

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

DEC - 1 2008

OCD-ARTESIA

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

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

Operator Name and Address ST. MARY LAND & EXPLORATION COMPANY 3300 NORTH "A" STREET - BUILDING 7 SUITE 200 MIDLAND, TEXAS 79705		OGRID Number 154903
Property Code 35718	Property Name GAIL "36" STATE	Well No. # 2
Proposed Pool 1 CROW FLATS-WOLFCAMP (97691)		Proposed Pool 2

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	36	16S	28E		1980'	NORTH	100'	WEST	EDDY

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
H	36	16S	28E		1980'	NORTH	330'	EAST	Eddy

Additional Well Information

Work Type Code N	Well Type Code O	Cable/Rotary ROTARY	Lease Type Code S	Ground Level Elevation
Multiple NO	Proposed Depth MD-11,435'	Formation WOLFCAMP	Contractor	Spud Date WHEN APPROVED

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface
17 1/2"	13 3/8"	48#	320'	450 Sx.	Surface
12 1/2"	9 5/8"	40#	2275'	700 Sx.	Surface
8 4/4"	7"	26#	7060'	600 Sx.	2000' FS 1600
6 1/8"	4 1/2"	11.6#	11,435'	-----	not cemented

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.

SEE ATTACHED SHEET FOR DETAIL

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>Joe T. Janica</i>		Approved by: <i>Jim W. Green</i>	
Printed name: Joe T. Janica		Title: <i>District II Supervisor</i>	
Title: Permit Eng.		Approval Date: <i>12/10/08</i>	Expiration Date: <i>12/10/10</i>
E-mail Address: joejanica@valornet.com			
Date: 11/26/08	Phone: 575-391-8503	Conditions of Approval Attached ☒ TIE BACK AND STAIN	

ENTERED
12-22-08

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 320'. Run and set 320' of 13 3/8" 48# H-40 ST&C casing. Cement with 250 Sx. of Class "C" cement + 2% CaCl, + additives, mix at 12.5 PPG, Yield 1.94, tail in with 200 Sx. of Class "C" Permium Plus cement + 2% CaCl, mix at 14.8 PPG, Yield 1.34, circulate cement to surface.
3. Drill 12¼" hole to 2275'. Run and set 2275' of 9 5/8" 40# J-55 ST&C casing. Cement with 500 Sx. of Class "C" cement + 0.25 lb of flocele/Sx, + additives, mix at 11.5 PPG, Yield 2.76, tail in with 200 Sx. of Class "C" Permium Plus cement + additives, mix at 14.8 PPG, Yield 1.32, circulate cement to surface.
4. Drill 8 3/4" hole to 7060'. Run and set 7060' of 7" 26# P-110 LT&C casing. Cement with 400 Sx. of Class "H" cement + 0.3% dispersant + 0.7% fluid loss control, + ¼#/Sx defoamer, mix at 11.9 PPG, Yield 2.49, Tail in with 200 Sx. of Class "H" cement + 0.5% fluid loss control, + 0.4% dispersant, + ¼#/Sx defoamer, mix at 15.6 PPG, Yield 1.2 top of cement estimate 2000' from surface
5. Drill 6 1/8" hole to 11,435'. Run and set 4775' of 4½" 11.6# P-110 LT&C liner. Hang liner at 6660±' liner will not be cemented to enhance formation stimulation.

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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-102
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 30.015.36839	Pool Code 97691	Pool Name WC CROW FLATS-WOLFCAMP Also
Property Code 37518	Property Name GAIL 36 STATE	Well Number 2
OGRID No. 154903	Operator Name ST. MARY LAND & EXPLORATION COMPANY	Elevation 3588.4'

Surface Location

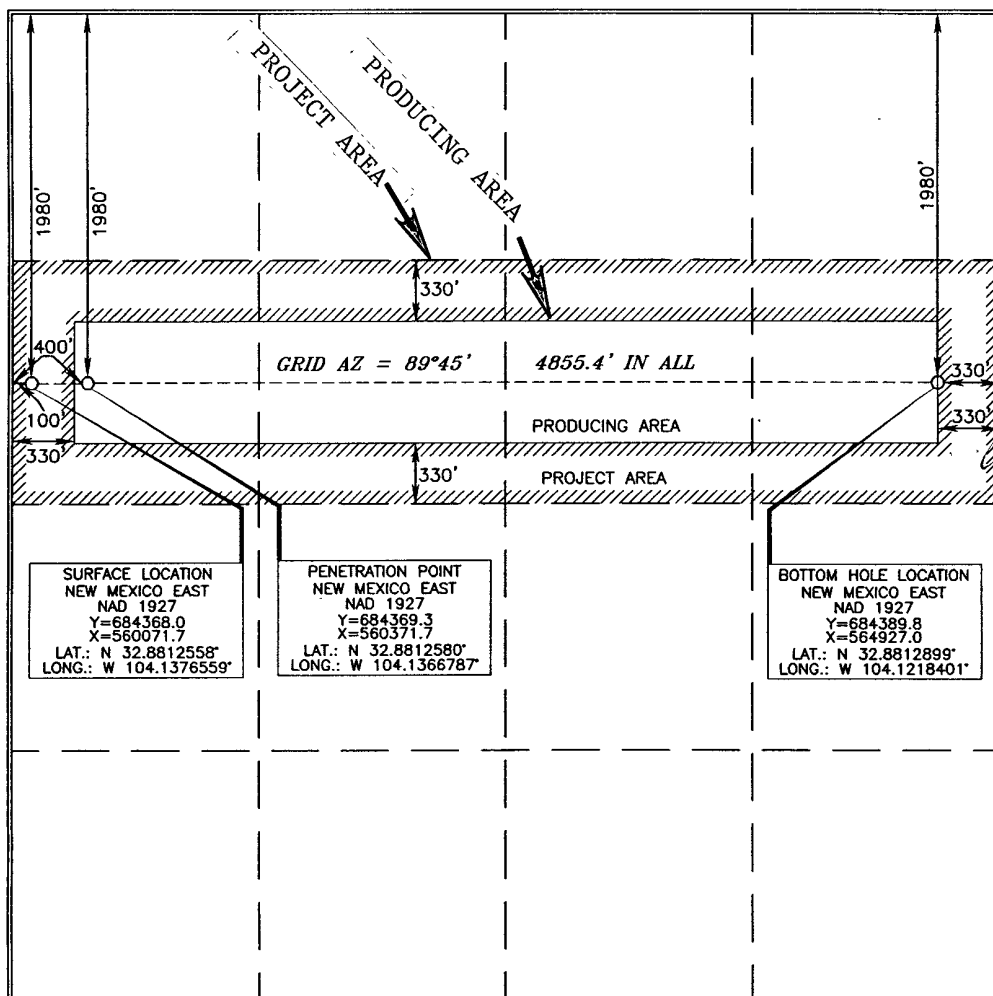
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	36	16 SOUTH	28 EAST, N.M.P.M.		1980	NORTH	100	WEST	EDDY

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
H	36	16 SOUTH	28 EAST, N.M.P.M.		1980	NORTH	330	EAST	EDDY

Dedicated Acres 160	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.



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.

Joe T. Janica
Signature Date
Joe T. Janica 11/26/08
Printed Name

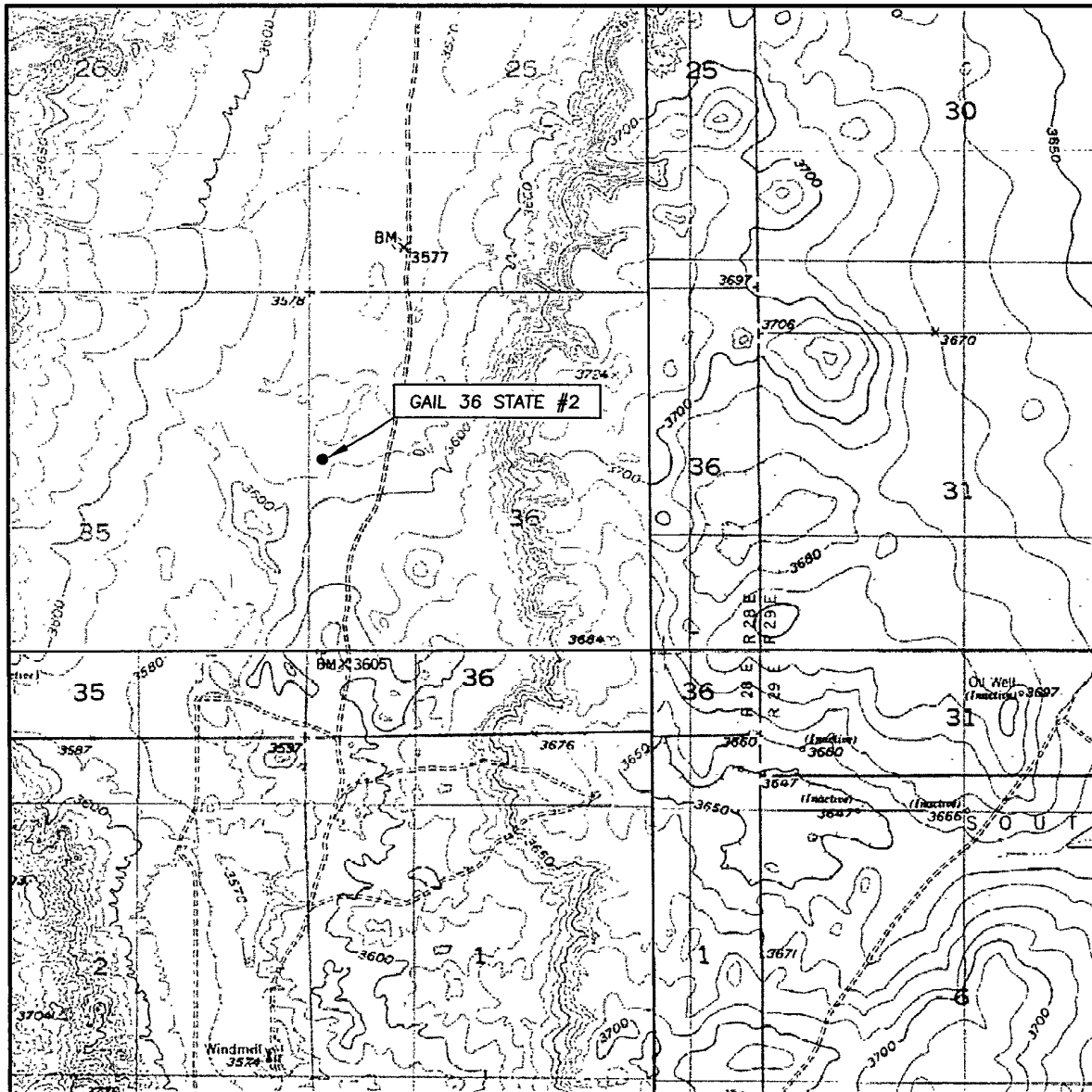
SURVEYOR CERTIFICATION

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

Tommy J. Paul
Date of Survey
SEPTEMBER 6, 2008
Signature and Seal of Professional Surveyor
Certificate Number 15079

WO# 080906WL-b (Rev. A)(KA)

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 36 TWP. 16-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 100' FWL

ELEVATION 3588.4'

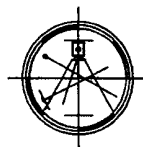
ST. MARY LAND &
OPERATOR EXPLORATION COMPANY

LEASE GAIL 36 STATE #2

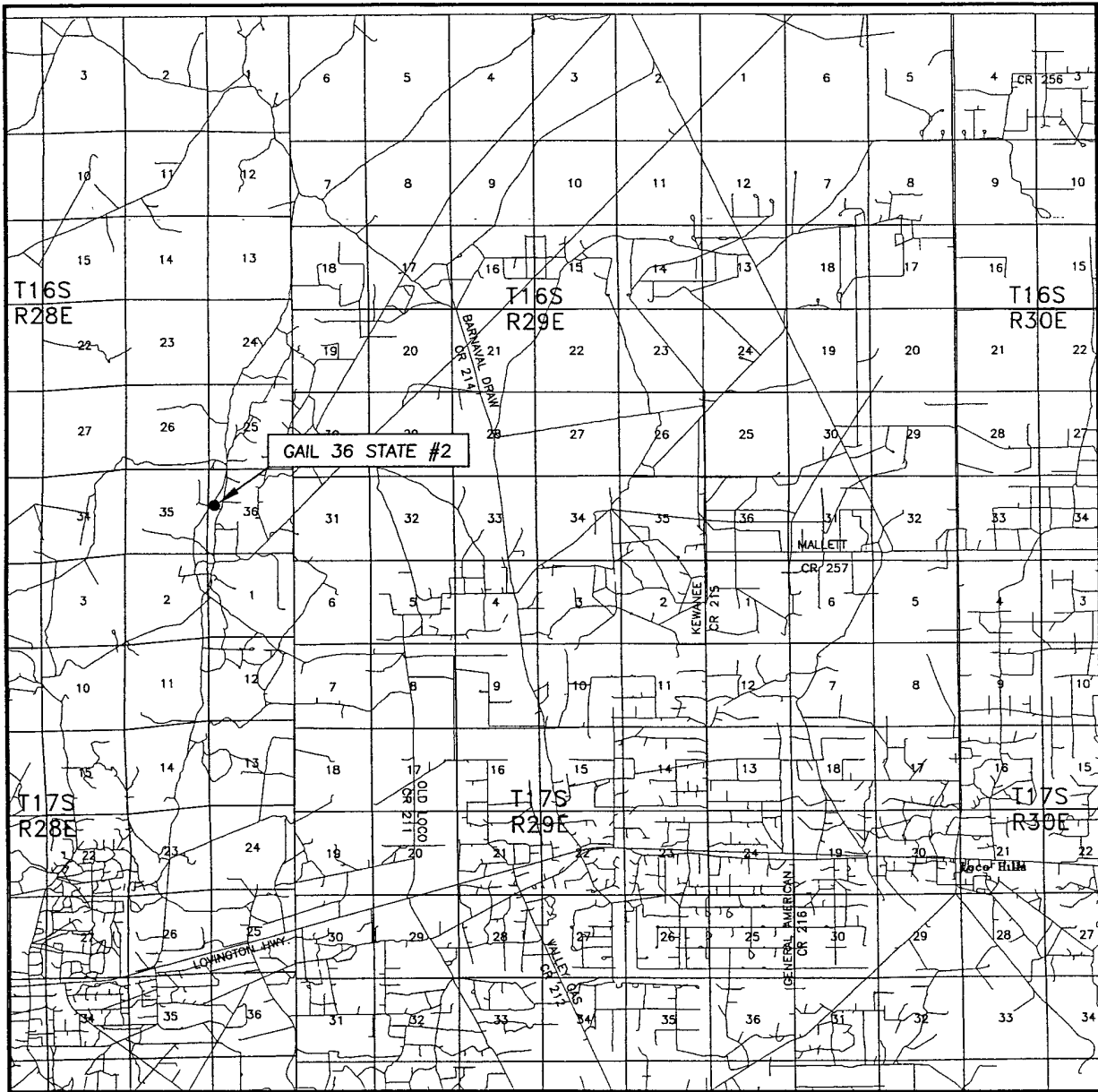
U.S.G.S. TOPOGRAPHIC MAP
DIAMOND MOUND, N.M.

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146



VICINITY MAP



SEC. 36 TWP. 16-S RGE. 28-E

SCALE: 1" = 2 MILES

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 100' FWL

ELEVATION 3588.4'

ST. MARY LAND &

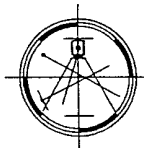
OPERATOR EXPLORATION COMPANY

LEASE GAIL 36 STATE #2

DIRECTIONS BEGINNING IN LOCO HILLS AT THE INTERSECTION OF US HWY. #82 AND EDDY COUNTY ROAD #217, GO WEST ON US HWY. #82 FOR 9.7 MILES TO COUNTY ROAD #209 (TURKEY TRACK ROAD), TURN RIGHT AND GO NORTH FOR 6.0 MILES, TURN LEFT AND GO WEST FOR 0.1 MILES TO LOCATION.

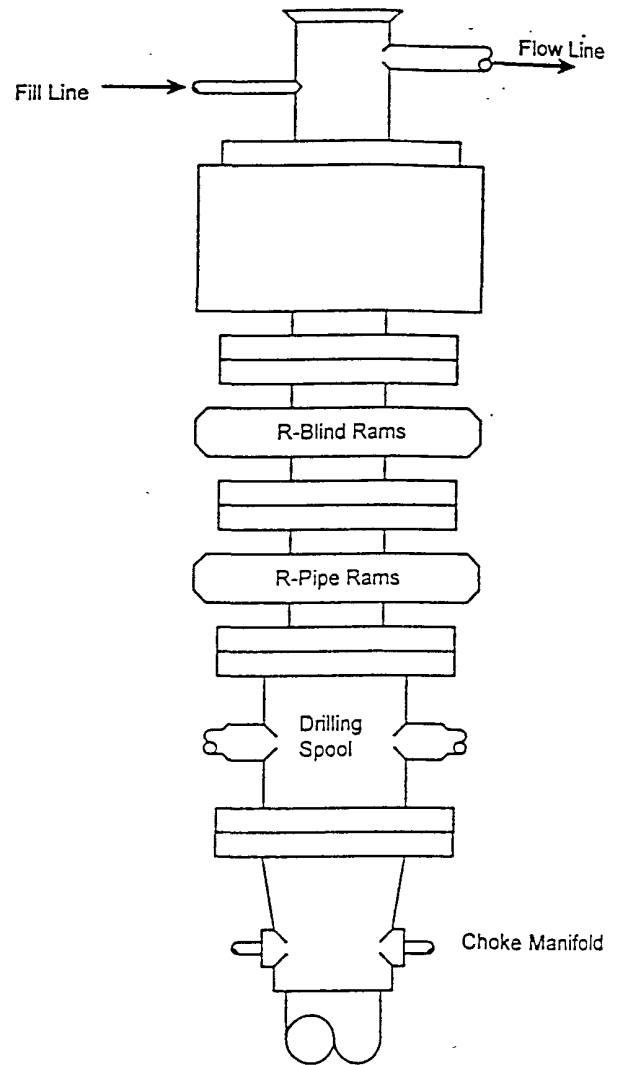
Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146



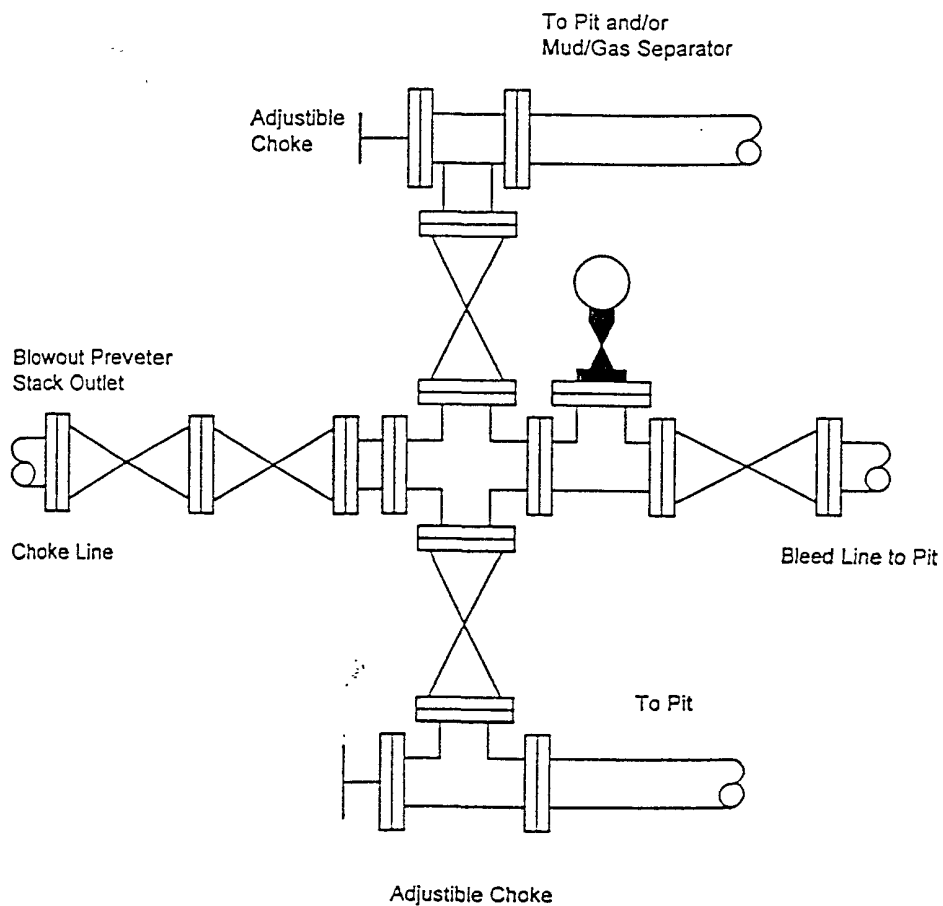
BLOWOUT PREVENTER SYSTEM

3000 PSI



Type 900 SERIES
3000 PSI WP

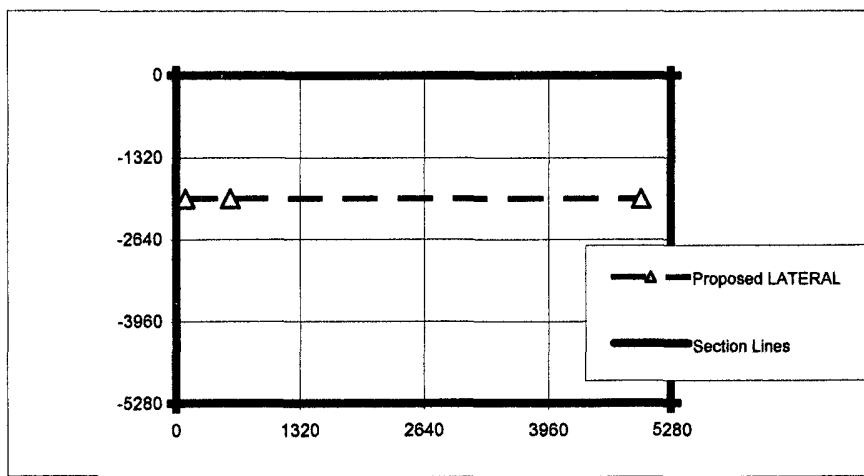
Choke Manifold Assembly for 5M WP System



DRILLING PLAN									
PROSPECT/FIELD,		WolfBo		COUNTY/STATE		Eddy County, New Mexico			
OWNERS		St Mary Land & Exploration							
WELL NO.		Gail 36 State #2		LEASE					
LOCATION		SWNW 36 -16S- 28E		Surface Location		1980' FNL		100' FWL	
EST. T.D.		11,435' MD		6,845' TVD		GROUND ELEV.		3,590' (est) ungraded	
		Total Lateral		4,375 ft					
PROGNOSIS:		Based on 3,613' KB(est)							
MARKER		DEPTH		DATUM		LOGS:		Type	
								Interval	
Yates		720		2,893		Surface		None	
Seven Rivers		945		2,668		Intermediate #2		Quad Combo to Int. Csg. GR/Neu to surf.	
Queen		1,484		2,129		CBL		Optional	
San Andres		2,173		1,440		DEVIATION:			
Glorieta		3,588		25		Surf. 2 deg max , 1 deg / 100'; survey @ TD			
Abo		5,630		(2,017)		Prod: 3 deg max , 1 deg / 100'; survey every 500'			
Top Of Dolomite Porosity		6,796		(3,183)		DST'S: None Planned			
Base Of Dolomite Porosity		6,881		(3,268)					
Wolfcamp		6,966		(3,353)					
Wolfcamp XX Marker		7,140		(3,527)					
Pilot Hole TD		7,300		(3,687)					
		CORES: None Planned							
		SAMPLES:							
		Mudlogging:							
		One-Man:							
		Two-Man: Intermediate #1 casing point to TD.							
		BOP:							
		13 5/8" 3M psi Blind, Pipe & Annular							
Dip Rate		1.4 ft/100 ft DOWN dip							
Max. Anticipated BHP:		Surface Formation:							
MUD:		Interval		Type		WT		Vis	
		0' - 320'		Native		8 6 - 8 9		28-34	
		320' - 2,275'		Saturated Brine		10 0		29	
		2,275' - 11,435'		Fresh Water		8 4		29	
								WL	
								NC	
								NC	
								NC	
								Remarks	
								Closed Loop	
								Closed Loop	
								Closed Loop	
CASING:		Size		Wt ppf		Hole		Depth	
								Cement	
								WOC	
								Remarks	
Surface:		13 5/8		48		17 1/2		320'	
								250 sx	
Intermediate #1:		9 5/8		40		12 1/4		2,275'	
								500 sx	
Intermediate #2:		7		26		8 3/4		7,060'	
								400 sx	
Production:		4 1/2		11 6		6 1/8		11,435'	
								4 hrs	
								4 hrs	
								4 hrs	
								NA	
								TOC @ Surface	
								TOC @ Surface	
								TOC @ 2000 ft	
								Un Cemented	
PROBABLE PLUGS, IF REQ'D:		Depth		Cement		WOC			
Plug Back Cmt Plug for Horizontal Kick Off		6200' - 7400'		200 sx		24 hrs			
OTHER:		MD		TVD		FNL/FSL		FEL/FWL	
								S-T-R	
								AZI	
								Build Rate(per 100')	
								12.0	
Surface:		N/A		N/A		1980' FNL		100' FWL	
								36-16S-28E	
KOP:		6,310'		6,310'		1980' FNL		100' FWL	
								36-16S-28E	
Intermediate #2 Csg Point		7,060'		6,796'		1980' FNL		577' FWL	
								36-16S-28E	
TD		11,435'		6,845'		1980' FNL		330' FEL	
								36-16S-28E	
								90.0	
								90.0	
								90.0	
Comments:									
MWD Surveys will be taken every 30' while building curve and every 90' while drilling lateral.									
Prep By:		B D. Short		Date:		11/13/2008		Doc:	

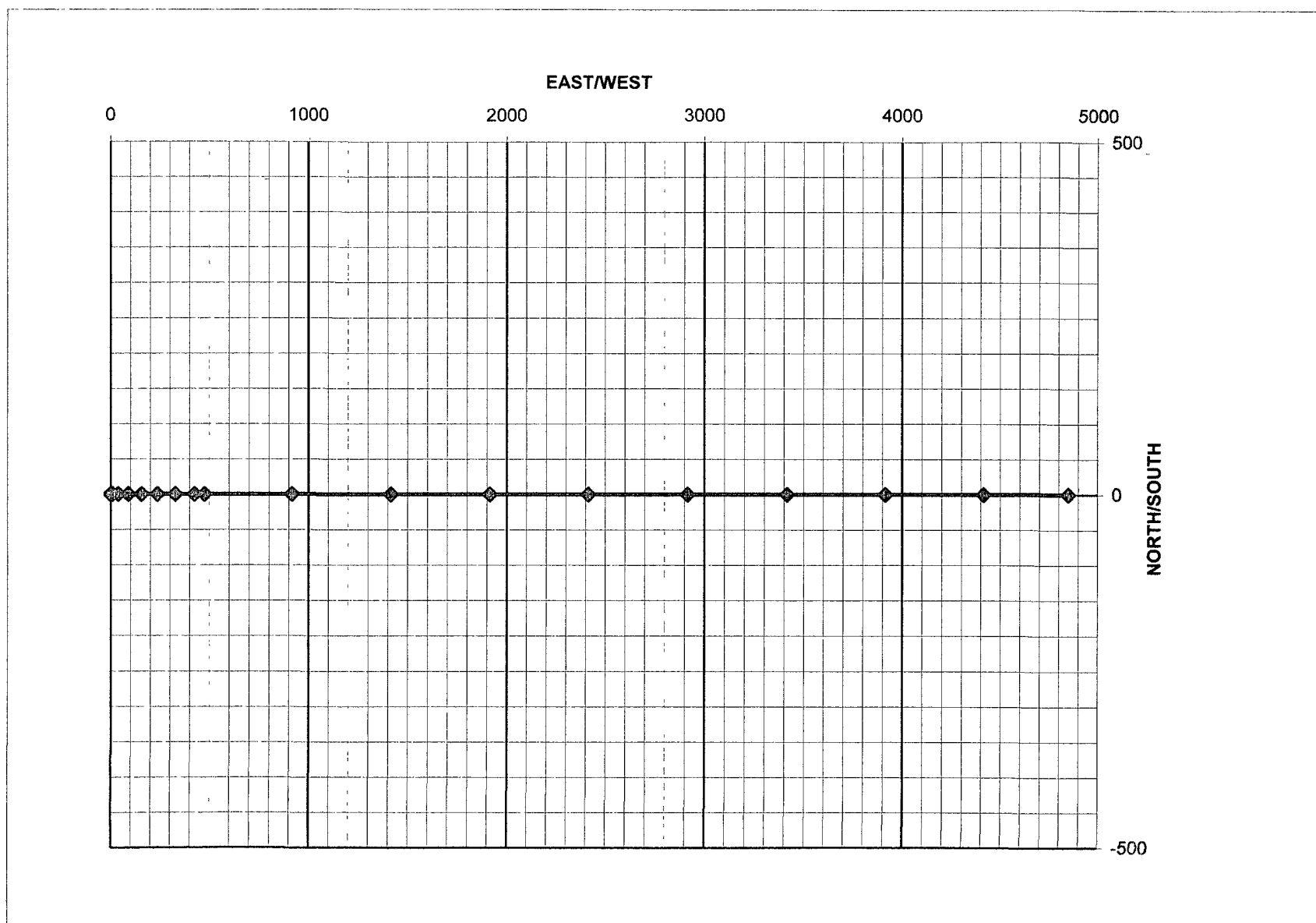
Gail 36 State #2				TARGET TVD =		6966.00	SURFACE		-1980	100
SWNW 36 -16S- 28E				TARGET INCLINATION =		87.00	Casing Point		-1980	577
11,435' MD	6,845' TVD			PROPOSED AZM.=		90.00	Way Point #1		-1980	4951
TOTAL LATERAL:		4,375'	MWDSPACING		36.00	Projected TD		-1980	4951	
				BUILD RATE=		12.00				
DEPTH	INC.	AZM	CL	T.V.D.	V.S.	N/S	E/W	N/S from Surface	E/W from Surface	
500			500	500.00						
1000			500	1,000.00						
1500			500	1,500.00						
2000			500	2,000.00						
2500			500	2,500.00						
3000			500	3,000.00						
3500			500	3,500.00						
4000			500	4,000.00						
4500			500	4,500.00						
5000			500	5,000.00						
5500			500	5,500.00						
6000			500	6,000.00		-1980.00	100.00			
6310		90.0	310	6,310.00		-1980.00	100.00			
6410	12.0	90.0	100	6409.27	10.4	-1980.00	110.40			10.40
6510	24.0	90.0	100	6504.20	41.2	-1980.00	141.17			41.17
6610	36.0	90.0	100	6590.65	91.0	-1980.00	190.97			90.97
6710	48.0	90.0	100	6664.83	157.6	-1980.00	257.62			157.62
6810	60.0	90.0	100	6723.50	238.2	-1980.00	338.22			238.22
6910	72.0	90.0	100	6764.10	329.2	-1980.00	429.23			329.23
7010	84.0	90.0	100	6784.85	426.7	-1980.00	526.68			426.68
7060	90.0	90.0	50	6787.46	476.6	-1980.00	576.57			476.57
7500	89.2	90.0	440	6790.54	916.6	-1980.00	1016.55			916.55
8000	89.2	90.0	500	6797.52	1416.5	-1980.00	1516.50			1416.50
8500	89.2	90.0	500	6804.50	1916.5	-1980.00	2016.45			1916.45
9000	89.2	90.0	500	6811.48	2416.4	-1980.00	2516.40			2416.40
9500	89.2	90.0	500	6818.46	2916.4	-1980.00	3016.36			2916.36
10000	89.2	90.0	500	6825.44	3416.3	-1980.00	3516.31			3416.31
10500	89.2	90.0	500	6832.42	3916.3	-1980.00	4016.26			3916.26
11000	89.2	90.0	500	6839.40	4416.2	-1980.00	4516.21			4416.21
11435	89.2	90.0	435	6845.48	4851.2	-1980.00	4951.17			4851.17

**GAIL 36 STATE #2
SWNW SEC 36 TWN 16S - R28E
EDDY CO, NM**



BDS
11/13/2008

Gail 36 State #2 Drig Plan PLAT



Gail 36 State #2
Sec 36 Twn 16S R 28E
Vertical Section vs TVD

