

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

I-35

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No. <b>34974</b>	
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. <b>Stiletto 27 Federal #1</b>	
2. Name of Operator <b>Echo Production, Inc. 6742</b>		9. API Well No. <b>30-015-34236</b>	
3a. Address <b>PO Box 1210, Graham, TX 76450</b>		10. Field and Pool, or Exploratory <b>Cemetery-Morrow 74640</b>	
3b. Phone No. (include area code) <b>(940) 549-5159</b>		11. Sec., T. R. M. or Blk. and Survey or Area <b>Sec 27 T20S R25E</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface <b>990' FSL &amp; 1040' FWL</b> At proposed prod. zone		12. County or Parish <b>Eddy</b>	
14. Distance in miles and direction from nearest town or post office* <b>13 miles NW of Carlsbad, NM</b>		13. State <b>NM</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>990'</b>	16. No. of acres in lease <b>560'</b>	17. Spacing Unit dedicated to this well <b>320</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>only well on lease</b>	19. Proposed Depth <b>10,150'</b>	20. BLM/BIA Bond No. on file <b>NM2692</b>	
21. Elevations (Show whether DF, KDB, RI, GL, etc.) <b>3606' GR</b>	22. Approximate date work will start* <b>8/01/05</b>	23. Estimated duration <b>4 weeks</b>	

**24. Attachments**

**Carlsbad Controlled Water Basin**

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

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

25. Signature <b>Ken Seligman</b>	Name (Printed/Typed) <b>Ken Seligman</b>	Date <b>6/14/05</b>
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Title  
**Engineer**

Approved by (Signature) <b>/s/ Joe G. Lara</b>	Name (Printed/Typed) <b>/s/ Joe G. Lara</b>	Date <b>JUL 20 2005</b>
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Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>
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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 1 YEAR**

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.

\*(Instructions on page 2)

**WITNESS: 13 3/8" Cement Job**

**> 9.5**

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

French Dr., Hobbs, NM 88240  
District II  
11 W. Grand Avenue, Artesia, NM 88210  
District III  
100 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-144  
June 1, 2004

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

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: <u>Echo Production, Inc.</u> Telephone: <u>940-549-3292</u> e-mail address: <u>ken.s@echoproduction.com</u>		
Address: <u>PO Box 1210, Graham, TX 76450</u>		
Facility or well name: <u>Stiletto 27 Federal #1</u> API #: _____ U/L or Qtr/Qtr <u>M</u> Sec <u>27</u> T <u>20S</u> R <u>25E</u>		
County: <u>Eddy</u> Latitude <u>N32° 32' 23.6"</u> Longitude <u>W104° 28' 40.0"</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/> Surface Owner Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b> Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>12800</u> bbl		
<b>Below-grade tank</b> Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> 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) X
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) X
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) X
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: (check the onsite box if you are burying in place) 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.

Additional Comments:

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: 6/14/05

Printed Name/Title Ken Seligman / Engineer

Signature Ken Seligman

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:

Field Supervisor

Printed Name/Title

Signature

Date:

**JUL 25 2005**

DISTRICT I  
French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First, Artesia, NM 88210

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 74640	Pool Name Cemetary-Morrow
Property Code	Property Name STILETTO "27" FEDERAL	Well Number 1
OGRID No. 006742	Operator Name ECHO PRODUCTION COMPANY	Elevation 3606'

Surface Location

UL or lot No. M	Section 27	Township 20 S	Range 25 E	Lot Idn	Feet from the 990	North/South line SOUTH	Feet from the 1040	East/West line WEST	County EDDY
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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
Dedicated Acres 320	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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.  <u>Ken Seligman</u> Signature  Ken Seligman Printed Name  Engineer Title  6/9/05 Date	
	<b>SURVEYOR CERTIFICATION</b>  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.  MAY 17, 2005 Date Surveyed  <u>GARY L. JONES</u> Signature Professional Surveyor  7977 No. 5418 Certificate  GARY L. JONES 7977 PROFESSIONAL LAND SURVEYOR BASIN SURVEYS	

**SURFACE USE AND OPERATING PLAN  
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL  
ECHO PRODUCTION, INC.  
STILETTO '27' FEDERAL #1  
990' FSL & 1040' FWL  
SECTION 27-20S-25E  
EDDY COUNTY, NEW MEXICO**

Submitted with Form 3160-3, Application For Permit to Drill covering the above proposed well. The purpose of the plan is to describe the location, the proposed construction activities, the operations, the surface disturbance involved, and the rehabilitation of the surface after completion of proposed well so that an appraisal can be made of the environment affected by the proposed well.

**1. Existing Roads:**

- A. The Well Location and Acreage Dedication Plat for the proposed wellsite was staked by Gary L. Jones, Registered Professional Surveyor, Carlsbad, New Mexico and is attached.
- B. All roads to the location are shown on Exhibit "B". The existing roads are adequate for travel during drilling and production operations.
- C. Directions to location: From the junction of CR 27 and White Pine Road, go west on White Pine Road for 6.4 miles to lease road; thence northeast on lease road for 1.3 miles to 2-track road; thence north and northeast on 2-track road for 0.4 mile to proposed lease road.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as operations continue on the lease.

**2. Proposed Access Road:**

A new access road of approximately 1084' will be required as illustrated on Exhibit B.

- A. The average grade will be less than 5%.
- B. No turnouts will be necessary.
- C. No culverts, gates or low water crossing will be necessary.

**STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

Operator Name: ECHO PRODUCTION, INC.  
Street or PO Box: PO Box 1210  
City, State: Graham, Texas  
Zip Code: 76450

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM 110822 (Stiletto '27' Federal)

Legal Description of Land: S/2 Sec 27 T20S R25E

Formation(s) (if applicable): Morrow

Bond Coverage: (State if individually bonded or another's bond)  
Statewide Bond - Echo Production, Inc.

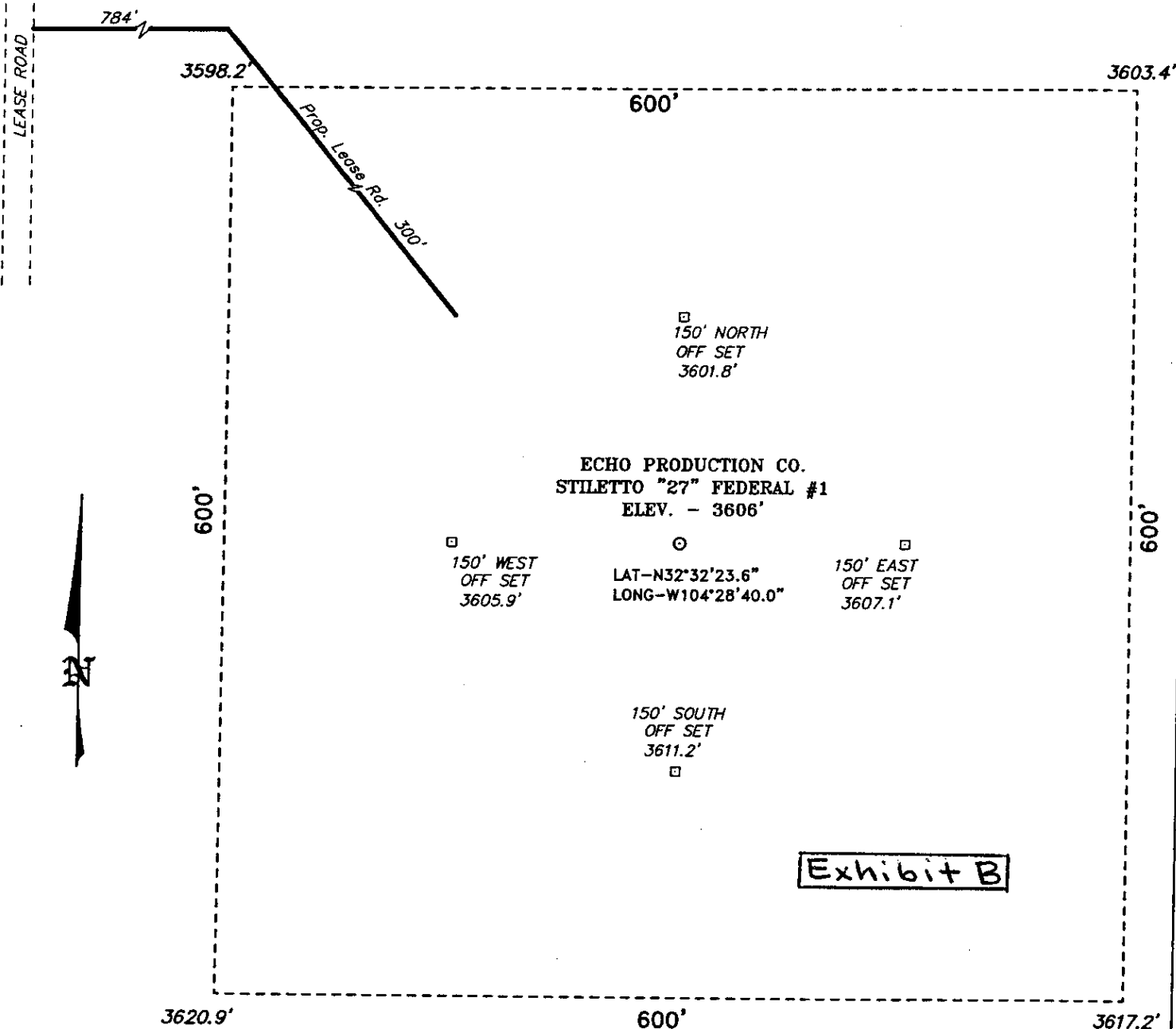
BLM Bond File No.: NM 2692

Authorized Signature: Ken Seligman  
Ken Seligman

Title: Engineer

Date: June 14, 2005

SECTION 27, TOWNSHIP 20 SOUTH, RANGE 25 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF CO. RD. 27 AND WHITE PINE ROAD,  
GO WEST ON WHITE PINE ROAD FOR 6.4 MILES TO LEASE  
ROAD; THENCE NORTHEAST ON LEASE ROAD FOR 1.3 MILE  
TO 2-TRACK ROAD; THENCE NORTH AND NORTHEAST ON  
2-TRACK ROAD FOR 0.4 MILE TO PROPOSED LEASE ROAD.

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

W.O. Number: 5418

Drawn By: K. GOAD

Date: 05-23-2005

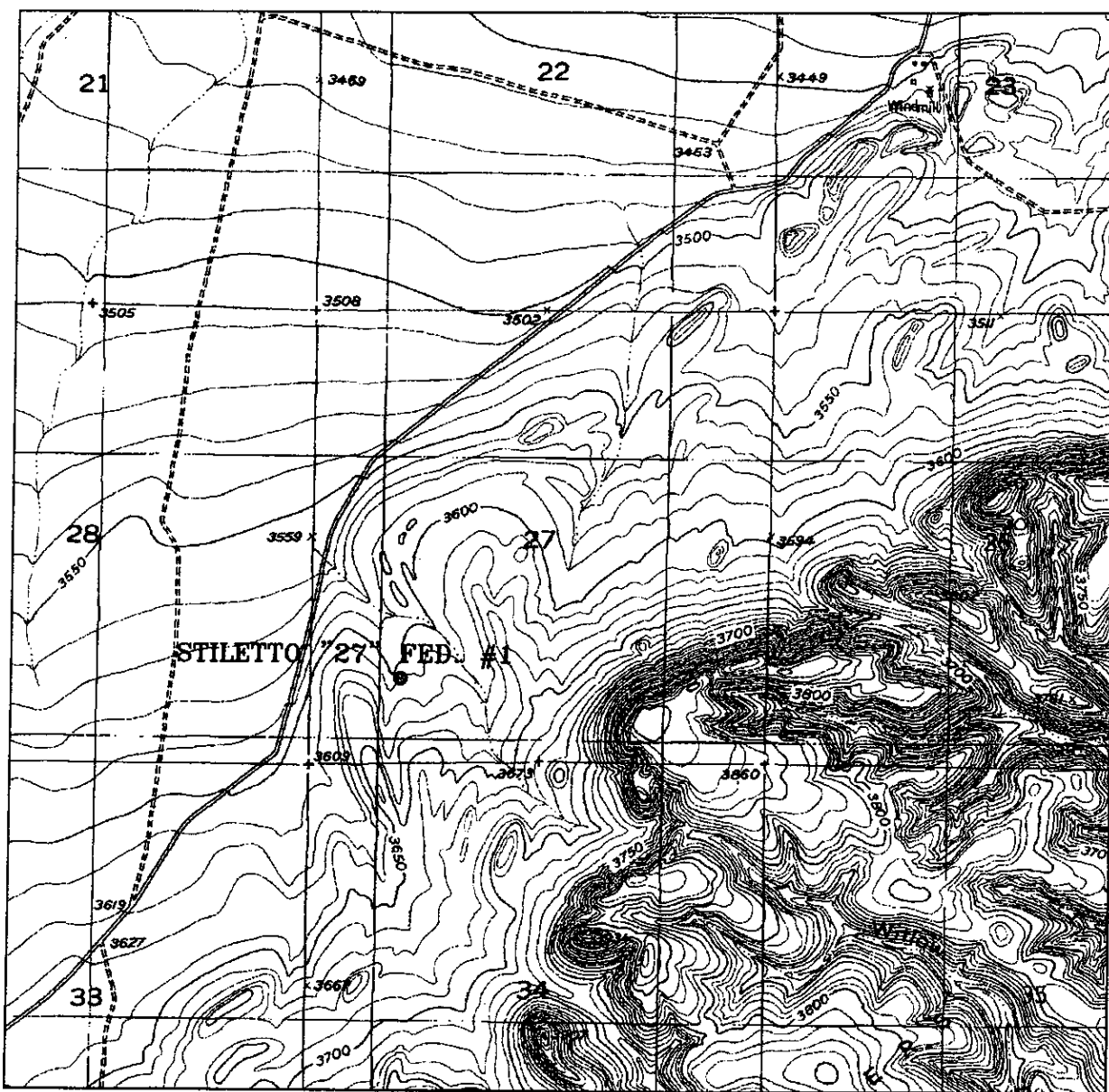
Disk: KJG CD#4 - 5418A.DWG

**ECHO PRODUCTION CO.**

REF: STILETTO "27" FED. No. 1 / Well Pad Topo

THE STILETTO "27" FED. No. 1 LOCATED 990' FROM  
THE SOUTH LINE AND 1040' FROM THE WEST LINE OF  
SECTION 27, TOWNSHIP 20 SOUTH, RANGE 25 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 05-17-2005 Sheet 1 of 1 Sheets



# STILETTO "27" FEDERAL #1

Exhibit B-2

Located at 990' FSL and 1040' FWL  
 Section 27, Township 20 South, Range 25 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**

focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

W.O. Number: 5418AA - KJG CD#5

Survey Date: 05-17-2005

Scale: 1" = 2000'

Date: 05-23-2005

**ECHO**  
**PRODUCTION**  
**COMPANY**

HOLE PROGNOSIS  
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL  
ECHO PRODUCTION, INC.  
STILETTO '27' FEDERAL #1  
990' FSL & 1040' FWL  
SECTION 27-20S-25E  
EDDY COUNTY, NEW MEXICO

In conjunction with Form 3160-3 Application for Permit to Drill, Echo Production, Inc. submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. Geological Name of Surface Formation:

Permian

2. Estimated Tops of Geologic Markers:

San Andres	975'	Strawn	8450'
Glorieta	2700'	Atoka	9300'
Bone Spring	3650'	Morrow	9650'
3 <sup>rd</sup> Bone Spring Sand	6750'	Barnett	10000'
Wolfcamp	7000'		
Cisco Lime	7900'		

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Surface	150'	Fresh Water
Glorieta	2700'	Oil or Gas
Wolfcamp	6890'	Oil or Gas
Cisco Lime	7650'	Oil or Gas
Atoka	9025'	Oil or Gas
Morrow	9450'	Oil or Gas

No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 360' and circulating cement back to surface. Any shallower zones above TD that contain commercial quantities of oil and/or gas will have cement circulated across the zone.



HOLE PROGNOSIS  
STILETTO '27' FEDERAL #1  
PAGE 2

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight, Grade, JT. Cond. Type</u>
17 1/2"	0-360'	13 3/8"	48#, H-40, ST&C
11"	360-1400'	8 5/8"	32# J-55 LT&C
7 7/8"	1400'-TD	4 1/2"	11.6# P-110, LT&C

5. Cementing Program:

Surface Casing: 13 3/8" casing will be set at approximately 360' and cemented with approximately 425 sacks of Premium Plus cement with 2% CaCl and additives. The amount may be adjusted depending upon the fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Intermediate Casing: 8 5/8" casing will be set at approximately 1400' and cemented with approximately 875 sacks of 35/65 Poz "c" with additives. The amount may be adjusted dependent upon fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Production Casing: If appropriate, 4 1/2" casing will be set at Total Depth. Echo will utilize cement in sufficient quantities to bring cement back to intermediate string. Well will be cemented w/appropriate number of sacks of 50/50 POZ 'H' w/ additives and 200 sacks of 'C' Neat.

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) show in Exhibit "A" will consist of a double ram-type (3000 psi WP) preventer and a bag-type (hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. Both BOP's will be nipped up on the 13 3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 70% of rated working pressure (2100 psi).

7. Types and Characteristics of the Proposed Mud System:

- |                |  |
|----------------|--|
| 0' to 1400'    | Fresh water with lime, gel paper and fiber will be used for drilling purposes. MW 8.7 – 9.2, Vis 29-36, pH > 8.  |
| 1400' to 6000' | Fresh water with lime, gel, and paper. Caustic to adjust pH. Sweep hole w/ MF-55. MW 8.4-8.7, Vis 28, WL – NC, pH >10, Chlorides 5-35k ppm.  |
| 6000' to 8000' | Same as above, continuing to circulate reserve. Begin brine additions to increase MW 9-9.3 lb/gal. Sweep hole w/bentonite pills. MW 9.0-9.3 ppg, Vis 28, WL – NC, pH 10, Chlorides 70-90k ppm.   |
| 8000 to 10150' | Cut brine to brine mud. Return to steel pits and pre-treat w/ biocide. Use starch to control water loss (WL) and polymer for WL and viscosity. Increase MW up to 10.0 w/ brine and Barite if needed above 10.0 ppg. Use Mica for seepage control. MW 9.3-10.0 ppg, Vis 32-40, WL 10-6cc, pH 10.0, Chlorides 70-140k ppm. |

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be available at the well site at all times.

**HOLE PROGNOSIS  
STILETTO '27' FEDERAL #1  
PAGE 4**

**8. Auxiliary Well Control and Monitoring Equipment:**

- A. A kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

**9. Testing, Logging and Coring Program:**

A Mudlogging unit will be on location from the base of the intermediate casing to TD. Mudlogging unit will be employed from approximately 1400' to 10,150' (Total Depth).

If indicated, AIT-GR, CNL-LDT-GR logs and Caliper logs will be run at TD. The Gamma Ray AIT will be run from TD back to the intermediate casing. The Gamma Ray Compensated Neutron Log will be run from TD back to surface. If indicated, Echo may elect to run rotary sidewall cores from selected intervals from approximately 6700' to 9650' dependent upon logging results.

**10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:**

No abnormal pressures or temperatures are anticipated. Anticipated bottomhole pressure is 4300# PSI.

Loss of circulation is possible in the upper section of the hole, and possible total losses in surface section of the hole, no other major loss circulation zones have been reported in offsetting wells.

From previous drilling in the area, Hydrogen Sulfide is not expected. Hydrogen Sulfide training will be provided and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blow out preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

HOLE PROGNOSIS  
STILETTO '27' FEDERAL #1  
PAGE 5

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is August 1, 2005. Once commenced, the drilling operation will be completed in approximately 21 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities. In conjunction with Form 3160-3, Application for Permit to Drill, Echo Production, Inc submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

## EXHIBIT "A"

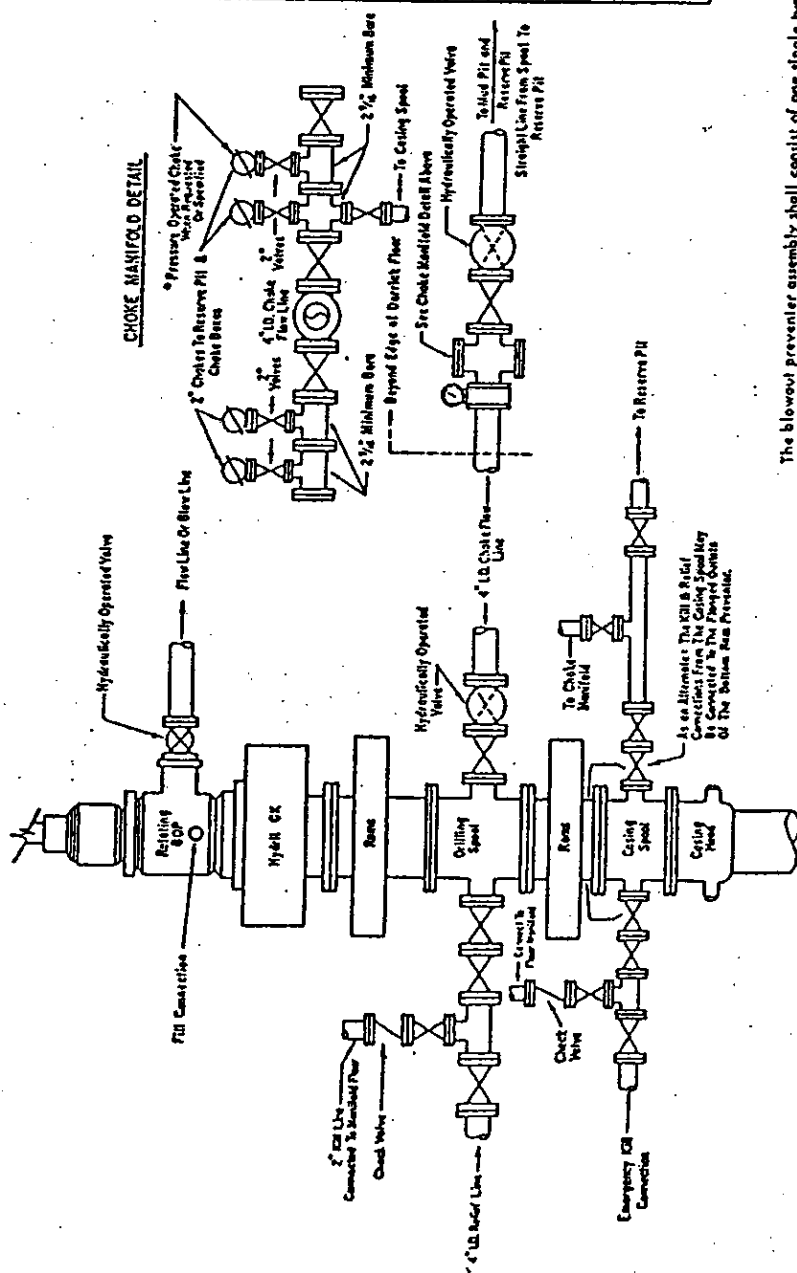
### EQUIPMENT DESCRIPTION

All equipment should be at least 3,000 psi WP or higher unless otherwise specified.

1. Bell nipple
2. Hydril bag type preventer
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 3" and one 2" (minimum) outlet.
5. 2" (minimum) flanged plug or gate valve.
6. 2"x 2"x 2" (minimum) flanged.
7. 3" gate valve.
8. Ram type pressure operated blowout preventer with pipe rams.
9. Flanged type casing head with one side outlet.
10. 2" threaded (or flanged) plug or gate valve. Flanged on 5000# WP, threaded on 3000# WP or less.
11. 3" flanged spacer spool.
12. 3"x 2"x 2"x 2" flanged cross.
13. 2" flanged plug or gate valve.
14. 2" flanged adjustable choke.
15. 2" threaded flange.
16. 2" XXH nipple.
17. 2" forged steel 90° Ell.
18. Cameron (or equal) threaded pressure gauge.
19. Threaded flange.
20. 2" flanged tee.
21. 2" flanged plug or gate valve.
22. 2 1/2" pipe, 300' to pit, anchored.
23. 2 1/2" SE valve.
24. 2 1/2" line to steel pit or separator.

#### NOTES:

- 1). Items 3, 4 and 8 may be replaced with double ram type preventer with side outlets between the rams.
- 2). The two valves next to the stack on the fill and kill line to be closed unless drill string is being pulled.
- 3). Kill line is for emergency use only. This connection shall not be used for filling.
- 4). Replacement pipe rams and blind rams shall be on location at all times.
- 5). Only type U, LSW and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.
- 6). Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.



### 3000 # PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

The blowout preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram preventer, both hydraulically operated; a Hydril "GC" preventer; a rotating blowout preventer; valves; chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch I. D. choke flow line and 4-inch I. D. relief line, except when air or gas drilling. All preventer connections are to be open-face flanged.

Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1) Multiple pumps, driven by a continuous source of power, capable of fluid charging the total accumulative volume from the nitrogen precharge pressure to its rated pressure within \_\_\_\_\_ minutes. Also, the pumps are to be connected to the nitrogen precharge pressure to its rated pressure of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least \_\_\_\_\_ percent of the original. (2) When required, an additional source of power, remote and equivalent, is to be available to operate the above pumps or there shall be additional pumps operated by separate power and equal in performance capabilities.

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided for operating the Hydril preventer. When required, a second pressure reducer shall be available to limit operating fluid pressures to ram preventer. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluid. The choke flow line valves and relief line valves connected to the drilling spool end of the ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

\* To include derrick floor mounted controls.

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: ECHO PRODUCTION, INC.  
Well Name & No. 1 - STILETTO 27 FEDERAL  
Location: 990' FSL & 1040' FWL - SEC 27 - T20S - R25E - EDDY COUNTY  
Lease: NM-110822

### 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) 234-5909 or (505) 361-2822 (After hours) - 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 8-5/8 inch 4-1/2 inch

C. BOP tests

2. Hydrogen Sulfide (H<sub>2</sub>S) has been reported in Sec 5, T20S, R25E, however no H<sub>2</sub>S has been reported from Sec 27, T20S, R25E.

3. 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.

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.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set at 360 feet, below usable water and 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 8-5/8 inch intermediate casing is circulate cement to the surface.

3. The minimum required fill of cement behind the 4-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

(ORIG. SGD.) LES BABYAF

### **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 13-3/8 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) required for drilling the surface and intermediate casing shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 8-5/8 inch casing shall be 3000 psi.

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

- A variance to test the 13-3/8 inch surface casing and BOP system to the reduced pressure of 1000 psi with the rig pumps is approved.

- The tests 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 a safe workman-like manner. Hard line connections shall be required.

- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

### **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.

2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.

3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.