

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

Form C-101  
May 27, 2004

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

DEC 28 2007  
Submit to appropriate District Office  
**OCD-ARTESIA**  
☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address Strata Production Company P.O. Box 1030, Roswell, New Mexico 88202-1030		<sup>2</sup> OGRID Number 21712
<sup>3</sup> Property Code 10720		<sup>4</sup> Property Name Chaparral State
<sup>5</sup> Proposed Pool 1 Outpost, Delaware		<sup>6</sup> Well No. #3
<sup>7</sup> Surface Location		<sup>8</sup> Proposed Pool 2

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	32	19-S	29-E		330'	South	330'	West	Eddy

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3276 GL
<sup>16</sup> Multiple	<sup>17</sup> Proposed Depth 5300'	<sup>18</sup> Formation Delaware	<sup>19</sup> Contractor	<sup>20</sup> Spud Date Dec. 31, 2007
Depth to Groundwater 50' or more but less than 100' no 0 nts		Distance from nearest fresh water well Less than 1000' from all other water sources 0 nts		Distance from nearest surface water 1000' or more 0 nts
Pit Liner: Synthetic <input checked="" type="checkbox"/> 20 mils thick Clay <input type="checkbox"/> Pit Volume 10000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
16"	13 3/8"	54.5# L-55	300'	Circ	Circ
11"	8 5/8"	32# L-55	1200'	Circ	Circ
7 7/8"	5 1/2"	17# L-55	5300'	270	1000'

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.  
BOP Program: A 5000# BOP will be installed on 8 5/8" casing and tested daily for operations. (Exhibit #4)  
The proposed well will be drilled to depth of 5300'. Mud system will consist of fresh water and salt gel in a lined pit. Logs will be ran from T.D. to the top of 8 5/8" casing at 1200'.  
  
0' to 300' Fresh water, spud mud, lime for PH and LCM as needed for seepage.  
300' to 1200' Brine water, lime for PH and LCM as needed for seepage.  
1200' to 5300' Fresh water and cut brine, lime for PH and LCM as needed for seepage.  
Caustic for PH, Starch for WL control and LCM as needed for seepage

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .	<b>OIL CONSERVATION DIVISION</b>	
Signature: <i>Frank S. Morgan</i>	Approved by: <b>BRYAN G. ARANT</b>	
Printed name: Frank S. Morgan	Title: <b>DISTRICT II GEOLOGIST</b>	
Title: Vice-President Operations	Approval Date: <b>DEC 28 2007</b>	Expiration Date: <b>DEC 28 2008</b>
E-mail Address:		
Date: December 10, 2007	Phone: (575) 622-1127	Conditions of Approval Attached <input type="checkbox"/>

**17 OPERATORS CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unless mineral interest to the land includes 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Frank S. Morgan* 12/30/07  
Signature Date

**FRANK S. MORGAN**  
Printed Name

**18 SURVEYOR CERTIFICATION  
SURFACE LOCATION ONLY**

I hereby certify that the well location shown on this plot 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.  
Signature and Seal of Professional Surveyor:

**OCTOBER 6, 2007**  
Date of Survey

**DAN R. REDDY**  
NEW MEXICO  
5412  
LAND SURVEYOR  
REGISTERED PROFESSIONAL ENGINEER

*Dan R. Reddy*

Certificate Number: **DAN R. REDDY NM PE&PS #5412**

# Strata Production Company

P.O. Box 1030  
Roswell, NM 88203-1030

Prepared: Frank S. Morgan

## WELL PROGRAM

WELL NAME: **Chapparral State #3**

A.F.E. NO: **CH-32-19-29-03**

LOCATION:

330' FSL & 330' FWL Sec. 32 T19S - R29E Eddy, Co.

DIRECTIONS:

Directions from Artesia: East on Hwy 82 eight miles and turn right on CR 204. Travel six miles and turn right on CR 206. Travel eight miles to CR 235, left on Curry Comb Rd. Travel four miles to booster station. Turn south on cliché road four miles to location.

ELEVATION:

3276' GL Lat. N32.61090 Lon. W104.104501

FORMATIONS:

DEPTH

SUBSEA

FORMATIONS:

DEPTH

SUBSEA

Surface	0-350'	2926'	San Andres	2790-5180'	(-1905')
Top of Salt	350-990'	2285'	TO B-Spring	5180-TD	(-2025')
Base of Salt	990-1160'	2115'	TD	5300'	(-2025')
Yates	1160-1980'	1295'			
Queen	1980-2280'	995'			
Greyberg	2280-2790'	485'			

SAMPLES:

10' Samples from surface casing to T.D. 5' samples thru shows to T.D.

DRLG. TIME:

1' Drilling time by Geolograph from intermediate casing to T.D.

LOGS:

GR-CNL-LDT-DLL-MSFL Int. to T.D. GR-CNL Surface to T.D.

CORES:

DST's:

None Planned

REMARKS:

Mud-logger on from Intermediate casing to T.D.

RIG:

CASING PROGRAM

INTERVALS

LENGTH

CASING

BURST

COLLAPSE

TENSION

TORQUE  
FT-LBS  
OPTIMUM

SURFACE

0-300'

13 3/8" 48# H-40 ST&C

1730

770

322,000

3220

INTERMEDIATE

0-1200'

8 5/8" 24# J-55 ST&C

2950

1370

240,000

2440

NOTE:

PRODUCTION

0-5300'

5 1/2" 17# J-55 LT&C R-3

5320

4910

247,000

2290

WELLHEAD

AFS Energy Services Jason Mason cell (575) 703-5164

**CEMENTING PROGRAM**

<u>HOLE SIZE</u>	<u>CASING</u>	<u>DEPTH</u>	<u>%EXCESS</u>	<u>CEMENT</u>	<u>YIELD</u>
<b>SURFACE</b>					
16"	13 3/8"	300'	CIRC	145 sks. 35:65 Cl "C"+ 6% D-20 3 pps D24+ 3% S1+0.025 pps D130 Mix Weight 12.6 PPG	1.99 cuft/sk
				200 sks. Cl "C"+2% S1+0.025 pps D130 Mix Weight 14.8 Mix Water 10.51 gal./sk.	1.34 cuft/sk
<b>INTERMEDIATE</b>					
11"	8 5/8"	1200'	CIRC	170 sks. 35:65 Poz: Cl "C"+5% D44+ 6% D20+0.025 pps D130 Mix Weight 12.6 PPG Mix Water 11.19 gal./sk.	1.34 cuft/sk
				200 sks. Cl "C" + 1% S1+ 0.25 pps D130 Mix Weight 14.8 PPG Mix Water 6.29 gal./sk.	1.33 cuft/sk
<b>PRODUCTION</b>					
7 7/8"	5 1/2"	5300'	30%	415 sks. CemCrete Blend 10/60 (D961/D124)+0.03 gpsb M45+0.05 gpsb D604AM+0.03gpsb D801+ 2% bwob D153 0.125 pps D130 Mix Weight 10.52 PPG Mix Water 9.05 gal./sk.	2.27cuft/sk

**CASING EQUIPMENT  
SURFACE**

Float equipment. P&P Oil Tool Services. Owen Puckett cell (575) 365-8580  
Insert float, float shoe, 13 3/8" wooden plug, 3 centralizers and 1 limit clamp.

**INTERMEDIATE**

Insert float, float shoe, 6 centralizers, 1 limit clamp and plug.  
Set 3 centralizers on bottom. 3 inside 13 3/8" casing.

**PRODUCTION**

Float collar, float shoe, 15 centralizers, 1 limit clamp.

**MUD PROGRAM**

<u>INTERVAL</u>	<u>WEIGHT</u>	<u>VIS. (SEC)</u>	<u>PH</u>	<u>W.L.(CC)</u>	<u>TYPE MUD AND ADDITIVES</u>
0-300'	8.3-9.0#/gal	34-36 sec	10	NC	Spud with fresh water adding Gel:Lime at a ratio of 10.1 for Vis. At 34-36 sec/ 1000. Paper for seepage. For lost circ. Pump pit of 40 Vis F/W gel: Soda Ash (10:1) containing 12-15#/bbl LCM.
0-1200'	10#/gal	28-30 sec	10	NC	Drill with native fluid/brine. Add Lime for Ph 10 Paper for seepage.
1200'-5300'	10.0#/gal	28-30 sec	10	20 cc	Drill with native fluid from Inter. Add caustic soda for Ph control. At 3500' add starch to reduce filtrate to 20 cc. Adjust vis. To keep hole clean. Csg. Pt. Pump a 100 bbl sweep of 40 vis/20cc around before POH to log and run casing.

**NOTIFICATION**

<u>NAME</u>	<u>TITLE</u>	<u>OFFICE PHONE</u>	<u>Ext.</u>	<u>HOME PHONE</u>	<u>MOBILE PHONE</u>	<u>FAX</u>
FRANK MORGAN	VICE PRESIDENT	622-1127	14		365-7757	623-3533
MARK MURPHY	PRESIDENT	622-1127				

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**STRATA PRODUCTION COMPANY**  
CHAPARRAL STATE #3  
330' FSL & 330' FWL  
Section 32-T19S-R29E  
Eddy County, New Mexico

This plan is submitted with Form C-101 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 restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

1. Existing Roads:

- A. Exhibit #3 is a road map showing the location of the proposed well. Exhibit #3A is a topographic map showing the location of the proposed well and access road Existing roads are highlighted in red and proposed roads are highlighted in yellow.
- B. Directions to location from Artesia: East on Hwy 82 eight miles and turn right on CR 204. Travel six miles and turn right on CR 206. Travel eight miles to CR 235, turn left, travel to Curry Comb Rd. Travel four miles to booster station. Turn south on cliché road and travel four miles to location.

2. Proposed Access Road:

- A. 1600' of new road will be needed.
- B. Access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.

3. Location of Existing and/or Proposed Facilities:

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, a production facility will be constructed with heater-treater and tank storage.
- C. All production vessels left on location will be painted to conform to BLM painting stipulations within 180 days of installation.

4. Location and Type of Water Supply

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

5. Source of Construction Materials

All material required for construction of the drilling pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

6. Methods of Handling Waste Disposal:

- A. Drill cuttings not retained for evaluation purposes will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit prior to closure.
- C. Water produced during operations will be disposed of in the reserve pit.
- D. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- E. Current regulations regarding the proper disposal of human waste will be followed.
- F. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

7. Ancillary Facilities

There are no ancillary facilities within the immediate vicinity of the proposed well site.

8. Well Site Layout

- A. A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad, pits, and location of major rig components are shown.
- B. The reserve pit will be lined with a high quality plastic sheeting to prevent migration of fluids.
- C. The pad dimension of 350'X 250' has been staked and flagged.

9. Plans for Restoration of Surface

- A. Upon cessation of the proposed operations, if the well is abandoned, the location and road will be ripped and re-seeded. The reserve pit area, after allowing to dry will be leveled. The entire location will be restored to the original contour as much as reasonable possible. All trash, garbage, and pit lining will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonable possible. All restoration work will be completed within 180 days of cessation of activities.
- B. The disturbed area will be restored by re-seeding during the proper growing season.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. The reserve pit will be fenced on the fourth side after the drilling rig is removed to prevent the endangerment of livestock. The fence will remain in place until the pit area has been leveled and restored.
- D. Upon cessation of the proposed operations, if the well is not abandoned, the reserve pit area will be restored as per OCD guidelines. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.
- E. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

10. Surface Ownership:

JR Engineering & Construction  
% Jimmy Ray Richardson  
P0 Box 487  
Carlsbad, NM 88221

11. Other Information:

- A. Topography: Refer to the archaeological report for a detailed description of flora, fauna, soil characteristics, dwellings, and historical or cultural sites.
- B. The primary use of the surface at the location is for grazing of livestock.

12. Operator's Representative:

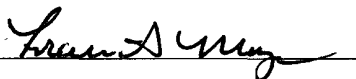
- A. Through APD approval, drilling, completion and production operations:

Frank S. Morgan Vice-President Operations  
Strata Production Company  
P.O. Box 1030  
Roswell, New Mexico 88202-1030  
575-622-1127

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Strata Production Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 12/20/07

Signature: 

Frank S. Morgan  
Strata Production Company  
P0 Box 1030  
Roswell, New Mexico 88202-1030  
(505)622-1127

Hydrogen Sulfide Drilling Operations\_Plan  
Strata Production Company  
Chaparral State #3  
330' FSL & 330' FWL  
Section 32-T1 9S-R29E  
Eddy County, New Mexico

1. General Requirements

Rule 118 does not apply to this well because Strata Production Company has researched this area and no high concentrations of H<sub>2</sub>S were found. Strata Production Company will have on location and working all H<sub>2</sub>S safety equipment before the Tansill Formation @ 950' for purposes of safety and insurance requirements.

2. Communications

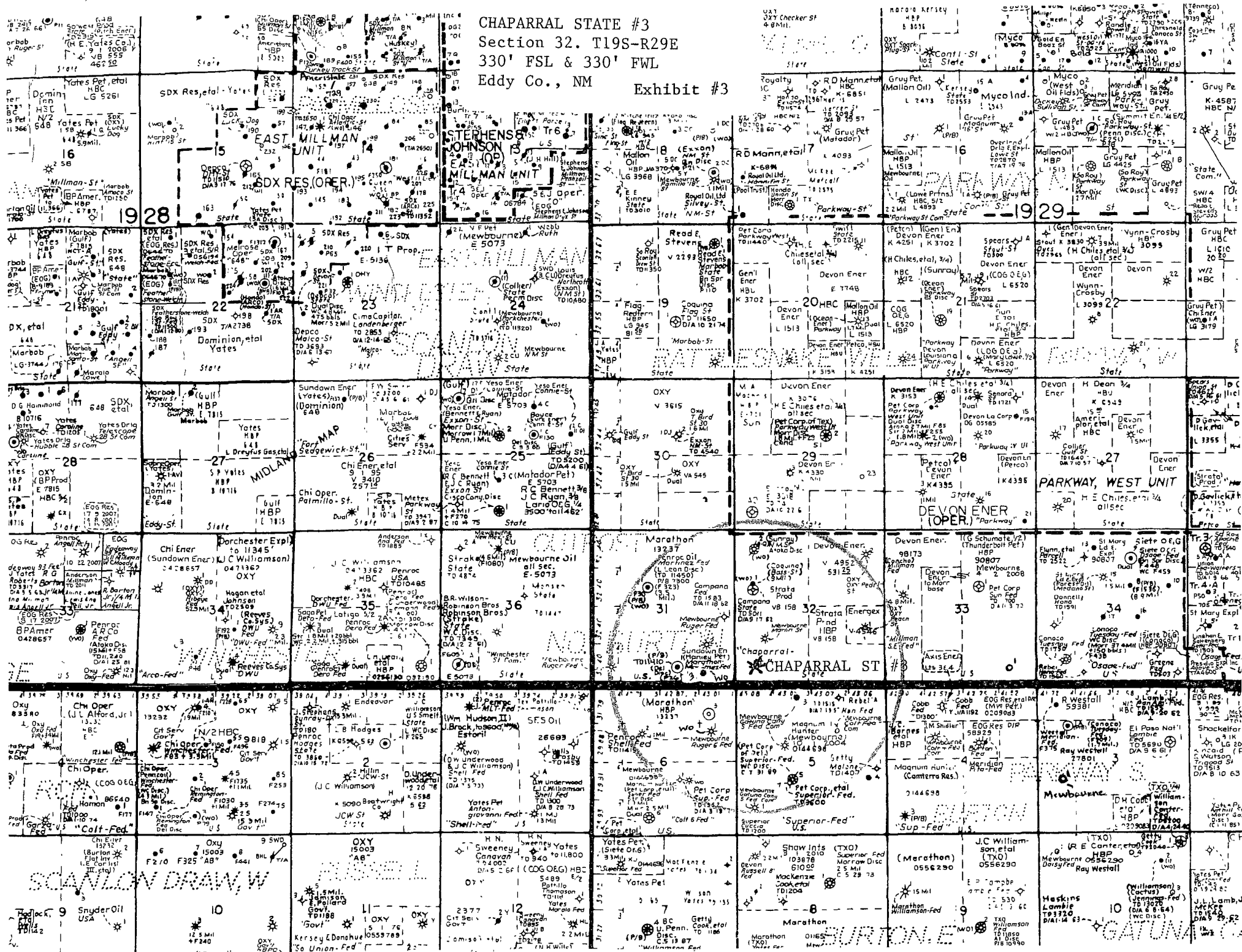
State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

3. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well.



CHAPARRAL STATE #3  
Section 32. T19S-R29E  
330' FSL & 330' FWL  
Eddy Co., NM Exhibit #3

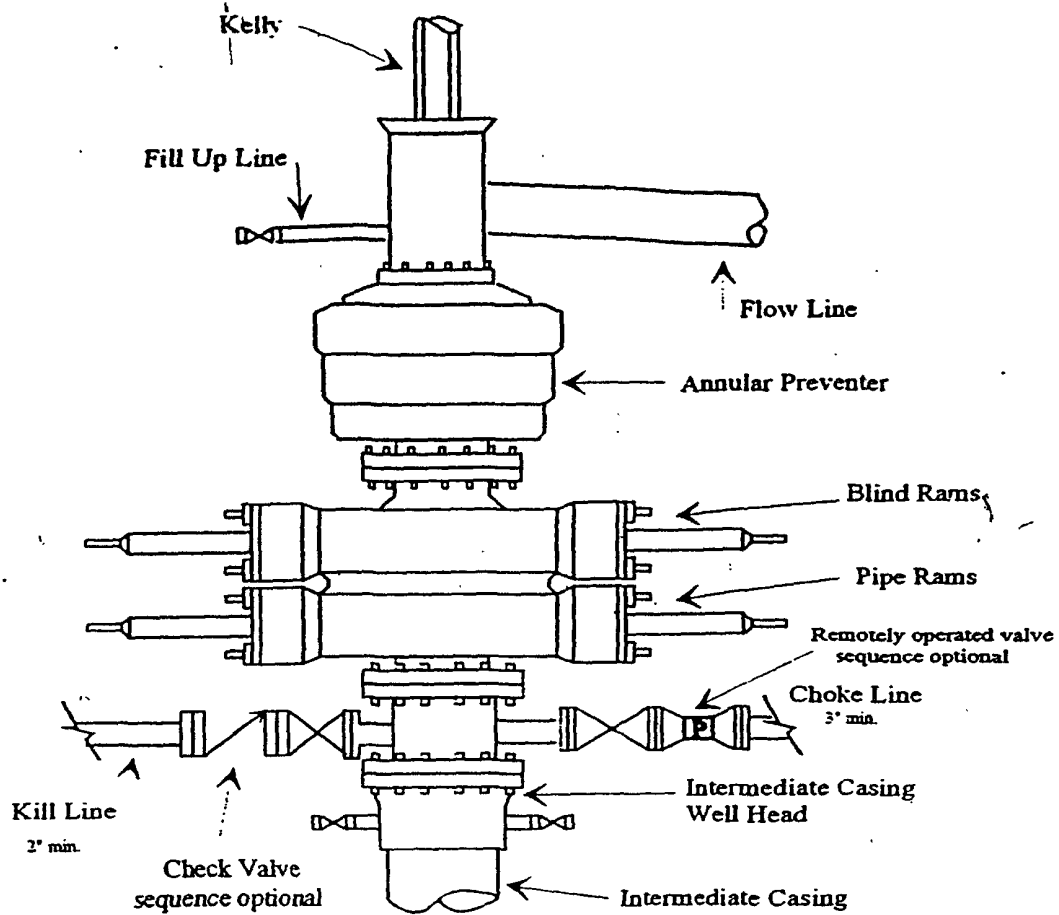




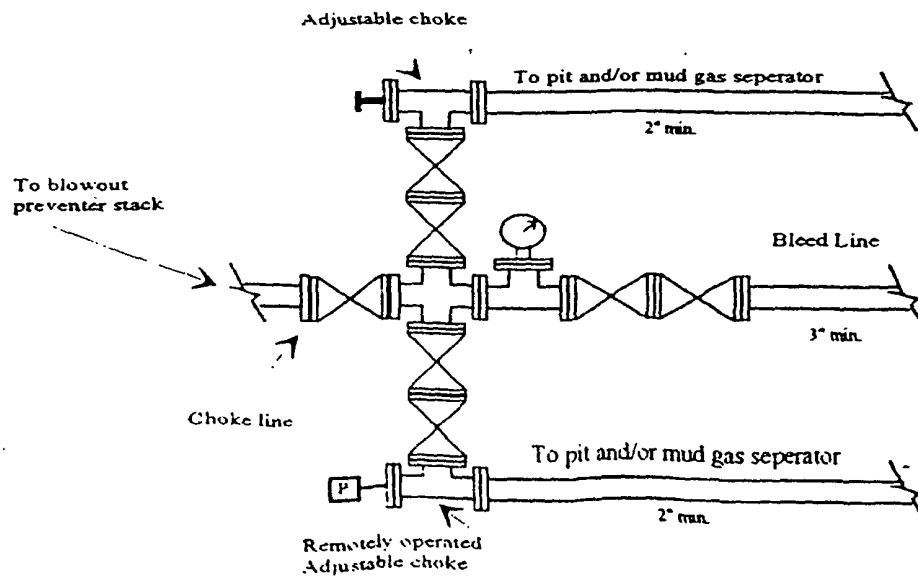
Notes Regarding Blowout Preventer  
Strata Production Company  
Chaparral State #3  
330' FSL & 330' FWL  
Section 32-TI9S-R29E  
Eddy County, New Mexico

1. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
2. Blowout preventer and all fittings must be in good condition with a minimum 5000 psi working pressure.
3. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 5000 psi working pressure.
4. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
5. A kelly cock shall be installed on the kelly at all times.
6. Blowout preventer closing equipment to include an accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

**Typical 5,000 psi Pressure System  
Schematic  
Annular with Double Ram Preventer Stack**



**Typical 5,000 psi choke manifold assembly with at least these minimum features**

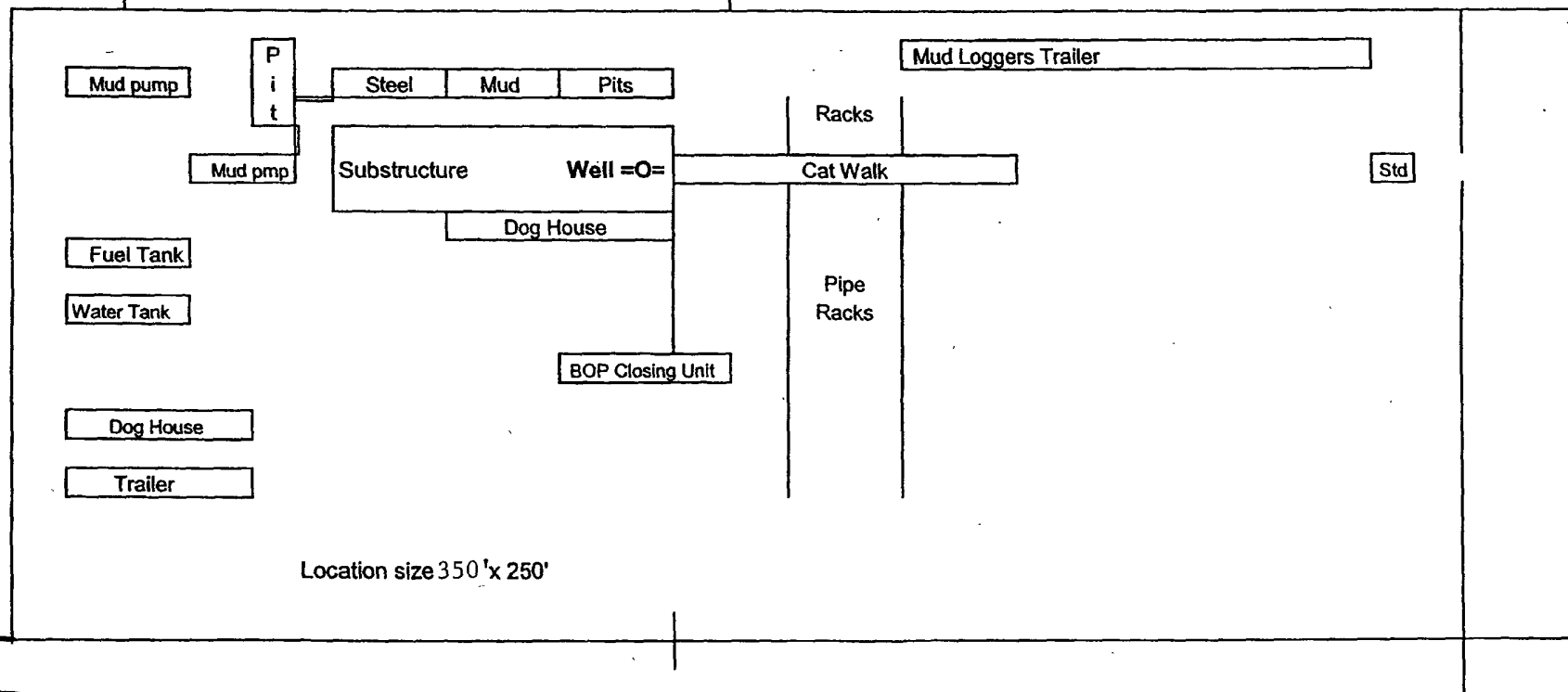


STRATA PRODUCTION COMPANY

**Exhibit #5**

Well Name	Chaparral St. #3
Footages	330' FSL & 330' FWL
STR	Sec. 32 T19S R29E
County	Eddy Co.
State	New Mexico

Reserve Pit  
150 x 150'



Rig Location Schematic