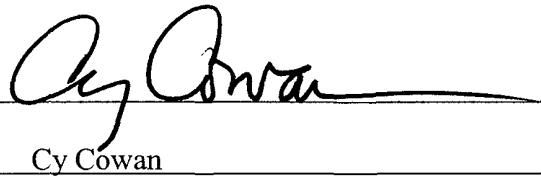
Cy Cowan, Regulatory Agent
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (575) 748-4372

B. Through Drilling Operations, Completions and Production:
Paul Ragsdale,
Operations Manager
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (575) 748-1471

CERTIFICATION
YATES PETROLEUM CORPORATION
Spanglish BLS Federal #1H

I hereby 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 which currently exist; and an someone under employment of Yates Petroleum Corporation has 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 this 9th day of October 2008

Signature 

Name Cy Cowan

Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

Telephone 575 ~~(505)~~ 748-4372

Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor

Address (if different from above) Same as above.

Telephone (if different from above) 575 ~~(505)~~ 748-4221

E-mail (optional)

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Yates Petroleum Corporation
LEASE NO.:	NM101597
WELL NAME & NO.:	Spanglish BLS Federal 1H
SURFACE HOLE FOOTAGE:	990' FNL & 300' FEL
BOTTOM HOLE FOOTAGE	370' FNL & 330' FWL
LOCATION:	Section 06, T. 16 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

LESSER PRAIRIE-CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

For the purpose of Protecting Lesser Prairie-Chickens:

Oil and gas activities, including 3-D geophysical exploration and drilling, will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th, annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 8 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 175' X 150' on the West side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

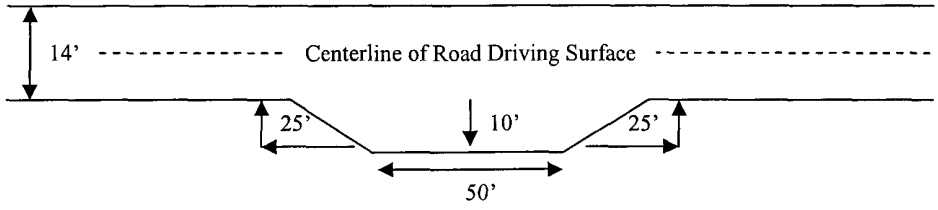
Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View

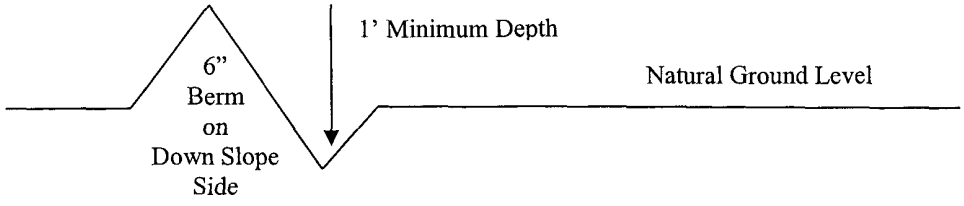


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately-sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

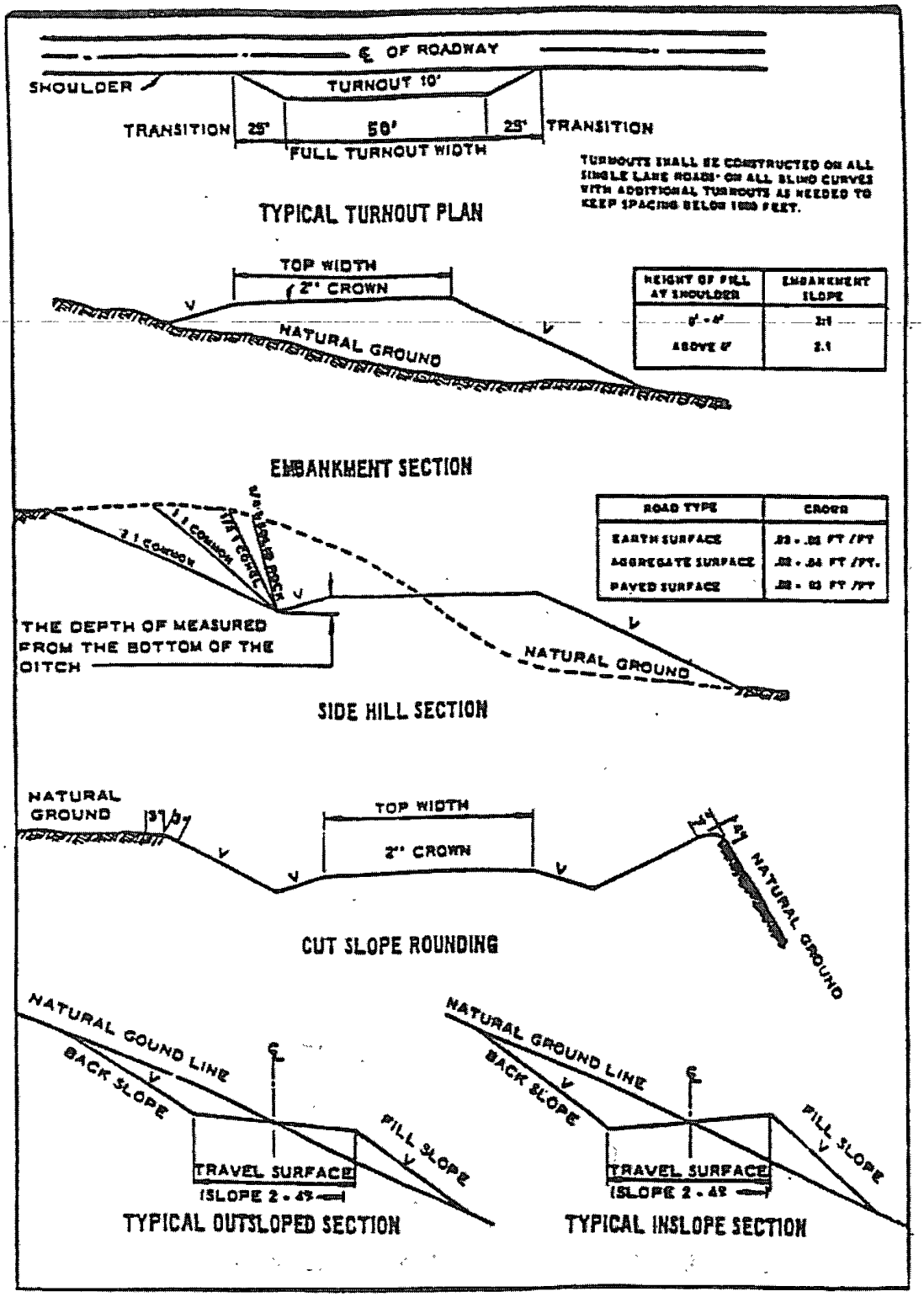
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. 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.

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 the Grayburg and San Andres formations.
Possible brine/water flows in the Salado and Artesia Groups.

1. The **11-3/4** inch surface casing shall be set **at approximately 400 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 remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

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

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

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

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:

    ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. 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 **8-5/8"** 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.

    e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

    f. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

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

WWI 110608

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A
**Four-winged Saltbush	5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

(Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.