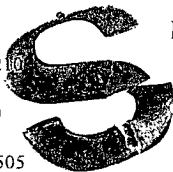


District I  
1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources



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

SEP 26 2007

Form C-101  
May 27, 2004

OCD-ARTESIA

Submit to appropriate District Office

☐ AMENDED REPORT

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

<sup>1</sup> Operator Name and Address Primexx Operating Corporation 4840 Greenville Ave., Ste. 1600 Dallas, Texas 75206		<sup>2</sup> OGRID Number 153888
<sup>3</sup> Property Code	<sup>4</sup> Property Name Sam's Ranch 16	<sup>5</sup> API Number 30 - 005 - 63989
<sup>9</sup> Proposed Pool 1 Sam's Ranch; Grayburg		<sup>6</sup> Well No 1
<sup>10</sup> Proposed Pool 2		

<sup>7</sup> Surface Location

UL or lot no	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
1	16	14S	28E		1980	South	660	East	Chaves

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot 1dn	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 G	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3567'
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 2000'	<sup>18</sup> Formation Grayburg	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 6/01/2007
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner Synthetic <input type="checkbox"/> _____ mls thick Clay <input type="checkbox"/> Pit Volume _____ bbls 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
11"	8 5/8"	24#	250'	250	surface
7 7/8"	5 1/2"	15.5#	1800'	300	surface

<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.

MIRU Drilling Contractor. Drill an 1800' Grayburg well, 1980' FSL & 660' FFL of Sec. 16, T14S, R28E of Chaves County, New Mexico. Drill a 11" hole 250'. Run 8 5/8- 24# pipe. Cement to surface with 250 sacks. Drill a 7 7/8" hole to 1800' and run 5 1/2- 15.5# casing. Cement to surface with 300 sacks of cement. Perforate as needed.

Please see attached for recommended drilling fluids.

<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 ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature

Andrea Molinar

Printed name Andrea Molinar

Title Regulatory Analyst

E-mail Address andrea.molinar@primexx.com

Date 9/25/2007

Phone (214) 369-5909

OIL CONSERVATION DIVISION

Approved by

BRYAN G. ARANT

DISTRICT II GEOLOGIST

Approval Date

SEP 26 2007

Expiration Date

SEP 26 2008

Conditions of Approval Attached ☐

DISTRICT I  
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State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 12, 2005

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

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code Sam's Ranch	Pool Name Grayburg Gas
Property Code 36765	Property Name SAMS RANCH "16"	Well Number 1
OGRID No. 153888	Operator Name PRIMEXX OPERATING CORP.	Elevation 3567'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	16	14 S	28 E		1980	SOUTH	660	EAST	CHAVES

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 160	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>	
				<p>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 unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><u>Andrea Molinar</u> 5/16/07 Signature Date</p> <p>Andrea Molinar Printed Name</p>	
				<b>SURVEYOR CERTIFICATION</b>	
				<p>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.</p> <p>MAY 09 2007 Date Surveyed</p> <p><u>Gary L. Jones</u> Signature of Registered Professional Surveyor</p> <p>7977</p> <p>18100</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>	
				<p><b>SURFACE LOCATION</b> LAT-N33°06'05.7" LONG-W104°07'49.6" (NAD-83)</p> <p>660'</p> <p>1980'</p>	

INTERVAL: 0 - 300'		11" hole	1 days	8.625" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier, hole sweep		12-14 ppb	100 #	35	\$7.84	\$274.40
Cedar Fiber/Fiber Plug	LCM, sealant		10-20 ppb in pills	40 #	10	\$7.27	\$72.70
Ground Paper	seepage and sweeps		1-3 sacks per 100 feet	40 #	20	\$9.35	\$187.00
Lime	pH additive, flocculant		1 sack per 15 sacks of bentonite	50 #	5	\$5.74	\$28.70
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant		10-20 ppb in pills	40 #	10	\$11.88	\$118.80
Plastic	Storage aid		Cover mud	1 roll	1	\$52.50	\$52.50
Interval Total:							\$734.10

#### Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Solids - % by vol
0-300'	8.4-9.4	32-34	N/C	9.0	3-8

#### General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 300'	Quaternary/Ogallala	Sand, gravel beds, red beds	Swelling, sloughing clay, excessive solids, mud rings

#### Interval Notes for 0 - 300

Spud with a conventional Bentonite and Lime slurry. Circulate the working pits and maintain the viscosity as needed to clean the hole. Adjust viscosity only as necessary to clean the hole. Use Ground Paper additions to control seepage and to enhance hole cleaning. Should severe losses be encountered sweep the hole with a 100 bbl. Viscous(40-50) Bentonite pill containing 10-20 ppb of various sized fibrous LCM's. Dry drilling to casing point should be considered if one pill is not successful at regaining returns. Continue to sweep the hole with these viscous LCM pills periodically to keep cuttings cleaned from the well bore. Spot a viscous pill on bottom at total depth to aid in setting surface casing.

INTERVAL: 300 - 2,000'		7.875" hole	4 days	5.5" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier, hole sweep		Pre-hydrated sweep	100 #	90	\$7.84	\$705.60
Biocide (STC)	Biocide		1 gal./100 bbls.	5 gal	5	\$103.20	\$516.00
Caustic Soda	pH additive		.25 ppb	50 #	10	\$30.80	\$308.00
Desco	Thinner, dispersant		As needed	25 #	15	\$51.00	\$765.00
Ground Paper	Seepage and sweeps		1-3 sacks per 200 feet	40 #	30	\$9.35	\$280.50
Yellow Starch	Filtrate control		4-5 ppb	50 #	60	\$15.48	\$928.80
Interval Total							\$3,503.90

#### Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
300-2,000'	8.7-9.5	30-38	N/C-12cc	10.0	10-150K

#### General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
300' - 400'	Yates	Anhydrite, Salt, Possible Red Sand	Hole dissolution, key seats, hole cleaning
400' - 1,085'	Seven Rivers/Queen	Anhydrite, Red Sands, poss. Salt	Hole dissolution, key seats, hole cleaning
1,085' - 1,200'	Queen	Sand	
1,200' - 1,700'	Penrose	Sand	
1,700' - 2,000'	San Andres	Dolomite	TD

#### Interval Notes for 300 - 2,000

Drill out from surface with the existing system. Remain in the working pits. Adjust the pH to 10.0 with Caustic. Maintain the viscosity at 30-32 with additions of pre-hydrated Bentonite. We suggest adding Desco as a thinner as the gel may flocculate as the salt stringers are drilled. Continue to use Paper to control seepage and aid in hole cleaning. Use the jet and dilute method of solids control to keep the weight 8.7-9.0 ppg. As the Salt increases allow the weight to rise to 9.3-9.5 ppg. At total depth adjust the viscosity to 36-38 and lower the filtrate to 12cc or less with Yellow Starch. Some additions of a biocide will prevent any bacteria growth.

**NOTE:** an alternate method of drilling this section would be to drill out with brine (if a brine source is readily available). We would suggest staying in the reserve if this method is used. Adjust the pH to 10.0 with Caustic. Add MF-55 as needed to flocculate fine solids. At total depth we would suggest sweeping and spotting viscous (50-60) Salt Gel pills to ensure a clean hole for logging and/or casing operations.

# Recommended Drilling Fluids Program

Primexx Energy Corporation \* <sup>Sam's</sup> Sands Ranch "16" # 1 \* Sec 16, T-14-S, R-28-E, Chaves, NM

INTERVAL: 0 - 300'		11" hole	1 days	8.625" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier, hole sweep		12-14 ppb	100 #	35	\$7.84	\$274.40
Cedar Fiber/Fiber Plug	LCM, sealant		10-20 ppb in pills	40 #	10	\$7.27	\$72.70
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Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier, hole sweep		Pre-hydrated sweep	100 #	90	\$7.84	\$705.60
Biocide (STC)	Biocide		1 gal./100 bbls.	5 gal.	5	\$103.20	\$516.00
Caustic Soda	pH additive		.25 ppb	50 #	10	\$30.80	\$308.00
Desco	Thinner, dispersant		As needed	25 #	15	\$51.00	\$765.00
Ground Paper	Seepage and sweeps		1-3 sacks per 200 feet	40 #	30	\$9.35	\$280.50
Yellow Starch	Filtrate control		4-5 ppb	50 #	60	\$15.48	\$928.80
Interval Total:							\$3,503.90

## Totals

Bits 2  
Days 5  
Mud \$6,667

Materials Cost: \$4,238  
Trucking Cost: \$2,000  
Sales Tax/Product @ 6.88% \$292  
Sales Tax/Trucking @ 6.88% \$138  
Estimated Total Mud \$6,667