

API #30-015-40371

Regulatory Department

August 30, 2012

VIA CERTIFIED MAIL 7010 3090 0000 1552 7813

Mosaic Potash Carlsbad, Inc.
1361 Potash Mines Rd.
Carlsbad, NM 88220

Re: Los Medanos 36 23 30 State 1H
200' FSL & 660' FWL of Unit M
Eddy County, NM

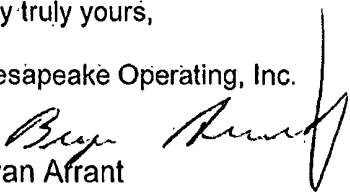
Dear Sir or Madam:

Please, find a copy of the application for permit to drill (APD) for the above captioned well submitted to the New Mexico Oil Conservation Division (NMOCD) District II office on August 29, 2012.

Division Order R-111-P (G) (2) requires that operators provide notice to each potash lease holder within a radius of one mile of the proposed well. Enclosed with the APD is NMOCD's C-102 land plat, along with numerous maps, showing the surface location of this well.

Very truly yours,

Chesapeake Operating, Inc.


Bryan Afrant
Regulatory Specialist II

Enclosure (1)

LOS MEDANOS 36-23-30 STATE NO. 1H WELL		NW ARCH. AREA CRN.		NE ARCH. AREA CRN.		SE ARCH. AREA CRN.		SW ARCH. AREA CRN.	
X=	652,000 NAD 27	Y=	652,000 NAD 27	X=	652,600 NAD 27	Y=	652,635 NAD 27	X=	652,000 NAD 27
Y=	456,680		456,984	Y=	456,988		456,358	Y=	456,384
LAT. 32.254580		NW PAD CRN.		NE PAD CRN.		SE PAD CRN.		SW PAD CRN.	
LONG. 101.840123		X=	652,231 NAD 27	X=	652,331 NAD 27	X=	652,334 NAD 27	X=	652,034 NAD 27
X=	652,531 NAD 27	Y=	456,852	Y=	456,852	Y=	456,522	Y=	456,520
LAT. 32.254709		ELEVATION +3422' NAVD 83		ELEVATION +3416' NAVD 83		ELEVATION +3423' NAVD 83		ELEVATION +3422' NAVD 83	
LONG. 101.843929									
ELEVATION +3422' NAVD 83									

State of New Mexico
SECTION 36
 ±35' Access Road

SECTION 35

BLM

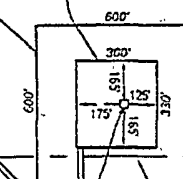
SECTION 34

T23S-R30E

T24S-R30E

PROPOSED
 ARCHAEOLOGICAL AREA
 ±5.99 Acres

PROPOSED PAD
 ±2.27 Acres



Los Medanos
 36-23-30 State
 No. 1H Well
 FWL=660'
 FSL=200'

Pancolino

SECTION 3
 ±8' Access Road

State of New Mexico
SECTION 2
 ±5629' Access Road

BLM
SECTION 1
 ±691' Access Road

FOR THE EXCLUSIVE USE OF
 CHESAPEAKE OPERATING, INC.
 I, WM. J. Daniel III, Registered Professional
 Land Surveyor, do hereby state this plat is true
 and correct to the best of my knowledge.

WM. J. Daniel III
 Registration No. 15075

SCALE

500' 0 250' 500'



135 Ragency Sq., Lafayette, LA 70506
 Ph. 337-237-2200 Fax. 337-332-3299
 www.fenstermaker.com

IT IS ADVISED, THAT WHILE REASONABLE EFFORTS ARE MADE TO LOCATE AND VERIFY PIPELINES AND
 UTILITIES USING OUR STANDARD PIPELINE LOCATING EQUIPMENT, IT IS IMPOSSIBLE TO BE 100%
 EFFECTIVE. AS SUCH, WE ADVISE USING CAUTION WHEN PERFORMING WORK AS THERE IS A POSSIBILITY
 THAT PIPELINES AND OTHER HAZARDS, SUCH AS FIBER OPTIC CABLES, PVC PIPELINES, ETC. MAY EXIST
 UNDETECTED ON SITE.

MANY STATES MAINTAIN INFORMATION CENTERS THAT ESTABLISH LINKS BETWEEN THOSE WHO DIG
 (EXCAVATORS) AND THOSE WHO OWN AND OPERATE UNDERGROUND FACILITIES (OPERATORS). IT IS
 ADVISABLE AND IN MOST STATES, LAW, FOR THE CONTRACTOR TO CONTACT THE CENTER FOR ASSISTANCE
 IN LOCATING AND MARKING UNDERGROUND UTILITIES. FOR GUIDANCE, A FEW STATES WITH SUCH
 PROGRAMS ARE LISTED BELOW: LOUISIANA ONE CALL™ www.onecall.com; MISSISSIPPI ONE CALL SYSTEM,
 http://www.onecall.org; TEXAS ONE CALL SYSTEM- http://www.onecall.org; ARKANSAS ONE CALL SYSTEM
 http://www.onecall.com.

DISCLAIMER: AT THIS TIME, FENSTERMAKER & ASSOCIATES, INC. HAS NOT PERFORMED NOR WAS ASKED TO
 PERFORM ANY TYPE OF ENGINEERING, HYDROLOGICAL MODELING, FLOOD PLAIN, OR "NO RISK"
 CERTIFICATION ANALYSES, INCLUDING BUT NOT LIMITED TO DETERMINING WHETHER THE PROJECT WILL
 IMPACT FLOOD HAZARDS IN CONNECTION WITH FEDERAL, CHA, STATE, AND/OR LOCAL LAWS, ORDINANCES
 AND REGULATIONS. ACCORDINGLY, FENSTERMAKER MAKES NO WARRANTY OR REPRESENTATION OF ANY
 KIND AS TO THE FOREGOING ISSUES, AND PERSONS OR ENTITIES USING THIS INFORMATION SHALL DO SO AT
 THEIR OWN RISK.

CHESAPEAKE OPERATING, INC.

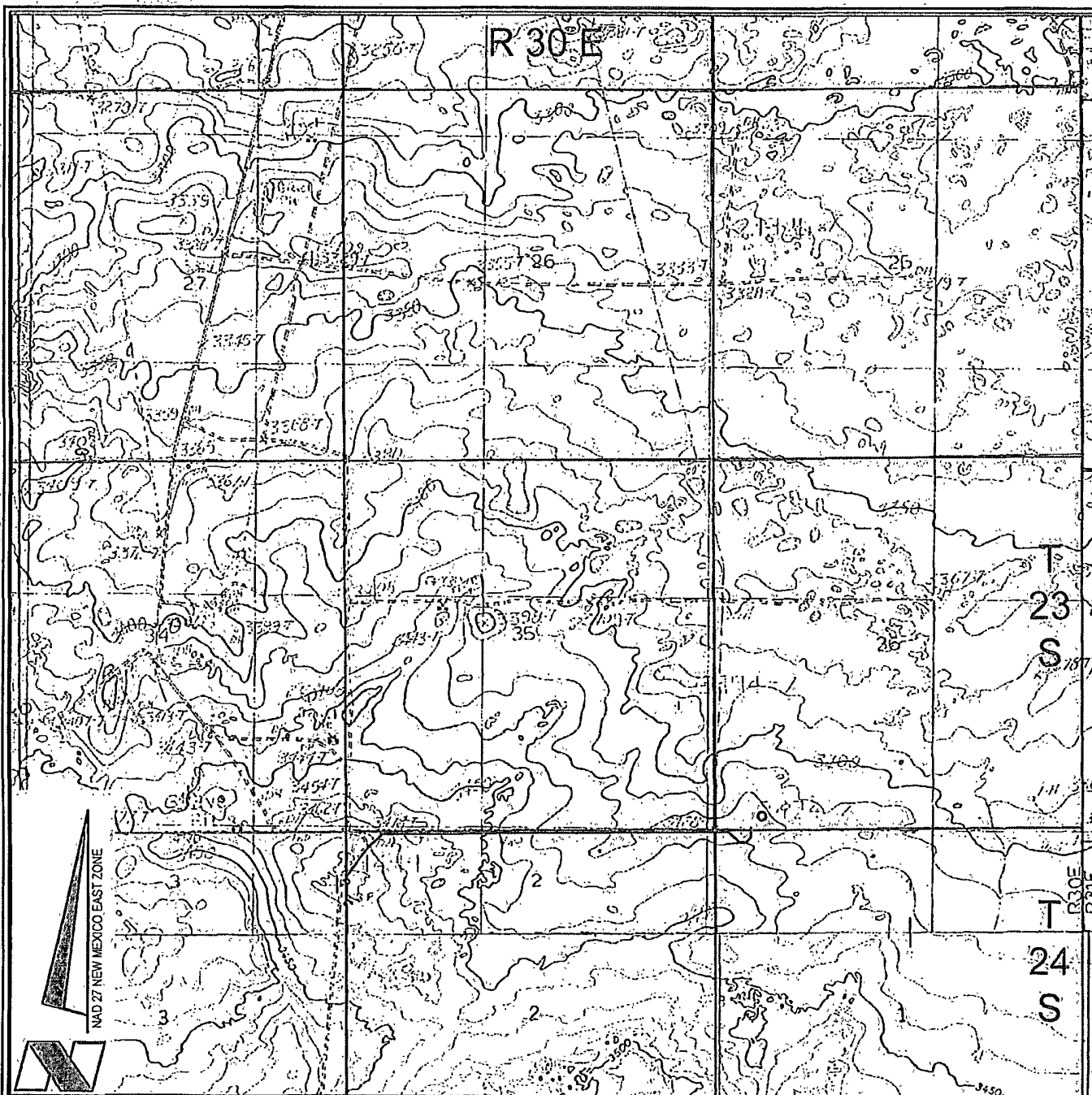
PROPOSED PAD & ACCESS ROAD

LOS MEDANOS 36-23-30 STATE NO. 1H WELL

SECTION 36, T23S-R30E & SECTIONS 1, 2 & 3, T24S-R30E
 EDDY COUNTY, NEW MEXICO

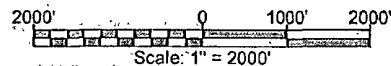
DRAWN BY: BMO.		REVISIONS	
PROJ. MGR.: DBM	No. 1	DATE: 09/20/2012	REVISED BY: BMO
DATE: JULY 03, 2012	No.	DATE:	REVISED BY:
FILENAME: T:\2012\2124876\DWG\Los Medanos 36-23-30 State 1H SUP revised.dwg			

APL # 30-015-40371



NOTE:
THE CONTENTS OF THESE PLANS ARE INTENDED
EXCLUSIVELY FOR THE PURPOSE OF OBTAINING
ENVIRONMENTAL COMPLIANCE PERMITS

VICINITY MAP



CHESAPEAKE OPERATING, INC.

LOS MEDANOS 36-23-30 STATE NO. 1H WELL

LOCATED 200' FSL AND 660' FWL

SECTION 36, T23S-R30E; SECTIONS 1, 2, & 3, T24S-R30E

EDDY COUNTY, NEW MEXICO



Lafayette New Orleans Houston
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax: 337-232-3299
www.fenstermaker.com

DRAWN BY: BMO

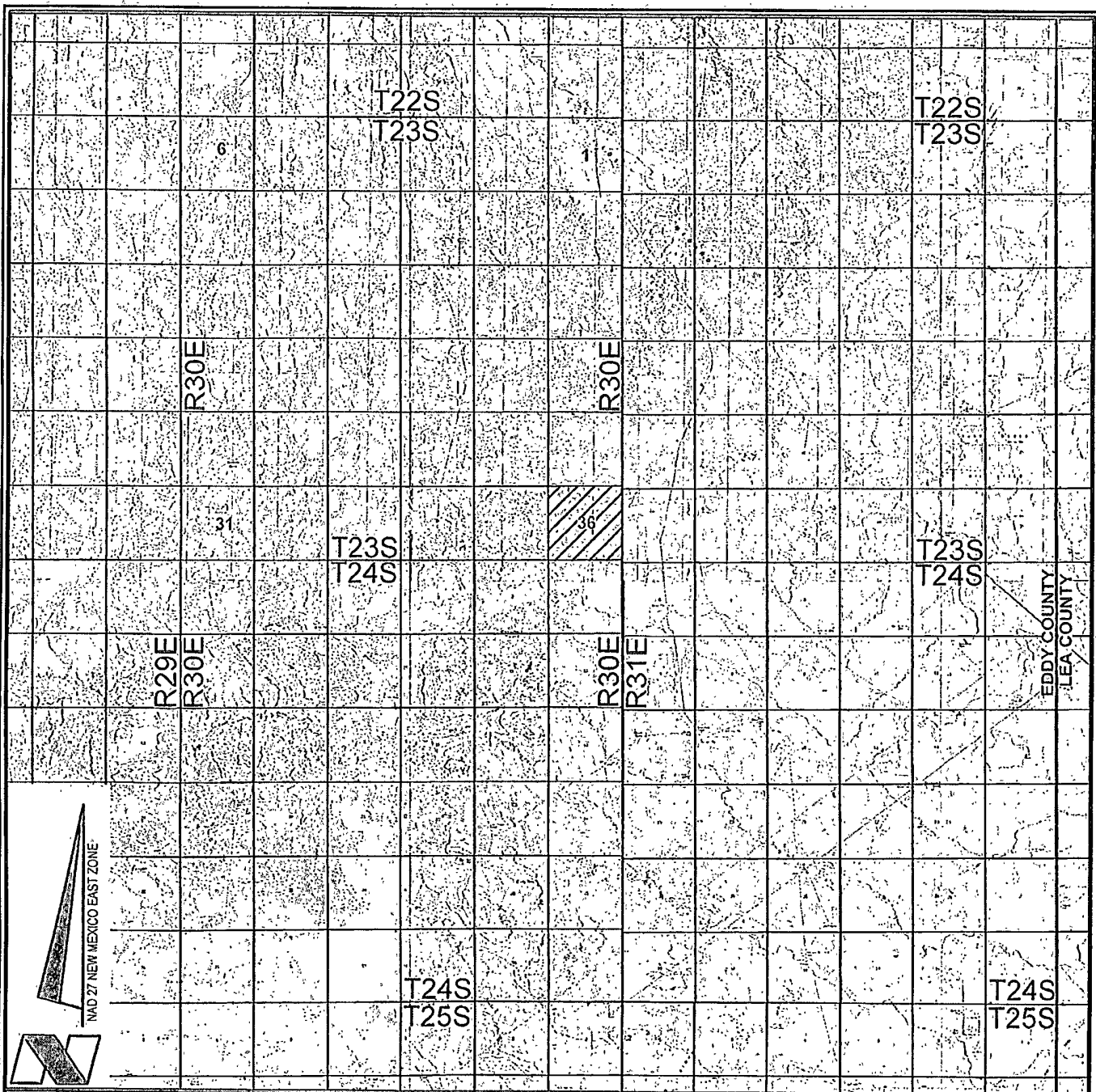
REVISED: 07/05/2012 BMO

DATE: MAY 17, 2012

PROJ. MGR.: DBM

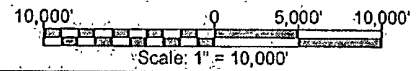
SHEET 1 OF 3 SHEETS

FILENAME: T:\2012\2124876\DWG\Los Medanos 36-23-30 State 1H\APD.dwg



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VICINITY MAP



CHESAPEAKE OPERATING, INC.

LOS MEDANOS 36-23-30 STATE NO. 1H WELL

LOCATED 200' FSL AND 660' FWL

SECTION 36, T23S-R30E; SECTIONS 1, 2, & 3, T24S-R30E

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DRAWN BY: BMO

REVISED: 07/05/2012 BMO
08/20/2012 BMO

DATE: MAY 17, 2012

PROJ. MGR.: DBM

SHEET 2 OF 3 SHEETS

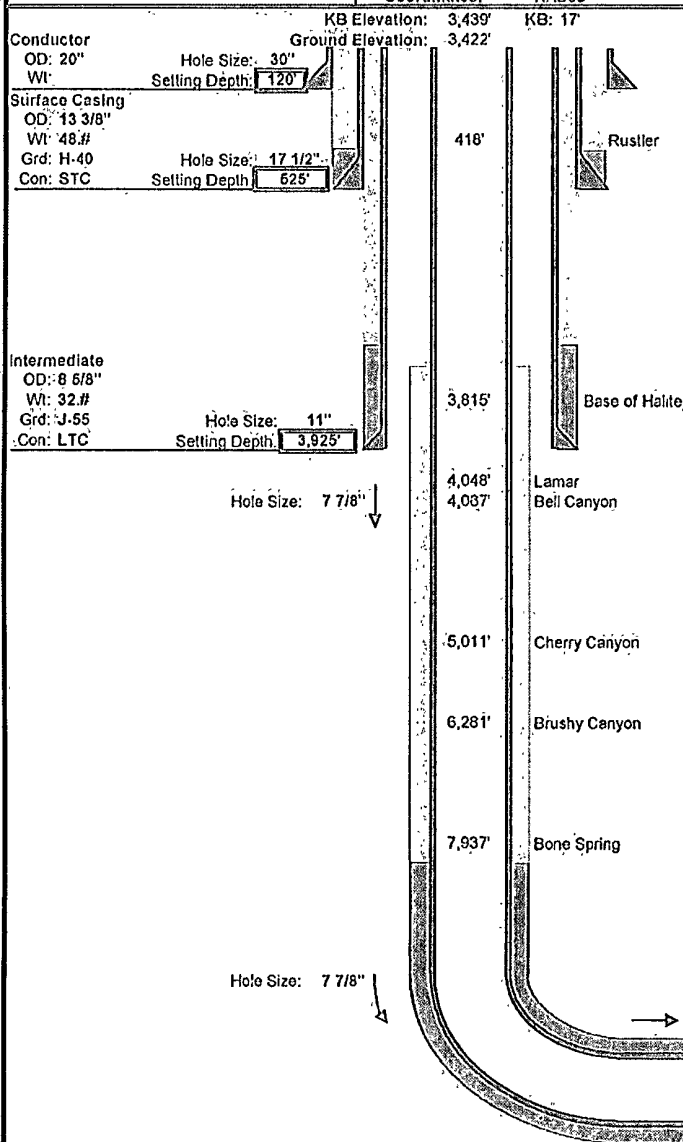
FILENAME: T:\2012\2124876\DWG\Los Medanos 36-23-30 State 1H APD.dwg



Drilling Engineer: Chris Gray
 Superintendent: Daniel Gipson
 Geologist: Jakob Wartman

Well Name: Los Medanos 36-23-30 State 1H
 Target:
 County, State: Eddy, NM
 Surface Location: 200' FSL 660' FWL, Section 36, Township 23S, Range 30E
 BH Location: 330' FNL 660' FWL, Section 36, Township 23S, Range 30E
 SHL Latitude: 32 254709 SHL North: 456745
 SHL Longitude: -103.840809 SHL East: 693591
 BHL Latitude: 32 267775 BHL North: 461499
 BHL Longitude: -103.840844 BHL East: 693559
 Coordinates: NAD83 Coordinates: NME

Drilling Rig: Trinidad 110
 Directional: Phoenix
 Drilling Mud: Nova
 Cement: Schlumberger
 Wellhead: Sunbelt
 Property Number:
 AFE Number:



Wellhead Equipment	
A Section	13-3/8" x 13-5/8" 5K SOW
B Section	13-5/8" x 11" 5K
C Section	11" 5K X 7-1/16" 10K w/10K gate valve
D Section	N/A
Required BOP Stack	11" 5K- Double, Annular, Rot Head w/orbit valve

Mud				
Depth	Type	Weight	F. Vls	FL
0' - 525'	Spud Mud	8.4 - 8.7	32 - 34	NC - NC
525' - 3,925'	Brine	9.5 - 10.1	28 - 29	NC - NC
3,925' - 8,761'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC
8,761' - 9,504'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC
9,504' - 13,789'	FW/Cut Brine	8.3 - 9.5	28 - 29	NC - NC

Cement							
Slurry	Top	Btm	Wt	Yld	%Exc	Bbl	Sx
Surface							
Lead	0'	425'	13.7	1.65	250	154	524
Tail	425'	525'	14.8	1.33	250	50	213
Intermediate							
Lead	0'	3,425'	12.0	1.99	250	504	1422
Tail	3,425'	3,925'	14.2	1.37	250	82	336
Production							
Lead	3,425'	8,761'	12.4	2.21	75	277	704
Tail	8,761'	13,789'	14.5	1.31	75	273	1168

Type	Logs	Interval	Vendor
OH	Triple Combo	Curve TD to Int Csg	TBD
Mudlog	2 man	Int Csg to TD	Normac
LWD	MWD Gamma	Curve and Lateral	Phoenix

Directional Plan						
Target Line:	9231' @ 0' VS w/89.1 deg Inclination					
Target Window:	20' above, 20' below, 50' left, 50' right					
	MD	INC	AZIM	TVD	VS	DLS
KOP	8,761'	0.00	0.00	8,761'	0'	0.00
EOB	9,504'	89.10	359.61	9,239'	470'	12.00
TD	13,789'	89.10	359.61	9,306'	4,754'	0.00
Hardlines:	Lateral: 330' from parallel lease lines					
	Vertical: Actual Lease Lines					
Notes:	Please note SHL and BHL distance from lease lines					

Permian District

Poker Lake

Los Medanos 36-23-30 State 1H

Well #1

Wellbore #1

Plan: Plat

Standard Planning Report

27 August, 2012

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Los Medanos 36-23-30 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Project:	Poker Lake, Eddy County, NM		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Los Medanos 36-23-30 State 1H				
Site Position:	Northings:	456,745.00 usft	Latitude:	32.254707	
From: Map	Easting:	693,591.00 usft	Longitude:	-103.840811	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.26 °

Well:	Well #1					
Well Position	+N-S	0.00 ft	Northings:	456,745.00 usft	Latitude:	32.254707
	+E-W	0.00 ft	Easting:	693,591.00 usft	Longitude:	-103.840811
Position Uncertainty	0.00 ft	Wellhead Elevation:	Ground Level:	0.00 ft		

Wellbore:	Wellbore #1				
Magnetics:	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	6/4/2012	(°) 7.58	(°) 60.17	(nT) 48,551

Design:	Plat			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00

Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	359.61

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N-S	+E-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,761.29	0.00	0.00	8,761.29	0.00	0.00	0.00	0.00	0.00	0.00	
9,503.79	89.10	359.61	9,238.70	469.96	-3.16	12.00	12.00	0.00	359.61	
13,788.47	89.10	359.61	9,306.00	4,754.01	-32.00	0.00	0.00	0.00	0.00	LM 36-23-30 1H- BI

Chesapeake Operating

Planning Report

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Company:	Permian District	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Los Medanos 36-23-30 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Poker Lake	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Los Medanos 36-23-30 Slate 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,761.29	0.00	0.00	8,761.29	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	4.64	359.61	8,799.96	1.57	-0.01	1.57	12.00	12.00	0.00
8,900.00	16.64	359.61	8,898.06	20.01	-0.13	20.01	12.00	12.00	0.00
9,000.00	28.64	359.61	8,990.18	58.44	-0.39	58.44	12.00	12.00	0.00
9,100.00	40.64	359.61	9,072.30	115.18	-0.78	115.18	12.00	12.00	0.00
9,200.00	52.64	359.61	9,140.83	187.76	-1.26	187.76	12.00	12.00	0.00
9,300.00	64.64	359.61	9,192.76	273.00	-1.84	273.00	12.00	12.00	0.00
9,400.00	76.64	359.61	9,225.85	367.17	-2.47	367.18	12.00	12.00	0.00
9,500.00	88.64	359.61	9,238.62	466.16	-3.14	466.17	12.00	12.00	0.00
9,503.79	89.10	359.61	9,238.70	469.96	-3.16	469.97	12.00	12.00	0.00
9,600.00	89.10	359.61	9,240.21	566.15	-3.81	566.16	0.00	0.00	0.00
9,700.00	89.10	359.61	9,241.78	666.13	-4.48	666.15	0.00	0.00	0.00
9,800.00	89.10	359.61	9,243.35	766.12	-5.16	766.14	0.00	0.00	0.00
9,900.00	89.10	359.61	9,244.92	866.10	-5.83	866.12	0.00	0.00	0.00
10,000.00	89.10	359.61	9,246.49	966.09	-6.50	966.11	0.00	0.00	0.00
10,100.00	89.10	359.61	9,248.06	1,066.07	-7.18	1,066.10	0.00	0.00	0.00
10,200.00	89.10	359.61	9,249.63	1,166.06	-7.85	1,166.09	0.00	0.00	0.00
10,300.00	89.10	359.61	9,251.21	1,266.05	-8.52	1,266.07	0.00	0.00	0.00
10,400.00	89.10	359.61	9,252.78	1,366.03	-9.19	1,366.06	0.00	0.00	0.00
10,500.00	89.10	359.61	9,254.35	1,466.02	-9.87	1,466.05	0.00	0.00	0.00

Chesapeake Operating Planning Report

Database: Drilling Database
Company: Permian District
Project: Poker Lake
Site: Los Medanos 36-23-30 State 1H
Well: Well #1
Wellbore: Wellbore #1
Design: Plat

Local Co-ordinate Reference: Well Well #1
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,600.00	89.10	359.61	9,255.92	1,566.00	-10.54	1,566.04	0.00	0.00	0.00
10,700.00	89.10	359.61	9,257.49	1,665.99	-11.21	1,666.02	0.00	0.00	0.00
10,800.00	89.10	359.61	9,259.06	1,765.97	-11.89	1,766.01	0.00	0.00	0.00
10,900.00	89.10	359.61	9,260.63	1,865.96	-12.56	1,866.00	0.00	0.00	0.00
11,000.00	89.10	359.61	9,262.20	1,965.94	-13.23	1,965.99	0.00	0.00	0.00
11,100.00	89.10	359.61	9,263.77	2,065.93	-13.91	2,065.98	0.00	0.00	0.00
11,200.00	89.10	359.61	9,265.34	2,165.91	-14.58	2,165.96	0.00	0.00	0.00
11,300.00	89.10	359.61	9,266.91	2,265.90	-15.25	2,265.95	0.00	0.00	0.00
11,400.00	89.10	359.61	9,268.48	2,365.88	-15.93	2,365.94	0.00	0.00	0.00
11,500.00	89.10	359.61	9,270.05	2,465.87	-16.60	2,465.93	0.00	0.00	0.00
11,600.00	89.10	359.61	9,271.63	2,565.86	-17.27	2,565.91	0.00	0.00	0.00
11,700.00	89.10	359.61	9,273.20	2,665.84	-17.94	2,665.90	0.00	0.00	0.00
11,800.00	89.10	359.61	9,274.77	2,765.83	-18.62	2,765.89	0.00	0.00	0.00
11,900.00	89.10	359.61	9,276.34	2,865.81	-19.29	2,865.88	0.00	0.00	0.00
12,000.00	89.10	359.61	9,277.91	2,965.80	-19.96	2,965.86	0.00	0.00	0.00
12,100.00	89.10	359.61	9,279.48	3,065.78	-20.64	3,065.85	0.00	0.00	0.00
12,200.00	89.10	359.61	9,281.05	3,165.77	-21.31	3,165.84	0.00	0.00	0.00
12,300.00	89.10	359.61	9,282.62	3,265.75	-21.98	3,265.83	0.00	0.00	0.00
12,400.00	89.10	359.61	9,284.19	3,365.74	-22.66	3,365.82	0.00	0.00	0.00
12,500.00	89.10	359.61	9,285.76	3,465.72	-23.33	3,465.80	0.00	0.00	0.00
12,600.00	89.10	359.61	9,287.33	3,565.71	-24.00	3,565.79	0.00	0.00	0.00
12,700.00	89.10	359.61	9,288.90	3,665.70	-24.67	3,665.78	0.00	0.00	0.00
12,800.00	89.10	359.61	9,290.47	3,765.68	-25.35	3,765.77	0.00	0.00	0.00
12,900.00	89.10	359.61	9,292.04	3,865.67	-26.02	3,865.75	0.00	0.00	0.00
13,000.00	89.10	359.61	9,293.62	3,965.65	-26.69	3,965.74	0.00	0.00	0.00
13,100.00	89.10	359.61	9,295.19	4,065.64	-27.37	4,065.73	0.00	0.00	0.00
13,200.00	89.10	359.61	9,296.76	4,165.62	-28.04	4,165.72	0.00	0.00	0.00
13,300.00	89.10	359.61	9,298.33	4,265.61	-28.71	4,265.70	0.00	0.00	0.00
13,400.00	89.10	359.61	9,299.90	4,365.59	-29.39	4,365.69	0.00	0.00	0.00
13,500.00	89.10	359.61	9,301.47	4,465.58	-30.06	4,465.68	0.00	0.00	0.00
13,600.00	89.10	359.61	9,303.04	4,565.56	-30.73	4,565.67	0.00	0.00	0.00
13,700.00	89.10	359.61	9,304.61	4,665.55	-31.40	4,665.65	0.00	0.00	0.00
13,788.47	89.10	359.61	9,306.00	4,754.01	-32.00	4,754.12	0.00	0.00	0.00

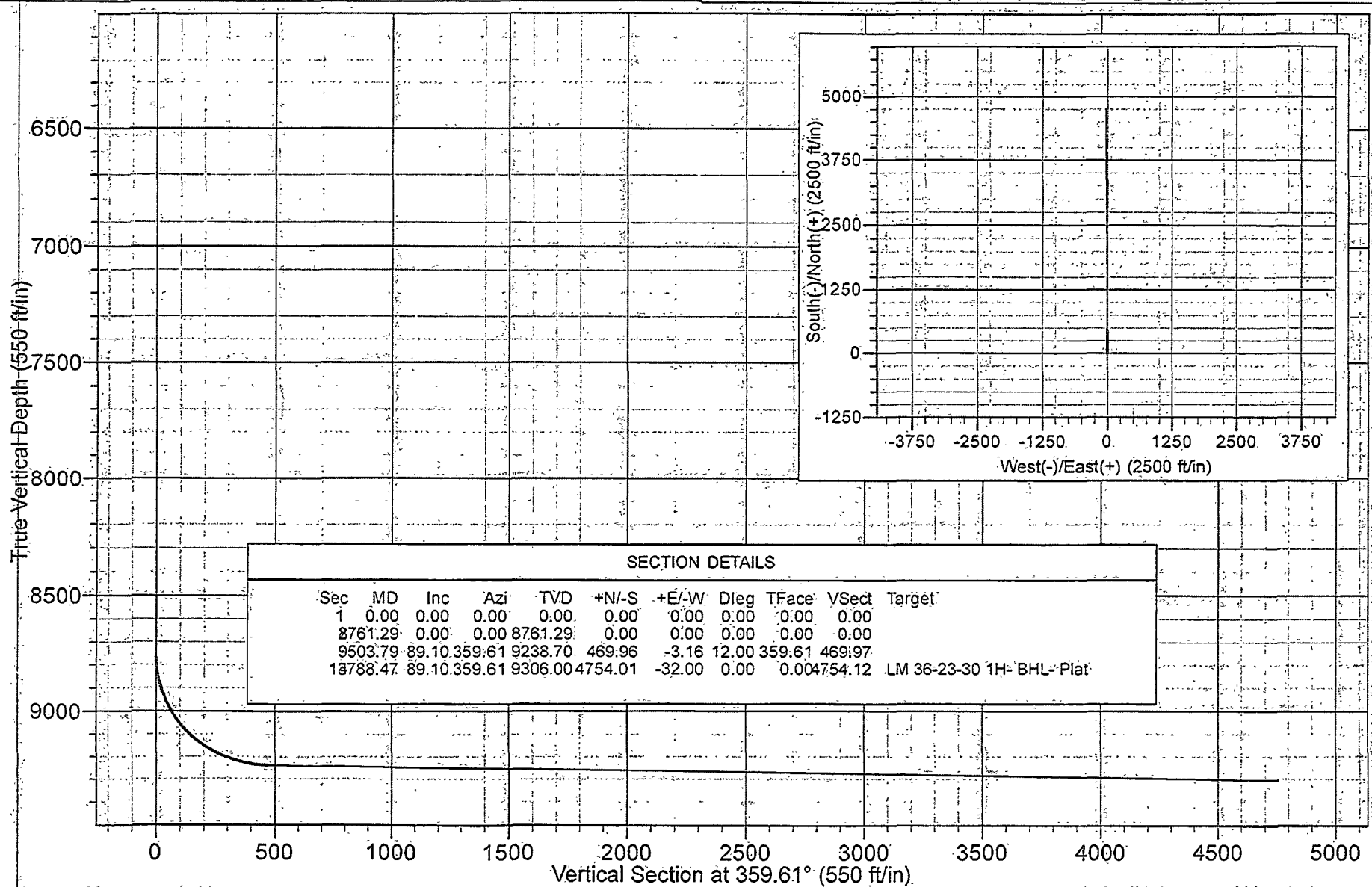
Design Targets

Target Name	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Eastng (usft)	Latitude	Longitude
LM 36-23-30 1H- SHL	0.00	0.00	9,231.00	0.00	0.00	456,745.00	693,591.00	32.254707	-103.840811
- plan misses target center by 192.50ft at 9125.25ft MD (9091.01 TVD, 132.12 N, -0.89 E)									
- Point									
LM 36-23-30 1H- BHL	0.00	0.00	9,306.00	4,754.01	-32.00	461,499.00	693,559.00	32.267775	-103.840844
- plan hits target center									
- Point									

Project: Poker Lake
 Site: Los Medanos 36-23-30 State 1H
 Well: Well #1
 Wellbore: Wellbore #1
 Design: Plat

PROJECT DETAILS: Poker Lake

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone



**Chesapeake Operating, Inc.'s Closed Loop System
LOS MEDANOS 36 23 30 STATE 1H
Unit M, Sec. 36, T-23-S R-30-E
Eddy Co., NM
API # TBD**

Chesapeake Operating, Inc. (COI) is to use a closed loop system with roll-off steel pits for the maintenance of the drilling mud fluids and drill cuttings. COI will maintain all solids and liquids within the closed loop system in a safe manner in order to protect public health and the environment.

Operations & Maintenance:

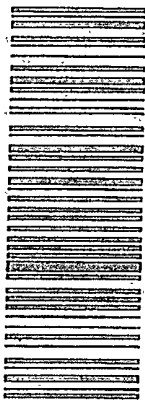
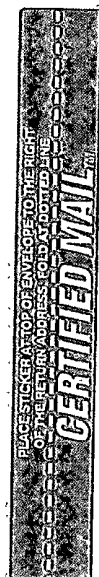
During each tour, the rig's drilling crew will inspect and monitor the drilling fluids contained within the steel pits and visually monitor any spill which may occur. Should a spill, release, or leak occur, the NMOCD District II office in Artesia (575-748-1283) will be notified. Please note that notifications may be made earlier to the district office should a greater release occur per NMOCD's rules.

Closure:

During and after drilling operations, drilling fluids and cuttings will be hauled to Controlled Recovery, Inc. Permit # NM-01-0006.

The alternative disposal facility will be Sundance Disposal. Permit # NM-01-0003

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
☐ Complete Items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired. ☐ Print your name and address on the reverse so that we can return the card to you. ☐ Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature X ☐ Agent ☐ Addressee	
1. Article Addressed to: Mosaic Potash Carlsbad, Inc. 1361 Potash Mines Rd Carlsbad, NM 88220		B. Received by (Printed Name) C. Date of Delivery	
2. Article Number (Transfer from service label) 7010 3090 0000 1552 7813		D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No	
PS Form 3811, February 2004		Domestic Return Receipt	
		102595-02-M-1540	



7010 3090 0000 1552 7813
7010 3090 0000 1552 7813

U.S. Postal Service TM	
CERTIFIED MAILTM RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
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Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	
Sent To Mosaic Potash Carlsbad, Inc. Street, Apt. No., or PO Box No. 1361 Potash Mines Rd. City, State, ZIP+4 [®] Carlsbad, NM 88220	
PS Form 3840, August 2005 (See Reverse for Instructions)	