

15-656

OCD Artesia

NM OIL CONSERVATION  
ARTESIA DISTRICT

Form 3160-3  
(March 2012)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NOV 09 2016

RECEIVED

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-125008
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Yates Petroleum Corporation		7. If Unit or CA Agreement, Name and No.
3a. Address 105 South Fourth St. Artesia, NM 88210		8. Lease Name and Well No. Roy AET Com #9H
3b. Phone No. (include area code) 575-748-4120		9. API Well No. 30-015-42252
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 990' FNL & 15' FEL At proposed prod. zone 900' FNL & 330' FWL		10. Field and Pool, or Exploratory N. Seven Rivers; Glorieta-Yeso 97565
14. Distance in miles and direction from nearest town or post office* 15 miles		11. Sec., T. R. M. or Blk. and Survey or Area Section 17, T19S-R25E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 15' FEL	16. No. of acres in lease 960 80 NM-125008	12. County or Parish Eddy County
17. Spacing Unit dedicated to this well N2N2 160 arces	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 750'	19. Proposed Depth 7310' TD 2400' TVD	20. BLM/BIA Bond No. on file NMB000434 NMB000920
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3531'	22. Approximate date work will start* 04/12/2014	23. Estimated duration 15 days

24. Attachments

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

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

25. Signature	Name (Printed/Typed) Travis Hahn	Date 06/04/2015
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Title  
Land Regulatory Agent

Approved by (Signature) <b>/s/Cody Layton</b>	Name (Printed/Typed)	Date <b>NOV 2 - 2016</b>
---	----------------------	-----------------------------

Title  
**FIELD MANAGER** Office  
**CARLSBAD FIELD OFFICE**

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

Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

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

(Continued on page 2)

\*(Instructions on page 2)

Roswell Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

RICT I  
 French Dr., Hobbs, NM 88240  
 Phone (505) 393-6161 Fax: (505) 393-0720

RICT II  
 1st First St., Artesia, NM 88210  
 Phone (505) 748-1283 Fax: (505) 748-0720

RICT III  
 100 Rio Brazos Rd., Aztec, NM 87410  
 Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
 1220 S. St. Francis Dr., Santa Fe, NM 87505  
 Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised August 1, 2011

Submit one copy to appropriate  
 District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-42252	Pool Code 97565	Pool Name N. Seven Rivers ; Gilchrista-Yesco
Property Code 40490	Property Name ROY AET COM	Well Number 9H
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3531

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	17	19 S	25 E		990'	NORTH	15'	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
D	17	19 S	25 E		900'	NORTH	330'	WEST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED.  
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>N: 606938.3 E: 485258.3 (NAD83)</p> <p>N: 606923.1 E: 487920.1 (NAD83)</p> <p>N: 606908.0 E: 490581.9 (NAD83)</p> <p>B.H. 330'</p> <p>PROPOSED BOTTOM HOLE LOCATION          Lat - N 32°39'57.27"          Long - W 104°30'52.27"          NMSPC - N 606036.4          E 485581.6          (NAD-83)</p> <p>Penetration Point:          978' ELL + 507' FEL</p> <p>S.L. 15'</p> <p>SURFACE LOCATION          Lat - N 32°39'56.18"          Long - W 104°29'54.03"          NMSPC - N 605918.3          E 490559.5          (NAD-83)</p>	<p>OPERATOR CERTIFICATION</p> <p>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 or has a right to drill this well at this 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.</p> <p><u>T. Hahn</u> 3/28/14          Signature Date</p> <p><u>Travis Hahn</u>          Printed Name</p> <p><u>thahn@yatespetroleum.com</u>          Email Address</p>
<p>0' 1000' 2000' 3000' 4000'</p> <p>SCALE: 1" = 2000'          WO Num.: 30183</p>	



pipeline on the property with the exception of on the location/pad or road crossings as deemed necessary, nor shall any line be made of anything other than poly material. Production from the Roy AET Com #9H well will be transported via flowline to the Aparejo APE tank battery. There will not be any production storage facilities on the Roy AET Com #9H well location.

#### Power Lines:

7.) Grantee shall pay Grantor a cash sum per rod for a 30' right of way for a 12 year term for all power lines. At the end of such term Grantee shall renegotiate with Grantor said right of way for such lines. If the well is plugged and abandoned Grantee will remove all lines and poles within 6 months of abandonment and prior to reclamation.

#### Purchased Materials:

8.) Grantee shall purchase caliche, sand, topsoil and water owned by Grantor for the construction, modification or remediation of the drill site location and access road located on the Land to the extent that such are reasonably available. These negotiations will be made by Grantee's Drilling and Production Departments.

9.) Grantee shall purchase fresh water produced from Grantor's water well for its drilling and completion operations at a mutually agreed price provided that Grantor's water well is capable of producing the quantity and quality of freshwater required by Grantor for its operations. This provision shall expire and be renegotiated after five years from the date of this agreement. Grantee shall furnish all equipment needed to operate and accurately meter the water well and shall obtain the necessary permits from the governmental agency having jurisdiction over same. Grantee shall contact Grantor for the designated route of all freshwater lines for all operations to the Roy AET COM No. 9H and the Boyd X STATE COM No. 14H.

#### Equipment Removal and Restoration:

10.) If the well located on the Land is plugged and abandoned, Grantee shall, within six (6) months thereof, remove any and all equipment used directly or indirectly by Grantee as it pertains to the abandoned well and shall thereafter return as much of the caliche surfacing material as possible to the natural subsurface location and restore the site as near reasonably possible to its original condition. Grantor shall be contacted for the desired reclamation, seed mixture and planting dates.

#### Miscellaneous:

11.) Yates Petroleum Corporation hereby agrees to reduce the new lease road from the Julie No. 003 to the Roy AET No. 9H that was damaged during construction to the agreed upon 14' in width and restore the area as reasonably as possible to the original condition that existed prior to construction. This will be completed at time the location is downsized. Grantor shall be contacted for the desired reclamation, seed mixture and planting dates.

If drilling activities, work overs, reentries or all other oil and gas operations the road is causing dust Grantee shall water the road in order to keep down the dust on the entire length of the road.

Traffic at all times shall not exceed a speed limit of 20 mph. Grantee shall notify its employees and all contractors of the speed restrictions.

If during Grantee's operations any trash is placed on Grantor's property shall be removed promptly by Grantee including trash that is blown into the pasture.

All traffic associated with any of the Grantee's drilling, workover, reentry, and all other oil and gas operations will stay on the designated access roads to the well location. Absolutely no traffic is to use any other route with the exception of traffic created by the purchase of water from the Grantors water wells or water station located on Rocking R Red Road. All other traffic found in undesignated areas of the Grantor's property will be considered to be in trespass. Grantee shall promptly investigate and take corrective action against the offending party.

All gates are to be kept locked at all times unless otherwise instructed by Grantor or designated representative. If a lock is found to have been broken by the result of the Grantees operations it is to be replaced

alcoholic beverages or illegal drugs are not to be brought on to Grantor's property by Grantee's employees, contractors, and subcontractors. Further, that no trash shall be thrown or deposited onto Grantor's property.

Hunting is prohibited to Grantee's employees, contractors and subcontractors on the Grantor's property at all times. Harassment of wildlife and livestock by Grantee's employees, contractors and subcontractors is strictly prohibited.

Facilities placed on the well location shall be directly related to the production of the well. Flowlines, well head, pumps, and this type of equipment shall be located on the well location. There shall be no tanks tank batteries, or separators erected or used on the premises Structures to house Grantee's employees, garages, storage facilities, etc. shall not be permitted or constructed on the well location.

An H2s monitor and notification system will be constructed to the OCD standards and will alert Yates personal and contractors of any release of H2S.

#### Indemnification:

11.) Grantee shall be solely responsible and liable for any harm or injuries caused to persons or property as a result of Grantee's operations, and shall indemnify and hold Grantor and their trustees, officers, employees and agents harmless from and against any and all claims, charges, assessments, damages, expenses, fines or penalties, including reasonable attorney fees and expenses of litigation, incurred in defense of Grantor as a result of Grantee's operations; provided, however that nothing herein shall be construed to require or obligate Grantee to indemnify Grantor against, or hold Grantor harmless from Grantor's own negligent acts. or omissions. Further, Grantee shall indemnify and save Grantor and his trustees, officers, employees and agents harmless from any and all damages, cleanup expenses, fines, or penalties, and reasonable attorney fees and expenses of litigation resulting from a fire or any violation of, or non-compliance with, applicable local, state, or federal laws and regulations resulting from Grantee's operations.

#### Grantee's Rights:

12.) Notwithstanding anything herein contained to the contrary, this Agreement is made without prejudice as to the rights of Grantee pursuant to any existing Oil, Gas and Mineral Lease or other agreement covering the Land and nothing herein shall be construed to lessen or alter Grantee's rights under any such Oil, Gas and Mineral Lease or agreement.

#### Restriction of Agreement:

13.) Notwithstanding anything to the contrary contained herein , the rights conveyed upon Grantee shall be restricted exclusively to the Roy AET #9H well described on the first page hereof.

#### Surface Owners Protection Act:

14.) The Surface Owners Protection Act of the State of New Mexico being Section 70-12-1 et. Seq. NMSA 1978 shall continue to apply to the parties to this Agreement and nothing herein contained shall lessen said parties rights and remedies under the act.

#### Compensation Agreement:

15.) The parties acknowledge the existence of a Separate Compensation Agreement for Surface Damages entered into between them and confirm that the terms are additionally applicable between the parties.

THIS AGREEMENT shall be binding on the party's successors, assigns, agents and representatives. Grantee's agents and/or independent contractors who enter onto the Land shall comply with the terms and conditions set forth herein. The covenants hereunder shall be performable in Eddy County, New Mexico.

STATE OF NEW MEXICO )  
 )ss.  
COUNTY OF EDDY )

BEFORE ME, the undersigned authority in and for said County and State, on this day personally appeared Alan R. Howell, Trustee for James H. and Betty R. Howell Revocable Trust, known to me to be the person whose name subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 11th day of April, 20 14.

Aubrae Mulcock

Notary Public

My Commission Expires:  
5/4/2016



OFFICIAL SEAL  
Aubrae Mulcock  
NOTARY PUBLIC-STATE OF NEW MEXICO  
My commission expires: 5/4/2016

Grantee:  
Yates Petroleum Corporation

Travis Hahn

By: Travis Hahn  
Title: Land Regulatory Agent

ACKNOWLEDGMENT

STATE OF NEW MEXICO )  
 )ss.  
COUNTY OF EDDY )

BEFORE ME, the undersigned authority in and for said County and State, on this day personally appeared Travis Hahn, Land Regulatory Agent for Yates Petroleum Corporation a New Mexico corporation, known to me to be the person whose name subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 11th day of April, 20 14.

Aubrae Mulcock

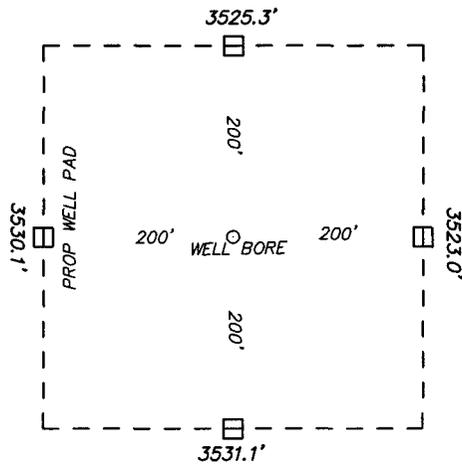
Notary Public

My Commission Expires:  
5/4/2016



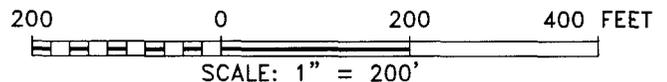
OFFICIAL SEAL  
Aubrae Mulcock  
NOTARY PUBLIC-STATE OF NEW MEXICO  
My commission expires: 5/4/2016

SECTION 17, TOWNSHIP 19 SOUTH, RANGE 25 EAST. N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.



**YATES PETROLEUM CORPORATION**  
**ROY AET STATE COM #9H**  
 ELEV. - 3531'  
 Lat - N 32°39'56.18"  
 Long - W 104°29'54.03"  
 NMSPC- N 605918.3  
 E 490559.5  
 (NAD-83)

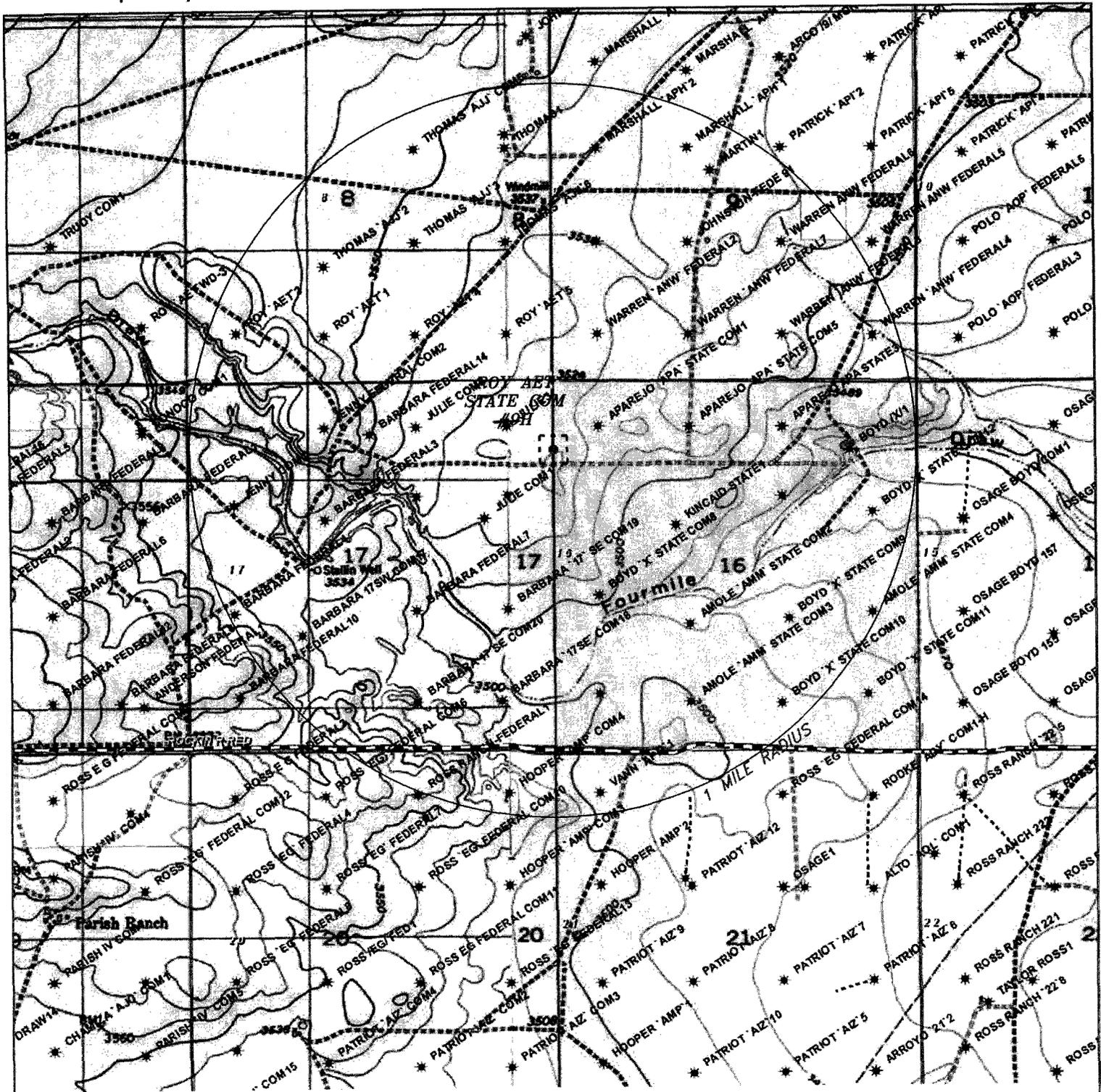
ARTESIA, NM IS ±17 MILES TO THE NORTH-NORTHEAST OF LOCATION.



 <b>YATES</b> PETROLEUM CORPORATION
REF: ROY AET STATE COM #9H / WELL PAD TOPO
THE ROY AET STATE COM #9H LOCATED 990' FROM THE NORTH LINE AND 15' FROM THE EAST LINE OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 25 EAST.
N.M.P.M., EDDY COUNTY, NEW MEXICO.



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

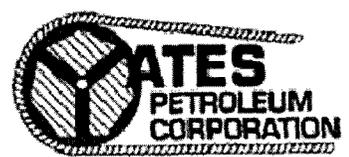
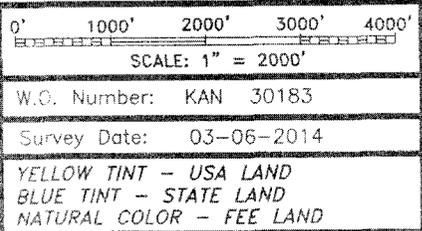


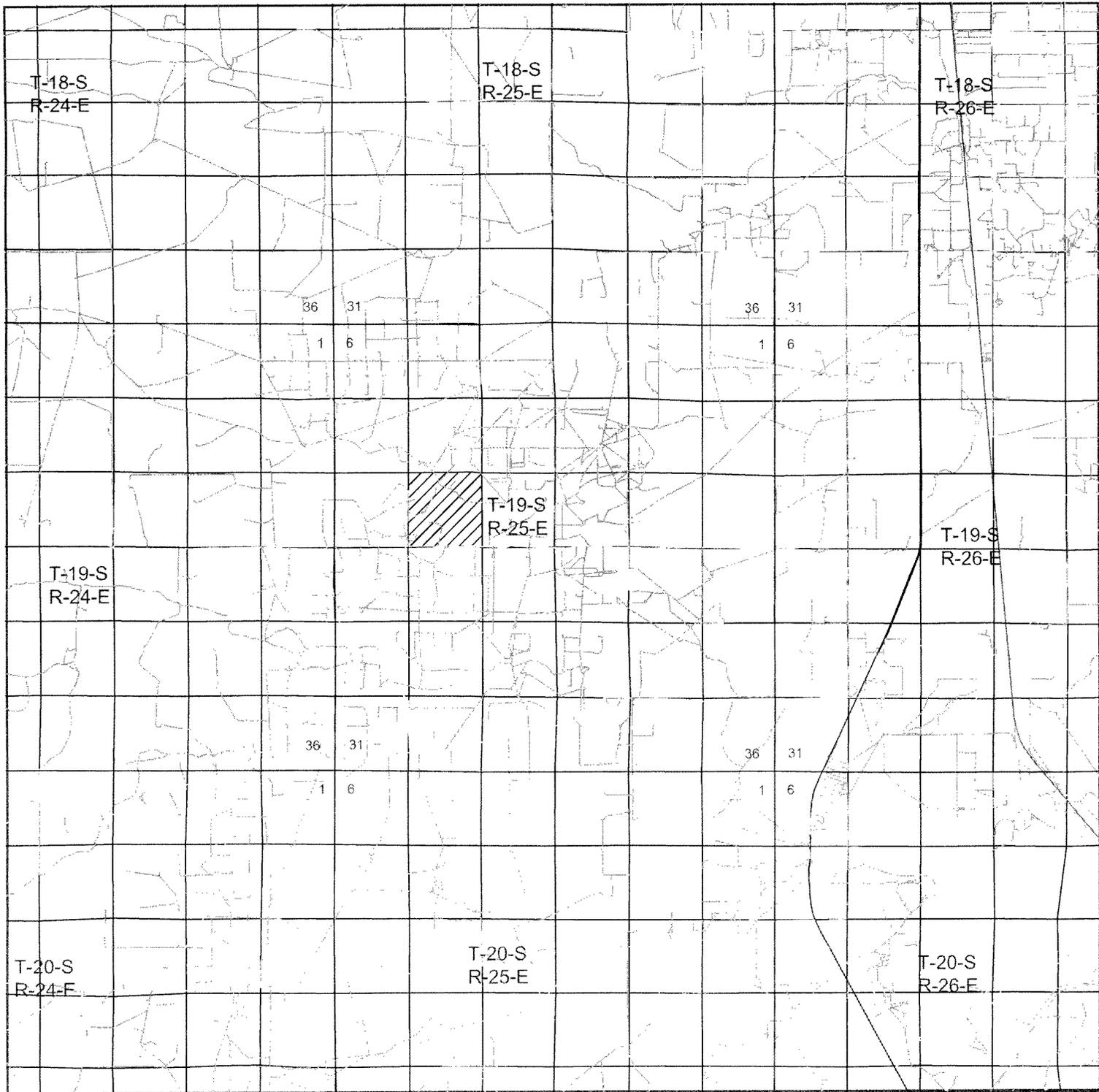
**ROY AET STATE COM #9H**  
 Located 990' FNL and 15' FEL  
 Section 17, Township 19 South, Range 25 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
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 (575) 392-2206 - Fax  
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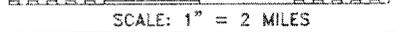
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0 1 MI 2 MI 3 MI 4 MI



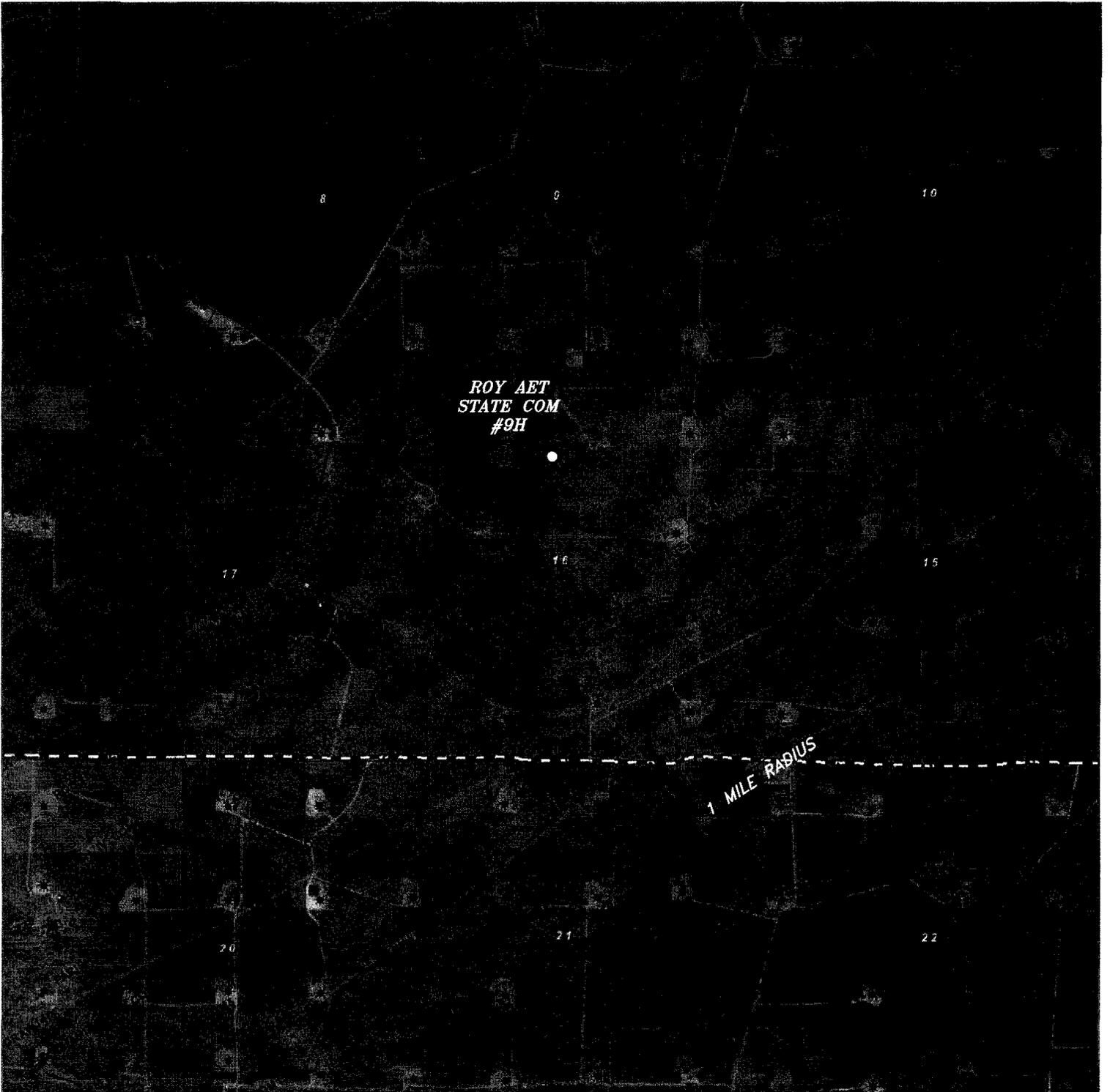
SCALE: 1" = 2 MILES

W.O. Number: KAN 30183

Survey Date: 03-06-2014

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND





ROY AET  
STATE COM  
#9H

1 MILE RADIUS

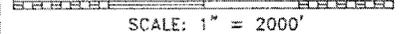
ROY AET STATE COM #9H  
 Located 990' FNL and 15' FEL  
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0' 1000' 2000' 3000' 4000'



SCALE: 1" = 2000'

W.O. Number: KAN 30183

Survey Date: 03-06-2014

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



**YATES PETROLEUM CORPORATION**

Roy AET Com #9H  
 990' FNL & 15' FEL, Surface Hole  
 900' FNL & 330' FWL, Bottom Hole  
 Section 17 T19S - R25E  
 Eddy County, New Mexico

1. THE ESTIMATED TOPS OF GEOLOGIC MARKERS ARE AS FOLLOW:

\*\*In the 700' from surface to the top of the San Andres there would be Queen and/or Grayburg formation present.

Alluvial Deposits			Yeso	2230'--Oil	2234'--MD
San Andres	680'--Oil		Target Yeso	2535'--Oil	2822'--MD
Glorieta	2140'--Oil	2140'--MD	TD	2400'--TVD	7310'--MD

2. THE ESTIMATED DEPTHS AT WHICH ANTICIPATED WATER, OIL OR GAS FORMATIONS ARE EXPECTED TO

Water: Approximately: 0' - 1000'  
 Oil or Gas: See above--All Potential Zones

3. PRESURECONTROL EQUIPMENT:

3000 PSI BOPE with a 13.625" opening will be installed on the 9 5/8". Test will be conducted by an independent tester, utilizing a test plug in the well head. 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 on each segment of the system tested if test is done with a test plug and 30 minutes without a test plug. Blind rams and pipe rams will be tested to the rated pressure of the BOP. Any leaks will be repaired at the time of the test. Annular preventers will be tested to 50% of rated pressure. Accumulator system will be inspected for correct pre charge pressures, and proper functionality, prior to connection to the BOP system. 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.

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)

CASING STRING	HOLE SIZE	CASING SIZE	WT./FT.	GRADE	COUPLING	INTERVAL	LENGTH
Conductor	30"	20"	94#	H-40	ST&C	0'-78'	78'
Surface	14.75"	9.625"	36#	J-55 or K-55	LT&C	0'-1000'	1000'
Production	7.875"	5.5"	17#	L-80	Buttress	0'-7310'	7310'

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

B. CEMENTING PROGRAM:

Conductor Casing: Will use ready mix to cement to surface

Surface Casing: Lead with 545 sacks Class 35:65:6PzC (Wt. 12.50, Yld. 2.00, H2O 11.0 gal/sx). Tail in with 205 sacks Class C with 2% CaCl (Wt. 14.80, Yld. 1.34, H2O 6.2 gal/sx). Cement designed with 100% excess. TOC surface.

Production Casing: Lead with 235 sacks 35:65:6PzC (Wt. 12.50, Yld. 2.00, H2O 11.0 gal/sx). Tail in with 680 sacks PecosVILt with D112, Fluid Loss 0.4%; D151, Calcium Carbonate 22.5 lb/sack; D174, Extender 1.5 lb/sack; D177, Retarder 0.01 lb/sack; D800, Retarder 0.6 lb/sack; D46, Antifoam Agent (Wt. 13.00, Yld. 1.82, H2O 9.3 gal/sx). Cement designed with 35% excess. TOC is surface.

Well will be drilled vertically to 2058', well will then be kicked off and directionally drilled at 12° degrees per 100' with an 7.875" hole to 2822' MD (2535' TVD). The lateral will then be drilled with a 7.875" hole to 7310' MD (2400' TVD) where 5.5" casing will be set and cemented from surface to TD. Penetration point of producing zone will be encountered at 978' FNL & 507' FEL, Section 17 T19S-R25E. Deepest TVD is 2535 in the lateral.

5. MUD PROGRAM AND EQUIPMENT::

INTERVAL	TYPE	WEIGHT	VISCOSITY	FLUID LOSS
0-1000'	Fresh Water	8.60-8.70	32-34	N/C
1000'-7310'	Fresh Water	8.50-8.70	28-34	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. Mud will be checked hourly by rig personnel. Mud level monitoring: After surface casing is set, an electronic PVT system will be installed as our primary mud level monitoring system. A secondary system will also be implemented as to insure the PVT system is functioning properly. The secondary system will be comprised of the derrick hand checking the fluid level in the pits periodically using a nut on the end of a rope hanging just above the fluid level in the pit.

6. EVALUATION PROGRAM:

Samples: 10' samples from 1000' to TD.

Logging: Horizontal-MWD-GR. No logs will be ran. Running a Measure While Drilling (MWD) gamma ray.

Coring: As warranted.

DST's: As warranted.

Mudlogging from the surface to TD

7. ABNORMAL CONDITIONS, Bottom hole pressure and potential hazards:

Anticipated BHP:

DEPTH	ANTICIPATED BHP
0' TO 1000'	452 PSI
1000' TO 2535' TVD	1147 PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S is anticipated.

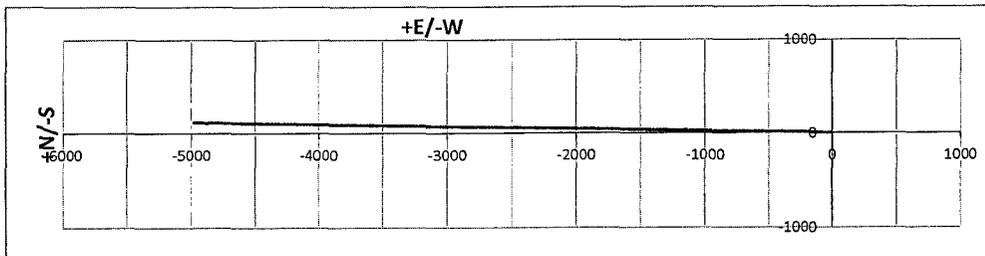
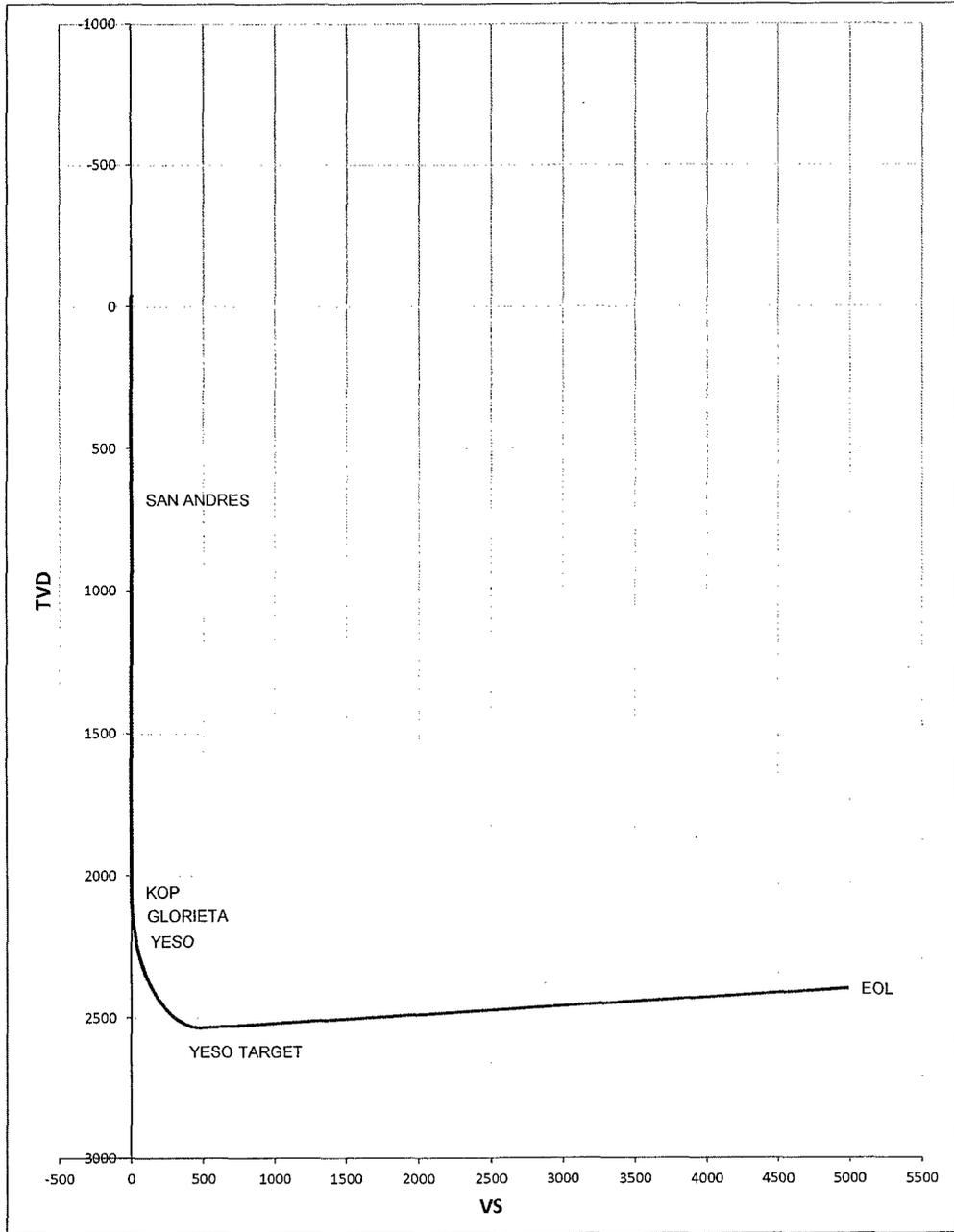
8. ANTICIPATED STARTING DATE:

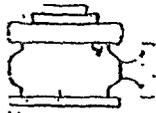
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 15 days to drill the well with completion taking another 7 days.

<b>Well Name:</b>	Roy AET State Com #9H	<b>Tgt N-S:</b>	118.10	<b>EOC TVD/MD:</b>	2535.18 / 2822.31
<b>Surface Location:</b>	Section 17 , Township 19S Range 25E	<b>Tgt E-W:</b>	-4977.90	<b>VS:</b>	4979.30
<b>Bottom Hole Location:</b>	Section 17 , Township 19S Range 25E	<b>VS Az:</b>	271.36	<b>EOL TVD/MD:</b>	2400.00 / 7309.77

MD	Inc.	Azi.	TVD	+N-S	+E-W	VS	DLS	Comments
0	0	0	0	0	0	0	0	
680.00	0.00	0.00	680.00	0.00	0.00	0.00	0.00	SAN ANDRES
2057.94	0.00	0.00	2057.94	0.00	0.00	0.00	0.00	KOP
2075.00	2.05	271.36	2075.00	0.01	-0.30	0.30	12.00	
2100.00	5.05	271.36	2099.95	0.04	-1.85	1.85	12.00	
2125.00	8.05	271.36	2124.78	0.11	-4.70	4.70	12.00	
2140.41	9.90	271.36	2140.00	0.17	-7.10	7.10	12.00	GLORIETA
2150.00	11.05	271.36	2149.43	0.21	-8.85	8.85	12.00	
2175.00	14.05	271.36	2173.83	0.34	-14.28	14.28	12.00	
2200.00	17.05	271.36	2197.91	0.50	-20.97	20.98	12.00	
2225.00	20.05	271.36	2221.61	0.69	-28.92	28.93	12.00	
2233.96	21.12	271.36	2230.00	0.76	-32.07	32.08	12.00	YESO
2250.00	23.05	271.36	2244.86	0.90	-38.10	38.11	12.00	
2275.00	26.05	271.36	2267.60	1.15	-48.48	48.50	12.00	
2300.00	29.05	271.36	2289.76	1.42	-60.04	60.06	12.00	
2325.00	32.05	271.36	2311.29	1.73	-72.74	72.76	12.00	
2350.00	35.05	271.36	2332.12	2.05	-86.55	86.58	12.00	
2375.00	38.05	271.36	2352.21	2.41	-101.43	101.46	12.00	
2400.00	41.05	271.36	2371.48	2.78	-117.35	117.38	12.00	
2425.00	44.05	271.36	2389.90	3.18	-134.24	134.28	12.00	
2450.00	47.05	271.36	2407.40	3.61	-152.08	152.13	12.00	
2475.00	50.05	271.36	2423.95	4.05	-170.81	170.86	12.00	
2500.00	53.05	271.36	2439.49	4.52	-190.38	190.44	12.00	
2525.00	56.05	271.36	2453.99	5.00	-210.74	210.80	12.00	
2550.00	59.05	271.36	2467.41	5.50	-231.83	231.89	12.00	
2575.00	62.05	271.36	2479.70	6.02	-253.59	253.66	12.00	
2600.00	65.05	271.36	2490.83	6.55	-275.96	276.04	12.00	
2625.00	68.05	271.36	2500.78	7.09	-298.89	298.97	12.00	
2650.00	71.05	271.36	2509.52	7.65	-322.30	322.39	12.00	
2675.00	74.05	271.36	2517.01	8.21	-346.14	346.24	12.00	
2700.00	77.05	271.36	2523.25	8.79	-370.34	370.45	12.00	
2725.00	80.05	271.36	2528.22	9.37	-394.84	394.95	12.00	
2750.00	83.05	271.36	2531.89	9.95	-419.55	419.67	12.00	
2775.00	86.05	271.36	2534.26	10.54	-444.43	444.56	12.00	
2800.00	89.05	271.36	2535.33	11.14	-469.40	469.53	12.00	
2822.31	91.73	271.36	2535.18	11.67	-491.70	491.84	12.00	YESO TARGET
7309.77	91.73	271.36	2400.00	118.10	-4977.90	4979.30	0.00	EOL

Roy AET State Com #9H

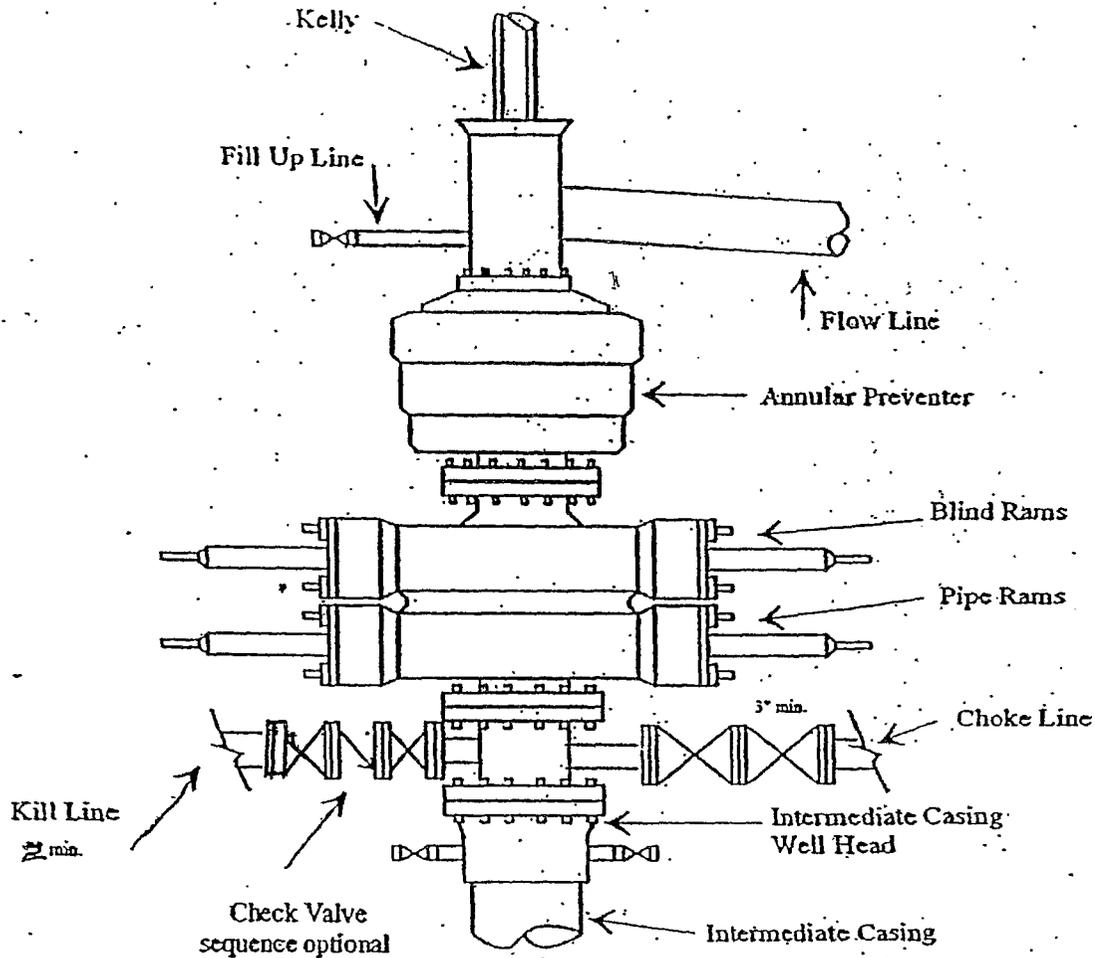




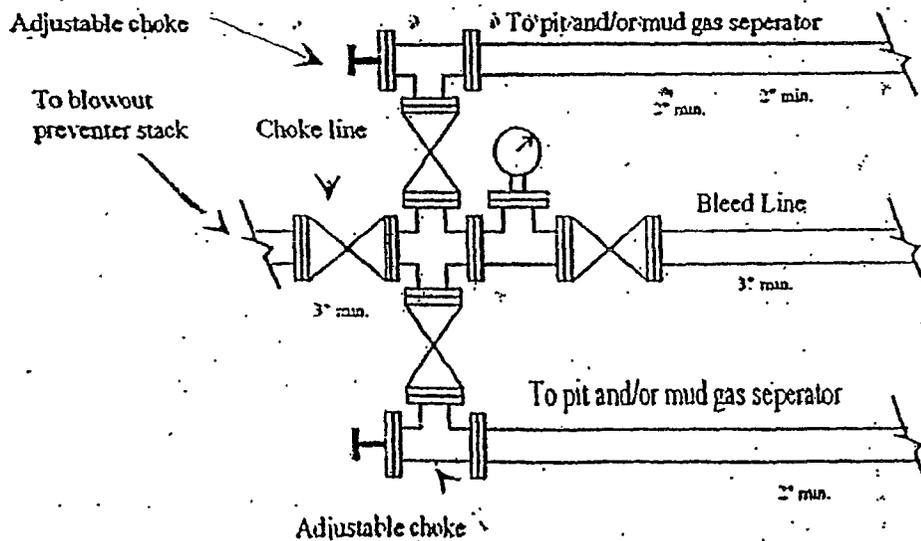
# Yates Petroleum Corporation

BOP-3

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

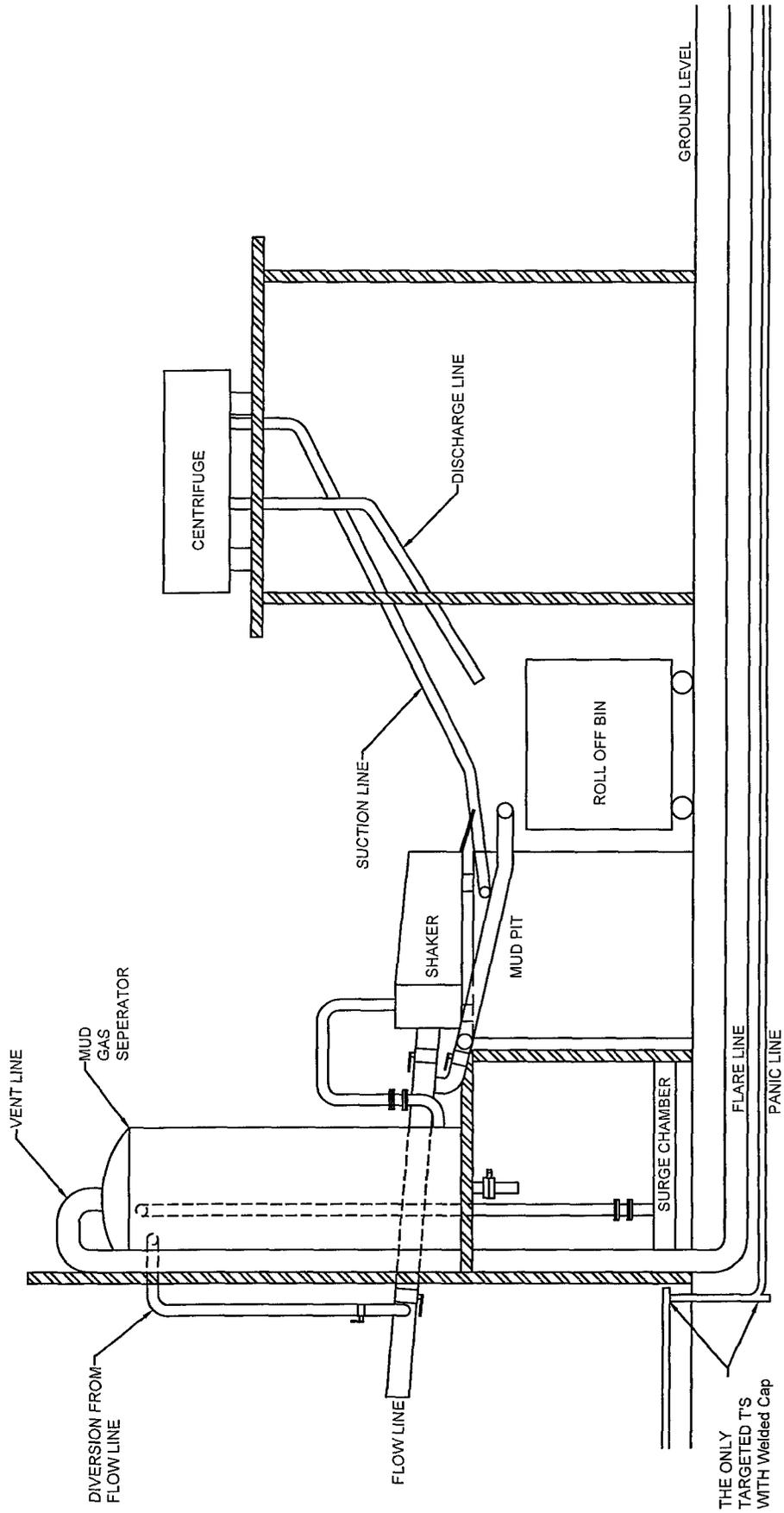


### Typical 3,000 psi choke manifold assembly with at least these minimum features



# YATES PETROLEUM CORPORATION

## Piping from Choke Manifold to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.



**Yates Petroleum Corporation  
105 S. Fourth Street  
Artesia, NM 88210**

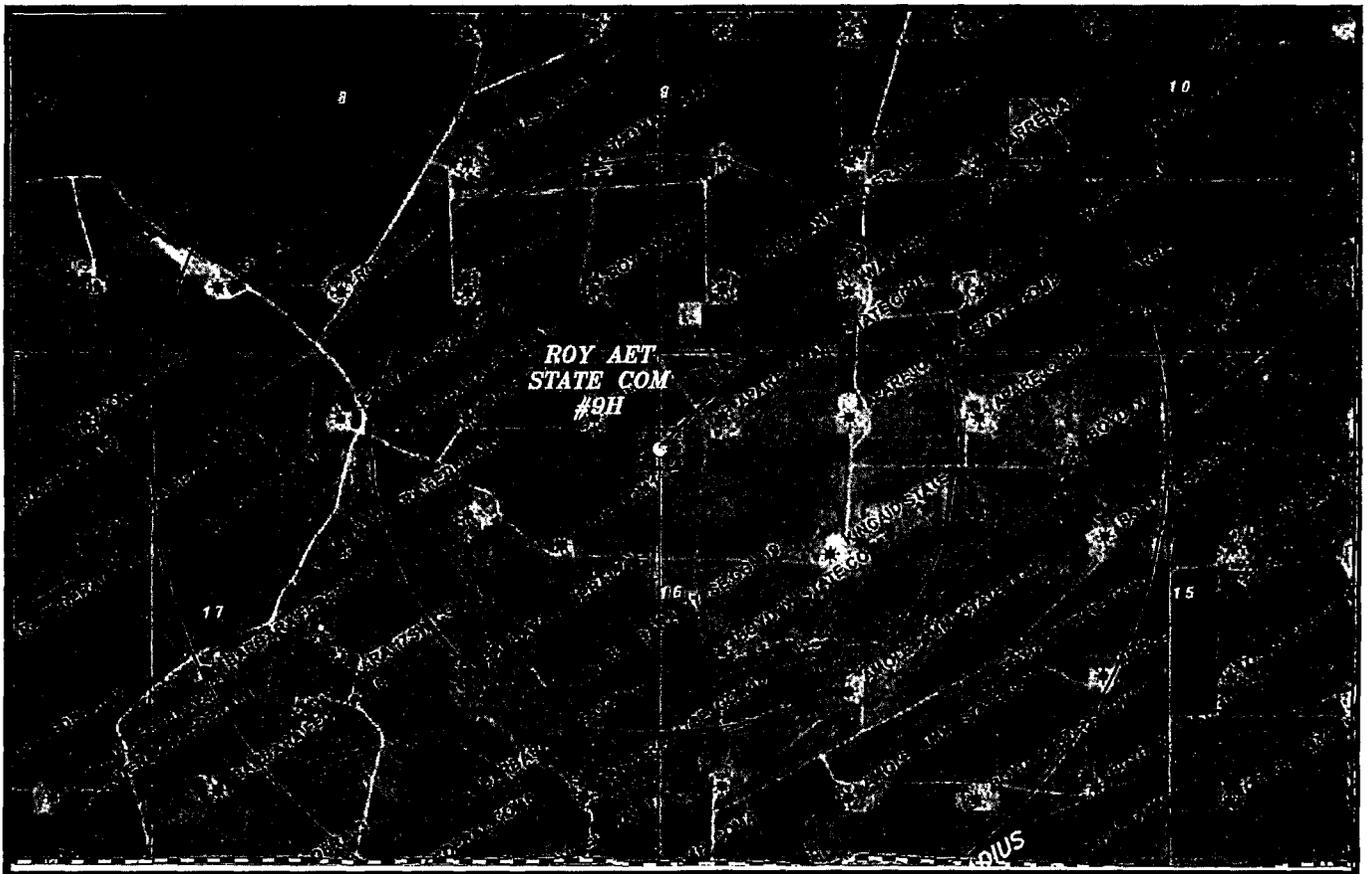
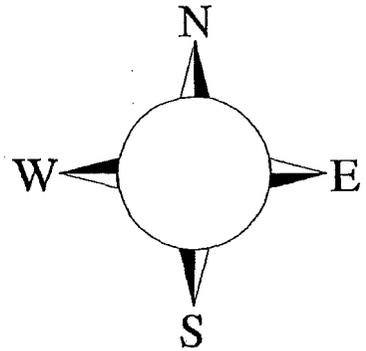
**Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For**

**Roy AET Com #9H  
990' FNL & 15' FEL  
Section 17, T19S-R25E  
Eddy County, NM**

## Roy AET Com #9H

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



**Assumed 100 ppm ROE = 3000'**  
**100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.**

## Emergency Procedures

In the case of a release of gas containing H<sub>2</sub>S, 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<sub>2</sub>S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H<sub>2</sub>S 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<sub>2</sub>). 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<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	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 .....	(575) 748-1471
Wade Bennett/Prod Superintendent .....	(575) 748-4236
LeeRoy Richards/Assistant Prod Superintendent .....	(575) 748-4228
Mike Larkin/Drilling .....	(575) 748-4222
Paul Hanes/Prod. Foreman/Roswell .....	(575) 624-2805
Tim Bussell/Drilling Superintendent .....	(575) 748-4221
Artesia Answering Service .....	(575) 748-4302

(During non-office hours)

### **Agency Call List**

#### **Eddy County (575)**

##### **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 .....	(575) 746-2757
B. J. Services.....	(575) 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

## Yates Petroleum Corporation

### Hydrogen Sulfide Drilling Operation Plan

#### I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and H<sub>2</sub>S Contingency Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operation Plan and the H<sub>2</sub>S Contingency Plan. **The location of this well does not require a Public Protection Plan.**

## II. H2S SAFETY EQUIPMENT AND SYSTEMS

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

### 1. Well Control Equipment:

- A. Flare line
- B. Choke manifold will have a remotely operated adjustable choke system.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.
- E. Mud/Gas Separator.

### 2. Protective equipment for essential personnel:

- A. Mark II Survive Air (or equivalent) 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

### 3. H2S detection and monitoring equipment:

- A. 3 portable H2S monitors positioned at: Shale Shaker, Bell Nipple, and Rig Floor. These units have warning lights and audible sirens when H2S levels of 10 PPM are reached.

### 4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (attached).
- B. Caution/Danger signs (attached) shall be posted on roads providing direct access to location. Signs will be painted with high visibility yellow with black lettering of a sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

### 5. Mud program:

- A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

### 6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

**7. Communication:**

- A. Cellular communications in company vehicles.
- B. Land line (telephone) communication at the Office.

**8. Well testing:**

- A. There will be no drill stem testing.

**EXHIBIT**

**DANGER**

**POISONS GAS**

**HYDROGEN SULFIDE**

 **NORMAL OPERATIONS**  
(GREEN)

**CAUTION POTENTIAL DANGER**

(YELLOW)

 **DANGER POISONS GAS ENCOUNTERED**  
(RED) **AUTHORIZED PERSONAL ONLY.**

**LOCATION SECURED.**

**1-575-746-1096**

**1-877-879-8899**

EDDY COUNTY EMERGENCY NUMBERS

ARTESIA FIRE DEPT. 575-746-5050  
ARTESIA POLICE DEPT. 575-746-5000  
EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS

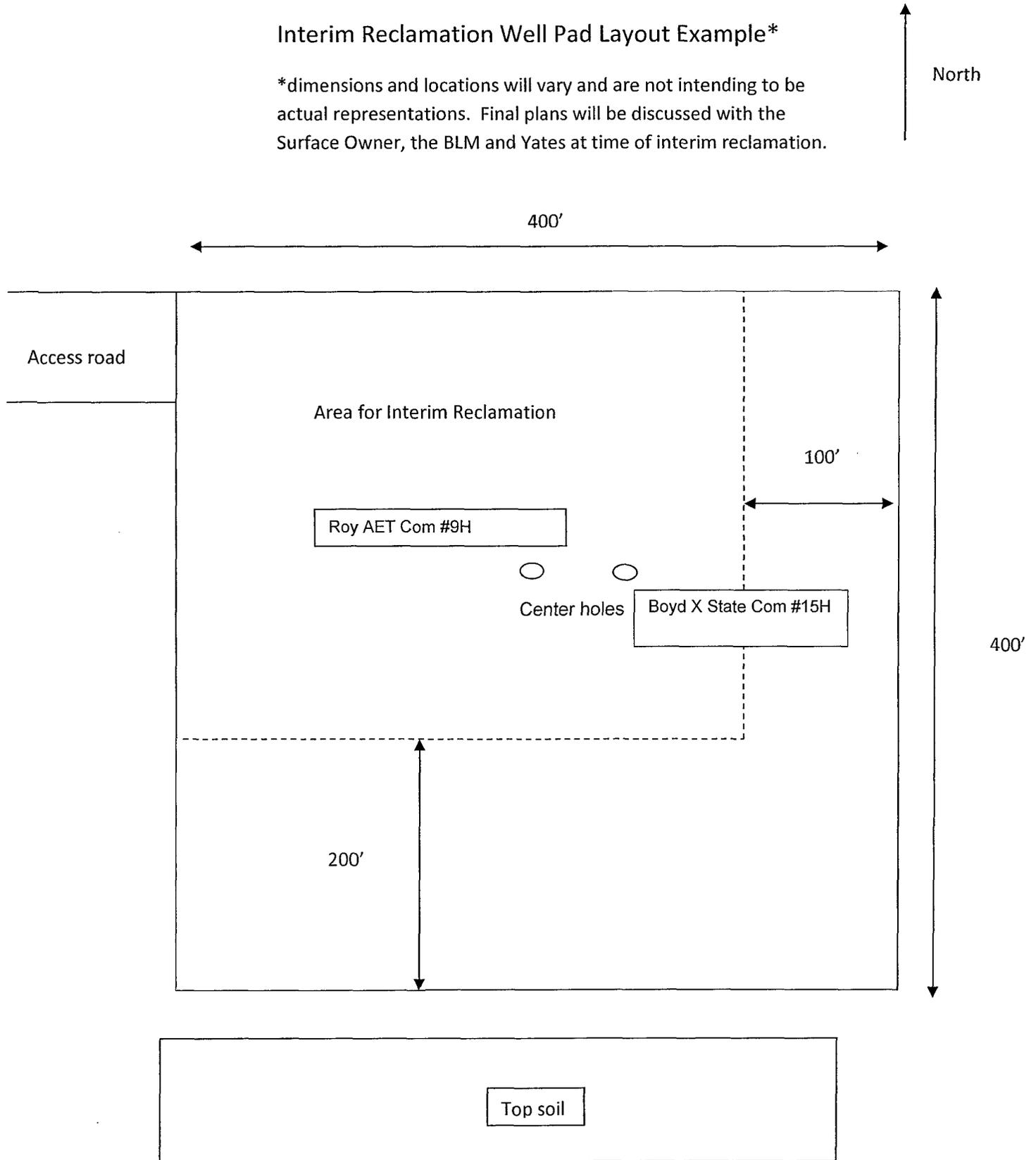
HOBBS FIRE DEPT. 575-397-9308  
HOBBS POLICE DEPT. 575-397-9285  
LEA CO. SHERIFF DEPT. 575-396-1196



# Interim Reclamation Well Pad Layout Example\*

\*dimensions and locations will vary and are not intending to be actual representations. Final plans will be discussed with the Surface Owner, the BLM and Yates at time of interim reclamation.

North



# MULTI-POINT SURFACE USE AND OPERATIONS PLAN

## Yates Petroleum Corporation

Roy AET Com #9H  
990' FNL and 15' FEL - Surface Hole Location  
900' FNL and 330' FWL -Bottom Hole Location  
Section 17, T19S-R25E  
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:

(See Exhibit) is a portion of the County map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 15 miles south of Artesia, New Mexico and the access route to the location is indicated on Exhibit. Operator will maintain existing roads in condition the same or better than before operations begin. Operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures along the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. Operator will reasonably prevent and abate fugitive dust as needed when created by vehicular traffic and equipment caused by the operator. The BLM's written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on public or federal roadways.

#### DIRECTIONS:

(See Exhibit) From Artesia, go South on highway 285 for approximately 10.5 miles. Turn right (West) onto CR 21 (Rocking R Red Road). Travel west on CR 21 7 Miles and turn Right (North) onto lease road and continue keeping on lease road for 1 mile, veer right (East) and continue for 0.2 of a mile. Turn left (North) for 470', then continue East for 0.3 of a mile to the Northwest corner of the location.

### 2. PLANNED ACCESS ROAD.

- A. (See Exhibit) The proposed new access road will go for approximately 300 feet from the point of origin to the Northwest corner of well location. The road will lie in an east to west direction. The road will be crowned and ditched to a 2% slope from the tip of the crown to the edge of the driving surface.
- B. The road is already there, but repairs will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion. Ditches will be 3' wide with a 3:1 slopes.
- C. Existing roads will be maintained in the same or better condition.
- D. The route of road is visible.
- E. The proposed new lease road is represented in Exhibits.

### 3. LOCATION OF EXISTING WELL

- A. There is no drilling activity within a one-mile radius of the well site.
- B. Exhibits 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. There will flowline from proposed location to the existing Aparejo Battery.

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 or through fast lines provided by said commercial source.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor and construction foreman worked out a deal with the surface owner for the building material.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. This well will be drilled with a closed loop system
- 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. Attached exhibit shows the relative location and dimensions of the well pad, the closed loop mud system, location of the drilling equipment. All of the location will be constructed within the 400' x 400' staked area.
- B. A 400' x 400' area was 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. At this point reclamation was completed in accordance with the Surface Owner Agreement that has been included in this APD. Please note attached Reclamation Plat.
- B. If the proposed well is plugged and abandoned, all equipment and other material 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. At this point the surfacing material will be

removed, topsoil will be redistributed. The area will be contoured as closely as possible to its original location and reseeded. These actions will be completed and accomplished as expeditiously as possible.

- C. The reclamation of the pad will be done in sixty days if possible after the well is put in production.

11. SURFACE OWNERSHIP:

Surface Estate: James H. and Betty R. Howell Revocable Trust  
PO Box 75  
Lakewood, NM 88254

Mineral Estate: (40 acres; Unit C)  
Federal Lease NM-12833  
Bureau of Land Management  
620 East Greene Street, Carlsbad, NM 88220  
(Remaining mineral estate are Fee leases)

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.

CERTIFICATION  
YATES PETROLEUM CORPORATION  
Roy AET Com #9H

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 the 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 4 day of June 2015

Signature 

Name Travis Hahn

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

Telephone (575) 748-4120

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

Address (if different from above) Same as above

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** -- Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.  
Roy AET Com #9H

2. Name of Operator  
Yates Petroleum Corporation

9. API Well No.  
30-015-42252

3a. Address  
105 S. Fourth St.  
Artesia, NM 88210

3b. Phone No. (include area code)  
575-748-4120

10. Field and Pool or Exploratory Area  
N. Seven Rivers; Glorieta-Yeso 97565

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FNL & 15' FEL SHL  
900' FNL & 330' FWL BHL; Section 17 T19S - R25E

11. County or Parish, State  
Eddy County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Spud
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

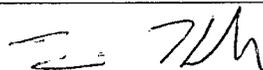
4/12/14 - Spudded well with rathole service at 2:15 pm. Set 60' of 20" conductor and cemented with 6 sacks redi-mix to the surface.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Travis Hahn

Title Land Regulatory Agent

Signature



Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

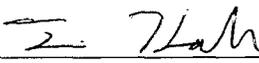
TYPE OF SUBMISSION	TYPE OF ACTION				
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____	
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Yates Petroleum Corporation respectfully requests to make the following well changes:  
Due to possible lost circulation we would like to set the 9 5/8" 36# J-55 surface casing @ 1400'. Cemented with 1025sx (TOC = 0')

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Travis Hahn

Title Land Regulatory Agent

Signature 

Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

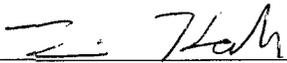
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit of CA/Agreement, Name and/or No.
2. Name of Operator Yates Petroleum Corporation		8. Well Name and No. Roy AET Com #9H
3a. Address 105 S. Fourth St. Artesia, NM 88210	3b. Phone No. (include area code) 575-748-4120	9. API Well No. 30-015-42252
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 990' FNL & 15' FEL SHL 900' FNL & 330' FWL BHL; Section 17 T19S - R25E		10. Field and Pool or Exploratory Area N. Seven Rivers; Glorieta-Yeso 97565
		11. County or Parish, State Eddy County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Surface casing.</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

5/6/14 - Resumed drilling with rotary tools at 11:30 pm.  
5/8/14 - TD 14-3/4" hole to 1,400'. Set 9-5/8" 36# J-55 LT&C casing at 1,400'. Cemented with 735 sacks Class "C" + 4% D020 + 5#/sx D042 + 5% D044 + 0.2% D046 + 0.3% DI 12 + 0.125#/sx D130 + 94#/sx D903 (yld 2.13, wt. 12.8). Tailed in with 240 sacks Class "C" + 5#/sx D042 + 0.2% D046 + 0.125#/sx D130 + 94#/sx D903 (yld 1.35, wt 14.8). Circulated 158 sack to the surface.  
5/10/14-Tested casing to 1200 psi, ok. WOC 34 hours. Reduced hole to 7-7/8" resumed drilling.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	
Travis Hahn	Title Land Regulatory Agent
Signature 	Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by	Title	Date
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
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5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.  
Roy AET Com #9H

2. Name of Operator  
Yates Petroleum Corporation

9. API Well No.  
30-015-42252

3a. Address  
105 S. Fourth St.  
Artesia, NM 88210

3b. Phone No. (include area code)  
575-748-4120

10. Field and Pool or Exploratory Area  
N. Seven Rivers; Glorieta-Yeso 97565

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FNL & 15' FEL SHL  
900' FNL & 330' FWL BHL; Section 17 T19S - R25E

11. County or Parish, State  
Eddy County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>MWD survey</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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Please note attached MWD survey documentation.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Travis Hahn

Title Land Regulatory Agent

Signature



Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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**PHOENIX  
TECHNOLOGY SERVICES**

June 3, 2014

Yates Petroleum Corp.  
Attention: Regulatory Department  
105 S. 4<sup>th</sup> St.  
Artesia, NM 88210

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

JUN 06 2014

Re: Yates Petroleum  
Roy AET Com #9H  
Eddy County, NM  
API #30-015-42252  
Job No. 1410611

RECEIVED

Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the Survey Data Certification, Surveys, and Lease Plat for the above referenced well with the State of New Mexico Oil Conservation Division – District 2 via certified mail. A copy of the filing is attached for your records.

Name of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
James Garber	9H	135	7,316	05/07/14	05/16/14	MWD

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

*Dana Robinson*

Dana Robinson  
Operations Administrator

**Phoenix Technology Services  
SURVEY DATA CERTIFICATION**



PHOENIX JOB NUMBER 1410611

OPERATOR Yates Petroleum

WELL NAME Roy AET Com. #9H

COUNTY & STATE Eddy Co., NM

API WELL NUMBER 30-015-42252

PROPOSED DIRECTION 271.36

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
0 ft	00 ft	0 ft	0 ft	00 ft	00 ft	Surface

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
7-May-14	135 ft	0.3	130.8

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
16-May-14	7,316 ft	90.9	271.7

TO THE BEST OF MY KNOWLEDGE I  
CERTIFY THIS SURVEY DATA TO BE  
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
16-May-14	7,390 ft	90.9	271.7

James Garber

PRINT YOUR NAME ABOVE

*James Garber*

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID	
TOTAL CORRECTION USED	7.7
DECLINATION OR GRID	GRID

5/16/2014

TODAY'S DATE

MWD SUPERVISOR 1 Jim Garber

DIRECTIONAL DRILLER 1 Dan Waggoner

MWD SUPERVISOR 2 August Holt

DIRECTIONAL DRILLER 2 Daniel Scott

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240  
Phone (575) 593-6161 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone (505) 746-1253 Fax: (505) 746-9729

**OIL CONSERVATION DIVISION**  
ARTESIA DISTRICT  
1220 South St., Francis Dr.  
Santa Fe, New Mexico 87505

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-6178 Fax: (505) 334-9170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3480 Fax: (505) 476-3482

RECEIVED

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name ROY AET COM	Well Number 9H
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3531

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	17	19 S	25 E		990'	NORTH	15'	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
D	17	19 S	25 E		900'	NORTH	330'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
-----------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>N: 606938.3 E: 485258.3 (NAD83)</p> <p>B.H.</p> <p>330'</p> <p>900'</p> <p><b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32°39'57.27" Long - W 104°30'52.27" NMSPC- N 606036.4 E 485581.6 (NAD-83)</p>	<p>N: 606923.1 E: 487920.1 (NAD83)</p>	<p>N: 606908.0 E: 490551.9 (NAD83)</p> <p>S.L.</p> <p>15'</p> <p>900'</p> <p><b>SURFACE LOCATION</b> Lat - N 32°39'56.18" Long - W 104°29'54.03" NMSPC- N 605918.3 E 490559.5 (NAD-83)</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>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 or has a right to drill this well at this 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.</p> <p><i>[Signature]</i> 6/5/15 Signature Date</p> <p>Troy Hahn Printed Name</p> <p>Email Address</p>	
			<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p>MAY 11 2014 NEW MEXICO Professional Surveyor 7977</p> <p>Certificate No. 7977 GARY WOODS BASIC SURVEYOR</p>	
			<p>N: 601622.4 E: 485218.7 (NAD83)</p>	<p>N: 601645.3 E: 490542.2 (NAD83)</p>
			<p>0' 1000' 2000' 3000' 4000'</p> <p>SCALE: 1" = 2000'</p> <p>WO Num.: 30183</p>	



# Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Roy AET Com

#9H

WB1/Job #1410611

Survey: Phoenix MWD Surveys

## Standard Survey Report

19 May, 2014



PHOENIX  
TECHNOLOGY SERVICES



Phoenix Technology Services  
Survey Report



Company: Yates Petroleum Corp.  
Project: Eddy County, NM (NAD83 NME)  
Site: Roy AET Com  
Well: #9H  
Wellbore: WB1/Job #1410611  
Design: Surveys (Silver Oak 11)

Local Co-ordinate Reference: Well #9H  
TVD Reference: KB @ 3549.00usft (Silver Oak 11)  
MD Reference: KB @ 3549.00usft (Silver Oak 11)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: GCR DB

Project	Eddy County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Roy AET Com				
Site Position:	Northing:	607,439.10 usft	Latitude:	32° 40' 11.23170 N	
From: Map	Easting:	490,431.50 usft	Longitude:	104° 29' 55.55690 W	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.09 °

Well	#9H					
Well Position	+N-S	0.00 usft	Northing:	605,918.30 usft	Latitude:	32° 39' 56.18486 N
	+E-W	0.00 usft	Easting:	490,559.50 usft	Longitude:	104° 29' 54.03375 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,531.00 usft	

Wellbore	WB1/Job #1410611				
Magnetics	Model Name	Sample Date	Declination	Dip/Angle	Field Strength
	IGRF2010_14	04/08/14	7.70	60.37	48,497
			(°)	(°)	(nT)

Design	Surveys (Silver Oak 11)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD):	+N-S	+E-W	Direction:	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	271.36	

Survey Program	Date:	05/19/14			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
135.00	7,390.00	Phoenix MWD Surveys (WB1/Job #14106)	MWD	MWD - Standard	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.30	130.80	135.00	-0.23	0.27	-0.27	0.22	0.22	0.00	
First Phoenix MWD Survey										
193.00	0.40	155.90	193.00	-0.51	0.47	-0.48	0.31	0.17	43.28	
287.00	0.70	157.20	286.99	-1.34	0.82	-0.85	0.32	0.32	1.38	
377.00	0.80	171.20	376.99	-2.47	1.13	-1.19	0.23	0.11	15.56	
470.00	0.50	162.30	469.98	-3.50	1.35	-1.44	0.34	-0.32	-9.57	
564.00	0.20	262.80	563.98	-3.91	1.32	-1.41	0.61	-0.32	106.91	
658.00	0.60	274.80	657.98	-3.89	0.66	-0.75	0.43	0.43	12.77	
751.00	0.50	261.90	750.97	-3.91	-0.22	0.13	0.17	-0.11	-13.87	
844.00	0.50	316.90	843.97	-3.67	-0.90	0.82	0.50	0.00	59.14	



# Phoenix Technology Services

## Survey Report



Company: Yates Petroleum Corp.  
 Project: Eddy County, NM (NAD83 NME)  
 Site: Roy AET Com  
 Well: #9H  
 Wellbore: WB1/Job #1410611  
 Design: Surveys (Silver Oak 11)

Local Co-ordinate Reference: Well #9H  
 TVD Reference: KB @ 3549.00usft (Silver Oak 11)  
 MD Reference: KB @ 3549.00usft (Silver Oak 11)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: GCR DB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Tilt Rate (°/100usft)	
938.00	0.40	358.20	937.97	-3.04	-1.19	1.12	0.35	-0.11	43.94	
1,032.00	0.60	337.40	1,031.96	-2.26	-1.39	1.34	0.28	0.21	-22.13	
1,125.00	0.40	309.90	1,124.96	-1.60	-1.83	1.79	0.33	-0.22	-29.57	
1,219.00	0.50	318.90	1,218.96	-1.08	-2.35	2.32	0.13	0.11	9.57	
1,312.00	0.50	316.30	1,311.95	-0.60	-2.79	2.77	0.22	-0.22	-2.80	
1,348.00	0.10	256.60	1,347.95	-0.54	-2.88	2.87	0.73	-0.56	-165.83	
1,486.00	0.20	348.10	1,485.95	-0.33	-3.05	3.04	0.16	0.07	66.30	
1,580.00	0.20	333.60	1,579.95	-0.02	-3.16	3.15	0.05	0.00	-15.43	
1,673.00	0.20	2.00	1,672.95	0.28	-3.22	3.23	0.11	0.00	30.54	
1,767.00	0.20	356.40	1,766.95	0.61	-3.23	3.24	0.02	0.00	-5.96	
1,860.00	0.10	327.70	1,859.95	0.84	-3.28	3.30	0.13	-0.11	-30.86	
1,954.00	0.20	15.50	1,953.95	1.07	-3.28	3.30	0.16	0.11	50.85	
1,984.00	0.20	24.30	1,983.95	1.17	-3.24	3.27	0.10	0.00	29.33	
2,048.00	0.60	6.40	2,047.95	1.60	-3.16	3.20	0.65	0.63	-27.97	
2,080.00	3.50	280.50	2,079.93	1.95	-4.10	4.15	10.96	9.06	-268.44	
2,111.00	9.30	268.60	2,110.72	2.06	-7.54	7.59	19.09	18.71	-38.39	
2,142.00	14.90	267.40	2,141.02	1.82	-14.03	14.07	16.06	16.06	-3.67	
2,174.00	19.90	268.20	2,171.55	1.46	-23.59	23.62	15.64	15.63	2.50	
2,205.00	23.60	268.90	2,200.34	1.17	-35.07	35.09	11.96	11.94	2.26	
2,236.00	26.80	269.10	2,228.38	0.95	-48.27	48.28	10.33	10.32	0.65	
2,267.00	30.20	269.40	2,255.62	0.75	-63.06	63.06	10.98	10.97	0.97	
2,298.00	33.00	270.40	2,282.02	0.73	-79.30	79.29	9.19	9.03	3.23	
2,329.00	36.30	272.10	2,307.52	1.13	-96.91	96.91	11.09	10.65	5.48	
2,361.00	39.30	272.30	2,332.80	1.88	-116.51	116.52	9.38	9.38	0.63	
2,392.00	42.00	273.20	2,356.32	2.85	-136.68	136.71	8.91	8.71	2.90	
2,423.00	44.60	273.80	2,378.88	4.15	-157.90	157.95	8.49	8.39	1.94	
2,454.00	47.80	273.80	2,400.34	5.64	-180.22	180.30	10.32	10.32	0.00	
2,486.00	50.30	273.70	2,421.31	7.22	-204.34	204.45	7.82	7.81	-0.31	
2,517.00	54.60	272.30	2,440.20	8.49	-228.87	229.01	14.33	13.87	-4.52	
2,548.00	58.20	271.50	2,457.35	9.35	-254.68	254.83	11.81	11.61	-2.58	
2,579.00	61.60	270.20	2,472.89	9.74	-281.49	281.64	11.55	10.97	-4.19	
2,610.00	64.00	269.60	2,487.06	9.69	-309.06	309.20	7.93	7.74	-1.94	
2,616.59	64.83	269.56	2,489.91	9.65	-315.00	315.14	12.59	12.58	-0.66	
2616.59' MD, 330° Heel Crossing Point										
2,641.00	67.90	269.40	2,499.69	9.44	-337.36	337.49	12.59	12.58	-0.64	
2,673.00	71.60	269.50	2,510.77	9.15	-367.38	367.49	11.57	11.56	0.31	
2,704.00	75.50	269.80	2,519.54	8.97	-397.10	397.20	12.61	12.58	0.97	
2,735.00	79.20	270.60	2,526.33	9.08	-427.34	427.44	12.20	11.94	2.58	
2,766.00	83.10	271.10	2,531.10	9.54	-457.96	458.06	12.68	12.58	1.61	
2,798.00	86.90	270.80	2,533.89	10.06	-489.83	489.93	11.91	11.88	-0.94	
2,829.00	90.40	271.10	2,534.62	10.58	-520.81	520.92	11.33	11.29	0.97	
2,922.00	91.80	271.60	2,532.83	12.77	-613.77	613.90	1.60	1.51	0.54	
3,016.00	92.00	271.50	2,529.72	15.31	-707.68	707.85	0.24	0.21	-0.11	



Phoenix Technology Services

Survey Report



Company: Yates Petroleum Corp.  
 Project: Eddy County, NM (NAD83 NME)  
 Site: Roy AET Com  
 Well: #9H  
 Wellbore: WB1/Job #1410611  
 Design: Surveys (Silver Oak 11)

Local Co-ordinate Reference: Well #9H  
 TVD Reference: KB @ 3549.00usft (Silver Oak 11)  
 MD Reference: KB @ 3549.00usft (Silver Oak 11)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: GCR DB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,109.00	92.50	270.90	2,528.07	17.26	-800.59	800.77	0.84	0.54	-0.65
3,203.00	92.60	269.80	2,521.88	17.83	-894.49	894.66	1.17	0.11	-1.17
3,297.00	92.50	270.50	2,517.70	18.07	-988.40	988.55	0.75	-0.11	0.74
3,390.00	91.90	271.20	2,514.13	19.45	-1,081.32	1,081.48	0.99	-0.65	0.75
3,483.00	91.50	270.80	2,511.37	21.03	-1,174.26	1,174.43	0.61	-0.43	-0.43
3,577.00	90.80	271.60	2,509.49	23.04	-1,268.22	1,268.41	1.13	-0.74	0.85
3,670.00	90.90	272.60	2,508.11	26.45	-1,361.15	1,361.39	1.08	0.11	1.08
3,764.00	90.80	272.80	2,506.71	30.88	-1,455.03	1,455.36	0.24	-0.11	0.21
3,857.00	90.20	272.30	2,505.90	35.02	-1,547.94	1,548.33	0.84	-0.65	-0.54
3,951.00	91.70	272.30	2,504.34	38.79	-1,641.85	1,642.30	1.60	1.60	0.00
4,045.00	92.10	272.80	2,501.22	42.97	-1,735.70	1,736.23	0.68	0.43	0.53
4,139.00	92.00	270.70	2,497.86	45.84	-1,829.59	1,830.16	2.24	-0.11	-2.23
4,233.00	91.50	270.00	2,494.99	46.41	-1,923.55	1,924.11	0.91	-0.53	-0.74
4,327.00	91.10	269.40	2,492.86	45.92	-2,017.52	2,018.04	0.77	-0.43	-0.64
4,420.00	91.60	270.50	2,490.67	45.84	-2,110.49	2,110.99	1.30	0.54	1.18
4,514.00	91.80	271.40	2,487.88	47.39	-2,204.44	2,204.94	0.98	0.21	0.96
4,608.00	92.00	272.30	2,484.76	50.43	-2,298.33	2,298.88	0.98	0.21	0.96
4,701.00	91.70	272.30	2,481.76	54.16	-2,391.21	2,391.82	0.32	-0.32	0.00
4,794.00	93.00	272.10	2,477.95	57.73	-2,484.06	2,484.73	1.41	1.40	-0.22
4,888.00	93.30	271.10	2,472.78	60.35	-2,577.88	2,578.59	1.11	0.32	-1.06
4,981.00	93.50	270.50	2,467.27	61.64	-2,670.71	2,671.42	0.68	0.22	-0.65
5,075.00	92.60	271.10	2,462.26	62.95	-2,764.57	2,765.28	1.15	-0.96	0.64
5,168.00	92.80	271.60	2,457.88	65.14	-2,857.44	2,858.18	0.58	0.22	0.54
5,262.00	89.80	272.00	2,455.75	68.09	-2,951.35	2,952.14	3.22	-3.19	0.43
5,356.00	89.60	271.80	2,456.24	71.21	-3,045.30	3,046.13	0.30	-0.21	-0.21
5,449.00	89.70	271.20	2,456.81	73.64	-3,138.27	3,139.13	0.65	0.11	-0.65
5,543.00	90.20	271.30	2,456.89	75.69	-3,232.25	3,233.13	0.54	0.53	0.11
5,637.00	90.50	271.10	2,456.32	77.66	-3,326.22	3,327.13	0.38	0.32	-0.21
5,730.00	92.20	271.20	2,454.13	79.53	-3,419.17	3,420.10	1.83	1.83	0.11
5,824.00	92.10	270.90	2,450.60	81.25	-3,513.09	3,514.03	0.34	-0.11	-0.32
5,917.00	92.10	272.30	2,447.19	83.85	-3,605.99	3,606.97	1.50	0.00	1.51
6,011.00	91.70	272.30	2,444.08	87.62	-3,699.86	3,700.90	0.43	-0.43	0.00
6,104.00	91.20	272.30	2,441.72	91.35	-3,792.76	3,793.86	0.54	-0.54	0.00
6,198.00	92.40	271.60	2,438.77	94.54	-3,886.66	3,887.80	1.48	1.28	-0.74
6,291.00	92.30	271.40	2,434.96	96.98	-3,979.55	3,980.73	0.24	-0.11	-0.22
6,385.00	92.00	271.40	2,431.43	99.27	-4,073.45	4,074.66	0.32	-0.32	0.00
6,479.00	91.70	270.80	2,428.40	101.07	-4,167.38	4,168.61	0.71	-0.32	-0.64
6,572.00	92.90	270.40	2,424.66	102.05	-4,260.30	4,261.52	1.36	1.29	-0.43
6,666.00	92.00	269.70	2,420.65	102.13	-4,354.22	4,355.41	1.21	-0.96	-0.74
6,760.00	92.80	270.80	2,416.71	102.54	-4,448.13	4,449.31	1.45	0.85	1.17
6,853.00	93.00	270.80	2,412.00	103.84	-4,541.00	4,542.19	0.22	0.22	0.00
6,946.00	92.60	272.80	2,407.46	106.75	-4,633.84	4,635.07	2.19	-0.43	2.15
7,040.00	92.80	273.20	2,403.03	111.67	-4,727.61	4,728.92	0.48	0.21	0.43



# Phoenix Technology Services

## Survey Report



**Company:** Yates Petroleum Corp.  
**Project:** Eddy County, NM (NAD83 NME)  
**Site:** Roy AET Com  
**Well:** #9H  
**Wellbore:** WB1/Job #1410811  
**Design:** Surveys (Silver Oak 11)

**Local Co-ordinate Reference:** Well #9H  
**TVD Reference:** KB @ 3549.00usft (Silver Oak 11)  
**MD Reference:** KB @ 3549.00usft (Silver Oak 11)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** GCR DB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,134.00	91.70	272.30	2,399.34	116.17	-4,821.42	4,822.82	1.51	-1.17	-0.96
7,227.00	90.70	271.80	2,397.39	119.50	-4,914.34	4,915.79	1.20	-1.08	-0.54
7,290.69	90.84	271.73	2,396.54	121.46	-4,978.00	4,979.48	0.25	0.22	-0.11
7290.59' MD, 330' Toe Crossing Point									
7,316.00	90.90	271.70	2,396.15	122.22	-5,003.29	5,004.78	0.25	0.22	-0.11
Last Phoenix MWD Survey									
7,390.00	90.90	271.70	2,394.99	124.41	-5,077.25	5,078.77	0.00	0.00	0.00
Projection to TD at 6' N & 99' W of BHL									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
135.00	135.00	-0.23	0.27	First Phoenix MWD Survey
2,616.59	2,489.91	9.65	-315.00	2616.59' MD, 330' Heel Crossing Point
7,290.69	2,396.54	121.46	-4,978.00	7290.69' MD, 330' Toe Crossing Point
7,316.00	2,396.15	122.22	-5,003.29	Last Phoenix MWD Survey
7,390.00	2,394.99	124.41	-5,077.25	Projection to TD at 6' N & 99' W of BHL

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Roy AET Com #9H

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator  
Yates Petroleum Corporation

9. API Well No.  
30-015-42252

3a. Address  
105 S. Fourth St.  
Artesia, NM 88210

3b. Phone No. (include area code)  
575-748-4120

10. Field and Pool or Exploratory Area  
N. Seven Rivers; Glorieta-Yeso 97565

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FNL & 15' FEL SHL  
900' FNL & 330' FWL BHL; Section 17 T19S - R25E

11. County or Parish, State  
Eddy County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Production Casing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

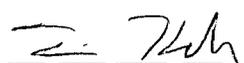
5/11/14 - Drilled to KOP 2,080' and resumed drilling directional.

5/18/14 - Reached TD 7-7/8" hole to 7,390'.

5/20/14 - Set 5-1/2" 17# L-80 BT&C casing at 7,390'. Float collar at 7,341'. Cemented with 300 sacks Class "C" cement + additives (yld 1.97, wt 12.00). Tailed in with 940 sacks Class "C" cement + additives (yld 1.35, wt 13.2). Circulated 370 sacks to the surface.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Travis Hahn

Title Land Regulatory Agent

Signature 

Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.  
Roy AET Com #9H

2. Name of Operator  
Yates Petroleum Corporation

9. API Well No.  
30-015-42252

3a. Address  
105 S. Fourth St.  
Artesia, NM 88210

3b. Phone No. (include area code)  
575-748-4120

10. Field and Pool or Exploratory Area  
N. Seven Rivers; Glorieta-Yeso 97565

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FNL & 15' FEL SHL  
900' FNL & 330' FWL BHL; Section 17 T19S - R25E

11. County or Parish, State  
Eddy County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Hydraulic Fracturing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>Fluid Disclosure</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Please note attached hydraulic fracturing fluid disclosure documentation.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Travis Hahn

Title Land Regulatory Agent

Signature



Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator  
Yates Petroleum Corporation

3a. Address  
105 S. Fourth St.  
Artesia, NM 88210

3b. Phone No. (include area code)  
575-748-4120

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FNL & 15' FEL SHL  
900' FNL & 330' FWL BHL; Section 17 T19S - R25E

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Roy AET Com #9H

9. API Well No.  
30-015-42252

10. Field and Pool or Exploratory Area  
N. Seven Rivers; Glorieta-Yeso 97565

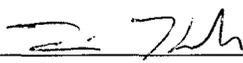
11. County or Parish, State  
Eddy County, NM

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TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Setting Tubing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

11/6/14- Set 2-7/8" 6.40# J-55 tubing at 2,164'.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Travis Hahn 

Title Land Regulatory Agent

Signature \_\_\_\_\_ Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

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Office \_\_\_\_\_

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

UNITED STATES  
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FORM APPROVED  
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5. Lease Serial No.  
NM-125008

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**SUBMIT IN TRIPLICATE** – Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.  
Roy AET Com #9H

2. Name of Operator  
Yates Petroleum Corporation

9. API Well No.  
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990' FNL & 15' FEL SHL  
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11. County or Parish, State  
Eddy County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Completion</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>Operations</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

5/27/14 - NU BOP. Drilled down to 7,250' and tagged float collar. Circulated hole clean with 160 bbls 3% KCL with CRW-132 chemical. Pressure tested casing to 3000 psi. Lost 1500 psi in 5 mins.  
5/28/14- Dropped 1.750" ball. Pumped down ball with 40 bbls 3% KCL - ball hit. Pressured up to 2650 psi. Set 5-1/2" CIBP at 7,248'. Pressured test casing to 3050 psi for 30 mins, held good. Ran CBL from 2,700' to the surface.  
9/3-6/14 - Perforated Yeso 2,797' - 7,244' (590 holes). Acidized with 69,839 gallons 20% HCL acid, frac with a total of 6,000,740# 40/70 sand.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Travis Hahn

Title Land Regulatory Agent

Signature



Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.  
Roy AET Com #9H

9. AFI Well No.  
30-015-42252

10. Field and Pool or Exploratory  
N. Seven Rivers; Glorieta-Yeso 97565

11. Sec., T., R., M., on Block and  
Survey or Area Section 17, T19S-R25E

12. County or Parish  
Eddy County

13. State  
NM

14. Date Spudded  
05/06/2014

15. Date T.D. Reached  
05/18/2015

16. Date Completed  
10/13/2014  
 D & A  Ready to Prod.

17. Elevations (DF, RKB, RT, GL)\*  
3531'

18. Total Depth: MD 7390'  
TVD

19. Plug Back T.D.: MD 7248'  
TVD

20. Depth Bridge Plug Set: MD  
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
CB/GR/CCL

22. Was well cored?  No  Yes (Submit analysis)  
Was DST run?  No  Yes (Submit report)  
Directional Survey?  No  Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
30"	H-40	Conduit	0'	60'		6 sks redymix		0'	
14.75"	J-55/K-55	36#	0'	1400'		975 sks PozC		0'	
7.875"	L-80	17#	0'	7390'		1240 sks PVL		56'	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875"	2164'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Yeso	2797'	7244'			590	
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
2797' - 7244'	Acidized with 69,839 gals 20% HCL acid, frac with a total of 6,000,740# 40/70 sand.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/14/14	11/19/14	24	→	67	27	840			Pumping
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
N/A	120	70	→	67	27	840		Producing	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

\*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production ➔	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate ➔	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production ➔	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate ➔	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)  
Sold

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

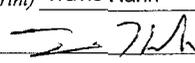
Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
San Andres	680'				
Glorieta	2190'				
Yeso	2370'				

32. Additional remarks (include plugging procedure):

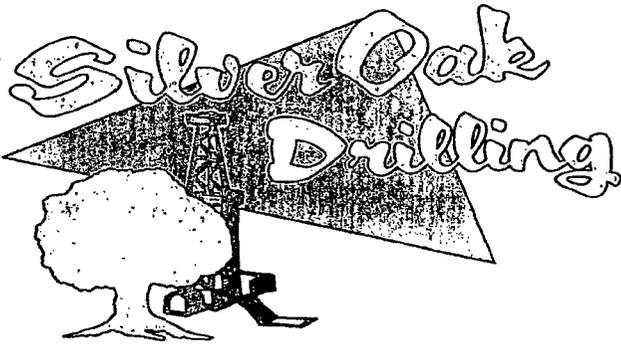
33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)     
  Geologic Report     
  DST Report     
  Directional Survey  
 Sundry Notice for plugging and cement verification     
  Core Analysis     
  Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Travis Hahn Title Land Regulatory Agent  
 Signature  Date 06/05/2015

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



PO Box 1370  
Artesia, NM 88211-1370  
(505) 748-1288

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

NOV 25 2014

RECEIVED

May 22, 2014

30-015-42252

Yates Petroleum Corporation  
105 S. 4th  
Artesia, NM 88211-1395

RE: Roy AET Com #9H  
990' FNL & 15' FWL  
Sec. 17, T19S, R25E  
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

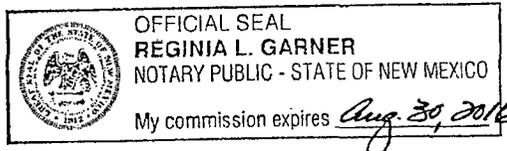
Very truly yours,

A handwritten signature in cursive script, appearing to read "Chris Graham".

Chris Graham  
Drilling Superintendent

State of New Mexico }  
County of Eddy }

*The foregoing was acknowledged before me this 22<sup>nd</sup> day of May, 2014.*

A handwritten signature in cursive script, appearing to read "Regina L. Garner".  
Notary Public

ROY "AET" COM #9H

Date	Depth	Deviation	Direction	TVD	500' test
5/7/2014	135	0.30	130.80	135.00	
5/7/2014	193	0.40	155.90	193.00	58
5/7/2014	290	0.70	157.00	0.00	97
5/7/2014	377	0.80	171.00	0.00	87
5/7/2014	470	0.50	162.00	0.00	93
5/7/2014	564	0.20	262.00	0.00	94
5/7/2014	658	0.60	274.80	0.00	94
5/7/2014	751	0.50	261.90	0.00	93
5/8/2014	844	0.50	316.90	843.90	93
5/8/2014	938	0.40	358.20	937.90	94
5/8/2014	1032	0.60	337.40	1031.96	94
5/8/2014	1125	0.40	309.90	1124.96	93
5/8/2014	1219	0.50	318.90	1218.96	94
5/8/2014	1312	0.60	316.30	0.00	93
5/8/2014	1348	0.10	356.60	0.00	36
5/10/2014	1486	0.20	348.10	0.00	138
5/10/2014	1580	0.20	333.60	0.00	94
5/11/2014	1673	0.20	2.00	1672.95	93
5/11/2014	1767	0.20	356.40	1766.95	94
5/11/2014	1860	0.10	327.70	1859.95	93
5/11/2014	1954	0.20	15.50	1953.95	94
5/11/2014	1984	0.20	24.30	1983.85	30
5/11/2014	2048	0.60	6.40	2047.95	64
5/11/2014	2080	3.50	280.50	2076.93	32
5/11/2014	2111	9.30	268.60	2110.72	31
5/11/2014	2142	14.90	267.40	2141.02	31
5/11/2014	2174	19.90	268.30	2171.00	32
5/11/2014	2205	23.60	268.90	0.00	31
5/11/2014	2267	30.20	269.40	2255.00	62
5/11/2014	2298	33.00	270.40	2282.00	31
5/11/2014	2329	36.30	270.40	2307.00	31
5/11/2014	2336	26.80	269.10	2228.00	7
5/12/2014	2454	47.80	273.80	2400.34	118
5/12/2014	2486	50.30	273.70	2421.31	32
5/12/2014	2517	54.60	272.30	2440.20	31
5/12/2014	2548	58.20	271.50	2457.35	31
5/12/2014	2579	61.60	270.20	2472.89	31
5/12/2014	2610	64.00	269.60	2487.06	31
5/12/2014	2766	83.10	271.10	2531.10	156
5/12/2014	2798	86.90	270.80	2533.89	32
5/12/2014	2829	90.40	271.10	2534.62	31
5/12/2014	2922	91.80	271.60	2532.83	93
5/12/2014	3016	92.00	271.50	2529.72	94
5/12/2014	3109	92.50	270.90	2526.07	93

Date	Depth	Deviation	Direction	TVD	500' test
5/12/2014	3203	92.60	269.80	2521.88	94
5/13/2014	3297	92.50	270.50	2517.00	94
5/13/2014	3390	91.90	271.20	2514.00	93
5/13/2014	3483	91.50	270.80	2511.00	93
5/13/2014	3577	96.80	271.60	2509.00	94
5/13/2014	3670	90.90	272.60	2508.71	93
5/13/2014	3764	90.80	272.80	2506.71	94
5/13/2014	3857	90.20	272.30	2505.90	93
5/13/2014	3951	91.70	272.30	2504.34	94
5/13/2014	4045	92.10	272.80	2501.22	94
5/13/2014	4139	92.00	270.70	2497.86	94
5/13/2014	4233	91.50	270.00	2494.99	94
5/13/2014	4327	91.10	269.40	2492.86	94
5/14/2014	4420	91.60	270.00	249.00	93
5/14/2014	4514	91.80	271.00	2487.00	94
5/14/2014	4514	91.80	271.00	2487.00	0
5/14/2014	4608	92.00	272.30	2298.00	94
5/14/2014	4701	91.70	272.30	2481.00	93
5/14/2014	4794	93.00	272.10	2477.95	93
5/14/2014	4888	93.30	271.10	2472.78	94
5/14/2014	4981	93.50	270.50	2467.27	93
5/14/2014	5075	92.60	271.10	2462.26	94
5/14/2014	5168	92.80	271.60	2457.88	93
5/14/2014	5262	89.80	272.00	2456.00	94
5/14/2014	5356	89.60	271.80	2456.24	94
5/14/2014	5449	89.70	271.20	2456.81	93
5/14/2014	5543	90.20	271.30	2456.89	94
5/14/2014	5637	90.50	271.10	2456.32	94
5/15/2014	5824	92.10	270.90	2450.00	187
5/15/2014	5917	92.10	272.30	2447.19	93
5/15/2014	6011	91.70	272.30	2444.08	94
5/15/2014	6104	91.20	272.30	2441.72	93
5/15/2014	6198	92.40	271.60	2438.77	94
5/15/2014	6291	92.30	271.40	2434.96	93
5/15/2014	6385	92.00	271.40	2431.43	94
5/15/2014	6479	91.70	270.80	2428.40	94
5/15/2014	6572	92.90	270.40	2424.66	93
5/15/2014	6666	92.00	269.70	2420.65	94
5/16/2014	6760	92.80	270.80	2416.00	94
5/16/2014	6853	93.00	270.80	2412.00	93
5/16/2014	6946	92.60	272.80	2407.00	93
5/16/2014	7040	92.80	273.20	2403.00	94
5/16/2014	7133	92.70	272.30	2399.00	93
5/16/2014	7227	90.70	271.80	2397.39	94
5/16/2014	7316	90.90	271.70	2396.15	89

STATE OF NEW MEXICO  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

1. Well API NO: 30-015-42252
2. Well Name: ROY AET COM #009H
3. Well Number: 009H
4. Surface Hole Location: Unit:A Lot:A Section:17 Township:19S Range:25E Feet from:990 N/S Line:N Feet from:15 E/W Line:E
5. Bottom Hole Location: Unit:D Lot:A Section:17 Township:19S Range:25E Feet from:994 N/S Line:N Feet from:231 E/W Line:W
6. Latitude: 32.6656528980904 Longitude: -104.498425370684
7. County: Eddy

**HYDRAULIC FRACTURING FLUID  
DISCLOSURE**

Original  
 Amendment

8. Operator Name and Address: YATES PETROLEUM CORPORATION 105 S 4TH ST ARTESIA 88210	9. OGRID: 25575	10. Phone Number:
11. Last Fracture Date: 9/4/2014 Frac Performed by: Schlumberger	12. Production Type: O	
13. Pool Code(s): 97565	14. Gross Fractured Interval: 2,797 ft to 7,244 ft	
15. True Vertical Depth (TVD): 2,535 ft	16. Total Volume of Fluid Pumped: 4,587,011 gals	
17. Total Volume of Re-Use Water Pumped: N/A	18. Percent of Re-Use Water in Fluid Pumped: Not Disclosed	

**19. HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:**

Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemical Abstract Service #	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)
slickwater, 20% HCL	Schlumberger	Acid Corrosion Inhibitor A286, Bactericide (Myacide GA25), Demulsifier, Acid, Breaker, Friction Redu	Water (Including Mix Water Supplied by Client)*		0%	86.02043%
			Crystalline silica	14808-60-7	97.07563%	13.57075%
			Hydrochloric acid	7647-01-0	1.99236%	0.27852%
			Ethylene Glycol	107-21-1	0.14286%	0.01997%
			2-Propenoic acid, polymer with sodium phosphinate	129898-01-7	0.13708%	0.01916%
			Propan-2-ol	67-63-0	0.09567%	0.01337%
			Tetrasodium ethylenediaminetetraacetate	64-02-8	0.08262%	0.01155%
			Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	38193-60-1	0.07579%	0.0106%
			Diammonium peroxidisulphate	7727-54-0	0.07515%	0.01051%
			Distillates (petroleum), hydrotreated light	64742-47-8	0.06833%	0.00955%
			Sodium chloride	7647-14-5	0.06139%	0.00858%
			Glutaraldehyde	111-30-8	0.03999%	0.00559%
			1, 2, 3 - Propanetriol	56-81-5	0.02786%	0.00388%
			Polyethylenimin, polymer with ethylene oxide and propylene oxide	52501-07-2	0.01313%	0.00184%
			Calcium chloride	10043-52-4	0.01299%	0.00182%
			Crosslinked PO/EO-block polymer	68123-18-2	0.01205%	0.00169%
			Sodium carbonate	497-19-8	0.01045%	0.00146%
			Alcohol, C11-14, ethoxylated	76330-21-9	0.01022%	0.00143%
			Sodium erythorbate	6381-77-7	0.00972%	0.00136%
			Alcohols, C9-11-iso-, C10-rich	68526-85-2	0.00711%	0.00099%
			Sodium Glycolate (impurity)	2836-32-0	0.00669%	0.00094%
			Methyl oxirane polymer with oxirane	9003-11-6	0.0057%	0.0008%

Phoenix Technology Services  
SURVEY DATA CERTIFICATION



NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 25 2014

RECEIVED

PHOENIX JOB NUMBER 1410611

OPERATOR Yates Petroleum

WELL NAME Roy AET Com. #9H

COUNTY & STATE Eddy Co., NM

API WELL NUMBER 30-015-42252

PROPOSED DIRECTION 271.36

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
0 ft	00 ft	0 ft	0 ft	00 ft	00 ft	Surface

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
7-May-14	135 ft	0.3	130.8

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
16-May-14	7,316 ft	90.9	271.7

TO THE BEST OF MY KNOWLEDGE I  
CERTIFY THIS SURVEY DATA TO BE  
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
16-May-14	7,390 ft	90.9	271.7

James Garber

PRINT YOUR NAME ABOVE

*James Garber*

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID	
TOTAL CORRECTION USED	7.7
DECLINATION OR GRID	GRID

5/16/2014

TODAY'S DATE

MWD SUPERVISOR 1 Jim Garber

DIRECTIONAL DRILLER 1 Dan Waggoner

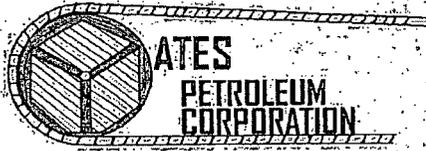
MWD SUPERVISOR 2 August Holt

DIRECTIONAL DRILLER 2 Daniel Scott

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

NOV 25 2014

RECEIVED



## **Yates Petroleum Corp.**

Eddy County, NM (NAD83 NME)  
Roy AET Com  
#9H

WB1/Job #1410611

Survey: Phoenix MWD Surveys

## **Standard Survey Report**

19 May, 2014



**PHOENIX**  
TECHNOLOGY SERVICES



# Phoenix Technology Services

## Survey Report



<b>Company:</b>	Yates Petroleum Corp	<b>Local Co-ordinate Reference:</b>	Well #9H
<b>Project:</b>	Eddy County, NM (NAD83 NME)	<b>TVD Reference:</b>	KB @ 3549.00usft (Silver Oak 11)
<b>Site:</b>	Roy AET Com	<b>MD Reference:</b>	KB @ 3549.00usft (Silver Oak 11)
<b>Well:</b>	#9H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	WB1/Job #1410611	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Silver Oak 11)	<b>Database:</b>	GCR DB

<b>Project:</b>	Eddy County, NM (NAD83 NME)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site:</b>	Roy AET Com		
<b>Site Position:</b>	<b>Northing:</b>	607,439.10 usft	<b>Latitude:</b> 32° 40' 11.23170 N
<b>From:</b> Map	<b>Easting:</b>	490,431.50 usft	<b>Longitude:</b> 104° 29' 55.55690 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b> 13-3/16 "	<b>Grid Convergence:</b> -0.09 °

<b>Well:</b>	#9H		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 605,918.30 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 490,559.50 usft
			<b>Latitude:</b> 32° 39' 56.18486 N
			<b>Longitude:</b> 104° 29' 54.03375 W
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	usft
		<b>Ground Level:</b>	3,531.00 usft

<b>Wellbore:</b>	WB1/Job #1410611		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>
	IGRF2010_14	04/08/14	7.70
			<b>Dip Angle</b>
			60.37
			<b>Field Strength</b>
			48,497

<b>Design:</b>	Surveys (Silver Oak 11)		
<b>Audit Notes:</b>			
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL
		<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			<b>Direction</b>
			271.36

<b>Survey Program:</b>	Date: 05/19/14		
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>
(usft)	(usft)		
135.00	7,390.00	Phoenix MWD Surveys (WB1/Job #14106	MWD
			<b>Description</b>
			MWD - Standard

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.30	130.80	135.00	-0.23	0.27	-0.27	0.22	0.22	0.00	
<b>First Phoenix MWD Survey</b>										
193.00	0.40	155.90	193.00	-0.51	0.47	-0.48	0.31	0.17	43.28	
287.00	0.70	157.20	286.99	-1.34	0.82	-0.85	0.32	0.32	1.38	
377.00	0.80	171.20	376.99	-2.47	1.13	-1.19	0.23	0.11	15.56	
470.00	0.50	162.30	469.98	-3.50	1.35	-1.44	0.34	-0.32	-9.57	
564.00	0.20	262.80	563.98	-3.91	1.32	-1.41	0.61	-0.32	106.91	
658.00	0.60	274.80	657.98	-3.89	0.66	-0.75	0.43	0.43	12.77	
751.00	0.50	261.90	750.97	-3.91	-0.22	0.13	0.17	-0.11	-13.87	
844.00	0.50	316.90	843.97	-3.67	-0.90	0.82	0.50	0.00	59.14	



# Phoenix Technology Services

## Survey Report



Company: Yates Petroleum Corp	Local Coordinate Reference	Well: #9H
Project: Eddy County NM (NAD83 NME)	TVD Reference:	KB @ 3549.00usft (Silver Oak 11)
Site: Roy AET Com	MD Reference:	KB @ 3549.00usft (Silver Oak 11)
Well: #9H	North Reference:	Grid
Wellbore: WB1/Job #1410611	Survey Calculation Method:	Minimum Curvature
Design: Surveys (Silver Oak 11)	Database:	GCRIDB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
938.00	-0.40	358.20	937.97	-3.04	-1.19	1.12	0.35	-0.11	43.94
1,032.00	0.60	337.40	1,031.96	-2.26	-1.39	1.34	0.28	0.21	-22.13
1,125.00	0.40	309.90	1,124.96	-1.60	-1.83	1.79	0.33	-0.22	-29.57
1,219.00	0.50	318.90	1,218.96	-1.08	-2.35	2.32	0.13	0.11	9.57
1,312.00	0.30	316.30	1,311.95	-0.60	-2.79	2.77	0.22	-0.22	-2.80
1,348.00	0.10	256.60	1,347.95	-0.54	-2.88	2.87	0.73	-0.56	-165.83
1,486.00	-0.20	348.10	1,485.95	-0.33	-3.05	3.04	0.16	-0.07	66.30
1,580.00	-0.20	333.60	1,579.95	-0.02	-3.16	3.15	0.05	0.00	-15.43
1,673.00	0.20	2.00	1,672.95	0.28	-3.22	3.23	0.11	0.00	30.54
1,767.00	-0.20	356.40	1,766.95	0.61	-3.23	3.24	0.02	0.00	-5.96
1,860.00	0.10	327.70	1,859.95	0.84	-3.28	3.30	0.13	-0.11	-30.86
1,954.00	0.20	15.50	1,953.95	1.07	-3.28	3.30	0.16	0.11	50.85
1,984.00	0.20	24.30	1,983.95	1.17	-3.24	3.27	0.10	0.00	29.33
2,048.00	0.60	6.40	2,047.95	1.60	-3.16	3.20	0.65	0.63	-27.97
2,080.00	3.50	280.50	2,079.93	1.95	-4.10	4.15	10.96	9.06	-268.44
2,111.00	9.30	268.60	2,110.72	2.06	-7.54	7.59	19.09	18.71	-38.39
2,142.00	14.90	267.40	2,141.02	1.82	-14.03	14.07	18.08	18.06	-3.87
2,174.00	19.90	268.20	2,171.55	1.46	-23.59	23.62	15.64	15.63	2.50
2,205.00	23.60	268.90	2,200.34	1.17	-35.07	35.09	11.96	11.94	2.26
2,236.00	26.80	269.10	2,228.38	0.95	-48.27	48.28	10.33	10.32	0.65
2,267.00	30.20	269.40	2,255.62	0.75	-63.06	63.06	10.98	10.97	0.97
2,298.00	33.00	270.40	2,282.02	-0.73	-79.30	79.29	9.19	9.03	3.23
2,329.00	36.30	272.10	2,307.52	1.13	-96.91	96.91	11.09	10.65	5.48
2,361.00	39.30	272.30	2,332.80	1.88	-116.51	116.52	9.38	9.38	0.63
2,392.00	42.00	273.20	2,356.32	2.85	-136.68	136.71	8.91	8.71	2.90
2,423.00	44.60	273.80	2,378.88	4.15	-157.90	157.95	8.49	8.39	1.94
2,454.00	47.80	273.80	2,400.34	5.64	-180.22	180.30	10.32	10.32	0.00
2,486.00	50.30	273.70	2,421.31	7.22	-204.34	204.45	7.82	7.81	-0.31
2,517.00	54.60	272.30	2,440.20	8.49	-228.87	229.01	14.33	13.87	-4.52
2,548.00	58.20	271.50	2,457.35	9.35	-254.68	254.83	11.81	11.61	-2.58
2,579.00	61.60	270.20	2,472.89	9.74	-281.49	281.64	11.55	10.97	-4.19
2,610.00	64.00	269.60	2,487.06	9.69	-309.06	309.20	7.93	7.74	-1.94
2,616.59	64.83	269.56	2,489.91	9.65	-315.00	315.14	12.59	12.58	-0.66
<b>2616.59 MD, 330° Heel Crossing Point</b>									
2,641.00	67.90	269.40	2,499.69	9.44	-337.36	337.49	12.59	12.58	-0.64
2,673.00	71.60	269.50	2,510.77	9.15	-367.38	367.49	11.57	11.56	0.31
2,704.00	75.50	269.80	2,519.54	8.97	-397.10	397.20	12.61	12.58	0.97
2,735.00	79.20	270.60	2,526.33	9.08	-427.34	427.44	12.20	11.94	2.58
2,766.00	83.10	271.10	2,531.10	9.54	-457.96	458.06	12.68	12.58	1.61
2,798.00	86.90	270.80	2,533.89	10.06	-489.83	489.93	11.91	11.88	-0.94
2,829.00	90.40	271.10	2,534.62	10.58	-520.81	520.92	11.33	11.29	0.97
2,922.00	-91.80	271.60	2,532.83	12.77	-613.77	613.90	1.60	1.51	0.54
3,016.00	92.00	271.50	2,529.72	15.31	-707.68	707.85	0.24	0.21	-0.11



Phoenix Technology Services  
Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #9H
Project:	Eddy County, NM (NAD83/NME)	TVD Reference:	KB @ 3549.00usft (Silver Oak 11)
Site:	Roy A/E/I Com	MD Reference:	KB @ 3549.00usft (Silver Oak 11)
Well:	#9H	North Reference:	Grid
Wellbore:	WB 1/Job #1410611	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR/DB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (%/100usft)	Build Rate (%/100usft)	Turn Rate (%/100usft)
3,109.00	92.50	270.90	2,526.07	17.26	-800.59	800.77	0.84	0.54	-0.65
3,203.00	92.60	269.80	2,521.88	17.83	-894.49	894.66	1.17	0.11	-1.17
3,297.00	92.50	270.50	2,517.70	18.07	-988.40	988.55	0.75	-0.11	0.74
3,390.00	91.90	271.20	2,514.13	19.45	-1,081.32	1,081.48	0.99	-0.65	0.75
3,483.00	91.50	270.80	2,511.37	21.08	-1,174.26	1,174.43	0.61	-0.43	-0.43
3,577.00	90.80	271.60	2,509.49	23.04	-1,268.22	1,268.41	1.13	-0.74	0.85
3,670.00	90.90	272.60	2,508.11	26.45	-1,361.15	1,361.39	1.08	0.11	1.08
3,764.00	90.80	272.80	2,506.71	30.88	-1,455.03	1,455.36	0.24	-0.11	0.21
3,857.00	90.20	272.30	2,505.90	35.02	-1,547.94	1,548.33	0.84	-0.65	-0.54
3,951.00	91.70	272.30	2,504.34	38.79	-1,641.85	1,642.30	1.60	1.60	0.00
4,045.00	92.10	272.80	2,501.22	42.97	-1,735.70	1,736.23	0.68	0.43	0.53
4,139.00	92.00	270.70	2,497.86	45.84	-1,829.59	1,830.16	2.24	-0.11	-2.23
4,233.00	91.50	270.00	2,494.99	46.41	-1,923.55	1,924.11	0.91	-0.53	-0.74
4,327.00	91.10	269.40	2,492.86	45.92	-2,017.52	2,018.04	0.77	-0.43	-0.64
4,420.00	91.60	270.50	2,490.67	45.84	-2,110.49	2,110.99	1.30	0.54	1.18
4,514.00	91.80	271.40	2,487.88	47.39	-2,204.44	2,204.94	0.98	0.21	0.96
4,608.00	92.00	272.30	2,484.76	50.43	-2,298.33	2,298.88	0.98	0.21	0.96
4,701.00	91.70	272.30	2,481.76	54.16	-2,391.21	2,391.82	0.32	-0.32	0.00
4,794.00	93.00	272.10	2,477.95	57.73	-2,484.06	2,484.73	1.41	1.40	-0.22
4,888.00	93.30	271.10	2,472.78	60.35	-2,577.88	2,578.59	1.11	0.32	-1.06
4,981.00	93.50	270.50	2,467.27	61.64	-2,670.71	2,671.42	0.68	0.22	-0.65
5,075.00	92.60	271.10	2,462.26	62.95	-2,764.57	2,765.28	1.15	-0.96	0.64
5,168.00	92.80	271.60	2,457.88	65.14	-2,857.44	2,858.18	0.58	0.22	0.54
5,262.00	89.80	272.00	2,455.75	68.09	-2,951.35	2,952.14	3.22	-3.19	0.43
5,356.00	89.60	271.80	2,456.24	71.21	-3,045.30	3,046.13	0.30	-0.21	-0.21
5,449.00	89.70	271.20	2,456.81	73.64	-3,138.27	3,139.13	0.65	0.11	-0.65
5,543.00	90.20	271.30	2,456.89	75.69	-3,232.25	3,233.13	0.54	0.53	0.11
5,637.00	90.50	271.10	2,456.32	77.66	-3,326.22	3,327.13	0.38	0.32	-0.21
5,730.00	92.20	271.20	2,454.13	79.53	-3,419.17	3,420.10	1.83	1.83	0.11
5,824.00	92.10	270.90	2,450.60	81.25	-3,513.09	3,514.03	0.34	-0.11	-0.32
5,917.00	92.10	272.30	2,447.19	83.85	-3,605.99	3,606.97	1.50	0.00	1.51
6,011.00	91.70	272.30	2,444.08	87.62	-3,699.86	3,700.90	0.43	-0.43	0.00
6,104.00	91.20	272.30	2,441.72	91.35	-3,792.76	3,793.86	0.54	-0.54	0.00
6,198.00	92.40	271.60	2,438.77	94.54	-3,886.66	3,887.80	1.48	1.28	-0.74
6,291.00	92.30	271.40	2,434.96	96.98	-3,979.55	3,980.73	0.24	-0.11	-0.22
6,385.00	92.00	271.40	2,431.43	99.27	-4,073.45	4,074.66	0.32	-0.32	0.00
6,479.00	91.70	270.80	2,428.40	101.07	-4,167.38	4,168.61	0.71	-0.32	-0.64
6,572.00	92.90	270.40	2,424.66	102.05	-4,260.30	4,261.52	1.36	1.29	-0.43
6,666.00	92.00	269.70	2,420.65	102.13	-4,354.22	4,355.41	1.21	-0.96	-0.74
6,760.00	92.80	270.80	2,416.71	102.54	-4,448.13	4,449.31	1.45	0.85	1.17
6,853.00	93.00	270.80	2,412.00	103.84	-4,541.00	4,542.19	0.22	0.22	0.00
6,946.00	92.60	272.80	2,407.46	106.75	-4,633.84	4,635.07	2.19	-0.43	2.15
7,040.00	92.80	273.20	2,403.03	111.67	-4,727.61	4,728.92	0.48	0.21	0.43



**Phoenix Technology Services**  
Survey Report



<b>Company:</b> Yates Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	<b>Well #9H:</b>
<b>Project:</b> Eddy County, NM (NAD83 NME)	<b>TVD Reference:</b>	KB @ 3549.00usft (Silver Oak 11)
<b>Site:</b> Roy AET-Com	<b>MD Reference:</b>	KB @ 3549.00usft (Silver Oak 11)
<b>Well:</b> #9H	<b>North Reference:</b>	Grid:
<b>Wellbore:</b> WB1/Job #1410611	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b> Surveys (Silver Oak 11)	<b>Database:</b>	GCR DB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,134.00	91.70	272.30	2,399.34	116.17	-4,821.42	4,822.82	1.51	-1.17	-0.96
7,227.00	90.70	271.80	2,397.39	119.50	-4,914.34	4,915.79	1.20	-1.08	-0.54
7,290.69	90.84	271.73	2,396.54	121.46	-4,978.00	4,979.48	0.25	0.22	-0.11
<b>7290.69' MD, 330' Toe Crossing Point</b>									
7,316.00	90.90	271.70	2,396.15	122.22	-5,003.29	5,004.78	0.25	0.22	-0.11
<b>Last Phoenix MWD Survey</b>									
7,390.00	90.90	271.70	2,394.99	124.41	-5,077.25	5,078.77	0.00	0.00	0.00
<b>Projection to TD at 6' N &amp; 99' W of BHL</b>									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		N/S (usft)	E/W (usft)	
135.00	135.00	-0.23	0.27	First Phoenix MWD Survey
2,616.59	2,489.91	9.65	-315.00	2616.59' MD, 330' Heel Crossing Point
7,290.69	2,396.54	121.46	-4,978.00	7290.69' MD, 330' Toe Crossing Point
7,316.00	2,396.15	122.22	-5,003.29	Last Phoenix MWD Survey
7,390.00	2,394.99	124.41	-5,077.25	Projection to TD at 6' N & 99' W of BHL

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NM-125008

6. If Indian, Allottee or Tribe Name

*SUBMIT IN TRIPLICATE – Other instructions on page 2.*

1. Type of Well

Oil Well     Gas Well     Other

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Roy AET Com #9H

2. Name of Operator  
Yates Petroleum Corporation

9. API Well No.  
30-015-42252

3a. Address  
105 S. Fourth St.  
Artesia, NM 88210

3b. Phone No. (include area code)  
575-748-4120

10. Field and Pool or Exploratory Area  
N. Seven Rivers; Glorieta-Yeso 97565

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FNL & 15' FEL SHL  
900' FNL & 330' FWL BHL; Section 17 T19S - R25E

11. County or Parish, State  
Eddy County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Reset Tubing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

2/19/14 - NU BOP. Reset 2-7/8" 6.40# L-80 tubing at 2,245'.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Travis Hahn

Title Land Regulatory Agent

Signature



Date 06/05/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Yates Petroleum Corp
LEASE NO.:	NM125008
WELL NAME & NO.:	9H-Roy AET Com
SURFACE HOLE FOOTAGE:	990'/N & 15'/E
BOTTOM HOLE FOOTAGE:	900'/N & 330'/W
LOCATION:	Section 17, T. 19 S., R. 25 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.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
  - Aplomado Falcon
  - Cave Karst Resources
- Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Drilling**
  - Waste Material and Fluids
- Production (Post Drilling)**
  - Well Structures & Facilities
- Interim Reclamation**
- Final Abandonment & Reclamation**

## **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)

### Aplomado Falcon

In order to minimize impacts to aplomado falcon, the following Conditions of Approval will apply:

- No yuccas or trees over 5 feet in height will be damaged, to protect nesting structures.
- All active raptor nests will be avoided by a minimum of 400 meters by all activities or curtail activities until fledging is complete. All inactive raptor nests will be avoided by a minimum of 200 meters by all activities.
- Well pad size will not exceed 300 ft. x 390 ft.
- All roads associated with well development will not exceed 30 ft in width
- Reserve pits for drilling and disposal are not allowed unless the pit can be effectively netted to the satisfaction of the BLM. Steel tank circulation system must be used if the reserve pit is not netted.
- All unused portions of the well pad associated with producing wells will be reclaimed following the abandoned well protocol below
- Final abandonment protocol: Remove all caliche from well pads and roads that are plugged and abandoned. Reclamation will consist of disking, mulching, seeding with a drill (See seed mixture below), and application of water to encourage seed germination.

Buffalograss ( <i>Buchloe dactyloides</i> )	4 lbs/acre
Blue grama ( <i>Bouteloua gracilis</i> )	1 lbs/acre
Cane bluestem ( <i>Bothriochloa barbinodis</i> )	5 lbs/acre
Sideoats grama ( <i>Bouteloua curtipendula</i> )	5 lbs/acre
Plains bristlegrass ( <i>Setaria macrostachya</i> )	6 lbs/acre

### Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

#### **Construction:**

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

#### **No Blasting:**

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

#### **Pad Berming:**

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.

- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

**Tank Battery Liners and Berms:**

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

**Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

**Automatic Shut-off Systems:**

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

**Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and ground water concerns:

**Rotary Drilling with Fresh Water:**

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

**Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

**Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will

assess the situation and work with the operator on corrective actions to resolve the problem.

**Abandonment Cementing:**

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

**Pressure Testing:**

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

## **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) 234-5909 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 strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. 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. EXCLOSURE FENCING (CELLARS & PITS)**

##### **Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

#### **G. 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 twenty-five (25) 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.

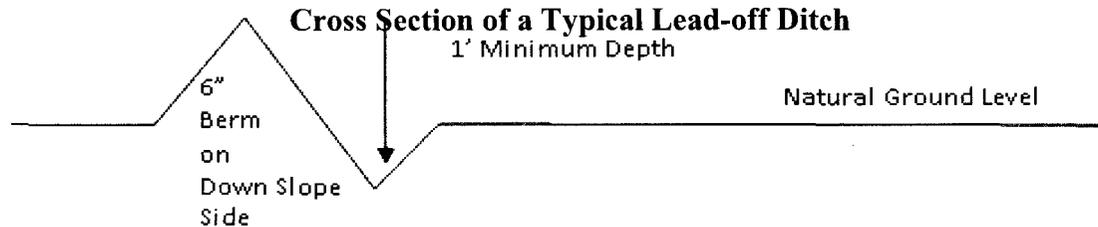
##### **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

## Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outloping 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.



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:

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

## Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route 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 cattleguards that are in place and are utilized during lease operations.

## Fence Requirement

Where entry is granted 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 fences.

## Public Access

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

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

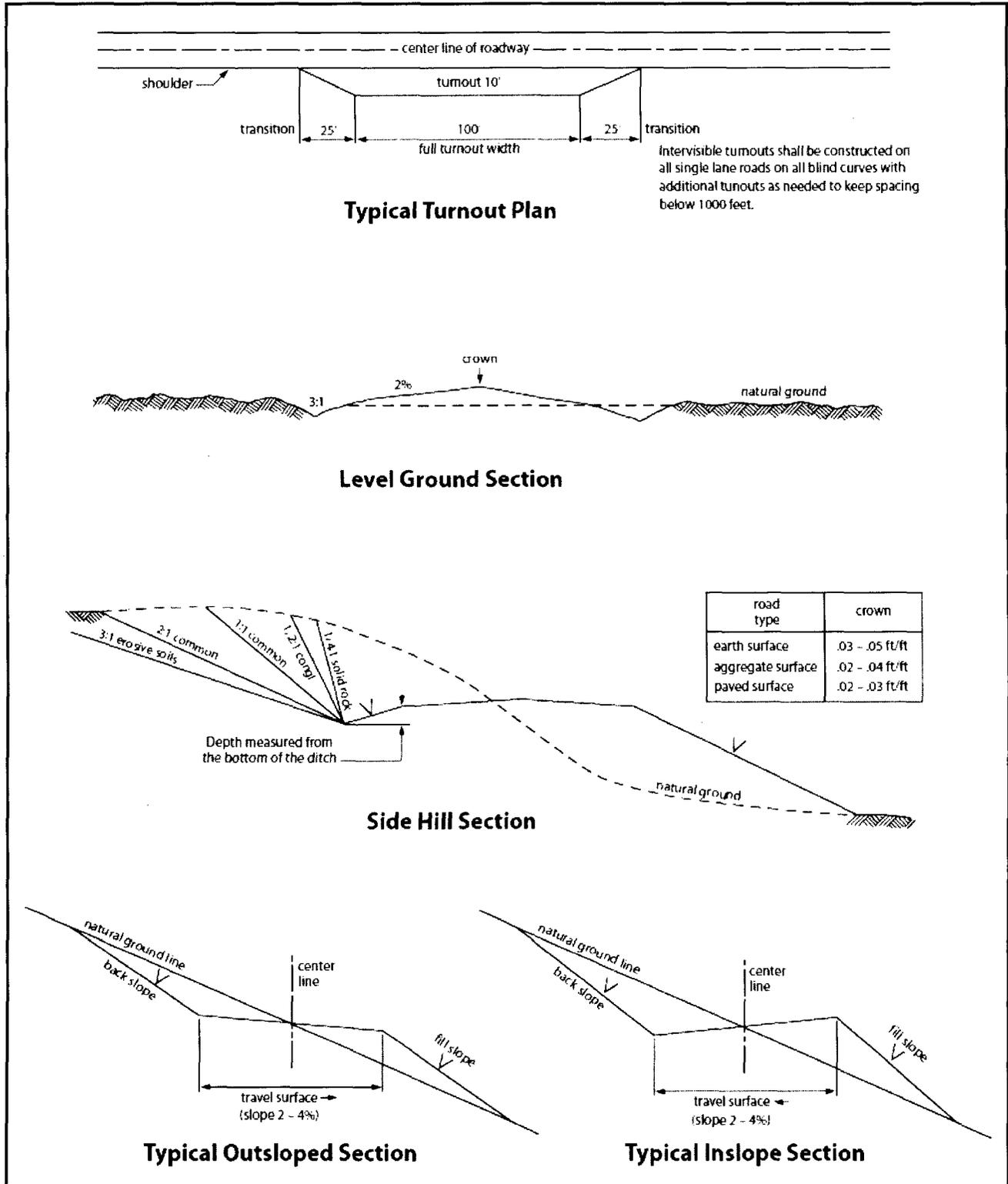


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## 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
- d.

**Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(505) 361-2822

1. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated 500 feet prior to drilling into the            formation.
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. When floor controls are required, (3M or Greater) 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. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufactures of the logging tools recommended speed. (R-111-P area only)

### B. CASING

1. The            inch surface casing shall be set at            feet 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 will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

- 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 action will be done prior to drilling out that string.
2. The minimum required fill of cement behind the \_\_\_\_\_ inch intermediate casing is:
- Cement to surface. If cement does not circulate see B.1.a-d above.
  - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
3. The minimum required fill of cement behind the \_\_\_\_\_ inch production casing is:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
  - Top of cement to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.
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.
5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

**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 \_\_\_\_\_ intermediate casing shoe shall be 2000 (2M) 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 formation. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
- f. A variance to test the surface casing and BOP/BOPE to the reduced pressure of psi with the rig pumps is approved.

#### **D. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the 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.

ACS/ (date)

#### **F. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

### **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.

### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

### **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** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

## **IX. 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.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation 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 that is free of contaminants 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.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **X. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

### Seed Mixture 3, for Shallow 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:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass ( <i>Setaria macrostachya</i> )	1.0
Green Sprangletop ( <i>Leptochloa dubia</i> )	2.0
Sideoats Grama ( <i>Bouteloua curtipendula</i> )	5.0

\*Pounds of pure live seed:

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