

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 278788

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

1. Operator Name and Address MARATHON OIL PERMIAN LLC 5555 San Felipe St. Houston, TX 77056		2. OGRID Number 372098
		3. API Number 30-015-47025
4. Property Code 328109	5. Property Name NEMESIS 7 WXY FEE	6. Well No. 001H

7. Surface Location

UL - Lot P	Section 18	Township 23S	Range 28E	Lot Idn	Feet From 1131	N/S Line S	Feet From 690	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot A	Section 7	Township 23S	Range 28E	Lot Idn A	Feet From 100	N/S Line N	Feet From 330	E/W Line E	County Eddy
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9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220
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Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3056
16. Multiple N	17. Proposed Depth 19703	18. Formation Wolfcamp	19. Contractor	20. Spud Date 8/14/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	460	356	0
Int1	12.25	9.625	36	2500	830	0
Prod	8.75	5.5	20	19703	3920	2100

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	2500	
Double Ram	5000	5000	
Pipe	5000	5000	
Blind	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.		OIL CONSERVATION DIVISION	
Signature:			
Printed Name:	Electronically filed by Melissa Szudera	Approved By:	Raymond Podany
Title:	Regulatory Compliance Representative	Title:	Geologist
Email Address:	mszudera@marathonoil.com	Approved Date:	4/14/2020
Date:	4/13/2020	Phone:	713-296-3179
		Expiration Date: 4/14/2022	
		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-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code	⁵ Property Name NEMESIS 7 WXY FEE	⁶ Well Number 1H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3056'

¹⁰ Surface Location

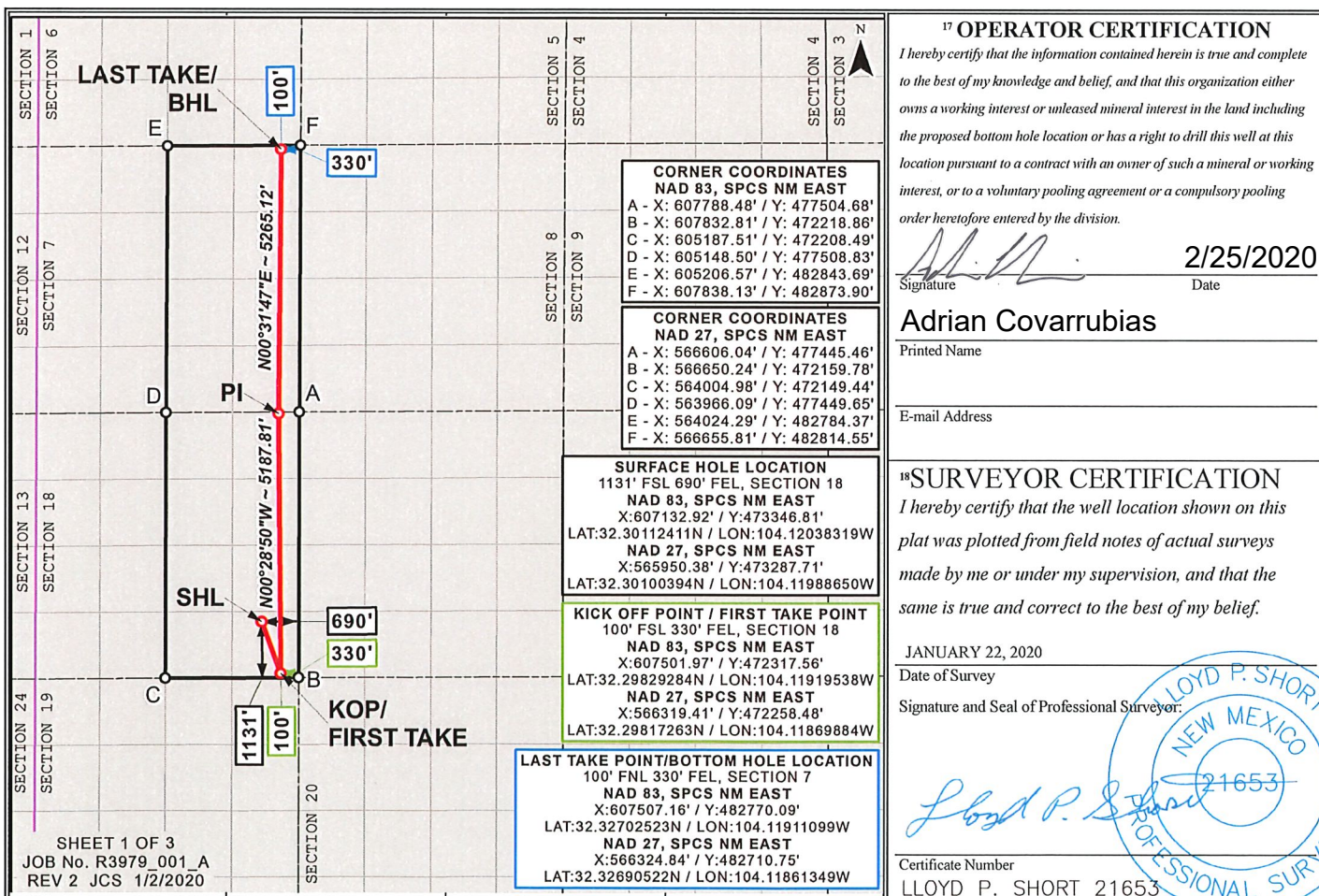
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	18	23S	28E		1131	SOUTH	690	EAST	EDDY

¹¹ 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
A	7	23S	28E		100	NORTH	330	EAST	EDDY

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99977431 Convergence: 00°08'50.61001"

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GAS CAPTURE PLAN

Date: 4/14/2020

☒ Original

Operator & OGRID No.: [372098] MARATHON OIL PERMIAN LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
NEMESIS 7 WXY FEE #001H	30-015-47025	P-18-23S-28E	1131S 0690E	2	Flared	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to SENDERO CARLSBAD NGL, LLC and will be connected to SENDERO CARLSBAD NGL, LLC Low Pressure gathering system located in Eddy County, New Mexico. It will require 5280' of pipeline to connect the facility to Low Pressure gathering system. MARATHON OIL PERMIAN LLC provides (periodically) to SENDERO CARLSBAD NGL, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MARATHON OIL PERMIAN LLC and SENDERO CARLSBAD NGL, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at SENDERO CARLSBAD NGL, LLC Processing Plant located in Sec. 31, Twn. 23S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on SENDERO CARLSBAD NGL, LLC system at that time. Based on current information, it is MARATHON OIL PERMIAN LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Comments

Permit 278788

PERMIT COMMENTS

Operator Name and Address: MARATHON OIL PERMIAN LLC [372098] 5555 San Felipe St. Houston, TX 77056		API Number: 30-015-47025
		Well: NEMESIS 7 WXY FEE #001H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 278788

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MARATHON OIL PERMIAN LLC [372098] 5555 San Felipe St. Houston, TX 77056		API Number: 30-015-47025
		Well: NEMESIS 7 WXY FEE #001H

OCD Reviewer	Condition
rpodany	Will require a directional survey with the C-104
rpodany	Cement is required to circulate on both surface and intermediate1 strings of casing
rpodany	NSL REQUIRED.

Company Name: Marathon Oil Permian LLC
Nemesis 7 WXY Fee #1H
Eddy County, New Mexico (NAD 27)
Rig: PD #101
Created By: Shane Robbins
Date: 2/7/2020



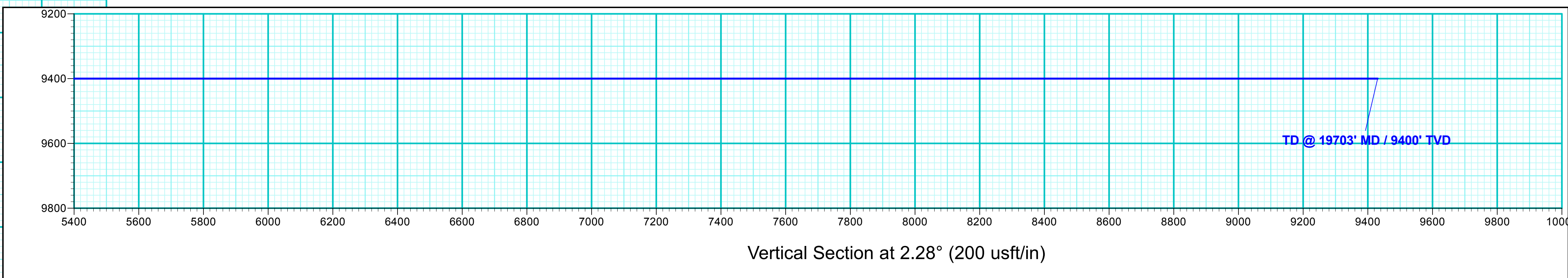
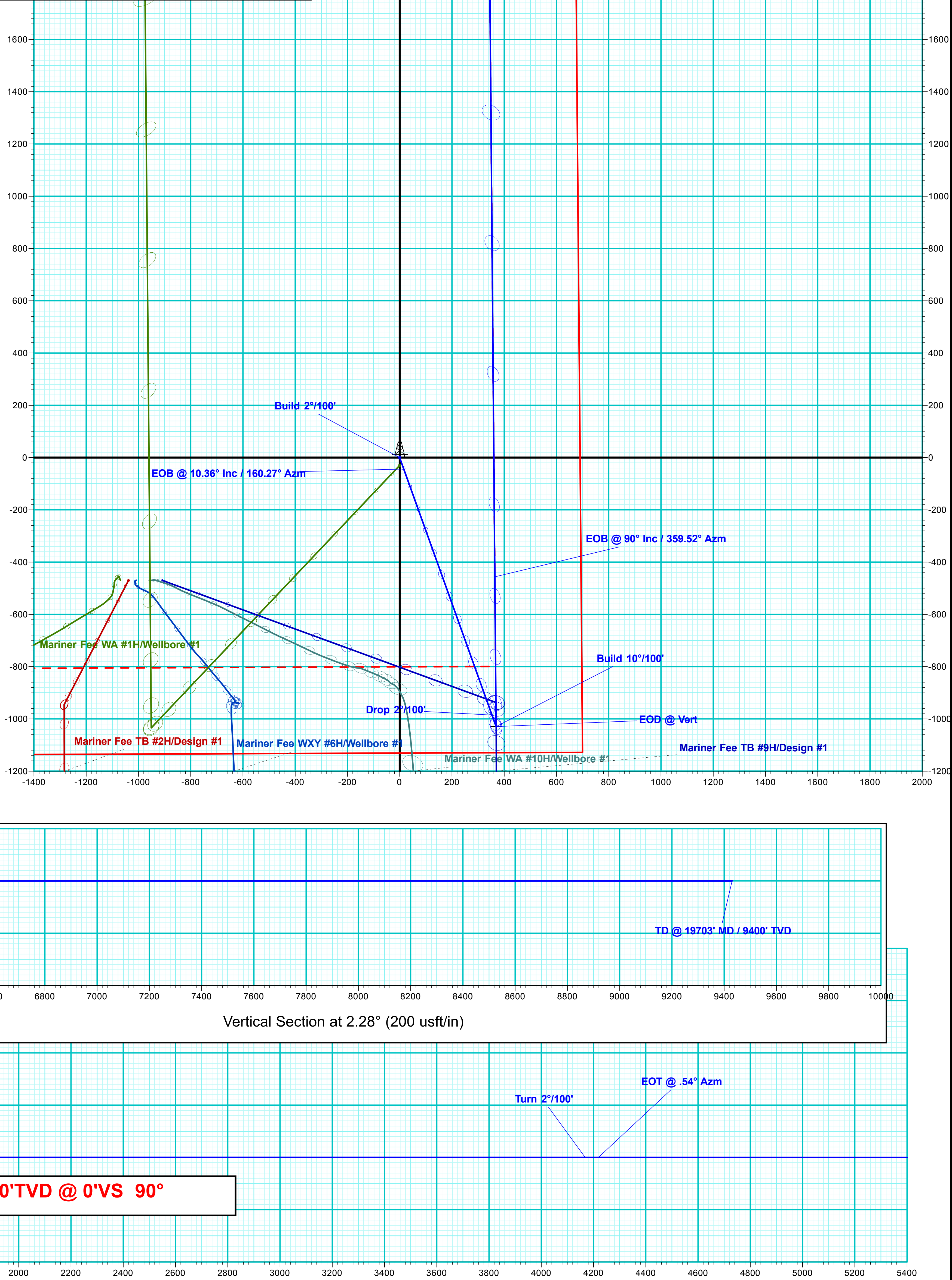
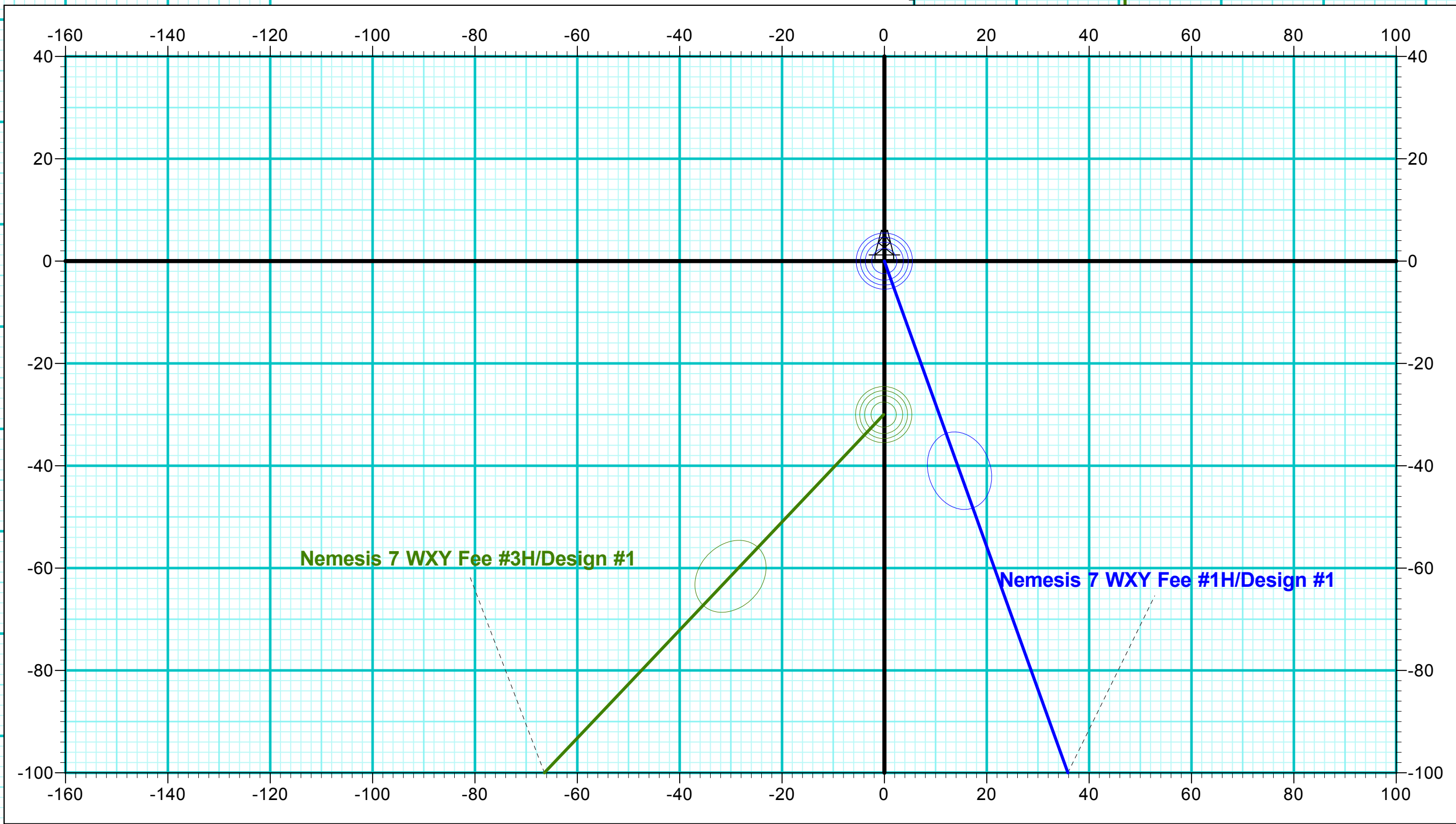
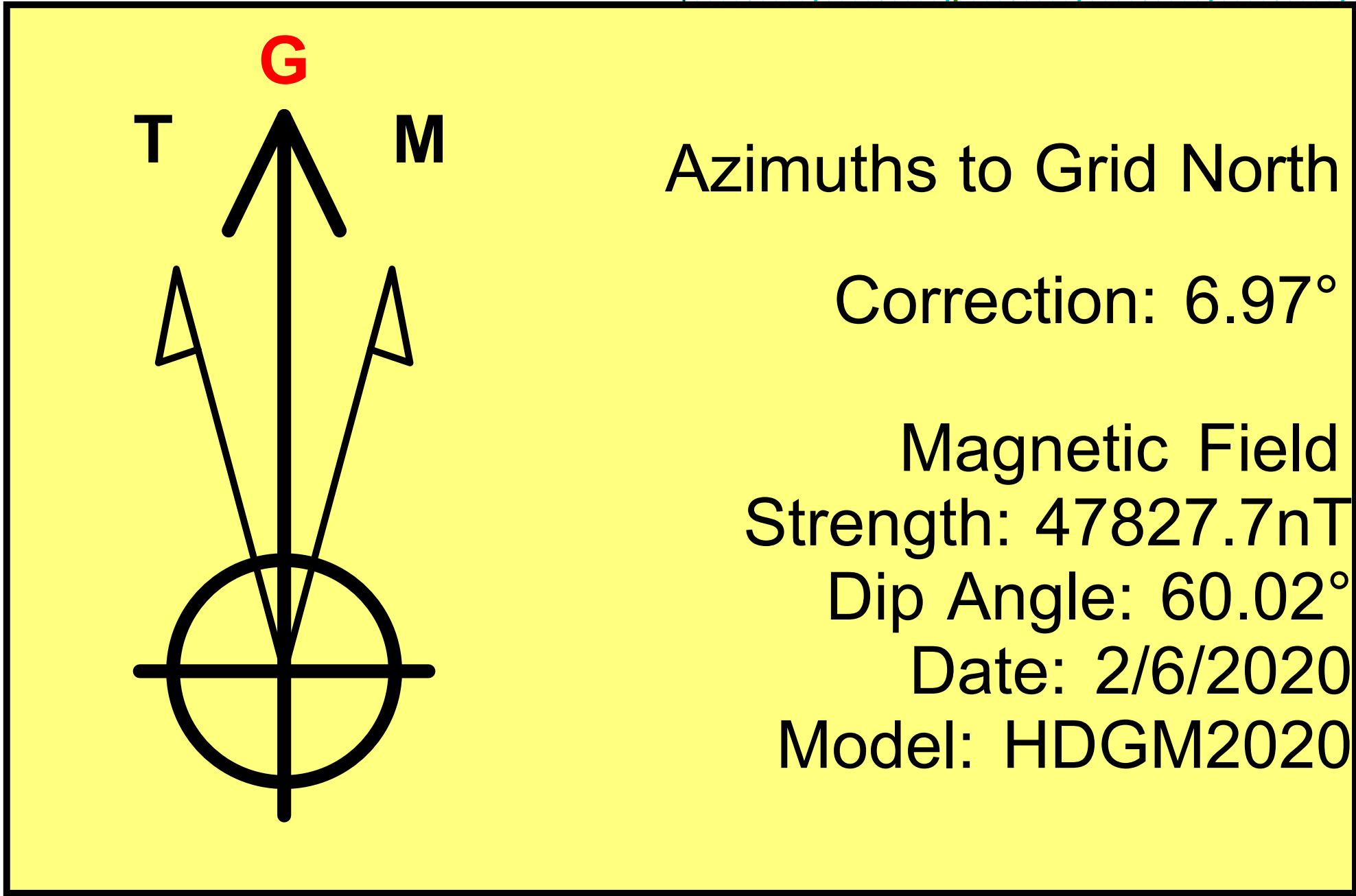
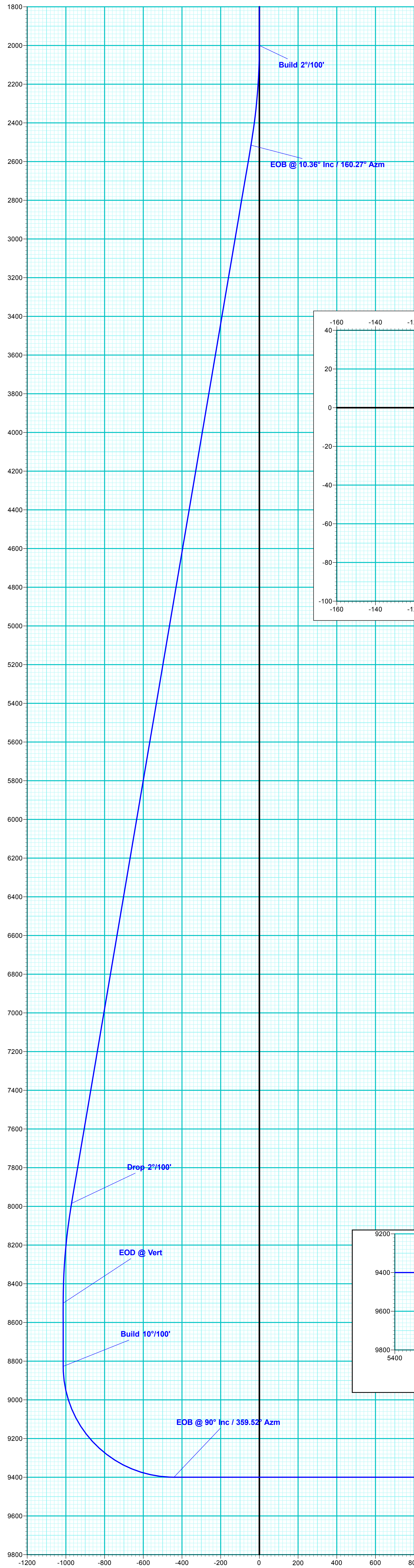
PROJECT DETAILS: Eddy County, New Mexico (NAD 27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

Nemesis 7 WXY Fee #1H
Eddy County, New Mexico (NAD 27)
Q20*** & WT-20***
Design #1

WELL DETAILS: Nemesis 7 WXY Fee #1H					
			3056.0		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	473287.71	565950.38	32° 18' 3.614 N	104° 7' 11.591 W

DESIGN ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.0	0.0	Build 2°/100'	
2518.0	10.36	160.27	2515.2	-44.0	15.8	-43.3	46.7	EOB @ 10.36° Inc / 160.27° Azm	
8078.3	10.36	160.27	7984.8	-985.3	353.3	-970.5	1046.7	Drop 2°/100'	
8596.3	0.00	0.00	8500.0	-1029.2	369.0	-1013.8	1093.4	EOD @ Vert	
8923.3	0.00	0.00	8827.0	-1029.2	369.0	-1013.8	1093.4	Build 10°/100'	
9823.3	90.00	359.52	9400.0	-456.3	364.2	-441.5	1666.3	EOB @ 90° Inc / 359.52° Azm	
14438.1	90.00	359.52	9400.0	4158.4	325.5	4168.0	6281.2	Turn 2°/100'	
14489.1	90.00	0.54	9400.0	4209.3	325.5	4218.9	6332.1	EOT @ .54° Azm	
19703.0	90.00	0.54	9400.0	9423.0	374.5	9430.5	11546.1	TD @ 19703' MD / 9400' TVD	

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
KOP Nemesis 7 WXY Fee #1H	8500.0	-1029.2	369.0	472258.48	566319.41	32° 17' 53.421 N	104° 7' 7.316 W		
PBHL Nemesis 7 WXY Fee #1H	- plan hits target center								
	9400.0		374.5	482710.75	566324.84	32° 19' 36.859 N	104° 7' 7.009 W		
PI Nemesis 7 WXY Fee #1H	- plan hits target center								
	9400.0		325.5	477446.11	566275.90	32° 18' 44.760 N	104° 7' 7.702 W	Point	



Target Line: 9400'TVD @ 0°VS 90°

Company Name: Marathon Oil Permian LLC
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Eddy County, New Mexico (NAD 27)
Rig: PD #101
Created By: Shane Robbins
Date: 2/7/2020



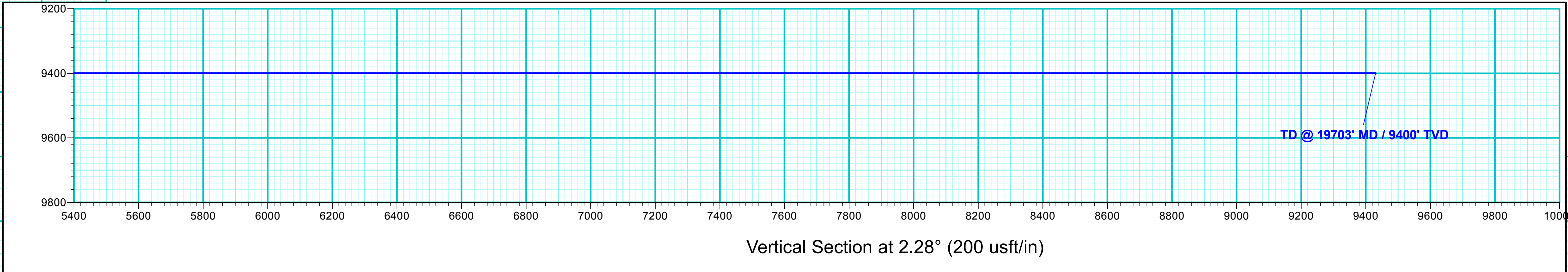
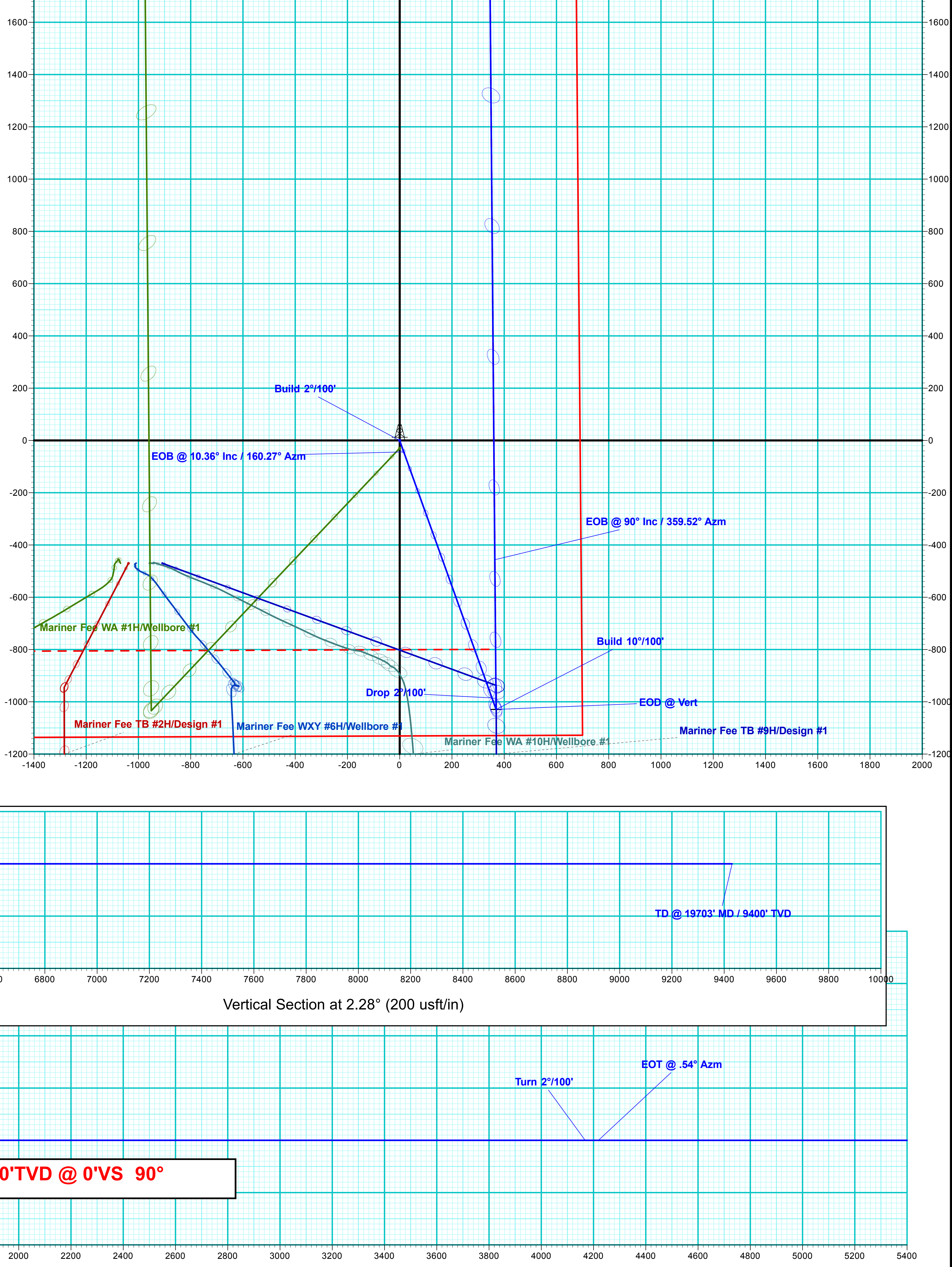
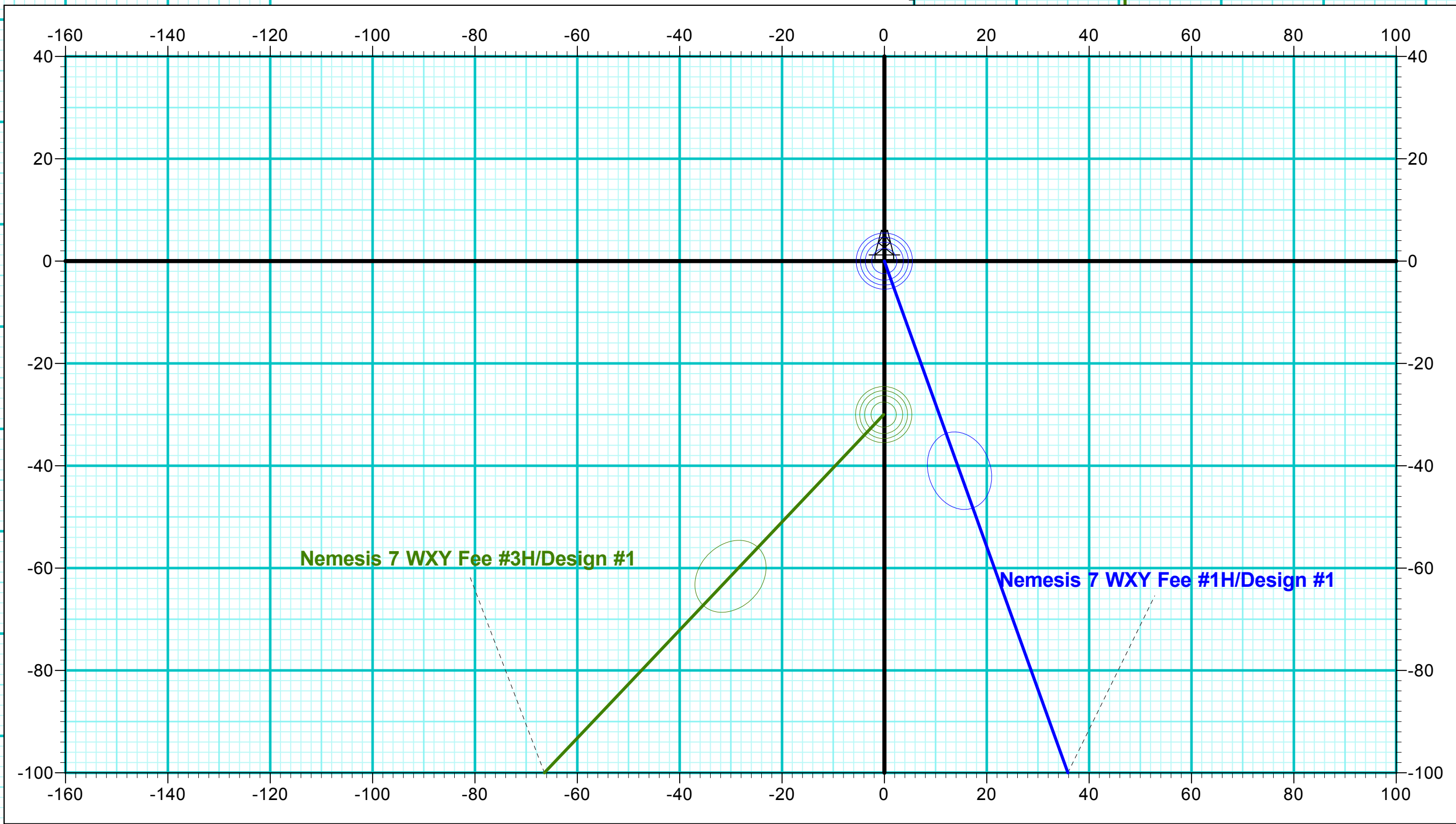
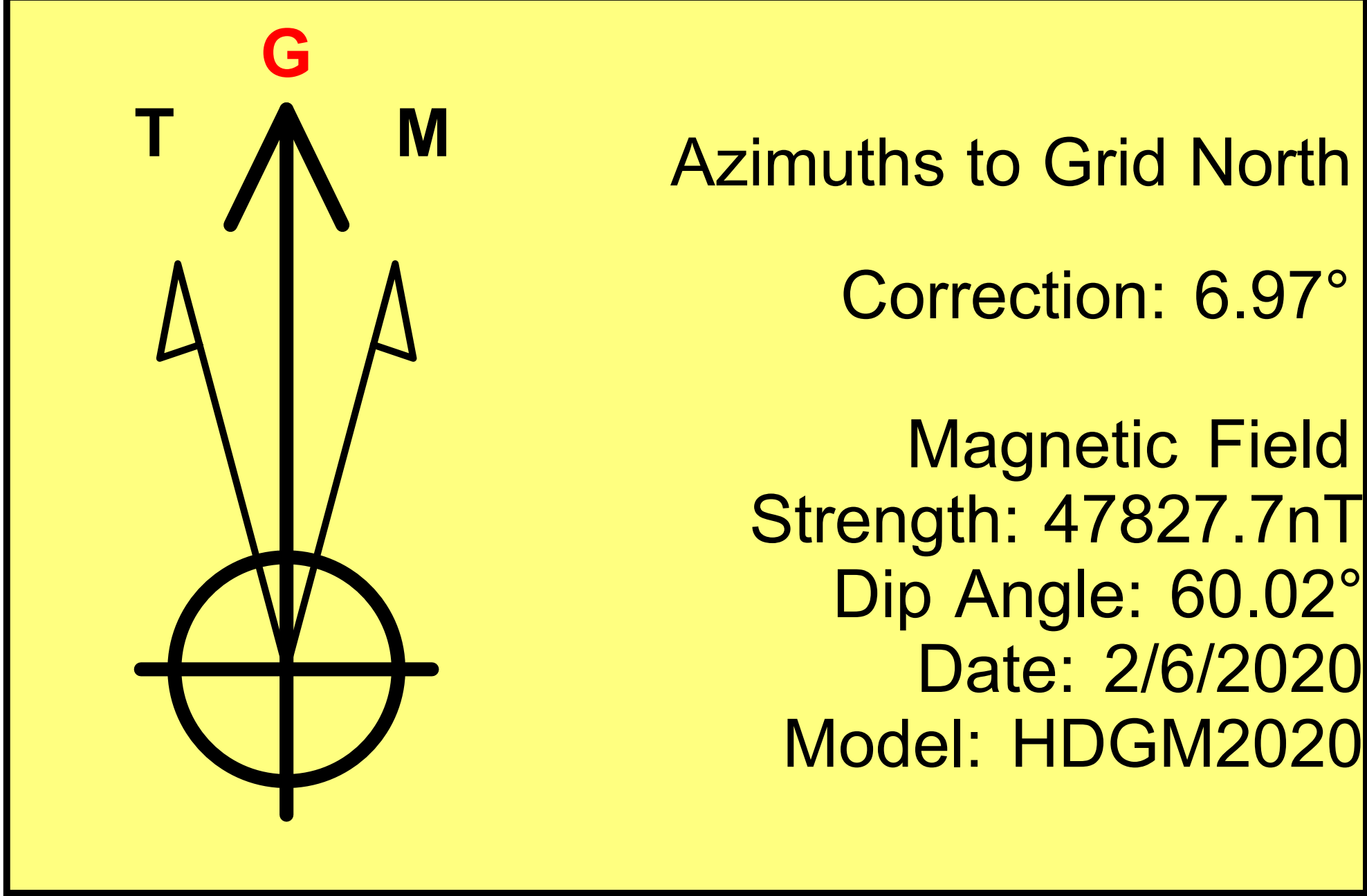
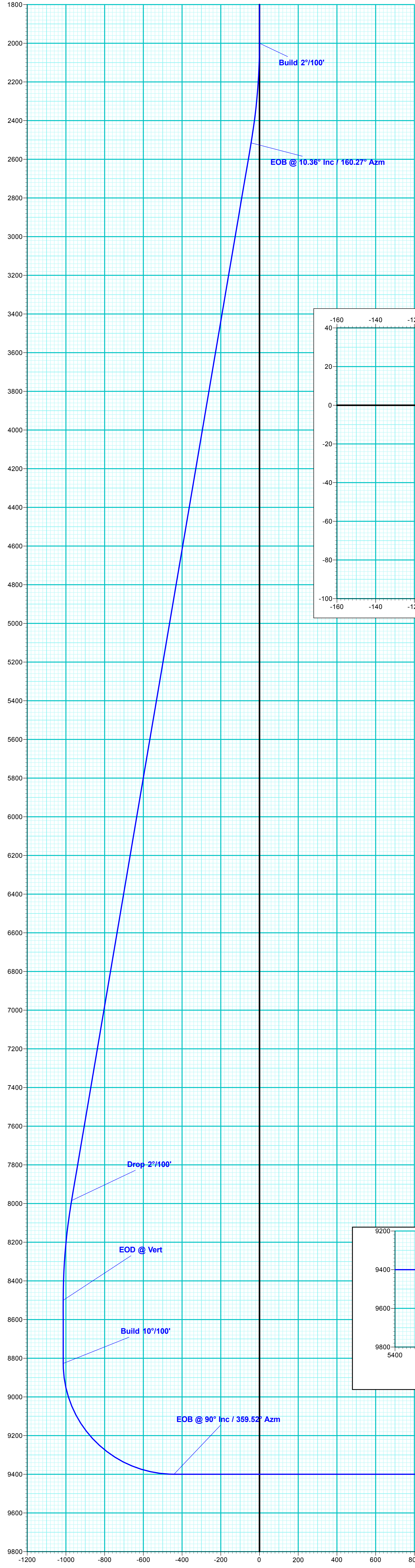
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Target Line: 9400'TVD @ 0°VS 90°

Vertical Section at 2.28° (200 usf/in)