

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

Submit to appropriate District Office

MAR 19 2008
OCD-ARTESIA
☐ AMENDED REPORT
Permit renewal request

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

¹ Operator Name and Address: ST. MARY LAND & EXPLORATION CO., 3300 N "A", BLDG 7, SUITE 200, MIDLAND, TX 79705		² OGRID Number: 154903	
³ Property Code 37070		⁴ Property Name GAIL18 STATE COM "M"	
⁵ Proposed Pool 1: Undesignated Wolfcamp		⁶ Proposed Pool 2	

⁷ Surface Location									
UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	18	16S	29E		100	South	430	West	Eddy

⁸ 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
D	18	16S	29E		330	North	430	West	Eddy

¹¹ Work Type Code NW		¹² Well Type Code O		¹³ Cable/Rotary R		¹⁴ Lease Type Code State		¹⁵ Ground Level Elevation 3576.4'	
¹⁶ Multiple No		¹⁷ Proposed Depth 11,327' MD; 6760' TVD		¹⁸ Formation Wolfcamp		¹⁹ Contractor TBA		²⁰ Spud Date 04/05/2008	
Depth to Groundwater: 250'				Distance from nearest fresh water well: none				Distance from nearest surface water: none	
²¹ Proposed Casing and Cement Program									

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48#	320'	250 sx	Surface
12 1/4"	9 5/8"	40#	2400'	500 sx	Surface
8 3/4"	5 1/2"	17#	11 327'	1500 sx	2000'

²² 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.

Vertical Hole estimated TD: 7200'. Point of Entry: 7150' MD, 6830' TVD. 673' FSL & 430' FWL.

Drilling Plan attached.

Casing & Cementing Detail:

13 3/8", 48# H-40 STC Casing, Burst Pressure 1730 psi, Collapse 740 psi, Tension 322000#, Lead Cl C cmt w/ 2% CaCl nuxed @ 12.5 ppg & 1.94 ft3/sx, tail w/Premium + 2% CaCl2 mixed @ 14.8 ppg & 1.34 ft3/sx.
9 5/8", 40# J55 BTC Casing, Burst Pressure 3950 psi, Collapse 2570 psi, Tension 714000#, Lead Cl C cmt +1/4# flocele mixed @ 11.5 ppg & 2.76 ft3/sx, tail w/premium mixed @ 14.8 ppg & 1.32 ft3/sx.
5 1/2", 17# N-80 LTC Casing, Burst Pressure 7740 psi, Collapse 6290 psi, Tension 348000#, Lead Cl C cmt mixed @ 11.5 ppg & 2.78 ft3/sx, tail w/Cl H +0.5% HaladR-344+0.4% CFR-3 + 0.3% HR-7 + 1 pps salt, mixed @ 13 ppg & 1.67 ft3/sx.

²³ 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 X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Ann E. Ritchie

Title: Regulatory Agent

E-mail Address: ann.ritchie@wtor.net

Date: 03/14/2008

Phone: 432 684-6381/688-1773

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date: 3/28/08

Expiration Date: 3/28/10

Conditions of Approval Attached ☐

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-402
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-36232	Pool Code 96086	Pool Name Undesignated: Wolfcamp
Property Code 37070	Property Name GAIL 18 STATE COM "M"	Well Number 1
OGRID No. 154903	Operator Name ST. MARY LAND & EXPLORATION COMPANY	Elevation 3576.4'

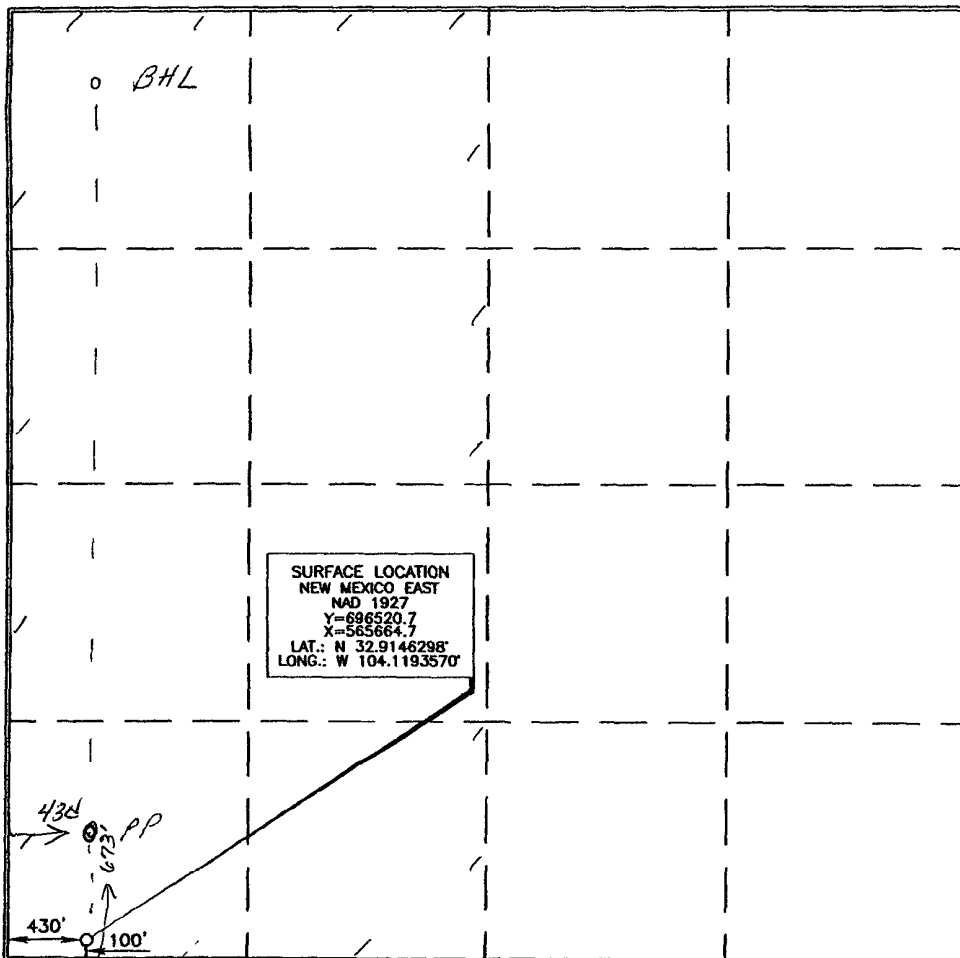
Surface Location

UL or lot no. M	Section 18	Township 16 SOUTH	Range 29 EAST, N.M.P.M.	Lot Idn	Feet from the 100'	North/South line SOUTH	Feet from the 430'	East/West line WEST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot no. D	Section 18	Township 16S	Range 29E	Lot Idn	Feet from the 330	North/South line North	Feet from the 430	East/West line West	County Eddy
Dedicated Acres		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.



OPERATOR 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 unleased mineral interest in the land including 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

3-11-08
Signature _____ Date _____
Ann Ritchie, Regulatory Agent
Printed Name

SURVEYOR CERTIFICATION

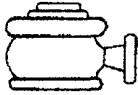
I hereby certify that the well location shown on this plat was plotted from field notes of a professional survey made by me or under my supervision and that the same is true and correct to the best of my belief.

15079
FEBRUARY 16, 2008
Date of Survey
Signature and Seal of Professional Surveyor
Terry A. Paul 2/20/2008
Certificate Number 15079

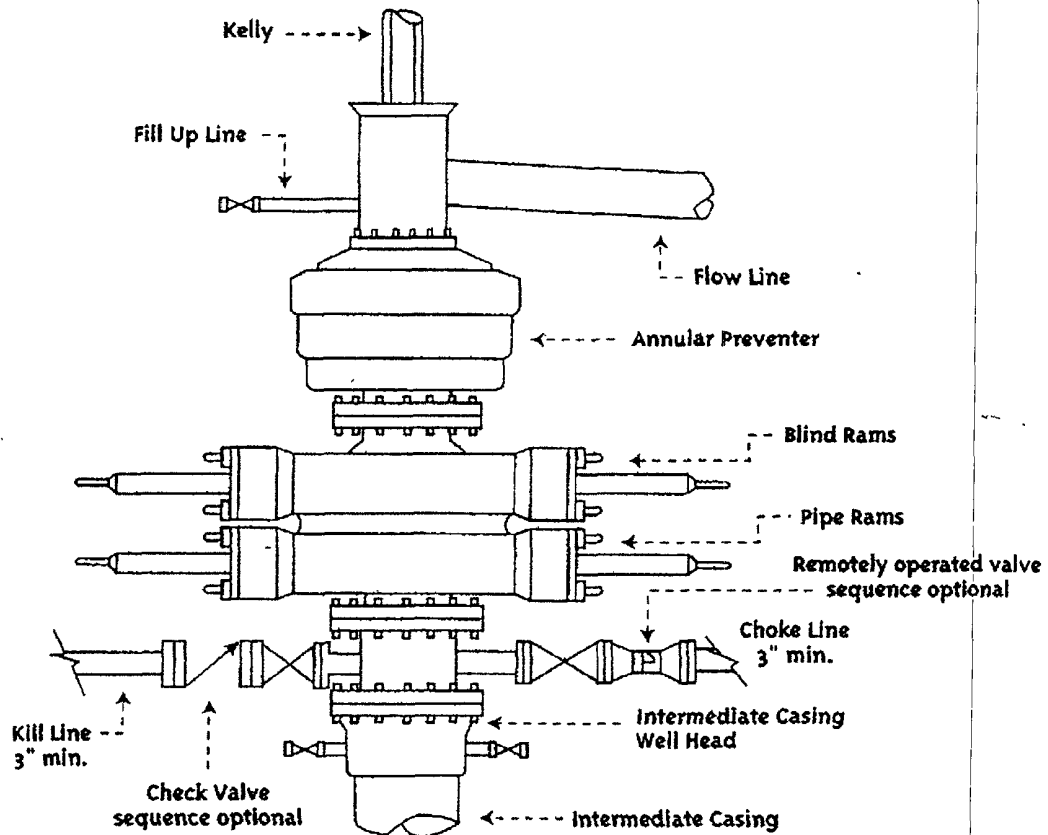
WO# 080216WL-a (KA)

DRILLING PLAN																	
PROSPECT/FIELD	WolfBo				COUNTY/STATE		Eddy County, New Mexico										
OWNERS	St Mary Land & Exploration																
WELL NO.	Gail 18 State Com M #1				LEASE												
LOCATION	SWSW 18 -16S- 29E		Surface Location:		100' FSL		430' FWL										
EST. T.D.	11,327 ' MD		6,760 ' TVD		GROUND ELEV.		3,576' (est) ungraded										
		Total Lateral		4,177 ft													
PROGNOSIS:					LOGS:												
Based on 3,596' KB(est)					<table border="1"> <thead> <tr> <th>Type</th> <th>Interval</th> </tr> </thead> <tbody> <tr> <td>Surface</td> <td>None</td> </tr> <tr> <td>Production</td> <td>Quad Combo to Int. Csg. GR/Neu to surf</td> </tr> <tr> <td>CBL</td> <td>Optional</td> </tr> </tbody> </table>					Type	Interval	Surface	None	Production	Quad Combo to Int. Csg. GR/Neu to surf	CBL	Optional
Type	Interval																
Surface	None																
Production	Quad Combo to Int. Csg. GR/Neu to surf																
CBL	Optional																
MARKER	DEPTH	DATUM			DEVIATION:												
Yates	540	3,056			Surf: 2 deg. max., 1 deg / 100', survey @ TD.												
Seven Rivers	680	2,916			Prod: 3 deg. max., 1 deg / 100'; survey every 500'												
Queen	1,274	2,322															
Penrose	1,450	2,146															
Grayburg	1,670	1,926															
San Andres	1,928	1,668															
Glorieta	2,515	1,081															
Tubb	4,770	(1,174)															
Abo	5,525	(1,929)			DST'S: None Planned												
Top Of Dolomite Porosity	6,746	(3,150)															
Dolomite Porosity Target	6,830	(3,234)															
Wolfcamp Marker	6,835	(3,239)															
Pilot Hole TD	6,955	(3,359)															
					CORES: None Planned												
					SAMPLES:												
					Mudlogging:												
					One-Man:												
					Two-Man: Intermediate casing point to TD.												
					BOP:												
					13 5/8" 3M psi Blind, Pipe & Annular												
Dip Rate: 1.4 ft/100 ft UP dip																	
Max. Anticipated BHP:					Surface Formation:												
MUD:	Interval	Type	WT	Vis	WL	Remarks											
	0' - 320'	Native	8.6 - 8.9	28-34	NC	Circ Reserve											
	320' - 2,400'	Saturated Brne	10.0	29	NC	Circ Reserve											
	2,400' - 11,327'	FW / Cut Brne	8.4 - 9.0	29	NC	Circ Reserve											
CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks										
Surface:	13 5/8	48	17 1/2	320'	250 sx	4 hrs	TOC @ Surface										
Intermediate:	9 5/8	40	12 1/4	2,400'	500 sx	4 hrs	TOC @ Surface										
Production:	5 1/2	17	8 3/4	11,327'	1,500 sx		TOC @ 2000 ft										
PROBABLE PLUGS, IF REQ'D:					Depth	Cement	WOC										
Plug Back Cmt Plug for Horizontal Kick Off				6000' - 6500'	200 sx	24 hrs											
OTHER:	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI	Build Rate(per 100')	10.0									
Surface:	N/A	N/A	100' FSL	430' FWL	18-16S-29E	N/A											
KOP:	6,250'	6,250'	100' FSL	430' FWL	18-16S-29E	360.0											
Point Of Entry (90 deg):	7,150'	6,830'	673' FSL	430' FWL	18-16S-29E	360.0											
TD:	11,327'	6,760'	330' FNL	430' FWL	18-16S-29E	360.0											
Comments:																	
MWD Surveys will be taken every 30' while building curve and every 90' while drilling lateral																	
Prep By:	B D Short		Date:	2/25/2008		Doc:											

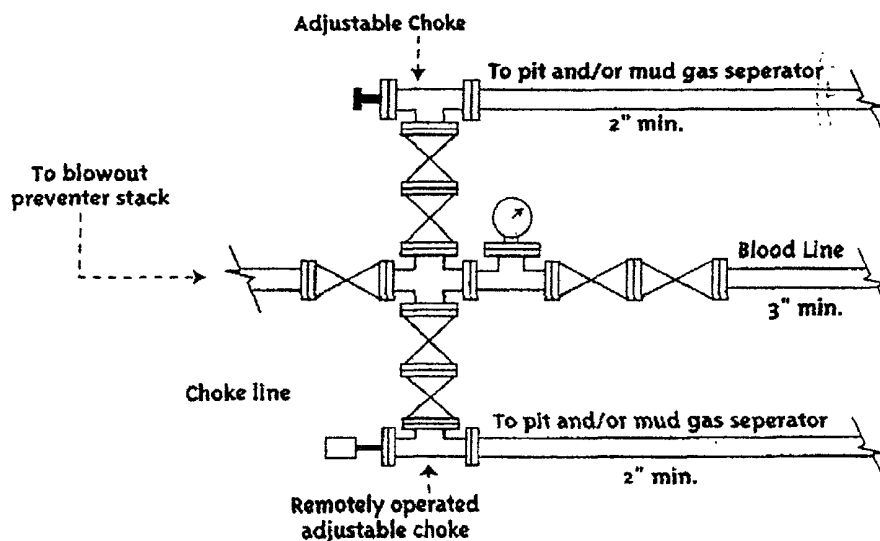
St. Mary Land & Exploration Co.




**Typical 3,000 psi Pressure System
Schematic
Annular Double Ram Preventer Stack**

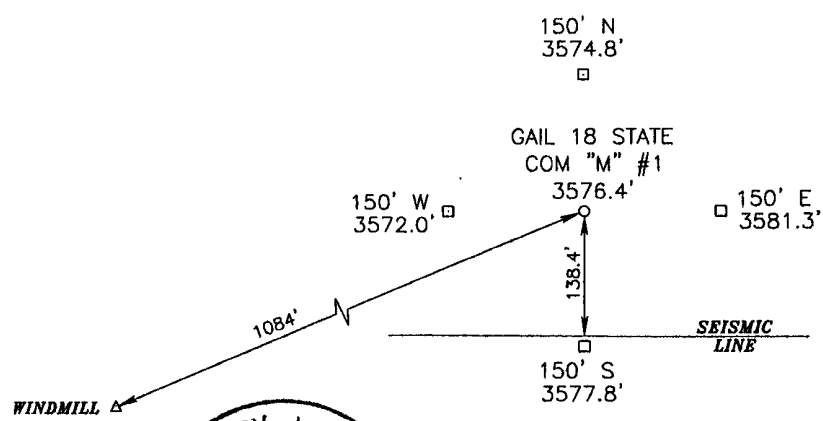
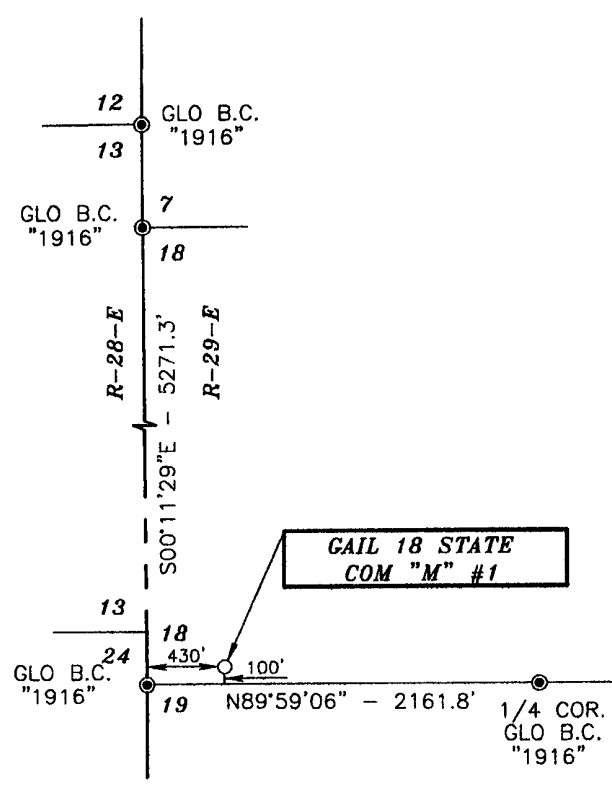


Typical 3,000 psi choke manifold assembly with at least these minimum features



SECTION 18, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY
NEW MEXICO

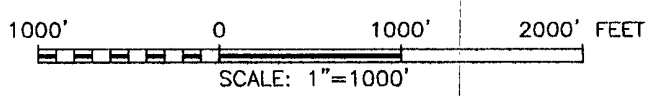

Basis of Bearings - GPS Geodetic Measurements
NM East Zone (83) North American Datum of 1983



SCALE-1\"/>

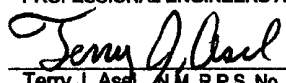
LEGEND

● - DENOTES FOUND MONUMENT AS NOTED



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

 2/20/2008
Terry J. Asel, N.M. R.P.S. No. 15079

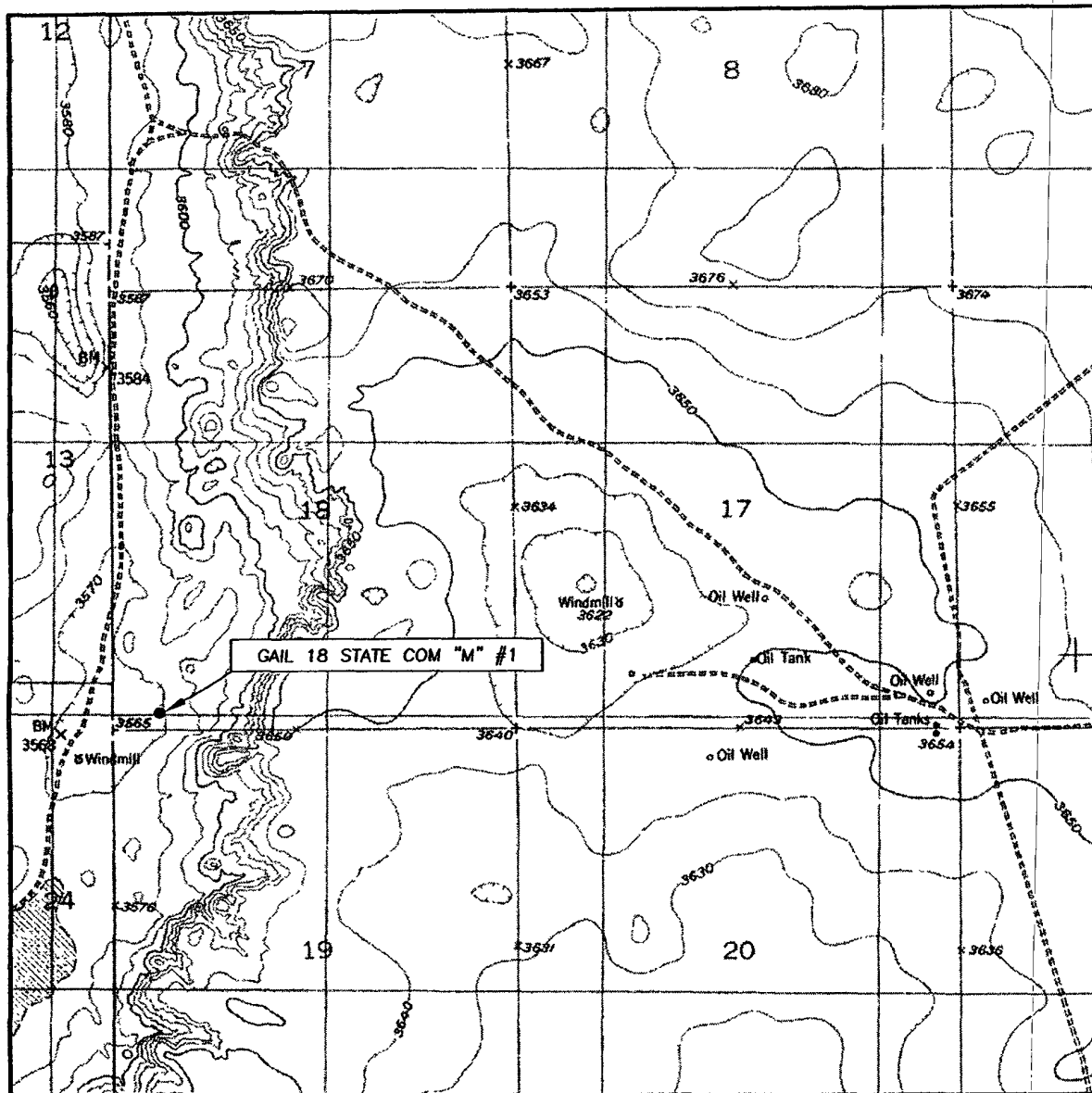
Asel Surveying



P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 505-393-9146

ST. MARY LAND & EXPLORATION COMPANY			
GAIL 18 STATE COM "M" #1 IN SECTION 18, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO			
Survey Date: 02/16/08	Sheet 1	of 1	Sheets
W.O. Number: 080216WL-a	Drawn By: KA	Rev:	
Date: 02/20/08	080216WL-a	Scale: 1"=1000'	

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 18 TWP. 16-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 100' FSL & 430' FWL

ELEVATION 3576.4'

ST. MARY LAND &
OPERATOR EXPLORATION COMPANY

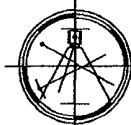
LEASE GAIL 18 STATE COM "M" #1

U.S.G.S. TOPOGRAPHIC MAP

BASIN WELL, N.M.

Asel Surveying

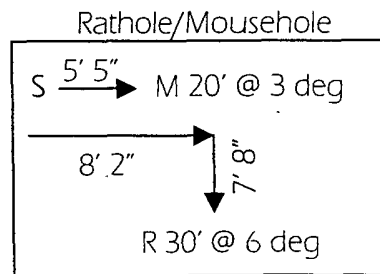
P.O. BOX 393 - 310 W. TAYLOR
HOBBBS, NEW MEXICO - 505-393-9146



RIG

First wall on reserve @
back of cellar on pump side

6' x 6'
Cellar



Wilson, Kimberly M, EMNRD

From: Ann Ritchie [ann.ritchie@wtor.net]
Sent: Wednesday, March 26, 2008 12:55 PM
To: Wilson, Kimberly M, EMNRD
Subject: St. Mary Land & Exploration Company

Kimberly,

St. Mary Land & Exploration Company does not anticipate that there will be enough H₂S from the surface to the Wolfcamp formation to meet the OCD's minimum requirements for the submission of a contingency plan for this test on the Gail 18 State Com "M", Well #1, Sec 18, T16S, R29E, Eddy County, New Mexico, Undesignated; Wolfcamp.

Thank you,
Ann E. Ritchie, Regulatory Agent
St. Mary Land & Exploration Company
3300 N. "A" St., Bldg. 7, Suite 200
Midland, TX 79705

ann.ritchie@wtor.net
432 684-6381;682-1458-fax

This inbound email has been scanned by the MessageLabs Email Security System.

FIGURE 1: CROSS-SECTIONS AND PLANS FOR TYPICAL ROAD CONSTRUCTION REPRESENTATIVE OF BLM RESOURCE, AND HIGHER CLASS, ROADS.

(copy for reference)

(Travel way, top width, driving surface, and travel surface are synonymous.)

