

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 87416

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. AUG 28 2007

Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

OCD-ARTESIA

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

¹ Operator Name and Address Chesapeake Operating Inc. 2010 Rankin Hwy Midland, TX 79701		² OGRID Number 147179
³ Property Code 34715	⁵ Property Name Corral Canyon 12 State	⁴ API Number 30 - 015 - 35771
⁹ Proposed Pool 1 Corral Canyon; Delaware; West		⁶ Well No. 1H
¹⁰ 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/Westline	County
O	12	25S	29E		383	South	2352	East	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/Westline	County
G	12	25S	29E		2011	North	2310	East	Eddy

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3153 GR
¹⁶ Multiple No	¹⁷ Proposed Depth 8573	¹⁸ Formation	¹⁹ Contractor	²⁰ Spud Date 08/30/2007
Depth to Groundwater 60		Distance from nearest fresh water well 1000		Distance from nearest surface water 1000
Pit Liner Synthetic ☒ 12 mil thick Clay ☐ Pit Volume 12129 bbls Drilling Method: Closed-Loop System ☐ Fresh Water ☒ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐				

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	650	520 CL C	surface
11	8 5/8	32	3360	850 CL C	surface
7 7/8	5 1/2	17	8573	900 sx CL H	2860

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.

13 3/8 surface csg set @ 650 w/ 260 sx 35:65 Poz C + 6% gel + 1/4 pps cello flake, 2.10 yld, tail in w/260 sx CL C + 2% CaCl, 1.34 yld. 8 5/8 Inter csg set @ 3360 w/700 sx 35:65 Poz C + 6% gel + 1/4 pps cello flake, 2.10 yld, tail in w/150 sx CL C + 1% CaCl, 1.34 yld. 5 1/2 prod csg set @ 8573 w/900 sx CL H, + .5% FLS + .4% dispersant + 3 pps salt + 1/4 pps defoamer, 1.63 yld.

Operator to set surface casing above the Salado. Please refer to offset geology for more information.

"Drill Only" - NSC required to produce

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 ☒ , a general permit ☐ , or an (attached) alternative OCD-approved plan ☐ .		OIL CONSERVATION DIVISION	
Printed name: Shay Stricklin		Approved by: BRYAN G. ARRANT	
Title: Regulatory Tech.		Title: DISTRICT II GEOLOGIST	
E-mail Address: sstricklin@chkenenergy.com		Approval Date: AUG 31 2007 Expiration Date: AUG 31 2008	
Date: 08/23/2007	Phone: (432)687-2992	Conditions of Approval Attached ☐	

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

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1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 13365	Pool Name Corral Canyon, Delaware, West
Property Code	Property Name CORRAL CANYON 12 STATE	Well Number 1H
OGRID No.	Operator Name CHESAPEAKE OPERATING, INC.	Elevation 3141'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	12	25-S	29-E		383	SOUTH	2352	EAST	EDDY

Bottom Hole Location If Different From Surface

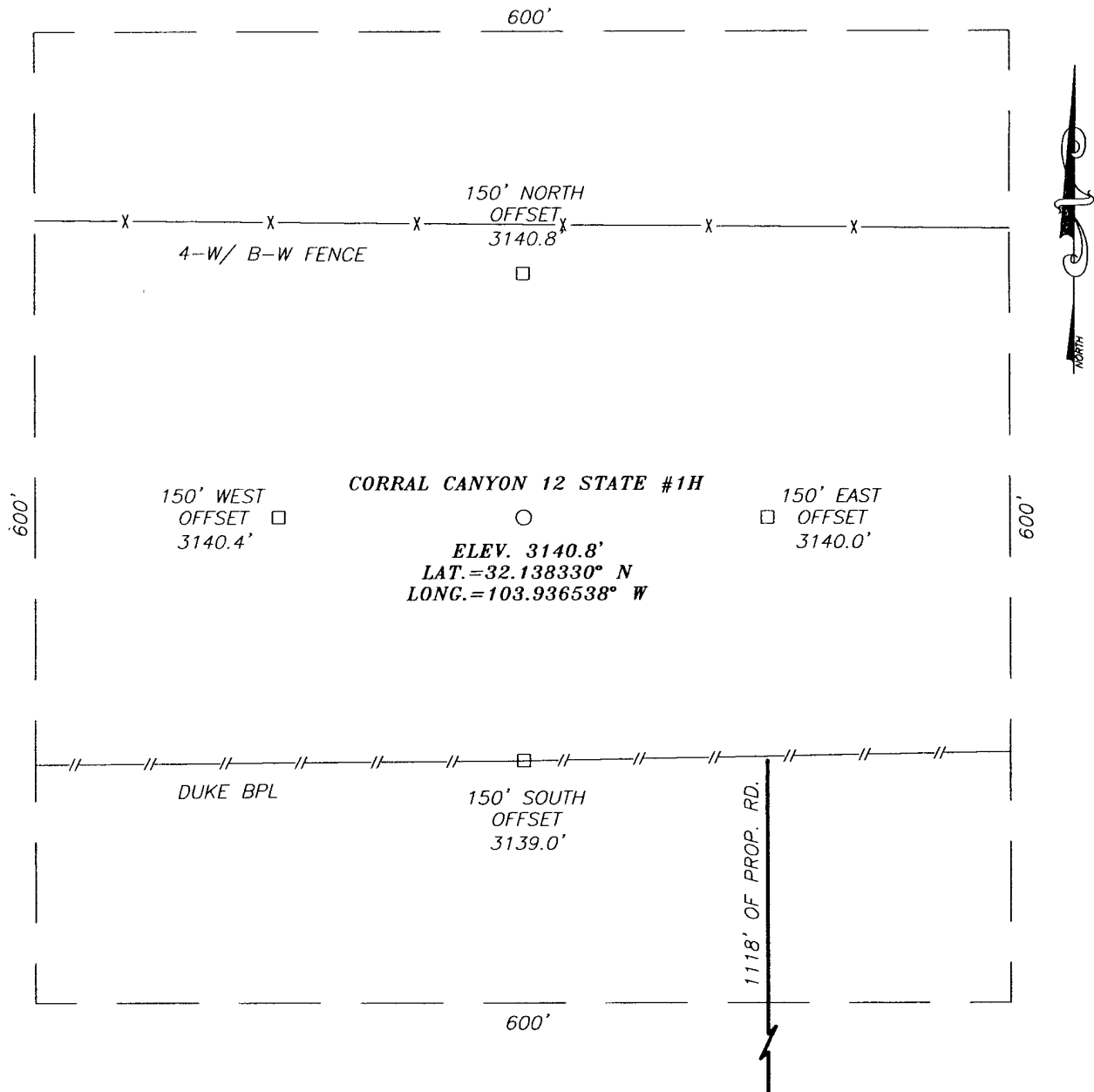
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	12	25-S	29-E		2011	NORTH	2310	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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

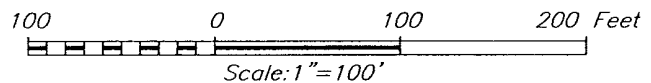
BOTTOM HOLE LOCATION Y=417189.7 N X=622850.8 E GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=414272.5 N X=622820.0 E LAT.=32.138330° N LONG.=103.936538° W GRID. AZ = 00°36'14" HORIZ. DIST = 2918.0' B.H. SURF. 2011' 2310' 2352' 383'	OPERATOR CERTIFICATION I hereby certify that the information herein 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Craig Bannard</i> 6/6/07 Signature Date CRAIG BANNARD Printed Name 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. GARY G. EIDSON Date Surveyed 5/30/07 AR Signature & Seal of Professional Surveyor Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239
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SECTION 12, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

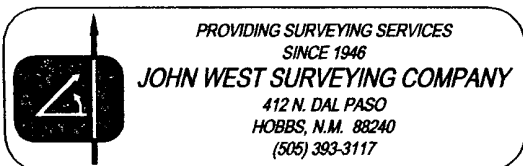
FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITE HORN), GO NORTHEAST ON CO. RD. #125 APPROX. 4.2 MILES. VEER LEFT AND GO NORTHEAST APPROX. 2.0 MILES ON PIPELINE LEASE ROAD. TURN LEFT AND GO NORTH APPROX. 2.2 MILES. TURN RIGHT AND GO NORTHEAST APPROX. 3.4 MILES TO PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY NORTH APPROX. 1275 FEET TO THIS LOCATION.



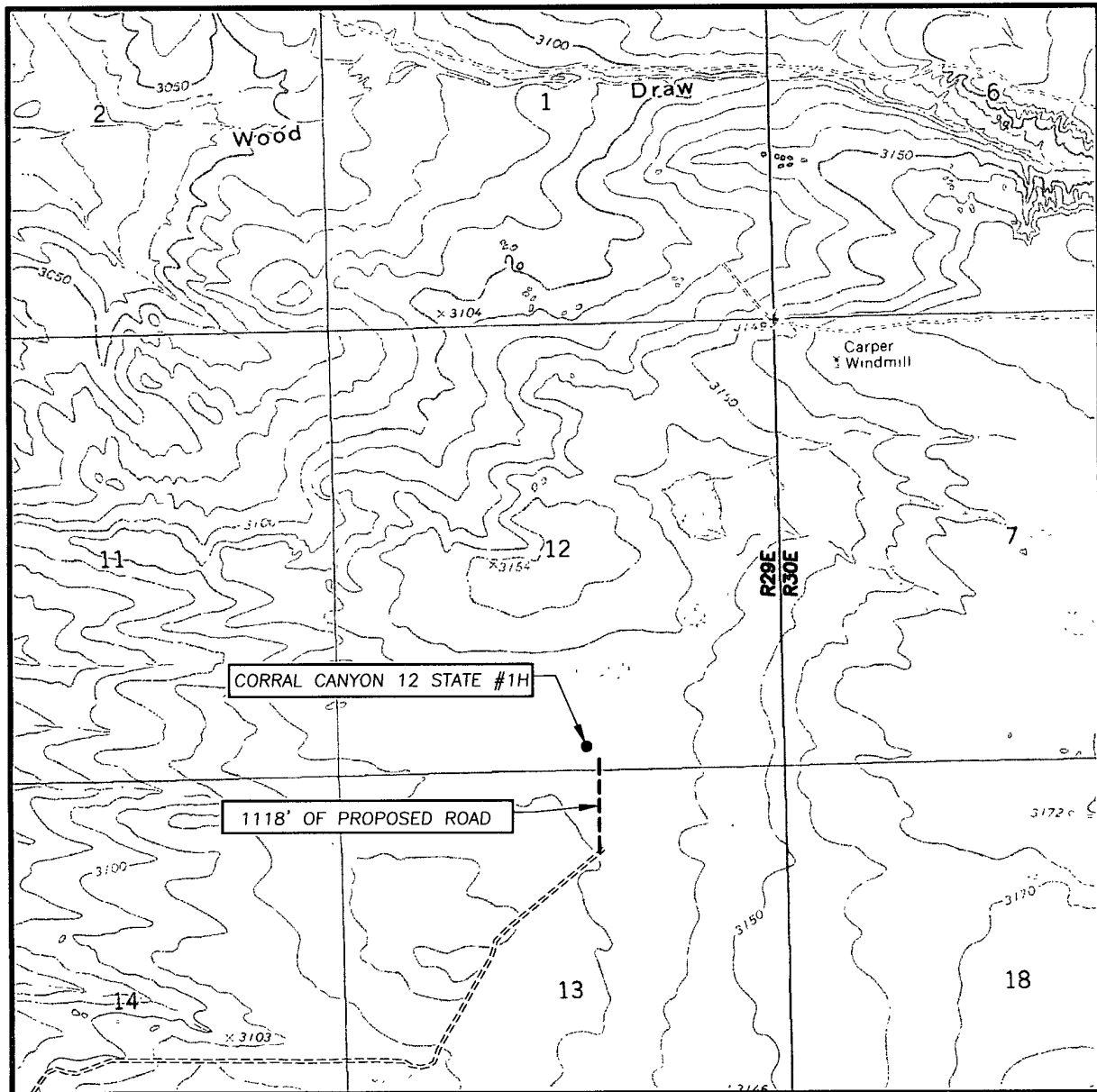
CHESAPEAKE OPERATING, INC.

CORRAL CANYON 12 STATE #1H WELL
 LOCATED 383 FEET FROM THE SOUTH LINE
 AND 2352 FEET FROM THE EAST LINE OF SECTION 12,
 TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 05/17/07	Sheet 1 of 1 Sheets
W.O. Number: 07.11.0641	Dr By: AR
Date: 05/23/07	Disk: 07110641
	Rev 1: N/A
	Scale: 1"=100'



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PIERCE CANYON, N.M. - 10'

SEC. 12 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

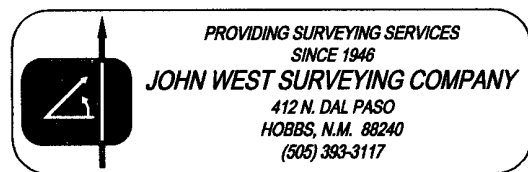
DESCRIPTION 383' FSL & 2352' FEL

ELEVATION 3141'

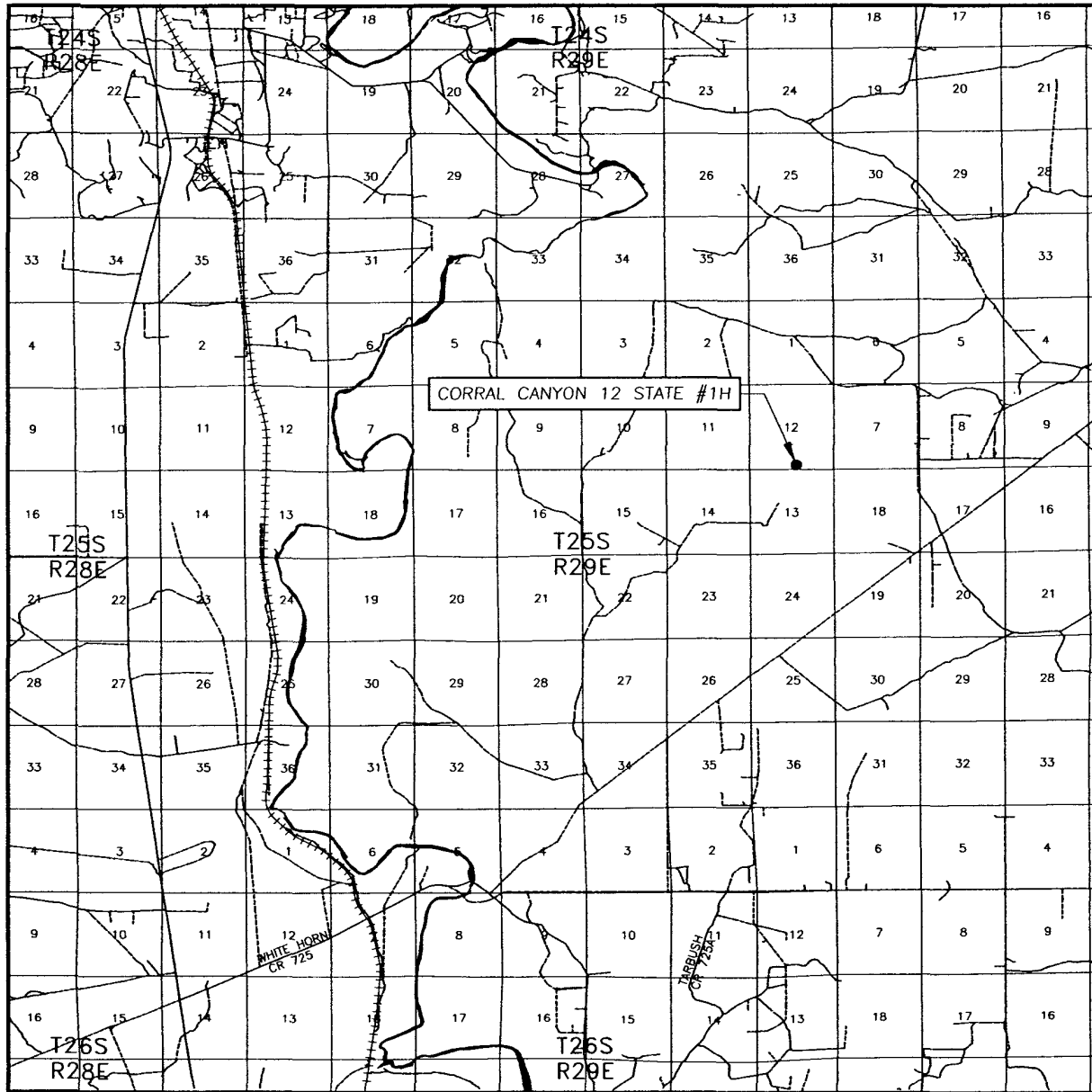
OPERATOR CHESAPEAKE
OPERATING, INC.

LEASE CORRAL CANYON 12 STATE

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.

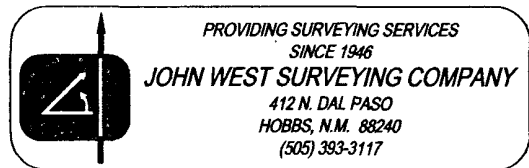


VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 12 TWP. 25-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 383' FSL & 2352' FEL
 ELEVATION 3141'
 OPERATOR CHESAPEAKE OPERATING, INC.
 LEASE CORRAL CANYON 12 STATE



BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : Corral Canyon 12 State 1H

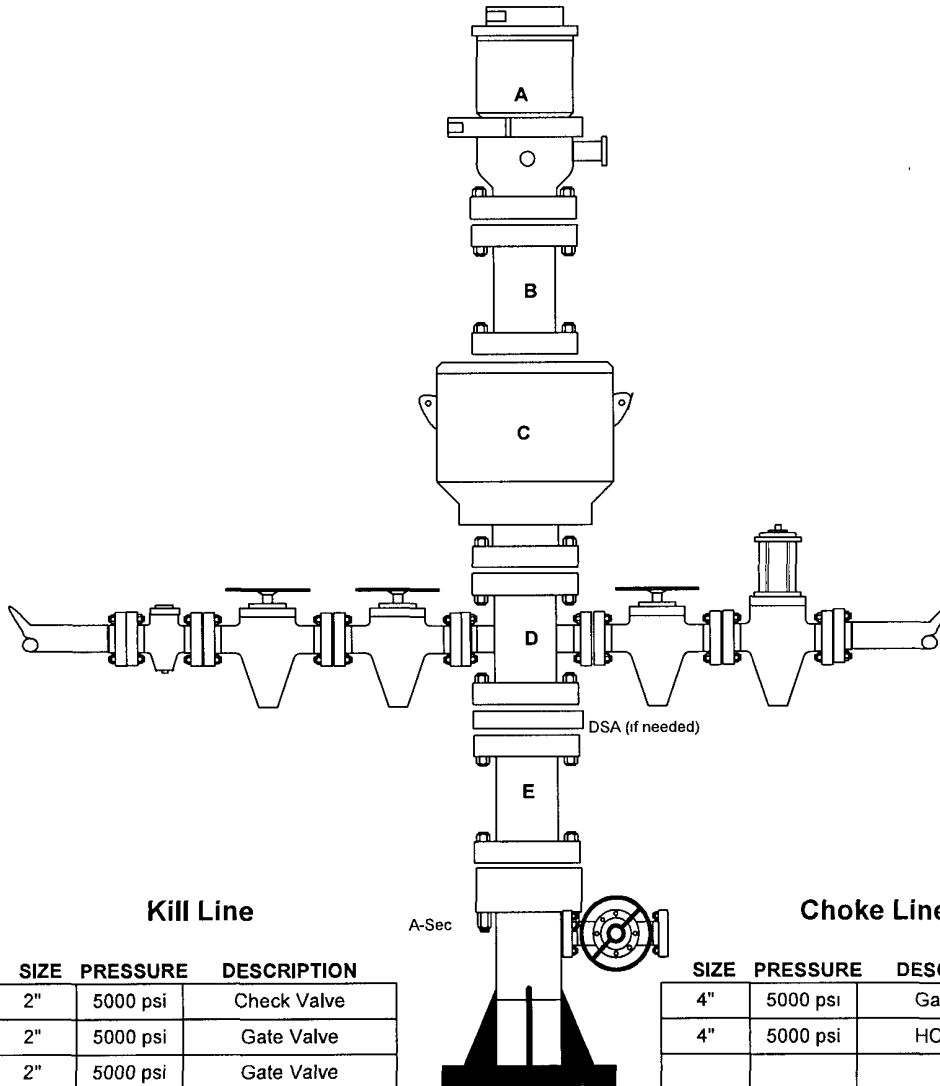
RIG : Forster 15

COUNTY : Eddy

STATE: New Mexico

OPERATION: Drill out below 13-3/8" Casing (11" hole size)

	SIZE	PRESSURE	DESCRIPTION
A	13-5/8"	500 psi	Rot Head
B	13-5/8"	2000 psi	Spacer Spool
C	13-5/8"	2000 psi	Annular
D	13-5/8"	2000 psi	Mud Cross
E	13-5/8"	2000 psi	Spacer Spool
DSA	13-5/8"	3M x 13-5/8"	2M (if needed)
A-Sec	13-3/8"	SOW x 13-5/8"	3M



SIZE	PRESSURE	DESCRIPTION
2"	5000 psi	Check Valve
2"	5000 psi	Gate Valve
2"	5000 psi	Gate Valve

SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : Corral Canyon 12 State 1H

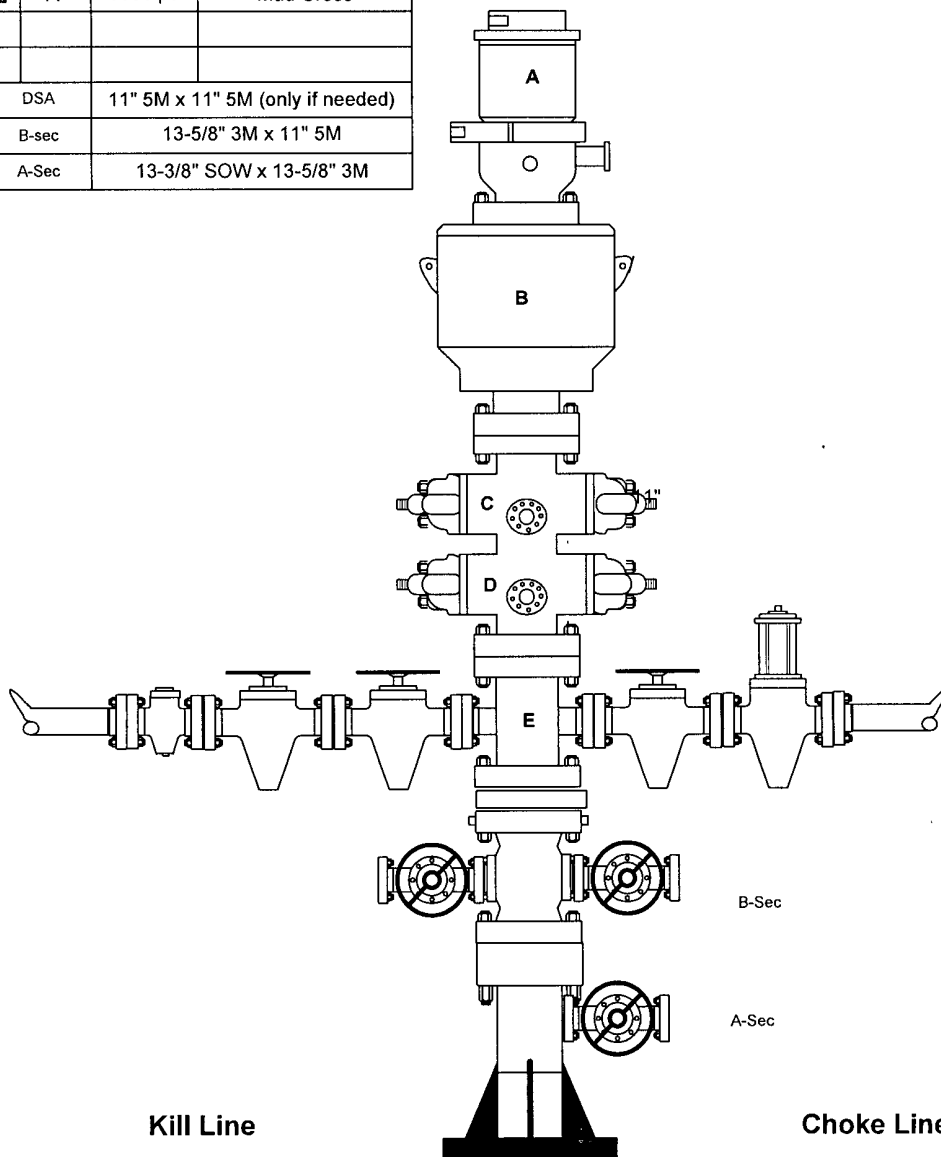
RIG : Forster 15

COUNTY : Eddy

STATE: New Mexico

OPERATION: Drill out below 8-5/8" Casing (7-7/8" hole size)

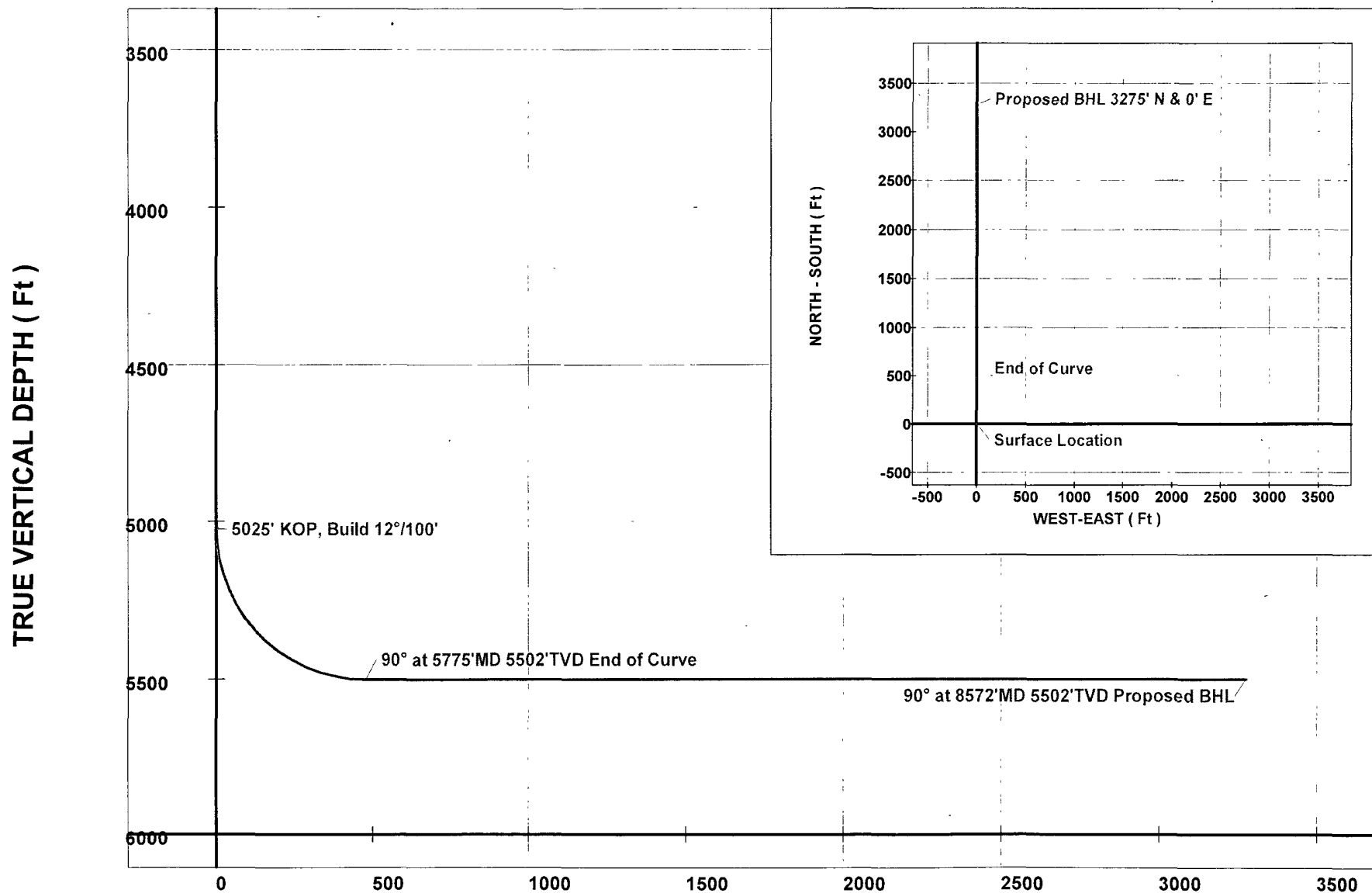
	SIZE	PRESSURE	DESCRIPTION
A	11"	500 psi	Rot Head
B	11"	5000 psi	Annular
C	11"	5000 psi	Pipe Rams
D	11"	5000 psi	Blind Rams
E	11"	5000 psi	Mud Cross
DSA	11" 5M x 11" 5M (only if needed)		
B-sec	13-5/8" 3M x 11" 5M		
A-Sec	13-3/8" SOW x 13-5/8" 3M		



SIZE	PRESSURE	DESCRIPTION
2"	5000 psi	Check Valve
2"	5000 psi	Gate Valve
2"	5000 psi	Gate Valve

SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

Company: Chesapeake Operating, Inc.
 Lease/Well: Corral Canyon 12 State #1H
 Location: Eddy County
 State/Country: New Mexico



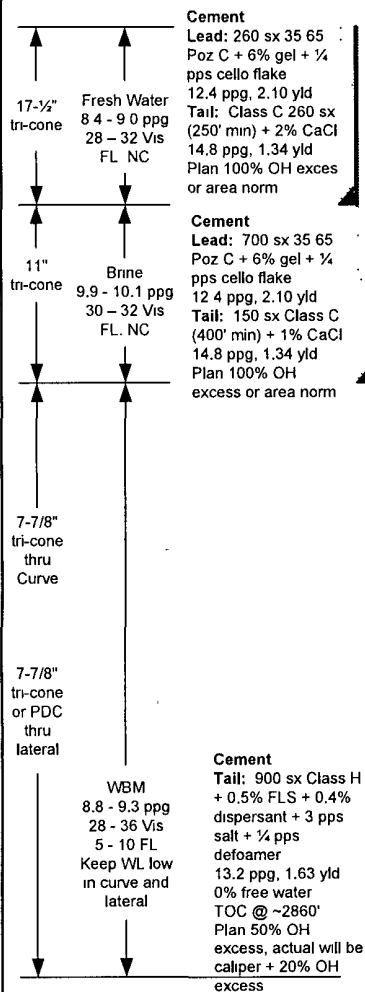
VERTICAL SECTION (Ft) @ .00°

Well : Corral Canyon 12 State 1H
Field : SE Eddy Project – Willow Lake Prospect
County : Eddy State : NM
Surf Locat : Section 12-25S-29E, 330' FSL (4950' FNL) & 2310' FEL
BH Locat : Section 12-25S-29E, 1650' FNL & 2310' FEL
KB Elev : 3135' (estimated) Grd Elev : 3153' (based on est. 18' KB)



Wellhead Equipment

Tree Connection	
Backpressure Valve	
Tree Description	
Tubing Spool	11" 5M x 7-1/16" 5M
B-Section	13-5/8" 3M x 11" 5M
Casing Head	13-5/8" SOW x 13-5/8" 3M



650' 13-3/8" Casing

Lamar Lime
Base of Salt
8-5/8" Casing
Bell Canyon

4459' Manzanita marker

~4750' Est. TOC (KO plug)

~5600' (5025' max)
Planned KOP
500' Kick-off Plug
(set in pilot hole)5059' Willow W Horiz top
5099 Willow W Horiz base5486' Corral Canyon Horiz top
Target: 5502' TVD @ 0° VS, 0 degree updip
5518' Corral Canyon Horiz base

EOB @ ~5775' MD/~5502' TVD

5667' Willow Lake Horiz top
5734' Willow Lake Horiz base

6000' Pilot Hole TD

~3275' vertical section

Tubular Detail

	Size	Wt	Grd	Conn.	From	Depth To
Surface	13-3/8"	48.0#	H-40	ST&C	0'	650'
Int.	8-5/8"	32.0	J-55	LT&C	0'	3360'
Prod.	5-1/2"	17.0	N-80	LT&C	0'	8573'
Tubing	2-7/8" 6.5# J-55 8rd EUE (or per Asset Manager)					
Annular Fluid						

Logging Program (pilot hole)

Company	Log Type	Interval
TBD	Res/GR/Sonic	TD - Surface Casing
TBD	GR/Neutron	TD - surface
TBD	Sidewall Cores	Unlikely on this well
TBD	Magnetic Resonance Imaging (MRI)	Unlikely on this well

Est. TD
~8573' MD
(~5502' TVD)

Note: All Depths are TVD unless otherwise indicated

Drawn by:

R. L. Patterson

Date:

8/17/07

Revised by

-

Date

-

CHESAPEAKE OPERATING INC
DIRECTIONAL PLANNING WORKSHEET
 CALCULATED USING MINIMUM CURVATURE METHOD

Well Name: Corral Canyon 12 State 1H (12-25S-29E, Eddy Co., NM)

Prepared By: RLP

	MD	Inc	AZ	TVD	N/S	E/W	VS
KOP:	5,024	0.00	0.00	5,024	0.00	0.00	0.00
Target:	5,502	@ 0' VS					
Dip:	0.00 (- Updip / + Downdip)						
Azimuth:	0.00					Section Plane:	0.00
Proposed VS:	3,275						

Feather: %/100' TVD (Vertical Feather Only)

	MD	Course Length	Inc	AZ	TVD	North(+) South(-)	East(+) West(-)	VS	BUR	DLS	Target Depth	Dist To Target
EOB	5,775	751	90.00	0.00	5,502	478.00	0.00	478.00	11.99	11.99	5,502	0
EOF	5,775	0	90.00	0.00	5,502	478.00	0.00	478.00	0.00	0.00	5,502	0
EOH	8,572	2,797	90.00	0.00	5,502	3275.00	0.00	3275.00	0.00	0.00	5,502	0

Comments: _____

Well Name **Corral Canyon 12 State 1H (12-25S-29E)**
 County **Eddy Co., NM**

Rig **Forster 15**
 Survey Co.

Target #1 0 00 KBTVD 0 00 Dip(- Up) 0 Section Plane
 Target #2 0 00 KBTVD 0 00 Dip(- Up) Section Plane
 Target #3 0 00 KBTVD 0 00 Dip(- Up) Section Plane

Surface Location:
4950' FNL & 2310' FEL (330' FSL)
 Target Lines are:
1675' FNL & 2310' FEL (stopping points)
 Hard Lines:
1650 FNL & 2310' FEL (2970' FWL)
 15' Window up/down & 50' east / 0' west

Comments	Measured Depth	Inclination	Azimuth	Course Length	TVD	North (+) South (-)	East (+) West (-)	VS	BUR	DLS	FNL	FEL
Staked Surface Location	0	0 00	0 00	0	0	0	0 00	0 0			4950.0	2310.0
Est. Surface Casing Point	650	0 00	0 00	650	650	0 0	0 0	0 0	0.00	0 00	4950 0	2310 0
	1 000	0 00	0 00	350	1000	0 0	0 0	0 0	0.00	0 00	4950 0	2310 0
	2 000	0 00	0 00	1000	2000	0 0	0 0	0 0	0.00	0 00	4950.0	2310 0
	3 000	0 00	0 00	1000	3000	0 0	0 0	0 0	0 00	0 00	4950.0	2310 0
Est. Intermediate Casing Point	3 350	0 00	0 00	350	3350	0 0	0 0	0 0	0 00	0 00	4950.0	2310 0
Manzanita marker (3353' tvd)	3,353	0 00	0 00	3	3353	0 0	0 0	0 0	0 00	0 00	4950 0	2310 0
Bell Canyon est. top (3391' tvd)	3 391	0 00	0 00	38	3391	0 0	0 0	0 0	0 00	0 00	4950 0	2310 0
	4 000	0 00	0 00	609	4000	0 0	0 0	0 0	0 00	0 00	4950.0	2310 0
Manzanita marker (3593' tvd)	3,593	0 00	0 00	-407	3593	0 0	0 0	0 0	0 00	0 00	4950 0	2310 0
	4 000	0 00	0 00	407	4000	0 0	0 0	0 0	0 00	0 00	4950.0	2310 0
	5 000	0 00	0 00	1000	5000	0 0	0 0	0 0	0 00	0 00	4950 0	2310 0
Est. max. KOP (12 0 deg /100' build rate)	5 025	0 00	0 00	25	5025	0 0	0 0	0 0	0 00	0 00	4950.0	2310 0
	5 100	9 00	0 00	75	5100	5 9	0 0	5 9	12 00	12 00	4944.1	2310 0
	5 200	21 00	0 00	100	5196	31.7	0 0	31.7	12 00	12 00	4918.3	2310 0
	5 300	33 00	0 00	100	5285	77 0	0 0	77 0	12 00	12 00	4873.0	2310 0
	5 400	45 00	0 00	100	5363	139 8	0 0	139 8	12 00	12 00	4810.2	2310 0
	5 500	57 00	0 00	100	5425	217.4	0 0	217.4	12 00	12 00	4732.6	2310 0
	5 600	69 00	0 00	100	5471	306.4	0 0	306 4	12 00	12 00	4643.6	2310 0
	5 700	81 00	0 00	100	5497	402.8	0 0	402.8	12 00	12 00	4547 2	2310.0
End of Build (0.00 degrees updip)	5 775	90 00	0 00	75	5502	477.5	0 0	477.5	12 00	12 00	4472 5	2310.0
Hold inclination until TD	5 800	90 00	0 00	25	5502	502.5	0 0	502.5	0 00	0 00	4447.5	2310.0
	5 900	90 00	0 00	100	5502	602.5	0 0	602 5	0 00	0 00	4347.5	2310.0
	6 000	90 00	0 00	100	5502	702 5	0 0	702.5	0 00	0 00	4247.5	2310.0
	6 100	90 00	0 00	100	5502	802.5	0 0	802.5	0 00	0 00	4147.5	2310 0
	6 200	90 00	0 00	100	5502	902.5	0 0	902 5	0 00	0 00	4047.5	2310 0
	6 300	90 00	0 00	100	5502	1002.5	0 0	1002 5	0 00	0 00	3947.5	2310.0
	6 400	90 00	0 00	100	5502	1102.5	0 0	1102.5	0 00	0 00	3847.5	2310 0
	6 500	90 00	0 00	100	5502	1202.5	0 0	1202.5	0 00	0 00	3747.5	2310.0
	6 600	90 00	0 00	100	5502	1302.5	0 0	1302.5	0 00	0 00	3647.5	2310.0
	6 700	90 00	0 00	100	5502	1402 5	0 0	1402 5	0 00	0 00	3547 5	2310 0
	6 800	90 00	0 00	100	5502	1502 5	0 0	1502.5	0 00	0 00	3447 5	2310.0
	6 900	90 00	0 00	100	5502	1602 5	0 0	1602 5	0 00	0 00	3347 5	2310.0
	7 000	90 00	0 00	100	5502	1702.5	0 0	1702.5	0 00	0 00	3247.5	2310.0
	7 100	90 00	0 00	100	5502	1802.5	0 0	1802.5	0 00	0 00	3147.5	2310.0
	7 200	90 00	0 00	100	5502	1902.5	0 0	1902.5	0 00	0 00	3047.5	2310.0
	7 300	90 00	0 00	100	5502	2002.5	0 0	2002.5	0 00	0 00	2947.5	2310.0
	7 400	90 00	0 00	100	5502	2102.5	0 0	2102.5	0 00	0 00	2847.5	2310 0
	7 500	90 00	0 00	100	5502	2202 5	0 0	2202.5	0 00	0 00	2747.5	2310.0
	7 600	90 00	0 00	100	5502	2302.5	0 0	2302.5	0 00	0 00	2647.5	2310.0
	7 700	90 00	0 00	100	5502	2402.5	0 0	2402 5	0 00	0 00	2547.5	2310 0
	7 800	90 00	0 00	100	5502	2502.5	0 0	2502.5	0 00	0 00	2447.5	2310 0
	7 900	90 00	0 00	100	5502	2602.5	0 0	2602.5	0 00	0 00	2347.5	2310 0
	8 000	90 00	0 00	100	5502	2702.5	0 0	2702.5	0 00	0 00	2247.5	2310 0
	8 100	90 00	0 00	100	5502	2802.5	0 0	2802.5	0 00	0 00	2147.5	2310 0
	8 200	90 00	0 00	100	5502	2902.5	0 0	2902.5	0 00	0 00	2047 5	2310 0
	8 300	90 00	0 00	100	5502	3002.5	0 0	3002.5	0 00	0 00	1947.5	2310.0
	8 400	90 00	0 00	100	5502	3102 5	0 0	3102.5	0 00	0 00	1847 5	2310.0
	8 500	90 00	0 00	100	5502	3202 5	0 0	3202.5	0 00	0 00	1747.5	2310.0
Estimated TD (with EOW coordinates)	8 573	90 00	0 00	73	5502	3275 0	0 0	3275.0	0 00	0 00	1675.0	-2310.0