

Barry N.M. Oil & Gas, DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB NO. 1004-0136

Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.

LC 065367

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

N/A

8. FARM OR LEASE NAME, WELL NO.

Estill AD Federal No. 4

9. API WELL NO.

APR 08 2005

10. FIELD AND POOL, OR WILDCAT

White City; Penn

11. SEC. T., R., M., BLOCK AND SURVEY

OR AREA

Sec. 19 T24S R26E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

1b. TYPE OF WELL

OIL ☐ GAS ☒

SINGLE ☐

MULTIPLE ☐

WELL WELL

OTHER ZONE

ZONE

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

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.)

SUBJECT TO LIKE
APPROVAL BY STATE

SHL 488' FSL & 2260' FWL BHL 1500' FSL & 1000' FWL Sec 19-24S-26E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

17 miles South of Carlsbad

15. DISTANCE FROM PROPOSED
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, T.O.
(Also to nearest drlg. unit line, if any)

488'

16. NO. OF ACRES IN LEASE

2318.08

17. NO. OF ACRES ASSIGNED
TO THIS WELL

640

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1796'

19. PROPOSED DEPTH

13000'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3463' GR

CARLSBAD CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*
03-30-05

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	J-55 13 3/8"	54.5 #	200'	490 sx circulate
12 1/4" WITNESS	NS-110 9 5/8"	40 # WITNESS	1550'	1200 sx circulate
7 7/8"	N-80/P-110 5 1/2"	17 #	13000'	1620 sx 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 .22 psi per foot or 1500 # whichever is greater, but not to exceed 70% of the manufactures 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 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 Fami TITLE Mgr. Ops. Admin DATE 02-15-05

(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 /s/ Maria Ketson

FOR TITLE FIELD MANAGER

DATE

APR - 5 2005

*See Instructions On Reverse Side

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.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

APPROVAL FOR 1 YEAR

WITNESS 2 3/8" Cement Job

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: Gruy Petroleum Management Co. Telephone: 972-443-6489 e-mail address: zfarris@magnumhunter.com

Address: P.O. Box 140907, Irving, Tx 75014-0907

Facility or well name: Estill AD Federal No. 4 API #: 30-015-3405 U/L or Qtr/Qtr N Sec. 19 T. 24S R. 26E

County: Eddy Latitude 32.1148.23 N Longitude 104.1959.02 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
bbl

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

Double-walled, with leak detection? Yes ☐ 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

50 feet or more, but less than 100 feet

100 feet or more

(20 points)

(10 points)

(0 points)

RECEIVED

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

Yes

No

(20 points)

(0 points)

FEB 22 2005

UNIVERSITY OF ARIZONA

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

Less than 200 feet

200 feet or more, but less than 1000 feet

1000 feet or more

(20 points)

(10 points)

(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: 2-15-05

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: FEB 22 2005

Printed Name/Title

Signature

Wild Dog

Signature

Application to Drill

Gruy Petroleum Management Co.
Estill AD Federal No. 4
Unit Letter N Section 19
T24S - R26E Eddy 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 488' FSL & 2260' FWL Sec. 19- 24S 26E
BHL 1500' FSL & 1000' FWL Sec. 19-24S-26E
- 2 Elevation above sea level: GR 3463'
- 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: 13000'

6 Estimated tops of geological markers:

T/Salt	200'	Cisco Canyon	9928
B/Salt	800'	Strawn	10078
Delaware	1500	Atoka	10388
Bone Spring	6168	Morrow	11,158
Wolfcamp	8098	Barnett	11,768

7 Possible mineral bearing formation:

Strawn	Gas
Atoka	Gas
Morrow	Gas

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-200'	13 3/8"	54.5	8-R	ST&C	J-55
12 1/4"	0-1550'	9 5/8"	40	8-R	ST&C	NS-110
7 7/8"	0-13000'	5 1/2"	17	8-R	ST&C	N-80 / S-95

Application to Drill

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9 Cementing & Setting Depth:

13 3/8"	Surface	Set 200' of 13 3/8" J-55 54.5 ST&C casing. Cement with 490 Sx. Of Class "C" cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 1550' of 9 5/8" NS-110 40# ST&C casing or casing sufficient to reach the base of the reef complex. Cement in two stages, first stage cement with 1000 Sx. Of Class POZ/C Cement + additives, second stage cement with 200 Sx. Of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 13000' of 5 1/2" NP-80 / S-95 17# ST&C casing. Cement in two stages, first stage cement with 1020 Sx. of Class POZ/C Cement + additives. Second stage cement with 600 Sx of Class "C" 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 hole during trips. No abnormal pressure or temperature is expected while drilling.

11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 200'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
200' - 1530'	9.7 - 10.0	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.
1530' - 8300'	8.4 - 9.9	28 - 29	NC	Fresh water. Paper for seepage. Lime for pH (9 - 9.5)
8300' - 10000'	8.45 - 8.9	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 13000'	8.9 - 9.7	29 - 45	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 DST's, 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.
Estill AD Federal No. 4
Unit Letter N Section 19
T24S - R26E Eddy 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. No DST's, or cores are planned at this time.

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 4000 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:

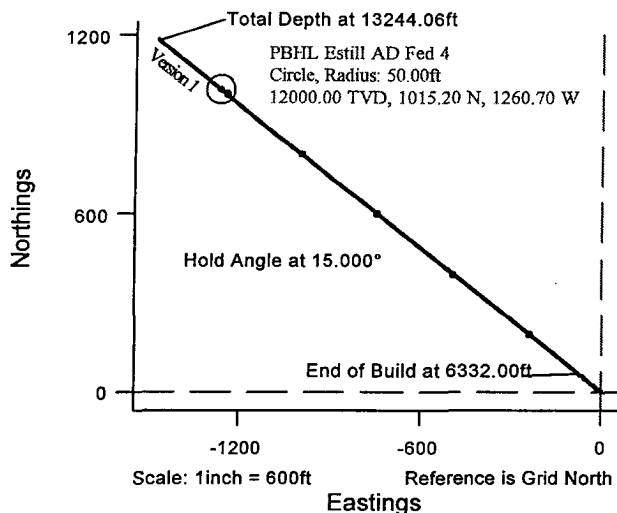
After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Strawn / Morrow / Atoka pay will be perforated and stimulated. The well will be tested and potentialized as a gas well.

Surface Use Plan

Gruy Petroleum Management Co.
Estill AD Federal No. 4
Unit Letter N Section 19
T24S - R26E Eddy County, NM

- 1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From the intersection of Hwy 62-180 and Eddy County road # 722. Go south on Co. Rd. 722 for 0.1 miles to a caliche road on the right. Turn right and go approx. 0.3 miles to a well pad. Go W/SW along a proposed road survey approx. 1854' to location.
- 2 PLANNED ACCESS ROADS: 1854' of access road will be constructed.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"
 - A. Water wells - None known
 - B. Disposal wells - None known
 - C. Drilling wells - None known
 - D. Producing wells - As shown on Exhibit "A"
 - E. Abandoned wells - As shown on Exhibit "A"

New Mexico
Eddy County
Sec. 19-T24S-R26E
Estill AD Federal #4
Version 1



Estill AD Federal #4 Surface Location

RKB Elevation: 3486.00ft above Mean Sea Level
Ref. Global Coordinates: 435290.10 N, 500084.50 E
Ref. Geographical Coordinates: 32° 11' 48.2264" N, 104° 19' 59.0166" W

Vertical Depth

Scale: 1 inch = 2000ft

Kick-Off at 5582.00ft
Build Rate = 2.00°/100ft
End of Build at 6332.00ft

Hold Angle at 15.000°

PBHL Estill AD Fed 4
Circle, Radius: 50.00ft
12000.00 TVD, 1015.20 N, 1260.70 W

Total Depth at 13244.06ft

Section Azimuth: 308.843° (Grid North)

Vertical Section

Version 1 Proposal Data

Coordinate System : NAD27 New Mexico State Planes, Eastern Zone							
	Measured Depth	Incl.	Azm.	Vertical Depth	Northings	Eastings	Vertical Section
Kick-Off Point	0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00
Hold Angle	5582.00	0.000	0.000	5582.00	0.00 N	0.00 E	0.00
Continue Hold	6332.00	15.000	308.843	6323.46	61.22 N	76.03 W	97.62
Total Depth	12208.78	15.000	308.843	12000.00	1015.20 N	1260.70 W	1618.64
	13244.06	15.000	308.843	13000.00	1183.26 N	1469.40 W	1886.59

Version 1 Bottom Hole Location

Ref. RKB(3463'+23'KB): 13000.00ft
Ref. Ground Level: 12944.00ft
Ref. Mean Sea Level: 9514.00ft
Ref. Wellhead: 1183.26 N, 1469.40 W
Ref. Global Coordinates: 436473.36 N, 498615.10 E
Ref. Geographical Coordinates: 32° 11' 59.9361" N, 104° 20' 16.1180" W

Prepared by:
Dennis Cook

Date/Time:
15 February, 2005 - 16:07

Checked:

Approved:



**Gruy Petroleum Management Co.
New Mexico
Eddy County
Sec. 19-T24S-R26E
Estill AD Federal #4 - Version 1**

Sperry-Sun

Proposal Report

15 February, 2005

Proposal Ref: pro8177

Prepared by: Dennis Cook
Checked by:
Approved by:

HALLIBURTON

HALLIBURTON

Gruy Petroleum Management Co.
New Mexico
Eddy County

Proposal Report for Sec. 19-T24S-R26E - Estill AD Federal #4 - Version 1

Measured Depth (ft)	Incl.	Grid Azim.	Sub-Sea Depth (ft)	Vertical Depth (ft)	Local Coordinates Northings (ft)	Eastings (ft)	Global Coordinates Northings (ft)	Eastings (ft)	Dogleg Rate (°/100ft)	Vertical Section	Comment
0.00	0.000	0.000	-3486.00	0.00	0.00 N	0.00 E	435290.10 N	500084.50 E		0.00	
5582.00	0.000	0.000	2096.00	5582.00	0.00 N	0.00 E	435290.10 N	500084.50 E	0.00	0.00	
5600.00	0.360	308.843	2114.00	5600.00	0.04 N	0.04 W	435290.14 N	500084.46 E	2.00	0.06	
5700.00	2.360	308.843	2213.97	5699.97	1.52 N	1.89 W	435291.62 N	500082.61 E	2.00	2.43	
5800.00	4.360	308.843	2313.79	5799.79	5.20 N	6.46 W	435295.30 N	500078.04 E	2.00	8.29	
5900.00	6.360	308.843	2413.35	5899.35	11.06 N	13.73 W	435301.16 N	500070.77 E	2.00	17.63	
6000.00	8.360	308.843	2512.52	5998.52	19.09 N	23.71 W	435309.19 N	500060.79 E	2.00	30.44	
6100.00	10.360	308.843	2611.18	6097.18	29.29 N	36.38 W	435319.39 N	500048.12 E	2.00	46.70	
6200.00	12.360	308.843	2709.22	6195.22	41.65 N	51.72 W	435331.75 N	500032.78 E	2.00	66.40	
6300.00	14.360	308.843	2806.51	6292.51	56.14 N	69.71 W	435346.24 N	500014.79 E	2.00	89.51	
6332.00	15.000	308.843	2837.46	6323.46	61.22 N	76.03 W	435351.32 N	500008.47 E	2.00	97.62	
6400.00	15.000	308.843	2903.14	6389.14	72.26 N	89.74 W	435362.36 N	499994.76 E	0.00	115.22	
6500.00	15.000	308.843	2999.74	6485.74	88.50 N	109.90 W	435378.60 N	499974.60 E	0.00	141.10	
6600.00	15.000	308.843	3096.33	6582.33	104.73 N	130.05 W	435394.83 N	499954.45 E	0.00	166.98	
6700.00	15.000	308.843	3192.92	6678.92	120.96 N	150.21 W	435411.06 N	499934.29 E	0.00	192.86	
6800.00	15.000	308.843	3289.52	6775.52	137.19 N	170.37 W	435427.29 N	499914.13 E	0.00	218.74	
6900.00	15.000	308.843	3386.11	6872.11	153.43 N	190.53 W	435443.53 N	499893.97 E	0.00	244.63	
7000.00	15.000	308.843	3482.70	6968.70	169.66 N	210.69 W	435459.76 N	499873.81 E	0.00	270.51	
7100.00	15.000	308.843	3579.29	7065.29	185.89 N	230.85 W	435475.99 N	499853.65 E	0.00	296.39	
7200.00	15.000	308.843	3675.89	7161.89	202.13 N	251.01 W	435492.23 N	499833.49 E	0.00	322.27	
7300.00	15.000	308.843	3772.48	7258.48	218.36 N	271.16 W	435508.46 N	499813.34 E	0.00	348.15	
7400.00	15.000	308.843	3869.07	7355.07	234.59 N	291.32 W	435524.69 N	499793.18 E	0.00	374.03	
7500.00	15.000	308.843	3965.66	7451.66	250.83 N	311.48 W	435540.93 N	499773.02 E	0.00	399.92	
7600.00	15.000	308.843	4062.26	7548.26	267.06 N	331.64 W	435557.16 N	499752.86 E	0.00	425.80	
7700.00	15.000	308.843	4158.85	7644.85	283.29 N	351.80 W	435573.39 N	499732.70 E	0.00	451.68	

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Gruy Petroleum Management Co.
New Mexico
Eddy County

Proposal Report for Sec. 19-T24S-R26E - Estill AD Federal #4 - Version 1

Measured Depth (ft)	Incl.	Grid Azim.	Sub-Sea Depth (ft)	Vertical Depth (ft)	Local Coordinates Northings (ft)	Eastings (ft)	Global Coordinates Northings (ft)	Eastings (ft)	Dogleg Rate (°/100ft)	Vertical Section	Comment
7800.00	15.000	308.843	4255.44	7741.44	299.52 N	371.96 W	435589.62 N	499712.54 E	0.00	477.56	
7900.00	15.000	308.843	4352.03	7838.03	315.76 N	392.11 W	435605.86 N	499692.39 E	0.00	503.44	
8000.00	15.000	308.843	4448.63	7934.63	331.99 N	412.27 W	435622.09 N	499672.23 E	0.00	529.33	
8100.00	15.000	308.843	4545.22	8031.22	348.22 N	432.43 W	435638.32 N	499652.07 E	0.00	555.21	
8200.00	15.000	308.843	4641.81	8127.81	364.46 N	452.59 W	435654.56 N	499631.91 E	0.00	581.09	
8300.00	15.000	308.843	4738.40	8224.40	380.69 N	472.75 W	435670.79 N	499611.75 E	0.00	606.97	
8400.00	15.000	308.843	4835.00	8321.00	396.92 N	492.91 W	435687.02 N	499591.59 E	0.00	632.85	
8500.00	15.000	308.843	4931.59	8417.59	413.15 N	513.07 W	435703.25 N	499571.43 E	0.00	658.74	
8600.00	15.000	308.843	5028.18	8514.18	429.39 N	533.22 W	435719.49 N	499551.28 E	0.00	684.62	
8700.00	15.000	308.843	5124.77	8610.77	445.62 N	553.38 W	435735.72 N	499531.12 E	0.00	710.50	
8800.00	15.000	308.843	5221.37	8707.37	461.85 N	573.54 W	435751.95 N	499510.96 E	0.00	736.38	
8900.00	15.000	308.843	5317.96	8803.96	478.09 N	593.70 W	435768.19 N	499490.80 E	0.00	762.26	
9000.00	15.000	308.843	5414.55	8900.55	494.32 N	613.86 W	435784.42 N	499470.64 E	0.00	788.15	
9100.00	15.000	308.843	5511.14	8997.14	510.55 N	634.02 W	435800.65 N	499450.48 E	0.00	814.03	
9200.00	15.000	308.843	5607.74	9093.74	526.79 N	654.17 W	435816.89 N	499430.33 E	0.00	839.91	
9300.00	15.000	308.843	5704.33	9190.33	543.02 N	674.33 W	435833.12 N	499410.17 E	0.00	865.79	
9400.00	15.000	308.843	5800.92	9286.92	559.25 N	694.49 W	435849.35 N	499390.01 E	0.00	891.67	
9500.00	15.000	308.843	5897.51	9383.51	575.48 N	714.65 W	435865.58 N	499369.85 E	0.00	917.55	
9600.00	15.000	308.843	5994.11	9480.11	591.72 N	734.81 W	435881.82 N	499349.69 E	0.00	943.44	
9700.00	15.000	308.843	6090.70	9576.70	607.95 N	754.97 W	435898.05 N	499329.53 E	0.00	969.32	
9800.00	15.000	308.843	6187.29	9673.29	624.18 N	775.13 W	435914.28 N	499309.37 E	0.00	995.20	
9900.00	15.000	308.843	6283.89	9769.89	640.42 N	795.28 W	435930.52 N	499289.22 E	0.00	1021.08	
10000.00	15.000	308.843	6380.48	9866.48	656.65 N	815.44 W	435946.75 N	499269.06 E	0.00	1046.96	
10100.00	15.000	308.843	6477.07	9963.07	672.88 N	835.60 W	435962.98 N	499248.90 E	0.00	1072.85	
10200.00	15.000	308.843	6573.66	10059.66	689.11 N	855.76 W	435979.21 N	499228.74 E	0.00	1098.73	

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Gruy Petroleum Management Co.
New Mexico
Eddy County

Proposal Report for Sec. 19-T24S-R26E - Estill AD Federal #4 - Version 1

Measured Depth (ft)	Incl.	Grid Azim.	Sub-Sea Depth (ft)	Vertical Depth (ft)	Local Coordinates Northings (ft)	Eastings (ft)	Global Coordinates Northings (ft)	Eastings (ft)	Dogleg Rate (°/100ft)	Vertical Section	Comment
10300.00	15.000	308.843	6670.26	10156.26	705.35 N	875.92 W	435995.45 N	499208.58 E	0.00	1124.61	
10400.00	15.000	308.843	6766.85	10252.85	721.58 N	896.08 W	436011.68 N	499188.42 E	0.00	1150.49	
10500.00	15.000	308.843	6863.44	10349.44	737.81 N	916.24 W	436027.91 N	499168.26 E	0.00	1176.37	
10600.00	15.000	308.843	6960.03	10446.03	754.05 N	936.39 W	436044.15 N	499148.11 E	0.00	1202.26	
10700.00	15.000	308.843	7056.63	10542.63	770.28 N	956.55 W	436060.38 N	499127.95 E	0.00	1228.14	
10800.00	15.000	308.843	7153.22	10639.22	786.51 N	976.71 W	436076.61 N	499107.79 E	0.00	1254.02	
10900.00	15.000	308.843	7249.81	10735.81	802.75 N	996.87 W	436092.85 N	499087.63 E	0.00	1279.90	
11000.00	15.000	308.843	7346.40	10832.40	818.98 N	1017.03 W	436109.08 N	499067.47 E	0.00	1305.78	
11100.00	15.000	308.843	7443.00	10929.00	835.21 N	1037.19 W	436125.31 N	499047.31 E	0.00	1331.67	
11200.00	15.000	308.843	7539.59	11025.59	851.44 N	1057.34 W	436141.54 N	499027.16 E	0.00	1357.55	
11300.00	15.000	308.843	7636.18	11122.18	867.68 N	1077.50 W	436157.78 N	499007.00 E	0.00	1383.43	
11400.00	15.000	308.843	7732.77	11218.77	883.91 N	1097.66 W	436174.01 N	498986.84 E	0.00	1409.31	
11500.00	15.000	308.843	7829.37	11315.37	900.14 N	1117.82 W	436190.24 N	498966.68 E	0.00	1435.19	
11600.00	15.000	308.843	7925.96	11411.96	916.38 N	1137.98 W	436206.48 N	498946.52 E	0.00	1461.07	
11700.00	15.000	308.843	8022.55	11508.55	932.61 N	1158.14 W	436222.71 N	498926.36 E	0.00	1486.96	
11800.00	15.000	308.843	8119.14	11605.14	948.84 N	1178.30 W	436238.94 N	498906.20 E	0.00	1512.84	
11900.00	15.000	308.843	8215.74	11701.74	965.08 N	1198.45 W	436255.18 N	498886.05 E	0.00	1538.72	
12000.00	15.000	308.843	8312.33	11798.33	981.31 N	1218.61 W	436271.41 N	498865.89 E	0.00	1564.60	
12100.00	15.000	308.843	8408.92	11894.92	997.54 N	1238.77 W	436287.64 N	498845.73 E	0.00	1590.48	
12200.00	15.000	308.843	8505.51	11991.51	1013.77 N	1258.93 W	436303.87 N	498825.57 E	0.00	1616.37	
12208.78	15.000	308.843	8514.00	12000.00	1015.20 N	1260.70 W	436305.30 N	498823.80 E	0.00	1618.64	Target - PBHL Estill AD Fed 4, 50.00 Radius., Current Target
12300.00	15.000	308.843	8602.11	12088.11	1030.01 N	1279.09 W	436320.11 N	498805.41 E	0.00	1642.25	
12400.00	15.000	308.843	8698.70	12184.70	1046.24 N	1299.25 W	436336.34 N	498785.25 E	0.00	1668.13	
12500.00	15.000	308.843	8795.29	12281.29	1062.47 N	1319.40 W	436352.57 N	498765.10 E	0.00	1694.01	
12600.00	15.000	308.843	8891.88	12377.88	1078.71 N	1339.56 W	436368.81 N	498744.94 E	0.00	1719.89	

HALLIBURTON

Gruy Petroleum Management Co.
New Mexico
Eddy County

Proposal Report for Sec. 19-T24S-R26E - Estill AD Federal #4 - Version 1

Measured Depth (ft)	Incl.	Grid Azim.	Sub-Sea Depth (ft)	Vertical Depth (ft)	Local Coordinates Northings (ft)	Eastings (ft)	Global Coordinates Northings (ft)	Eastings (ft)	Dogleg Rate (°/100ft)	Vertical Section	Comment
12700.00	15.000	308.843	8988.48	12474.48	1094.94 N	1359.72 W	436385.04 N	498724.78 E	0.00	1745.78	
12800.00	15.000	308.843	9085.07	12571.07	1111.17 N	1379.88 W	436401.27 N	498704.62 E	0.00	1771.66	
12900.00	15.000	308.843	9181.66	12667.66	1127.40 N	1400.04 W	436417.50 N	498684.46 E	0.00	1797.54	
13000.00	15.000	308.843	9278.26	12764.26	1143.64 N	1420.20 W	436433.74 N	498664.30 E	0.00	1823.42	
13100.00	15.000	308.843	9374.85	12860.85	1159.87 N	1440.36 W	436449.97 N	498644.14 E	0.00	1849.30	
13200.00	15.000	308.843	9471.44	12957.44	1176.10 N	1460.51 W	436466.20 N	498623.99 E	0.00	1875.19	
13244.06	15.000	308.843	9514.00	13000.00	1183.26 N	1469.40 W	436473.36 N	498615.10 E	0.00	1886.59	

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB(3463°+23°KB). Northings and Eastings are relative to Wellhead.
Global Northings and Eastings are relative to NAD27 New Mexico State Planes, Eastern Zone.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Wellhead and calculated along an Azimuth of 308.843° (Grid).

Based upon Minimum Curvature type calculations, at a Measured Depth of 13244.06ft.,
The Bottom Hole Displacement is 1886.59ft., in the Direction of 308.843° (Grid).

Proposal Report for Sec. 19-T24S-R26E - Estill AD Federal #4 - Version 1

Targets associated with this wellpath

Target Name	Target Entry Coordinates			Target Shape	Target Type
	TVD (ft)	Northings (ft)	Eastings (ft)		
PBHL Estill AD Fed 4	12000.00	1015.20 N	1260.70 W	Circle	Current Target
	8514.00	436305.30 N	498823.80 E		
		32° 11' 58.2731" N	104° 20' 13.6891" W		

Mean Sea Level/Global Coordinates:
Geographical Coordinates:

HALLIBURTON

Gruy Petroleum Management Co.
New Mexico
Eddy County

North Reference Sheet for Sec. 19-T24S-R26E - Estill AD Federal #4

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

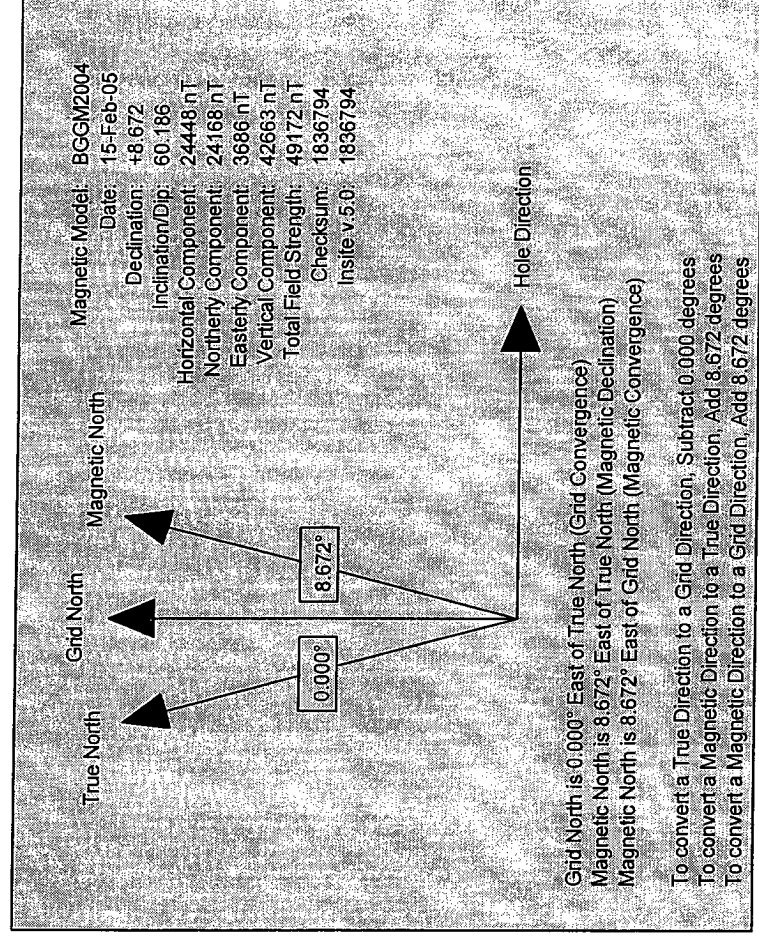
Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

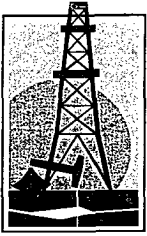
Spheroid is Clarke - 1866
Equatorial Radius: 6378206.400m.
Polar Radius: 6356583.800m.
Inverse Flattening: 294.978698213901

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: 435290.10 N, 500084.50 E
Geographical Coordinates of Well: 32° 11' 48.2264" N, 104° 19' 59.0166" W
Surface Elevation of Well: 3486.00ft
Grid Convergence at Surface is +0.000°
Magnetic Convergence at Surface is -8.672° (15 February, 2005)





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 wholly-owned subsidiary of Magnum Hunter Resources, Inc., a NYSE company MHR

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management
2909 West 2nd Street
Roswell New Mexico 88201-2019
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.: LC - 065347

Legal Description: All Sec 19, T24S-R26E
Containing 640 acres, Eddy County New Mexico

Formation (S): Morrow/Pennsylvanian

Bond Coverage: Nationwide 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: 02/15/05

DISTRICT I

1626 N. FRENCH DR., HOBBBS, 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	Pool Code	Pool Name
		White City; Penn (Gas)
Property Code	Property Name	Well Number
	ESTILL AD FEDERAL	4
OGRID No.	Operator Name	Elevation
162683	GRUY PETROLEUM MANAGEMENT COMPANY	3463'

Surface Location

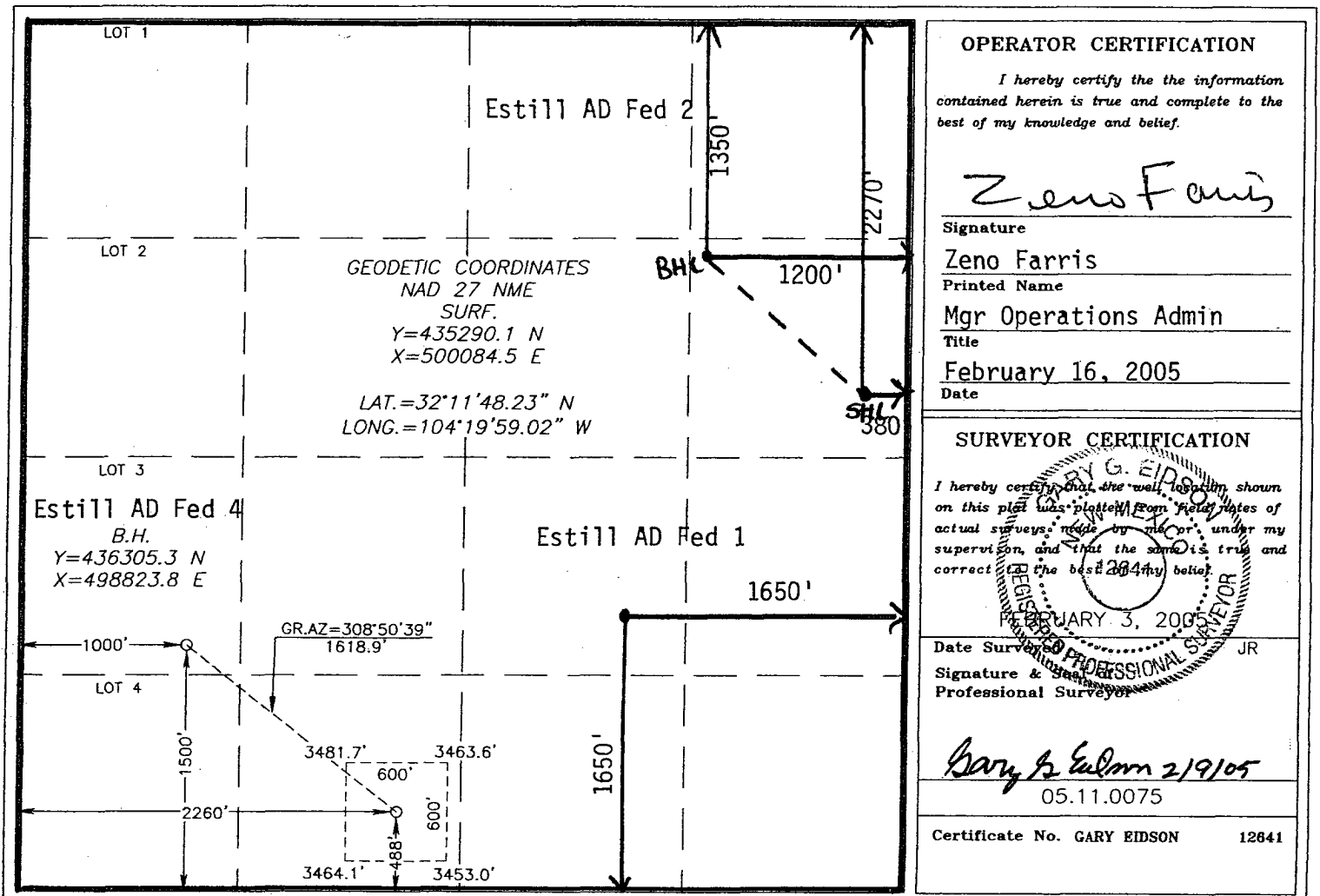
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	19	24-S	26-E		488	SOUTH	2260	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	19	24-S	26-E		1500	SOUTH	1000	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640	Y		

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



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

Zeno Farris

Printed Name

Mgr Operations Admin

Title

February 16, 2005

Date

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.

FEBRUARY 3, 2005

Date Surveyed

Signature & Seal
Professional Surveyor

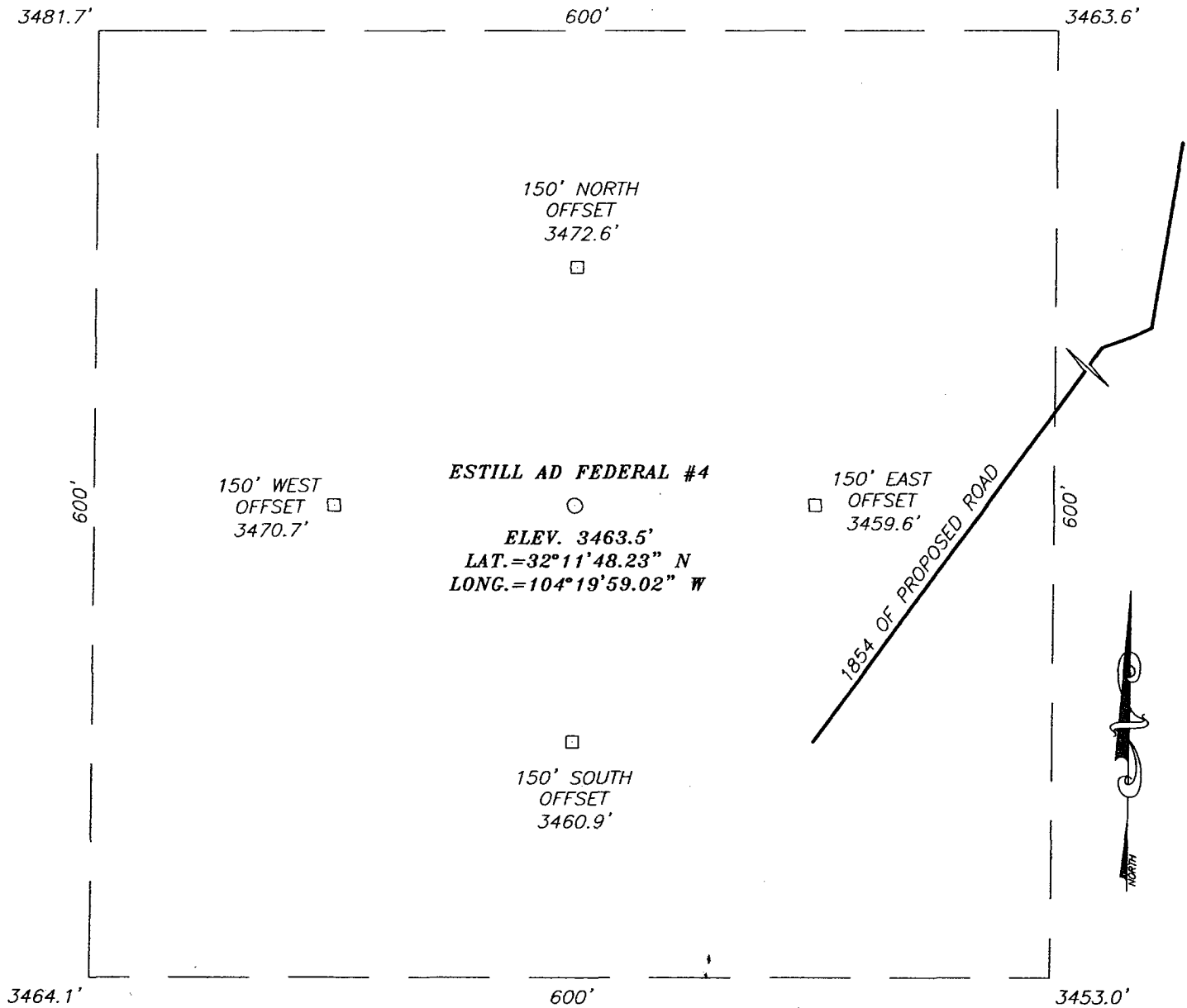
Gary A. Eidsen 2/19/05

05.11.0075

Certificate No. GARY EIDSON

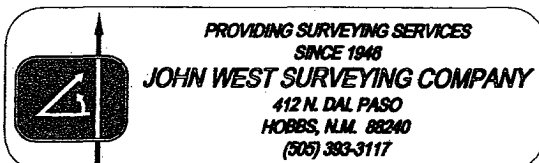
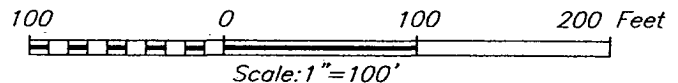
12641

SECTION 19, TOWNSHIP 24 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY.
#62-180 AND CO. RD. #772 (MEANS RD.) GO
SOUTH ON CO. RD. #772 FOR APPROX. 0.1
MILES TO A CALICHE ROAD ON THE RIGHT.
TURN RIGHT AND GO APPROX. 0.3 MILES TO A
WELL PAD. GO W/SW ALONG A PROPOSED
ROAD SURVEY APPROX. 1854' TO THIS
LOCATION.



PROVIDING SURVEYING SERVICES
SINCE 1948

JOHN WEST SURVEYING COMPANY

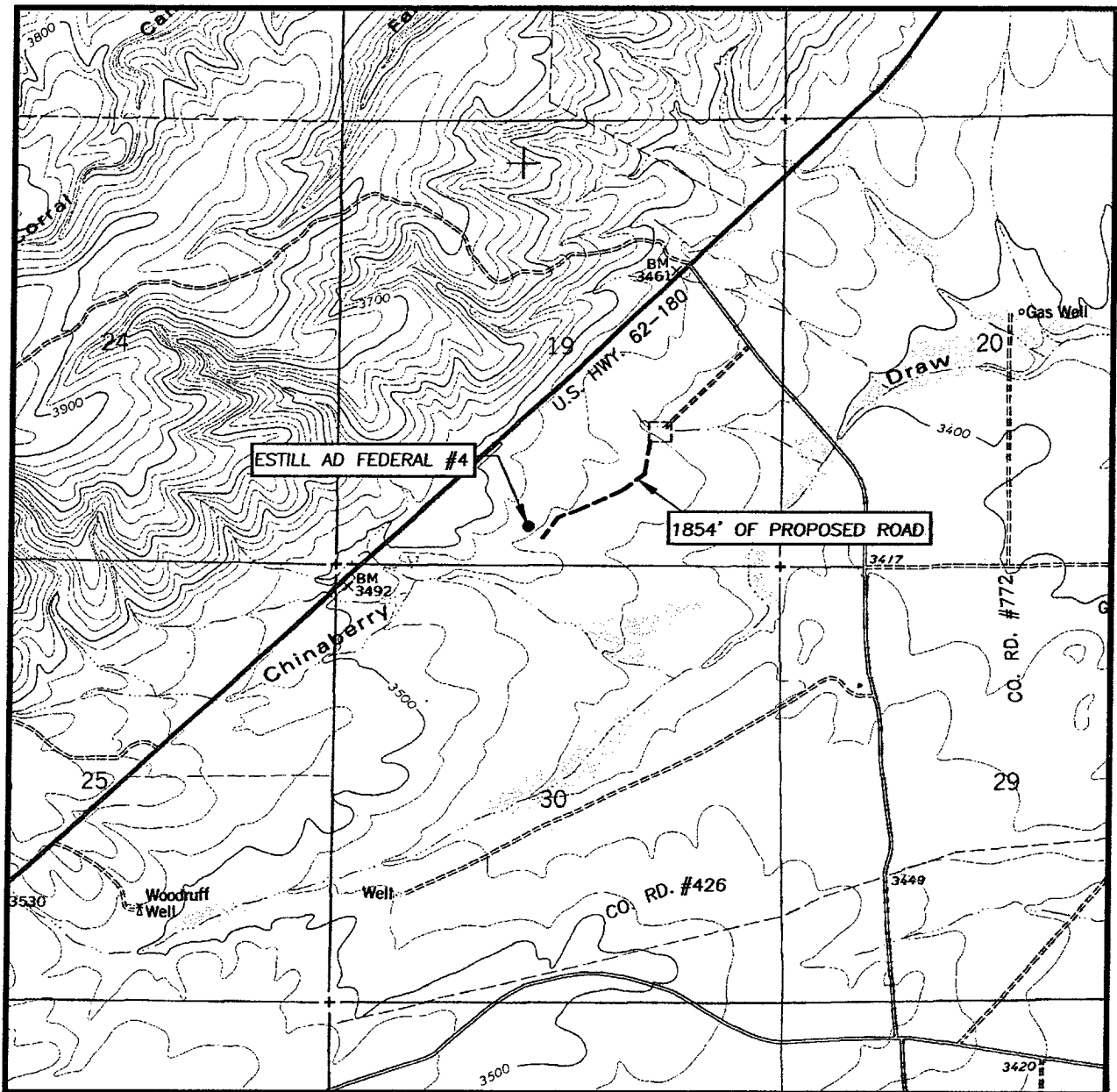
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

GRUY PETROLEUM MANAGEMENT COMPANY

ESTILL AD FEDERAL #4 WELL
LOCATED 488 FEET FROM THE SOUTH LINE
AND 2260 FEET FROM THE WEST LINE OF SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 2/3/05		Sheet 1 of 1 Sheets	
W.O. Number: 05.11.0075		Dr By: J.R.	Rev 1:N/A
Date: 2/8/05	Disk: CD#5	05110075	Scale: 1"=100'

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BLACK RIVER VILLAGE, N.M. - 20'

SEC. 19 TWP. 24-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 488' FSL & 2260' FWL

ELEVATION 3463'

OPERATOR GRUY PETROLEUM
MANAGEMENT COMPANY

LEASE ESTILL AD FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
BLACK RIVER VILLAGE, N.M.

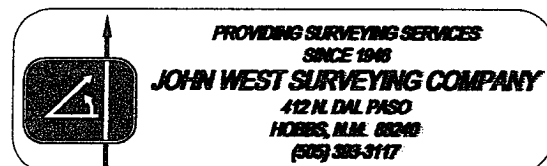
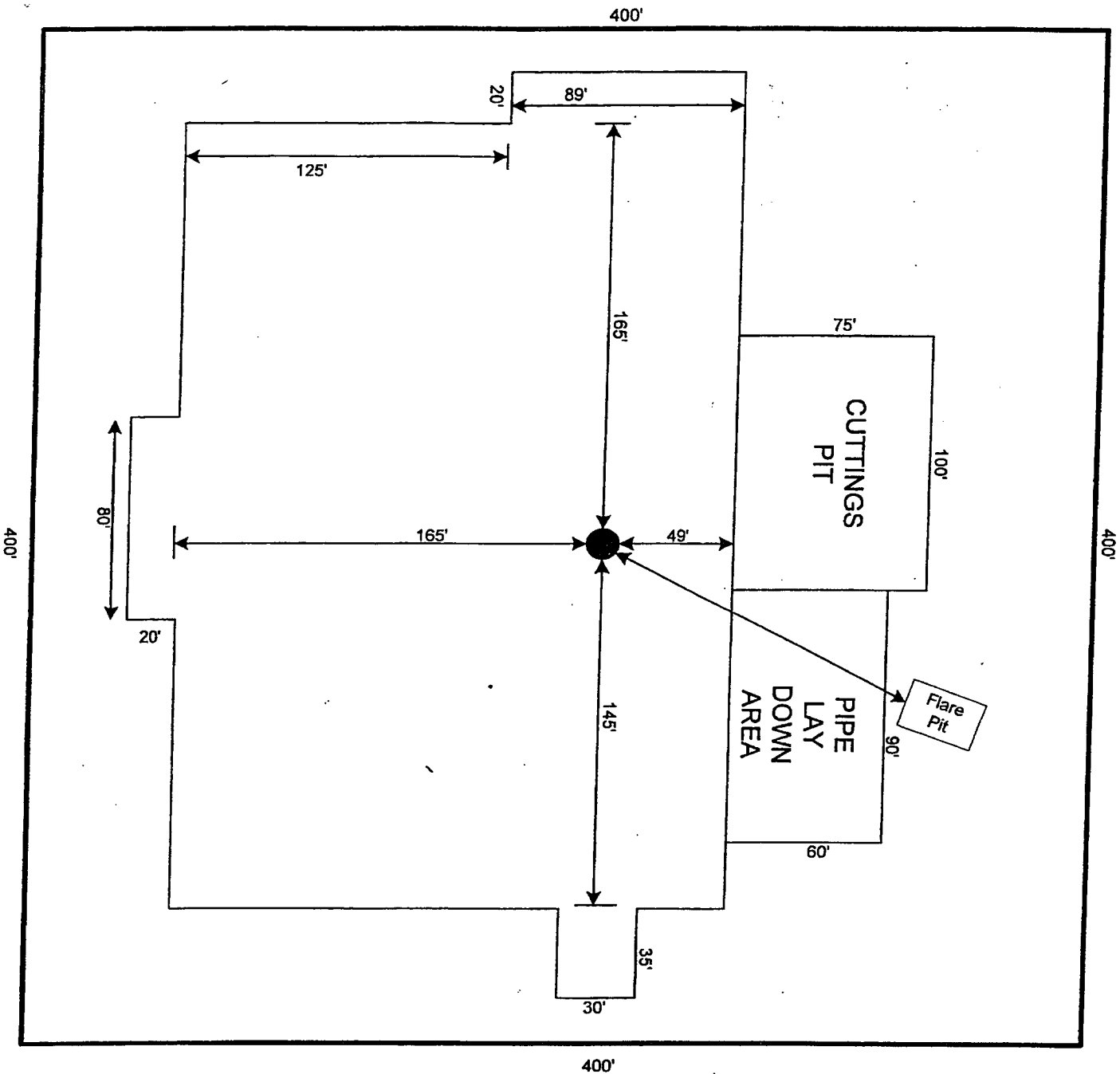


Exhibit C



RIG # 80

Exhibit D - Rig Layout Plan
 Estill AD Federal No. 4
 Gryy Petroleum Management Co.
 SHL: Sec 19-T24S-R26E
 488' FSL & 2260' FWL
 BHL: Sec 19-T24S-R26E
 1500' FSL & 1000' FWL
 Eddy County, NM

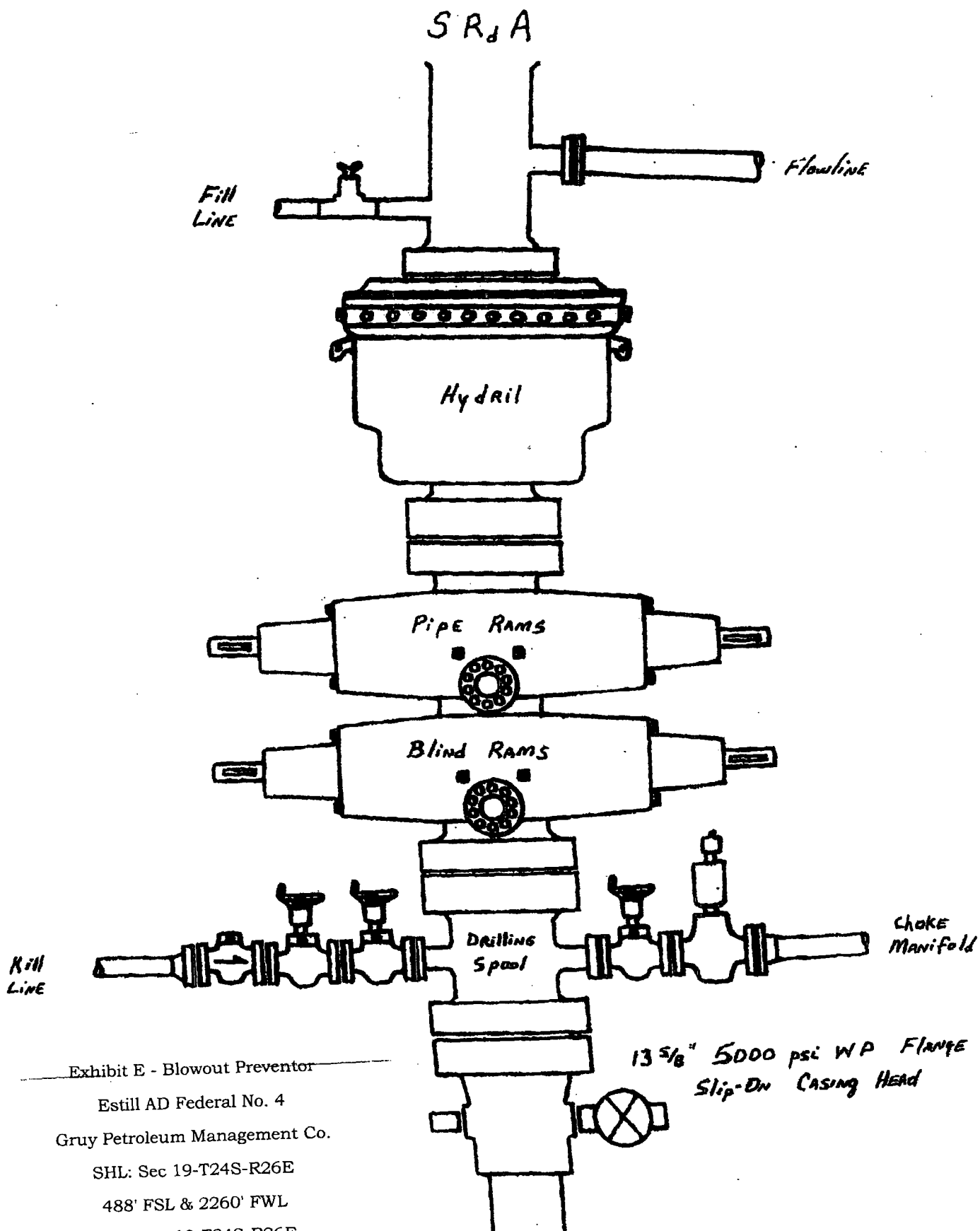


Exhibit E - Blowout Preventor

Estill AD Federal No. 4

Gruy Petroleum Management Co.

SHL: Sec 19-T24S-R26E

488' FSL & 2260' FWL

BHL: Sec 19-T24S-R26E

1500' FSL & 1000' FWL

Eddy County, NM

DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE

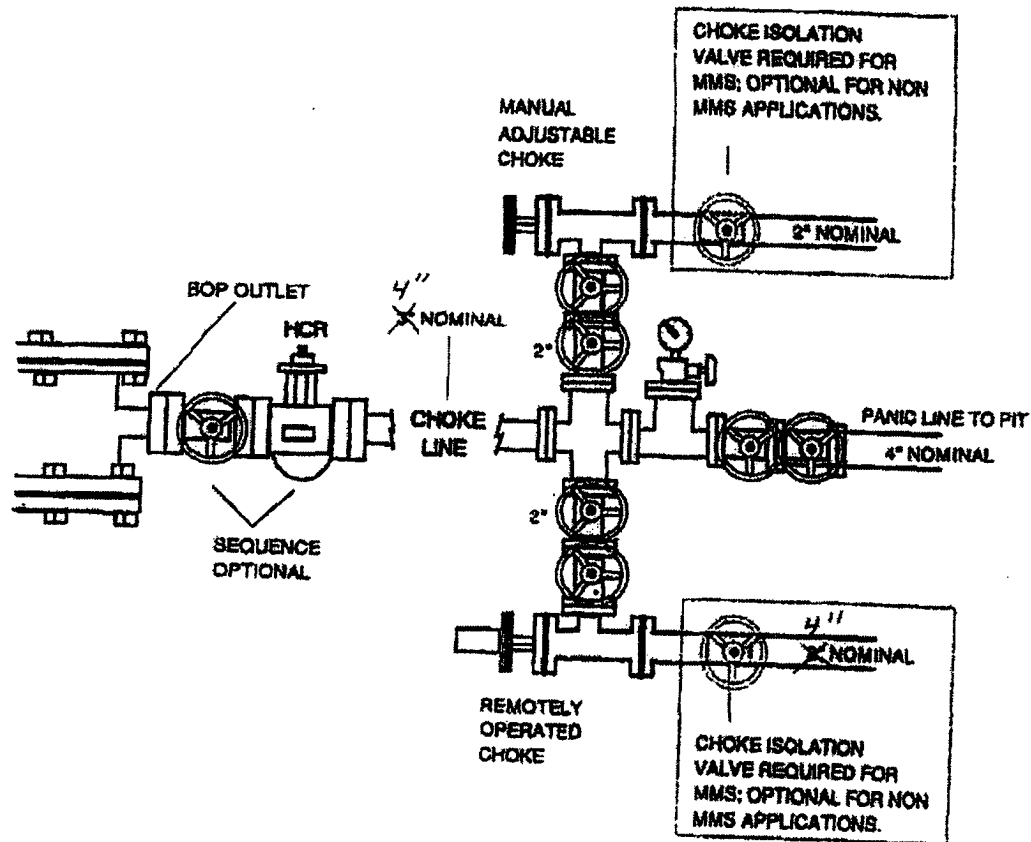


Exhibit E-1 - Choke Manifold Diagram

Estill AD Federal No. 2

Gruy Petroleum Management Co.

SHL: Sec 19-T24S-R26E

488' FSL & 2260' FWL

BHL: Sec 19-T24S-R26E

1500' FSL & 1000' FWL

Eddy County, NM



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

April 14, 2005
Gruy Petroleum Corporation
P.O. Box 140906
Irving, TX 75014
Attn: Mr. Zeno Farris

**RE: Gruy Petroleum Corporation, Estill 'AD' Federal #4, located in Unit A
(488' FSL & 2260' FWL, Surface Location) of Section 19, Township 24 South Range 26
East Eddy County, New Mexico.**

Dear Mr. Farris,

In regards to conditions for approval of the above captioned well, the New Mexico Oil Conservation Division (NMOCD) will require the following:

This is for Gruy Petroleum Corporation to take samples from the flow line of the drilling mud every 100' in order to determine the chloride levels from the surface casing setting depth of @ 200' to the projected 9 5/8" intermediate casing setting depth of @ 1550'. Please note that we are aware that lost circulation in drilling of the reef may occur and the collection of samples may not be possible at times. In addition, Gruy Petroleum is to drill said well with a 'fresh water mud' system from surface to the as intermediate casing point stated in your APD.

The results of this data are to be submitted to the NMOCD and the Bureau of Land Management. Please call our office if you have any questions regarding this matter.

Respectfully yours,

Bryan G. Arrant
PES

CC: Tim Gum-District Supervisor-Artesia
Bureau of Land Management
Well File