

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL ☒ DEEPEN ☐		1b. TYPE OF WELL OIL ☐ GAS ☒ WELL WELL OTHER ZONE SINGLE ☐ MULTIPLE ☐	
2. NAME OF OPERATOR Gray Petroleum Management Co. <i>Cimarex Energy Co. of Colorado</i>		3. ADDRESS AND TELEPHONE NO. P.O. Box 140907 Irving TX 75014 972-401-3111	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) SHL: 330' FSL & 280' FEL BHL: 710' FSL & 710' FEL SUBJECT TO LIKE APPROVAL BY STATE		5. LEASE DESIGNATION AND SERIAL NO. NM 2951	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME		7. UNIT AGREEMENT NAME Pending	
8. FARM OR LEASE NAME, WELL NO. <i>35405</i>		9. API WELL NO. 30-025- <i>38055</i>	
10. FIELD AND POOL, OR WILDCAT Teas; Morrow, West Penn (Gas)		11. SEC. T.R., M., BLOCK AND SURVEY OR AREA Sec 10-T20S-R33E	
12. COUNTY OR PARISH Lea		13. STATE NM	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 19 miles SE of Maljamar		15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O. (Also to nearest drlg. unit line, if any) 280'	
16. NO. OF ACRES IN LEASE 320		17. NO. OF ACRES ASSIGNED TO THIS WELL E/2 320	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N/A		19. PROPOSED DEPTH 14200'	
20. ROTARY OR CABLE TOOLS Rotary		21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3575' GR	
22. APPROX. DATE WORK WILL START* 01-15-06		23. PROPOSED CASING AND CEMENTING PROGRAM	

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8" ST&C	48#	500' 1355' (JSS)	320sx Prem circ surf
12-1/4"	J-55 9-5/8" LT&C	40#	3500'	2000sx IntC/Prem circ surf
8-3/4"	P-110 5-1/2" LT&C	17#	14200'	1830sx TOC 2700'

From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 - psi BOP system. We are requesting a variance for the 13-3/8" surface casing and BOP testing from Onshore Order No. 2, which states all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500#, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. During the running of the surface pipe and the drilling of the intermediate hole, we do not anticipate any pressures greater than 1000# and are requesting a variance to test the 13-3/8" casing and BOP system to 1000# psi and to use rig pumps instead of an independent service company.

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24 SIGNED Zeno Fane TITLE Mgr. Ops. Admin DATE 11-29-05

(This space for Federal or State office use)

PERMIT No.

APPROVAL DATE

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:

APPROVED BY /s/ Linda S. C. Rundell TITLE STATE DIRECTOR DATE JAN 26 2006
*See Instructions On Reverse Side
APPROVAL FOR 1 YEAR

APPROVAL: Title 18, U.S.C., Section 1001, makes 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.
GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED
Kz



Gruy Petroleum Management Co.

600 East Las Colinas Blvd. • Suite 1100 • Irving, TX 75039 • (972) 401-3111 • Fax (469) 420-2710
Mailing Address: P.O. Box 140907 • Irving, TX 75014-0907

A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management
2909 West Second Street
Roswell, New Mexico 88201
Attn: Ms. Linda Askwig

Gruy Petroleum Management Co. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.: NM-101969 – NE/4 SE/4, SW/4 SE/4 Sec. 10-T20S-R33E, containing 80 acres
Lease No.: NM-101970 – NW/4 SE/4 Sec. 10-T20S-R33E, containing 40 acres
Lease No.: NM-17439 – NE/4 Sec 10-T20S-R33E, containing 160 acres
Lease No.: NM-2951 – SE/4 SE/4 Sec 10-T20S-R33E, containing 40 acres

County: Lea County, New Mexico

Formation (S): Morrow

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature: Zeno Farris
Representing Gruy Petroleum Management Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: November 30, 2005

Application to Drill

Gruy Petroleum Management Co.
New Sheriff 10 Federal Com No. 1
Unit P Section 10
T20S - R33E Lea County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

- 1 Location: SHL: 330' FSL & 280' FEL
BHL: 710' FSL & 710' FEL
- 2 Elevation above sea level: GR 3575'
- 3 Geologic name of surface formation: Quaternary Alluvium Deposits
- 4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: 14200'

6 Estimated tops of geological markers:

Yates	3,245	Strawn	12,300
Delaware	5,230	Atoka	12,545
Bone Spring	8,290	Morrow	13,250
Wolfcamp	11,050	Barnett	13,735

7 Possible mineral bearing formation:

Delaware	Oil	Atoka	Gas
Bone Spring	Oil	Morrow	Gas

8 Casing program:

1355' (JSS)

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17-1/2"	0-500'	13-3/8"	48	8-R	ST&C	H-40
12-3/4"	0-3500'	9-5/8"	40	8-R	LT&C	J-55
8-3/4"	0-14200'	5-1/2"	17	8-R	LT&C	P-110

Application to Drill

Gruy Petroleum Management Co.
New Sheriff 10 Federal Com No. 1
Unit P Section 10
T20S - R33E Lea County, NM

9 Cementing & Setting Depth:

13 3/8"	Surface	Set 500' of 13 3/8" H-40 48# ST&C casing. Cement with 320 Sx. Of Premium Plus cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 3500' of 9 5/8" J-55 40# LT&C casing. Cement lead with 1385 Sx. Of Interfill C Cement + additives, tail with 800 Sx. Of Interfill C/Premium Plus + additives, circulate cement to surface.
5 1/2"	Production	Set 14200' of 5 1/2" P-110 17# LT&C casing. Cement in two stages, first stage cement with 685 Sx. of Interfill H/Super H + additives. Second stage cement with 1145 Sx of Interfill H/Super H. Estimated top of cement 2700'.

10 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nipped up on the 9 5/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of

11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 500'	8.7 - 9.2	32 - 34	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
500' - 1600'	10 - 10.3	28 - 29	May lose circ.	Fresh water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
1600' - 3500'	8.4 - 9.9	28 - 29	NC	Brine water. Paper for seepage. Lime for pH (9 - 9.5)
3500' - 8300'	8.4 - 9.9	28 - 29	NC	Brine water. Paper for seepage. Lime for pH (9 - 9.5)
8300' - 10000'	9.2 - 9.4	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 14200'	9.2 - 10.6	32 - 34	NC	XCD Polymer mud system.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

Application to Drill

Gruy Petroleum Management Co.
New Sheriff 10 Federal Com No. 1
Unit P Section 10
T20S - R33E Lea County, NM

12 Testing, Logging and Coring Program:

- A. Mud logging program: One-man unit from 8000' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. A DST is planned in the Morrow.

13 Potential Hazards:

No abnormal pressures or temperatures or H₂S gas are expected. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 3000 PSI, estimated BHT 190 .

14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 35 - 45 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Morrow / Atoka pay will be perforated and stimulated. The well will be tested and potentialized as a gas well.

Hydrogen Sulfide Drilling Operations Plan

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

- A. Characteristics of H2S
- B. Physical effects and hazards
- C. Proper use of safety equipment and life support systems.
- D. Principle and operation of H2S detectors, warning system and briefing
- E. Evacuation procedure, routes and first aid.
- F. Proper use of 30 minute pressure demand air pack.

- 2 H2S Detection and Alarm Systems

- A. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

- 3 Windsock and/or wind streamers

- A. Windsock at mudpit area should be high enough to be visible.
- B. Windsock at briefing area should be high enough to be visible.
- C. There should be a windsock at entrance to location.

- 4 Condition Flags and Signs

- A. Warning sign on access road to location.
- B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency

- 5 Well control equipment

- A. See exhibit "E"

- 6 Communication

- A. While working under masks chalkboards will be used for communication.
- B. Hand signals will be used where chalk board is inappropriate.
- C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

- 7 Drillstem Testing

- A. Exhausts will be watered.
- B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
- C. If location is near any dwelling a closed DST will be performed.

Hydrogen Sulfide Drilling Operations Plan

- 8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
- 9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-38055	Pool Code 86040	Pool Name Teas; Morrow, West Penn (Gas)
Property Code 35405	Property Name NEW SHERIFF 10 FEDERAL COM	Well Number 1
OGRID No. 162683	Operator Name Cimarex Energy Co. of Colorado GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3575'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	10	20-S	33-E		330	SOUTH	280	EAST	LEA

Bottom Hole Location If Different From Surface

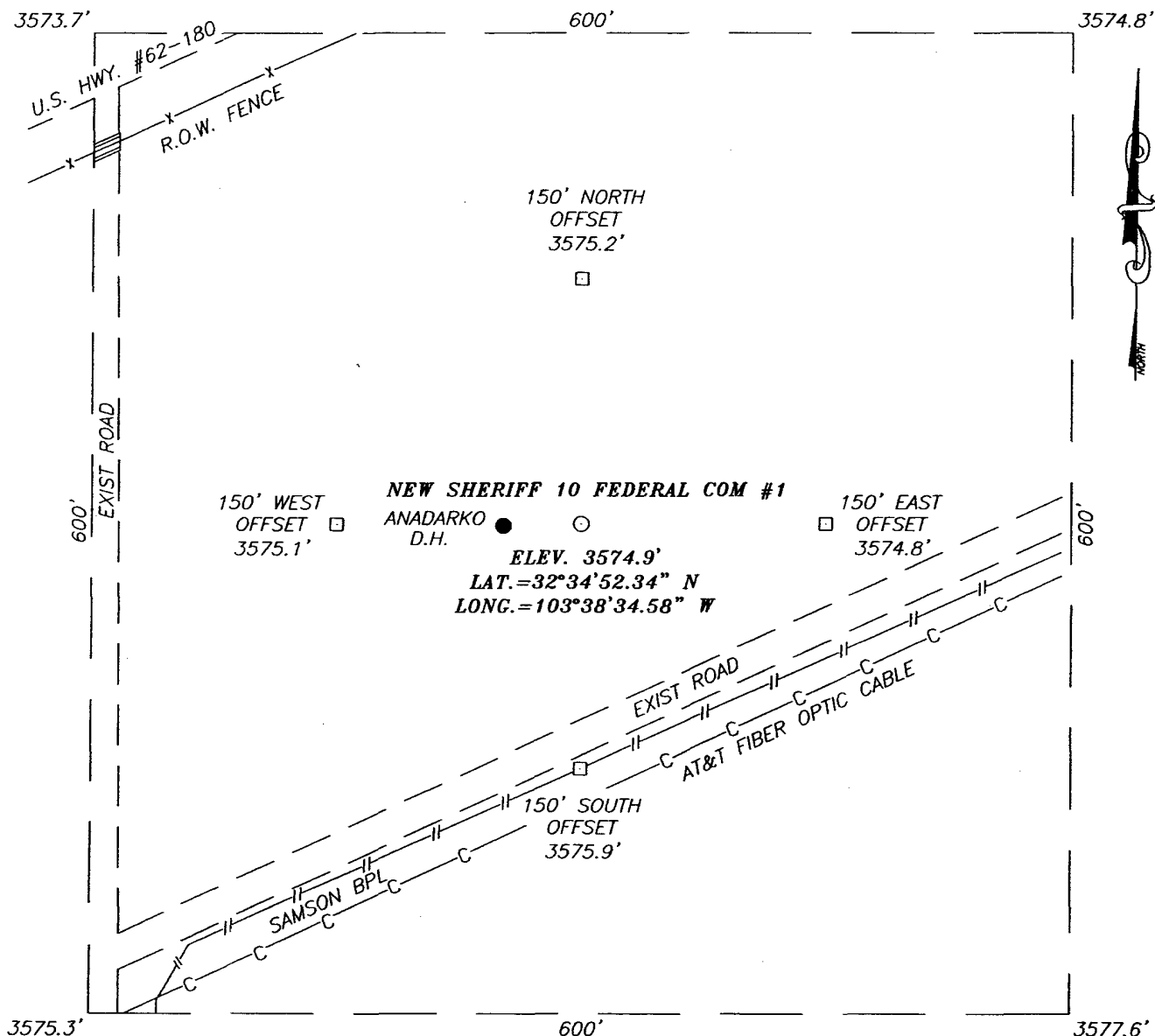
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	10	20-S	33-E		710	SOUTH	710	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	N	C	

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

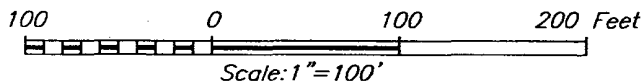
GEODETIC COORDINATES NAD 27 NME Y=575843.9 N X=712659.5 E LAT.=32°34'52.34" N LONG.=103°38'34.58" W NM-17439		DETAIL 3573.7' 3574.8' 600' 600' 3575.3' 3577.6' NM-101970 NM-101969 New Sherriff 10 Fed Com #1 710' 280' 330' SEE DETAIL	
		OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Zeno Farris Signature Printed Name Mgr Operations Admin Title November 30, 2005 Date	
NM-101969 NM-2951		SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. NOVEMBER 19, 2005 Date Surveyed Signature of Seal of DSON Professional Surveyor Professional Surveyor NEW MEXICO 05.11.1747 12841	
		12841	

SECTION 10, TOWNSHIP 20 SOUTH, RANGE 33 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #62-180 AND ST. HWY. #176, GO EAST ON U.S. HWY. #62-180 APPROX. 5.0 MILES. TURN RIGHT (SOUTH) AND GO APPROX. 0.1 MILES. TURN LEFT (EAST) AND GO APPROX. 0.1 MILES. THIS LOCATION IS APPROX. 130' NORTH OF ROAD.



GRUY PETROLEUM MANAGEMENT COMPANY

NEW SHERIFF 10 FEDERAL COM #1 WELL
 LOCATED 330 FEET FROM THE SOUTH LINE
 AND 280 FEET FROM THE EAST LINE OF SECTION 10,
 TOWNSHIP 20 SOUTH, RANGE 33 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

Survey Date: 11/19/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.1747	Dr By: J.R.
Date: 11/22/05	Disk: CD#5
05111747	Scale: 1"=100'



PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

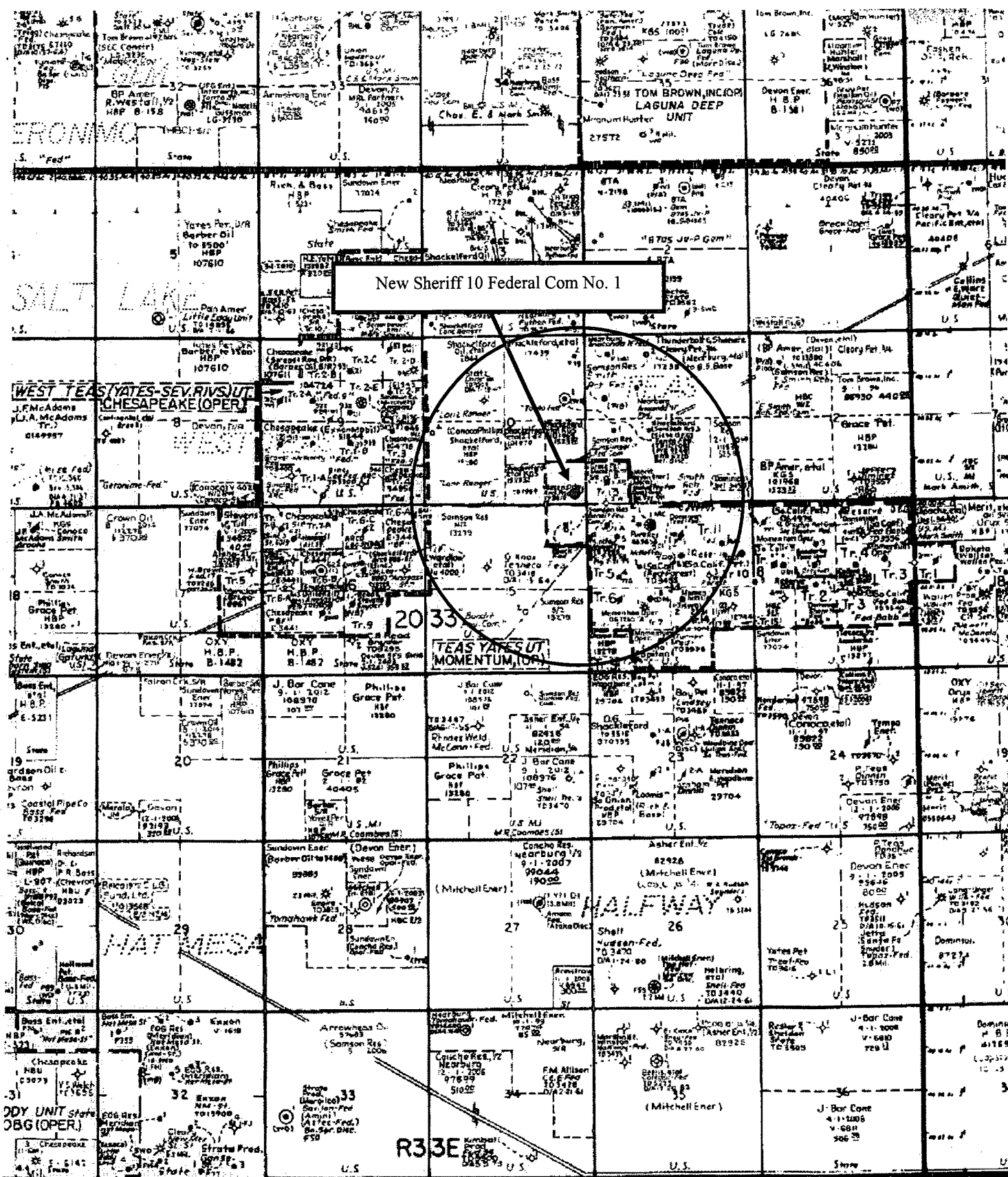
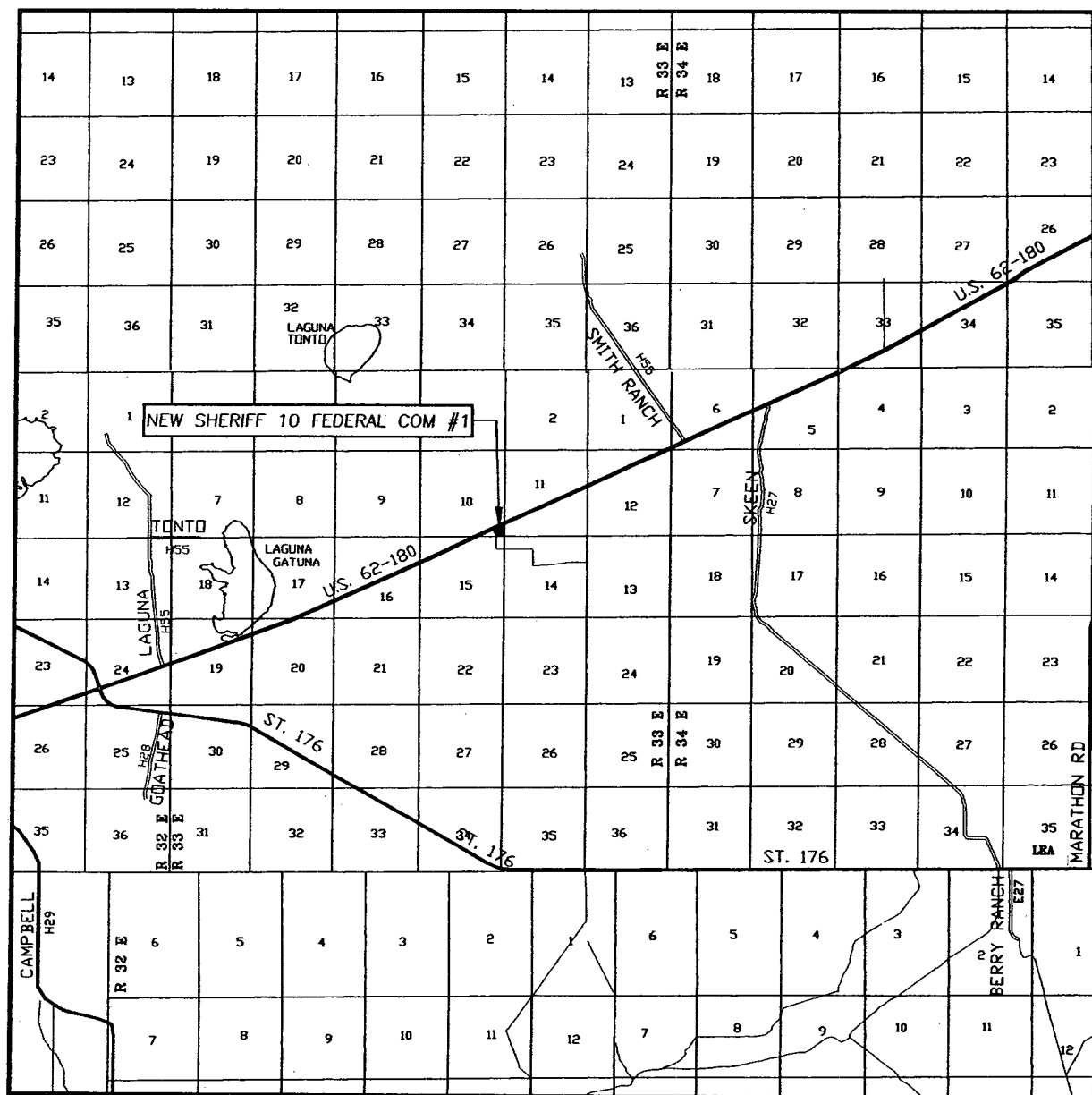


Exhibit A - One-Mile Radius Map
New Sheriff 10 Federal Com No. 1
Gruy Petroleum Management Co.
Section 10-T20S-R33E
SHL: 330' FSL & 280' FEL
BHL: 710' FSL & 710' FEL
Lea County, NM

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 10 TWP. 20-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 330' FSL & 280' FEL

ELEVATION 3575'

GRUY PETROLEUM
OPERATOR MANAGEMENT COMPANY

LEASE NEW SHERIFF 10 FEDERAL COM

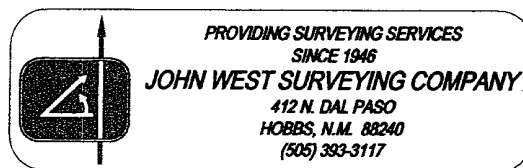
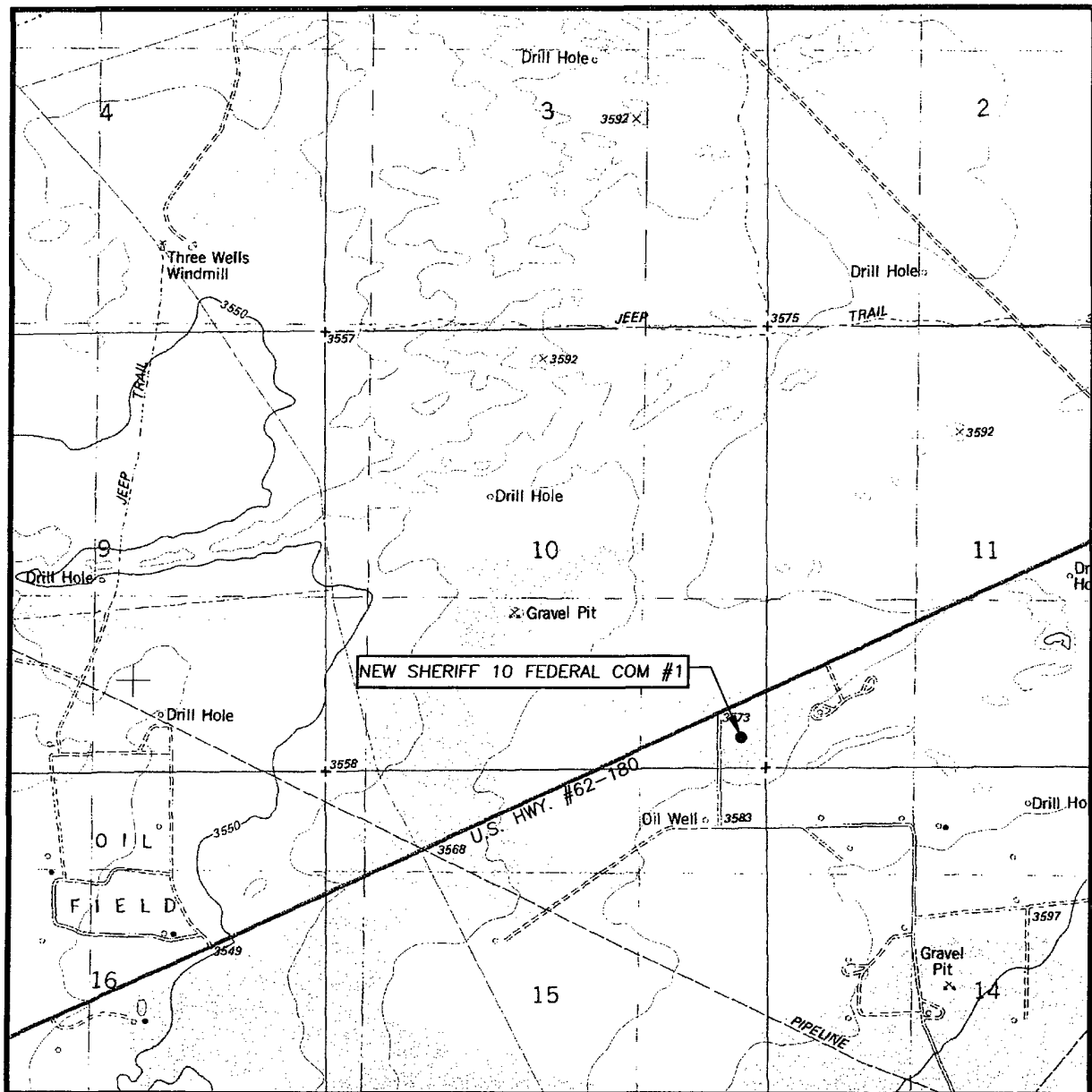


Exhibit B

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LAGUNA GATUNA, N.M. - 10'

SEC. 10 TWP. 20-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 330' FSL & 280' FEL

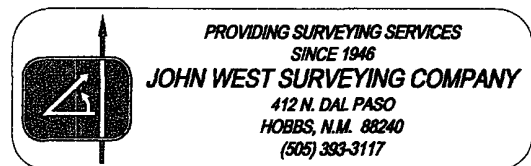
ELEVATION 3575'

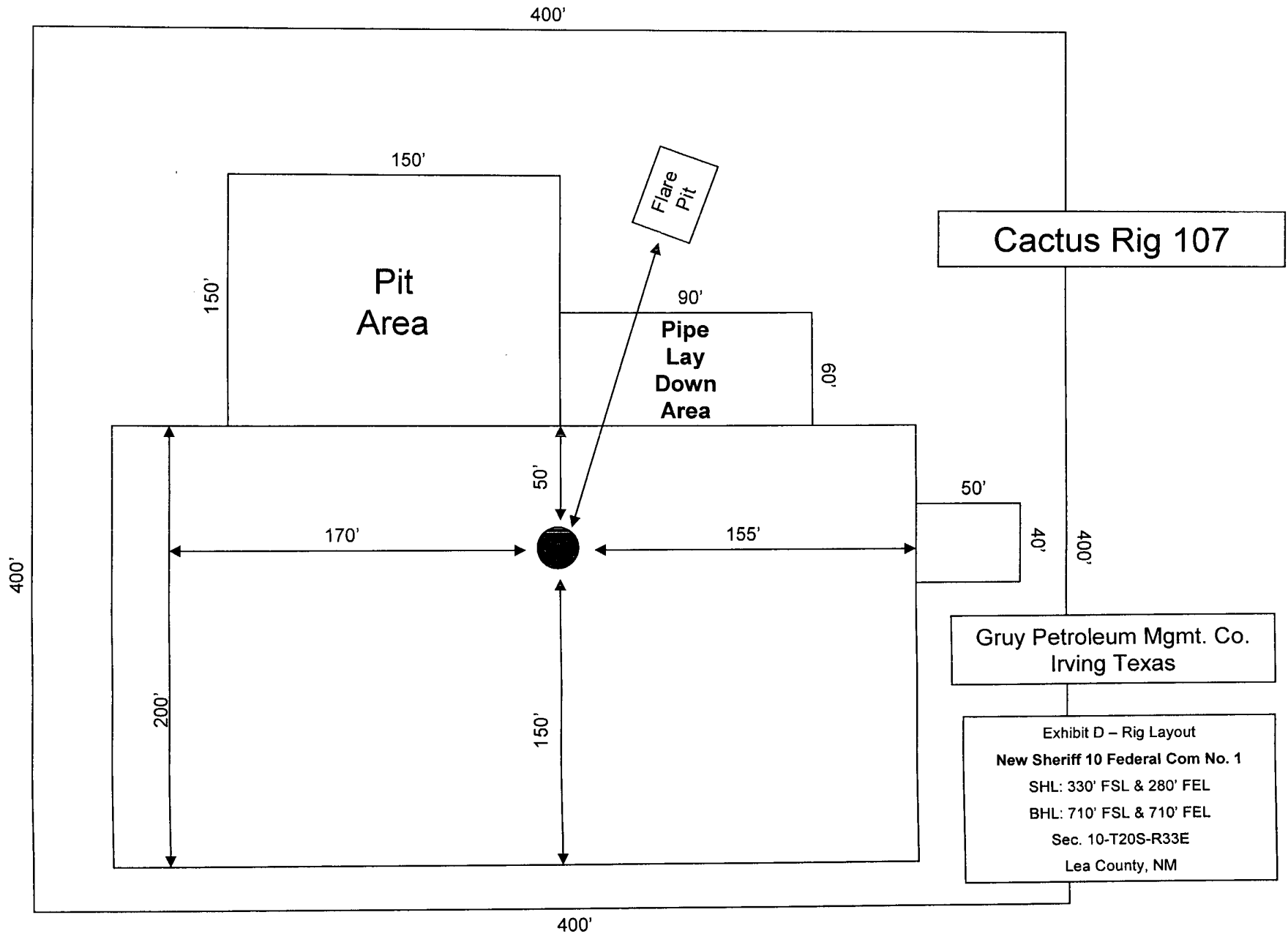
OPERATOR GRUY PETROLEUM
MANAGEMENT COMPANY

LEASE NEW SHERIFF 10 FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP
LAGUNA GATUNA, N.M.

Exhibit C





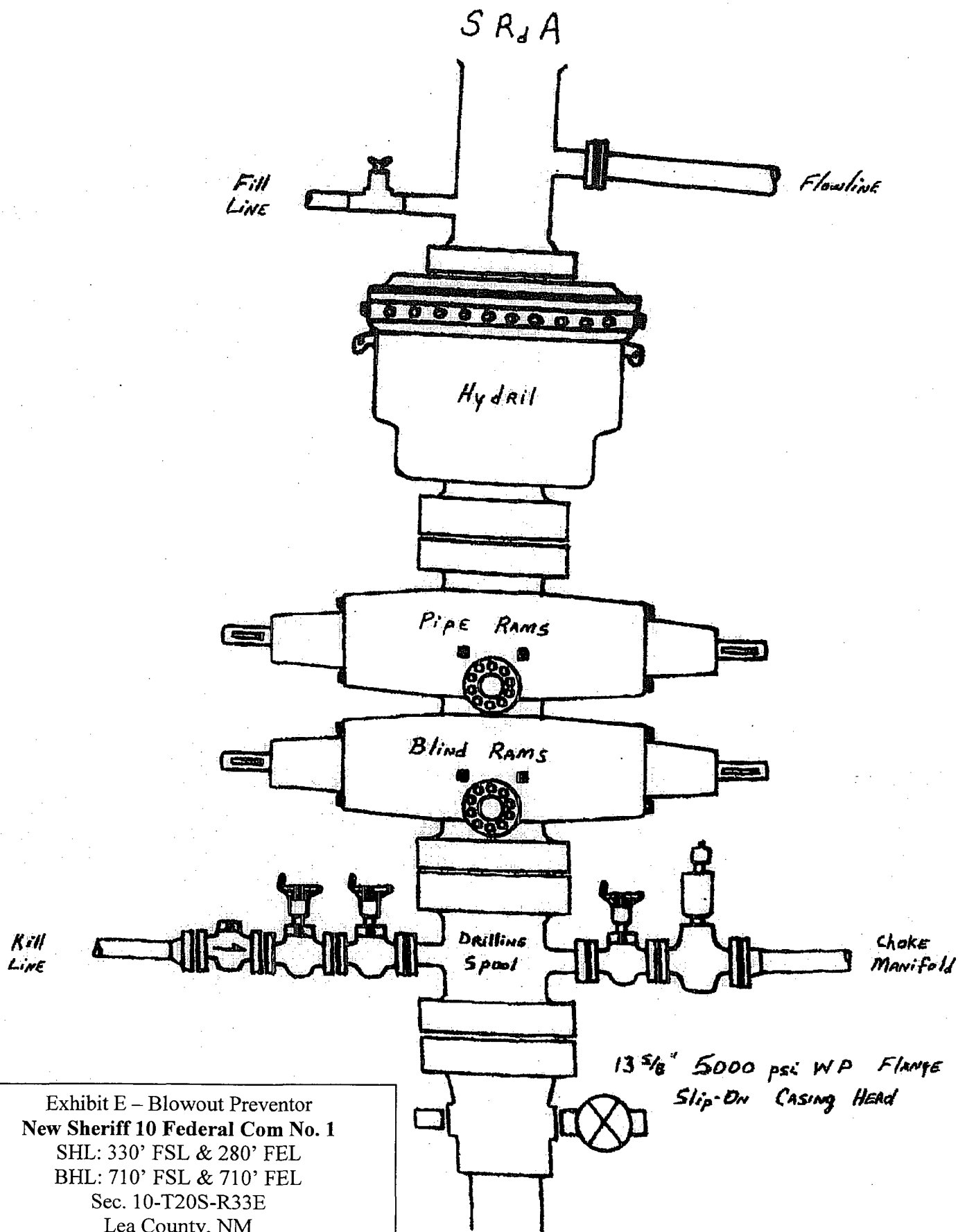


Exhibit E – Blowout Preventor
 New Sheriff 10 Federal Com No. 1
 SHL: 330' FSL & 280' FEL
 BHL: 710' FSL & 710' FEL
 Sec. 10-T20S-R33E
 Lea County, NM

**DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE**

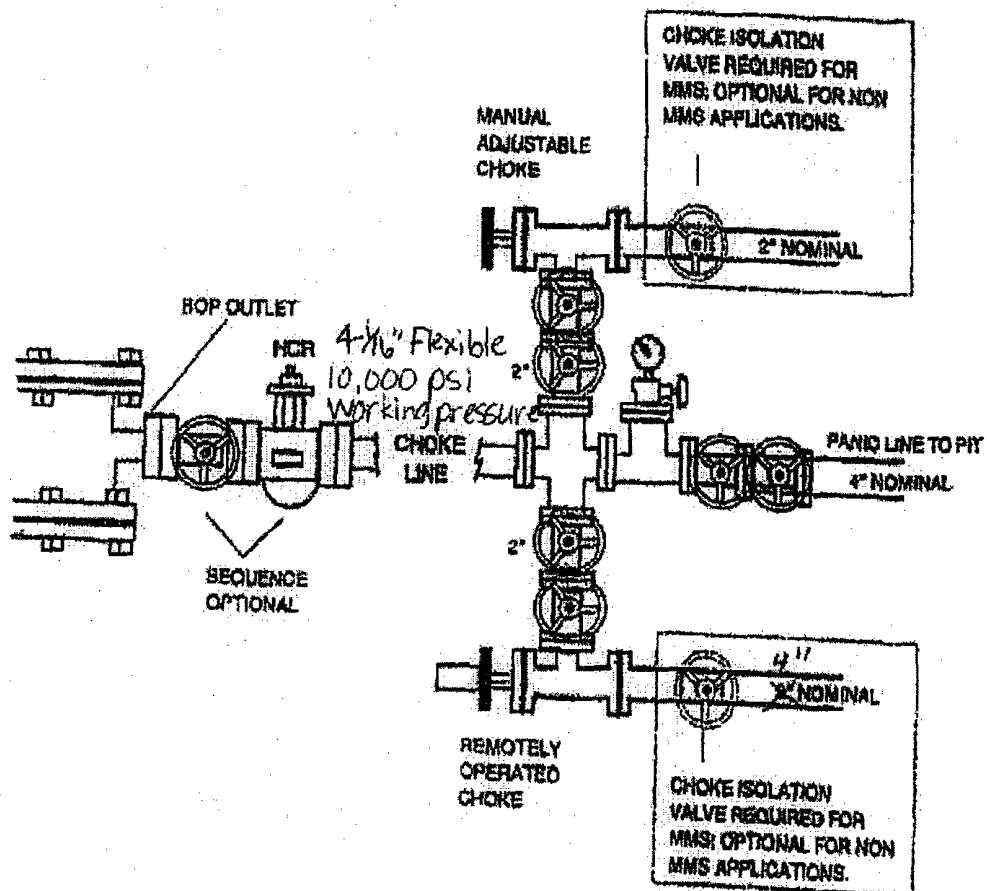


Exhibit E-1 – Choke Manifold Diagram

New Sheriff 10 Federal Com No. 1

SHL: 330' FSL & 280' FEL

BHL: 710' FSL & 710' FEL

Sec. 10-T20S-R33E

Lea County, NM



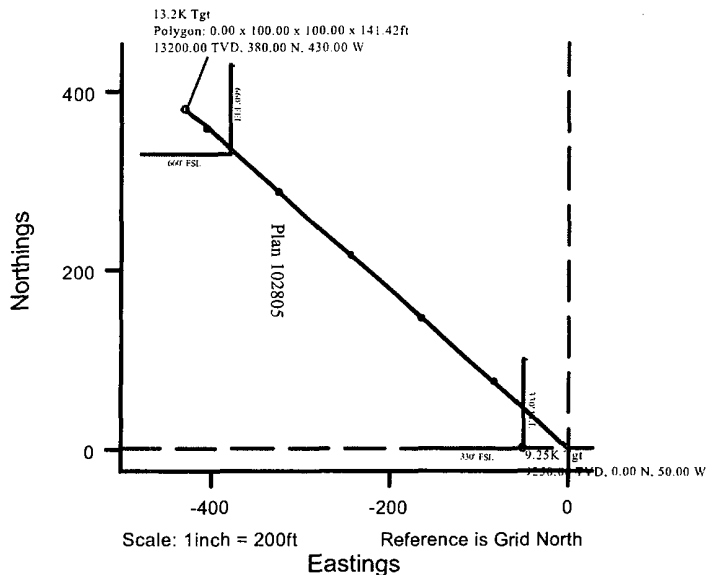
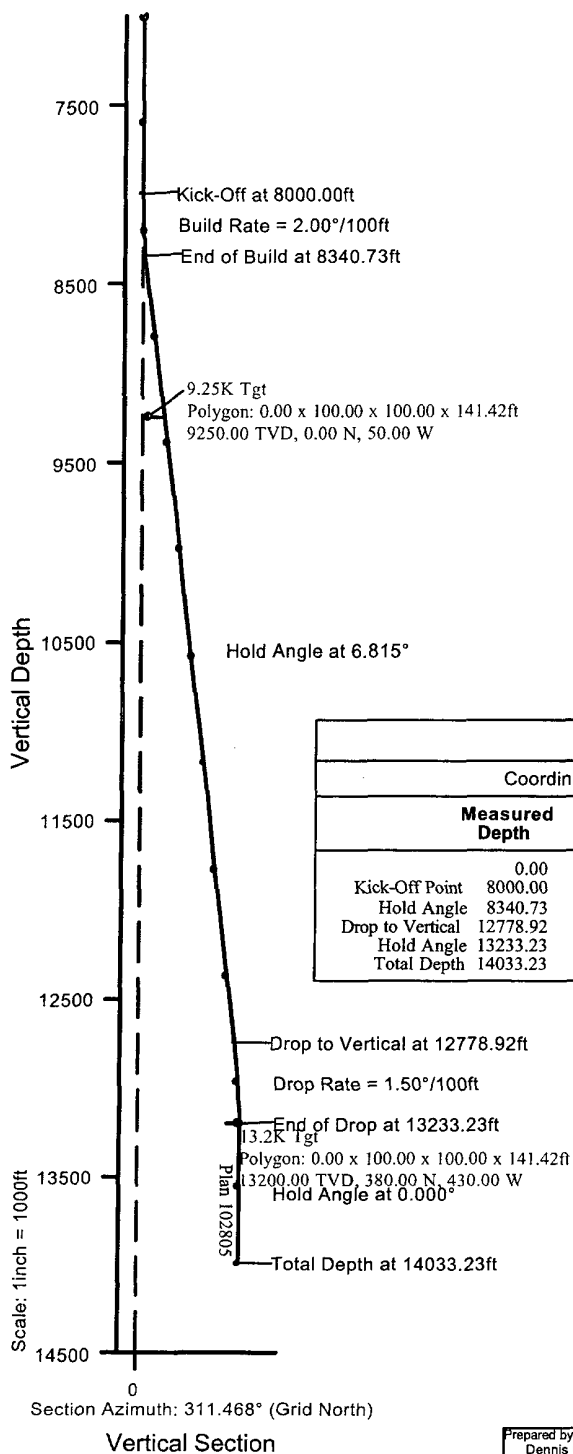
Midwest Hose
& Specialty, Inc.

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

**New Mexico
Lea County
Sec. 10-T20S-R33E
New Sheriff 10 Fed 1
Plan 102805**



New Sheriff 10 Fed 1 Surface Location

RKB Elevation: 3595.00ft above Mean Sea Level
Ref. SE Cor Sec 10: 330.00 N, 280.00 W
Ref. Global Coordinates: 575843.90 N, 712659.50 E
Ref. Geographical Coordinates: 32° 34' 52.3360" N, 103° 38' 34.5837" W

Plan 102805 Proposal Data

Coordinate System : NAD27 New Mexico State Planes, Eastern Zone

	Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Eastings	Vertical Section	Dogleg Rate
Kick-Off Point	8000.00	0.000	0.000	8000.00	0.00 N	0.00 E	0.00	0.00
Hold Angle	8340.73	6.815	311.468	8339.93	13.40 N	15.17 W	20.24	2.00
Drop to Vertical	12778.92	6.815	311.468	12746.76	362.13 N	409.78 W	546.86	0.00
Hold Angle	13233.23	0.000	0.000	13200.00	380.00 N	430.00 W	573.85	1.50
Total Depth	14033.23	0.000	0.000	14000.00	380.00 N	430.00 W	573.85	0.00

Plan 102805 Bottom Hole Location

Ref. RKB(3575'+20'KB): 14000.00ft
Ref. Structure: 13980.00ft
Ref. Mean Sea Level: 10405.00ft
Ref. Wellhead: 380.00 N, 430.00 W
Ref. SE Cor Sec 10: 710.00 N, 710.00 W
Ref. Global Coordinates: 576223.90 N, 712229.50 E
Ref. Geographical Coordinates: 32° 34' 56.1237" N, 103° 38' 39.5802" W

Prepared by:
Dennis Cook

Date/Time:
28 November, 2005 - 15:00

Checked:

Approved:



**Gruy Petroleum Management Co.
New Mexico
Lea County
Sec. 10-T20S-R33E
New Sheriff 10 Fed 1 - Plan 102805**

Revised: 28 November, 2005

**Halliburton Sperry-Drilling
Proposal Report**

28 November, 2005

Surface Coordinates: 575843.90 N, 712659.50 E (32° 34' 52.3360" N, 103° 38' 34.5837" W)
Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone

Surface Coordinates relative to Lovington: 133470.60 S, 86753.31 W (Grid)
Surface Coordinates relative to SE Cor Sec 10: 330.00 N, 280.00 W (Grid)
Kelly Bushing Elevation: 3595.00ft above Mean Sea Level
Kelly Bushing Elevation: 20.00ft above Structure

Proposal Ref: pro9536

HALLIBURTON
Sperry Drilling Services

Proposal Report for Sec. 10-T20S-R33E - New Sheriff 10 Fed 1 - Plan 102805
Revised: 28 November, 2005

Measure	Incl.	Drift	True	Vertical	Vertical	N-S	E-W	Dogleg	Lease Calls	Global Coordinates
(ft)	(Deg)	(Deg)	Depth	Section	Section	(ft)	(ft)	(%/100ft)	FNL-FSL	Grid Y
Depth	Angle	Direction							FEL-FWL	Grid X

0.00	0.000	0.000	0.00	0.00	0.00	0.00 N	0.00 E		330.00 FSL	280.00 FEL	575843.90 N	712659.50 E
Kick-Off at 8000.00ft												
8000.00	0.000	0.000	8000.00	8099.98	1.75	0.00 N	0.00 E	0.00	330.00 FSL	280.00 FEL	575843.90 N	712659.50 E
8100.00	2.000	311.468	8099.98	8099.98	1.16 N	1.31 W	0.00 E	2.00	331.16 FSL	281.31 FEL	575845.06 N	712658.19 E
8200.00	4.000	311.468	8199.84	8199.84	6.98	4.62 N	5.23 W	2.00	334.62 FSL	285.23 FEL	575848.52 N	712654.27 E
8300.00	6.000	311.468	8299.45	8299.45	15.69	10.39 N	11.76 W	2.00	340.39 FSL	291.76 FEL	575854.29 N	712647.74 E
End of Build at 8340.73ft												

Measure (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth (ft)	Vertical Section (ft)	Local Coordinates N-S (ft)	E-W Coordinates (ft)	Dogleg Severit (°/100ft)	FNL-FSL (ft)	FEL-FWL (ft)	Global Coordinates Grid Y (ft)	Grid X (ft)
9800.00	6.815	311.468	9788.89	193.39	128.06 N	144.91 W	0.00	458.06 FSL	424.91 FEL	575971.96 N	712514.59 E
9900.00	6.815	311.468	9888.18	205.26	135.92 N	153.81 W	0.00	455.92 FSL	433.81 FEL	575979.82 N	712505.69 E
10000.00	6.815	311.468	9987.47	217.12	143.78 N	162.70 W	0.00	473.78 FSL	442.70 FEL	575987.68 N	712496.80 E
10100.00	6.815	311.468	10086.77	228.99	151.64 N	171.59 W	0.00	481.64 FSL	451.59 FEL	575995.54 N	712487.91 E
10200.00	6.815	311.468	10186.06	240.85	159.49 N	180.48 W	0.00	489.49 FSL	460.48 FEL	576003.39 N	712479.02 E
10300.00	6.815	311.468	10285.36	252.72	167.35 N	189.37 W	0.00	497.35 FSL	469.37 FEL	576011.25 N	712470.13 E
10400.00	6.815	311.468	10384.65	264.59	175.21 N	198.26 W	0.00	505.21 FSL	478.26 FEL	576019.11 N	712461.24 E
10500.00	6.815	311.468	10483.94	276.45	183.07 N	207.15 W	0.00	513.07 FSL	487.15 FEL	576026.97 N	712452.35 E
10600.00	6.815	311.468	10583.24	288.32	190.92 N	216.04 W	0.00	520.92 FSL	496.04 FEL	576034.82 N	712443.46 E
10700.00	6.815	311.468	10682.53	300.18	198.78 N	224.94 W	0.00	528.78 FSL	504.94 FEL	576042.68 N	712434.56 E
10800.00	6.815	311.468	10781.82	312.05	206.64 N	233.83 W	0.00	536.64 FSL	513.83 FEL	576050.54 N	712425.67 E
10900.00	6.815	311.468	10881.12	323.91	214.50 N	242.72 W	0.00	544.50 FSL	522.72 FEL	576058.40 N	712416.78 E
11000.00	6.815	311.468	10980.41	335.78	222.35 N	251.61 W	0.00	552.35 FSL	531.61 FEL	576066.25 N	712407.89 E
11100.00	6.815	311.468	11079.70	347.65	230.21 N	260.50 W	0.00	560.21 FSL	540.50 FEL	576074.11 N	712399.00 E
11200.00	6.815	311.468	11179.00	359.51	238.07 N	269.39 W	0.00	568.07 FSL	549.39 FEL	576081.97 N	712390.11 E
11300.00	6.815	311.468	11278.29	371.38	245.93 N	278.28 W	0.00	575.93 FSL	558.28 FEL	576089.83 N	712381.22 E
11400.00	6.815	311.468	11377.58	383.24	253.78 N	287.17 W	0.00	583.78 FSL	567.17 FEL	576097.68 N	712372.33 E
11500.00	6.815	311.468	11476.88	395.11	261.64 N	296.07 W	0.00	591.64 FSL	576.07 FEL	576105.54 N	712363.43 E
11600.00	6.815	311.468	11576.17	406.97	269.50 N	304.96 W	0.00	599.50 FSL	584.96 FEL	576113.40 N	712354.54 E
11700.00	6.815	311.468	11675.46	418.84	277.35 N	313.85 W	0.00	607.35 FSL	593.85 FEL	576121.25 N	712345.65 E
11800.00	6.815	311.468	11774.76	430.71	285.21 N	322.74 W	0.00	615.21 FSL	602.74 FEL	576129.11 N	712336.76 E
11900.00	6.815	311.468	11874.05	442.57	293.07 N	331.63 W	0.00	623.07 FSL	611.63 FEL	576136.97 N	712327.87 E
12000.00	6.815	311.468	11973.35	454.44	300.93 N	340.52 W	0.00	630.93 FSL	620.52 FEL	576144.83 N	712318.98 E
12100.00	6.815	311.468	12072.64	466.30	308.78 N	349.41 W	0.00	638.78 FSL	629.41 FEL	576152.68 N	712310.09 E
12200.00	6.815	311.468	12171.93	478.17	316.64 N	358.31 W	0.00	646.64 FSL	638.31 FEL	576160.54 N	712301.19 E
12300.00	6.815	311.468	12271.23	490.03	324.50 N	367.20 W	0.00	654.50 FSL	647.20 FEL	576168.40 N	712292.30 E
12400.00	6.815	311.468	12370.52	501.90	332.36 N	376.09 W	0.00	662.36 FSL	656.09 FEL	576176.26 N	712283.41 E
12500.00	6.815	311.468	12469.81	513.77	340.21 N	384.98 W	0.00	670.21 FSL	664.98 FEL	576184.11 N	712274.52 E
12600.00	6.815	311.468	12569.11	525.63	348.07 N	393.87 W	0.00	678.07 FSL	673.87 FEL	576191.97 N	712265.63 E
12700.00	6.815	311.468	12668.40	537.50	355.93 N	402.76 W	0.00	685.93 FSL	682.76 FEL	576199.83 N	712256.74 E

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates		Dogleg Severit (°/100ft)	Lease Calls		Global Coordinates	
					N-S (ft)	E-W (ft)		FNL-FSL (ft)	FEL-FWL (ft)	Grid Y (ft)	Grid X (ft)

Drop to Vertical at 12778.92ft

12778.92	6.815	311.468	12746.76	546.86	362.13 N	409.78 W	0.00	692.13 FSL	689.78 FEL	576206.03 N	712249.72 E
12800.00	6.498	311.468	12767.70	549.30	363.75 N	411.61 W	1.50	693.75 FSL	691.61 FEL	576207.65 N	712247.89 E
12900.00	4.998	311.468	12867.19	559.32	370.38 N	419.12 W	1.50	700.38 FSL	699.12 FEL	576214.28 N	712240.38 E
13000.00	3.498	311.468	12966.92	566.73	375.29 N	424.67 W	1.50	705.29 FSL	704.67 FEL	576219.19 N	712234.83 E
13100.00	1.998	311.468	13066.80	571.52	378.46 N	428.26 W	1.50	708.46 FSL	708.26 FEL	576222.36 N	712231.24 E
13200.00	0.498	311.468	13166.77	573.70	379.90 N	429.89 W	1.50	709.90 FSL	709.89 FEL	576223.80 N	712229.61 E

End of Drop at 13233.23ft

13233.23	0.000	0.000	13200.00	573.85	380.00 N	430.00 W	1.50	710.00 FSL	710.00 FEL	576223.90 N	712229.50 E
----------	-------	-------	----------	--------	----------	----------	------	------------	------------	-------------	-------------

Total Depth at 14033.23ft

14033.23	0.000	0.000	14000.00	573.85	380.00 N	430.00 W	0.00	710.00 FSL	710.00 FEL	576223.90 N	712229.50 E
----------	-------	-------	----------	--------	----------	----------	------	------------	------------	-------------	-------------

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB(3575' +20' KB). Northings and Eastings are relative to Wellhead.

Based upon Minimum Curvature type calculations, at a Measured Depth of 14033.23ft.,
The Bottom Hole Displacement is 573.85ft., in the Direction of 311.468° (Grid).

Proposal Report for Sec. 10-T20S-R33E - New Sheriff 10 Fed 1 - Plan 102805
Revised: 28 November, 2005

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
8000.00	8000.00	0.00 N	0.00 E	Kick-Off at 8000.00ft
8340.73	8339.93	13.40 N	15.17 W	End of Build at 8340.73ft
12778.92	12746.76	362.13 N	409.78 W	Drop to Vertical at 12778.92ft
13233.23	13200.00	380.00 N	430.00 W	End of Drop at 13233.23ft
14033.23	14000.00	380.00 N	430.00 W	Total Depth at 14033.23ft

North Reference Sheet for Sec. 10-T20S-R33E - New Sheriff 10 Fed 1

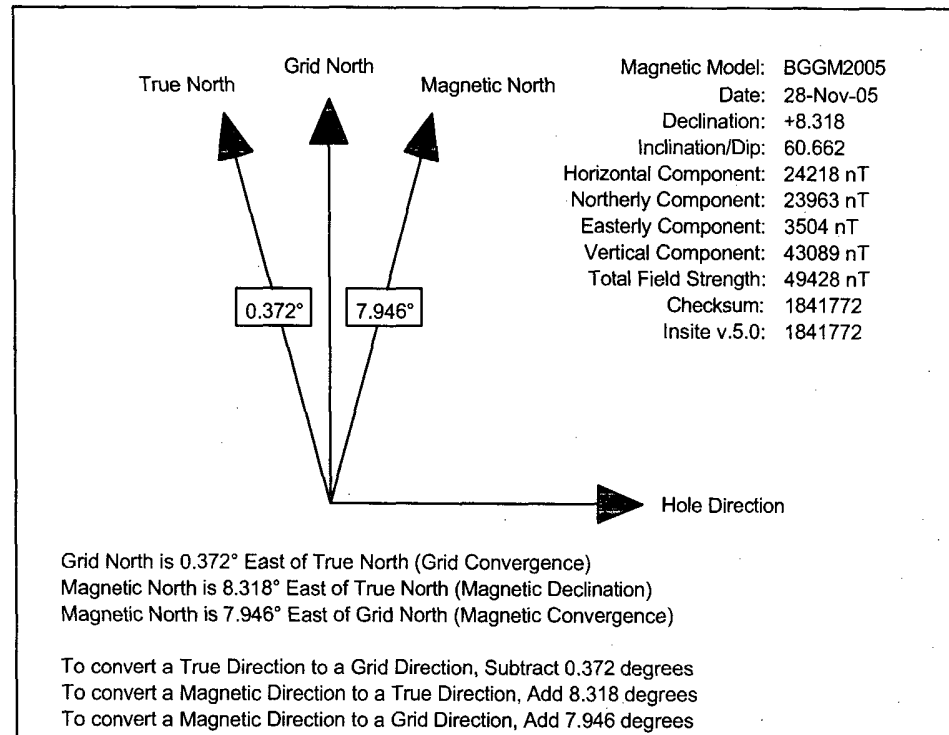
Coordinate System is NAD27 New Mexico State Planes, Eastern Zone, US Foot
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866
Equatorial Radius: 6378206.400m.
Polar Radius: 6356583.800m.
Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection
Central Meridian is -104.333°
Longitude Origin: 0.000°
Latitude Origin: 31.000°
False Easting: 152400.00m
False Northing: 0.00m
Scale Reduction: 0.99990909

Grid Coordinates of Well: 575843.90 N, 712659.50 E
Geographical Coordinates of Well: 32° 34' 52.3360" N, 103° 38' 34.5837" W
Surface Elevation of Well: 3595.00ft
Grid Convergence at Surface is +0.372°
Magnetic Convergence at Surface is -7.946° (28 November, 2005)



CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Gruy Petroleum Management Company

Well Name & No: New Sheriff 10 Federal Com No. 01

Location: Surface: 330' FSL & 280' FEL, BHL: 710' FSL & 710' FEL, Sec. 10, T. 20 S., R. 33 E.

Lease: NMNM 2951

Lea County, New Mexico

.....

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13 3/8 inch; 9 5/8 inch; 5 1/2 inch.

C. BOP Tests

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. A Hydrogen Sulfide (H₂S) Drilling Plan shall be in operations 500 feet or three days prior to drilling into the Top of the Yates estimated to be 3260 Ft.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

7. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

II. CASING:

1. The 13 3/8 inch shall be set at 1355 Feet with cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9 5/8 inch Intermediate casing is to circulate to surface.

3. The minimum required fill of cement behind the 5 1/2 inch Production casing is to circulate to surface.

4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13 3/4 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 5 M psi. prior to drilling below the 9 5/8 inch casing shoe. A variance to test the surface BOP to 1000 psi using the rig pumps is approved.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.

- The test shall be done by an independent service company
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures.
- Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in safe workman-like manner. Hard line connections shall be required.
- Both low pressure and high pressure testing of BOPE is required.

G Gourley 1/9/06

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Cimarex Energy Gray Petroleum Management Co. of Colorado Telephone: 972-443-6489 e-mail address: zfarris@cimarex.com
Address: P.O. Box 140907, Irving, Tx 75014-0907
Facility or well name: New Sheriff 10 Fed Com 1 API #: 30-025-38055 U/L or Qtr/QtrP Sec 10 T20S R33E
County: Lea Latitude 323452.34 N Longitude 1033834.58 W NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Volume 2000 bbl

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

Double-walled, with leak detection? Yes ☐ No ☒ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No

(0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points)

Ranking Score (Total Points)

-0-

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

Date: 11-29-05

Printed Name/Title Zeno Farris Manager Operations Administration

Signature Zeno Farris

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: AUG 08 2006

Printed Name/Title PETROLEUM ENGINEER

Signature [Signature]



Gruy Petroleum Management Co.

600 East Las Colinas Blvd. ♦ Suite 1100 ♦ Irving, TX 75039 ♦ (972) 401-3111 ♦ Fax (972) 443-6450

Mailing Address: P.O. Box 140907 ♦ Irving, TX 75014-0907

A subsidiary of Cimarex Energy Co. • A NYSE Listed Company • "XEC"

November 30, 2005

Oil Conservation Division
District I Office
1625 N. French Drive
Hobbs, NM 88240
Attn: Ms. Donna Mull

Re: Statewide Rule 118
Hydrogen Sulfide Gas Contingency Plan
Proposed New Sheriff 10 Federal Com No. 1 Well

Dear Ms. Mull:

In accordance with NMAC 19.15.3.118 C. (1) governing the determination of the hydrogen sulfide concentration in gaseous mixtures in each of its operations, Gruy Petroleum Management Co. does not anticipate that there will be enough H₂S from the surface to the Morrow/Atoka formations to meet the OCD's minimum requirements for the submission of a contingency plan for the drilling and completion of the following test(s):

New Sheriff 10 Federal Com No. 1 – SHL 330' FSL & 280' FEL
BHL 710' FSL & 710' FEL
Sec. 10 – T20S - R33E

If anything further is needed regarding this issue, or if you have any questions, please feel free to contact the undersigned at 972-443-6489.

Yours truly,

Zeno Farris
Manager, Operations Administration

