

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

RECEIVED  
Submit to appropriate District Office

OCT 18 2004  AMENDED REPORT

OCD-ARTESIA

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

<sup>1</sup> Operator Name and Address Echo Production, Inc. PO Box 1210, Graham, TX 76450		<sup>2</sup> OGRID Number 06742
<sup>3</sup> Property Code	<sup>5</sup> Property Name Stiletto '16' State	<sup>4</sup> API Number 30-015-33871
<sup>9</sup> Proposed Pool 1 Cemetary - Morrow		<sup>10</sup> Proposed Pool 2

<sup>7</sup> 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	16	20S	25E		660	south	660	east	Eddy

<sup>8</sup> Proposed 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

Additional Well Information

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code Gas	<sup>13</sup> Cable/Rotary rotary	<sup>14</sup> Lease Type Code State	<sup>15</sup> Ground Level Elevation 3542
<sup>16</sup> Multiple no	<sup>17</sup> Proposed Depth 9850	<sup>18</sup> Formation Morrow	<sup>19</sup> Contractor J&W	<sup>20</sup> Spud Date 12/1/04
Depth to Groundwater 100±		Distance from nearest fresh water well 1000±		Distance from nearest surface water 1000±
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 12800bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
13 3/8	13 3/8	48	360	+425	surface
11	8 5/8	32	1400	+875	surface
7 7/8	4 1/2	11.6	9850	sufficient to reach 600' above any productive zone	

<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.

Echo Production, Inc. proposes to drill to a depth sufficient to test the Morrow formation. If productive 4½" casing will be set. If non-productive, the well will be plugged and abandoned in a manner consistent with State Regulations.

A mud program and H<sub>2</sub>S contingency plan are attached.

CEMENT TO COVER ALL OIL,  
GAS AND WATER BEARING  
ZONES

<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 checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .	<b>OIL CONSERVATION DIVISION</b>
Printed name: Tom Golden <i>Tom Golden</i>	Approved by: <b>TIM W. GUM</b>
Title: Operations Manager	Title: <b>DISTRICT II SUPERVISOR</b>
E-mail Address: rondaw@echoproduction.com	Approval Date: <b>OCT 21 2004</b> Expiration Date: <b>OCT 21 2005</b>
Date: 10/12/04	Phone: 940-549-3292
Conditions of Approval Attached	

NOTIFY OCD OF SPUD & TIME TO  
WITNESS CEMENTING OF  
SURFACE & INTERMEDIATE  
CASING

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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: Echo Production, Inc. Telephone: 940-549-3292 e-mail address: rondaw@echoproduction.com  
Address: PO Box 1210, Graham, TX 76450  
Facility or well name: Stiletto '16' State #1 API #: \_\_\_\_\_ U/L or Qtr/Qtr P Sec 16 T 20S R 25E  
County: Eddy Latitude N32° 34' Longitude W104° 29' NAD: 1927  1983  Surface Owner Federal  State  Private  Indian   
Pit Volume 12800 bbl

Pit	Below-grade tank	
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 checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>12800</u> bbl	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 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) ( 0 points) 0
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) 0
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) 0
	Ranking Score (Total Points)	0

RECEIVED  
OCT 18 2004  
OCD-ARTESIA

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: 10/12/04

Printed Name/Title Tom Golden / Operations Manager Signature Tom Golden

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: [Signature] Signature \_\_\_\_\_ Date OCT 19 2004

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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	Pool Name
Property Code	Property Name STILETTO "16" STATE	Well Number 1
OGRID No. 06742	Operator Name ECHO PRODUCTION INC.	Elevation 3452'

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	16	20 S	25 E		660	SOUTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres 32c	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LAT-N32°34'04.8"  
LONG-W104°29'00.0"

660'

660'

**OPERATOR CERTIFICATION**

*I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.*

Tom Golden  
Signature

Tom Golden  
Printed Name

Operations Manager  
Title

10/8/04  
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.*

SEPTEMBER 14, 2004  
Date Surveyed

[Signature]  
Signature  
Professional Surveyor

W.O. No. 4650  
Certificate No. Gary L. Jones 7977  
PROFESSIONAL LAND SURVEYOR  
BASN SURVEYS

SECTION 16, TOWNSHIP 20 SOUTH, RANGE 25 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

□  
 150' NORTH  
 OFF SET  
 3451.3'

ECHO PRODUCTION CO.  
 STILLETTO "16" STATE #1  
 ELEV. - 3452'

□  
 150' WEST  
 OFF SET  
 3452.8'

○  
 LAT-N32°34'04.8"  
 LONG-W104°29'00.0"

□  
 150' EAST  
 OFF SET  
 3451.7'

□  
 150' SOUTH  
 OFF SET  
 3453.3'

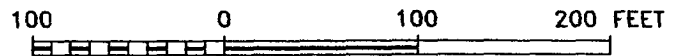
*will use this road*

Co. Rd. 27 (Caliche)

Prop. Lease Road 475'

Prop. Lease Rd. 360'

CO. RD. 28



SCALE: 1" = 100'

DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF US HWY 285 AND CO. RD. 28, GO  
 SOUTHWESTERLY ON CO. RD. 28 FOR 3.5 MILES TO  
 PROPOSED LEASE ROAD.

**ECHO PRODUCTION INC.**

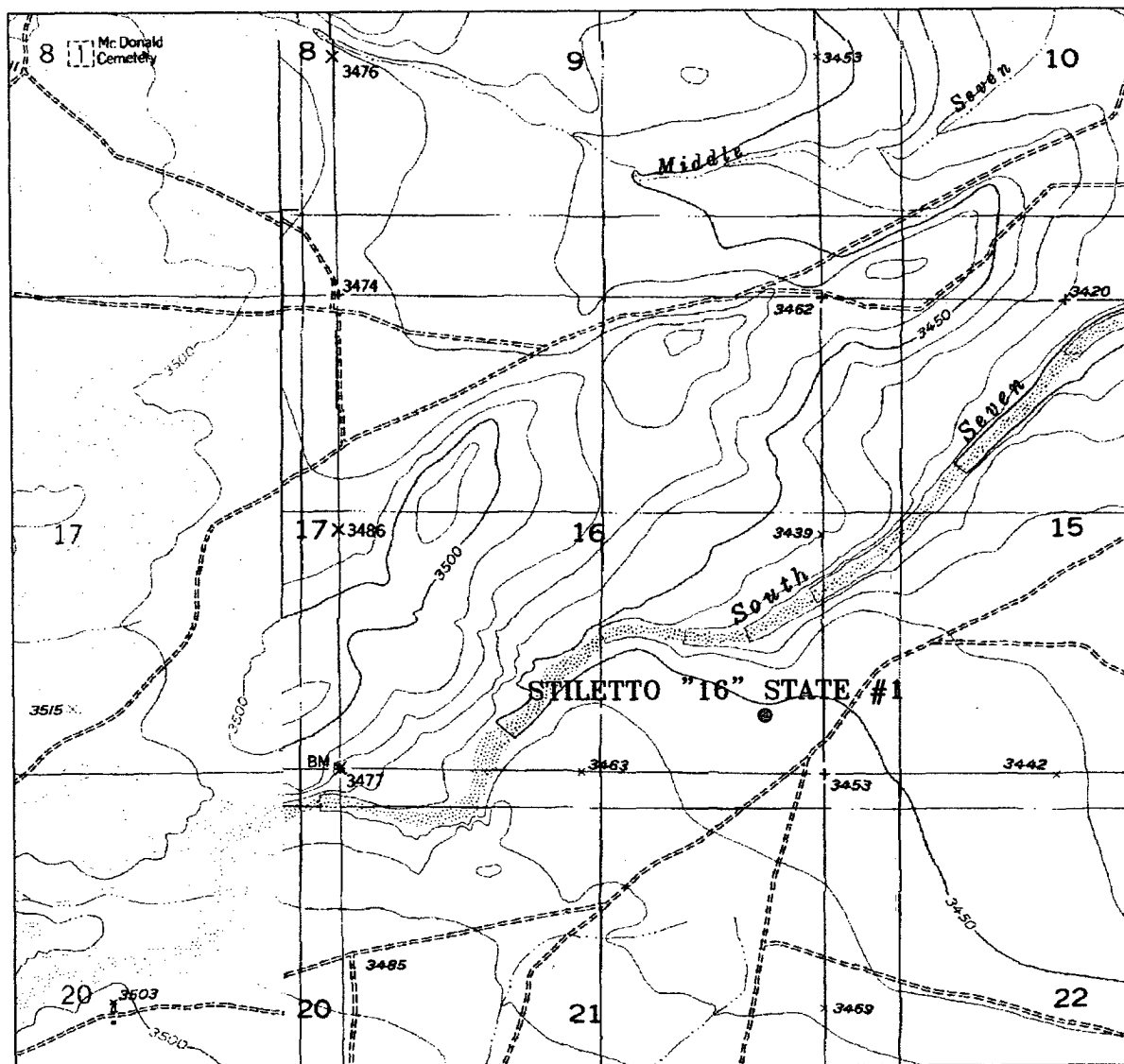
REF: STILLETTO "16" STATE No. 1 / Well Pad Topo

THE STILLETTO "16" STATE No. 1 LOCATED 660' FROM  
 THE SOUTH LINE AND 660' FROM THE EAST LINE OF  
 SECTION 16, TOWNSHIP 20 SOUTH, RANGE 25 EAST,  
 N.M.P.M., EDDY COUNTY, NEW MEXICO.

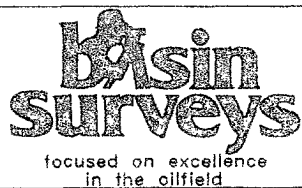
**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 4650 Drawn By: K. GOAD

Date: 09-15-2004 Disk: KJG CD#4 - 4650A.DWG Survey Date: 09-14-2004 Sheet 1 of 1 Sheets



**STILETTO "16" STATE #1**  
 Located at 660' FSL and 660' FEL  
 Section 16, Township 20 South, Range 25 East,  
 N.M.P.M., Eddy County, New Mexico.



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

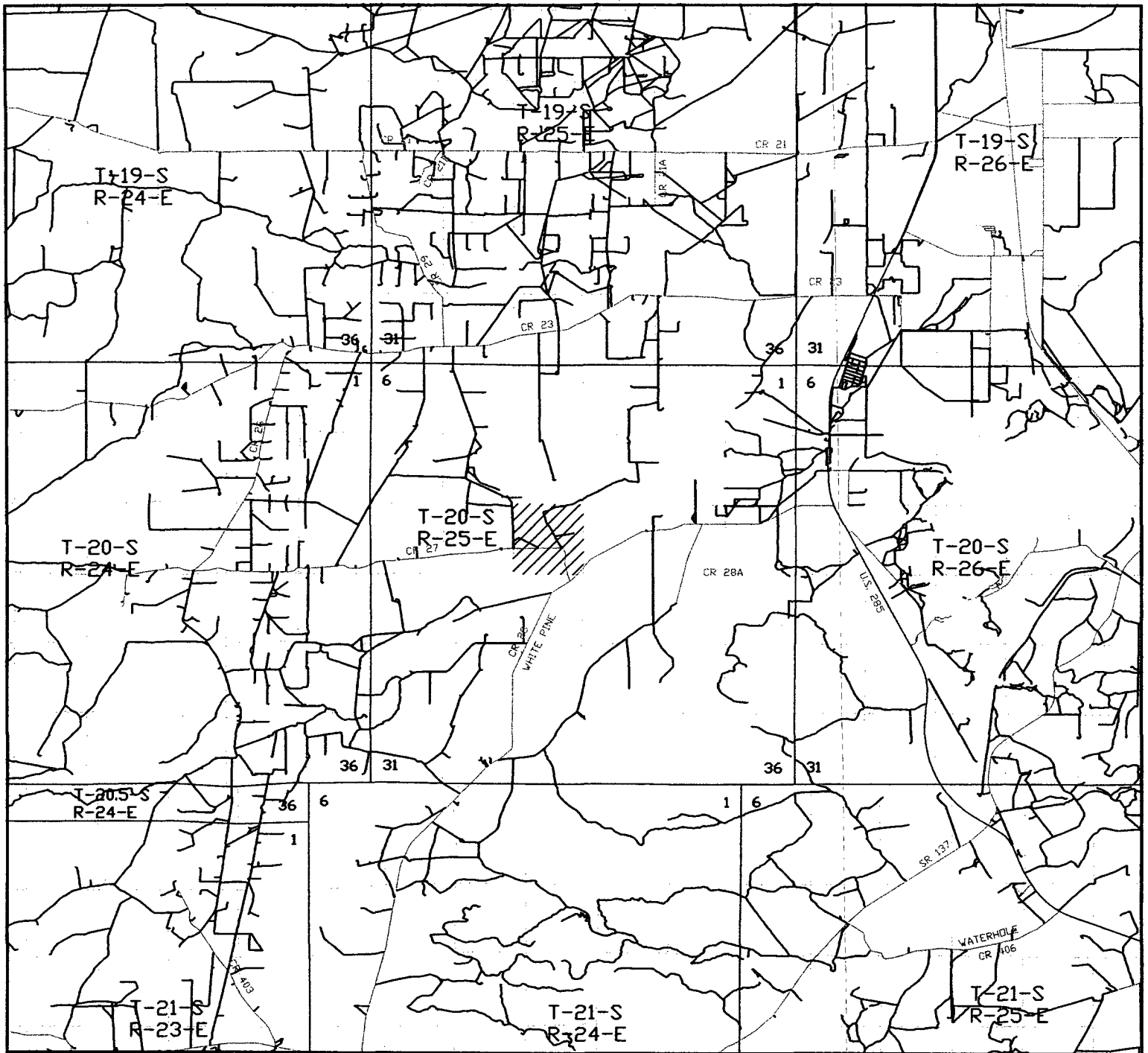
W.O. Number: 4650AA - KJG CD#5

Survey Date: 09-14-2004

Scale: 1" = 2000'

Date: 09-15-2004

**ECHO  
 PRODUCTION  
 I N C .**



**STILETTO "16" STATE #1**  
 Located at 660' FSL and 660' FEL  
 Section 16, 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  
 basinsurveys.com

W.O. Number:	4650AA - KJG CD#5
Survey Date:	09-14-2004
Scale:	1" = 2 MILES
Date:	09-15-2004

**ECHO  
 PRODUCTION  
 I N C .**

# **Echo Production, Inc.**

PO Box 1210 Graham, Texas 76450 (940) 549-3292 Fax: (940) 549-5162

**Stiletto '16' State #1  
660' FSL & 660' FEL  
Section 16 T20S R25E  
Eddy County, New Mexico**

Attached is a drilling fluids summary for the subject well. A fresh water system will be utilized for the surface to approximately 6000' and cut brine for the remainder.

Echo had drilled two offset wells which did not show any abnormally pressured zones or any formations containing H<sub>2</sub>S. Sufficient mud weights will be utilized to eliminate any flow from the well. A double ram type blowout preventor will be utilized during all drilling operations and will be tested after setting both the surface and intermediate casing.

The nearest public road is  $\pm$ .1 mile from the location so H<sub>2</sub>S detection and safety equipment will be utilized and all rig personnel will receive safety training by a qualified H<sub>2</sub>S safety instructor as to the following:

- A. Characteristics of H<sub>2</sub>S
- B. Physical effects and hazards
- C. Proper use of safety equipment and life support systems
- D. Principle and operation of H<sub>2</sub>S detectors
- E. Evacuation procedure, routes and first aid
- F. Proper use of air pack

INTERVAL: 0 - 360		17.5" hole	2 days	13.375" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier		10-12 ppb	100 #	70	\$7.19	\$503.30
Cedar Fiber/Fiber Plug	LCM, sealant		10-20 ppb in pills	40 #	30	\$5.01	\$150.30
Ground Paper	Seepage and sweeps		1-3 sacks per 100 feet	40 #	35	\$6.50	\$227.50
Lime	pH additive, flocculant		1 sack per 15 sacks of bentonite	50 #	10	\$4.32	\$43.20
Maxi-Seal	LCM, sealant		10-20 ppb in pills	40 #	30	\$8.45	\$253.50
Plastic	Storage aid		Cover mud	1 roll	1	\$48.75	\$48.75
						Interval Total:	\$1,226.55

**Projected Mud Properties**

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Solids - % by vol.
0' - 360'	8.4-9.4	32-34	N/C	10.0	3-8

**General Geological Data**

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 200'	Quaternary	Sand, limestone, gypsum, conglomerates	Seepage
200' - 360'	Tansill	Limestone, sand stringers, surface conglomerates	Vugular, fractured, heavy seepage, lost circulation

**Interval Notes for 0 - 360**

Spud with a conventional Fresh Water and Bentonite slurry. Maintain the viscosity as needed to clean the large diameter hole. Small amounts of Lime may be added to flocculate the gel for added carrying capacity. Use Fresh Water additions for dilution to keep solids to a minimum. Ground Paper should be used periodically to sweep the hole to control seepage and enhance hole cleaning. Total losses may be expected. We suggest dry drilling to total depth sweeping the hole as necessary with viscous (40-50) Bentonite pills containing 10-20 ppb of various LCM's to keep hole clean and to regain returns.



INTERVAL: 360 - 1,400		12.25" hole	5 days	8.625" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Hole sweep		12-14 ppb in sweeps	100 #	80	\$7.19	\$575.20
Cedar Fiber/Fiber Plug	LCM, sealant		10-20 ppb in pills	40 #	30	\$5.01	\$150.30
Ground Paper	Seepage and sweeps		1-3 sacks per 100 feet	40 #	30	\$6.50	\$195.00
Lime	pH additive		.5 ppb	50 #	40	\$4.32	\$172.80
Maxi-Seal	LCM, sealant		10-20 ppb in pills	40 #	30	\$8.45	\$253.50
MF-55/VisPlus(non-ionic)	Hole sweep, flocculant		1 qt down drill pipe for sweep	5 gal.	2	\$94.25	\$188.50
Interval Total:							\$1,535.30

**Projected Mud Properties**

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
360' - 1,400'	8.4-8.5	28	N/C	10.0	5-15K

**General Geological Data**

Tops/Bases	Formation	Lithology	Notes/Challenges
360' - 400'	Tansill	Limestone, sand stringers, surface conglomerates	Vugular, fractured, heavy seepage, lost circulation
400' - 725'	Yates	Sand w/red shale & anhydrite stringers	
725' - 1,400'	San Andres	Limestone	Vugular, fractured, heavy seepage, lost circulation

**Interval Notes for 360 - 1,400**

Drill out with Fresh Water circulating the reserve. Adjust the pH to 10.0 with Lime. Continue to use Ground Paper additions to control seepage and aid in hole cleaning. Severe losses may occur in the interval. Should total losses occur, dry drill sweeping the hole with viscous (40-50) Bentonite pills containing 10-20 ppb of various LCM's to aid in hole cleaning and possibly regaining returns. Sweep and spot a viscous pill at total depth to ensure a stable well bore for casing operations.

**NOTE:** lost circulation can be expected below 700'. We suggest dry drilling or using an air package to regain returns.

INTERVAL: 1,400 - 8,000		7.875" hole	17 days	3 drill bits		
Product	Function	Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Hole sweep	10-12 ppb in sweeps	100 #	60	\$7.19	\$431.40
Caustic Soda	pH additive	.25 ppb	50 #	50	\$24.70	\$1,235.00
Ground Paper	Seepage and sweeps	1-3 sacks per 200 feet	40 #	40	\$6.50	\$260.00
MF-55/VisPlus(non-ionic)	Flocculant	1 qt down drill pipe for sweep	5 gal.	2	\$94.25	\$188.50
Interval Total:						<u>\$2,114.90</u>

**Projected Mud Properties**

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
1,400' - 6,000'	8.4-8.7	28	N/C	10.0	5-35K
6,000' - 8,000'	9.0-9.3	28	N/C	10.0	70-90K

**General Geological Data**

Tops/Bases	Formation	Lithology	Notes/Challenges
1,400' - 2,300'	San Andres	Limestone, w/salt stringers	Hole erosion, deviation
2,300' - 4,000'	Glorietta	Limestone	
4,000' - 6,350'	Bone Spring	Limestone, sand stringers	Seepage
6,350' - 6,700'	3rd Bone Spring Sand	Sand	
6,700' - 7,650'	Wolfcamp	Shaly limestone	Sloughing
7,650' - 8,000'	Cisco		

**Interval Notes for 1,400 - 8,000**

Drill out from intermediate casing with Fresh Water. Continue to circulate the reserve. Adjust the pH to 10.0 with Caustic Soda. Continue to use Ground Paper to control seepage and aid in hole cleaning. Small amounts of MF-55 may be added to flocculate fine drill solids and sweep the hole. Begin Brine additions at approximately 6,000' to raise the mud weight to 9.0-9.3 ppg. Sweep the hole only as necessary with viscous (40-50) Bentonite pills to aid in hole cleaning.

**NOTE:** some salt stringers may be present below 1,400'. We suggest allowing the chloride increase to occur, maintaining the weight as necessary.

INTERVAL: 8,000 - 9,850		7.875" hole	8 days	5.5" csg	2 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Barite	Weighting agent		As needed	100 #	140	\$7.57	\$1,059.80
Biocide (STC)	Biocide		1 gal./100 bbls.	5 gal.	40	\$94.50	\$3,780.00
Caustic Soda	pH additive		.25 ppb	50 #	20	\$24.70	\$494.00
Desco	Thinner, dispersant		As needed	25 #	10	\$44.20	\$442.00
Mica	LCM, sealant		3-10 ppb in sweeps	50 #	30	\$10.20	\$306.00
M-I-X II/Delta P	LCM, sealant		3-10 ppb in sweeps	25 #	40	\$24.37	\$974.80
Salt	Weighting agent		As needed	50 #	500	\$3.64	\$1,820.00
Silicone Defoamer	Defoamer		As needed	5 gal.	15	\$80.66	\$1,209.90
Soda Ash	Calcium remover		.4-5 ppb	50 #	80	\$9.10	\$728.00
White Starch	Filtrate control		2-3 ppb	50 #	120	\$20.15	\$2,418.00
XCD Polymer/Flozan	Viscosifier, hole sweep		.4-5 ppb	25 #	30	\$156.60	\$4,698.00
Interval Total:						\$17,930.50	

**Projected Mud Properties**

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
8,000' - 9,850'	9.3-10.2	32-40	10-6cc	10.0	70-140K

**General Geological Data**

Tops/Bases	Formation	Lithology	Notes/Challenges
8,000' - 8,200'	Cisco	Limestone	Mud up
8,200' - 9,000'	Strawn	Shaly limestone	Poss gas kick
9,000' - 9,200'	Atoka	Sandy shale	Poss gas kick
9,200' - 9,550'	Morrow	Shaly calcareous sand	Pay Zone
9,550' - 9,600'	Lower Morrow	Shaly calcareous sand	Pay Zone
9,600' - 9,850'	Barnett	Shale	TD

**Interval Notes for 8,000 - 9,850**

Return to the working pits with a Cut Brine weighing 9.0-9.3 ppg. Discontinue the use of MF-55. Adjust the pH to 10.0 with Caustic Soda. Pre-treat the system with STC (biocide). Add White Starch to lower the filtrate to 10cc or less. Small amounts of defoamer may be needed while adding Starch to prevent the aeration of the pumps. Increase the weight as necessary with Brine and/or Salt additions. Use Barite only if weights above 10.0 ppg are necessary. Use XCD Polymer for any added viscosity. Use Mica and MIX-II for seepage and/or loss control. The existing properties should be adequate for any logging and casing operations. We would suggest sweeping the hole at total depth with a viscous (40-45) XCD Polymer pill to ensure a stable environment for logging and casing.