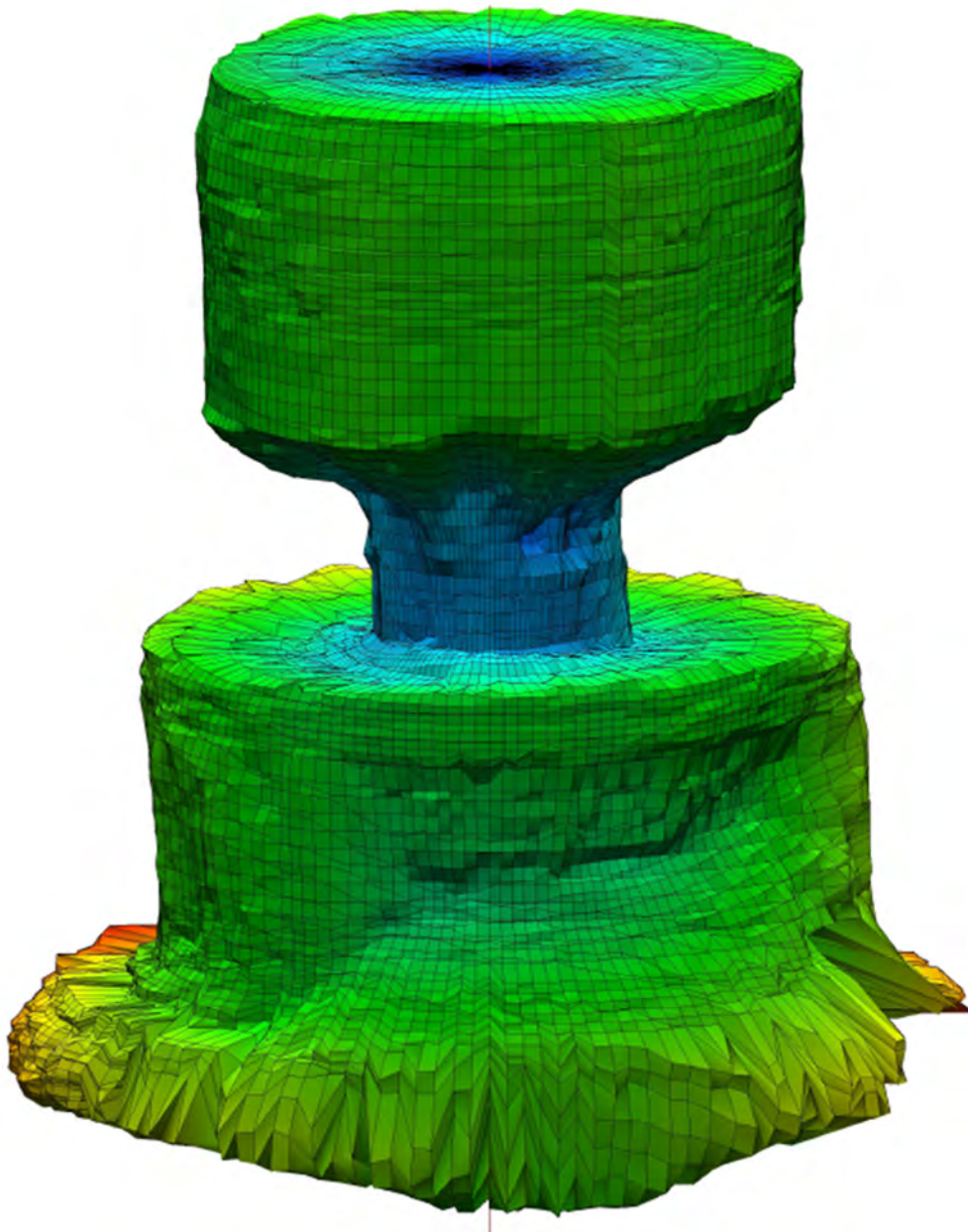


Westlake Chemicals
PPG No. 007B
Sulphur Mines
Calcasieu Parish, Louisiana
July 8, 2024
Through Pipe Sonar Survey



Survey Conducted by: Will Guidry / Richard Lawrence
Company Representative: Mr. Mike Zaunbrecher - Lonquist

Serving the Storage Well Industry Since 1978

Table of Contents

Cover Page.....	1
Table of Contents	2
Well Information	3
List of Acquired Measurements	4
Total Volume Vs. Depth	5
Partial Volume Vs. Depth per ft.....	6
Mean Radius	7
Volume Table	8-25
Maximum Extension.....	26
Solid View from Above	27
Max Radius & Depth vs Bearing	28
Wall Ranges versus Depth (N,NE,E,SE,S,SW,W,NW)	29-33
Vertical Sections	34-46
Expanded Vertical Sections	47-54
Horizontal Sections	55-60
Wall Ranges versus Depth	61-122
Solids Views	123-130

Well Information

Company: Westlake Chemicals
Well Number: PPG No. 007B
Field: Sulphur Mines
State: Louisiana
Parish: Calcasieu
API No.: 17-019-04012
Serial No.: 67270

Cemented Casing: 7-5/8 in. @ 2501 ft.
Hanging String: 5-1/2 in. @ 2607 ft.
Total Depth: 3100 ft.

Permanent Datum: B.H.F
Depth Correction: -4 ft.

Total Volume BBL: 9,834,981.88
Total Volume Ft³: 55,219,325.35

Sonar Tool Orientation:

Sonar tool serial number SON-073-041 magnetic compass calibration performed on November 10, 2023.

The sonar survey was run using the fiber optic gyro which was set to the internal magnetic compass at the depth of 2640 feet. The orientation was checked on surface after the survey to verify the orientation.

Operation No. 1 – Sonic Surveys / Flodim – 2022.03.11 – Through Pipe Sonar Survey
Operation No. 2 – Sonic Surveys / Flodim – 2022.11.02 – Through Pipe Sonar Survey
Operation No. 3 – Sonic Surveys / Flodim – 2023.01.11 – Through Pipe Sonar Survey
Operation No. 4 – Sonic Surveys / Flodim – 2023.02.01 – Through Pipe Sonar Survey
Operation No. 5 – Sonic Surveys / Flodim – 2023.03.16 – Through Pipe Sonar Survey
Operation No. 6 – Sonic Surveys / Flodim – 2023.07.26 – Through Pipe Sonar Survey
Operation No. 7 – Sonic Surveys / Flodim – 2023.11.12 – Through Pipe Sonar Survey
Operation No. 8 – Sonic Surveys / Flodim – 2024.04.15 – Through Pipe Sonar Survey
Operation No. 9 – Sonic Surveys / Flodim – 2024.07.08 – Through Pipe Sonar Survey

List of Acquired Measurements

Sonar survey from 2501 ft. to 3090 ft.

- Oriented circular horizontal sections from 2501 ft to 2502 ft, with a step of 1 foot.
- Oriented circular horizontal sections from 2502 ft to 2505 ft, with a step of 3 feet.
- Oriented circular horizontal sections from 2505 ft to 2510 ft, with a step of 5 feet.
- Oriented circular horizontal sections from 2510 ft to 2520 ft, with a step of 2 feet.
- Oriented circular horizontal sections from 2520 ft to 2600 ft, with a step of 10 feet.
- Oriented circular horizontal sections from 2600 ft to 2640 ft, with a step of 5 feet.
- Oriented circular horizontal sections from 2640 ft to 2800 ft, with a step of 10 feet.
- Oriented circular horizontal sections from 2800 ft to 2870 ft, with a step of 5 feet.
- Oriented circular horizontal sections from 2870 ft to 3000 ft, with a step of 10 feet.
- Oriented circular horizontal sections from 3000 ft to 3090 ft, with a step of 5 feet.
- Up-tilted oriented circular sections from 2615 ft with a tilt of 4°, 9°, 14°, 19°, 24°, 29°, 34°, 39°, 44°, 49°, 54°, 59°, 64°, 69°, 74°, 79°, 84°, 88° with respect to the horizontal.
- Down-tilted oriented circular sections from 2615 ft with a tilt of -60°, -55°, -50°, -45°, -40°, -35°, -30°, -25° with respect to the horizontal.
- Down-tilted oriented circular sections from 2900 ft with a tilt of -75°, -72°, -69°, -66°, -63°, -60°, -57°, -54°, -51°, -48°, -45°, -42°, -39°, -37°, -36°, -35°, -34°, -33°, -32°, -31°, -30°, -29°, -28°, -27° with respect to the horizontal.
- Up-tilted oriented circular sections from 2920 ft with a tilt of 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 48°, 50°, 55°, 60°, 65°, 70°, 75°, 80°, 85° with respect to the horizontal.
- Down-tilted oriented circular sections from 3035 ft with a tilt of -87°, -84°, -81°, -78°, -75°, -72°, -69°, -66°, -63°, -60°, -57°, -54°, -51°, -48°, -45°, -42°, -39°, -36°, -33°, -30°, -27°, -24°, -21°, -18°, -15°, -12°, -9°, -6°, -5°, -4°, -3°, -2° with respect to the horizontal.
- Up-tilted oriented circular sections from 3080 ft with a tilt of 2°, 5°, 8°, 11°, 14°, 17°, 20°, 23°, 26°, 29°, 32°, 35°, 38°, 41°, 44°, 47°, 50°, 54°, 59°, 64° with respect to the horizontal.
- 1 complementary measurement to determine the cavity floor depth.

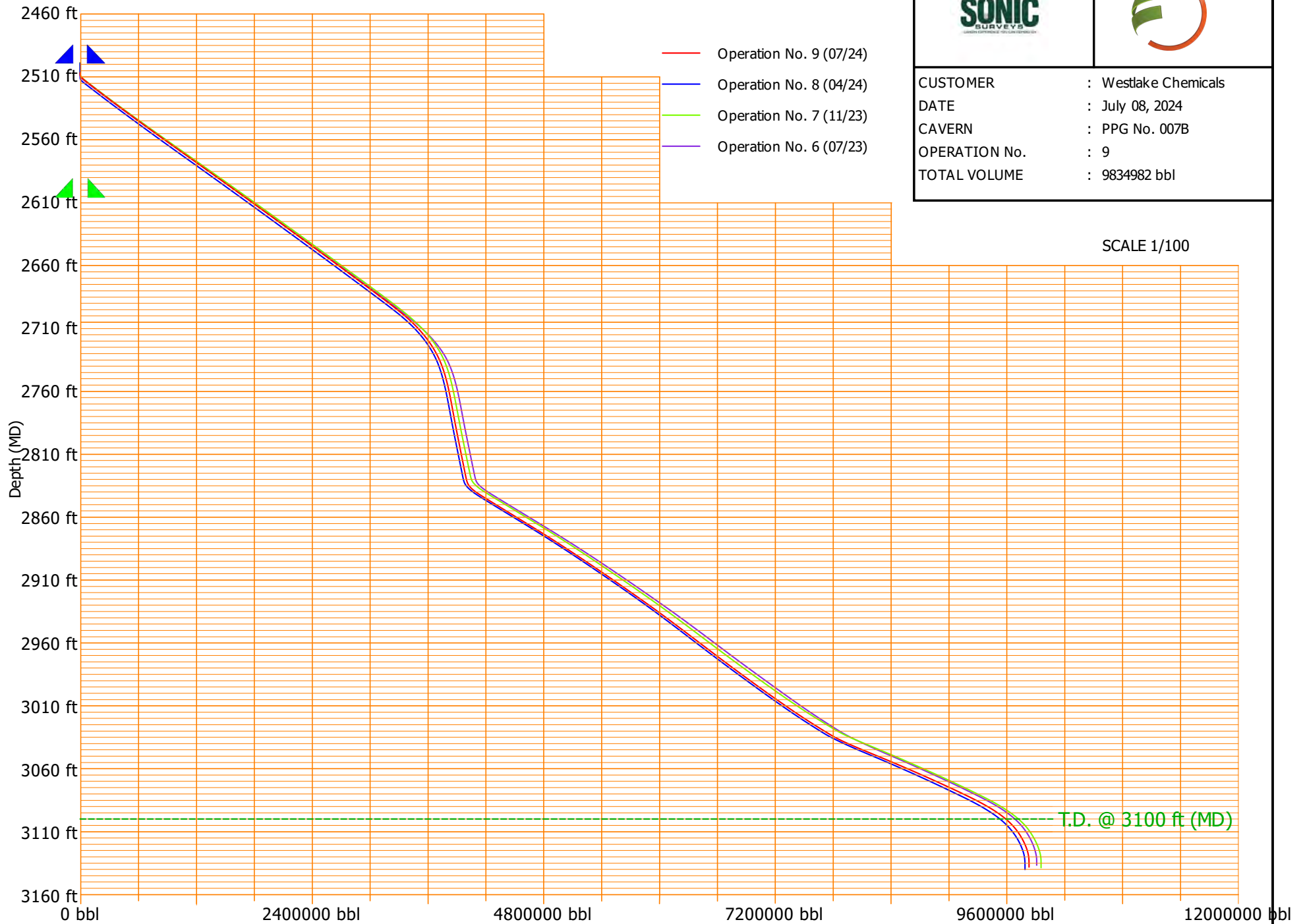
TOTAL VOLUME (bbl) VERSUS DEPTH (ft)

SONIC
SURVEYS



CUSTOMER	: Westlake Chemicals
DATE	: July 08, 2024
CAVERN	: PPG No. 007B
OPERATION No.	: 9
TOTAL VOLUME	: 9834982 bbl

SCALE 1/100



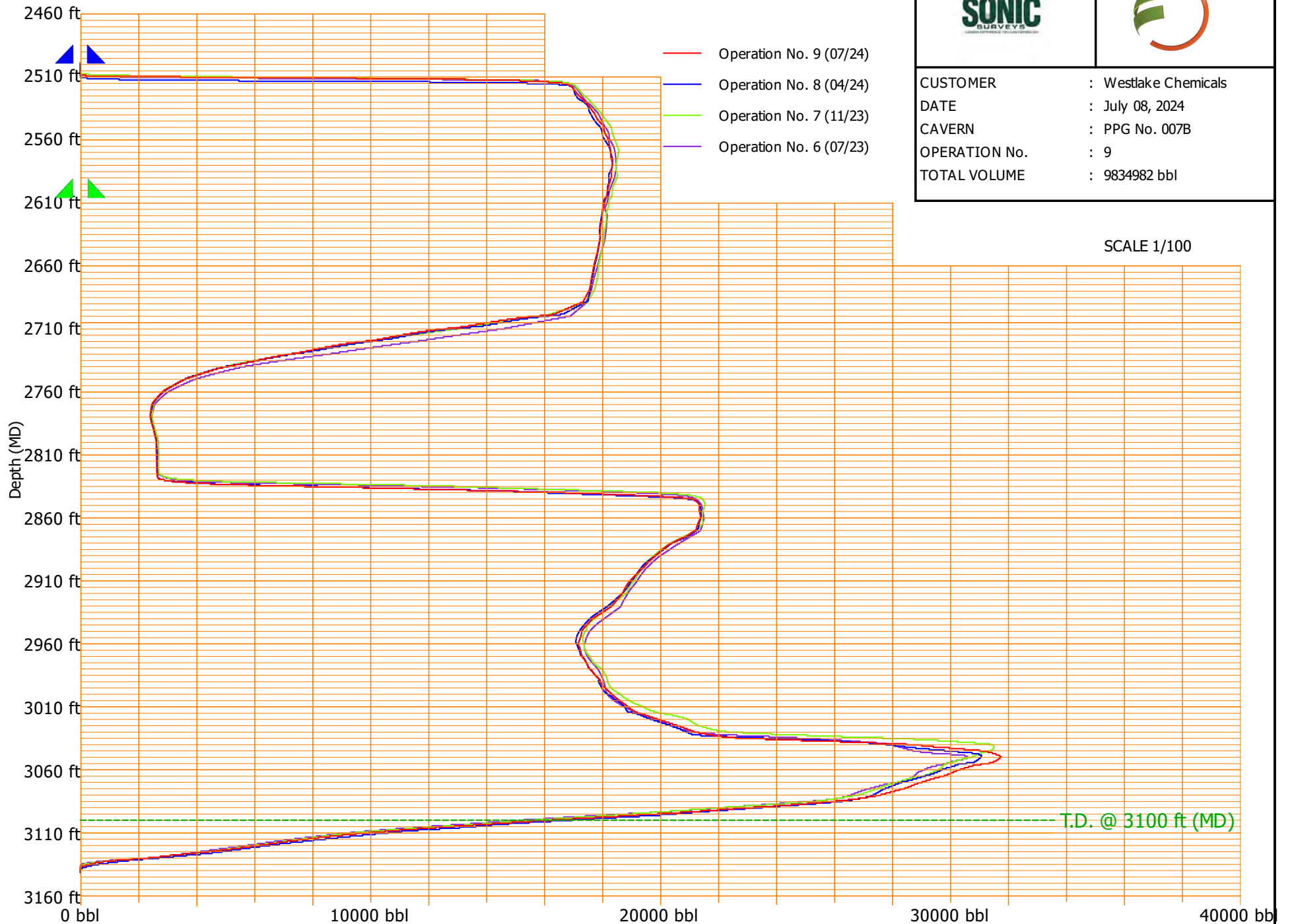
PARTIAL VOLUME (bbl) VERSUS DEPTH EACH 1 ft

SONIC
SURVEYS



CUSTOMER	: Westlake Chemicals
DATE	: July 08, 2024
CAVERN	: PPG No. 007B
OPERATION No.	: 9
TOTAL VOLUME	: 9834982 bbl

SCALE 1/100





CUSTOMER : Westlake Chemicals

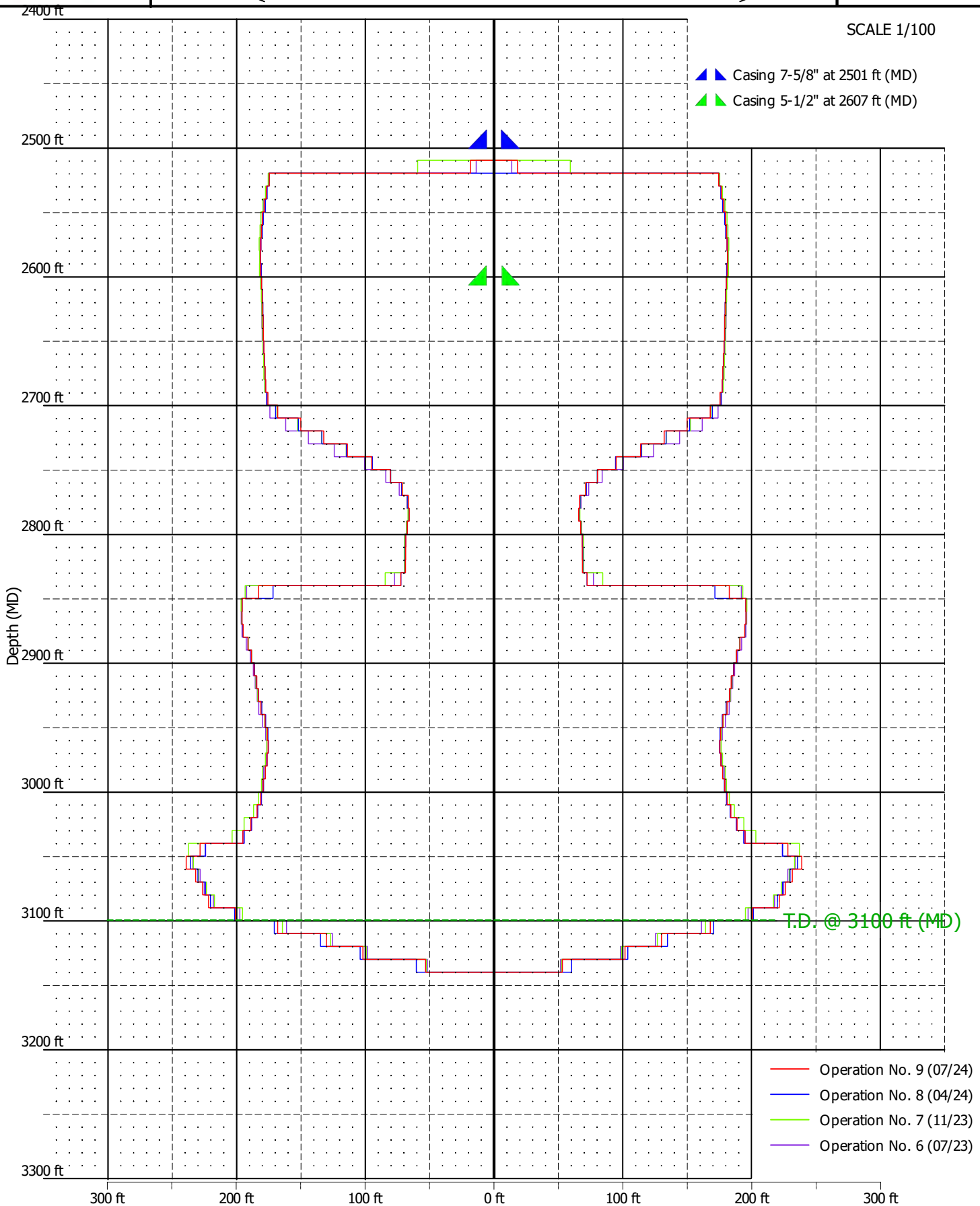
DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



MEAN RADIUS



		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B					
		DATE : July 08, 2024				OPERATION No. : 9					
		MAIN CHARACTERISTICS DATASHEET									
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)
2545.00	578904.08	17855.11	-	-	-	-	-	-	-	-	-
2546.00	596794.69	17890.61	-	-	-	-	-	-	-	-	-
2547.00	614723.65	17928.96	-	-	-	-	-	-	-	-	-
2548.00	632693.65	17970.00	-	-	-	-	-	-	-	-	-
2549.00	650706.15	18012.50	-	-	-	-	-	-	-	-	-
2550.00	668739.32	18033.17	101259.12	179.53	359.06	156.72	218.52	162.00	328.91	392.42	162.00
2551.00	686784.67	18045.35	-	-	-	-	-	-	-	-	-
2552.00	704840.93	18056.27	-	-	-	-	-	-	-	-	-
2553.00	722907.23	18066.29	-	-	-	-	-	-	-	-	-
2554.00	740983.11	18075.88	-	-	-	-	-	-	-	-	-
2555.00	759070.86	18087.75	-	-	-	-	-	-	-	-	-
2556.00	777177.56	18106.69	-	-	-	-	-	-	-	-	-
2557.00	795308.66	18131.10	-	-	-	-	-	-	-	-	-
2558.00	813465.60	18156.94	-	-	-	-	-	-	-	-	-
2559.00	831650.66	18185.06	-	-	-	-	-	-	-	-	-
2560.00	849852.71	18202.06	102205.77	180.37	360.74	156.27	219.48	162.00	327.78	395.17	162.00
2561.00	868065.50	18212.79	-	-	-	-	-	-	-	-	-
2562.00	886288.38	18222.88	-	-	-	-	-	-	-	-	-
2563.00	904521.47	18233.08	-	-	-	-	-	-	-	-	-
2564.00	922763.75	18242.28	-	-	-	-	-	-	-	-	-
2565.00	941015.26	18251.51	-	-	-	-	-	-	-	-	-
2566.00	959276.10	18260.84	-	-	-	-	-	-	-	-	-
2567.00	977546.36	18270.26	-	-	-	-	-	-	-	-	-
2568.00	995827.35	18280.99	-	-	-	-	-	-	-	-	-
2569.00	1014120.65	18293.31	-	-	-	-	-	-	-	-	-
2570.00	1032417.31	18296.66	102724.05	180.83	361.65	159.35	221.93	162.00	330.31	397.08	162.00
2571.00	1050710.50	18293.19	-	-	-	-	-	-	-	-	-
2572.00	1069002.09	18291.59	-	-	-	-	-	-	-	-	-
2573.00	1087296.19	18294.11	-	-	-	-	-	-	-	-	-
2574.00	1105595.44	18299.25	-	-	-	-	-	-	-	-	-
2575.00	1123903.61	18308.17	-	-	-	-	-	-	-	-	-
2576.00	1142223.78	18320.16	-	-	-	-	-	-	-	-	-
2577.00	1160556.18	18332.40	-	-	-	-	-	-	-	-	-
2578.00	1178900.61	18344.44	-	-	-	-	-	-	-	-	-
2579.00	1197256.63	18356.02	-	-	-	-	-	-	-	-	-
2580.00	1215610.29	18353.66	103052.52	181.11	362.23	156.94	221.57	162.00	328.14	395.72	162.00

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B					
		DATE : July 08, 2024				OPERATION No. : 9					
MAIN CHARACTERISTICS DATASHEET											
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)
2689.00	3168105.00	17340.39	-	-	-	-	-	-	-	-	-
2690.00	3185344.68	17239.68	96621.81	175.37	350.75	152.36	217.79	168.00	314.71	387.41	168.00
2691.00	3202473.02	17128.34	-	-	-	-	-	-	-	-	-
2692.00	3219498.41	17025.40	-	-	-	-	-	-	-	-	-
2693.00	3236424.06	16925.65	-	-	-	-	-	-	-	-	-
2694.00	3253250.09	16826.03	-	-	-	-	-	-	-	-	-
2695.00	3269976.15	16726.06	-	-	-	-	-	-	-	-	-
2696.00	3286600.55	16624.40	-	-	-	-	-	-	-	-	-
2697.00	3303122.75	16522.20	-	-	-	-	-	-	-	-	-
2698.00	3319543.91	16421.16	-	-	-	-	-	-	-	-	-
2699.00	3335823.52	16279.61	-	-	-	-	-	-	-	-	-
2700.00	3351694.02	15870.50	88435.79	167.78	335.56	138.79	207.74	168.00	294.76	369.86	156.00
2701.00	3367132.50	15438.48	-	-	-	-	-	-	-	-	-
2702.00	3382187.81	15055.32	-	-	-	-	-	-	-	-	-
2703.00	3396913.42	14725.61	-	-	-	-	-	-	-	-	-
2704.00	3411349.23	14435.81	-	-	-	-	-	-	-	-	-
2705.00	3425519.03	14169.80	-	-	-	-	-	-	-	-	-
2706.00	3439431.88	13912.85	-	-	-	-	-	-	-	-	-
2707.00	3453085.75	13653.87	-	-	-	-	-	-	-	-	-
2708.00	3466483.42	13397.67	-	-	-	-	-	-	-	-	-
2709.00	3479605.27	13121.85	-	-	-	-	-	-	-	-	-
2710.00	3492282.40	12677.13	70556.59	149.86	299.73	118.57	186.95	192.00	273.75	332.89	12.00
2711.00	3504551.45	12269.05	-	-	-	-	-	-	-	-	-
2712.00	3516479.85	11928.41	-	-	-	-	-	-	-	-	-
2713.00	3528126.58	11646.72	-	-	-	-	-	-	-	-	-
2714.00	3539517.36	11390.78	-	-	-	-	-	-	-	-	-
2715.00	3550662.17	11144.81	-	-	-	-	-	-	-	-	-
2716.00	3561570.54	10908.37	-	-	-	-	-	-	-	-	-
2717.00	3572251.20	10680.66	-	-	-	-	-	-	-	-	-
2718.00	3582709.39	10458.19	-	-	-	-	-	-	-	-	-
2719.00	3592946.46	10237.07	-	-	-	-	-	-	-	-	-
2720.00	3602811.37	9864.91	54782.00	132.05	264.10	100.44	163.61	183.00	232.44	287.66	18.00
2721.00	3612300.87	9489.49	-	-	-	-	-	-	-	-	-
2722.00	3621483.87	9183.00	-	-	-	-	-	-	-	-	-
2723.00	3630405.32	8921.46	-	-	-	-	-	-	-	-	-
2724.00	3639083.36	8678.04	-	-	-	-	-	-	-	-	-

		CUSTOMER : Westlake Chemicals					CAVERN : PPG No. 007B			7		
		DATE : July 08, 2024					OPERATION No. : 9					
		MAIN CHARACTERISTICS DATASHEET										
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation	
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)	
2725.00	3647529.20	8445.83	-	-	-	-	-	-	-	-	-	
2726.00	3655748.90	8219.70	-	-	-	-	-	-	-	-	-	
2727.00	3663751.93	8003.03	-	-	-	-	-	-	-	-	-	
2728.00	3671550.69	7798.76	-	-	-	-	-	-	-	-	-	
2729.00	3679132.85	7582.16	-	-	-	-	-	-	-	-	-	
2730.00	3686438.28	7305.42	40623.64	113.71	227.43	81.89	148.80	180.00	188.93	255.45	12.00	
2731.00	3693483.25	7044.97	-	-	-	-	-	-	-	-	-	
2732.00	3700292.25	6809.00	-	-	-	-	-	-	-	-	-	
2733.00	3706876.08	6583.83	-	-	-	-	-	-	-	-	-	
2734.00	3713246.25	6370.17	-	-	-	-	-	-	-	-	-	
2735.00	3719413.80	6167.54	-	-	-	-	-	-	-	-	-	
2736.00	3725380.00	5966.20	-	-	-	-	-	-	-	-	-	
2737.00	3731137.90	5757.90	-	-	-	-	-	-	-	-	-	
2738.00	3736689.99	5552.08	-	-	-	-	-	-	-	-	-	
2739.00	3742033.93	5343.94	-	-	-	-	-	-	-	-	-	
2740.00	3747147.03	5113.10	28235.12	94.80	189.61	66.55	132.92	183.00	149.79	219.75	162.00	
2741.00	3752048.14	4901.11	-	-	-	-	-	-	-	-	-	
2742.00	3756774.63	4726.49	-	-	-	-	-	-	-	-	-	
2743.00	3761352.87	4578.24	-	-	-	-	-	-	-	-	-	
2744.00	3765790.86	4437.99	-	-	-	-	-	-	-	-	-	
2745.00	3770093.74	4302.88	-	-	-	-	-	-	-	-	-	
2746.00	3774262.54	4168.81	-	-	-	-	-	-	-	-	-	
2747.00	3778297.03	4034.49	-	-	-	-	-	-	-	-	-	
2748.00	3782195.46	3898.43	-	-	-	-	-	-	-	-	-	
2749.00	3785947.59	3752.13	-	-	-	-	-	-	-	-	-	
2750.00	3789586.51	3638.93	20295.61	80.38	160.75	54.20	121.28	177.00	121.41	188.67	162.00	
2751.00	3793137.77	3551.25	-	-	-	-	-	-	-	-	-	
2752.00	3796606.01	3468.24	-	-	-	-	-	-	-	-	-	
2753.00	3799992.87	3386.87	-	-	-	-	-	-	-	-	-	
2754.00	3803299.44	3306.57	-	-	-	-	-	-	-	-	-	
2755.00	3806525.80	3226.36	-	-	-	-	-	-	-	-	-	
2756.00	3809672.05	3146.25	-	-	-	-	-	-	-	-	-	
2757.00	3812736.67	3064.62	-	-	-	-	-	-	-	-	-	
2758.00	3815720.03	2983.36	-	-	-	-	-	-	-	-	-	
2759.00	3818620.83	2900.79	-	-	-	-	-	-	-	-	-	
2760.00	3821467.36	2846.53	15916.99	71.18	142.36	40.41	98.32	186.00	110.00	162.48	12.00	

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				12		
		DATE : July 08, 2024				OPERATION No. : 9						
		MAIN CHARACTERISTICS DATASHEET										
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation	
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)	
2905.00	5425834.32	19163.22	-	-	-	-	-	-	-	-	-	
2906.00	5444953.14	19118.81	-	-	-	-	-	-	-	-	-	
2907.00	5464028.23	19075.10	-	-	-	-	-	-	-	-	-	
2908.00	5483060.88	19032.65	-	-	-	-	-	-	-	-	-	
2909.00	5502052.47	18991.59	-	-	-	-	-	-	-	-	-	
2910.00	5521006.17	18953.70	106376.02	184.01	368.02	133.18	232.43	231.00	332.63	392.18	63.00	
2911.00	5539924.08	18917.91	-	-	-	-	-	-	-	-	-	
2912.00	5558807.97	18883.89	-	-	-	-	-	-	-	-	-	
2913.00	5577661.27	18853.30	-	-	-	-	-	-	-	-	-	
2914.00	5596487.01	18825.74	-	-	-	-	-	-	-	-	-	
2915.00	5615287.07	18800.06	-	-	-	-	-	-	-	-	-	
2916.00	5634063.87	18776.80	-	-	-	-	-	-	-	-	-	
2917.00	5652819.26	18755.39	-	-	-	-	-	-	-	-	-	
2918.00	5671554.34	18735.09	-	-	-	-	-	-	-	-	-	
2919.00	5690269.84	18715.50	-	-	-	-	-	-	-	-	-	
2920.00	5708957.41	18687.57	104873.63	182.71	365.42	130.39	233.41	234.00	332.04	395.01	54.00	
2921.00	5727608.67	18651.26	-	-	-	-	-	-	-	-	-	
2922.00	5746223.42	18614.75	-	-	-	-	-	-	-	-	-	
2923.00	5764801.73	18578.31	-	-	-	-	-	-	-	-	-	
2924.00	5783344.11	18542.39	-	-	-	-	-	-	-	-	-	
2925.00	5801849.65	18505.54	-	-	-	-	-	-	-	-	-	
2926.00	5820318.17	18468.51	-	-	-	-	-	-	-	-	-	
2927.00	5838750.11	18431.95	-	-	-	-	-	-	-	-	-	
2928.00	5857145.69	18395.58	-	-	-	-	-	-	-	-	-	
2929.00	5875505.04	18359.35	-	-	-	-	-	-	-	-	-	
2930.00	5893816.85	18311.81	102726.01	180.83	361.66	128.73	235.01	234.00	325.75	397.65	54.00	
2931.00	5912069.08	18252.23	-	-	-	-	-	-	-	-	-	
2932.00	5930258.20	18189.12	-	-	-	-	-	-	-	-	-	
2933.00	5948381.05	18122.84	-	-	-	-	-	-	-	-	-	
2934.00	5966436.07	18055.02	-	-	-	-	-	-	-	-	-	
2935.00	5984422.32	17986.25	-	-	-	-	-	-	-	-	-	
2936.00	6002339.69	17917.37	-	-	-	-	-	-	-	-	-	
2937.00	6020188.34	17848.65	-	-	-	-	-	-	-	-	-	
2938.00	6037968.96	17780.61	-	-	-	-	-	-	-	-	-	
2939.00	6055682.73	17713.78	-	-	-	-	-	-	-	-	-	
2940.00	6073340.45	17657.71	99090.64	177.60	355.20	120.03	237.27	231.00	305.64	397.36	51.00	

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B					
		DATE : July 08, 2024				OPERATION No. : 9					
		MAIN CHARACTERISTICS DATASHEET									
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)
3085.00	9292478.08	25589.70	-	-	-	-	-	-	-	-	-
3086.00	9317556.88	25078.80	-	-	-	-	-	-	-	-	-
3087.00	9342079.64	24522.76	-	-	-	-	-	-	-	-	-
3088.00	9366000.02	23920.38	-	-	-	-	-	-	-	-	-
3089.00	9389225.12	23225.11	-	-	-	-	-	-	-	-	-
3090.00	9411759.65	22534.53	126409.05	200.62	401.24	26.64	312.82	189.00	222.57	530.69	138.00
3091.00	9433740.60	21980.95	-	-	-	-	-	-	-	-	-
3092.00	9455128.71	21388.11	-	-	-	-	-	-	-	-	-
3093.00	9475829.42	20700.71	-	-	-	-	-	-	-	-	-
3094.00	9495753.95	19924.52	-	-	-	-	-	-	-	-	-
3095.00	9514968.76	19214.82	-	-	-	-	-	-	-	-	-
3096.00	9533520.75	18551.99	-	-	-	-	-	-	-	-	-
3097.00	9551290.02	17769.27	-	-	-	-	-	-	-	-	-
3098.00	9568293.95	17003.93	-	-	-	-	-	-	-	-	-
3099.00	9584571.45	16277.50	-	-	-	-	-	-	-	-	-
3100.00	9600135.30	15563.85	87638.81	167.82	335.63	1.08	305.12	150.00	-	-	-
3101.00	9615015.98	14880.68	-	-	-	-	-	-	-	-	-
3102.00	9629225.08	14209.10	-	-	-	-	-	-	-	-	-
3103.00	9642780.98	13555.91	-	-	-	-	-	-	-	-	-
3104.00	9655687.04	12906.06	-	-	-	-	-	-	-	-	-
3105.00	9667950.32	12263.28	-	-	-	-	-	-	-	-	-
3106.00	9679577.37	11627.05	-	-	-	-	-	-	-	-	-
3107.00	9690592.78	11015.41	-	-	-	-	-	-	-	-	-
3108.00	9701105.10	10512.31	-	-	-	-	-	-	-	-	-
3109.00	9711082.74	9977.65	-	-	-	-	-	-	-	-	-
3110.00	9720589.77	9507.02	52918.30	129.98	259.95	61.87	294.78	165.00	-	-	-
3111.00	9729632.02	9042.26	-	-	-	-	-	-	-	-	-
3112.00	9738231.20	8599.18	-	-	-	-	-	-	-	-	-
3113.00	9746441.86	8210.66	-	-	-	-	-	-	-	-	-
3114.00	9754300.20	7858.34	-	-	-	-	-	-	-	-	-
3115.00	9761796.11	7495.91	-	-	-	-	-	-	-	-	-
3116.00	9768929.56	7133.45	-	-	-	-	-	-	-	-	-
3117.00	9775728.76	6799.20	-	-	-	-	-	-	-	-	-
3118.00	9782225.13	6496.37	-	-	-	-	-	-	-	-	-
3119.00	9788417.78	6192.65	-	-	-	-	-	-	-	-	-
3120.00	9794294.07	5876.29	32471.74	101.67	203.33	82.05	275.21	156.00	-	-	-



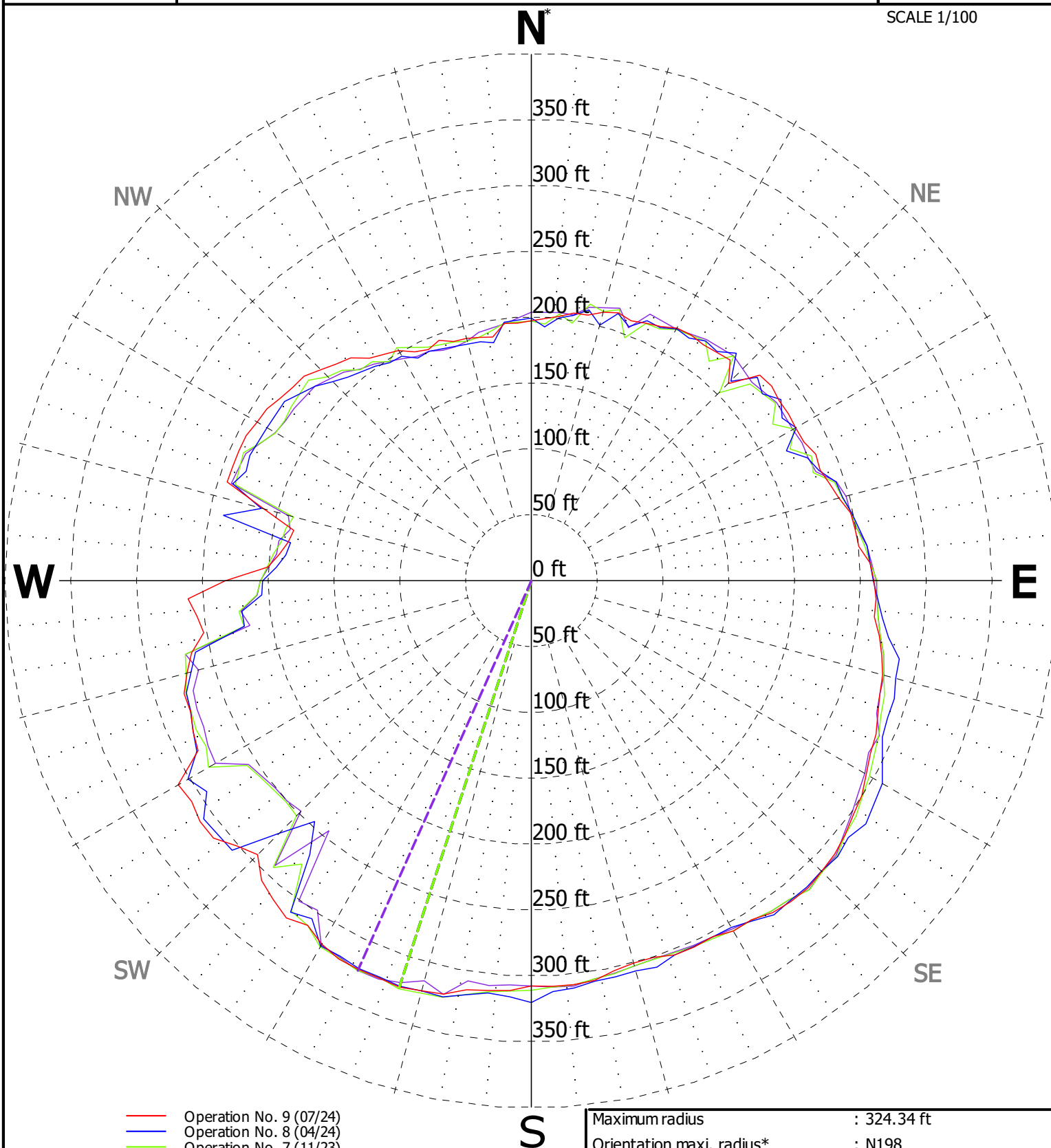
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



MAXIMUM EXTENSION

SCALE 1/100



— Operation No. 9 (07/24)
— Operation No. 8 (04/24)
— Operation No. 7 (11/23)
— Operation No. 6 (07/23)

Maximum radius : 324.34 ft
Orientation maxi. radius* : N198
Depth maxi. radius (MD) : 3079.21 ft
Surface : 215288.81 ft²
Max distance between points : 551.60 ft

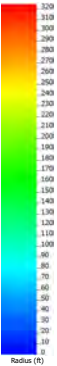
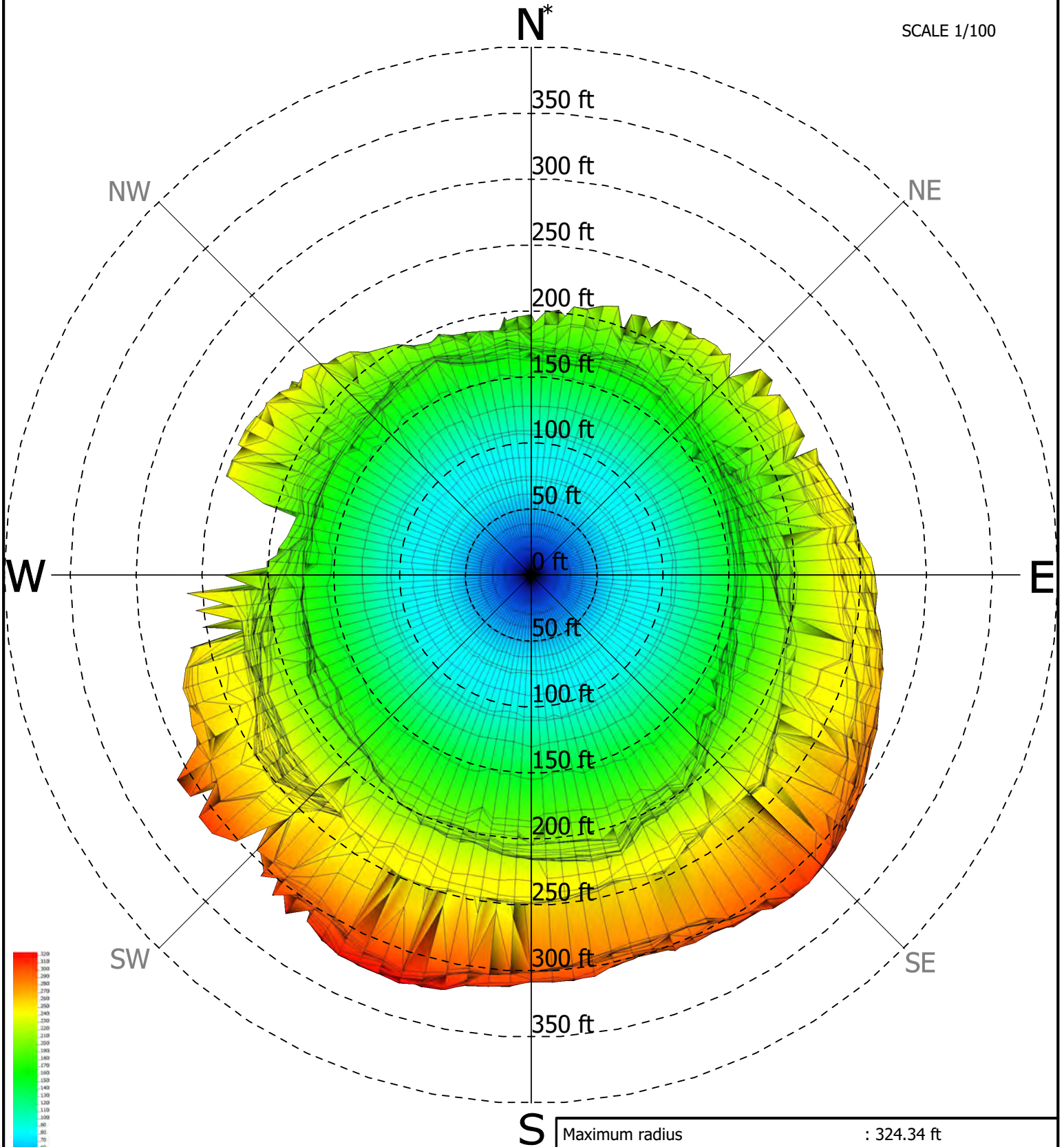
*All sections are oriented to Magnetic North.

Magnetic Declination= 0.6°



VIEW FROM ABOVE

SCALE 1/100



*All sections are oriented to Magnetic North.

Magnetic Declination= 0.6°

Maximum radius	: 324.34 ft
Orientation maxi. radius*	: N198
Depth maxi. radius	: 3079.21 ft
Surface	: 215288.81 ft ²
Max distance between points	: 551.60 ft



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGE VS BEARING

Bearing	0.0	3.0	6.0	9.0
0	197.5: 3095.96	199.4: 3078.01	201.9: 3100.34	205.8: 3083.76
12	206.2: 3104.73	211.1: 3088.54	213.9: 3091.10	211.4: 3088.86
24	214.1: 3091.26	216.7: 3073.94	221.5: 3077.84	222.6: 3098.89
36	221.7: 3078.06	223.3: 3079.34	225.6: 3081.14	211.8: 3089.18
48	233.4: 3087.46	234.8: 3088.64	232.6: 3086.84	232.7: 3086.96
60	231.9: 3086.24	232.2: 3086.54	236.4: 3076.60	234.8: 3088.64
72	238.0: 3084.09	241.9: 3084.92	247.8: 3069.07	248.9: 3066.39
84	250.0: 3073.93	257.6: 3078.84	260.1: 3080.64	262.1: 3082.00
96	261.8: 3074.98	267.5: 3079.21	272.0: 3083.85	276.1: 3069.07
108	278.2: 3077.58	281.8: 3089.17	286.4: 3089.17	288.9: 3089.17
120	293.6: 3089.17	299.2: 3085.45	302.2: 3083.85	306.5: 3069.07
132	310.0: 3082.61	311.8: 3058.96	313.8: 3035.02	313.3: 3048.88
144	311.5: 3048.88	306.8: 3083.85	307.0: 3098.76	303.2: 3089.17
156	304.3: 3098.19	304.2: 3081.69	300.6: 3097.40	300.4: 3081.09
168	302.6: 3097.83	307.2: 3079.21	308.3: 3083.85	308.3: 3082.34
180	307.6: 3082.23	311.5: 3089.17	312.7: 3083.04	314.3: 3089.17
192	320.8: 3083.85	322.2: 3083.85	324.3: 3079.21	322.9: 3084.66
204	322.9: 3069.07	322.2: 3069.07	318.4: 3079.21	311.8: 3069.07
216	316.4: 3066.77	311.4: 3066.24	306.1: 3082.39	294.0: 3075.12
228	300.8: 3065.24	310.5: 3070.58	310.9: 3070.82	307.5: 3068.94
240	309.6: 3070.09	283.9: 3054.18	281.1: 3048.88	277.1: 3048.88
252	277.2: 3048.88	270.6: 3048.50	263.7: 3048.88	251.8: 3038.07
264	255.3: 3040.01	261.0: 3043.17	232.5: 3016.93	200.2: 2969.07
276	192.4: 2989.11	187.0: 2989.11	184.4: 2989.11	209.8: 3014.79
288	242.8: 3068.52	242.7: 3062.23	242.9: 3081.57	242.9: 3081.57
300	240.6: 3079.76	239.5: 3060.03	235.7: 3076.12	233.2: 3074.23
312	232.2: 3073.44	226.5: 3069.14	221.4: 3077.81	217.8: 3074.84
324	208.9: 3044.79	205.1: 3042.08	201.9: 3039.83	195.1: 3074.16
336	192.2: 3071.53	195.5: 3056.83	191.0: 3070.48	190.5: 3042.06
348	188.9: 3040.87	187.4: 3039.69	196.5: 3116.67	195.9: 3116.09



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2515.1	0	162.21	156.77	153.86	178.10	203.47	180.17	172.67	159.35
2516.8	0	168.23	159.49	153.86	178.20	203.40	181.04	172.31	167.34
2519.0	0	168.86	159.12	154.38	178.32	203.73	181.62	171.85	167.99
2529.0	0	171.08	164.34	156.73	179.64	207.65	184.29	170.57	169.68
2539.1	0	170.76	167.59	158.82	180.55	209.48	184.03	173.18	171.64
2549.0	0	171.99	169.63	162.49	185.03	212.22	184.10	172.49	172.87
2559.0	0	173.74	169.45	162.49	188.10	213.72	182.36	171.24	173.25
2569.1	0	172.74	167.71	161.74	188.17	214.22	183.35	171.99	173.25
2579.0	0	173.74	169.88	161.99	188.13	214.57	183.85	172.24	172.57
2588.9	0	172.74	168.76	160.24	188.82	214.97	185.34	170.49	172.25
2599.3	0	172.49	167.88	159.99	189.14	213.97	183.60	171.49	171.50
2604.2	0	172.49	169.00	159.24	185.36	213.45	184.23	169.49	171.38
2608.9	0	171.99	166.88	158.99	186.02	213.22	183.85	169.99	171.38
2614.2	-60	141.19	151.71	154.94	161.38	177.18	172.60	151.19	145.77
2614.2	-55	141.69	152.34	154.63	159.54	174.68	164.51	151.19	146.50
2614.2	-50	143.44	152.57	167.18	162.27	178.43	160.31	153.44	148.61
2614.2	-45	146.44	156.29	172.43	164.90	180.93	163.77	156.44	151.21
2614.2	-40	151.44	160.41	177.96	168.52	185.68	169.63	161.44	160.01
2614.2	-35	161.30	164.37	178.93	174.52	188.17	176.59	165.93	166.99
2614.2	-30	169.18	172.13	183.13	183.44	194.92	186.65	168.08	175.97
2614.2	-25	179.05	182.09	173.18	200.66	206.17	197.62	181.35	180.84
2614.2	0	171.49	166.26	158.49	187.48	214.72	183.85	169.49	171.25
2614.2	4	172.49	168.98	159.74	188.21	214.46	184.11	170.24	172.00
2614.2	9	175.02	171.13	162.17	190.96	217.22	185.86	171.99	173.63
2614.2	14	177.98	172.98	166.15	193.82	220.25	188.80	177.48	178.32
2614.2	19	182.23	179.15	171.70	196.17	220.97	194.24	181.46	182.38
2614.2	24	186.75	183.39	175.49	198.08	222.97	201.48	188.89	187.27
2614.2	29	193.20	184.90	177.98	203.45	212.24	204.50	196.23	191.53
2614.2	34	184.95	182.65	179.98	185.38	185.56	184.69	182.83	180.53
2614.2	39	164.33	163.90	164.64	162.80	166.49	165.41	164.33	163.74
2614.2	44	147.75	147.55	147.35	147.83	147.96	148.27	147.35	149.02
2614.2	49	135.25	137.67	135.75	137.29	138.25	136.36	135.00	135.92
2614.2	54	126.13	126.70	128.25	127.32	126.01	126.56	125.51	125.82
2614.2	59	118.76	117.97	119.26	118.84	118.51	118.72	118.26	118.97
2614.2	64	112.51	112.72	113.51	113.23	114.51	113.36	113.01	111.86
2614.2	69	106.76	108.12	109.76	108.37	108.26	108.87	107.51	107.99
2614.2	74	105.51	104.50	104.76	105.75	105.01	104.75	104.01	104.75
2614.2	79	102.26	102.51	102.26	102.39	102.76	102.51	102.76	102.01



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2614.2	84	100.77	100.76	100.77	101.01	100.52	100.89	101.02	100.64
2614.2	88	99.77	100.02	100.02	100.02	100.02	100.02	100.27	99.89
2619.1	0	169.99	166.51	158.24	186.84	214.47	183.85	169.49	171.00
2623.9	0	170.99	166.76	157.99	186.83	214.47	183.85	169.74	170.50
2628.8	0	168.99	165.63	157.74	186.90	211.47	183.73	168.99	171.86
2634.1	0	169.49	167.61	158.24	186.99	212.72	183.60	169.74	170.38
2638.9	0	169.99	167.50	158.24	185.90	212.72	183.60	169.74	170.50
2648.9	0	170.50	166.99	157.93	183.10	213.70	183.99	168.41	169.88
2659.2	0	170.50	165.86	157.67	183.37	212.13	184.82	168.67	169.88
2668.5	0	169.98	165.29	157.15	182.44	211.87	182.68	168.15	169.87
2678.7	0	169.72	165.81	157.41	183.68	211.61	179.62	168.41	169.74
2689.0	0	164.23	165.68	156.89	183.53	211.61	178.97	169.31	169.02
2698.8	0	146.97	165.44	156.92	182.98	211.65	179.80	144.56	159.69
2708.8	0	124.55	134.81	157.18	153.98	180.46	159.63	136.92	139.78
2719.0	0	102.94	122.66	145.23	135.67	167.65	143.01	122.28	121.68
2728.9	0	86.47	104.25	136.62	120.11	150.63	123.96	103.76	93.15
2739.2	0	70.24	87.65	89.91	103.60	134.40	101.28	84.20	77.33
2748.9	0	67.40	68.29	75.00	84.99	119.22	94.77	71.33	59.98
2759.0	0	60.09	59.69	70.90	69.01	99.37	90.64	64.22	46.79
2769.3	0	57.71	57.08	65.30	63.83	88.07	83.79	61.11	47.13
2778.9	0	59.02	55.40	64.52	63.54	78.41	84.03	61.64	47.68
2789.2	0	58.49	52.78	64.52	66.02	80.76	85.75	66.35	57.55
2799.2	0	58.76	52.79	64.79	65.75	87.07	89.12	64.79	54.49
2808.8	0	58.24	52.66	64.79	66.01	87.33	90.17	66.10	54.35
2819.2	0	56.67	53.05	64.53	66.80	87.33	89.30	66.89	53.70
2829.0	0	59.29	65.04	64.01	66.93	87.33	90.73	67.94	53.31
2839.2	0	151.36	80.76	78.42	119.02	87.07	91.90	186.34	159.18
2844.1	0	152.59	145.98	180.93	142.26	87.59	226.88	186.66	160.23
2849.2	0	152.33	149.22	181.16	232.34	248.03	228.54	190.16	160.09
2854.1	0	151.95	151.73	183.56	233.32	247.98	225.33	185.60	162.15
2859.0	0	151.95	151.28	183.82	231.15	248.45	224.71	185.90	163.34
2864.0	0	152.25	151.74	183.52	230.41	248.15	223.77	180.84	162.30
2869.1	0	151.65	152.18	183.22	227.71	247.85	221.48	180.84	162.45
2874.1	0	151.06	152.27	185.01	224.97	246.96	221.77	179.95	157.81
2878.9	0	147.18	154.37	185.31	222.42	244.27	222.22	171.64	155.46
2898.9	-60	155.02	177.14	236.48	267.45	250.41	226.95	199.10	159.48
2898.9	-57	272.51	197.66	241.24	273.71	258.77	230.82	191.19	154.57
2898.9	-54	278.34	222.06	242.53	285.23	266.94	241.39	175.83	166.90



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2898.9	-51	280.31	254.23	248.03	299.18	290.13	242.56	181.24	267.59
2898.9	-48	288.17	270.48	258.97	308.61	305.47	240.21	188.21	276.65
2898.9	-45	278.56	282.66	289.74	320.80	323.55	240.98	188.85	283.45
2898.9	-42	245.71	284.28	296.42	333.77	337.31	244.88	185.34	289.35
2898.9	-39	239.92	270.92	311.76	338.49	343.99	250.03	188.77	286.66
2898.9	-37	235.49	261.83	316.08	342.95	347.53	255.15	193.69	282.85
2898.9	-35	201.72	186.91	316.87	349.63	227.99	257.50	195.21	274.02
2898.9	-34	186.42	183.80	239.42	354.70	221.35	279.51	191.55	263.29
2898.9	-32	168.47	179.31	214.24	361.20	215.61	342.24	193.89	227.65
2898.9	-31	153.96	177.30	211.38	199.09	214.37	342.24	196.58	202.88
2898.9	-29	142.23	174.12	206.36	194.64	209.98	289.91	199.13	179.48
2898.9	-27	134.37	171.36	202.62	189.44	208.37	268.73	260.18	163.40
2899.0	-75	187.21	201.63	209.17	214.74	207.36	197.08	199.73	184.36
2899.0	-72	181.68	183.69	210.69	223.31	208.18	196.71	199.36	176.93
2899.0	-69	178.03	181.08	217.42	239.57	217.89	198.84	197.83	167.29
2899.0	-66	165.31	160.21	224.89	248.39	225.76	203.34	195.47	162.17
2899.0	-63	160.53	160.80	232.01	258.80	237.77	206.40	197.38	161.71
2899.2	0	137.36	156.25	187.39	211.81	231.77	225.81	169.82	147.43
2909.1	0	134.45	155.85	186.23	209.17	230.94	224.66	171.04	139.17
2918.9	10	139.83	158.60	188.83	225.25	249.88	225.69	173.10	152.33
2918.9	15	151.59	159.14	189.82	240.23	256.45	232.56	186.82	161.77
2918.9	20	161.82	161.28	194.31	242.36	258.52	239.52	201.35	173.54
2918.9	25	167.93	164.53	191.83	190.35	193.69	202.07	199.11	176.63
2918.9	35	141.18	134.47	137.36	139.24	134.47	138.27	148.30	147.26
2918.9	40	129.29	118.58	117.20	125.49	116.65	123.80	125.83	135.00
2918.9	45	124.45	113.17	112.36	117.20	122.38	127.74	114.78	125.83
2918.9	48	119.96	113.40	110.98	109.94	130.00	133.10	108.90	115.47
2918.9	50	116.85	112.36	109.94	107.87	135.31	139.29	109.25	110.63
2918.9	55	109.49	110.29	111.04	112.70	148.64	151.86	116.71	104.76
2918.9	60	113.29	105.79	128.78	131.36	157.54	166.99	131.02	105.97
2918.9	65	138.77	124.93	151.67	151.00	448.61	432.80	150.71	127.81
2918.9	75	421.58	421.51	421.38	421.57	421.88	422.07	421.35	422.56
2918.9	80	412.77	413.07	414.19	413.60	412.65	413.10	412.28	412.65
2918.9	85	406.33	406.92	407.97	407.48	407.16	407.46	406.37	406.92
2919.2	0	132.28	155.85	185.04	204.91	224.66	226.75	174.32	136.78
2929.2	0	131.19	155.55	185.34	197.85	223.77	226.75	179.98	136.19
2939.3	0	122.49	154.36	184.15	181.77	214.24	228.83	181.17	123.68
2949.0	0	120.43	153.76	183.55	181.47	197.85	232.87	191.91	129.04



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2959.3	0	120.06	154.44	184.40	176.82	196.30	234.22	198.88	137.43
2969.1	0	125.74	154.38	182.79	172.17	194.69	235.23	200.16	143.86
2978.9	0	132.92	152.87	181.18	168.96	191.48	235.55	200.81	149.65
2989.1	0	144.39	152.55	181.18	170.24	187.62	235.23	205.63	161.24
2999.0	0	152.08	152.77	181.10	171.08	184.56	238.11	172.12	171.08
3003.9	0	155.60	153.12	180.76	171.43	184.30	238.10	158.88	174.88
3008.8	0	159.14	154.37	182.08	169.86	184.46	238.09	160.03	179.40
3013.9	0	165.10	154.67	182.38	171.95	183.27	237.79	160.93	184.76
3019.0	0	169.86	160.84	184.46	189.97	183.27	240.17	142.75	192.88
3024.0	0	177.01	162.12	186.87	201.33	184.76	240.47	137.09	88.83
3029.1	0	178.19	171.69	196.08	220.51	187.44	240.77	134.46	83.77
3034.0	-87	66.50	66.50	66.50	64.71	64.36	63.64	64.36	65.43
3034.0	-84	68.68	65.04	65.64	64.83	64.23	63.42	63.21	65.04
3034.0	-81	70.10	62.81	65.04	63.62	64.23	63.21	60.38	63.42
3034.0	-78	69.29	65.04	64.83	63.82	64.23	62.40	59.97	67.47
3034.0	-75	70.91	67.06	64.43	65.44	64.43	63.82	59.97	67.67
3034.0	-72	72.13	67.27	65.44	63.21	63.62	65.44	60.98	68.48
3034.0	-69	64.02	67.87	66.05	66.66	68.28	68.28	62.20	67.47
3034.0	-66	62.81	69.49	65.85	75.77	70.51	68.08	64.83	66.05
3034.0	-63	61.79	75.17	67.27	80.03	72.33	69.09	65.44	65.04
3034.0	-60	62.40	75.57	73.34	81.65	73.75	68.83	67.06	64.02
3034.0	-57	64.02	76.79	76.18	84.08	80.03	69.90	71.32	64.02
3034.0	-54	63.21	78.21	84.08	89.35	81.85	71.32	73.14	64.23
3034.0	-51	63.62	80.63	86.31	95.68	84.28	72.53	77.40	63.42
3034.0	-48	63.82	78.42	87.32	105.21	86.72	74.96	77.60	63.82
3034.0	-45	66.62	76.83	92.79	128.81	89.54	76.79	80.03	63.22
3034.0	-42	66.86	76.79	96.85	138.27	101.51	77.80	82.10	64.43
3034.0	-39	67.60	75.75	110.62	152.65	113.86	83.68	83.82	65.85
3034.0	-36	67.11	69.42	122.98	164.67	129.34	86.51	85.86	65.15
3034.0	-33	68.28	70.65	133.52	174.54	157.02	93.66	87.82	64.63
3034.0	-30	71.23	72.94	139.13	191.75	163.71	102.11	89.90	62.81
3034.0	-24	70.32	70.91	152.85	231.05	224.65	149.87	100.41	63.71
3034.0	-21	70.69	68.68	164.02	257.73	259.55	159.70	105.94	63.46
3034.0	-18	70.78	67.93	186.53	268.45	267.26	163.41	109.94	63.62
3034.0	-15	70.16	66.71	248.25	281.38	287.28	165.90	107.82	64.41
3034.0	-12	69.48	66.06	260.60	302.76	310.71	173.48	105.81	66.71
3034.0	-9	71.70	65.67	260.60	315.01	310.71	184.64	105.07	70.87
3034.0	-6	72.58	65.67	253.69	310.71	299.52	200.86	103.27	76.73



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
3034.0	-4	72.52	193.33	242.79	311.05	300.06	206.34	103.58	78.83
3034.0	-2	76.32	181.94	233.64	309.96	299.19	257.02	134.10	79.81
3034.0	0	183.28	174.60	201.47	219.35	188.96	248.25	133.84	81.40
3038.9	0	72.61	182.26	232.25	235.08	299.93	253.71	126.31	79.40
3044.0	0	72.29	65.55	237.84	310.42	299.71	259.32	103.40	72.19
3048.9	0	67.99	65.23	240.75	311.12	300.39	206.08	103.39	63.70
3054.2	0	68.41	65.25	247.47	310.76	300.03	203.01	104.10	60.48
3059.0	0	66.92	64.87	252.48	311.83	300.03	189.57	104.40	59.77
3064.2	0	64.37	65.35	251.05	310.40	298.60	180.02	105.25	55.31
3069.1	0	63.34	64.59	250.69	311.47	298.60	171.35	105.53	54.40
3073.9	0	54.54	56.87	257.32	311.47	305.82	164.41	95.52	52.44
3079.1	2	52.06	58.13	251.41	311.83	298.60	165.32	81.55	47.25
3079.1	5	54.46	56.55	251.55	312.06	301.23	182.44	105.89	52.29
3079.1	8	58.75	64.46	239.61	306.47	302.89	207.37	106.25	54.04
3079.1	11	64.77	66.37	233.38	227.81	231.09	249.06	106.25	55.77
3079.1	14	66.56	67.30	203.50	217.33	192.41	247.12	107.32	56.57
3079.1	17	69.78	67.74	193.49	202.78	192.41	248.83	108.03	58.34
3079.1	20	72.64	69.20	193.84	184.90	195.26	249.62	110.18	63.34
3079.1	23	72.99	70.57	196.29	185.04	199.92	255.69	174.18	66.56
3079.1	26	80.25	72.44	201.35	190.27	209.26	260.98	196.07	75.48
3079.1	29	82.42	74.87	206.93	193.49	217.33	266.42	228.49	92.77
3079.1	32	169.89	179.99	216.14	198.85	231.73	267.85	234.96	103.68
3079.1	35	167.88	188.12	223.52	219.94	276.08	276.48	230.79	180.09
3079.1	38	166.67	195.64	233.98	259.84	297.15	285.61	229.33	180.98
3079.1	41	166.67	203.14	244.93	282.87	328.44	295.41	234.85	181.96
3079.1	44	168.55	215.80	259.95	323.88	342.94	311.47	239.06	183.47
3079.1	47	175.61	228.02	271.45	333.28	338.16	329.35	248.19	183.47
3079.1	50	202.15	242.92	285.28	316.55	319.63	318.84	288.91	211.69
3079.1	54	234.68	258.30	295.38	297.89	299.06	302.86	303.61	275.90
3079.1	59	284.30	278.22	280.01	274.14	279.33	282.52	286.21	287.88
3079.1	64	267.85	265.35	266.42	266.73	263.92	266.64	272.14	272.18
3079.2	0	49.40	59.86	259.67	311.83	306.94	160.59	78.00	44.39
3083.8	0	39.89	59.00	258.56	311.83	307.28	91.86	71.14	39.94
3089.2	0	28.46	54.04	252.94	307.76	306.26	52.30	58.56	33.66



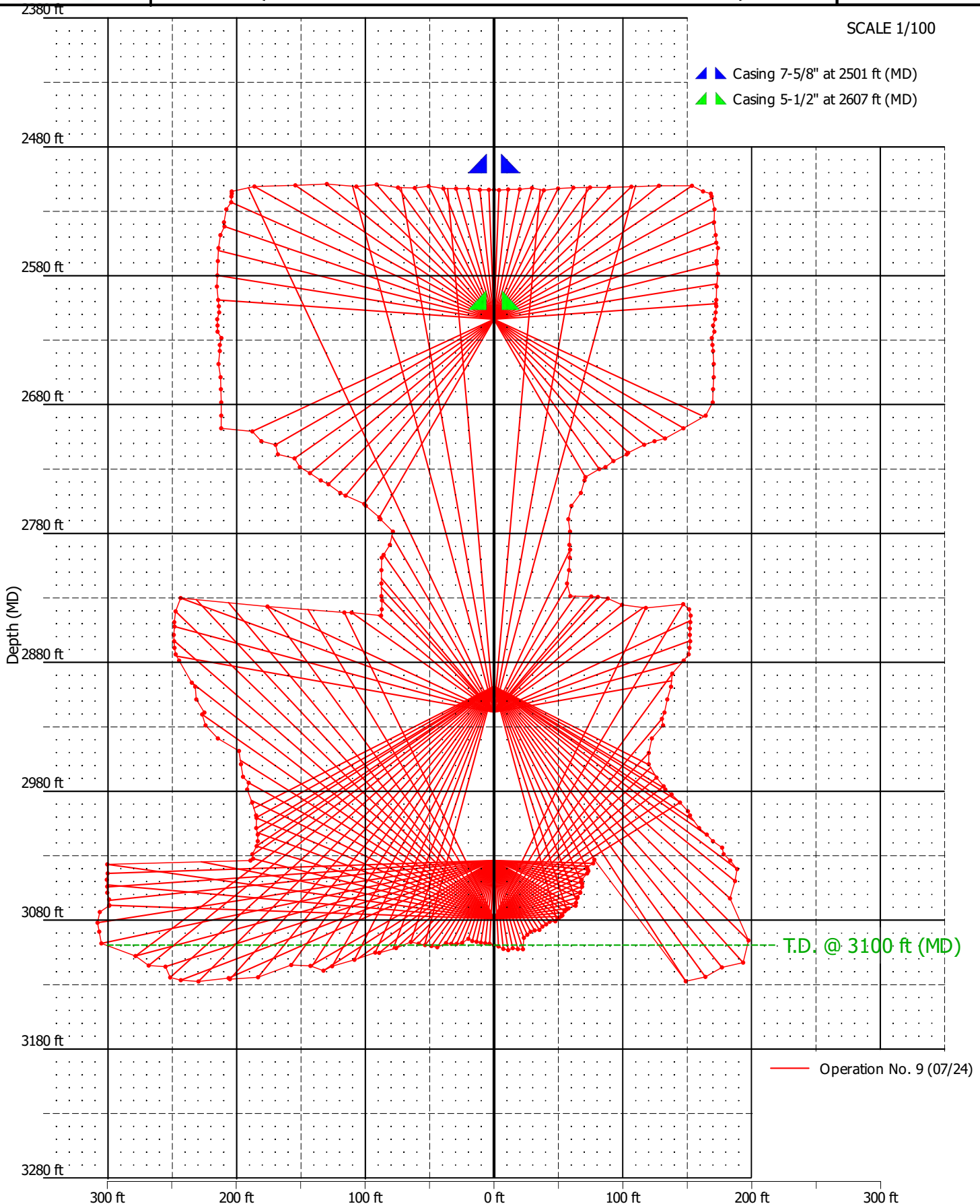
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



TILOED SECTIONS POSITION

← N180 1 N0 →





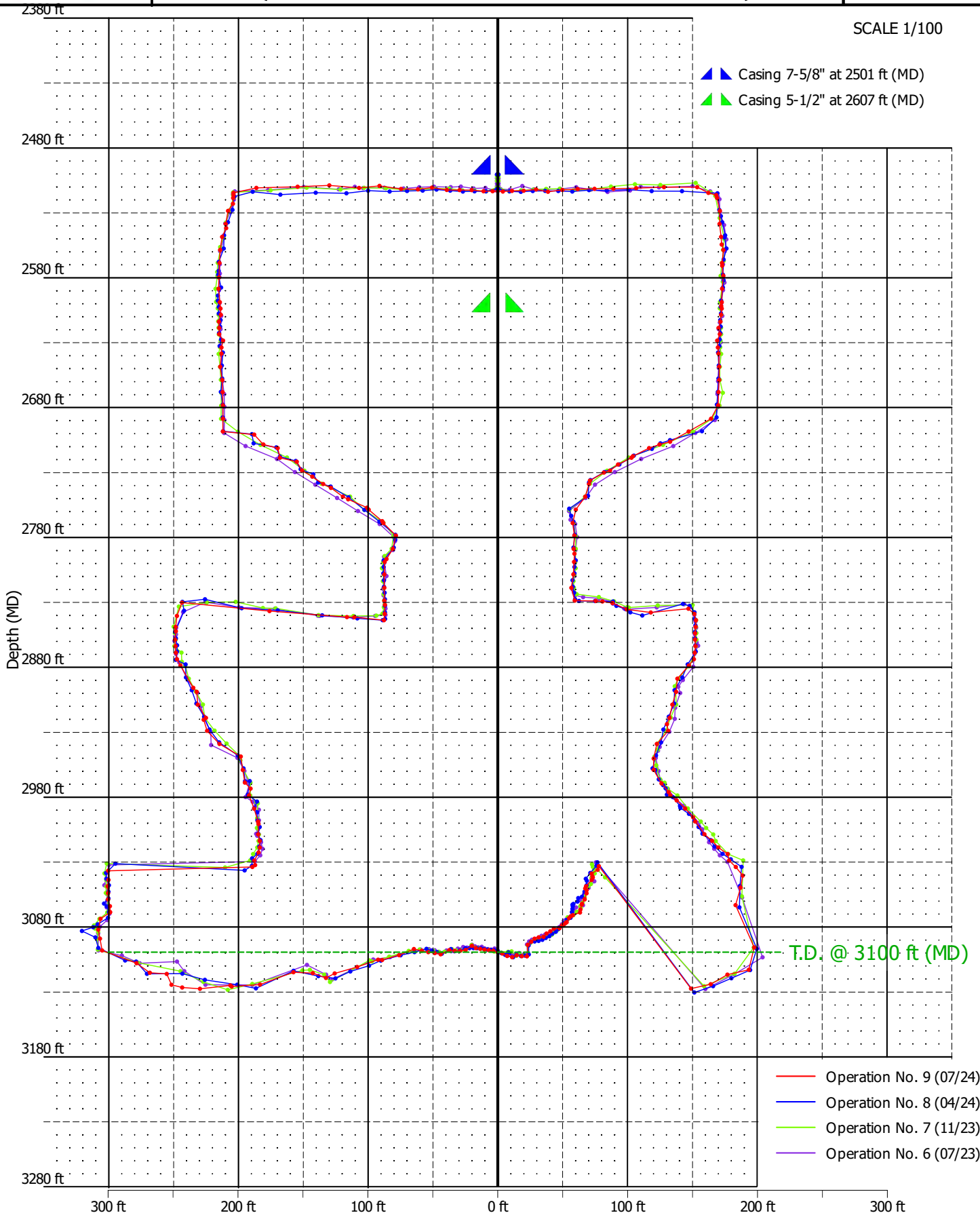
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



VERTICAL SECTION

← N180 1 N0 →





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

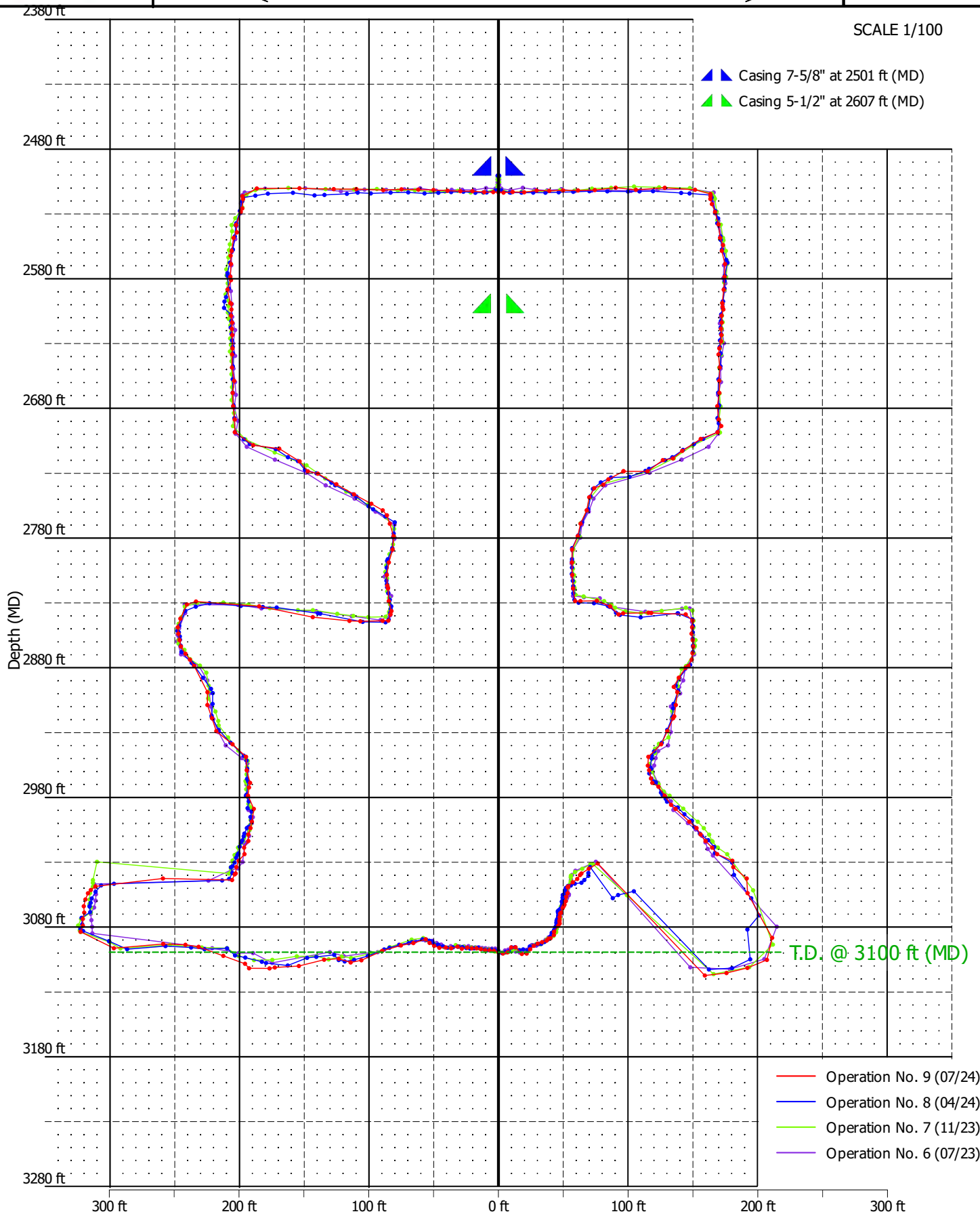


VERTICAL SECTION

N195

2

N15





CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

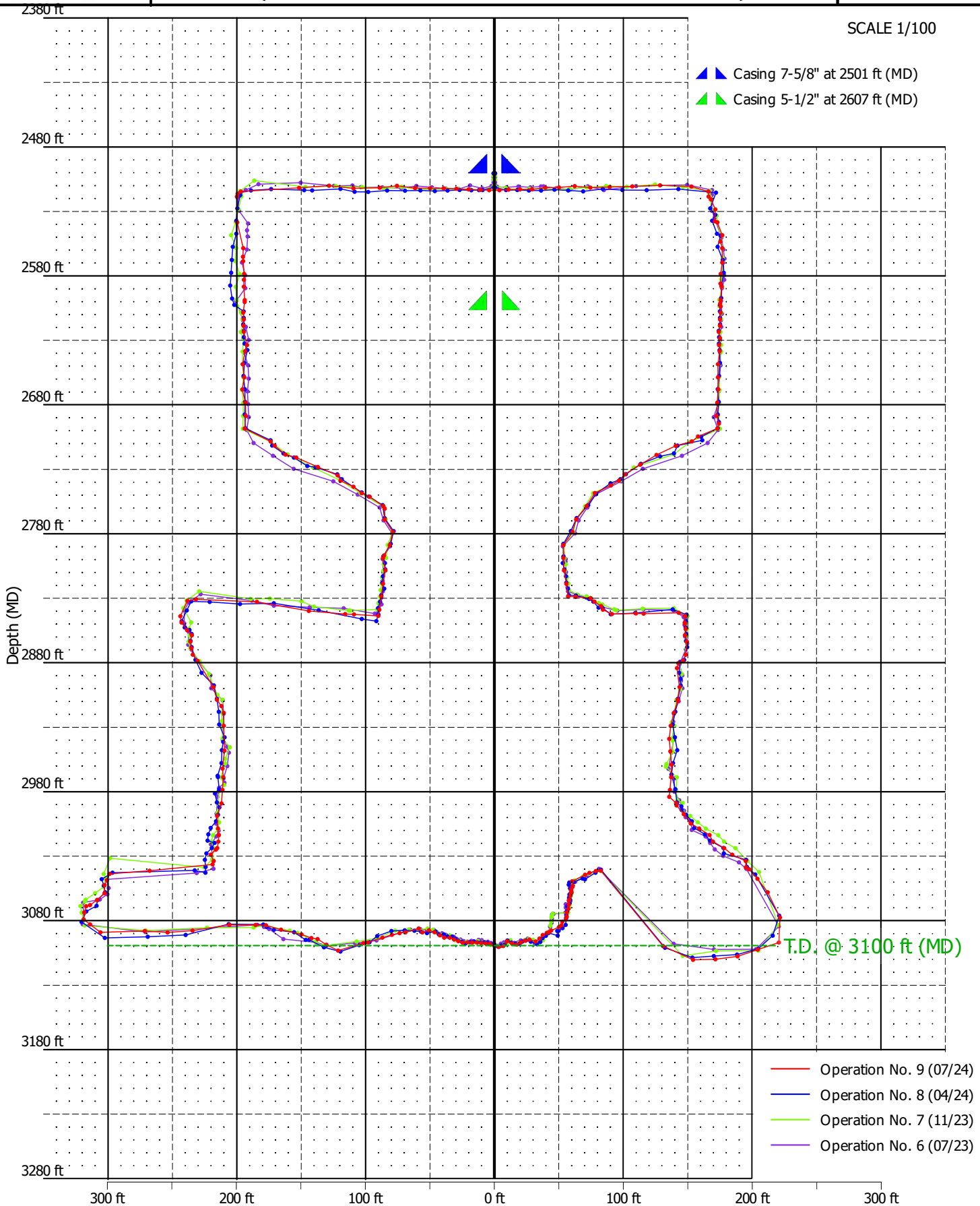
OPERATION No. : 9

**VERTICAL SECTION**

N210

3

N30





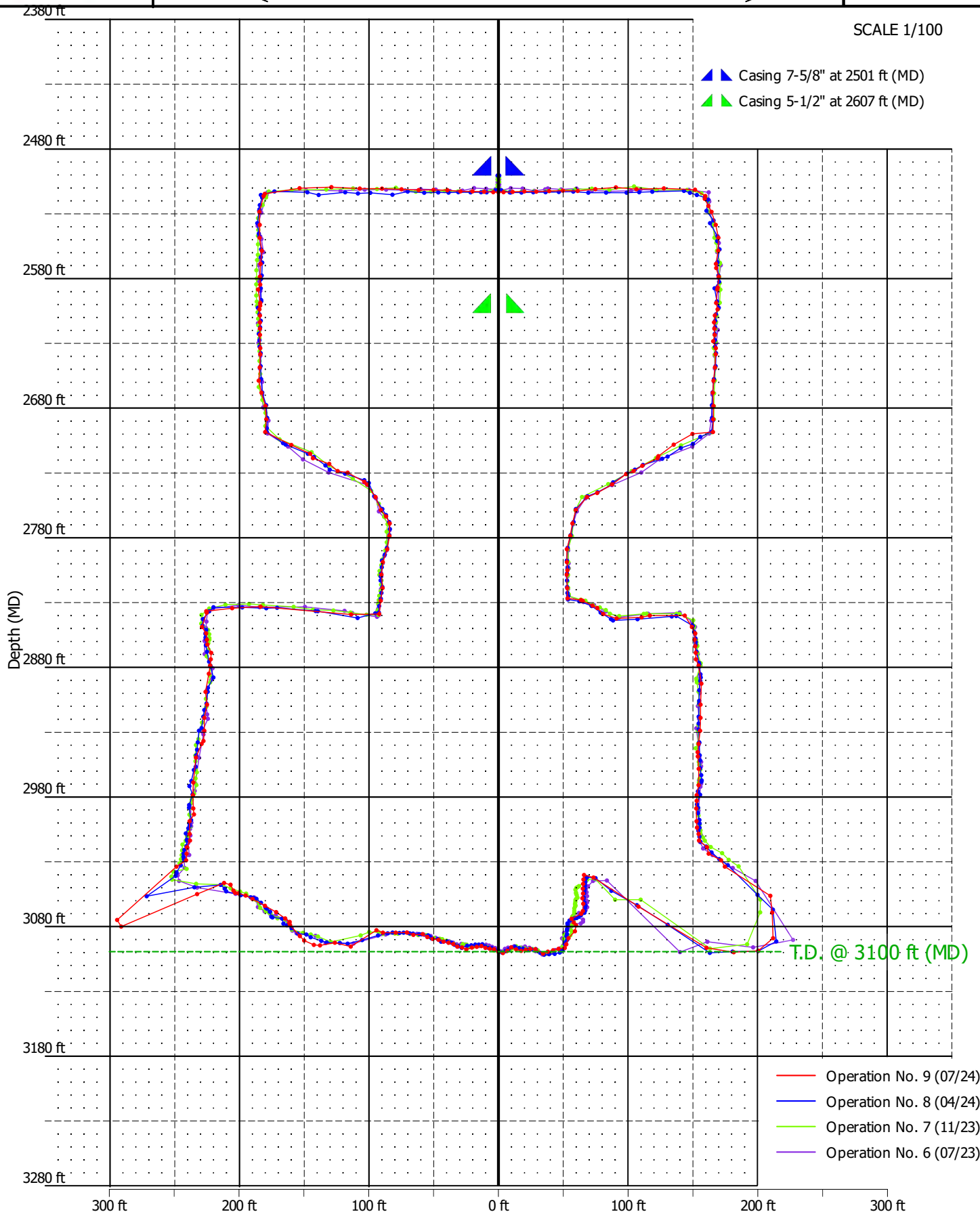
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



VERTICAL SECTION

← N225 4 N45 →





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

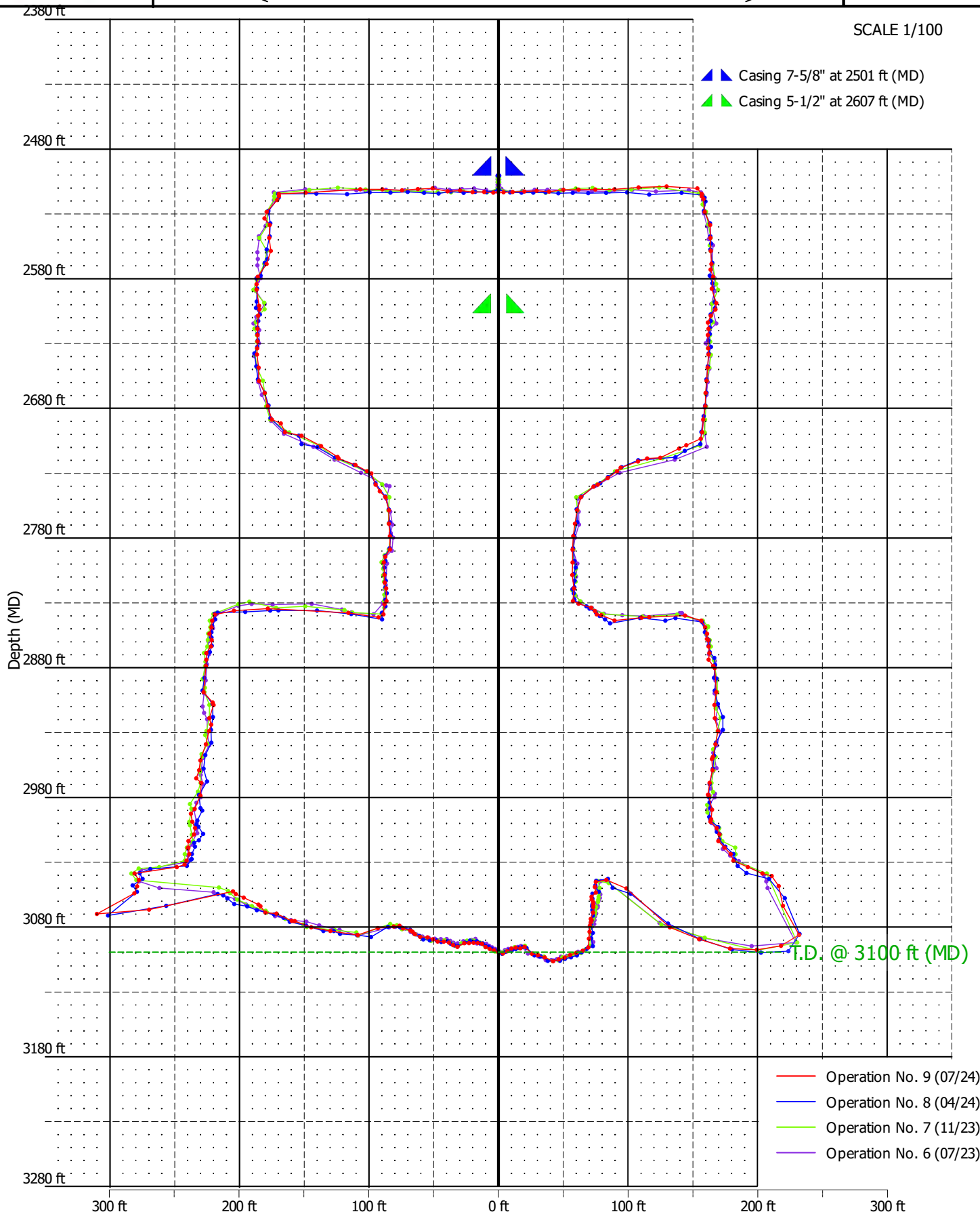


VERTICAL SECTION

N240

5

N60





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

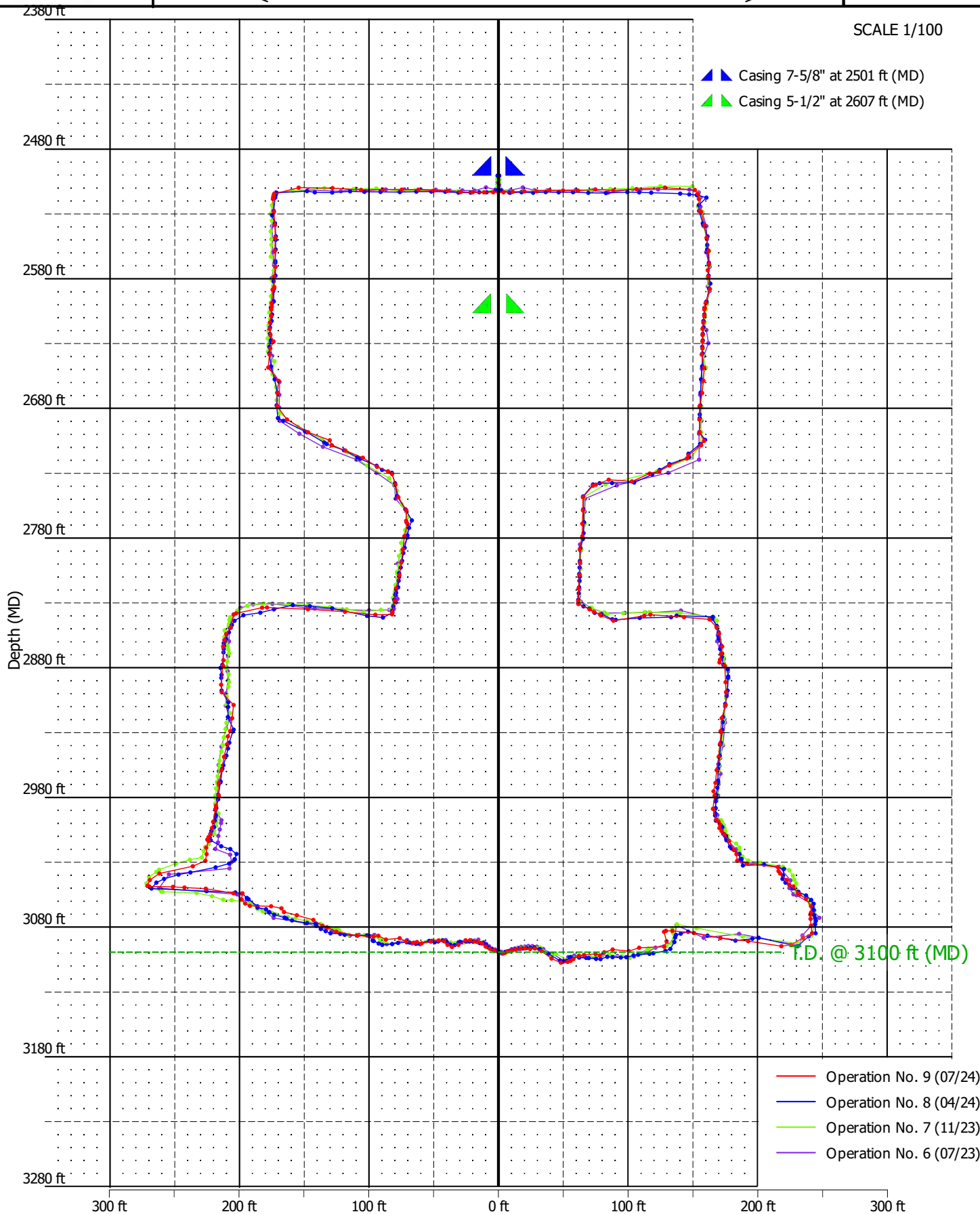


VERTICAL SECTION

N255

6

N75





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

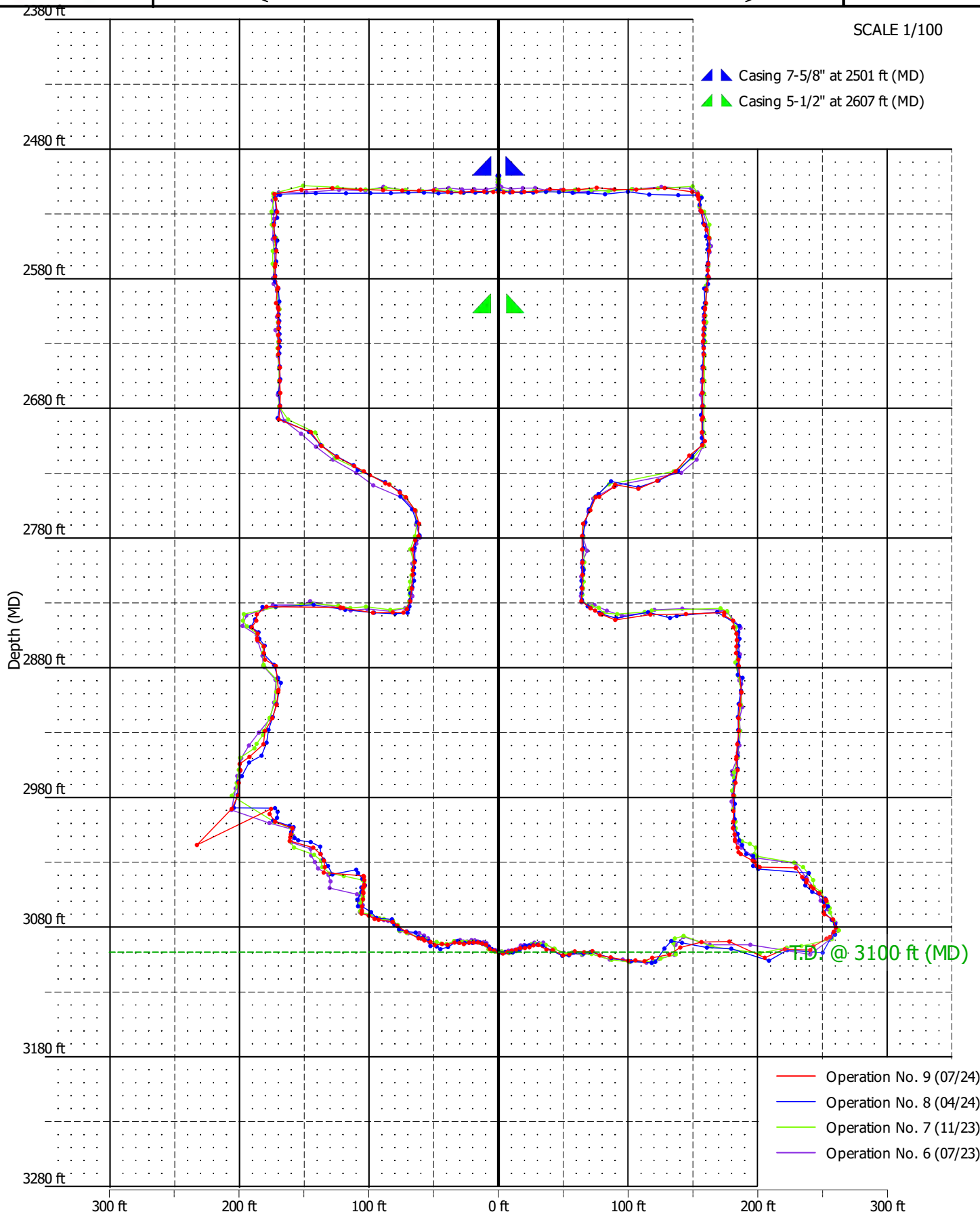


VERTICAL SECTION

N270

7

N90





CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

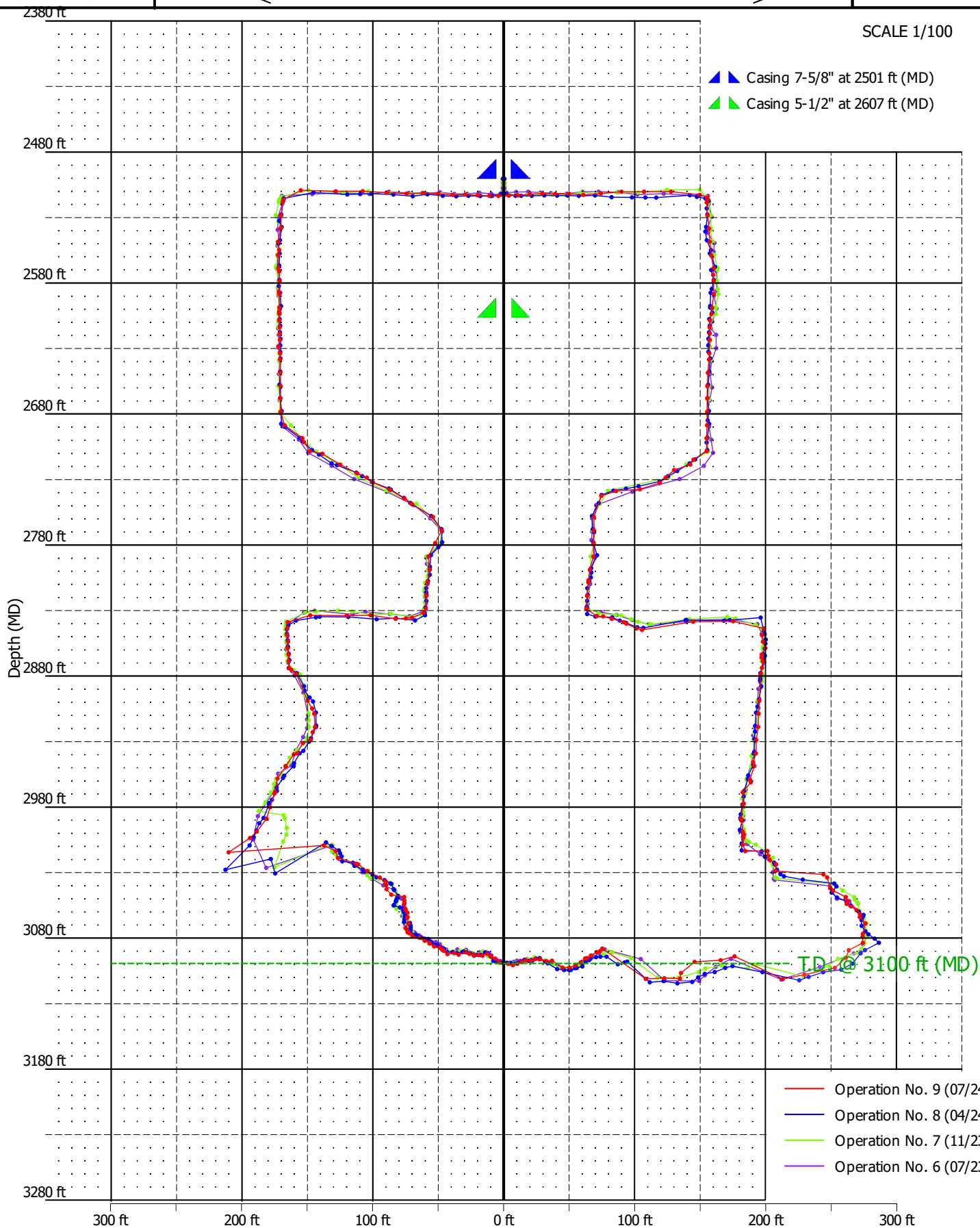
OPERATION No. : 9

**VERTICAL SECTION**

← N285

8

N105 →





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

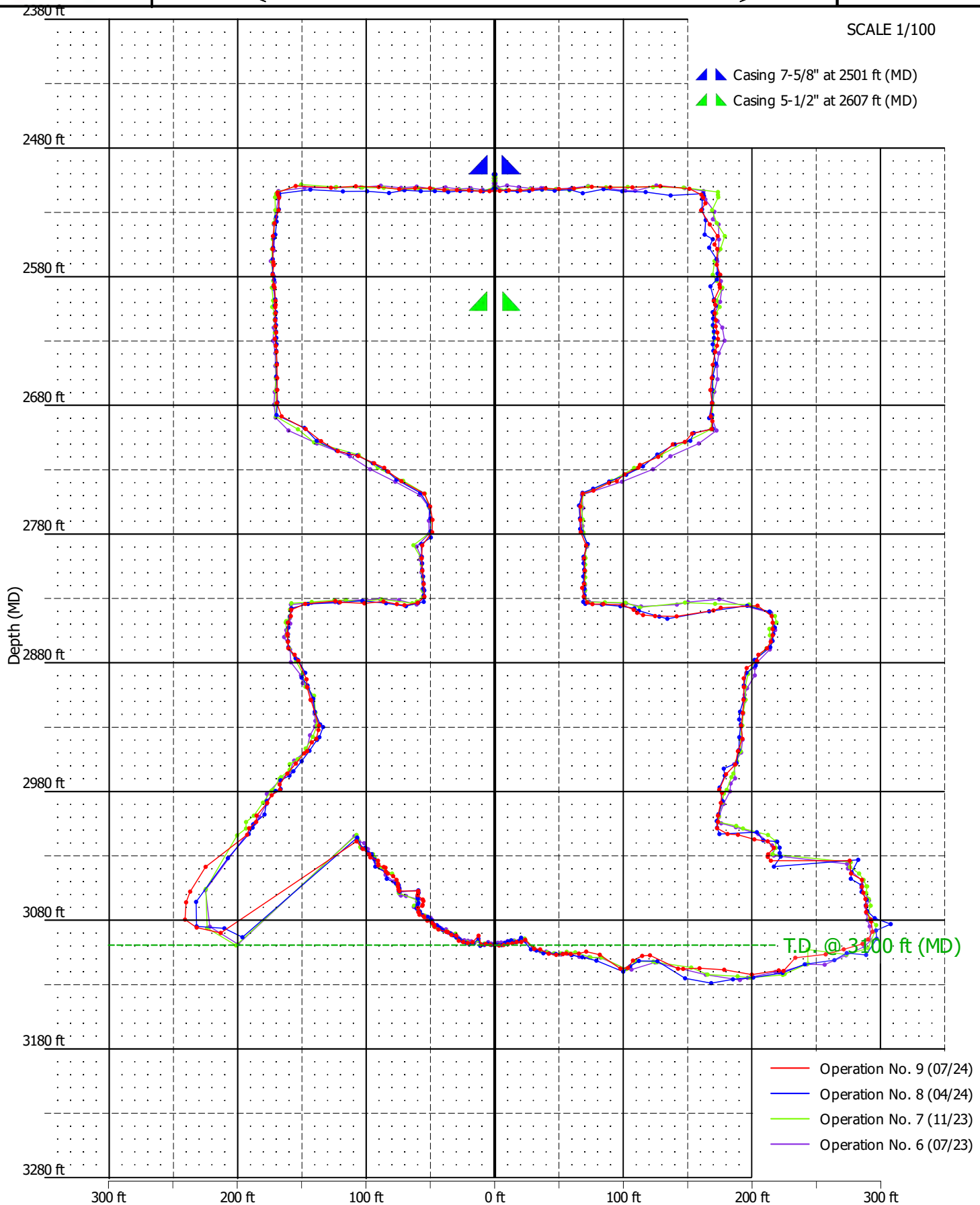


VERTICAL SECTION

N300

9

N120





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



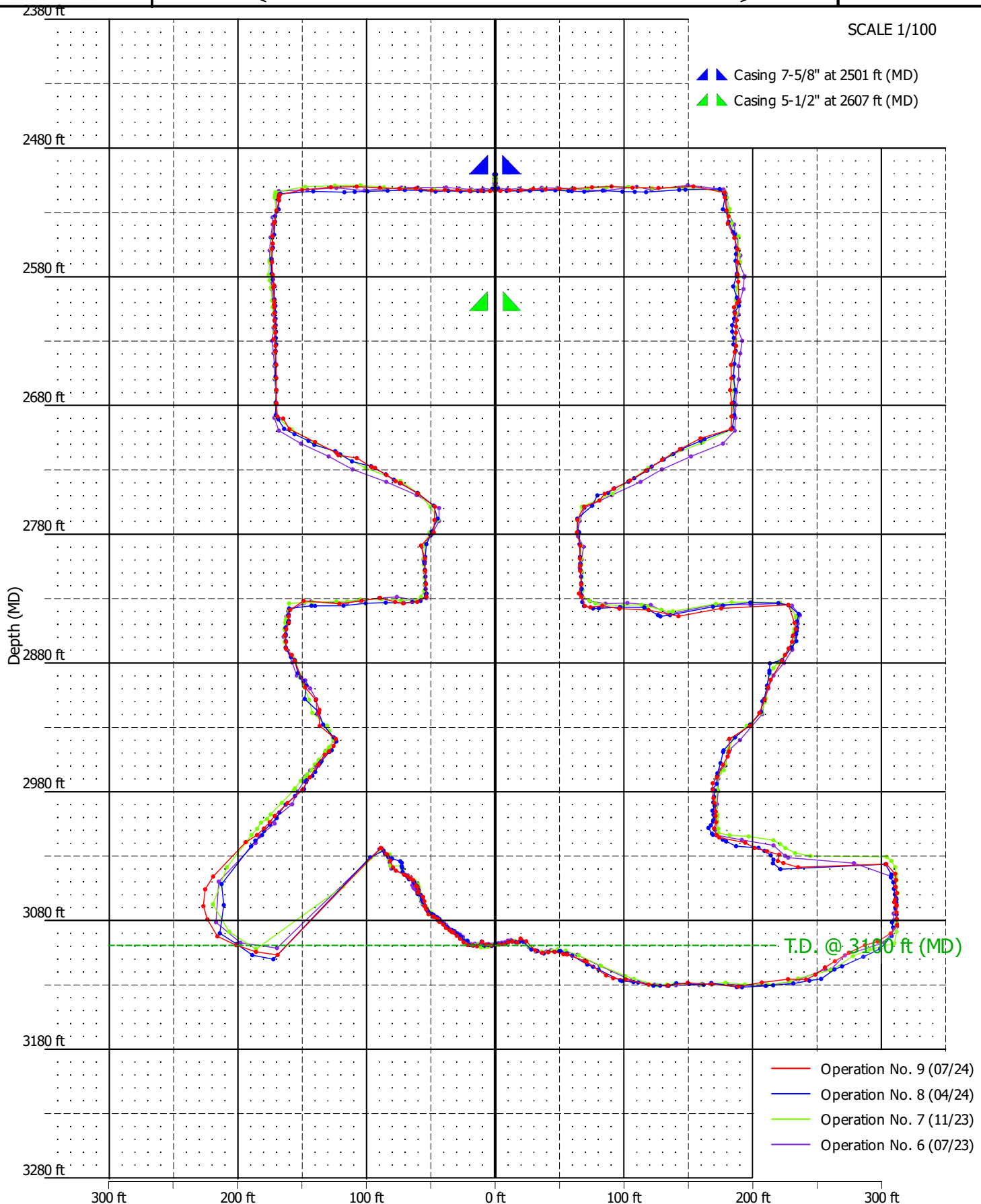
VERTICAL SECTION

10

N315

N135

SCALE 1/100





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

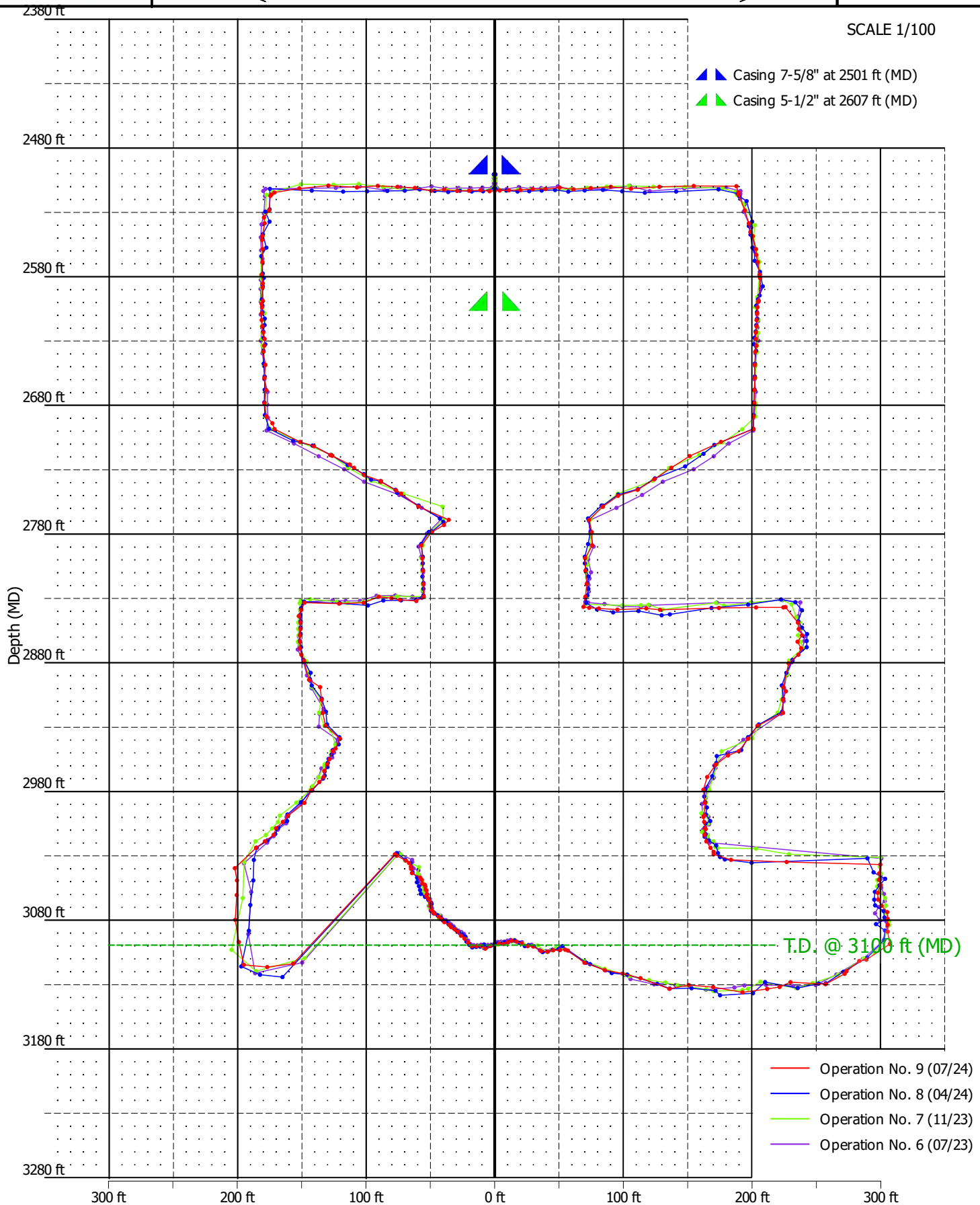


VERTICAL SECTION

11

N330

N150





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



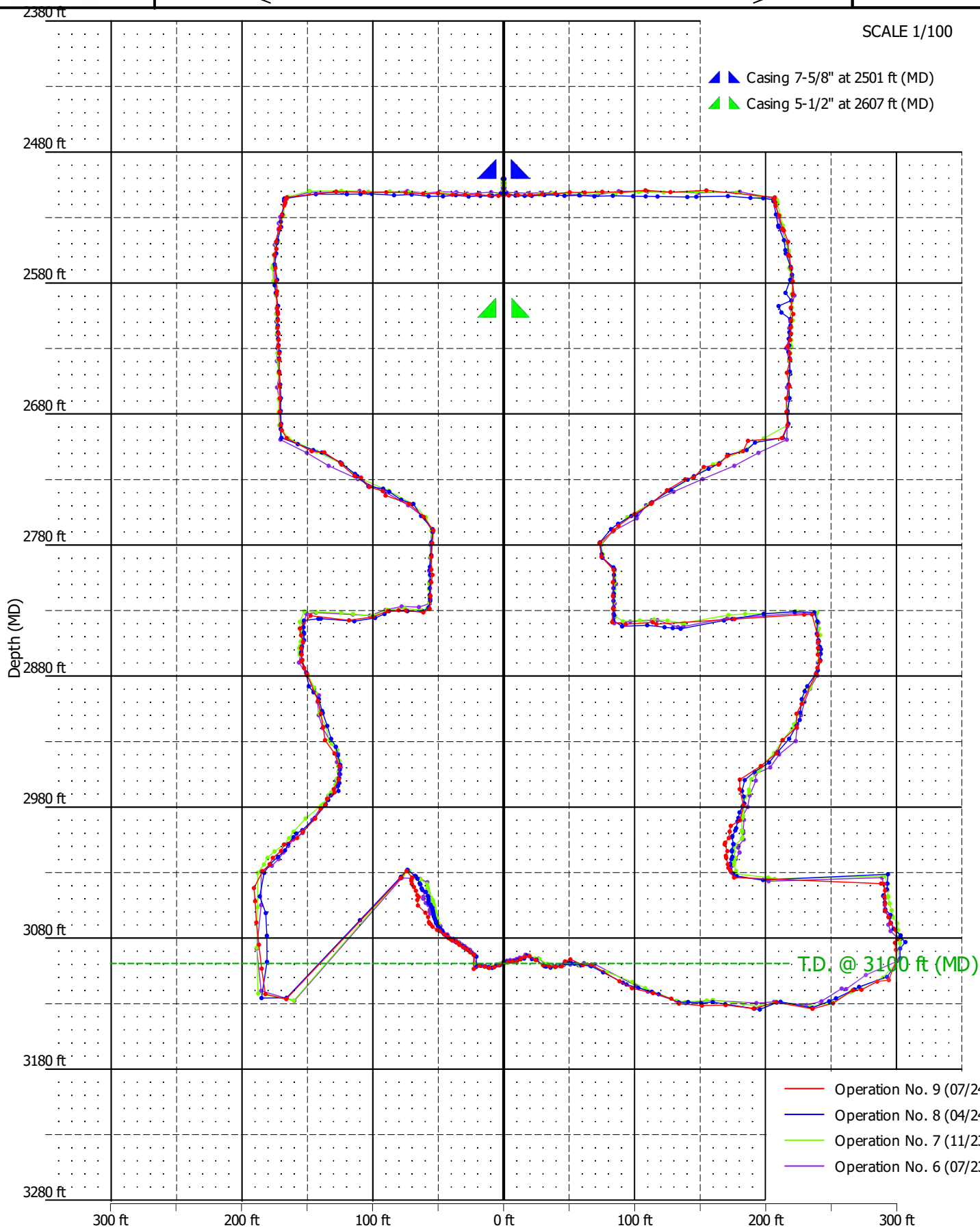
VERTICAL SECTION

N345

12

N165

SCALE 1/100





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



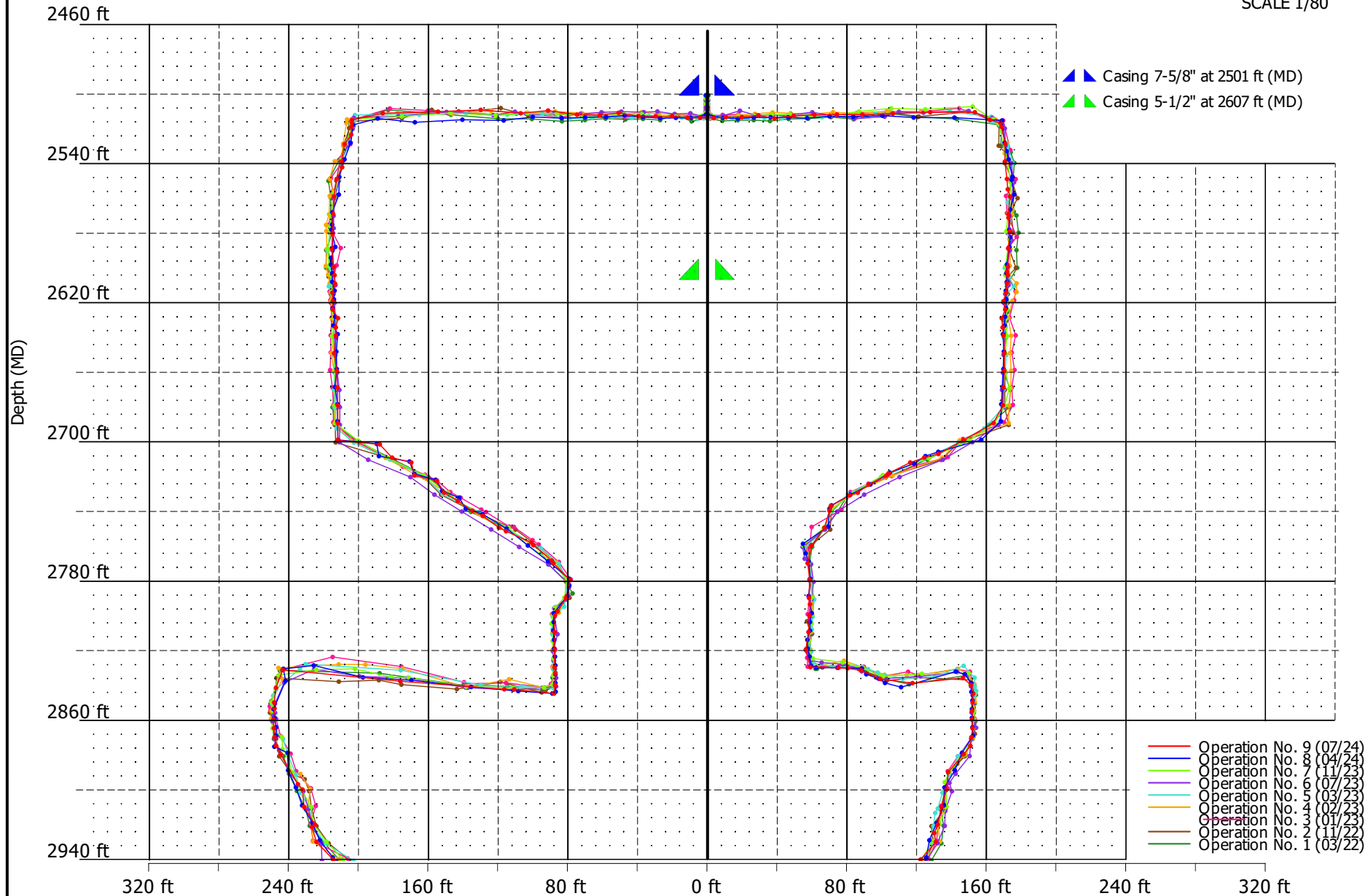
VERTICAL SECTION

← N180

1

N0 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



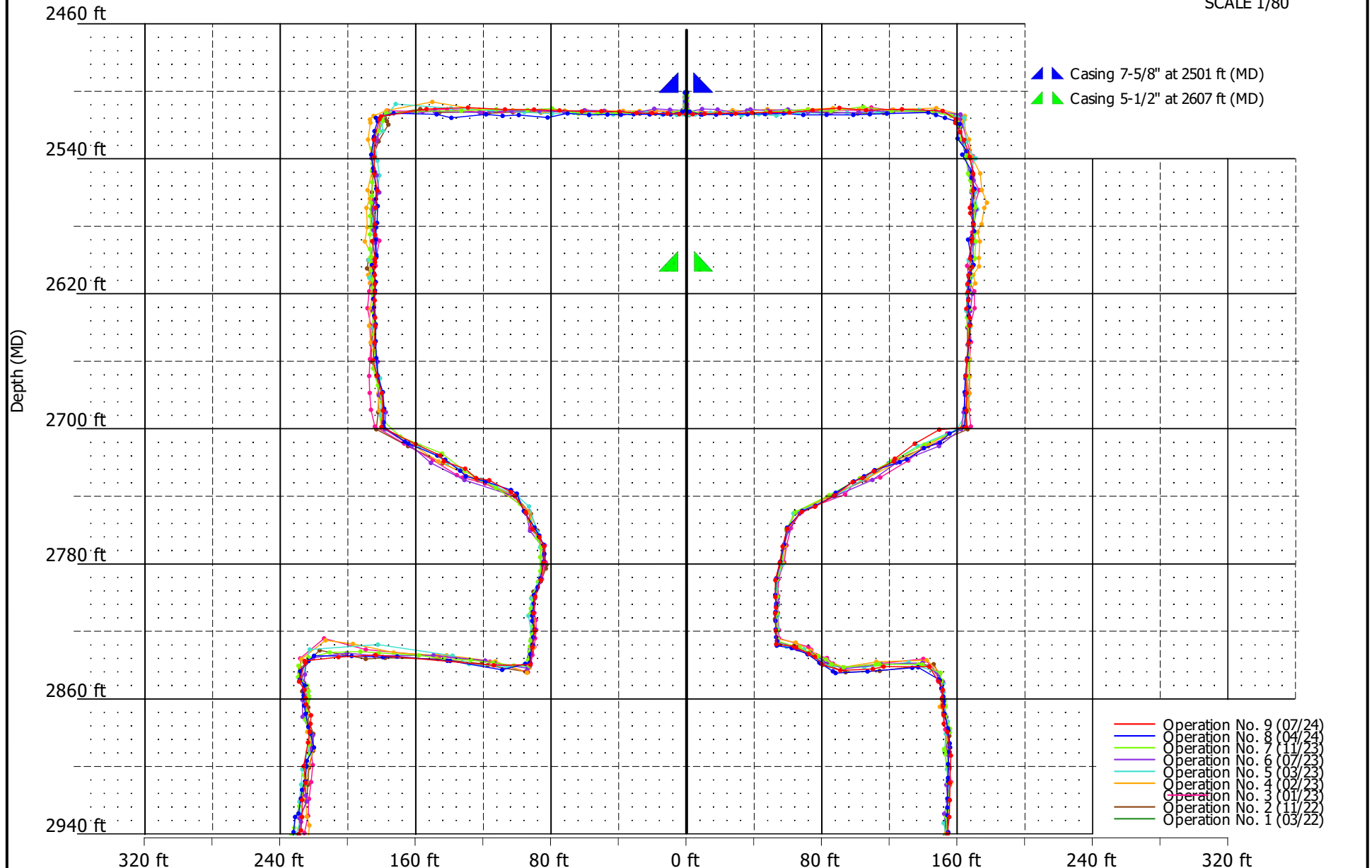
VERTICAL SECTION

← N225

2

N45 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



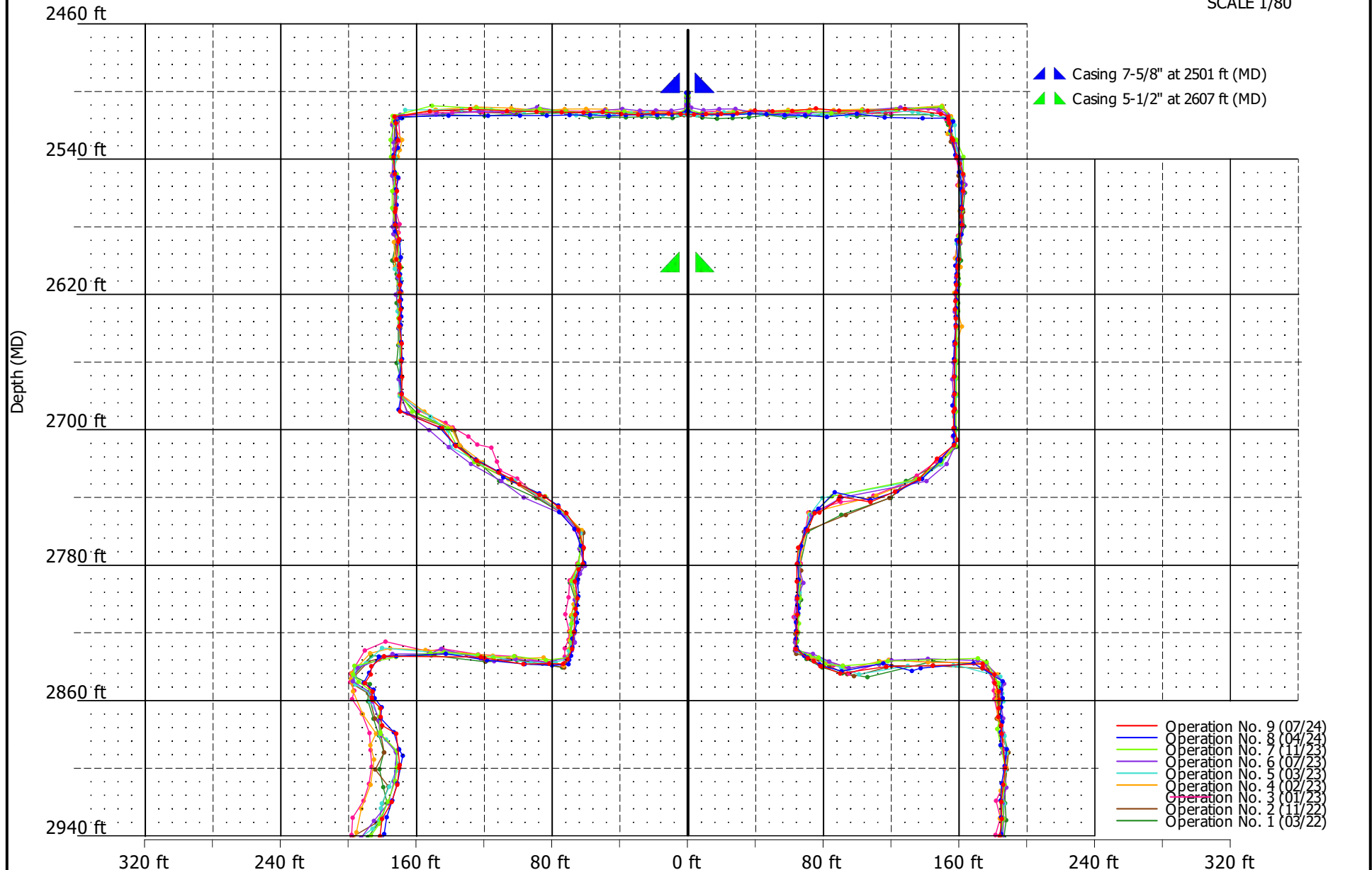
VERTICAL SECTION

← N270

3

N90 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



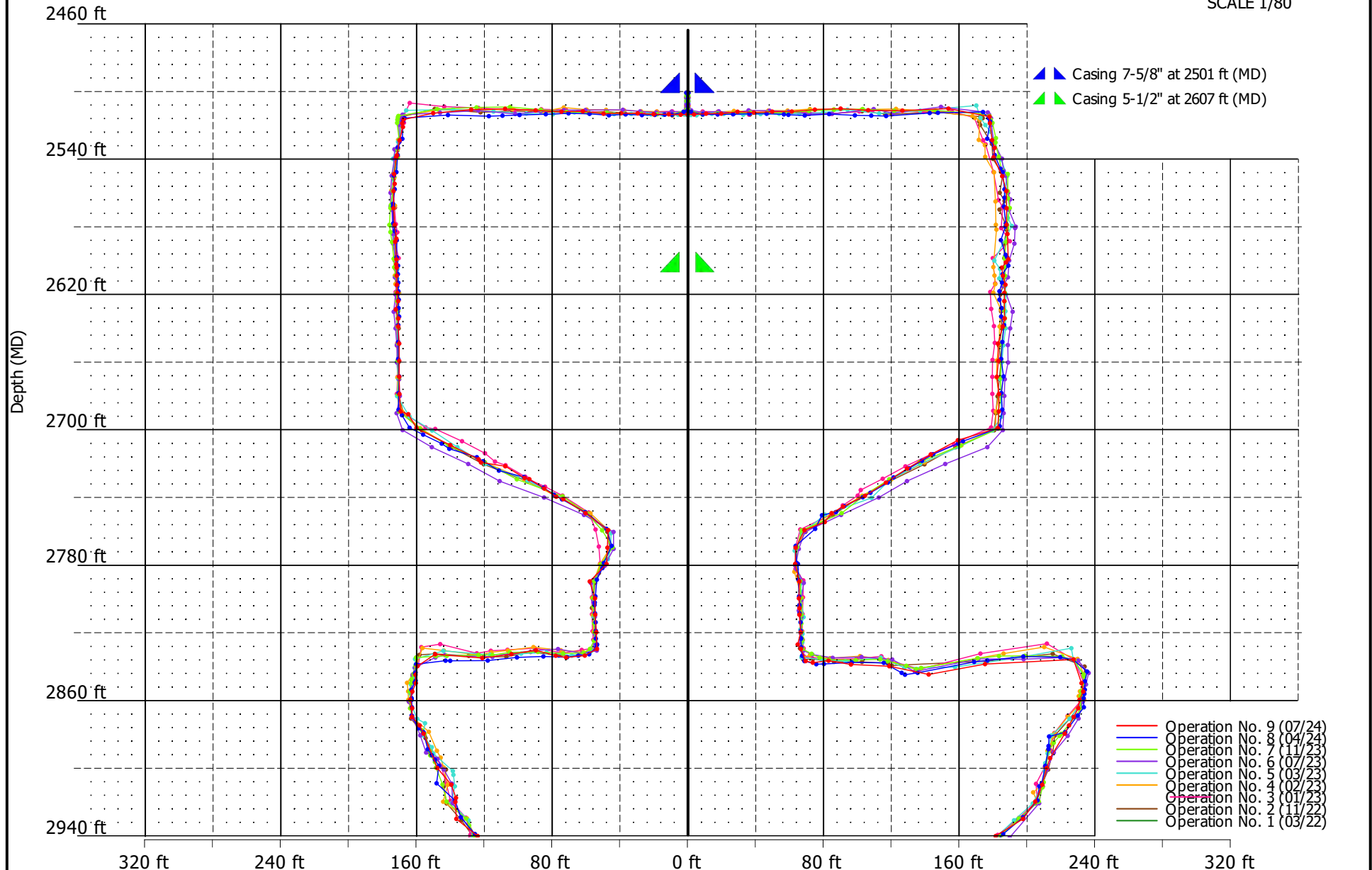
VERTICAL SECTION

← N315

4

N135 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



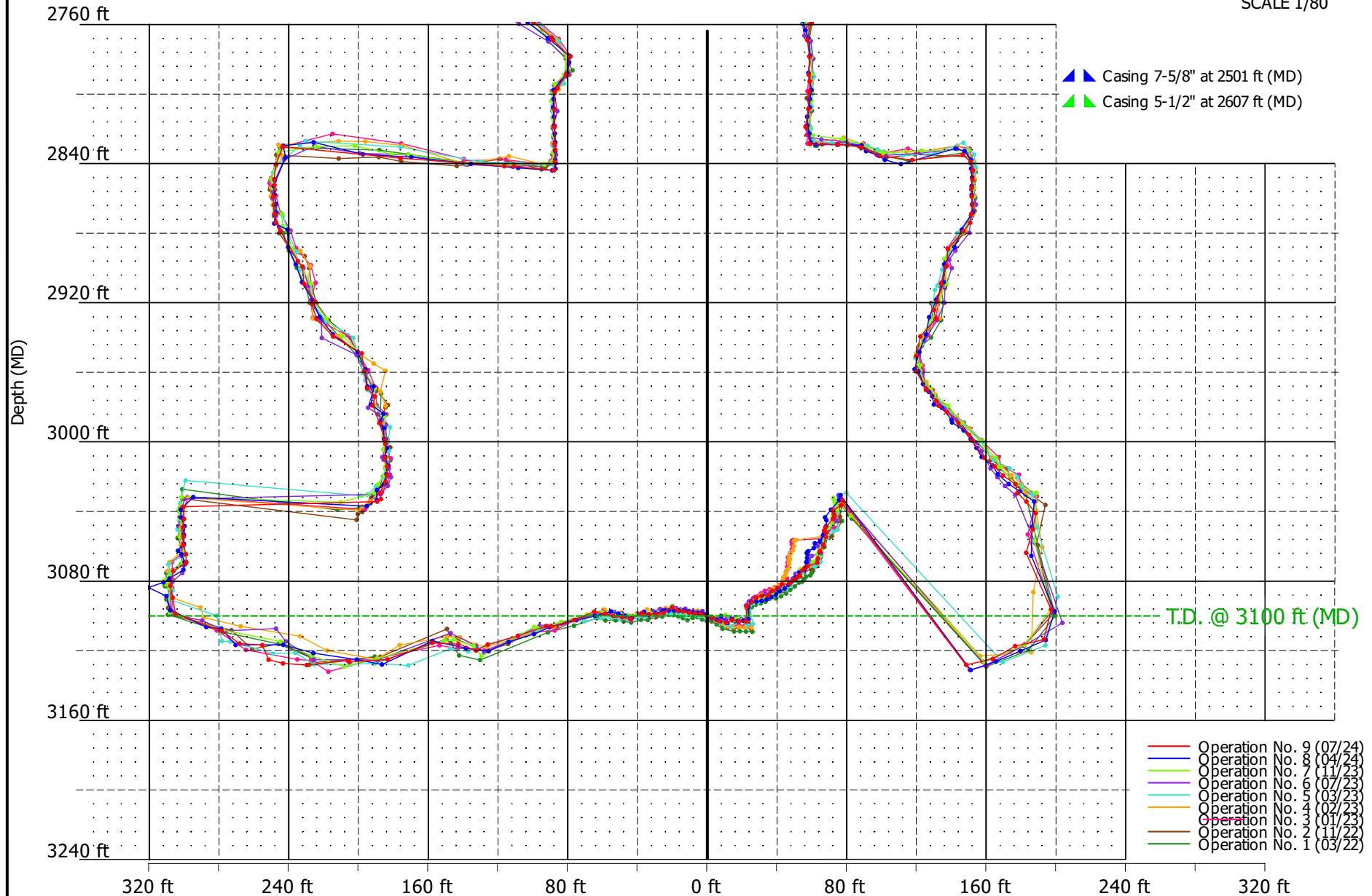
VERTICAL SECTION

← N180

1

N0 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



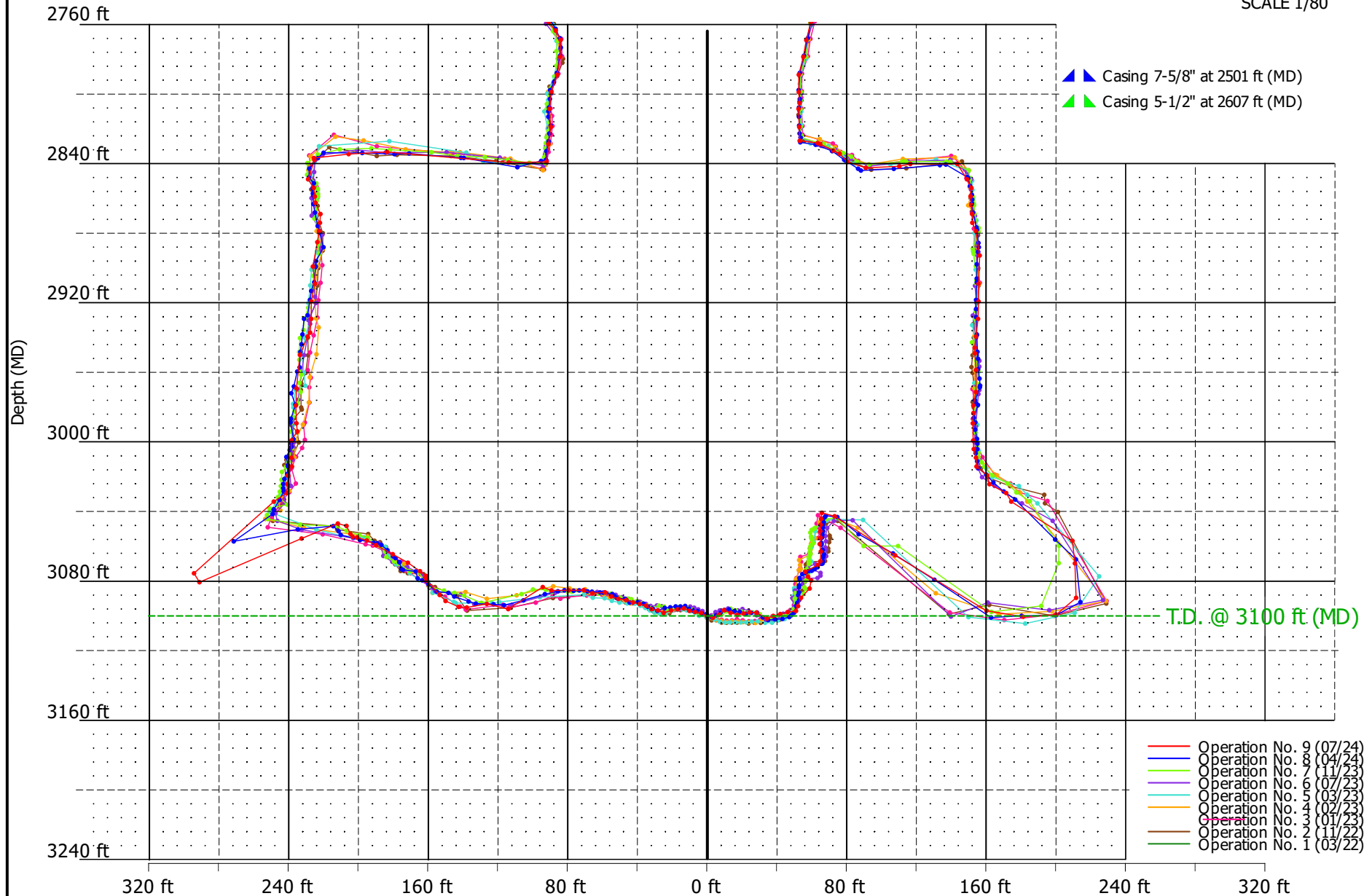
VERTICAL SECTION

← N225

2

N45 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



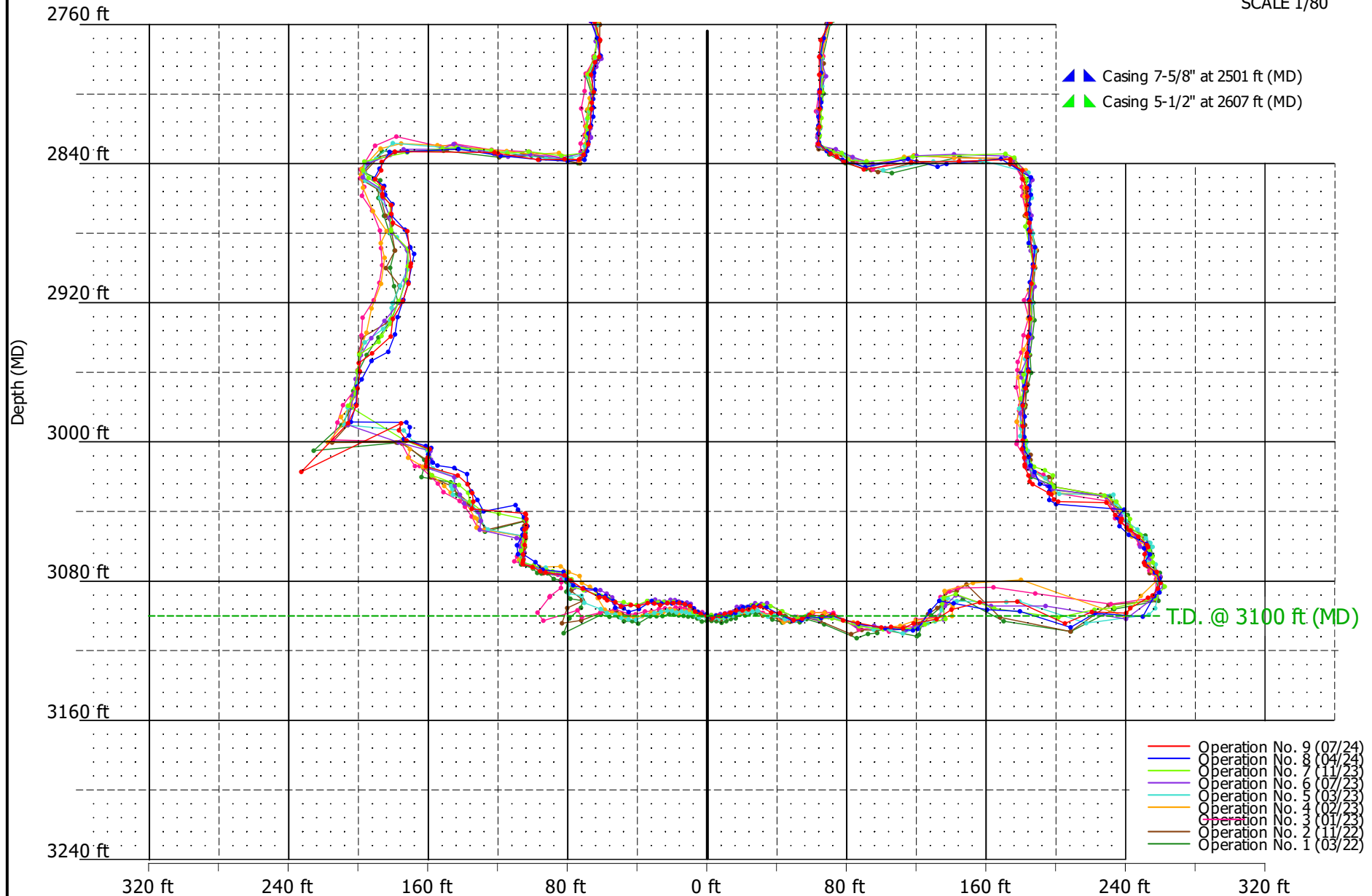
VERTICAL SECTION

← N270

3

N90 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



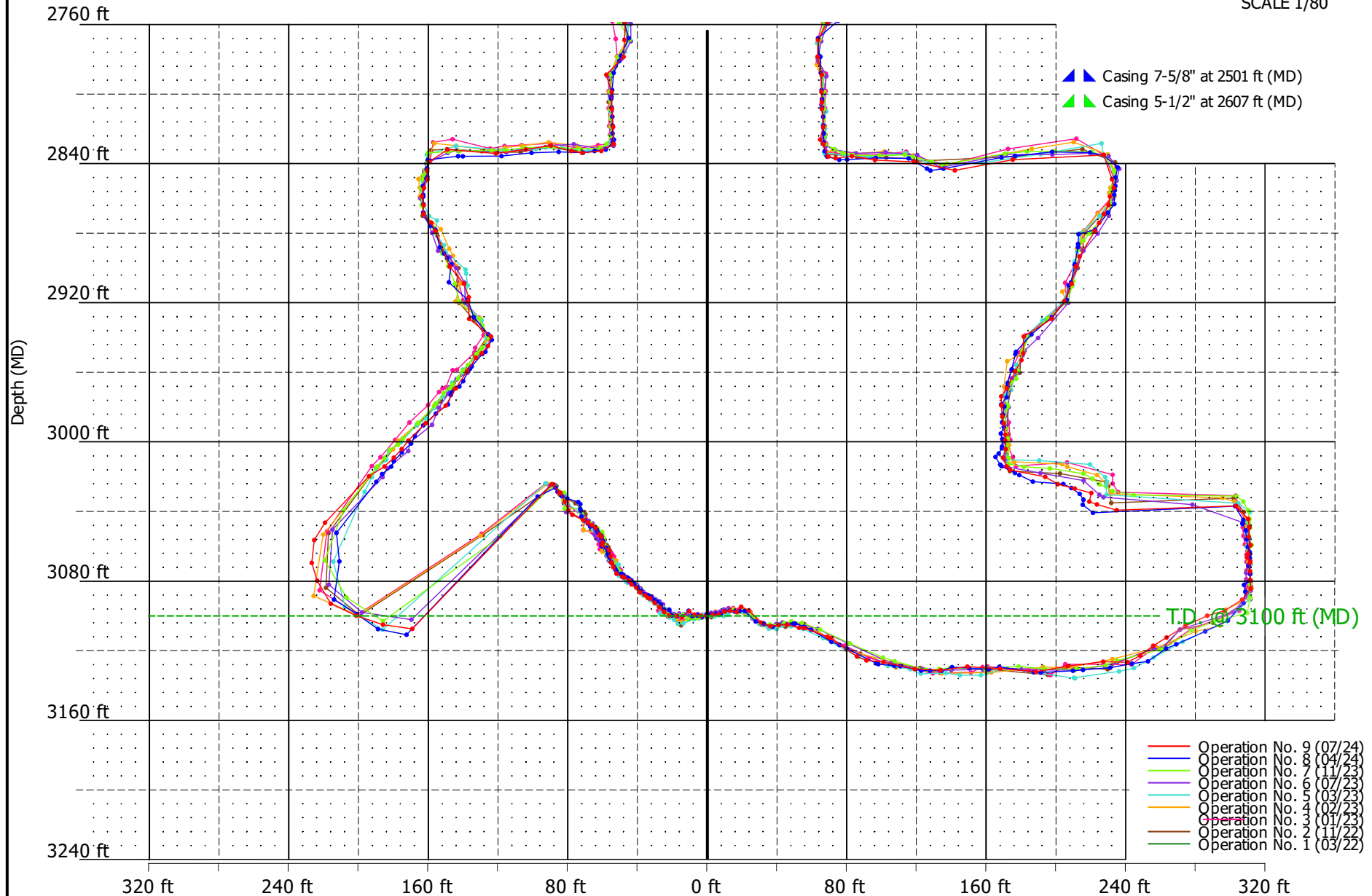
VERTICAL SECTION

← N315

4

N135 →

SCALE 1/80





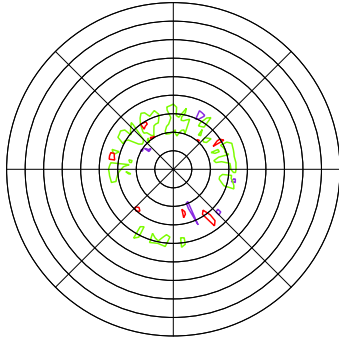
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

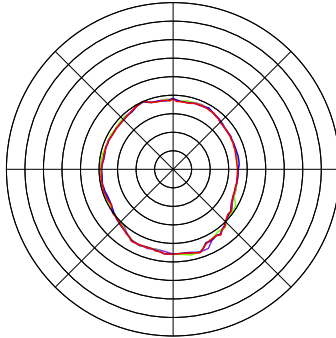


HORIZONTAL SECTIONS between 2510 ft and 2620 ft

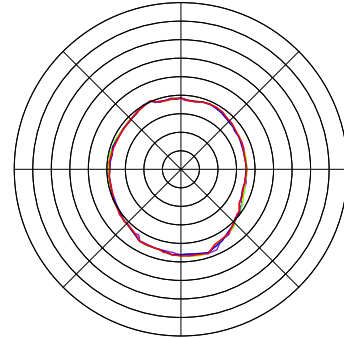
— Operation No. 9 (07/24) — Operation No. 8 (04/24) — Operation No. 7 (11/23) — Operation No. 6 (07/23) SCALE 50.0 ft per division



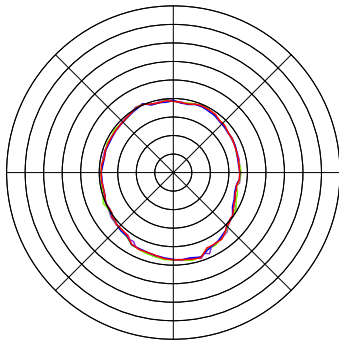
2510 ft / 1050.94 ft²



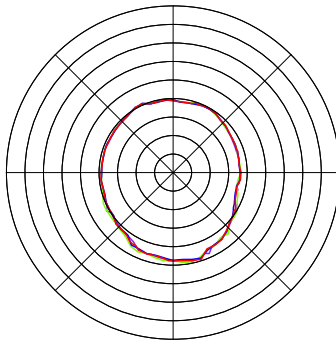
2520 ft / 95486.94 ft²



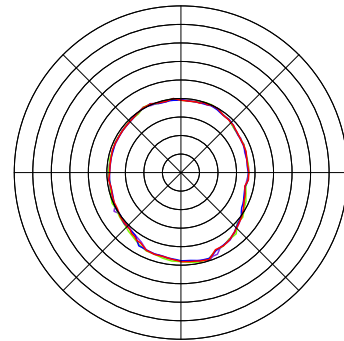
2530 ft / 97718.25 ft²



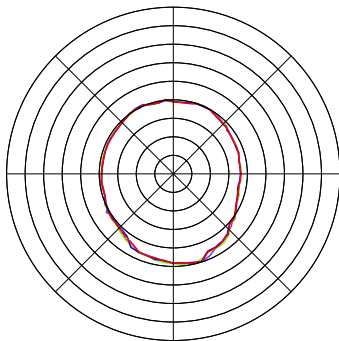
2540 ft / 99614.49 ft²



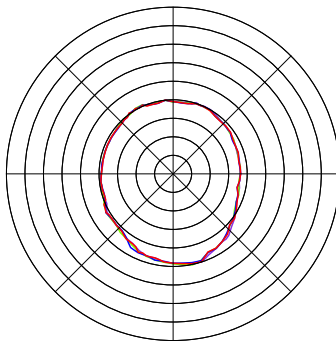
2550 ft / 101259.12 ft²



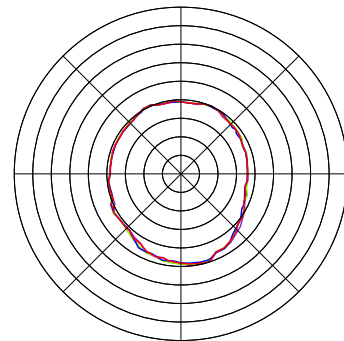
2560 ft / 102205.77 ft²



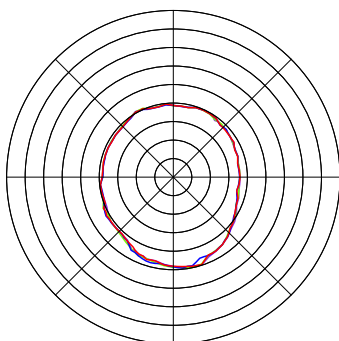
2570 ft / 102724.05 ft²



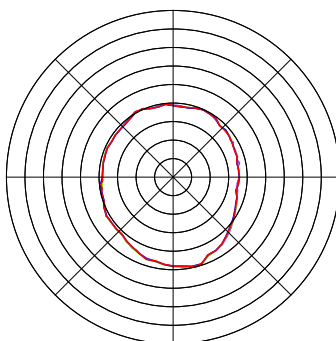
2580 ft / 103052.52 ft²



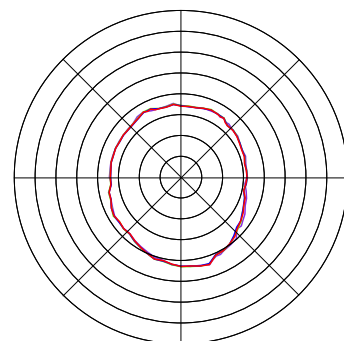
2590 ft / 102835.38 ft²



2600 ft / 102120.24 ft²



2610 ft / 101548.19 ft²



2620 ft / 101093.10 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.6°



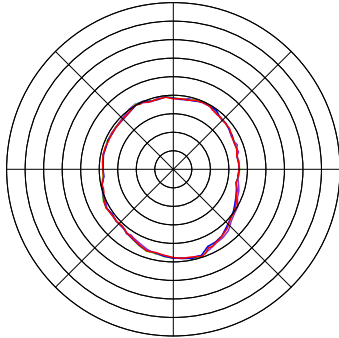
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

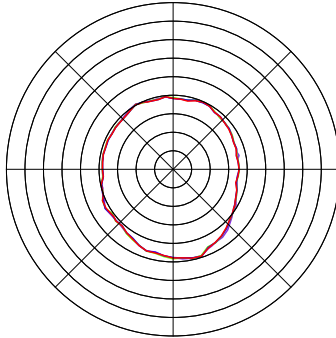


HORIZONTAL SECTIONS between 2630 ft and 2740 ft

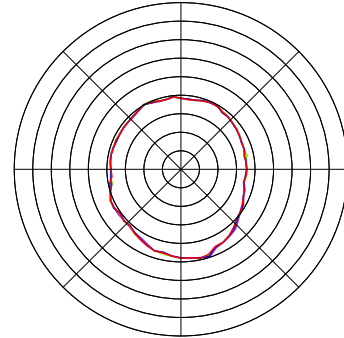
— Operation No. 9 (07/24) — Operation No. 8 (04/24) — Operation No. 7 (11/23) — Operation No. 6 (07/23) SCALE 50.0 ft per division



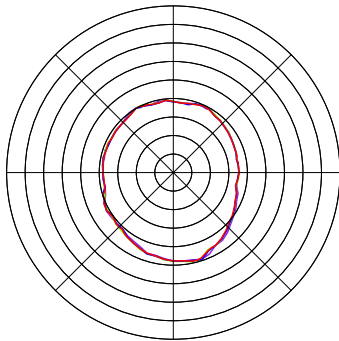
2630 ft / 100731.57 ft²



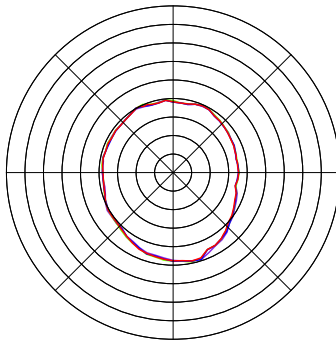
2640 ft / 100580.88 ft²



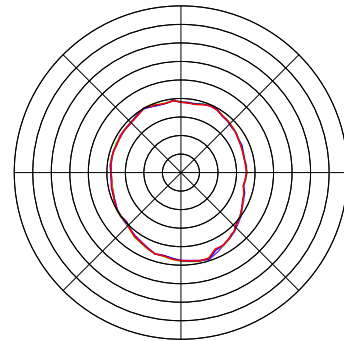
2650 ft / 100070.62 ft²



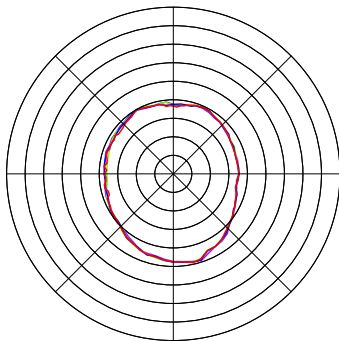
2660 ft / 99477.66 ft²



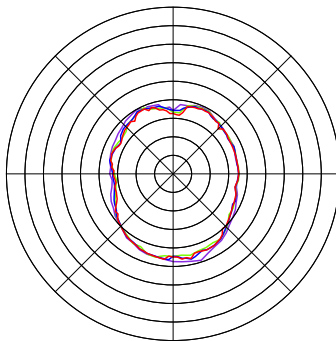
2670 ft / 98999.52 ft²



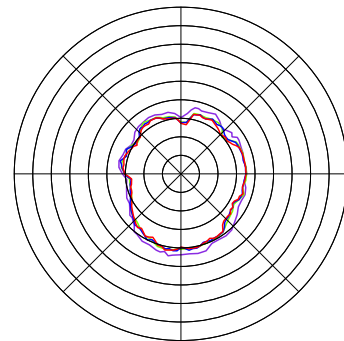
2680 ft / 98490.94 ft²



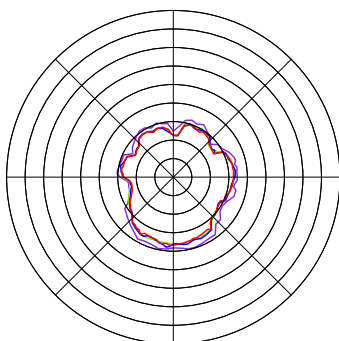
2690 ft / 96621.81 ft²



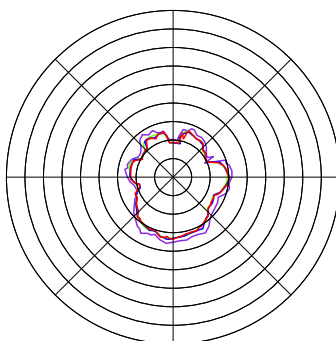
2700 ft / 88435.79 ft²



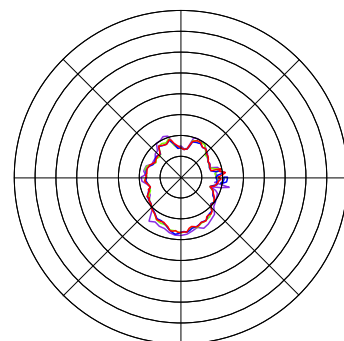
2710 ft / 70556.59 ft²



2720 ft / 54782.00 ft²



2730 ft / 40623.64 ft²



2740 ft / 28235.12 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.6°



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

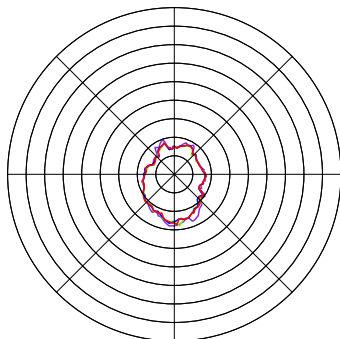
CAVERN : PPG No. 007B
OPERATION No. : 9



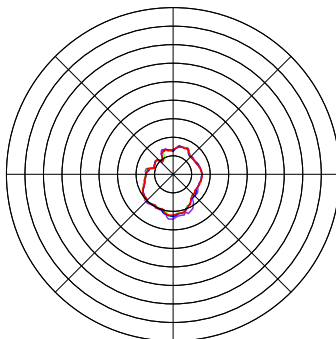
HORIZONTAL SECTIONS between 2750 ft and 2860 ft

— Operation No. 9 (07/24) — Operation No. 8 (04/24) — Operation No. 7 (11/23) — Operation No. 6 (07/23)

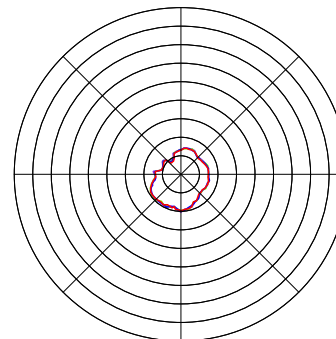
SCALE 50.0 ft per division



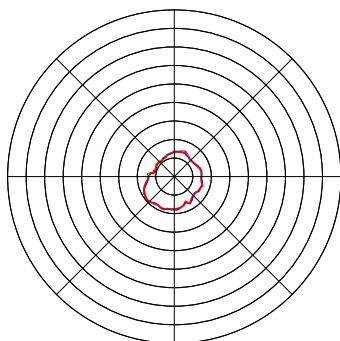
2750 ft / 20295.61 ft²



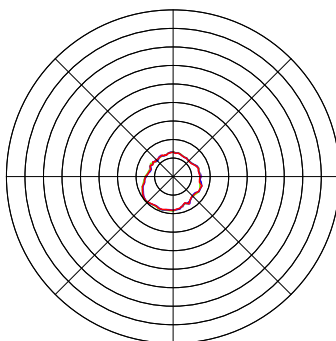
2760 ft / 15916.99 ft²



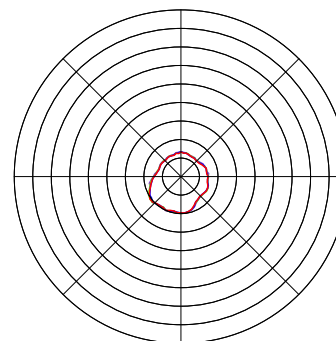
2770 ft / 13859.75 ft²



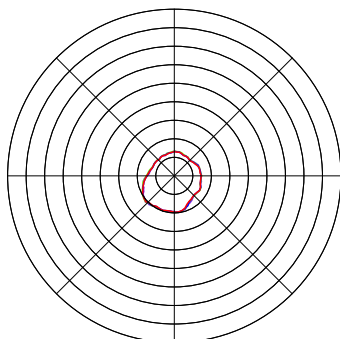
2780 ft / 13567.91 ft²



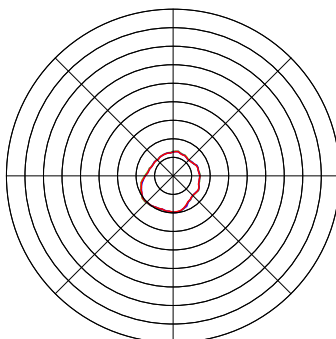
2790 ft / 14198.99 ft²



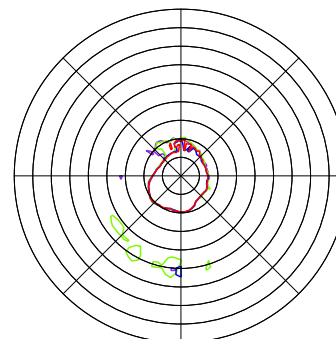
2800 ft / 14698.42 ft²



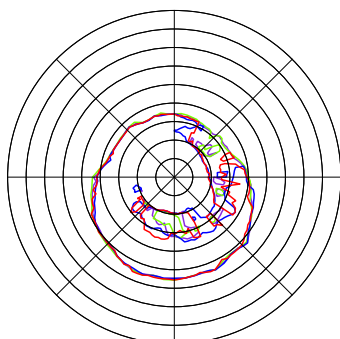
2810 ft / 14739.52 ft²



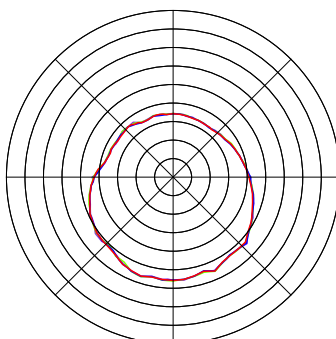
2820 ft / 14801.82 ft²



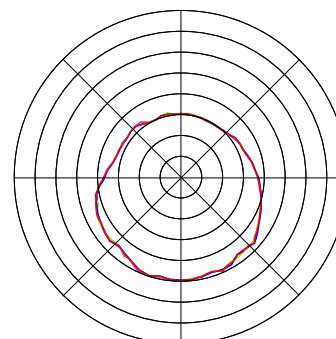
2830 ft / 16406.86 ft²



2840 ft / 96734.06 ft²



2850 ft / 119893.44 ft²



2860 ft / 120053.49 ft²



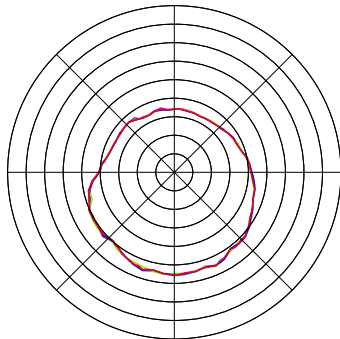
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

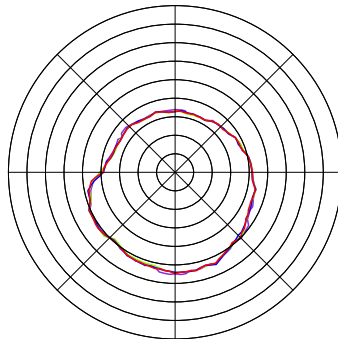


HORIZONTAL SECTIONS between 2870 ft and 2980 ft

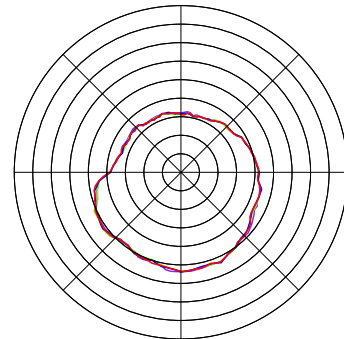
— Operation No. 9 (07/24) — Operation No. 8 (04/24) — Operation No. 7 (11/23) — Operation No. 6 (07/23) SCALE 50.0 ft per division



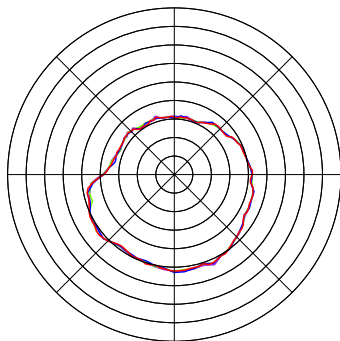
2870 ft / 118933.69 ft²



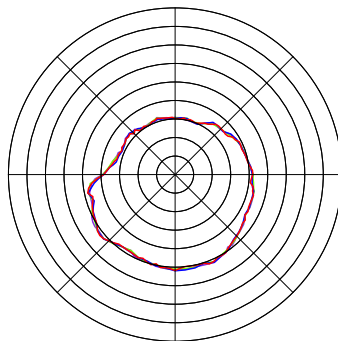
2880 ft / 114409.13 ft²



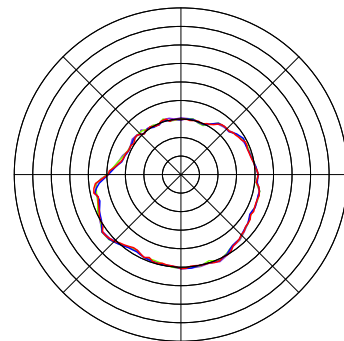
2890 ft / 111281.76 ft²



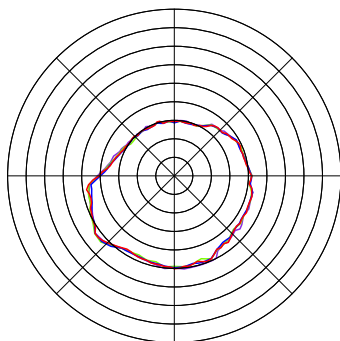
2900 ft / 108817.60 ft²



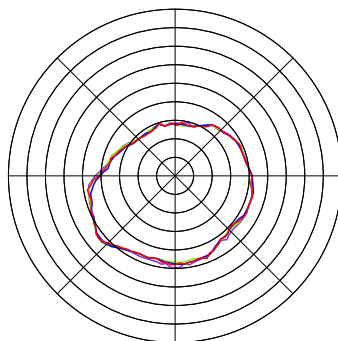
2910 ft / 106376.02 ft²



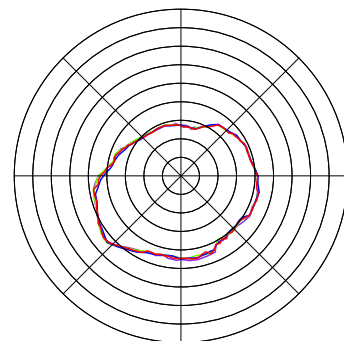
2920 ft / 104873.63 ft²



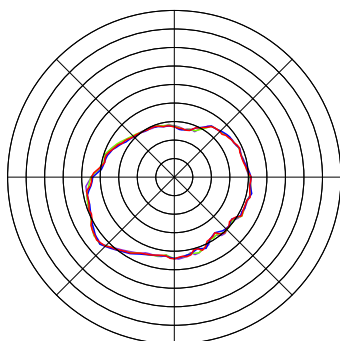
2930 ft / 102726.01 ft²



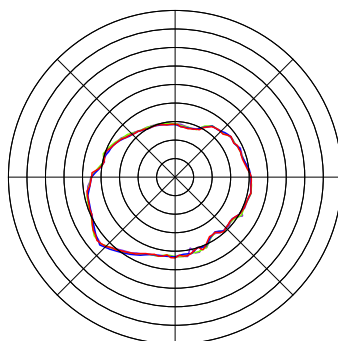
2940 ft / 99090.64 ft²



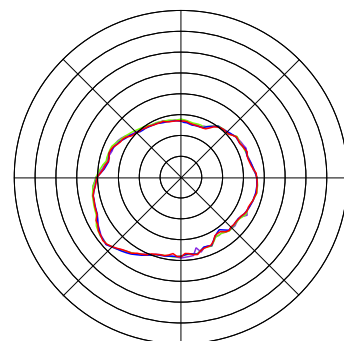
2950 ft / 97105.64 ft²



2960 ft / 96464.36 ft²



2970 ft / 97326.61 ft²



2980 ft / 98849.21 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.6°



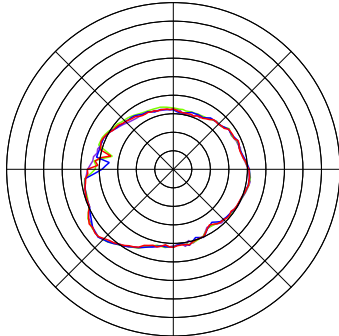
CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9

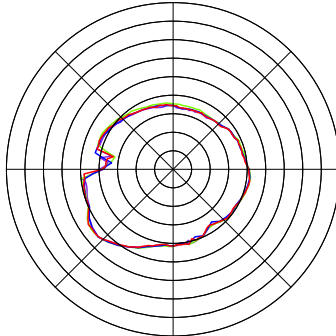


HORIZONTAL SECTIONS between 2990 ft and 3100 ft

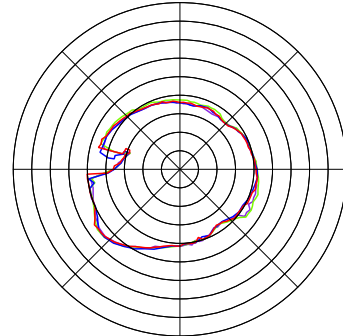
— Operation No. 9 (07/24) — Operation No. 8 (04/24) — Operation No. 7 (11/23) — Operation No. 6 (07/23) SCALE 50.0 ft per division



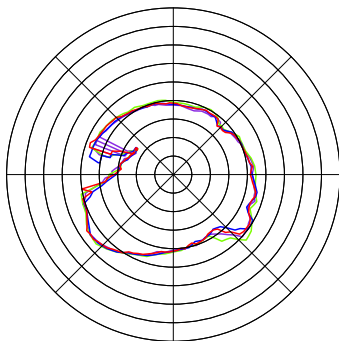
2990 ft / 100715.79 ft²



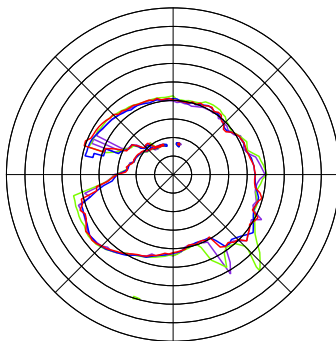
3000 ft / 102862.27 ft²



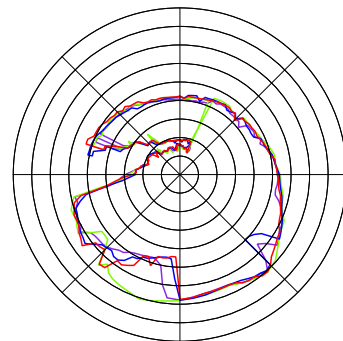
3010 ft / 106130.43 ft²



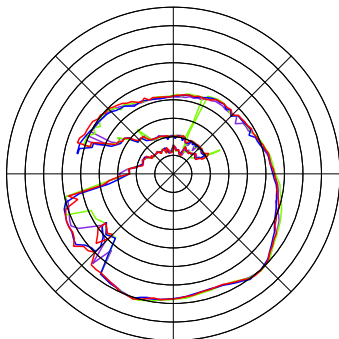
3020 ft / 111728.05 ft²



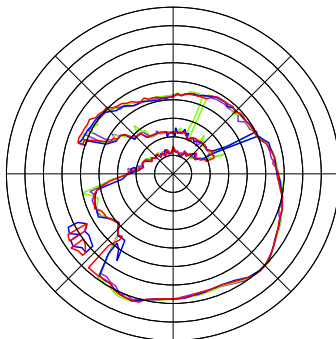
3030 ft / 119163.33 ft²



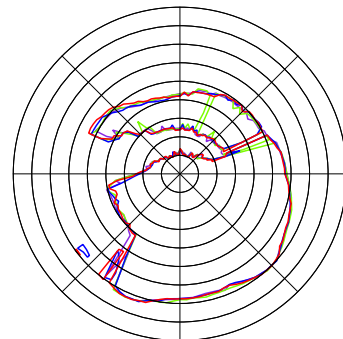
3040 ft / 163339.76 ft²



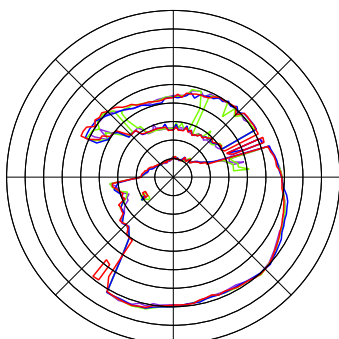
3050 ft / 178164.73 ft²



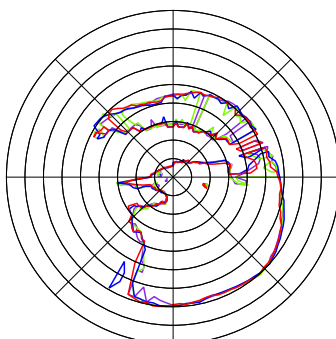
3060 ft / 168286.39 ft²



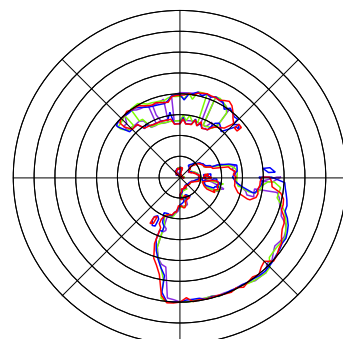
3070 ft / 160481.29 ft²



3080 ft / 153924.50 ft²



3090 ft / 126409.05 ft²



3100 ft / 87638.81 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.6°



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

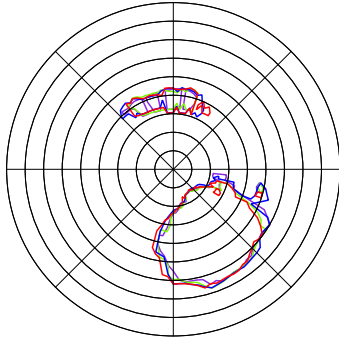
CAVERN : PPG No. 007B
OPERATION No. : 9



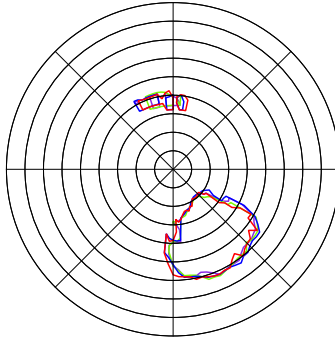
HORIZONTAL SECTIONS between 3110 ft and 3130 ft

— Operation No. 9 (07/24) — Operation No. 8 (04/24) — Operation No. 7 (11/23) — Operation No. 6 (07/23)

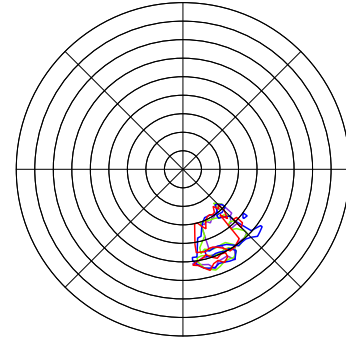
SCALE 50.0 ft per division



3110 ft / 52918.30 ft²



3120 ft / 32471.74 ft²



3130 ft / 8848.42 ft²



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2515.1		TILT	0		VOS	5934.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	162.2	162.4	159.0	162.3	162.0	163.5	165.6	165.3
24	165.3	165.5	166.0	165.8	160.9	159.6	158.7	156.8
48	155.2	158.9	150.4	157.9	156.7	156.6	157.0	155.7
72	154.9	153.9	153.3	153.3	153.6	153.5	153.9	153.6
96	153.9	153.6	153.9	155.3	157.3	156.3	155.7	159.5
120	157.2	167.3	165.7	163.7	167.1	178.1	181.8	184.5
144	187.8	188.3	189.4	189.2	189.6	199.3	200.9	206.9
168	203.7	202.9	202.7	188.3	203.5	193.9	194.8	194.0
192	179.2	194.1	194.5	194.9	199.0	195.8	196.4	192.8
216	189.8	185.5	181.9	180.2	179.0	173.6	172.9	170.8
240	169.3	170.7	168.9	173.1	173.4	172.9	172.9	172.0
264	171.6	171.9	172.7	162.5	161.4	164.8	169.3	164.9
288	165.2	169.4	169.8	169.0	168.7	168.4	161.2	163.7
312	156.4	159.3	168.0	168.8	170.0	170.3	171.1	173.7
336	176.8	171.2	166.4	165.4	164.8	165.0	165.6	163.7

DEPTH	2516.8		TILT	0		VOS	5934.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.2	161.7	162.0	162.6	162.4	163.5	165.1	165.6
24	166.7	165.4	166.1	165.8	165.1	163.1	161.7	159.5
48	157.8	158.7	158.6	157.4	156.7	156.5	156.7	155.2
72	155.2	154.2	153.6	154.0	153.9	153.6	153.9	153.6
96	153.9	154.6	155.7	155.9	156.5	156.4	156.7	158.4
120	160.6	167.2	172.0	167.6	172.4	178.2	183.3	185.3
144	189.6	189.4	189.6	190.2	191.2	199.5	209.2	206.4
168	204.3	203.3	203.0	201.0	203.4	198.1	197.2	197.7
192	198.8	197.3	196.4	197.7	199.6	199.0	199.0	193.1
216	192.0	187.5	183.6	181.0	179.0	175.7	178.4	173.4
240	169.2	171.0	169.5	173.6	173.2	173.5	173.2	174.0
264	174.2	172.1	172.3	169.0	168.0	167.7	169.5	168.1
288	168.7	168.9	169.5	168.8	168.5	167.7	167.4	167.2
312	167.4	167.3	168.4	168.9	172.3	171.0	173.4	175.2
336	178.1	171.9	168.0	166.4	165.3	165.0	165.1	163.3

DEPTH	2519.0		TILT	0		VOS	5934.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.9	162.4	163.5	163.0	163.0	163.4	165.8	166.5
24	166.4	166.0	166.1	165.9	166.1	162.9	162.3	159.1
48	158.6	158.5	158.8	158.2	158.0	156.4	157.2	155.2
72	155.7	154.6	153.9	153.3	153.1	153.5	154.4	154.6
96	155.2	154.3	156.8	154.9	156.5	156.6	157.3	159.4
120	162.0	167.0	172.1	169.0	172.4	178.3	185.2	186.3
144	194.8	189.8	190.5	192.1	194.9	202.1	210.5	207.3
168	204.8	203.6	203.0	203.1	203.7	203.5	203.7	199.9
192	200.2	196.9	197.7	197.7	198.3	198.7	199.6	193.5
216	191.5	187.3	183.8	181.6	180.0	178.3	178.7	175.5
240	170.2	171.5	172.7	173.3	174.5	173.9	173.7	173.6
264	174.0	172.4	171.9	170.5	170.6	167.9	169.8	168.6
288	169.0	169.4	170.3	168.6	167.4	167.3	167.7	167.3
312	167.4	168.0	169.0	169.0	171.5	172.7	174.4	175.8
336	178.4	172.6	168.4	166.7	165.9	165.5	165.6	163.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2529.0		TILT	0		VOS	5934.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.1	168.1	165.6	165.3	165.3	167.1	169.3	169.8
24	170.8	170.9	171.4	170.2	169.5	167.0	165.1	164.3
48	164.0	162.2	160.9	159.8	159.1	159.0	159.3	157.7
72	156.5	156.3	155.0	154.6	155.7	156.0	156.7	156.1
96	155.9	155.7	155.9	155.6	155.7	157.8	160.4	160.2
120	160.4	165.6	171.6	171.6	176.5	179.6	183.4	187.3
144	191.6	191.7	194.3	195.4	198.0	204.3	212.2	210.2
168	208.7	208.4	208.7	207.9	207.7	206.6	206.1	202.1
192	203.7	198.6	199.0	198.4	198.3	199.6	199.4	193.2
216	189.4	186.7	184.7	184.3	184.4	183.5	183.1	180.6
240	178.7	178.2	178.1	175.5	173.4	173.1	173.2	173.1
264	173.4	171.8	170.6	171.5	172.9	171.4	170.4	169.8
288	169.5	168.4	167.7	167.6	168.0	167.7	168.0	168.4
312	169.3	169.7	170.6	171.8	173.4	174.1	175.3	178.3
336	179.8	174.4	169.5	169.2	169.3	168.9	169.0	169.8

DEPTH	2539.1		TILT	0		VOS	5934.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.8	169.9	169.5	168.2	168.2	169.8	172.1	173.7
24	174.0	173.2	172.9	172.3	172.1	168.7	166.5	167.6
48	166.7	164.4	162.7	162.8	163.3	161.6	160.4	159.6
72	159.3	158.9	158.8	158.3	158.3	158.3	158.8	158.6
96	158.8	156.5	154.6	156.8	156.3	158.5	162.2	162.1
120	166.6	170.8	175.8	175.0	180.9	180.6	187.3	192.1
144	197.7	197.3	197.5	197.2	197.5	205.2	214.2	212.8
168	212.0	210.9	210.5	209.7	209.5	208.7	208.4	205.8
192	203.7	202.3	201.4	201.5	202.2	200.4	199.3	192.8
216	187.3	185.4	184.2	184.0	184.4	179.9	182.8	175.9
240	176.3	176.9	178.1	175.3	173.2	172.3	171.9	172.5
264	173.7	173.2	173.2	173.1	173.4	171.1	169.3	170.2
288	171.6	171.3	171.4	171.0	171.1	170.7	170.8	170.9
312	171.4	171.6	172.4	173.2	174.5	176.3	178.7	178.6
336	178.9	175.6	172.9	171.5	170.6	171.7	173.3	171.8

DEPTH	2549.0		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.0	171.0	170.5	170.5	171.0	170.9	175.9	173.0
24	175.2	175.7	176.7	175.0	173.7	171.9	170.5	169.6
48	169.2	167.1	165.5	164.3	163.5	163.1	163.2	161.9
72	163.1	160.5	160.5	159.8	159.5	160.8	162.5	162.3
96	162.5	159.3	156.7	157.4	158.5	160.2	162.5	167.5
120	173.2	173.1	177.1	178.8	181.0	185.0	189.5	193.2
144	198.5	199.2	200.5	200.0	200.0	208.5	218.5	217.0
168	216.2	213.8	212.0	211.8	212.2	211.8	207.1	204.9
192	203.7	204.2	205.2	203.9	203.2	196.9	197.0	193.7
216	186.7	185.2	184.2	184.1	184.5	180.3	176.7	176.5
240	176.7	176.5	176.7	174.5	172.7	172.0	171.7	172.6
264	174.0	173.0	172.5	171.7	171.5	171.7	172.5	172.1
288	172.2	171.6	171.5	171.6	172.2	172.3	172.7	172.6
312	173.0	172.9	173.2	174.3	175.9	177.9	180.5	180.3
336	180.9	177.1	173.7	173.6	174.0	174.4	175.2	173.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2559.0		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.7	172.9	172.5	172.7	173.5	172.2	176.5	174.1
24	177.2	176.7	176.7	173.6	171.0	170.5	170.5	169.4
48	168.9	167.1	165.7	164.5	163.7	163.5	163.7	163.5
72	163.7	162.1	161.0	160.6	160.7	161.4	162.5	162.3
96	162.5	159.2	156.5	158.4	161.4	163.8	165.2	168.8
120	173.0	176.2	180.0	182.4	185.5	188.1	191.3	194.6
144	198.5	200.4	203.0	202.3	202.2	210.0	219.0	217.3
168	216.2	215.2	214.7	213.9	213.7	211.2	209.2	207.3
192	206.0	205.7	206.0	204.9	204.5	199.2	194.7	194.5
216	189.8	188.7	183.2	182.4	182.0	180.7	180.0	177.5
240	175.5	175.1	175.2	174.2	173.7	172.4	171.5	172.9
264	174.7	172.7	171.2	171.1	171.5	171.3	171.5	172.1
288	173.2	172.9	173.0	172.5	172.5	172.4	172.7	172.6
312	173.0	173.2	174.0	175.1	176.7	178.2	180.1	179.9
336	180.2	177.7	175.7	174.9	174.6	176.4	178.7	176.0

DEPTH	2569.1		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.7	172.3	172.2	172.3	172.7	174.7	177.2	177.2
24	177.7	177.7	176.7	174.0	172.5	171.4	170.7	167.7
48	171.0	165.3	165.7	164.8	164.2	164.4	165.0	164.8
72	165.0	162.5	160.5	160.4	160.7	161.0	161.7	161.8
96	162.2	159.6	161.3	160.2	163.5	164.6	166.2	167.3
120	172.6	176.1	180.7	181.2	181.2	188.2	196.2	196.2
144	200.0	203.3	204.5	204.2	204.5	212.6	222.0	219.3
168	219.2	215.9	215.2	214.4	214.2	212.2	210.7	208.3
192	206.5	206.2	206.5	205.2	204.5	199.2	194.7	194.3
216	188.6	188.2	184.2	183.4	183.0	181.4	183.0	180.6
240	178.7	176.6	178.9	175.3	172.6	171.9	171.5	172.2
264	173.5	172.5	172.0	171.1	170.7	171.0	171.7	172.0
288	172.7	172.4	172.5	172.0	172.0	171.8	172.0	172.5
312	173.5	173.2	174.9	175.3	178.6	179.2	180.4	177.4
336	181.2	177.9	175.2	174.2	173.7	176.3	179.3	175.8

DEPTH	2579.0		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.7	172.5	171.7	171.8	172.2	174.3	177.0	176.6
24	176.8	175.9	175.6	173.1	171.2	170.1	169.5	169.9
48	170.7	170.3	170.2	167.6	165.5	164.5	164.0	164.0
72	164.5	162.0	160.0	160.6	161.7	161.6	162.0	160.9
96	160.2	158.4	157.0	160.2	164.0	165.8	168.0	171.3
120	175.2	178.4	182.2	182.0	182.2	188.1	195.0	197.5
144	200.7	202.9	205.7	205.2	205.2	213.3	221.5	220.6
168	220.3	218.0	216.5	215.2	214.6	212.8	212.2	208.2
192	206.2	206.7	207.7	203.5	206.2	196.7	194.0	193.0
216	192.5	188.1	184.5	183.9	183.7	182.6	181.9	182.1
240	185.6	183.2	181.3	173.0	172.7	173.0	173.7	173.7
264	174.2	173.0	172.2	171.4	171.0	170.9	171.2	170.9
288	171.0	171.4	172.2	172.1	172.5	172.3	172.5	172.3
312	172.5	172.6	175.6	174.2	181.0	177.4	181.0	177.2
336	180.7	173.9	174.2	173.6	173.5	175.6	178.2	175.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2588.9		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.7	171.7	171.2	171.3	171.7	173.7	176.2	177.0
24	178.2	177.0	176.2	173.6	171.5	169.7	168.5	168.8
48	169.5	168.9	168.7	168.0	164.7	163.3	162.5	162.6
72	163.2	162.9	163.0	160.5	160.0	159.9	160.2	160.3
96	160.7	157.9	156.5	160.3	162.8	163.5	165.0	169.6
120	175.0	177.3	180.2	181.1	182.5	188.8	194.0	196.8
144	200.2	202.7	205.8	205.2	205.1	212.5	222.0	220.7
168	220.0	218.4	217.5	215.9	215.0	212.7	211.0	210.6
192	205.6	208.9	207.7	205.3	203.5	198.5	194.2	193.2
216	192.7	189.7	183.4	185.3	184.0	183.6	183.7	184.8
240	186.5	180.3	183.7	174.2	174.0	174.1	174.7	174.7
264	175.2	172.6	170.5	170.1	170.2	170.1	170.5	171.2
288	172.5	172.3	172.5	171.5	171.0	171.5	172.5	172.3
312	172.5	172.3	172.5	174.2	176.5	178.1	180.2	180.0
336	180.2	176.8	174.0	173.2	173.0	174.4	176.2	174.2

DEPTH	2599.3		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.5	170.7	171.5	171.0	170.5	172.6	175.2	175.2
24	175.7	175.4	175.5	174.7	174.5	171.1	168.2	167.9
48	168.0	167.4	167.2	167.4	168.0	164.2	161.0	161.4
72	162.2	159.7	157.7	158.1	159.0	159.3	160.0	159.3
96	159.0	157.0	155.5	159.1	163.2	163.7	165.5	167.6
120	170.2	174.3	179.0	181.8	183.0	189.1	193.7	196.4
144	199.7	202.2	205.2	204.8	205.0	212.1	220.5	219.2
168	218.5	216.8	215.7	214.5	214.0	212.8	212.0	208.6
192	206.0	206.7	208.0	203.1	202.2	199.3	193.5	190.8
216	188.7	185.8	183.5	183.6	184.2	183.6	183.5	183.4
240	184.9	181.8	183.2	174.6	174.7	174.9	175.5	175.4
264	175.7	173.3	171.5	170.5	170.0	170.5	171.5	171.1
288	171.2	171.4	172.0	170.9	170.2	170.9	172.0	171.3
312	171.0	171.5	172.5	174.1	176.2	177.8	180.0	179.7
336	180.0	176.4	173.5	172.6	172.2	173.9	176.0	174.0

DEPTH	2604.2		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.5	171.5	171.0	171.0	171.5	173.5	176.0	176.2
24	177.0	176.0	175.5	175.4	174.1	170.2	166.9	169.0
48	167.3	166.8	166.7	164.5	167.4	160.9	161.0	160.9
72	161.2	158.7	156.7	157.6	158.2	158.5	159.2	157.6
96	156.4	155.4	154.7	158.5	161.7	163.0	165.7	167.8
120	171.2	173.7	179.2	180.3	182.9	185.4	190.5	195.4
144	201.2	202.4	204.2	203.9	204.2	212.2	221.5	221.0
168	221.2	218.4	216.2	215.8	213.5	213.7	212.2	210.0
192	205.5	205.9	207.7	204.3	201.6	199.7	194.0	191.5
216	189.5	187.5	184.2	184.2	184.7	184.2	184.2	184.0
240	184.2	183.4	183.0	178.6	175.0	175.1	175.7	175.2
264	175.2	172.1	169.5	169.5	170.0	170.4	171.2	171.0
288	171.2	171.4	172.0	171.0	170.5	171.0	172.0	171.5
312	171.5	171.4	171.7	172.7	174.2	177.2	180.7	176.5
336	179.8	172.6	172.7	172.3	172.2	173.7	175.7	173.9



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2608.9		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.0	170.6	169.7	170.1	171.0	172.1	173.7	175.1
24	177.0	176.0	175.5	174.6	174.2	170.3	167.0	166.9
48	167.2	166.9	167.0	165.1	163.7	162.0	160.7	160.6
72	161.0	158.7	157.0	157.4	158.2	158.4	159.0	157.8
96	157.0	155.1	153.7	157.4	161.7	163.0	164.7	167.6
120	171.0	174.2	178.0	180.0	182.5	186.0	190.2	194.0
144	198.5	200.9	204.0	203.7	204.0	211.3	219.7	219.4
168	219.7	217.9	216.7	214.7	213.2	211.7	210.7	207.7
192	205.2	206.2	207.7	203.6	200.2	197.2	194.7	192.2
216	190.2	186.5	183.5	183.9	184.7	184.1	184.0	184.4
240	185.2	182.4	180.2	177.5	175.2	175.2	175.7	172.2
264	174.9	169.4	170.0	169.6	169.7	170.3	171.2	171.3
288	171.7	171.9	172.5	171.1	170.2	170.6	171.5	171.1
312	171.2	171.4	172.0	173.2	175.0	177.7	181.0	180.0
336	179.5	176.1	173.2	172.2	171.7	174.0	176.7	174.1

DEPTH	2614.2		TILT	88		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	99.8	99.9	100.0	99.9	99.8	99.8	99.8	99.8
24	99.8	99.8	99.8	99.9	100.0	100.0	100.0	100.0
48	100.0	99.9	99.8	99.9	100.0	100.0	100.0	100.0
72	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
96	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
120	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.1
144	100.3	100.3	100.3	100.1	100.0	100.1	100.3	100.1
168	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
192	100.0	100.1	100.3	100.3	100.3	100.0	99.8	99.8
216	99.8	99.9	100.0	100.0	100.0	100.0	100.0	99.9
240	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
264	100.0	100.1	100.3	100.1	100.0	99.9	99.8	99.8
288	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
312	99.8	99.9	100.0	99.9	99.8	99.8	99.8	99.8
336	99.8	99.8	99.8	99.9	100.0	99.9	99.8	99.8

DEPTH	2614.2		TILT	84		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.6
24	100.5	100.6	100.8	101.0	101.3	101.0	100.8	100.8
48	100.8	100.9	101.0	100.9	100.8	100.6	100.5	100.6
72	100.8	100.9	101.0	100.8	100.5	100.6	100.8	100.6
96	100.5	100.6	100.8	100.8	100.8	100.8	100.8	100.9
120	101.0	101.0	101.0	101.1	101.3	101.0	100.8	100.9
144	101.0	101.0	101.0	101.0	101.0	101.0	101.0	100.9
168	100.8	100.8	100.8	100.6	100.5	100.8	101.0	100.8
192	100.5	100.6	100.8	100.6	100.5	100.5	100.5	100.8
216	101.0	100.9	100.8	100.9	101.0	101.0	101.0	100.9
240	100.8	100.8	100.8	100.8	100.8	100.5	100.3	100.5
264	100.8	100.9	101.0	101.0	101.0	100.6	100.3	100.4
288	100.5	100.6	100.8	100.5	100.3	100.5	100.8	100.6
312	100.5	100.6	100.8	100.8	100.8	100.9	101.0	101.0
336	101.0	100.9	100.8	100.6	100.5	100.6	100.8	100.8



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2614.2		TILT	79		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	102.3	102.3	102.3	102.0	101.8	101.9	102.0	102.1
24	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.5
48	102.8	102.4	102.0	102.3	102.5	102.5	102.5	102.8
72	103.0	102.6	102.3	102.3	102.3	102.3	102.3	102.4
96	102.5	102.8	103.0	103.0	103.0	102.9	102.8	102.5
120	102.3	102.1	102.0	102.1	102.3	102.4	102.5	102.5
144	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.4
168	102.3	102.3	102.3	102.5	102.8	102.5	102.3	102.3
192	102.3	102.8	103.3	102.9	102.5	102.4	102.3	102.4
216	102.5	102.5	102.5	102.5	102.5	102.6	102.8	102.4
240	102.0	102.0	102.0	101.9	101.8	101.9	102.0	102.4
264	102.8	102.8	102.8	102.6	102.5	102.3	102.0	102.1
288	102.3	102.0	101.8	102.0	102.3	102.3	102.3	102.1
312	102.0	102.0	102.0	102.1	102.3	102.1	102.0	102.1
336	102.3	102.3	102.3	102.6	103.0	102.6	102.3	102.3

DEPTH	2614.2		TILT	74		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	105.5	105.8	106.0	105.6	105.3	105.5	105.8	105.5
24	105.3	104.9	104.5	104.5	104.5	104.4	104.3	104.5
48	104.8	104.6	104.5	104.9	105.3	105.0	104.8	104.8
72	104.8	104.9	105.0	105.1	105.3	105.0	104.8	104.8
96	104.8	105.0	105.3	105.8	106.3	105.5	104.8	105.0
120	105.3	105.3	105.3	105.9	106.5	105.7	105.0	105.0
144	105.0	105.3	105.5	105.6	105.8	105.9	106.0	105.2
168	104.5	104.4	104.3	104.6	105.0	105.0	105.0	105.0
192	105.0	105.0	105.0	104.6	104.3	104.6	105.0	105.0
216	105.0	104.8	104.5	104.8	105.0	104.6	104.3	104.9
240	105.5	104.7	104.0	104.0	104.0	104.3	104.5	104.9
264	105.3	104.6	104.0	104.3	104.5	104.6	104.8	105.0
288	105.3	105.0	104.8	104.8	104.8	105.1	105.5	105.3
312	105.0	104.8	104.5	104.6	104.8	104.4	104.0	104.1
336	104.3	104.6	105.0	105.0	105.0	105.3	105.5	105.5

DEPTH	2614.2		TILT	69		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	106.8	107.6	108.5	108.2	108.0	108.4	108.8	108.0
24	107.3	108.1	109.0	108.2	107.5	107.5	107.5	108.1
48	108.8	108.2	107.8	107.7	107.8	107.7	107.8	108.1
72	108.5	109.0	109.5	109.5	109.5	109.6	109.8	108.9
96	108.0	108.4	108.8	108.6	108.5	109.0	109.5	109.4
120	109.3	108.7	108.3	108.4	108.5	108.4	108.3	108.2
144	108.3	108.5	108.8	108.6	108.5	108.6	108.8	108.9
168	109.0	109.4	109.8	109.0	108.3	108.4	108.5	108.6
192	108.8	108.5	108.3	108.7	109.3	108.9	108.5	108.5
216	108.5	108.9	109.3	108.9	108.5	108.6	108.8	108.4
240	108.0	108.1	108.3	108.4	108.5	108.4	108.3	108.0
264	107.8	107.6	107.5	107.6	107.8	107.6	107.5	107.9
288	108.3	108.2	108.3	108.1	108.0	108.1	108.3	108.1
312	108.0	108.0	108.0	108.4	108.8	108.5	108.3	108.1
336	108.0	107.7	107.5	108.0	108.5	108.1	107.8	107.2



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2614.2		TILT	64		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	112.5	112.9	113.3	113.4	113.5	113.0	112.5	112.4
24	112.3	112.9	113.5	113.3	113.1	113.4	113.8	112.7
48	111.8	112.7	113.8	113.6	113.5	113.5	113.5	113.1
72	112.8	113.0	113.3	113.2	113.3	113.4	113.5	113.4
96	113.3	112.7	112.3	113.0	113.8	113.6	113.5	113.2
120	113.0	112.5	112.0	112.5	113.0	113.2	113.5	114.1
144	114.8	114.5	114.3	114.1	114.0	114.0	114.0	114.2
168	114.5	114.1	113.8	114.1	114.5	114.6	114.8	114.2
192	113.8	113.4	113.0	113.1	113.3	113.0	112.8	113.2
216	113.8	113.4	113.0	113.4	113.8	113.1	112.5	113.6
240	114.8	114.0	113.3	113.0	112.8	112.9	113.0	113.4
264	113.8	113.4	113.0	112.4	111.8	111.7	111.8	113.0
288	114.3	113.2	112.3	113.0	113.8	113.4	113.0	112.4
312	111.8	111.9	112.0	112.7	113.5	112.5	111.5	112.2
336	113.0	113.1	113.3	113.4	113.5	112.7	112.0	112.2

DEPTH	2614.2		TILT	59		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	118.8	118.1	117.5	117.6	117.8	118.5	119.3	118.7
24	118.3	119.2	120.3	119.5	118.8	118.2	117.8	118.0
48	118.3	119.3	120.5	119.8	119.3	119.0	118.8	118.5
72	118.3	118.3	118.5	118.3	118.3	118.7	119.3	119.2
96	119.3	118.2	117.3	117.5	117.8	118.6	119.5	119.2
120	119.0	119.0	119.0	118.7	118.5	118.8	119.3	119.6
144	120.0	119.1	118.3	118.6	119.0	119.5	120.0	119.6
168	119.3	119.3	119.5	119.0	118.5	119.2	120.0	120.1
192	120.3	119.2	118.3	119.2	120.3	119.3	118.5	118.5
216	118.5	118.7	119.0	118.7	118.5	119.6	120.8	120.2
240	119.8	119.1	118.5	118.8	119.3	119.2	119.3	119.3
264	119.5	118.8	118.3	118.7	119.3	119.0	118.8	119.2
288	119.8	118.7	117.8	118.5	119.3	118.6	118.0	118.6
312	119.3	119.0	118.8	118.5	118.3	118.8	119.5	119.0
336	118.5	118.3	118.3	118.6	119.0	118.9	118.9	118.8

DEPTH	2614.2		TILT	54		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	126.1	126.4	126.7	126.1	125.5	125.9	126.5	126.8
24	127.3	126.6	126.0	126.2	126.5	126.3	126.3	126.7
48	127.3	127.7	128.3	127.3	126.5	126.4	126.5	126.8
72	127.3	126.6	126.0	125.6	125.3	126.7	128.3	127.7
96	127.3	126.4	125.8	125.8	126.0	125.7	125.5	126.6
120	127.8	127.8	128.0	127.2	126.5	127.3	128.3	127.2
144	126.3	126.3	126.5	127.2	127.9	127.7	127.6	127.4
168	127.3	127.4	127.6	126.8	126.0	125.3	124.8	125.9
192	127.3	126.6	126.1	126.0	126.0	126.8	127.8	124.5
216	127.5	126.4	125.5	126.6	127.8	127.6	127.5	126.6
240	125.8	125.7	125.8	126.2	126.8	126.3	126.0	125.6
264	125.3	125.3	125.5	125.6	125.8	125.7	125.8	125.7
288	125.8	125.8	126.0	125.7	125.5	125.4	125.5	125.4
312	125.5	125.8	126.3	126.1	126.0	126.8	127.8	127.3
336	127.0	127.1	127.3	126.6	126.0	126.3	126.8	126.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2614.2		TILT	49		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	135.3	135.7	136.3	136.8	137.5	137.4	137.5	136.3
24	135.3	135.4	135.8	136.7	137.8	137.9	138.3	137.7
48	137.3	136.5	136.0	135.8	135.8	135.7	135.8	135.5
72	135.5	134.7	134.0	134.1	134.3	134.9	135.8	135.9
96	136.3	136.4	136.8	136.7	136.8	136.4	136.3	136.3
120	136.5	136.4	136.5	137.3	135.5	137.3	136.5	135.8
144	135.3	136.0	137.0	136.9	137.0	136.5	136.1	136.2
168	136.5	136.3	136.3	137.2	138.3	137.1	136.1	135.1
192	134.3	134.9	135.8	135.7	135.8	135.3	135.0	135.0
216	135.2	135.6	136.1	136.4	136.7	136.3	136.0	135.8
240	135.8	136.0	136.3	136.0	136.0	135.5	135.3	135.9
264	136.7	135.8	135.0	136.5	138.3	137.4	136.8	135.8
288	135.0	134.9	135.0	135.8	136.8	137.2	137.8	137.2
312	136.8	135.9	135.3	136.5	138.0	137.9	138.0	137.4
336	137.0	136.2	135.5	136.0	136.8	136.2	135.8	135.5

DEPTH	2614.2		TILT	44		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	147.7	148.2	148.9	148.1	147.5	147.0	146.7	146.4
24	146.2	147.1	148.2	147.9	147.7	147.6	147.7	147.6
48	147.7	148.3	149.2	149.4	149.8	149.4	149.2	148.3
72	147.7	147.7	148.0	148.5	149.2	148.2	147.4	147.3
96	147.4	148.6	150.0	148.6	147.5	147.5	147.7	147.9
120	148.3	148.2	148.3	147.5	147.0	147.8	148.9	148.3
144	148.0	147.3	146.7	147.6	148.7	148.5	148.5	150.1
168	152.0	147.9	150.2	149.0	148.0	148.7	145.0	144.2
192	145.0	147.6	148.2	147.0	146.0	147.3	146.2	146.1
216	145.7	148.4	149.0	148.3	147.7	147.4	147.2	147.3
240	147.7	147.8	148.2	148.0	148.0	146.9	146.0	146.3
264	146.7	146.9	147.4	146.8	146.5	148.2	150.2	149.1
288	148.2	148.8	149.5	149.4	149.5	148.3	147.2	147.9
312	148.7	149.0	149.5	149.4	149.5	148.8	148.3	148.0
336	148.0	147.7	147.7	148.0	148.6	148.8	149.2	148.4

DEPTH	2614.2		TILT	39		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	164.3	164.4	164.6	165.0	165.5	164.8	164.2	164.2
24	164.5	164.6	165.0	164.7	164.7	164.1	163.7	163.9
48	164.3	164.4	164.6	165.4	166.5	165.0	163.7	164.2
72	164.9	165.0	165.2	164.7	164.3	164.4	164.6	164.5
96	164.6	164.7	165.0	164.1	163.5	163.7	164.2	164.6
120	165.2	164.4	163.7	163.3	163.1	162.8	162.7	164.6
144	166.7	165.4	164.3	164.5	164.9	164.3	164.0	163.5
168	163.2	163.0	163.1	164.7	166.5	164.2	162.2	162.1
192	162.2	163.1	164.2	164.0	164.0	164.1	164.5	164.7
216	165.2	165.4	165.8	165.4	165.2	164.5	164.0	164.7
240	161.2	165.3	165.2	164.5	164.0	164.3	164.9	164.5
264	164.3	164.2	164.3	164.5	164.9	164.5	164.3	164.5
288	164.9	165.0	165.2	164.1	163.2	163.2	163.4	163.7
312	164.3	163.7	163.4	164.5	165.8	165.7	165.8	165.0
336	164.3	164.0	164.0	164.2	164.6	164.7	164.9	164.5



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2614.2		TILT	34		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	184.9	184.2	183.7	183.1	182.8	182.7	182.8	183.3
24	184.0	183.9	184.0	183.9	184.0	183.7	183.7	182.7
48	181.9	179.5	178.0	185.6	184.7	184.4	184.5	183.7
72	183.2	182.4	182.0	181.7	181.7	180.7	180.0	179.9
96	180.2	180.3	180.7	180.3	180.2	182.2	184.5	183.2
120	182.2	182.7	183.5	184.0	184.9	185.4	186.2	187.0
144	188.3	185.1	186.2	188.2	184.9	185.5	184.0	186.4
168	181.9	181.0	180.4	185.2	185.6	184.2	181.7	182.7
192	179.8	184.8	186.0	184.7	183.7	182.8	182.2	182.4
216	183.0	183.7	184.7	184.7	185.0	186.0	183.1	180.8
240	178.9	182.8	181.3	183.2	185.6	185.5	185.9	185.6
264	185.7	186.5	182.8	182.2	181.9	186.9	187.1	186.5
288	186.2	185.2	184.5	185.1	186.2	183.9	182.0	185.3
312	179.2	180.5	182.2	186.2	184.7	183.6	182.7	185.6
336	184.0	180.7	180.3	180.2	181.3	185.0	182.7	180.2

DEPTH	2614.2		TILT	29		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	193.2	187.3	187.5	186.5	186.0	188.0	190.5	191.2
24	192.2	191.8	191.7	189.5	190.7	187.0	186.7	184.9
48	183.5	182.2	181.2	180.0	181.3	180.8	181.3	178.8
72	178.2	177.3	176.7	176.4	177.5	177.8	178.0	177.7
96	177.7	177.7	178.2	177.6	178.0	178.9	180.2	183.4
120	187.0	189.4	196.5	193.9	196.9	203.5	205.1	207.5
144	211.3	212.7	214.5	207.2	211.6	207.9	210.7	209.1
168	206.7	206.1	205.9	206.3	212.2	211.4	211.0	212.0
192	204.4	212.8	212.5	211.1	210.1	206.4	206.4	209.2
216	206.0	205.4	205.0	204.5	204.3	200.6	201.8	199.0
240	194.7	195.9	196.8	198.1	198.5	198.4	198.0	198.5
264	198.8	196.9	196.2	195.1	194.9	191.9	194.0	192.8
288	194.5	192.3	194.0	192.4	191.3	191.2	191.6	190.4
312	192.0	191.5	193.2	193.5	195.7	197.1	199.0	200.3
336	202.6	197.0	192.7	191.3	190.2	190.9	192.0	189.5

DEPTH	2614.2		TILT	24		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	186.7	185.7	185.2	184.0	184.0	185.6	187.7	188.1
24	189.0	187.8	187.0	186.9	187.2	184.5	182.2	183.4
48	182.5	180.3	178.0	176.9	178.6	177.2	176.4	175.5
72	175.7	174.5	174.4	173.8	173.7	174.3	175.5	174.2
96	175.2	172.7	168.2	171.8	171.2	173.6	176.5	179.4
120	182.7	186.6	191.0	190.5	195.2	198.1	201.5	205.2
144	209.5	209.6	212.1	213.2	216.7	223.0	230.2	227.0
168	224.5	223.1	222.2	222.3	223.0	223.9	223.9	220.0
192	221.0	216.0	216.5	215.7	215.5	217.9	218.1	211.3
216	206.8	204.0	203.0	201.5	201.7	199.1	200.1	194.0
240	197.2	196.0	195.3	192.6	190.5	188.6	187.7	187.9
264	188.6	189.1	188.9	189.0	189.5	187.2	185.1	185.9
288	187.5	187.0	187.0	186.7	186.8	186.5	186.7	186.6
312	187.0	187.3	188.0	189.1	190.7	193.1	196.0	196.5
336	197.4	192.1	187.5	186.4	185.7	188.0	188.7	187.6



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2614.2		TILT	19		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	182.2	180.6	181.4	181.6	182.2	183.0	185.0	183.5
24	186.5	185.6	185.2	183.8	182.7	180.7	179.2	179.1
48	178.6	176.6	175.1	173.8	173.0	172.8	173.0	172.6
72	172.9	171.2	170.1	169.8	169.8	170.5	171.7	171.5
96	171.7	168.3	165.0	167.5	170.5	171.8	173.5	176.7
120	180.5	184.1	188.2	190.2	192.7	196.2	200.2	204.0
144	208.5	209.0	210.0	213.3	211.6	218.3	227.2	226.1
168	225.5	223.1	221.2	220.8	221.0	219.1	217.7	215.3
192	213.5	213.1	213.2	212.6	212.5	207.4	208.9	204.6
216	198.6	196.2	194.5	194.2	194.5	190.7	188.1	187.0
240	186.2	185.3	186.2	183.5	183.1	182.0	181.3	182.6
264	184.3	182.7	181.5	181.1	180.2	180.0	180.2	181.0
288	182.2	181.5	181.2	180.8	182.2	182.1	182.0	181.8
312	182.0	182.4	183.2	184.6	186.5	188.5	191.0	191.1
336	191.7	187.8	184.5	183.3	182.5	184.4	186.7	184.2

DEPTH	2614.2		TILT	14		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	178.0	177.8	178.0	176.8	177.8	179.9	182.5	182.7
24	183.0	182.9	182.0	179.3	177.2	176.3	175.7	173.0
48	174.9	170.0	172.3	170.8	168.5	168.3	168.5	168.4
72	168.7	166.2	164.2	164.9	166.0	165.9	166.2	165.1
96	164.5	162.6	161.2	164.7	168.7	169.9	171.5	174.3
120	177.7	181.4	186.1	186.6	186.7	193.8	200.4	201.5
144	205.7	207.3	209.5	209.7	210.4	217.6	226.0	224.5
168	223.7	221.7	221.3	220.5	220.2	216.9	215.5	213.4
192	212.0	212.7	214.0	210.9	210.6	204.3	200.7	200.3
216	194.7	192.7	189.7	188.8	188.4	186.9	188.3	186.0
240	184.4	182.6	184.5	180.7	177.5	177.0	177.0	177.3
264	178.0	177.5	177.5	176.6	176.2	176.0	176.2	176.3
288	176.7	176.8	177.2	176.8	176.7	176.6	177.0	176.5
312	178.5	178.3	180.2	180.6	184.1	184.6	185.8	182.7
336	186.7	183.0	180.3	179.4	178.9	181.6	184.7	181.1

DEPTH	2614.2		TILT	9		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	175.0	173.5	174.5	173.6	173.2	176.0	178.6	178.5
24	180.2	178.6	177.5	174.7	172.5	171.3	170.5	171.1
48	172.2	171.3	170.7	170.0	166.5	165.3	164.5	164.6
72	165.2	165.0	165.2	162.5	161.9	161.8	162.2	162.2
96	162.7	159.7	158.3	162.2	164.7	165.8	167.2	171.6
120	176.7	178.8	181.5	183.6	186.2	191.0	196.5	199.4
144	203.0	205.5	208.7	207.9	207.7	215.4	224.2	223.3
168	223.0	220.8	219.2	217.9	217.2	215.8	215.0	211.8
192	209.2	208.7	208.7	205.9	207.9	199.8	196.5	195.4
216	194.9	191.3	186.2	185.9	186.0	184.0	185.3	185.3
240	188.7	183.7	185.1	176.7	174.5	174.9	175.7	176.2
264	177.2	174.3	172.0	172.4	173.2	172.9	173.0	173.6
288	174.7	174.3	174.2	173.8	173.7	173.4	173.5	174.3
312	174.6	173.6	174.7	176.0	177.7	179.7	182.2	181.6
336	181.5	178.3	175.7	175.0	174.7	176.5	178.7	175.6



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2614.2		TILT	4		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.5	172.0	172.0	171.3	171.0	173.2	176.0	176.2
24	177.0	176.0	175.5	174.7	174.5	170.6	167.2	169.0
48	167.7	167.1	167.0	164.7	168.0	162.1	161.4	161.5
72	162.0	159.5	157.5	157.8	158.5	158.9	159.7	158.5
96	157.7	156.4	155.5	159.0	162.0	163.4	166.0	168.2
120	171.7	174.9	178.7	180.8	183.5	188.2	193.7	196.9
144	200.7	202.6	205.0	205.7	205.3	212.6	221.0	219.7
168	219.0	217.3	216.2	215.1	214.5	213.3	212.5	209.0
192	206.2	206.4	208.4	203.4	202.6	199.8	194.0	191.4
216	189.5	186.6	184.2	184.1	184.5	184.3	184.2	184.0
240	184.9	182.6	183.5	175.9	175.0	175.1	175.7	175.7
264	175.9	173.0	170.2	169.9	170.0	170.7	172.0	171.8
288	172.0	171.6	171.7	170.9	170.5	170.9	171.7	171.3
312	171.2	172.0	173.2	174.2	175.7	178.3	181.5	177.9
336	180.1	174.1	173.7	172.9	172.5	174.5	177.0	174.5

DEPTH	2614.2		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.5	171.0	171.0	170.4	170.2	172.2	174.7	175.2
24	176.2	175.4	175.0	174.7	175.0	170.4	166.5	166.3
48	166.5	165.9	165.7	163.4	161.5	160.8	160.5	160.1
72	160.2	158.0	156.2	156.9	158.0	158.0	158.5	157.3
96	156.5	154.9	153.7	157.2	161.2	162.5	164.3	167.8
120	171.9	174.4	177.5	180.1	183.2	187.5	192.5	195.0
144	198.2	200.5	203.5	203.9	205.0	212.3	220.7	219.2
168	218.2	216.8	216.0	215.0	214.7	211.6	209.2	206.9
192	205.2	205.3	206.0	202.7	200.0	196.8	194.2	191.2
216	188.7	185.9	183.7	183.9	184.5	182.2	183.2	184.1
240	185.5	183.2	181.9	177.6	176.5	176.2	176.5	172.5
264	174.6	169.1	169.5	169.4	169.7	170.4	171.5	170.9
288	170.7	171.0	171.7	170.9	170.5	170.9	171.7	170.9
312	170.5	171.2	172.5	173.2	174.5	177.4	181.0	177.4
336	179.5	173.7	173.5	172.5	172.0	173.4	175.2	173.1

DEPTH	2614.2		TILT	-25		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	179.0	177.8	180.0	180.8	186.9	188.9	191.4	189.2
24	191.3	189.2	191.4	189.7	185.7	184.5	183.8	182.1
48	180.9	179.2	177.9	175.6	173.8	172.6	171.9	171.2
72	171.0	170.4	170.2	170.4	171.0	171.6	173.2	171.5
96	170.8	168.9	167.5	170.6	174.2	176.1	178.5	182.9
120	185.9	188.7	191.9	192.5	196.5	200.7	198.5	204.3
144	207.3	208.5	210.0	210.1	210.6	210.4	209.8	205.1
168	208.9	209.3	210.1	206.2	206.2	205.6	214.9	214.7
192	215.0	214.3	214.1	210.8	210.8	207.8	206.9	206.0
216	204.3	202.8	200.8	197.6	194.6	191.8	188.4	186.2
240	184.4	182.2	183.6	183.0	178.5	178.3	182.0	180.5
264	179.9	178.6	181.3	177.7	181.9	178.3	178.8	181.1
288	183.0	180.2	180.8	181.0	179.7	181.9	178.9	179.1
312	179.7	180.8	182.4	182.8	183.7	188.4	189.8	189.6
336	189.8	186.7	187.7	186.1	184.9	181.7	178.9	179.9



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2614.2		TILT	-30		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.2	168.5	168.3	171.5	179.9	179.5	179.4	177.6
24	179.8	178.7	181.7	179.9	178.4	175.5	177.7	172.1
48	177.2	177.3	177.4	176.2	179.4	180.6	182.2	181.9
72	181.9	182.5	183.4	182.6	182.2	182.5	183.1	182.5
96	182.2	176.3	174.5	178.2	182.7	180.9	179.4	177.7
120	176.4	177.5	178.9	180.7	182.9	183.4	184.3	187.0
144	194.4	194.1	195.0	195.3	192.4	193.6	195.2	196.2
168	197.7	196.7	196.2	195.3	194.9	199.9	200.3	200.8
192	201.8	194.5	194.7	193.0	191.7	193.6	195.9	191.5
216	187.7	191.2	188.7	186.7	185.1	183.0	180.1	180.4
240	174.7	172.4	170.4	169.4	168.7	169.0	169.0	166.8
264	167.5	167.5	168.1	165.4	171.0	170.3	174.7	175.2
288	176.2	174.2	172.7	169.8	169.1	170.5	172.4	173.8
312	175.0	176.0	177.9	179.6	178.2	177.4	182.1	182.3
336	182.8	179.9	179.9	179.4	174.3	174.0	173.9	169.1

DEPTH	2614.2		TILT	-35		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	161.3	157.0	156.7	163.7	171.7	172.4	173.4	171.2
24	169.4	170.0	170.9	170.8	170.9	168.8	166.9	164.4
48	166.4	167.2	166.2	167.6	169.4	172.2	175.4	176.3
72	177.4	178.3	179.4	180.1	181.2	179.9	178.9	178.8
96	178.9	177.1	175.7	176.1	176.9	175.0	173.4	170.7
120	168.3	170.7	173.4	173.8	174.4	174.5	174.9	177.7
144	185.6	183.5	184.2	185.0	186.2	185.5	185.2	185.8
168	186.8	186.5	186.7	187.2	188.2	191.7	187.9	187.9
192	188.2	186.5	185.2	184.8	184.7	184.3	186.8	183.9
216	183.9	181.7	182.0	176.6	173.7	171.6	169.9	167.9
240	166.2	164.3	162.7	160.6	158.9	158.2	157.7	156.7
264	155.9	160.6	165.9	166.9	168.2	168.2	168.4	168.2
288	168.2	167.1	166.4	165.0	163.9	161.8	164.3	164.4
312	164.1	167.0	168.7	169.0	169.7	170.0	170.7	170.1
336	169.9	168.5	167.4	166.4	165.7	165.5	165.7	161.4

DEPTH	2614.2		TILT	-40		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.4	150.9	150.7	156.6	163.2	164.9	166.9	165.9
24	165.2	164.2	163.4	166.0	165.4	164.6	164.1	160.4
48	158.9	157.8	156.9	160.9	162.2	166.3	167.4	168.4
72	169.7	171.3	173.2	173.4	173.9	175.2	178.0	176.9
96	174.9	172.3	170.1	169.2	168.7	165.6	168.6	163.9
120	165.2	165.4	165.9	166.2	166.7	168.5	170.7	172.6
144	174.9	175.9	178.4	178.9	180.9	180.4	180.2	180.3
168	180.7	181.2	181.9	183.6	185.7	184.4	183.4	183.8
192	184.4	181.1	178.2	178.8	179.7	178.7	177.9	177.0
216	176.4	174.3	172.4	169.6	167.2	165.4	164.9	162.4
240	161.2	158.9	156.9	155.8	154.9	153.4	152.2	151.3
264	150.7	155.8	161.4	161.3	163.4	164.4	162.7	162.6
288	162.7	162.5	161.4	156.8	158.3	153.8	155.2	156.2
312	157.4	160.0	162.9	163.3	163.9	163.8	163.9	161.9
336	160.2	161.2	162.4	161.4	160.7	159.9	159.4	155.2



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2614.2		TILT	-45		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	146.4	146.5	146.7	152.7	159.4	162.0	163.6	163.3
24	161.9	160.4	159.2	159.2	159.4	159.1	158.9	156.3
48	153.9	153.2	152.7	152.0	151.4	155.6	160.2	161.1
72	162.2	164.4	166.9	169.2	171.7	171.9	172.4	172.9
96	173.7	170.8	168.2	167.8	164.6	163.2	159.2	158.9
120	158.9	159.9	161.2	161.6	162.2	164.9	167.9	169.3
144	170.9	172.7	174.7	174.3	174.2	175.7	177.4	175.7
168	174.2	176.8	184.0	180.2	180.9	180.3	179.9	179.7
192	179.7	176.1	172.9	172.3	171.9	171.3	170.9	170.9
216	171.2	168.9	166.9	163.8	162.9	161.4	160.1	157.3
240	155.2	153.2	151.4	149.6	147.9	147.2	146.7	146.0
264	147.5	150.6	156.4	156.8	157.4	157.3	157.4	157.5
288	157.7	156.4	155.4	152.1	149.2	149.6	150.2	150.3
312	150.7	151.2	158.3	156.0	160.4	159.3	158.4	156.4
336	154.7	156.9	159.4	160.2	161.2	156.1	151.6	148.9

DEPTH	2614.2		TILT	-50		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	143.4	143.7	144.2	143.5	154.9	149.4	156.7	156.7
24	156.9	156.8	156.8	156.6	156.7	155.7	154.9	152.6
48	150.4	150.4	150.4	148.1	145.9	146.1	146.4	151.4
72	156.9	159.7	162.7	163.5	164.4	162.5	167.2	162.9
96	165.8	159.5	162.2	161.1	155.4	154.6	153.9	155.0
120	156.2	156.8	157.7	158.2	158.9	162.3	165.9	166.7
144	167.7	166.7	171.9	172.3	170.2	172.8	175.7	175.1
168	174.7	173.2	174.8	180.3	178.4	177.7	177.2	176.2
192	175.4	172.7	170.2	169.2	168.4	168.7	169.2	167.3
216	165.7	164.2	162.9	160.3	157.9	157.1	156.4	153.9
240	151.7	152.0	152.4	149.4	146.7	145.0	143.4	146.2
264	150.3	154.2	153.4	153.1	152.9	153.6	154.4	154.5
288	154.7	152.8	151.2	147.9	144.9	146.0	147.2	147.7
312	148.4	148.6	148.9	152.6	156.7	156.7	156.9	155.3
336	153.9	156.3	158.9	158.8	158.9	153.2	147.9	145.6

DEPTH	2614.2		TILT	-55		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	141.7	141.9	142.2	141.6	141.2	147.3	154.2	155.2
24	156.4	156.6	156.9	155.0	153.2	153.9	154.7	152.3
48	150.2	150.2	150.4	148.2	146.2	145.9	145.7	143.6
72	149.8	147.7	155.2	154.7	154.4	155.7	154.6	154.3
96	154.0	154.0	152.5	152.2	148.9	150.1	151.4	152.7
120	154.2	157.7	161.4	159.3	157.4	159.5	164.4	165.4
144	166.4	166.4	166.4	169.5	172.9	172.5	172.2	173.7
168	175.4	174.5	173.7	174.1	174.7	175.2	175.9	175.0
192	174.2	170.3	166.8	168.0	169.4	168.5	167.7	165.4
216	163.4	164.6	163.6	164.5	165.4	163.5	161.9	160.2
240	158.7	153.9	149.4	146.1	142.9	142.4	141.9	147.2
264	152.9	152.0	151.2	151.2	151.4	151.2	151.2	151.0
288	150.9	150.1	149.4	146.3	143.4	144.5	145.7	146.0
312	146.4	146.5	146.7	150.6	154.9	154.0	153.2	152.5
336	151.9	153.7	155.7	156.5	151.9	148.9	141.4	141.5



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2614.2		TILT	-60		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	141.2	140.9	140.7	140.6	140.7	147.2	154.4	154.4
24	154.4	154.8	155.2	154.9	154.7	153.8	153.1	151.7
48	150.4	150.4	150.4	148.1	145.9	145.9	145.9	145.4
72	144.9	145.0	145.2	149.9	154.9	154.9	154.9	155.3
96	155.8	152.7	149.7	148.4	147.2	147.9	150.2	150.6
120	152.7	156.2	159.9	160.8	157.4	161.4	161.2	163.2
144	165.4	166.2	167.2	168.1	169.2	171.5	173.9	174.6
168	175.4	176.6	174.0	177.4	177.2	175.4	173.7	173.5
192	173.4	171.3	169.4	170.8	172.2	173.7	169.2	174.9
216	174.4	174.4	174.4	172.6	170.9	171.6	172.4	169.6
240	168.2	163.0	156.6	155.3	153.5	154.1	154.6	153.7
264	153.4	152.4	151.2	151.1	151.2	151.3	151.4	150.6
288	149.9	149.0	148.3	146.1	144.2	144.9	145.7	145.6
312	145.7	145.8	145.9	149.4	153.2	152.8	152.4	153.0
336	153.7	155.2	156.9	153.3	149.2	147.9	146.7	144.6

DEPTH	2619.1		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.0	170.1	170.7	170.3	170.2	171.6	173.5	174.7
24	176.5	175.5	175.0	173.0	174.6	168.5	166.0	166.5
48	167.5	166.1	165.2	163.4	162.0	160.5	159.5	159.3
72	159.5	157.4	155.7	156.3	157.2	157.5	158.2	157.0
96	156.2	154.6	153.5	157.3	161.7	163.0	164.7	167.9
120	171.7	174.2	177.2	179.5	182.2	186.8	192.2	194.8
144	198.0	200.4	203.5	203.7	204.5	212.0	220.7	219.3
168	218.5	216.2	214.5	214.2	214.5	212.0	210.2	207.2
192	204.7	205.6	207.0	203.3	200.2	197.0	194.5	191.4
216	189.0	185.8	183.2	183.9	185.0	183.5	182.5	183.9
240	185.7	184.0	182.7	179.4	176.7	176.4	176.5	172.5
264	169.2	169.1	169.5	169.3	169.5	170.2	171.5	170.8
288	170.5	170.8	171.5	170.6	170.2	170.6	171.5	170.8
312	170.5	171.0	172.0	173.1	174.7	177.3	180.5	177.2
336	178.9	173.2	172.5	171.7	171.5	173.2	175.5	172.5

DEPTH	2623.9		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.0	170.1	169.7	169.9	170.5	172.0	174.0	175.0
24	176.5	175.0	174.0	171.6	174.3	167.9	166.5	166.8
48	167.5	167.1	167.2	164.1	161.5	160.0	159.0	159.0
72	159.5	157.4	155.7	156.4	157.5	157.5	158.0	157.0
96	156.5	154.9	153.7	157.3	161.5	163.0	165.0	168.7
120	173.0	174.8	177.2	179.3	182.0	186.8	192.5	195.0
144	198.2	200.3	203.0	204.4	206.5	213.1	220.7	218.7
168	217.2	215.4	214.2	214.1	214.5	211.3	208.7	206.9
192	205.7	205.2	205.2	202.3	200.0	196.8	194.2	191.3
216	189.0	185.7	183.0	183.8	185.2	183.2	181.7	183.5
240	185.7	184.2	183.2	179.7	176.7	175.7	175.2	172.1
264	169.5	169.4	169.7	169.4	169.5	170.1	171.2	170.6
288	170.5	170.8	171.5	170.4	169.7	170.3	171.2	170.4
312	170.0	170.5	171.5	172.5	174.0	176.6	179.7	176.7
336	178.3	173.0	172.2	171.6	171.5	173.1	175.2	172.8



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2628.8		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.0	169.4	170.2	169.9	170.0	171.7	174.0	173.6
24	175.9	174.8	175.0	171.6	168.7	167.8	167.2	165.6
48	166.8	166.5	166.6	163.9	161.6	160.0	158.9	159.3
72	159.7	157.4	155.5	156.4	157.7	157.5	157.7	157.0
96	156.3	156.1	153.6	157.1	161.3	162.8	164.9	169.8
120	173.5	176.0	179.0	179.6	182.3	186.9	192.2	194.8
144	198.0	201.6	203.0	208.2	206.2	216.6	219.7	216.8
168	214.5	214.2	214.5	212.7	211.5	209.3	207.7	205.5
192	204.0	205.1	205.8	202.2	199.3	195.8	193.0	190.8
216	189.1	185.7	183.0	183.7	185.0	183.6	184.2	184.7
240	185.7	184.2	183.0	179.4	175.0	173.4	175.2	170.2
264	168.7	168.6	169.0	169.7	171.0	171.4	172.2	172.0
288	172.2	170.6	169.5	169.9	170.7	170.1	170.0	170.0
312	170.5	171.9	171.4	172.5	174.2	177.5	178.7	174.9
336	178.0	171.5	171.7	172.0	172.7	172.9	173.5	171.0

DEPTH	2634.1		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.5	169.4	169.7	168.6	168.0	170.3	173.2	174.0
24	175.2	174.5	174.2	171.5	169.2	169.3	169.7	167.6
48	166.0	165.8	166.0	163.6	161.7	160.0	158.7	159.0
72	159.7	157.2	155.2	156.0	157.2	157.5	158.2	156.9
96	156.0	154.5	153.5	156.9	161.0	162.6	164.7	168.4
120	172.7	174.8	177.5	179.8	182.7	187.0	192.0	194.5
144	197.7	200.3	203.5	205.5	208.2	213.9	220.5	218.3
168	216.8	215.5	214.7	213.4	212.7	210.0	208.0	205.8
192	204.2	205.1	206.5	202.1	198.5	194.8	191.7	190.2
216	189.2	185.8	183.0	183.6	184.7	184.0	183.7	184.6
240	186.0	184.1	182.7	179.2	176.2	175.9	176.0	172.0
264	168.7	169.0	169.7	169.6	170.0	170.5	171.5	170.5
288	170.0	169.4	170.7	169.4	170.0	170.0	170.5	170.0
312	170.0	170.4	171.2	172.6	174.5	176.5	179.0	176.1
336	177.7	172.5	171.7	171.3	171.2	172.7	174.7	171.8

DEPTH	2638.9		TILT	0		VOS	5950.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.0	169.5	169.5	168.0	167.0	169.7	173.0	174.4
24	176.2	175.2	174.7	171.6	169.0	168.9	169.2	167.5
48	166.2	165.3	164.7	163.1	162.0	160.0	158.5	158.5
72	159.0	156.8	155.0	155.8	157.0	157.4	158.2	157.0
96	156.2	154.6	153.5	156.7	160.5	162.4	164.7	167.0
120	171.3	172.9	176.7	179.3	182.5	185.9	190.0	193.3
144	197.2	199.5	202.5	204.8	207.7	213.4	220.0	218.7
168	218.0	215.5	213.7	212.9	212.7	210.0	208.0	206.3
192	205.2	205.3	206.0	202.9	200.5	196.5	193.2	190.7
216	188.7	185.4	182.7	183.6	185.0	182.1	183.4	184.5
240	186.2	185.6	185.6	179.3	177.5	176.5	176.0	172.0
264	168.7	169.0	169.7	169.6	170.0	170.4	171.2	170.5
288	170.2	170.7	171.7	170.4	169.5	169.8	170.5	170.1
312	170.2	170.5	171.2	172.7	174.7	177.0	179.7	176.4
336	177.4	172.6	172.0	171.3	171.0	172.8	175.2	172.3



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2648.9		TILT	0		VOS	5950.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.5	168.8	167.6	168.6	170.0	170.7	171.8	173.4
24	175.5	174.2	173.4	172.6	169.3	170.0	168.1	167.0
48	166.3	165.0	164.2	162.5	161.3	160.3	159.8	158.9
72	158.5	158.6	154.4	157.4	156.1	156.8	157.9	157.1
96	156.6	154.7	153.2	155.8	159.0	161.1	163.7	166.3
120	169.5	171.8	174.7	176.5	178.9	183.1	188.0	191.9
144	196.4	199.0	202.2	201.9	202.2	207.7	214.2	216.1
168	218.7	215.6	213.2	213.1	213.7	211.2	209.3	207.1
192	205.6	205.4	205.8	203.1	200.9	197.7	195.1	192.2
216	189.9	186.4	183.6	184.0	184.9	182.9	181.4	182.9
240	184.9	184.9	185.4	181.6	178.4	177.5	177.0	171.4
264	166.6	167.3	168.4	169.0	170.0	170.4	171.3	170.4
288	170.0	170.4	171.3	170.0	169.2	169.5	170.2	169.7
312	169.7	169.9	170.5	171.7	173.4	175.5	178.1	178.0
336	174.4	174.8	171.8	171.2	171.0	172.5	174.4	172.2

DEPTH	2659.2		TILT	0		VOS	5950.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.5	169.0	167.9	168.6	169.7	170.3	171.3	173.2
24	175.7	174.3	173.4	170.6	168.4	167.8	167.7	165.9
48	164.5	163.3	162.6	161.4	160.6	159.1	158.2	157.7
72	157.7	158.1	154.4	157.6	156.6	156.9	157.7	156.4
96	155.6	153.8	152.4	155.4	159.0	160.7	162.9	165.5
120	168.7	171.5	175.0	176.9	179.4	183.4	188.0	191.5
144	195.6	198.6	202.2	202.0	205.5	210.2	215.7	218.1
168	217.4	214.8	212.9	212.2	212.1	210.4	209.3	206.6
192	204.5	203.7	203.5	200.8	198.8	196.0	193.8	191.8
216	190.4	187.7	183.0	184.8	184.6	181.9	179.8	181.9
240	184.6	183.7	183.3	176.7	179.2	169.5	168.4	167.5
264	167.1	167.6	168.7	168.6	168.9	169.9	171.3	170.1
288	169.5	170.1	171.3	169.9	168.9	169.6	170.8	170.3
312	170.2	169.9	170.0	171.2	172.9	175.6	178.9	178.4
336	174.1	174.6	171.5	170.8	170.5	172.3	174.7	172.3

DEPTH	2668.5		TILT	0		VOS	5950.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.0	168.7	167.9	168.0	168.7	170.4	172.6	173.5
24	175.0	174.1	173.6	170.6	168.1	167.3	166.8	165.3
48	164.2	162.8	161.9	160.6	159.8	159.3	159.2	157.7
72	156.6	157.1	154.7	156.4	155.3	156.0	157.1	156.5
96	156.4	154.0	152.2	155.3	159.0	160.2	161.9	164.5
120	167.6	170.5	173.9	175.7	178.1	182.4	187.5	191.5
144	196.2	198.6	201.7	201.6	202.2	208.2	215.3	215.8
168	216.8	214.3	212.4	211.8	211.9	210.1	209.0	207.5
192	206.6	204.9	203.8	202.4	201.7	198.2	195.4	191.9
216	189.1	186.4	184.4	182.7	181.5	180.6	180.2	179.9
240	180.2	178.6	177.6	174.5	172.1	170.4	169.2	168.7
264	168.7	168.2	168.1	169.0	170.2	170.5	171.3	170.3
288	169.7	170.3	171.3	169.9	168.9	169.6	170.8	169.7
312	169.2	169.9	171.0	171.7	172.9	174.9	177.6	177.7
336	173.8	174.6	171.5	170.8	170.5	172.1	174.2	171.8



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2678.7		TILT	0		VOS	5950.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.7	168.6	167.9	167.1	166.8	168.8	171.2	172.8
24	175.0	173.7	172.9	170.6	168.9	167.9	167.4	165.8
48	164.7	163.3	162.4	160.7	159.5	158.2	157.4	156.3
72	155.6	155.1	155.1	155.2	155.8	156.4	157.4	156.0
96	155.1	153.5	152.4	155.3	158.7	160.4	162.6	165.5
120	168.9	172.0	175.7	177.9	180.7	183.7	190.9	191.2
144	195.9	198.5	201.7	201.1	201.1	207.9	215.8	215.9
168	216.6	214.6	213.2	212.1	211.6	210.0	209.0	206.5
192	204.5	204.5	205.1	201.6	198.8	195.6	193.0	190.9
216	189.4	186.0	183.3	179.6	176.5	177.6	179.1	178.3
240	177.9	176.0	174.7	172.9	171.5	170.5	170.0	168.3
264	167.1	167.5	168.4	168.4	168.9	169.7	171.0	170.1
288	169.7	168.8	168.4	168.6	169.2	169.7	170.8	170.3
312	170.2	169.7	169.7	171.2	173.1	175.7	178.9	178.1
336	173.4	174.5	171.8	170.8	170.2	171.8	173.9	171.6

DEPTH	2689.0		TILT	0		VOS	5950.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	164.2	162.2	166.3	167.0	168.1	169.9	172.1	173.1
24	174.7	173.3	172.3	170.4	168.9	167.8	167.1	165.7
48	164.7	163.1	161.9	159.7	157.9	156.8	156.1	155.6
72	155.6	155.0	154.8	155.0	155.6	156.0	156.9	156.0
96	155.6	153.8	152.4	155.2	158.5	160.2	162.4	164.9
120	167.9	171.2	175.2	177.4	180.2	183.5	187.5	191.2
144	195.6	198.1	201.1	200.9	201.1	208.0	216.0	216.7
168	217.9	214.8	212.4	211.7	211.6	209.9	208.7	206.2
192	204.3	203.3	203.0	201.1	199.8	196.0	192.8	191.4
216	190.7	186.3	182.5	179.0	176.0	175.3	175.0	174.6
240	174.7	173.0	171.8	171.3	163.3	163.1	170.5	168.2
264	166.3	163.7	169.3	162.2	169.3	163.0	163.3	167.1
288	169.9	165.3	166.5	167.6	165.5	169.7	165.8	164.3
312	163.3	169.0	169.3	170.2	171.5	174.1	177.3	176.2
336	173.4	172.8	170.5	170.1	170.2	171.8	168.4	166.0

DEPTH	2698.8		TILT	0		VOS	5951.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	147.0	145.8	145.1	155.4	167.7	169.0	170.8	172.4
24	174.5	173.4	172.9	170.7	169.0	167.9	167.4	165.4
48	164.0	162.8	162.0	159.4	157.2	156.3	155.9	155.7
72	155.9	155.2	155.0	155.4	156.1	156.3	156.9	155.9
96	155.3	153.3	151.7	154.8	158.5	160.2	162.4	165.3
120	168.7	170.9	173.7	175.8	178.4	183.0	179.8	191.3
144	194.9	197.7	201.2	201.5	202.5	200.5	199.1	212.3
168	216.7	209.7	211.9	211.5	211.6	209.9	208.8	206.5
192	204.8	203.2	202.2	200.6	199.6	196.3	193.6	191.9
216	190.7	186.4	182.8	179.8	177.3	173.9	165.5	167.5
240	164.6	158.9	154.0	152.4	145.9	146.7	146.4	141.7
264	143.6	143.9	144.6	142.7	150.3	148.3	154.3	153.6
288	156.1	154.6	153.5	149.9	146.8	149.5	152.7	155.8
312	159.5	159.7	160.3	163.0	156.6	168.3	171.1	171.7
336	172.9	164.2	170.8	165.6	161.1	160.5	153.1	147.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2708.8		TILT	0		VOS	5951.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	124.5	122.8	121.4	133.2	148.0	148.5	149.2	146.1
24	149.0	150.8	153.1	148.2	143.9	142.1	145.5	134.8
48	138.6	141.3	139.5	141.9	144.9	151.5	155.9	156.2
72	156.9	156.3	156.1	156.2	156.7	156.7	157.2	155.8
96	154.8	153.2	151.9	154.9	158.5	151.6	152.5	145.5
120	147.7	152.3	147.1	156.0	153.2	154.0	155.2	160.4
144	172.6	173.9	175.8	176.1	176.8	178.8	177.9	182.7
168	184.4	184.7	185.5	182.7	180.5	183.3	186.8	188.0
192	189.7	189.1	189.0	180.4	181.4	172.9	173.4	173.2
216	162.4	168.1	163.5	159.6	156.4	152.3	148.8	148.5
240	138.0	134.5	133.4	128.4	126.8	128.4	124.2	123.2
264	122.6	127.2	136.9	137.8	143.6	139.9	143.0	147.7
288	147.0	146.6	140.7	135.8	133.8	128.8	134.4	134.7
312	133.6	139.8	147.0	149.7	147.7	144.6	151.2	151.5
336	152.2	149.6	143.3	146.5	140.1	139.9	140.1	131.7

DEPTH	2719.0		TILT	0		VOS	5951.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	102.9	102.1	102.6	113.8	125.8	134.6	136.0	135.5
24	135.3	127.4	126.3	132.7	130.5	128.8	127.6	122.7
48	118.4	118.6	115.3	114.9	114.7	139.6	137.6	143.6
72	144.3	145.3	146.7	145.5	147.2	145.7	145.2	144.8
96	144.3	144.7	142.0	142.4	138.0	137.7	140.4	127.3
120	128.7	129.7	130.3	137.6	138.6	135.7	137.9	142.0
144	157.6	151.9	153.2	154.9	154.4	161.5	160.8	164.0
168	161.4	165.7	165.6	166.4	167.7	165.0	162.9	164.3
192	166.1	156.9	160.4	156.8	158.5	160.0	161.9	158.2
216	155.1	148.4	149.1	143.0	137.8	130.0	129.0	124.3
240	123.3	116.7	112.5	108.8	104.9	103.6	103.9	102.1
264	104.2	113.6	122.3	122.3	126.3	128.9	124.9	124.7
288	124.9	124.5	121.9	113.4	109.1	108.1	112.1	113.2
312	114.7	121.7	125.3	126.0	127.1	127.0	127.7	123.2
336	119.8	122.1	124.4	123.6	123.4	120.0	118.8	110.2

DEPTH	2728.9		TILT	0		VOS	5951.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	86.5	85.5	84.8	82.7	111.5	96.5	119.8	117.2
24	115.0	111.8	109.8	109.8	110.1	111.3	110.0	104.3
48	99.3	100.4	98.2	94.2	91.4	91.5	91.8	104.1
72	115.3	124.0	128.1	130.6	129.9	133.0	136.6	135.2
96	134.1	131.5	125.2	123.6	122.3	116.6	111.6	111.5
120	111.6	111.0	113.3	114.1	115.3	120.1	127.3	129.1
144	131.3	134.0	137.3	139.7	142.5	142.4	142.8	145.0
168	142.7	147.3	147.2	148.7	150.6	150.7	143.9	149.9
192	149.0	147.0	136.8	139.6	141.1	142.1	136.1	134.4
216	133.4	129.1	132.0	124.0	117.1	113.9	111.1	105.7
240	101.1	100.9	100.9	97.4	88.0	85.1	82.6	91.7
264	97.5	103.2	103.8	104.0	104.5	104.5	104.8	104.4
288	104.3	106.1	103.9	93.4	85.8	90.7	91.7	92.1
312	92.8	93.2	93.8	101.5	110.8	109.9	109.3	105.0
336	101.4	108.2	110.9	108.8	113.7	101.7	92.1	89.1



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2739.2		TILT	0		VOS	5951.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.2	68.4	66.8	68.0	69.5	80.8	91.6	94.4
24	97.5	96.9	96.6	92.1	89.7	92.0	89.6	87.7
48	83.8	83.1	81.5	78.8	76.6	76.5	76.6	75.7
72	75.0	75.1	75.5	93.8	109.8	102.6	89.9	103.5
96	92.5	90.1	88.0	85.8	72.1	82.1	85.7	88.5
120	94.9	96.1	97.7	101.5	99.1	103.6	112.9	116.4
144	113.4	115.1	121.7	121.4	120.3	123.6	127.3	123.9
168	121.8	125.6	132.8	133.4	134.4	135.0	129.6	133.9
192	132.5	124.4	121.4	117.2	118.7	118.8	119.2	113.6
216	108.7	107.4	106.4	101.3	96.9	96.0	95.4	90.6
240	94.7	88.8	83.9	84.9	77.0	79.3	82.0	85.5
264	88.5	87.0	84.2	86.6	83.6	83.9	84.5	85.1
288	82.3	82.2	77.3	75.5	72.5	73.7	75.3	76.5
312	77.8	77.3	77.0	84.1	92.8	93.1	88.3	87.4
336	86.7	91.0	96.0	92.2	85.1	80.3	76.3	73.0

DEPTH	2748.9		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.4	65.1	63.2	65.8	68.7	70.0	71.6	74.0
24	76.8	77.3	77.8	77.4	75.8	71.1	65.5	68.3
48	68.2	66.9	65.8	64.6	63.6	63.3	63.2	63.4
72	63.7	65.2	66.9	67.8	69.0	71.8	75.0	78.0
96	75.7	75.1	72.8	72.4	72.6	69.1	66.1	67.2
120	68.4	79.2	89.0	85.7	82.9	85.0	94.9	96.6
144	98.6	98.1	101.5	106.1	103.3	107.2	111.7	112.6
168	111.8	108.3	109.4	123.4	119.2	121.4	118.6	114.4
192	112.8	107.2	99.2	102.7	99.8	101.1	102.8	99.4
216	96.5	94.9	93.6	94.8	96.2	94.0	92.0	89.4
240	87.1	82.7	78.9	77.9	77.1	77.1	77.4	75.8
264	74.5	72.8	71.3	69.5	67.9	69.7	71.9	70.3
288	69.0	61.7	56.0	55.2	54.7	55.7	56.9	59.4
312	62.3	60.0	58.0	62.7	68.4	70.4	72.6	74.3
336	76.3	77.9	79.7	72.0	65.8	63.4	61.4	64.2

DEPTH	2759.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.1	61.4	62.9	64.9	67.1	68.1	69.2	68.7
24	68.4	69.9	71.5	70.0	62.6	64.0	60.1	59.7
48	59.5	59.7	60.1	60.3	60.7	61.0	61.4	62.6
72	64.0	65.2	66.6	66.9	67.4	69.0	70.9	70.2
96	69.6	68.7	67.9	68.9	66.4	67.9	66.1	66.3
120	66.6	65.6	64.8	67.0	69.5	69.0	68.7	70.8
144	73.2	78.2	84.2	85.0	86.0	91.2	94.8	96.8
168	96.0	96.0	96.2	97.6	99.4	99.9	100.7	98.9
192	97.5	89.2	88.4	89.5	90.9	91.0	86.0	87.6
216	89.4	90.0	90.9	90.6	85.8	88.3	86.3	85.2
240	84.4	81.3	78.7	74.7	71.3	71.0	70.9	69.2
264	67.7	65.8	64.2	63.4	62.7	62.3	64.5	53.9
288	46.4	48.0	49.8	49.9	50.1	50.9	51.9	52.0
312	52.2	46.8	42.5	41.6	40.9	48.4	59.3	59.6
336	62.9	60.0	64.0	60.9	58.2	57.5	56.9	58.4



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2769.3		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	57.7	60.0	62.7	63.4	64.2	63.4	62.7	63.2
24	64.0	63.6	63.5	62.0	60.8	59.4	58.2	57.1
48	56.1	57.1	58.2	58.5	59.0	60.1	61.4	62.4
72	63.7	64.7	65.8	65.9	66.1	65.6	65.3	65.2
96	65.3	66.0	66.9	69.1	66.4	68.9	66.6	66.5
120	66.6	64.6	62.9	63.5	64.3	63.8	63.6	65.6
144	68.0	70.5	73.4	73.2	73.2	77.7	83.0	84.0
168	85.2	85.2	85.5	86.6	88.1	86.7	85.5	85.8
192	78.8	83.7	81.6	80.6	80.0	82.3	85.0	83.5
216	82.3	82.7	83.4	83.8	84.4	84.4	84.7	84.4
240	84.4	81.9	79.7	76.6	74.0	70.1	66.9	63.6
264	60.8	60.9	61.1	61.8	62.7	54.5	48.3	47.4
288	46.7	46.5	46.4	47.3	48.3	49.5	50.9	50.6
312	50.4	47.1	35.3	35.4	35.6	35.6	35.7	38.2
336	41.2	46.2	52.7	53.6	54.6	55.3	56.1	56.8

DEPTH	2778.9		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.0	59.5	60.1	60.4	60.8	61.2	61.6	62.6
24	63.7	62.0	60.6	59.7	59.0	57.3	55.9	55.4
48	55.1	55.8	56.7	57.1	57.7	58.7	59.8	61.2
72	62.9	64.8	66.9	66.1	65.6	64.9	64.5	64.4
96	64.5	65.6	66.9	68.7	70.8	69.1	67.7	67.2
120	66.9	64.9	63.3	63.2	63.3	63.5	64.0	65.8
144	67.9	71.4	75.5	69.8	65.0	67.7	70.8	73.1
168	75.8	75.9	76.3	77.2	78.4	78.2	78.1	79.3
192	80.8	80.8	81.1	80.8	80.8	79.6	78.7	78.8
216	79.2	80.7	82.6	84.0	85.7	85.2	85.0	84.2
240	83.6	81.5	79.7	77.3	75.3	72.4	70.0	66.5
264	63.5	62.5	61.6	59.9	58.5	57.9	47.1	52.2
288	46.7	47.3	48.0	48.2	48.5	49.4	50.4	49.1
312	51.8	47.7	47.5	47.7	48.0	48.5	49.1	49.3
336	49.6	51.8	54.3	54.5	54.8	55.4	56.1	57.5

DEPTH	2789.2		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.5	57.1	55.9	56.7	57.7	56.8	56.1	55.0
24	54.0	53.7	53.5	54.0	54.6	53.7	53.0	52.8
48	52.7	53.0	53.5	55.2	57.2	58.9	60.8	62.2
72	63.7	62.7	61.9	62.5	63.2	63.8	64.5	64.0
96	63.7	64.0	64.5	68.5	73.1	71.9	70.9	70.9
120	71.1	69.0	67.1	66.5	66.1	66.0	66.1	67.6
144	69.3	72.3	75.8	71.7	68.2	70.4	72.9	74.7
168	76.8	77.2	77.9	79.2	80.8	80.3	80.0	80.3
192	80.8	81.6	82.6	82.9	83.4	82.1	81.0	81.6
216	82.3	83.5	85.0	85.7	86.8	86.5	86.5	84.9
240	83.6	81.8	80.2	78.7	77.4	73.7	70.5	69.4
264	68.4	67.3	66.4	63.3	60.7	59.7	58.8	57.4
288	56.3	58.3	60.7	60.6	56.3	57.1	60.8	56.5
312	55.0	57.6	55.6	56.0	56.6	56.7	56.9	58.1
336	54.7	56.2	53.4	55.0	56.9	57.2	57.7	58.0



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2799.2		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.8	57.5	56.4	56.8	57.5	56.7	56.1	55.1
24	54.3	53.8	53.5	53.6	53.8	53.2	52.7	52.8
48	53.0	53.3	53.8	55.4	57.2	58.5	60.1	61.8
72	63.7	62.9	62.2	62.0	61.9	63.2	64.8	64.2
96	63.7	63.9	64.3	65.8	67.7	68.5	69.5	69.4
120	69.5	68.4	67.4	66.7	66.1	65.7	65.6	66.6
144	67.9	69.0	70.3	73.1	76.3	79.1	82.4	83.9
168	85.8	86.7	87.9	87.3	87.1	87.0	87.1	85.5
192	84.2	84.5	85.0	86.9	89.2	87.6	86.3	86.0
216	86.0	86.4	87.1	89.1	91.5	91.8	92.3	90.2
240	88.4	85.1	82.4	79.4	76.8	74.9	73.2	71.1
264	69.2	66.9	64.8	62.1	59.8	58.5	57.5	56.4
288	55.6	55.7	55.9	56.2	56.7	56.3	56.1	55.5
312	55.1	54.5	54.0	54.6	55.4	55.7	56.1	55.4
336	54.8	54.1	53.5	55.2	57.2	56.2	55.4	56.9

DEPTH	2808.8		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.2	57.6	57.2	57.4	57.7	57.0	56.4	54.9
24	53.5	53.7	54.0	54.2	54.6	53.6	52.7	52.7
48	52.7	53.9	55.4	56.1	56.9	58.4	60.1	61.3
72	62.7	62.5	62.4	62.2	62.2	63.4	64.8	64.2
96	63.7	63.7	63.7	64.7	65.8	67.0	68.5	69.1
120	70.0	68.6	67.4	66.5	65.8	66.0	66.4	67.4
144	68.7	69.5	70.6	72.2	74.2	77.6	81.6	83.4
168	85.5	86.3	87.3	87.2	87.3	86.2	85.2	85.1
192	85.2	86.0	87.1	86.7	86.5	85.4	84.4	86.1
216	88.1	88.0	88.1	90.2	92.6	91.4	90.5	89.0
240	87.9	85.0	82.6	80.4	78.4	76.3	74.5	72.1
264	70.0	67.9	66.1	64.1	62.4	60.9	59.6	58.1
288	56.9	56.2	55.6	55.8	56.1	55.8	55.6	55.4
312	55.4	54.3	53.5	54.3	55.4	55.4	55.6	54.8
336	54.1	54.2	54.6	55.3	56.1	56.5	56.9	57.5

DEPTH	2819.2		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	56.7	57.4	58.2	58.7	59.3	57.6	56.1	55.4
24	54.8	55.3	55.9	55.1	54.6	53.6	52.7	53.1
48	53.5	54.2	55.1	56.5	58.2	59.3	60.6	61.3
72	62.2	61.8	61.6	61.8	62.2	63.2	64.5	63.9
96	63.5	63.4	63.5	63.7	64.0	65.8	67.9	68.6
120	69.5	68.4	67.4	66.9	66.6	66.8	67.2	68.5
144	70.0	70.7	71.6	73.9	76.6	78.9	81.6	83.4
168	85.5	85.8	86.3	86.7	87.3	86.2	85.2	85.6
192	86.3	85.1	84.3	84.8	85.5	85.8	86.3	87.3
216	88.6	88.5	88.6	89.3	90.2	90.2	90.5	88.3
240	86.5	84.4	84.7	81.4	80.3	79.0	77.9	74.4
264	71.3	69.0	66.9	63.9	61.4	60.6	60.1	58.9
288	58.0	57.0	56.1	55.5	55.1	55.1	55.4	54.9
312	54.6	53.7	53.0	53.8	54.8	55.0	55.4	55.4
336	55.6	55.7	55.9	55.8	55.9	55.5	55.4	55.9



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2829.0		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.3	59.7	60.3	60.1	60.1	59.2	58.5	57.5
24	56.7	56.9	57.2	68.1	72.5	69.6	60.4	65.0
48	53.3	54.0	54.8	56.0	57.5	58.8	60.3	61.0
72	61.9	61.6	61.4	61.8	62.4	63.1	64.0	63.3
96	62.7	62.7	63.0	63.1	63.5	65.5	67.9	68.5
120	69.2	68.2	67.4	67.1	66.9	66.9	67.2	67.8
144	68.7	69.5	70.6	73.7	77.4	79.4	81.8	83.5
168	85.5	86.0	86.8	86.9	87.3	86.3	85.5	86.0
192	86.8	84.5	82.6	83.3	84.2	85.7	87.6	87.1
216	86.8	88.1	89.7	90.7	92.0	91.7	91.5	88.7
240	86.3	85.5	85.0	83.3	81.8	80.0	78.4	75.6
264	73.2	70.4	67.9	65.7	63.7	62.2	60.9	59.4
288	58.2	56.4	54.8	54.6	54.6	54.2	54.0	54.0
312	54.0	53.3	52.7	53.6	54.6	54.8	55.1	55.7
336	56.4	56.7	57.2	56.5	55.9	56.2	56.7	57.9

DEPTH	2839.2		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.4	146.5	111.8	146.7	107.2	92.6	90.9	89.0
24	87.3	85.6	84.2	84.6	85.2	84.8	84.7	80.8
48	81.3	80.5	77.6	76.6	75.8	76.2	76.8	77.3
72	77.9	78.3	78.9	78.6	83.0	83.5	78.4	80.4
96	82.6	87.4	85.5	91.6	95.6	96.7	102.5	105.1
120	108.0	111.8	116.2	117.1	118.3	119.0	120.1	119.6
144	130.1	129.1	128.5	79.3	77.9	79.3	81.0	82.8
168	85.0	85.9	87.1	87.0	87.1	86.3	85.8	84.3
192	83.1	83.2	83.4	85.0	86.8	87.9	89.2	88.9
216	88.9	89.6	90.5	91.9	93.6	92.6	91.8	90.1
240	88.6	86.7	85.0	84.5	84.2	204.2	190.9	194.6
264	75.0	72.6	186.3	182.5	179.3	172.9	167.3	164.8
288	162.8	156.1	160.5	159.0	158.1	157.7	157.8	157.7
312	158.1	159.2	160.7	158.1	156.0	152.9	150.2	150.2
336	150.5	151.7	153.4	151.5	153.9	152.4	151.4	151.2

DEPTH	2844.1		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.6	151.7	151.3	150.8	150.8	149.8	149.2	149.1
24	149.4	145.3	147.9	146.7	146.0	146.5	101.7	146.0
48	87.4	152.1	153.3	154.6	156.4	146.1	84.2	85.1
72	86.2	88.6	91.5	91.7	92.2	172.2	180.9	183.8
96	96.8	191.5	99.7	198.6	103.3	204.4	208.3	211.4
120	124.7	218.1	221.6	226.9	141.5	142.3	133.2	131.8
144	231.6	233.2	231.5	239.5	128.7	129.8	131.3	238.2
168	241.4	242.6	245.1	246.5	87.6	86.9	86.5	85.5
192	84.7	84.9	85.2	86.0	87.1	88.4	90.0	90.3
216	91.0	228.7	92.0	226.9	94.4	225.6	224.8	222.4
240	220.7	217.8	218.1	211.1	207.3	205.2	199.0	200.3
264	197.6	191.0	186.7	183.8	181.6	174.6	168.6	165.1
288	162.3	161.2	160.3	158.7	158.4	157.6	158.3	158.6
312	158.1	160.2	161.2	161.5	156.4	156.8	152.1	151.6
336	151.5	152.8	154.4	155.5	153.6	153.9	151.3	151.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2849.2		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.3	151.7	151.5	150.8	150.5	149.4	148.7	148.6
24	148.9	148.1	147.6	147.6	148.1	146.8	147.2	149.2
48	151.3	152.2	153.6	156.3	159.4	161.0	163.1	164.2
72	167.2	168.2	171.2	173.5	176.4	178.5	181.2	184.1
96	187.7	190.8	194.5	197.1	200.3	203.4	207.1	211.2
120	216.0	218.7	222.0	227.0	232.8	232.3	232.5	232.2
144	232.4	233.7	235.6	240.7	246.8	241.8	237.8	239.5
168	242.0	244.1	246.9	247.1	248.0	247.1	246.9	245.8
192	245.4	247.2	249.8	247.5	245.9	243.8	242.5	237.5
216	233.3	231.3	229.9	228.5	227.8	227.0	226.8	223.7
240	221.3	219.5	218.4	213.8	210.0	206.4	203.4	200.5
264	198.2	193.8	190.2	185.6	181.7	173.8	168.3	165.2
288	162.6	160.7	163.4	161.8	160.6	158.5	158.9	158.7
312	158.9	160.1	161.8	161.9	156.8	156.2	150.8	150.0
336	150.3	151.3	153.4	154.6	153.9	153.4	151.0	151.5

DEPTH	2854.1		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.9	151.4	151.4	150.5	150.2	148.9	148.1	148.2
24	148.7	148.3	148.4	147.9	147.8	148.9	150.5	151.7
48	153.4	155.1	157.3	158.9	160.9	161.8	163.3	165.1
72	167.4	170.1	173.4	174.9	177.0	180.0	183.6	185.3
96	187.7	191.4	195.7	197.8	200.5	204.0	208.2	211.7
120	216.0	219.3	223.4	228.9	235.2	233.3	232.1	231.7
144	232.0	233.8	236.2	240.7	246.1	241.0	236.8	240.0
168	244.0	244.8	246.4	246.3	248.0	246.9	247.6	245.7
192	244.6	246.7	249.6	247.2	245.5	239.2	238.9	236.2
216	231.5	227.0	223.4	225.3	227.9	226.7	226.1	224.2
240	222.8	220.0	217.8	213.5	210.0	209.7	208.1	200.0
264	197.8	191.3	185.6	180.5	176.1	170.9	166.5	164.5
288	163.0	162.7	163.0	161.8	160.8	159.2	160.3	161.4
312	163.0	162.1	161.8	158.7	156.1	153.2	150.8	150.6
336	150.8	151.9	153.4	153.1	153.1	151.7	150.8	151.1

DEPTH	2859.0		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.9	151.9	152.2	151.3	150.8	149.8	149.3	148.5
24	148.1	147.7	147.8	148.0	148.7	149.1	149.9	151.3
48	153.1	154.4	160.4	160.7	161.8	162.1	163.0	163.8
72	165.1	171.3	172.5	174.5	177.0	180.1	183.8	185.9
96	188.6	192.7	197.5	199.7	202.6	204.9	207.9	211.6
120	216.0	220.1	224.9	228.0	236.3	231.2	231.2	232.5
144	230.6	237.1	238.9	239.5	246.4	241.6	237.7	239.9
168	242.8	244.5	247.0	247.4	248.4	248.0	248.1	245.6
192	243.7	245.8	248.7	246.5	244.9	239.2	234.4	232.3
216	230.9	226.0	221.9	224.7	228.2	228.4	225.5	222.9
240	221.0	220.9	220.7	217.9	215.1	211.3	208.2	202.7
264	198.0	191.5	185.9	180.8	176.4	171.4	167.1	165.0
288	163.3	163.0	163.3	161.1	160.9	160.5	160.4	160.9
312	163.0	163.3	164.2	159.8	156.1	153.5	151.4	150.8
336	150.8	152.0	153.7	154.6	153.9	153.3	151.4	151.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2864.0		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.2	152.2	152.5	151.6	151.1	150.3	149.9	148.6
24	149.6	149.2	149.3	148.9	149.0	149.8	151.1	151.7
48	152.8	156.7	161.2	161.4	162.1	161.9	162.1	163.6
72	168.7	172.6	174.3	174.3	177.6	180.2	183.5	186.5
96	190.1	192.6	195.7	196.9	198.7	202.1	206.2	210.0
120	214.5	217.0	223.3	225.4	237.0	230.4	230.0	232.5
144	229.1	235.2	235.3	240.3	246.1	241.0	241.7	239.7
168	243.4	243.2	243.7	245.6	248.1	246.5	245.5	243.2
192	241.6	244.8	248.7	245.2	242.5	238.7	235.6	232.8
216	225.5	226.2	222.5	223.8	228.7	227.1	223.1	222.1
240	221.6	223.7	222.2	218.8	216.0	212.2	209.1	202.6
264	196.9	188.3	180.8	177.9	175.5	170.8	166.8	164.0
288	161.8	161.4	161.5	160.8	160.6	159.8	159.4	160.6
312	162.4	162.3	162.7	162.6	156.8	156.7	151.4	151.0
336	151.1	152.2	153.7	154.1	154.9	152.9	151.4	151.6

DEPTH	2869.1		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.7	151.7	152.2	151.0	150.2	149.7	149.6	148.6
24	148.1	147.7	148.8	149.1	150.2	150.7	151.7	152.2
48	153.1	156.1	159.7	160.9	162.7	163.5	164.8	166.3
72	168.3	171.9	176.1	177.5	181.8	181.2	183.2	186.0
96	189.5	192.7	196.6	197.8	199.6	202.3	205.6	208.2
120	211.5	216.2	221.6	223.4	230.9	227.7	230.3	232.2
144	229.1	233.2	238.1	239.2	246.1	243.2	241.0	241.4
168	242.5	242.3	242.8	245.0	247.9	246.5	245.8	242.9
192	240.7	241.5	246.1	241.0	242.5	238.3	234.9	232.2
216	225.8	224.9	220.4	221.5	226.4	226.1	224.3	224.5
240	225.2	224.5	224.3	218.1	215.1	212.1	210.3	203.4
264	197.5	188.6	180.8	177.4	174.6	170.1	166.2	164.1
288	162.4	161.6	161.2	160.5	160.3	159.3	158.8	160.2
312	162.1	162.4	163.3	159.7	156.7	153.8	151.4	150.2
336	149.6	151.3	153.4	154.4	155.8	153.0	150.8	151.0

DEPTH	2874.1		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.1	151.0	151.4	150.1	149.3	149.1	149.3	148.0
24	147.2	147.6	148.4	149.4	150.8	150.7	151.1	152.3
48	153.9	156.3	159.1	160.4	162.1	163.6	165.6	166.5
72	167.7	170.9	174.6	178.3	182.6	183.6	185.0	185.6
96	186.8	191.6	197.2	197.1	197.5	197.7	201.6	206.5
120	204.9	208.6	213.0	216.7	221.0	225.0	229.7	230.0
144	225.1	230.1	236.0	238.1	245.5	240.7	239.6	239.4
168	242.8	242.6	243.1	244.7	247.0	243.6	241.0	239.9
192	239.5	237.8	241.7	237.5	234.2	233.7	233.8	231.4
216	225.5	224.5	220.2	221.8	224.0	225.2	226.9	225.8
240	225.2	224.3	224.0	218.7	214.2	212.0	212.1	206.6
264	202.0	190.1	179.9	176.7	174.0	168.6	167.6	163.8
288	161.8	159.8	158.3	156.6	155.4	156.6	158.2	158.6
312	159.4	157.8	156.7	154.5	152.8	151.3	150.2	149.4
336	149.0	150.7	152.8	152.3	152.2	151.0	150.2	150.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2878.9		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	147.2	147.7	147.5	147.9	148.7	146.5	146.8	144.9
24	145.4	145.6	146.3	148.3	150.8	152.7	155.2	154.4
48	153.9	156.5	159.7	162.4	165.6	167.3	168.1	167.8
72	170.4	174.5	179.3	180.6	182.3	183.6	185.3	185.6
96	186.5	191.0	196.3	196.2	196.6	194.6	196.9	197.6
120	203.8	203.6	208.5	214.0	216.0	222.4	225.8	220.1
144	222.8	224.7	230.4	232.8	239.2	236.8	235.0	238.2
168	242.2	239.6	240.7	240.6	244.3	238.9	237.7	234.5
192	236.7	234.5	233.1	232.6	232.7	231.0	230.0	226.8
216	224.4	222.3	220.7	222.2	224.3	227.5	228.2	228.1
240	225.5	224.9	224.9	219.3	214.5	212.4	210.9	206.4
264	202.6	186.9	171.6	172.3	168.6	163.8	159.7	158.0
288	156.7	155.0	153.7	152.9	152.5	152.8	153.4	154.6
312	156.1	155.5	155.2	151.7	148.7	148.2	148.1	147.3
336	146.9	149.5	152.5	150.1	148.8	147.5	144.8	145.8

DEPTH	2898.9		TILT	-27		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	134.4	132.0	130.1	130.0	129.9	129.1	131.1	138.1
24	143.2	145.9	153.2	160.5	166.5	169.9	171.4	171.4
48	171.1	178.2	183.2	182.8	182.0	184.2	187.6	189.8
72	185.8	185.8	187.9	189.6	195.7	197.8	202.6	203.9
96	205.6	204.6	206.3	203.0	201.4	198.3	196.9	196.7
120	196.6	195.2	191.4	191.9	193.1	189.4	190.6	187.6
144	180.6	179.9	181.7	191.4	198.2	198.4	198.6	201.6
168	207.0	204.1	204.6	204.9	208.4	207.1	203.6	205.6
192	207.1	212.0	214.3	220.4	229.6	234.1	239.8	247.5
216	252.4	257.3	265.7	268.7	270.5	277.7	275.1	278.7
240	267.4	260.3	250.3	248.8	250.2	251.2	249.0	248.4
264	252.5	254.2	260.2	202.1	204.1	200.5	197.4	204.3
288	205.7	210.0	207.4	203.6	197.1	189.3	185.1	172.4
312	170.1	163.4	160.2	159.0	153.5	152.3	148.0	146.6
336	146.6	145.5	145.2	143.1	139.0	141.1	138.7	136.7

DEPTH	2898.9		TILT	-29		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	142.2	139.7	137.1	134.6	133.2	133.2	134.9	140.8
24	143.5	145.6	155.5	163.7	168.7	172.6	174.1	174.1
48	176.6	179.4	186.1	187.1	187.6	186.2	193.5	192.5
72	189.1	188.9	191.0	193.0	196.2	201.8	206.4	207.2
96	209.3	211.9	210.0	208.4	206.3	203.2	202.2	201.0
120	198.7	198.5	196.2	198.8	199.8	194.6	193.0	190.8
144	185.5	181.6	186.2	193.7	200.9	199.8	203.3	197.5
168	209.5	206.0	208.2	207.1	210.0	209.1	206.4	208.0
192	214.1	218.1	222.2	230.2	234.8	238.4	243.7	254.4
216	258.2	265.3	272.3	289.9	343.2	354.3	354.8	350.9
240	353.3	266.2	261.3	260.5	311.2	308.7	297.7	287.2
264	291.2	297.7	199.1	202.1	196.1	190.1	181.6	239.2
288	219.8	230.1	216.2	216.0	210.9	209.9	199.5	197.6
312	185.4	179.5	171.9	171.2	163.1	164.2	157.5	154.9
336	153.2	152.9	153.0	150.4	144.2	143.1	143.2	143.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2898.9		TILT	-31		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	154.0	156.0	153.8	144.8	144.5	144.1	144.8	142.6
24	146.1	145.6	158.0	167.5	171.5	177.9	178.0	177.3
48	180.1	180.9	190.0	192.1	190.6	189.6	198.1	195.9
72	198.4	198.5	198.5	203.4	204.3	206.8	211.4	212.0
96	216.4	217.4	234.7	236.2	239.8	209.8	209.5	241.0
120	201.7	200.2	201.9	202.1	203.7	199.1	195.5	192.0
144	189.9	185.0	189.4	196.1	202.7	203.7	206.9	200.1
168	211.1	209.8	208.0	208.3	214.4	214.7	212.7	216.1
192	218.9	224.8	230.8	238.9	243.8	247.2	255.2	261.5
216	353.8	355.8	356.3	342.2	296.9	310.9	315.7	320.4
240	328.2	308.7	301.5	302.5	298.2	292.0	234.2	283.7
264	290.8	212.7	196.6	198.6	194.6	186.6	177.6	222.7
288	281.2	280.7	242.8	233.1	225.0	221.9	221.8	215.0
312	210.5	202.9	199.1	196.6	186.1	175.0	169.9	169.0
336	170.0	166.5	167.4	163.1	158.4	157.4	157.2	159.1

DEPTH	2898.9		TILT	-32		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.5	161.5	160.4	155.1	152.2	149.9	150.0	148.9
24	149.6	152.1	159.3	169.3	173.1	179.5	179.9	179.3
48	180.6	182.1	192.2	193.1	197.0	198.5	200.5	200.0
72	201.0	201.9	204.7	210.6	211.7	212.8	214.2	215.8
96	220.7	232.7	238.4	216.8	213.7	247.2	251.7	250.7
120	249.5	352.1	354.5	204.1	361.2	361.2	196.8	193.9
144	191.8	187.2	190.7	199.4	204.2	206.2	208.5	200.7
168	210.3	211.8	210.7	210.5	215.6	217.7	218.0	218.3
192	224.1	230.4	241.6	244.8	247.2	358.2	359.4	340.2
216	353.9	351.5	342.4	342.2	278.0	293.0	299.2	307.1
240	316.9	298.5	293.1	294.4	290.5	284.7	230.4	279.7
264	218.7	207.4	193.9	190.4	190.6	187.6	177.6	215.3
288	284.7	282.7	265.9	264.7	264.1	254.7	245.3	237.7
312	227.6	227.6	213.0	201.7	196.0	192.3	186.5	183.7
336	180.9	177.9	175.3	168.3	171.1	169.5	166.6	165.3

DEPTH	2898.9		TILT	-34		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	186.4	188.6	174.7	174.1	172.6	171.6	176.1	177.3
24	174.8	188.4	176.4	177.8	180.4	183.1	184.2	183.8
48	185.5	192.8	196.3	202.8	204.0	210.3	211.1	214.2
72	216.6	218.2	227.1	299.5	234.7	234.8	239.4	237.5
96	241.3	239.8	241.3	329.9	333.0	339.0	342.0	345.3
120	349.7	351.4	356.2	359.7	362.1	354.7	354.9	195.6
144	194.7	193.3	196.6	202.4	208.0	208.8	211.1	205.1
168	208.1	216.7	213.7	220.8	221.3	226.9	227.5	233.7
192	239.2	243.1	248.7	253.4	334.1	341.1	339.2	328.6
216	331.0	329.4	325.8	279.5	265.2	262.8	271.0	283.7
240	289.0	280.4	277.7	278.4	276.4	271.4	278.1	264.2
264	209.5	207.6	191.5	190.4	187.4	193.4	178.5	201.9
288	288.6	292.1	287.8	287.6	284.6	288.2	268.5	270.0
312	258.0	263.3	234.7	256.3	221.8	220.8	213.7	204.7
336	205.5	204.9	196.1	203.6	193.9	193.2	197.4	194.6



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2898.9		TILT	-35		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	201.7	202.3	197.6	196.0	193.0	188.1	190.7	193.0
24	203.9	209.5	204.6	187.7	186.5	185.1	187.1	186.9
48	188.7	195.2	202.9	214.5	217.5	222.2	218.0	273.3
72	220.4	223.9	230.1	302.1	303.6	313.7	316.9	319.2
96	318.8	323.6	326.2	327.4	331.8	333.4	338.1	343.6
120	348.2	353.0	353.4	353.0	354.9	349.6	352.5	357.3
144	196.2	194.3	198.6	205.5	361.1	211.4	213.2	206.4
168	211.4	217.7	218.8	225.0	228.0	232.6	237.7	350.6
192	345.0	248.8	350.3	343.9	326.7	333.4	330.1	323.4
216	315.3	325.1	275.6	257.5	262.2	260.6	259.0	273.5
240	276.8	272.2	270.7	271.1	270.0	266.5	228.1	225.9
264	206.8	205.6	195.2	192.6	187.9	187.9	176.9	196.0
288	295.7	294.8	290.9	292.9	291.9	291.0	279.0	277.6
312	268.5	274.0	262.6	260.0	254.4	249.6	245.7	233.1
336	230.0	228.8	228.8	216.9	227.5	207.7	204.1	198.4

DEPTH	2898.9		TILT	-37		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	235.5	224.5	235.9	237.8	239.0	239.0	246.1	243.4
24	244.1	244.9	264.7	265.2	264.2	266.9	271.9	261.8
48	195.1	200.4	215.7	277.6	274.0	273.2	295.3	289.0
72	295.8	301.3	305.5	307.8	311.3	314.5	316.1	321.2
96	321.2	322.0	323.2	326.3	329.8	334.2	338.9	338.1
120	338.9	340.8	345.8	344.9	342.0	342.9	349.1	351.9
144	352.0	353.0	353.9	356.3	357.3	357.3	359.2	356.3
168	352.5	350.1	347.8	346.7	347.5	346.0	345.3	335.3
192	331.0	322.9	327.4	324.3	313.3	315.3	316.5	307.8
216	281.5	274.0	257.5	255.1	255.5	252.1	251.2	258.0
240	255.5	257.5	259.3	259.6	258.7	257.4	256.3	228.6
264	204.3	199.9	193.7	191.5	182.5	177.8	174.5	185.2
288	216.3	218.1	303.5	303.5	300.5	296.4	294.5	291.3
312	290.0	282.8	266.5	260.3	260.6	252.4	249.9	242.6
336	238.2	242.3	235.5	237.8	235.9	233.9	233.5	232.7

DEPTH	2898.9		TILT	-39		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	239.9	243.7	244.9	246.9	247.6	246.5	248.5	250.4
24	250.4	278.1	284.3	281.4	284.6	286.7	289.5	270.9
48	299.6	301.5	298.6	298.8	297.6	298.1	298.1	301.5
72	301.9	301.5	300.7	302.3	302.7	310.2	311.8	316.9
96	318.1	318.1	323.4	324.3	320.8	324.3	326.3	329.1
120	330.2	332.5	337.7	336.9	334.6	338.5	338.1	343.6
144	343.6	347.9	351.1	350.3	352.2	351.7	350.3	350.7
168	349.9	343.2	345.6	344.8	344.0	334.5	334.0	322.2
192	317.6	309.8	307.7	309.5	302.3	303.1	300.4	279.5
216	257.1	253.3	255.0	250.0	251.8	248.5	246.6	252.1
240	252.0	254.0	261.9	257.5	255.5	254.2	244.9	230.8
264	205.8	195.6	188.8	186.5	182.4	180.4	176.0	175.7
288	169.8	172.2	297.6	295.6	297.2	287.4	294.5	290.5
312	295.2	286.7	284.2	279.5	267.6	259.5	257.1	246.1
336	241.0	250.9	238.6	243.3	239.9	239.4	238.6	237.1



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2898.9		TILT	-42		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	245.7	267.6	250.0	276.2	275.2	283.3	287.1	283.8
24	287.4	288.2	296.2	298.8	295.2	294.9	296.0	284.3
48	287.8	287.4	292.1	287.8	292.5	294.3	285.4	290.0
72	293.3	292.9	291.9	296.4	296.8	296.8	296.4	298.1
96	299.6	306.7	305.9	311.7	308.6	314.1	312.1	311.4
120	314.4	319.5	332.5	328.3	333.0	333.8	338.5	338.5
144	331.1	335.2	345.2	337.3	342.0	338.7	338.1	342.0
168	341.2	340.1	339.7	339.3	337.3	322.4	320.4	308.6
192	304.3	298.5	297.2	294.9	286.5	279.4	275.7	272.8
216	253.6	253.6	249.6	244.9	239.0	241.6	246.4	245.3
240	246.6	247.2	251.5	249.8	247.8	246.7	246.9	229.4
264	211.0	196.2	185.3	180.2	176.5	174.2	174.5	171.8
288	168.2	168.7	169.0	285.7	285.7	280.3	281.1	283.8
312	282.8	289.3	292.5	285.0	277.6	272.8	270.5	261.8
336	257.9	258.0	256.3	253.2	253.2	246.5	246.5	247.3

DEPTH	2898.9		TILT	-45		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	278.6	280.7	284.8	282.3	291.0	292.1	293.3	292.4
24	290.9	288.6	288.1	287.8	288.6	284.3	281.9	282.7
48	280.7	280.3	280.7	277.6	281.1	277.1	279.5	283.8
72	283.1	271.7	267.7	261.4	260.4	274.4	289.7	291.7
96	293.3	294.1	295.3	300.5	303.4	295.7	295.6	295.6
120	311.5	311.5	317.2	315.3	320.4	320.8	323.2	320.4
144	322.0	325.9	324.3	328.2	330.1	327.5	329.1	332.6
168	327.9	328.2	326.7	324.3	323.6	314.9	307.5	299.8
192	296.4	290.8	284.8	276.9	262.2	259.9	261.0	255.7
216	254.2	253.0	248.7	241.0	246.6	245.6	243.7	241.6
240	241.6	240.7	242.0	241.0	236.7	235.9	242.2	244.1
264	215.4	196.5	188.9	176.8	172.8	179.8	179.8	171.8
288	169.0	166.9	166.4	205.2	208.8	281.9	278.6	276.2
312	281.4	283.5	283.3	285.4	282.3	281.9	280.3	270.9
336	269.3	265.7	266.2	263.4	260.9	264.2	272.4	276.2

DEPTH	2898.9		TILT	-48		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	288.2	284.8	285.7	288.6	289.7	286.2	283.8	283.8
24	282.3	281.5	281.1	275.2	274.4	272.8	272.0	270.5
48	272.8	272.8	270.9	270.4	266.2	254.7	260.4	255.9
72	254.8	255.2	254.2	254.4	242.3	248.1	259.0	262.2
96	260.9	265.7	261.4	262.6	271.9	274.8	284.8	287.1
120	300.3	299.5	300.5	301.6	304.3	308.6	310.2	312.5
144	318.4	317.3	315.7	313.7	309.4	305.5	307.8	309.8
168	309.8	310.2	313.3	305.5	305.5	305.5	298.1	293.3
192	290.9	286.6	274.6	266.2	254.7	254.4	251.9	254.0
216	254.8	249.9	242.7	240.2	243.9	244.7	238.8	239.4
240	237.5	236.3	232.7	232.9	231.4	231.6	232.0	237.5
264	224.1	199.5	188.2	174.0	170.2	168.2	169.9	167.5
288	169.9	165.0	164.7	162.1	164.3	158.8	158.4	203.7
312	275.7	276.6	277.6	281.5	286.7	283.8	290.5	286.2
336	277.9	275.4	279.5	275.2	272.4	270.9	292.9	292.1



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2898.9		TILT	-51		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	280.3	281.9	284.6	284.2	281.5	278.7	276.6	270.9
24	272.4	270.5	271.7	270.0	265.7	263.0	261.9	254.2
48	253.6	253.6	243.4	243.4	245.2	239.4	240.4	225.1
72	239.8	239.0	236.3	234.8	233.9	233.9	248.0	250.5
96	245.4	244.1	247.6	255.2	262.6	264.6	270.4	275.6
120	282.7	288.2	293.3	294.9	298.8	299.2	294.9	302.7
144	304.7	302.4	305.3	304.3	303.8	304.8	301.5	302.3
168	300.0	298.8	295.7	287.8	290.1	289.7	288.6	281.9
192	275.6	273.2	267.3	264.6	251.8	250.5	245.3	244.1
216	246.9	247.1	242.6	242.6	243.7	239.9	233.4	234.6
240	232.3	233.1	225.5	226.4	225.3	226.1	226.4	233.1
264	233.1	199.0	181.2	173.3	173.2	177.7	171.1	166.3
288	166.7	165.7	163.7	162.4	162.0	160.0	162.0	161.2
312	203.0	267.6	263.8	263.8	277.2	272.4	280.0	288.1
336	287.8	286.6	286.6	288.2	292.4	279.9	285.7	289.0

DEPTH	2898.9		TILT	-54		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	278.3	280.7	280.7	279.5	275.6	270.1	265.4	261.8
24	257.1	262.2	261.4	261.8	247.6	245.7	240.9	222.1
48	244.1	225.2	221.1	218.2	224.2	219.4	215.8	215.4
72	226.1	227.5	239.9	233.6	231.8	234.3	242.5	240.3
96	236.7	240.6	243.0	246.7	257.5	263.8	261.8	263.8
120	270.1	270.9	282.7	284.2	285.0	285.2	283.5	285.8
144	287.4	285.8	288.2	288.6	293.7	290.1	287.7	287.1
168	285.8	281.4	276.4	279.9	266.9	263.8	275.2	266.4
192	261.9	261.0	253.2	245.2	238.0	240.4	240.6	242.6
216	244.1	244.5	237.5	241.4	233.5	233.6	232.3	231.6
240	226.7	225.6	221.5	224.5	220.4	224.1	228.4	228.0
264	229.6	203.9	175.8	176.9	183.0	173.0	172.7	165.0
288	165.0	165.0	165.0	163.3	163.6	160.8	160.8	159.2
312	160.4	166.9	154.5	154.9	259.0	263.3	265.7	280.9
336	280.5	279.0	280.5	281.5	280.7	278.7	279.5	280.3

DEPTH	2898.9		TILT	-57		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	272.5	206.6	272.2	263.4	263.9	194.4	253.7	211.4
24	250.2	243.2	239.5	207.8	220.4	205.6	196.7	197.7
48	195.9	203.1	203.1	198.4	180.5	199.1	188.3	192.1
72	221.0	234.1	237.4	238.1	240.7	238.3	241.2	239.8
96	240.6	240.6	246.3	247.8	258.5	258.5	260.6	258.1
120	260.9	263.0	270.1	270.1	271.6	273.7	277.3	274.0
144	276.1	277.2	276.1	278.2	279.3	274.6	277.9	277.4
168	276.1	272.8	270.7	268.6	258.8	258.4	259.1	253.2
192	251.5	246.0	241.2	238.9	236.8	234.7	238.3	240.3
216	236.0	235.2	230.5	230.8	230.5	231.4	230.2	226.7
240	221.1	220.0	219.0	219.8	218.3	221.2	220.1	225.0
264	225.0	204.9	191.2	196.7	196.0	174.6	169.2	164.4
288	164.9	163.6	163.3	165.3	165.3	165.3	159.8	160.7
312	155.7	154.6	154.6	154.6	153.7	183.9	186.2	195.0
336	195.3	194.4	194.7	201.3	202.9	202.0	273.5	272.8



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2898.9		TILT	-60		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	155.0	164.1	152.9	148.5	148.6	152.5	163.0	184.4
24	193.7	161.1	164.4	165.6	166.8	166.8	166.8	177.1
48	164.1	175.3	174.8	169.5	167.6	168.9	177.8	180.2
72	215.9	227.3	232.3	233.2	237.4	237.0	236.5	237.1
96	239.5	245.1	241.2	244.5	245.1	244.8	244.4	240.9
120	240.6	247.8	248.7	261.3	264.5	267.5	267.5	268.1
144	267.5	267.0	270.6	270.0	266.7	264.1	263.7	266.9
168	267.2	261.2	255.1	260.6	250.4	251.9	244.7	243.5
192	239.7	238.5	240.3	239.5	233.6	230.2	234.8	232.3
216	228.9	226.6	226.9	226.9	224.8	223.7	224.4	214.1
240	216.2	216.2	216.2	217.7	216.8	216.8	214.4	217.2
264	226.1	207.6	199.1	193.7	193.9	183.7	169.6	170.8
288	161.1	162.1	162.6	167.7	166.6	163.2	162.5	159.0
312	157.2	159.5	152.9	153.2	151.6	151.0	151.3	150.1
336	149.5	148.9	148.9	156.5	158.6	158.3	160.4	156.8

DEPTH	2899.0		TILT	-63		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	160.5	154.7	156.9	153.2	149.1	152.8	152.5	163.8
24	160.1	159.7	161.7	161.7	161.3	159.8	159.7	160.8
48	162.0	164.1	164.4	163.3	164.6	166.9	181.1	182.3
72	215.6	223.6	227.7	234.1	232.3	232.2	232.0	230.9
96	237.7	235.6	235.6	238.1	238.5	242.4	240.6	241.0
120	237.9	241.1	241.8	250.8	257.2	258.8	257.6	259.7
144	257.6	257.9	254.9	253.8	253.2	254.0	254.0	250.4
168	248.7	243.2	242.8	241.8	237.8	236.4	232.6	232.6
192	230.2	232.0	229.8	226.3	223.7	222.8	222.8	222.5
216	222.5	220.1	216.5	206.4	206.4	204.6	204.9	204.9
240	204.2	210.3	211.8	212.1	209.6	211.4	210.3	216.7
264	221.8	209.9	197.4	195.9	181.4	180.6	176.4	167.9
288	168.3	171.6	173.3	169.2	167.8	169.5	164.3	155.5
312	164.2	161.7	153.1	152.8	152.2	151.6	151.3	149.5
336	153.0	157.6	151.9	154.3	150.3	149.6	157.9	157.7

DEPTH	2899.0		TILT	-66		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	165.3	163.0	157.6	153.6	155.5	154.2	152.1	157.9
24	167.8	164.8	161.7	163.5	162.7	162.4	162.6	160.2
48	182.0	165.8	161.1	162.7	179.3	177.2	205.7	213.5
72	213.5	217.2	220.7	225.5	227.8	226.1	224.9	225.1
96	219.3	216.7	216.3	217.1	208.2	236.0	217.8	230.4
120	239.5	240.1	242.1	242.7	247.2	248.4	251.1	250.8
144	248.3	247.8	243.5	241.4	242.1	238.7	238.9	240.1
168	236.5	232.5	230.4	228.3	225.8	226.6	222.5	221.7
192	218.5	218.1	217.1	216.8	215.5	213.5	212.7	211.5
216	207.0	207.0	204.6	203.3	202.3	201.5	196.9	197.8
240	197.8	196.6	202.1	203.4	205.5	208.6	209.9	213.9
264	219.2	209.6	195.5	195.7	196.0	192.0	178.8	179.7
288	185.2	182.3	179.4	178.6	173.4	170.3	159.1	166.6
312	163.8	162.2	158.2	159.7	161.1	161.9	157.5	155.8
336	160.8	160.8	158.2	161.8	155.0	151.1	160.4	155.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2899.0		TILT	-69		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	178.0	169.5	160.3	160.0	163.8	157.5	152.1	152.9
24	170.4	169.4	167.1	165.1	162.2	170.9	176.9	181.1
48	184.6	188.7	178.7	171.6	195.7	197.9	209.4	213.8
72	215.6	217.4	218.9	219.8	220.7	218.9	217.4	216.8
96	215.3	210.9	204.9	204.6	207.7	210.4	214.1	217.7
120	222.3	228.6	230.2	229.0	238.6	239.6	235.9	233.8
144	235.2	237.1	235.1	233.8	232.8	228.6	229.3	224.3
168	222.9	217.5	217.3	218.7	217.9	217.1	212.7	212.4
192	210.9	209.1	207.2	206.7	207.0	204.3	204.3	203.4
216	202.2	200.7	199.5	198.8	198.6	197.9	196.6	196.0
240	196.0	196.9	196.9	197.2	201.0	204.5	206.1	208.0
264	212.9	208.8	197.8	197.9	195.5	195.1	194.5	192.4
288	191.0	189.0	187.8	184.6	169.7	168.3	173.5	172.2
312	164.2	167.3	170.1	169.5	169.8	162.1	159.2	165.5
336	165.6	165.3	155.1	171.2	165.2	155.8	157.5	152.9

DEPTH	2899.0		TILT	-72		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	181.7	181.4	173.4	168.7	169.8	167.8	157.3	154.9
24	168.0	169.4	182.7	181.2	169.5	176.1	186.7	183.7
48	184.1	187.5	199.7	203.1	209.6	210.1	210.3	212.1
72	212.1	212.9	213.5	215.6	209.5	212.1	210.7	211.8
96	212.4	210.9	207.5	206.4	206.7	209.2	212.4	213.9
120	217.1	218.3	219.8	222.5	221.3	223.3	221.9	225.5
144	224.4	226.6	225.1	222.9	222.1	219.5	221.6	211.7
168	211.0	209.7	210.2	210.0	208.2	210.3	207.1	205.9
192	204.1	202.4	198.2	198.4	200.4	199.4	197.6	198.6
216	198.4	198.4	197.8	196.7	196.4	197.3	197.4	197.4
240	197.8	198.6	199.2	199.2	199.2	202.5	202.5	202.8
264	205.2	204.6	199.4	197.2	195.2	194.1	192.6	192.7
288	192.5	191.4	190.1	188.3	186.2	185.5	184.5	182.5
312	172.5	176.9	179.3	178.3	167.6	168.1	170.7	172.4
336	165.5	166.5	165.2	179.3	173.2	162.4	163.7	165.3

DEPTH	2899.0		TILT	-75		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	187.2	186.7	188.8	177.0	182.1	181.5	175.7	175.9
24	174.2	175.2	192.7	192.7	188.4	185.4	199.0	201.6
48	203.7	204.0	208.5	210.0	210.1	210.8	211.4	212.7
72	214.4	214.4	213.8	213.2	209.0	209.1	209.2	209.3
96	209.8	210.3	208.1	209.2	211.2	211.4	212.7	213.1
120	214.1	215.0	213.6	214.8	214.1	214.7	214.7	214.7
144	211.5	210.6	211.2	208.3	207.7	206.8	207.0	205.3
168	205.9	205.2	207.9	207.9	207.4	205.6	204.7	203.9
192	202.2	200.7	196.1	195.7	195.2	194.8	195.1	196.8
216	196.8	196.7	197.4	197.1	196.9	197.0	197.3	197.6
240	196.9	198.2	197.8	197.8	197.8	198.9	199.0	199.2
264	200.6	199.4	199.7	201.3	201.3	198.0	196.4	194.6
288	193.8	193.3	192.7	190.6	189.4	189.1	187.5	184.4
312	185.1	184.4	184.1	183.5	175.8	178.8	181.8	179.9
336	170.8	173.0	181.6	182.9	182.8	176.1	179.2	176.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2899.2		TILT	0		VOS	5956.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	137.4	135.9	139.5	137.7	140.0	138.0	138.5	134.1
24	136.8	140.6	143.6	146.3	149.9	155.8	156.4	156.2
48	154.9	154.6	156.1	164.8	168.0	168.6	173.4	174.0
72	174.0	175.5	177.3	178.8	182.0	187.7	187.4	182.9
96	183.8	190.7	192.8	195.1	194.2	193.0	195.1	196.6
120	193.6	196.6	205.0	207.9	207.9	211.8	213.0	217.2
144	221.1	226.4	224.3	228.8	231.2	231.5	225.2	228.5
168	228.8	229.8	231.8	231.8	231.8	230.6	228.0	226.2
192	221.9	224.3	225.5	220.1	219.9	220.7	217.8	215.0
216	213.0	214.8	219.3	225.8	228.2	231.5	230.9	227.3
240	227.3	227.3	224.0	219.6	216.0	213.3	213.9	209.7
264	197.8	184.0	169.8	161.5	157.9	153.1	151.2	149.6
288	146.0	148.5	146.3	145.6	145.7	145.6	149.0	149.0
312	149.3	147.4	147.1	139.7	136.2	138.0	135.6	136.8
336	142.4	139.5	144.9	141.6	139.5	138.8	138.5	140.6

DEPTH	2909.1		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	134.4	134.7	134.7	138.0	133.5	136.8	135.6	133.2
24	135.3	138.6	142.1	144.2	149.0	155.3	156.4	155.8
48	155.8	154.1	156.1	165.1	166.6	172.8	171.9	171.0
72	173.1	175.2	175.8	177.3	181.2	186.2	186.2	183.2
96	180.8	189.8	189.8	194.6	193.1	192.8	192.8	196.1
120	193.4	200.8	199.6	203.8	206.5	209.2	211.0	214.3
144	219.0	223.5	224.1	223.5	228.2	229.9	223.8	223.5
168	223.5	222.3	222.3	225.3	230.9	226.6	224.8	226.4
192	219.0	224.4	220.5	215.6	218.1	216.0	215.0	215.0
216	214.5	214.8	220.5	224.7	230.3	232.4	229.9	222.9
240	219.6	219.3	216.0	213.0	207.5	204.2	214.2	210.1
264	200.5	187.1	171.0	164.2	158.5	152.9	143.6	144.5
288	144.5	143.3	139.8	144.2	143.0	143.2	146.6	143.9
312	146.9	139.2	145.7	135.3	135.5	138.3	134.4	134.1
336	139.1	138.6	142.0	139.5	139.5	137.7	137.7	138.1

DEPTH	2918.9		TILT	80		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	412.8	412.9	413.0	412.6	412.2	412.7	413.1	413.3
24	413.4	413.2	412.9	413.0	413.0	412.9	412.7	413.1
48	413.4	413.9	414.4	413.8	413.1	413.1	413.0	413.2
72	413.4	413.0	412.7	412.4	412.1	413.2	414.2	413.9
96	413.6	412.9	412.3	412.4	412.5	412.5	412.5	413.2
120	413.8	413.9	414.0	413.5	413.0	413.6	414.2	413.7
144	413.1	413.0	412.9	413.5	414.0	414.0	414.0	413.8
168	413.6	413.8	413.9	413.3	412.7	412.3	411.4	412.9
192	413.8	413.2	412.7	412.8	412.9	413.4	413.7	411.4
216	413.6	413.0	412.4	413.1	413.7	413.9	414.0	413.4
240	412.7	412.6	412.5	412.9	413.3	413.0	412.8	412.5
264	412.3	412.3	412.3	412.4	412.6	412.6	412.6	412.6
288	412.7	412.6	412.5	412.5	412.4	412.3	412.2	412.3
312	412.4	412.6	412.9	412.7	412.6	413.3	413.9	413.6
336	413.3	413.4	413.4	413.1	412.7	413.0	413.2	413.0



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2918.9		TILT	75		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	421.6	421.9	422.3	421.9	421.5	421.3	421.0	420.9
24	420.7	421.3	421.9	421.8	421.6	421.6	421.5	421.5
48	421.5	422.0	422.5	422.8	423.0	422.7	422.4	422.0
72	421.6	421.7	421.8	422.1	422.5	421.9	421.4	421.4
96	421.4	422.2	423.1	422.2	421.4	421.5	421.6	421.8
120	422.0	421.9	421.8	421.4	421.0	421.6	422.2	422.0
144	421.9	421.5	421.0	421.6	422.2	422.1	422.0	423.1
168	424.4	421.7	423.1	422.5	421.9	422.3	418.9	418.4
192	419.3	421.6	421.9	421.2	420.5	421.4	420.2	420.2
216	419.8	422.1	422.5	422.1	421.7	421.5	421.3	421.5
240	421.2	421.8	422.0	421.8	421.7	421.2	420.6	420.8
264	421.0	421.2	421.3	421.1	420.9	422.0	423.3	422.7
288	422.1	422.5	422.9	422.8	422.7	422.0	421.3	421.8
312	422.3	422.6	150.4	148.6	149.5	150.4	150.4	150.4
336	151.3	421.8	421.7	422.0	422.1	422.3	422.5	422.0

DEPTH	2918.9		TILT	65		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	138.8	134.7	132.5	133.5	135.1	133.2	131.9	129.3
24	124.8	126.2	126.3	126.9	124.8	125.1	125.8	124.9
48	124.9	124.5	126.6	130.2	134.3	137.9	142.9	146.7
72	147.6	150.8	148.4	155.4	154.0	152.1	151.7	149.7
96	149.7	149.7	150.0	162.2	161.4	162.2	158.2	157.5
120	157.1	153.4	151.2	150.8	150.8	151.0	151.6	154.7
144	159.8	444.6	445.8	445.5	151.4	446.6	447.8	447.4
168	446.3	446.1	446.0	445.4	448.6	447.3	447.3	447.5
192	444.6	447.8	447.8	447.3	447.3	446.0	446.0	446.4
216	445.5	441.3	434.5	432.8	432.4	431.2	430.8	415.1
240	415.8	416.8	184.2	175.9	170.8	167.3	160.7	158.7
264	151.7	150.5	150.7	145.5	145.5	139.4	136.2	132.8
288	130.9	130.9	131.2	133.3	133.0	132.4	131.8	130.4
312	129.5	127.8	126.2	128.0	128.3	130.6	131.8	129.8
336	128.1	127.1	127.9	127.4	134.2	131.9	130.5	134.3

DEPTH	2918.9		TILT	60		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	113.3	114.2	115.6	116.3	117.2	114.5	112.5	110.3
24	111.0	111.0	111.7	109.2	109.2	108.9	105.4	105.8
48	104.4	105.1	105.8	106.8	115.5	117.4	119.9	121.7
72	124.4	123.8	123.6	123.4	123.5	125.9	128.8	127.5
96	126.7	126.5	126.7	128.7	129.1	136.3	138.3	138.0
120	138.3	136.2	134.0	131.4	131.4	131.4	129.3	131.0
144	135.4	137.3	150.7	143.9	143.7	145.7	147.8	149.2
168	152.4	152.9	153.8	155.6	157.5	154.2	153.8	154.5
192	160.7	160.9	161.3	161.0	160.9	159.3	157.9	158.3
216	158.9	160.9	164.9	167.0	168.9	168.6	168.8	167.9
240	167.3	162.3	158.3	156.2	152.1	147.1	143.2	140.6
264	137.6	133.7	131.0	129.6	123.5	120.7	119.0	116.8
288	115.1	112.9	107.9	106.8	108.8	108.4	108.4	107.8
312	107.6	106.0	104.7	106.5	108.6	108.9	109.7	110.2
336	111.0	111.2	111.7	111.2	111.0	110.8	110.8	112.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2918.9		TILT	55		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	109.5	108.6	108.2	106.8	109.6	109.6	108.2	109.6
24	109.9	109.9	109.2	111.3	111.3	111.0	108.9	110.3
48	109.2	108.9	109.2	107.9	107.2	107.2	106.8	107.2
72	107.2	106.8	107.2	107.5	106.1	109.5	111.0	109.6
96	109.3	109.3	109.4	109.5	110.0	113.8	117.8	117.5
120	117.9	118.9	118.9	117.9	114.1	112.7	112.7	116.2
144	121.4	122.5	123.8	127.0	130.1	134.8	142.5	145.6
168	147.2	149.0	148.3	151.1	148.6	148.5	149.7	148.3
192	146.1	146.4	147.1	149.1	150.8	150.4	148.4	149.2
216	148.2	148.8	149.9	151.9	153.7	152.1	152.1	152.1
240	151.4	147.2	143.0	139.3	135.5	132.9	130.8	127.2
264	123.4	119.9	116.7	113.0	110.3	108.7	106.1	105.8
288	105.4	102.3	101.6	101.6	103.7	103.7	103.4	103.4
312	104.4	104.8	104.8	105.1	105.8	104.8	105.4	105.8
336	106.1	107.2	106.5	106.1	105.4	106.8	106.5	109.2

DEPTH	2918.9		TILT	50		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	116.9	116.9	115.5	116.5	116.5	117.5	117.9	115.8
24	115.8	115.8	115.5	114.4	114.1	114.1	112.4	112.4
48	111.7	111.0	111.0	110.3	110.6	109.2	109.2	108.6
72	108.2	108.9	108.6	108.9	109.2	108.9	109.9	109.6
96	110.3	110.6	110.3	109.9	110.3	110.3	111.0	111.0
120	111.3	108.6	108.6	108.2	106.8	107.9	108.2	106.1
144	107.2	106.8	106.8	114.1	119.6	122.7	126.5	129.2
168	132.5	133.1	134.2	134.6	135.3	134.1	133.8	132.5
192	133.3	132.7	134.2	136.3	132.5	132.7	133.0	134.7
216	136.9	136.8	136.9	139.3	143.4	139.6	140.2	136.2
240	135.9	131.0	131.0	126.5	125.2	123.1	122.0	117.1
264	114.0	110.6	109.2	107.2	107.5	106.1	104.4	108.2
288	105.4	108.9	108.9	107.5	108.6	109.2	111.3	111.7
312	113.0	110.6	112.0	112.7	113.0	113.4	114.1	114.1
336	115.8	117.9	117.9	115.5	117.2	117.2	115.8	115.8

DEPTH	2918.9		TILT	48		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	120.0	119.9	121.7	119.1	119.1	118.9	119.1	118.2
24	117.5	116.2	115.5	114.4	114.4	114.1	114.4	113.4
48	112.7	112.0	111.0	111.3	110.6	110.3	109.6	110.3
72	109.6	109.6	109.6	109.6	111.0	110.6	111.0	112.0
96	111.3	112.0	113.7	113.0	113.7	115.1	113.7	114.1
120	113.0	113.7	111.7	109.2	109.9	109.9	111.0	109.6
144	111.3	109.2	109.2	109.6	115.4	118.2	121.7	124.2
168	127.3	127.8	128.7	129.2	130.0	127.6	127.6	127.8
192	128.7	126.2	123.4	124.6	126.1	127.6	129.2	129.9
216	131.4	131.7	131.7	133.1	134.4	134.3	134.7	131.6
240	128.7	127.2	126.9	123.3	121.6	119.4	118.0	116.5
264	110.9	107.8	108.9	110.0	110.7	108.6	109.6	111.0
288	112.4	111.3	113.4	112.4	113.0	113.1	114.8	114.8
312	115.1	115.5	117.2	116.9	117.9	117.9	119.3	118.6
336	121.0	117.9	120.3	119.3	119.3	121.0	121.0	120.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2918.9		TILT	45		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	124.5	125.1	125.8	123.4	123.4	121.3	121.3	120.3
24	120.0	117.5	116.5	115.5	115.8	114.8	115.1	113.2
48	113.4	112.7	112.4	112.0	111.7	111.3	111.3	112.7
72	112.4	111.3	111.7	111.7	113.7	112.7	112.4	113.0
96	113.0	114.4	116.2	116.2	118.2	120.7	119.3	119.3
120	118.9	117.5	117.2	116.5	115.1	117.2	115.1	116.9
144	116.2	114.8	114.1	112.4	112.4	112.5	114.3	117.0
168	120.1	121.1	122.4	122.5	122.4	120.0	119.6	117.2
192	116.2	116.2	115.8	118.7	120.3	121.9	123.9	124.1
216	121.3	122.0	126.4	127.7	129.3	128.9	129.6	125.2
240	123.8	123.1	121.7	118.9	116.5	115.1	115.1	113.7
264	112.7	111.0	114.8	114.8	116.2	115.1	115.5	116.2
288	117.5	117.5	120.3	120.7	121.7	119.6	121.1	123.1
312	123.1	125.8	124.8	122.6	123.4	125.5	126.9	123.4
336	124.8	122.4	123.4	124.5	124.8	123.8	124.5	124.5

DEPTH	2918.9		TILT	40		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	129.3	130.3	130.7	130.0	128.9	125.1	123.1	122.4
24	122.4	123.4	118.6	119.6	119.6	119.3	117.2	118.6
48	116.9	120.3	117.4	117.9	116.5	117.9	117.2	117.1
72	116.7	116.6	117.1	117.2	117.7	118.6	117.2	117.2
96	118.9	118.6	119.6	122.0	124.1	124.6	125.1	126.2
120	129.6	131.4	127.6	127.6	125.8	125.5	127.9	125.5
144	128.3	124.5	124.1	123.1	124.5	122.4	122.0	121.3
168	121.0	117.5	120.0	118.2	116.7	117.9	115.1	117.9
192	116.9	116.2	115.5	115.1	114.4	116.5	117.0	117.3
216	117.2	117.5	117.9	123.8	122.1	122.0	122.4	122.4
240	120.3	124.3	124.2	124.1	122.4	123.4	126.9	126.2
264	126.2	127.9	125.8	129.6	127.2	128.6	131.4	132.1
288	132.4	129.3	134.1	131.4	131.7	134.8	134.2	134.6
312	134.8	135.0	133.7	134.5	133.4	133.4	132.4	131.0
336	130.3	128.3	130.0	130.0	128.6	127.9	128.6	129.3

DEPTH	2918.9		TILT	35		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	141.2	141.0	137.9	140.7	135.9	141.0	138.3	136.9
24	134.5	133.1	133.8	134.9	133.8	132.1	130.0	134.5
48	137.2	135.2	135.2	135.5	134.5	134.5	134.8	134.8
72	133.1	136.9	138.6	137.6	138.6	136.9	137.4	137.4
96	125.5	128.6	130.0	128.6	129.6	132.7	132.4	134.5
120	134.8	137.6	139.3	139.4	139.3	139.2	142.8	142.4
144	141.7	140.6	140.6	139.9	138.7	136.0	137.2	138.6
168	134.0	136.2	136.2	135.2	134.5	134.6	134.6	135.2
192	134.5	129.6	129.1	134.2	130.7	133.1	132.5	131.0
216	131.4	134.1	134.8	138.3	135.9	135.5	136.5	139.2
240	140.9	140.4	140.0	144.0	142.1	142.2	141.7	142.1
264	145.2	147.4	148.3	147.6	145.2	144.7	146.9	147.5
288	151.4	146.5	150.7	151.4	150.7	149.0	148.6	146.6
312	147.9	147.3	145.8	149.6	147.6	150.7	147.3	146.9
336	147.3	148.3	151.1	141.7	142.1	142.8	142.5	145.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2918.9		TILT	25		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	167.9	167.2	166.9	166.2	165.9	164.6	163.7	163.7
24	164.1	163.5	162.8	162.8	163.5	161.8	163.2	164.5
48	166.3	167.7	169.2	171.3	173.4	173.5	173.9	176.6
72	178.4	179.4	181.8	182.9	186.7	187.0	191.8	193.2
96	194.6	194.1	191.6	190.1	195.3	192.5	197.0	187.7
120	187.3	189.1	194.9	191.9	193.0	190.3	198.5	199.7
144	195.4	193.4	192.0	195.4	193.7	195.1	199.6	194.1
168	196.2	198.7	196.2	197.9	193.7	194.9	206.7	203.3
192	196.3	203.3	202.9	199.4	200.1	203.3	202.9	197.0
216	198.7	196.3	199.1	202.1	206.3	196.8	198.7	198.1
240	198.7	199.4	203.2	201.9	197.4	200.8	200.8	198.8
264	195.8	197.9	199.1	195.6	194.3	188.9	184.8	181.8
288	178.9	177.7	176.6	175.3	174.9	174.0	174.6	174.9
312	174.6	176.6	177.7	177.8	172.5	172.6	166.3	165.4
336	165.6	167.0	169.4	170.9	170.1	169.2	166.5	167.0

DEPTH	2918.9		TILT	20		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	161.8	161.8	162.5	161.1	160.6	159.7	159.3	158.0
24	158.8	158.4	158.6	158.3	158.5	159.3	160.6	161.3
48	162.5	165.7	170.8	171.1	172.1	172.3	172.1	174.1
72	175.6	181.6	184.0	185.9	188.2	191.2	194.3	196.4
96	199.6	202.9	207.3	210.3	213.7	217.3	220.6	222.9
120	225.6	226.7	229.8	230.9	236.1	242.4	243.5	244.4
144	244.7	247.1	238.5	244.7	251.6	256.8	254.0	250.2
168	255.1	255.4	255.4	255.4	258.5	258.9	258.2	255.8
192	255.4	255.4	254.7	247.4	249.0	244.4	253.0	250.2
216	250.2	239.8	238.8	239.5	237.8	237.4	238.5	235.0
240	232.6	231.9	231.9	222.9	220.4	218.3	213.3	213.0
264	210.5	205.7	201.4	196.7	187.3	182.0	177.6	175.4
288	173.4	173.1	173.3	170.8	171.0	170.4	170.2	171.0
312	173.2	173.5	174.5	170.8	166.4	165.5	160.9	160.5
336	160.6	161.8	163.4	163.9	164.2	162.6	160.9	161.1

DEPTH	2918.9		TILT	15		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.6	152.4	152.1	149.7	146.6	149.3	151.4	149.4
24	150.0	150.2	147.6	153.4	156.0	157.6	159.4	159.1
48	159.2	161.8	164.9	166.6	168.6	169.9	171.8	172.3
72	173.5	177.0	180.4	184.0	188.2	187.7	189.8	192.5
96	196.2	199.3	203.1	203.6	205.0	209.1	213.4	217.7
120	222.8	227.0	232.6	236.1	243.8	240.2	239.6	240.6
144	239.3	243.3	245.2	249.0	254.8	249.4	245.3	248.4
168	252.3	253.2	255.1	255.1	256.5	255.4	256.0	254.3
192	253.2	255.5	258.4	255.9	254.1	247.5	246.4	244.0
216	238.7	234.0	229.7	232.6	236.0	236.1	233.4	230.6
240	228.8	229.0	228.8	225.7	223.0	219.2	216.2	209.7
264	204.0	195.0	186.8	183.2	180.2	174.9	173.5	167.6
288	165.1	163.2	160.0	158.3	158.4	159.0	160.3	161.4
312	163.0	161.8	161.1	157.4	153.8	153.1	153.1	152.0
336	151.8	154.6	157.9	155.4	153.8	152.1	149.4	150.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	2918.9		TILT	10		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	139.8	138.6	142.1	142.1	137.6	137.2	139.7	141.0
24	142.5	141.7	145.0	149.1	152.4	156.1	158.7	158.6
48	156.9	158.0	158.2	162.7	169.9	170.5	173.3	174.2
72	176.3	177.6	183.3	183.5	184.6	188.1	188.8	187.4
96	188.3	193.8	198.3	198.9	198.9	197.4	194.9	198.7
120	198.7	203.6	211.1	216.5	218.5	225.3	216.4	216.7
144	226.1	228.1	234.8	237.8	246.5	242.1	240.2	242.4
168	246.2	244.8	244.7	246.7	249.9	245.3	242.3	238.8
192	241.5	239.2	236.8	236.4	236.9	235.0	234.0	230.3
216	227.4	225.3	223.6	225.7	227.8	230.9	231.6	231.5
240	228.9	228.3	228.4	222.6	218.4	215.8	214.7	210.1
264	203.4	187.0	173.1	169.1	165.1	159.3	156.6	154.8
288	151.7	155.2	155.2	148.3	148.3	147.3	152.7	152.8
312	148.6	152.3	153.1	142.5	147.3	141.7	146.3	140.0
336	145.1	141.4	149.4	146.1	143.8	146.2	142.2	144.0

DEPTH	2919.2		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	132.3	132.6	133.5	131.7	132.6	134.7	134.7	132.9
24	133.8	137.4	139.2	143.0	149.6	154.4	155.6	155.8
48	155.3	160.1	161.5	164.8	166.9	172.8	172.5	170.4
72	171.0	172.2	174.0	177.0	178.2	182.7	185.0	183.3
96	181.2	189.2	191.6	194.3	192.5	192.2	193.4	195.5
120	192.8	198.1	198.7	199.1	204.2	204.9	209.2	211.0
144	212.9	220.8	224.1	222.9	227.3	226.6	223.5	223.5
168	223.2	221.1	221.2	225.9	224.7	221.7	220.2	219.9
192	217.5	220.8	219.9	213.0	218.1	213.9	209.8	209.2
216	213.0	216.9	220.2	226.7	229.7	232.7	233.3	222.6
240	222.9	219.9	214.2	211.3	209.2	205.3	214.5	211.6
264	206.5	188.9	174.3	172.2	160.9	153.8	146.7	143.9
288	142.7	141.8	138.9	138.3	139.6	135.6	138.3	142.1
312	141.8	136.8	131.6	135.3	134.1	137.1	133.5	131.1
336	131.1	137.0	137.7	137.7	130.5	134.1	132.9	133.1

DEPTH	2929.2		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	131.2	132.0	132.9	130.5	130.5	130.2	133.5	130.2
24	131.7	135.8	136.8	141.3	149.3	153.8	155.6	155.6
48	155.0	161.2	162.7	164.2	169.3	173.4	173.7	170.7
72	172.5	171.3	173.4	174.3	177.9	180.0	185.3	183.2
96	179.7	188.0	189.8	192.8	191.4	191.0	191.3	194.3
120	191.6	192.2	194.9	192.5	194.8	197.9	202.0	206.8
144	202.4	206.5	204.2	211.4	219.3	220.5	217.2	212.9
168	216.9	220.2	218.7	223.2	223.8	219.3	219.6	217.5
192	217.2	217.5	213.6	214.2	213.5	212.1	209.8	209.5
216	213.3	217.8	221.7	226.7	231.8	234.5	234.8	225.6
240	223.2	220.8	217.5	215.4	208.9	206.8	207.5	212.7
264	207.5	195.8	180.0	173.4	162.1	155.2	151.7	147.2
288	145.7	141.6	139.8	136.6	136.5	135.0	133.8	134.7
312	135.9	136.2	131.1	134.4	134.4	133.2	131.4	129.9
336	129.9	130.5	136.3	136.3	129.4	130.8	133.4	131.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2939.3		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	122.5	121.6	128.7	128.1	126.4	125.5	127.2	125.0
24	130.2	134.1	135.6	141.0	150.0	153.5	155.6	154.4
48	156.5	160.2	161.8	165.7	167.3	171.0	172.2	169.9
72	171.0	170.7	171.9	173.4	176.7	180.0	184.1	185.0
96	182.1	187.4	187.7	192.5	191.0	190.1	190.1	193.7
120	192.5	189.7	187.7	182.2	182.1	181.8	188.0	190.4
144	186.8	194.3	197.0	203.8	202.9	213.3	207.7	208.0
168	211.0	210.7	214.3	210.3	214.2	214.5	209.5	210.7
192	204.4	205.0	207.8	207.1	206.0	206.0	209.5	209.8
216	214.5	217.2	223.8	228.8	236.0	237.2	234.8	226.7
240	225.6	220.2	219.9	216.3	210.7	209.2	211.5	213.0
264	203.2	196.4	181.2	175.5	168.1	163.9	158.5	157.6
288	152.3	148.4	146.0	141.6	138.6	135.0	130.1	126.7
312	126.4	123.7	123.7	120.1	119.5	119.8	120.1	120.7
336	122.8	124.6	130.5	129.0	121.0	123.1	123.4	127.0

DEPTH	2949.0		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	120.4	116.8	118.9	119.5	117.7	115.6	118.6	122.6
24	130.2	131.7	136.5	142.7	151.1	152.9	153.8	153.8
48	153.5	161.2	160.9	164.2	165.4	170.7	170.4	168.7
72	169.6	169.9	170.4	173.4	177.3	178.8	183.6	183.9
96	182.1	184.1	188.7	191.3	190.7	189.7	189.5	190.1
120	189.0	184.7	179.3	177.1	178.2	181.5	183.0	177.6
144	188.7	181.8	189.7	185.9	196.4	201.3	192.8	196.2
168	201.7	202.3	201.3	198.4	197.9	199.0	199.0	195.9
192	195.9	194.6	198.4	196.4	197.0	206.4	209.3	212.4
216	215.1	220.8	224.7	232.9	235.7	238.1	234.8	228.5
240	228.8	222.7	219.0	216.9	211.6	211.6	212.7	213.2
264	199.9	198.1	191.9	182.4	176.1	168.4	163.0	166.3
288	161.5	156.7	154.7	148.1	145.7	139.2	137.7	132.9
312	131.4	129.0	126.1	126.4	124.9	124.0	125.8	126.1
336	126.1	126.1	126.7	125.5	124.0	123.4	122.5	122.5

DEPTH	2959.3		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	120.1	118.4	116.8	118.1	116.2	116.2	117.6	123.6
24	130.4	132.6	137.4	142.3	150.0	152.5	153.8	154.4
48	153.6	159.0	160.6	164.1	165.1	169.3	171.3	168.0
72	168.0	168.3	169.6	172.2	174.7	178.9	184.4	183.4
96	181.5	183.1	185.0	187.9	182.5	182.8	182.8	184.4
120	187.0	176.0	171.5	170.5	176.7	176.8	180.2	175.7
144	165.1	170.2	171.9	172.8	183.5	188.6	181.1	180.2
168	191.2	193.4	190.8	193.1	196.3	195.2	190.7	190.3
192	191.5	194.1	195.7	197.6	199.5	204.3	210.4	213.0
216	217.1	223.2	226.2	234.2	236.5	239.7	236.2	234.2
240	230.7	221.7	217.5	219.5	215.0	213.4	213.0	213.4
264	202.7	198.6	198.9	193.2	183.8	175.7	170.1	172.7
288	171.0	167.4	161.6	158.3	155.1	148.0	146.1	143.9
312	139.4	137.4	136.5	134.5	132.6	132.0	130.0	130.0
336	130.4	129.7	128.1	125.8	123.6	123.9	123.6	121.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2969.1		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	125.7	124.1	120.6	120.6	119.4	118.7	121.3	123.0
24	125.8	128.4	137.1	143.5	149.7	152.2	153.8	154.4
48	154.8	160.6	165.7	163.8	162.8	168.0	166.7	168.4
72	167.0	167.3	169.3	171.5	174.7	179.6	182.8	183.1
96	182.8	184.1	186.0	182.5	181.5	181.5	181.5	179.9
120	178.8	173.5	170.2	169.0	171.2	172.2	177.6	171.4
144	163.8	165.4	165.1	171.5	179.9	187.7	176.8	180.7
168	186.6	191.3	191.2	187.6	194.7	194.0	187.7	191.5
192	194.1	191.5	194.7	196.3	200.4	206.9	210.1	214.3
216	218.8	224.8	227.2	235.2	238.4	241.3	235.9	234.2
240	229.1	223.7	218.8	218.8	216.9	215.6	214.6	214.3
264	205.6	203.0	200.2	200.2	185.0	176.7	173.8	174.4
288	177.7	176.1	168.6	166.1	163.0	159.6	154.5	150.0
312	147.4	143.9	141.9	140.9	137.7	136.6	132.9	132.0
336	132.0	131.3	131.3	129.1	126.8	125.7	126.1	126.6

DEPTH	2978.9		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	132.9	134.0	133.0	130.0	129.1	128.1	128.2	127.7
24	127.8	129.1	136.1	143.9	148.4	151.9	153.2	152.9
48	153.7	159.6	164.1	163.2	162.2	165.4	166.1	169.9
72	166.7	166.7	168.3	170.9	174.7	180.9	181.2	182.8
96	183.4	183.8	185.0	182.5	181.5	178.6	176.7	178.0
120	174.5	171.2	170.6	169.3	170.2	169.0	172.8	169.4
144	161.2	161.2	162.2	171.9	177.6	179.3	179.6	183.1
168	190.5	188.9	184.6	183.4	191.5	190.9	184.7	189.2
192	192.8	193.1	195.3	197.6	204.0	207.6	210.8	217.9
216	219.8	224.0	230.4	235.6	240.1	241.7	238.1	236.1
240	229.8	228.3	220.2	219.2	217.9	215.6	215.6	211.7
264	206.3	203.6	200.8	194.4	186.7	183.8	178.5	177.7
288	182.0	180.5	177.6	170.6	166.7	166.6	162.5	154.5
312	151.6	149.7	147.4	148.1	143.9	144.5	141.8	140.2
336	139.6	139.1	139.6	136.1	134.9	134.9	134.9	133.9

DEPTH	2989.1		TILT	0		VOS	5957.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	144.4	140.6	138.2	136.6	136.6	136.6	137.8	135.2
24	139.7	140.1	141.0	144.2	147.4	153.2	153.2	152.5
48	156.1	156.6	163.4	164.2	164.6	163.5	169.6	169.3
72	165.4	165.4	168.0	170.2	175.1	176.7	181.2	182.5
96	183.4	183.1	184.4	181.2	180.5	177.3	176.0	175.7
120	175.7	175.1	170.9	173.8	173.7	170.2	170.2	168.2
144	162.9	159.0	163.5	170.9	177.2	177.3	177.7	180.6
168	185.4	183.3	183.4	183.8	187.6	186.7	182.5	188.3
192	191.8	188.6	192.1	195.3	204.5	208.5	211.5	217.9
216	221.9	226.9	229.8	235.2	241.7	242.3	238.4	240.1
240	234.2	228.3	220.1	220.1	219.1	218.2	216.9	213.0
264	211.7	204.7	205.6	182.5	192.4	187.0	184.4	180.9
288	182.8	185.7	183.8	180.9	176.7	171.2	170.2	168.0
312	163.2	161.2	158.3	155.8	155.1	150.6	147.7	147.7
336	148.7	146.4	146.8	143.9	145.1	144.8	144.2	142.6



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	2999.0		TILT	0		VOS	5957.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.1	151.7	147.6	147.9	147.6	147.2	148.3	148.8
24	147.2	150.9	147.9	148.3	150.0	152.4	153.1	152.8
48	153.1	158.6	163.5	165.0	163.5	164.5	170.4	168.3
72	170.4	169.7	168.1	171.8	172.5	177.3	181.1	181.8
96	183.5	185.9	184.6	182.5	181.1	178.7	177.6	176.3
120	173.5	171.8	173.2	174.5	175.2	171.1	168.3	164.8
144	163.5	159.3	162.8	168.5	175.6	175.2	178.3	172.5
168	184.6	180.8	183.5	181.8	184.6	183.9	181.1	182.5
192	184.2	190.1	191.9	197.0	205.0	209.1	215.0	217.7
216	223.3	227.1	230.9	238.1	241.6	242.3	240.9	243.0
240	236.0	228.4	221.5	220.1	220.5	219.9	218.5	217.0
264	212.5	213.2	172.1	163.5	167.5	159.8	148.0	188.4
288	186.3	189.7	188.0	186.3	184.9	182.8	177.6	177.6
312	175.6	171.1	168.3	169.0	163.8	162.1	160.4	159.7
336	158.0	158.6	155.9	153.1	156.6	154.5	156.2	152.1

DEPTH	3003.9		TILT	0		VOS	5957.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	155.6	156.6	152.8	152.8	153.1	152.8	151.0	153.8
24	153.8	156.6	151.5	152.0	150.7	152.4	153.5	153.1
48	154.8	160.1	163.8	165.3	168.3	168.9	170.4	169.7
72	171.1	170.4	174.2	175.2	175.6	177.3	180.8	182.1
96	184.2	185.9	184.9	182.8	182.1	180.1	179.5	178.1
120	173.5	172.5	173.8	173.8	175.2	171.4	167.3	165.2
144	162.6	161.1	162.8	169.8	174.2	175.2	178.2	171.9
168	182.7	181.1	178.7	179.2	184.3	184.2	181.1	184.2
192	188.7	191.1	193.9	200.1	205.3	209.1	214.6	220.1
216	224.3	228.4	232.9	238.1	241.6	242.3	242.0	242.6
240	233.9	228.1	222.2	220.1	222.6	220.8	221.2	217.7
264	216.3	217.7	158.9	158.3	155.5	142.8	140.0	193.5
288	191.1	191.8	189.7	189.7	185.3	187.0	182.1	179.4
312	178.7	174.9	174.2	169.4	167.6	166.2	164.5	164.2
336	161.4	161.4	159.7	157.6	160.0	159.3	156.6	158.3

DEPTH	3008.8		TILT	0		VOS	5958.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	159.1	159.7	158.5	160.6	158.2	155.9	157.4	157.9
24	159.7	158.5	158.8	156.2	157.9	154.1	154.1	154.4
48	155.3	160.6	163.3	166.9	170.5	169.9	171.4	171.1
72	171.1	174.3	174.3	177.9	180.0	179.1	182.1	182.4
96	185.1	186.2	184.8	182.7	181.8	180.6	180.6	179.4
120	172.8	173.4	173.7	174.3	175.8	169.9	167.2	162.4
144	161.8	160.6	163.6	169.6	173.5	175.5	177.6	168.7
168	181.2	180.0	179.1	179.1	184.5	184.5	183.1	186.2
192	189.5	192.8	196.7	201.7	205.9	209.8	214.3	220.2
216	225.0	230.0	234.8	238.1	241.4	242.3	242.0	244.9
240	234.8	228.9	222.6	221.4	222.6	222.0	222.3	221.4
264	222.6	176.0	160.0	158.8	146.0	142.2	138.0	200.9
288	128.8	131.5	193.0	191.9	190.7	190.7	186.0	184.2
312	182.1	179.4	179.7	175.2	172.8	170.5	169.9	168.7
336	168.4	166.6	163.3	167.5	161.8	161.5	163.9	162.1



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3013.9		TILT	0		VOS	5958.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	165.1	165.4	164.2	161.5	160.6	159.7	158.8	162.1
24	166.3	168.1	166.9	160.9	160.0	160.5	153.8	154.7
48	155.3	160.3	166.0	169.6	169.6	173.7	173.7	177.5
72	175.7	177.9	177.6	179.1	180.9	182.7	182.4	183.6
96	187.4	186.8	185.1	184.5	193.7	185.7	185.8	189.0
120	189.0	174.3	175.8	175.5	176.4	171.9	169.0	162.4
144	160.1	159.4	163.0	167.7	173.1	174.3	175.8	170.8
168	173.4	180.6	179.7	179.1	183.3	185.1	185.4	185.7
192	188.9	192.8	196.7	202.3	206.0	209.2	213.7	222.3
216	225.6	229.4	236.3	237.8	241.4	244.7	244.3	245.1
240	239.0	232.7	224.1	222.0	223.2	223.5	222.6	221.1
264	180.7	173.3	160.9	154.4	138.0	131.1	134.4	128.2
288	122.5	122.2	121.9	195.5	192.3	190.8	191.6	188.7
312	186.2	184.8	182.4	179.6	178.8	174.6	171.7	170.5
336	171.0	170.8	169.9	169.9	169.6	167.8	166.9	163.3

DEPTH	3019.0		TILT	0		VOS	5958.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.9	169.6	166.3	165.2	164.5	164.8	166.0	167.8
24	169.5	172.0	169.5	171.0	171.1	170.5	155.1	160.8
48	157.7	160.6	169.0	173.1	174.3	177.3	177.0	178.2
72	179.5	180.5	182.7	184.0	189.2	184.5	184.5	186.0
96	188.3	195.9	200.6	202.5	194.9	195.2	197.9	201.3
120	212.2	217.2	215.8	210.7	205.5	190.0	181.3	163.9
144	163.9	163.0	164.5	169.9	172.8	174.0	175.2	169.9
168	173.9	180.6	177.5	181.4	183.3	185.7	186.5	186.2
192	191.3	196.1	199.1	205.0	206.8	211.6	214.0	223.8
216	226.5	230.6	237.8	240.2	241.7	246.4	244.6	247.6
240	239.0	232.4	226.8	223.2	223.5	225.3	203.4	221.2
264	165.7	160.8	142.8	135.6	128.0	130.5	129.1	126.5
288	119.9	116.0	114.9	109.2	107.3	105.9	106.1	195.0
312	193.0	192.9	186.0	183.9	182.1	181.8	178.5	177.6
336	177.6	173.4	173.7	176.1	172.8	171.4	169.0	172.2

DEPTH	3024.0		TILT	0		VOS	5958.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	177.0	174.6	170.2	170.2	168.1	168.7	172.0	174.6
24	174.9	178.2	178.2	175.2	177.0	173.9	161.6	162.1
48	160.0	160.6	173.1	178.6	179.1	182.1	179.1	180.3
72	180.6	183.6	188.9	191.9	193.7	195.2	186.9	194.6
96	195.2	198.8	203.2	208.0	209.5	200.8	200.3	210.0
120	216.9	221.4	224.5	229.8	236.9	201.3	202.8	192.3
144	163.9	166.9	167.7	172.5	171.9	172.8	175.2	171.1
168	173.4	178.8	179.6	184.5	184.8	187.4	189.2	189.8
192	193.7	195.8	205.0	205.6	209.5	212.2	214.8	222.9
216	226.5	231.2	236.9	240.5	241.7	247.6	245.8	247.9
240	238.4	233.6	228.8	227.0	225.0	225.0	184.7	183.0
264	163.3	147.2	137.1	125.6	115.9	112.8	128.3	111.0
288	117.4	110.3	106.7	107.3	103.1	100.5	104.9	201.2
312	87.8	88.8	190.1	187.6	185.1	184.5	185.4	182.1
336	180.6	180.3	179.4	178.6	180.0	175.5	177.3	173.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3029.1		TILT	0		VOS	5958.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	178.2	177.1	175.7	174.9	174.2	180.4	175.8	182.9
24	179.7	182.4	184.5	179.4	183.9	182.4	170.8	171.7
48	159.7	160.6	172.8	178.5	181.2	183.3	186.1	185.1
72	182.4	184.2	188.6	191.6	195.2	195.8	196.1	195.6
96	196.4	199.4	201.1	207.4	208.6	209.0	205.8	212.9
120	212.5	219.3	225.4	230.4	237.5	220.5	217.8	208.0
144	212.2	203.5	170.2	173.4	171.9	172.8	173.4	173.1
168	173.4	180.9	183.0	185.1	187.4	191.0	189.2	194.0
192	198.5	200.3	205.9	208.3	210.1	214.3	219.9	225.0
216	228.3	233.3	238.7	240.8	247.0	250.3	247.4	249.7
240	240.5	233.3	229.7	233.0	226.6	225.9	186.9	186.0
264	160.1	146.3	134.5	115.3	110.3	113.9	108.8	104.0
288	100.5	102.8	99.3	100.2	97.5	98.4	98.1	91.2
312	85.9	83.8	81.7	84.1	77.5	78.1	77.5	75.7
336	73.3	74.6	72.7	183.9	71.9	180.9	181.8	182.4

DEPTH	3034.0		TILT	-2		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	76.3	70.2	71.2	68.7	66.0	68.1	64.6	190.5
24	191.9	195.0	197.0	199.2	200.8	195.0	198.3	181.9
48	201.2	202.5	208.8	206.0	210.1	206.6	209.4	213.4
72	216.7	218.9	222.6	231.6	230.9	234.0	233.6	239.2
96	237.1	242.6	246.8	248.7	258.3	263.3	267.5	266.7
120	276.3	281.8	288.7	294.9	305.6	310.0	312.9	312.4
144	302.5	303.0	298.2	293.7	290.1	290.3	290.1	290.5
168	290.9	294.2	296.4	297.8	299.2	300.6	197.5	248.2
192	209.5	203.3	208.0	210.1	212.6	303.7	297.1	290.9
216	281.2	292.7	290.7	257.0	262.8	264.2	290.6	282.1
240	277.3	273.3	269.8	274.9	272.4	266.6	256.8	180.0
264	156.7	138.4	134.1	103.3	107.1	108.6	108.2	89.8
288	94.0	87.9	87.5	90.2	89.7	90.2	84.3	83.3
312	78.1	79.8	68.6	68.2	67.9	67.1	65.8	66.4
336	68.7	72.2	68.1	69.7	65.0	62.1	186.2	76.2

DEPTH	3034.0		TILT	-4		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.5	69.5	71.2	65.0	65.5	64.8	56.3	194.7
24	195.2	79.1	203.8	204.1	205.0	201.9	204.2	193.3
48	207.2	207.9	211.8	211.3	216.0	213.9	217.0	219.0
72	225.1	227.7	232.7	233.6	232.6	240.2	242.8	247.0
96	255.8	255.8	258.4	262.1	269.9	266.6	273.8	277.5
120	285.4	291.5	295.2	300.2	307.4	311.1	312.3	312.1
144	307.8	303.5	299.4	294.9	291.1	289.7	291.5	291.1
168	292.5	294.6	297.2	299.1	300.1	302.1	303.4	303.8
192	308.5	317.1	320.0	313.5	313.7	307.9	302.2	301.1
216	298.4	295.8	208.4	206.3	217.1	213.8	208.7	287.9
240	280.2	283.3	278.5	276.8	260.9	236.9	251.2	176.3
264	156.7	135.7	103.6	104.4	107.8	96.4	95.5	89.2
288	78.0	81.6	81.6	87.6	84.3	84.0	81.3	66.0
312	78.4	78.8	66.1	66.1	66.8	69.8	64.7	64.4
336	68.6	71.5	67.7	69.6	62.9	60.8	74.9	72.6



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3034.0		TILT	-6		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.6	67.9	68.9	61.2	63.9	62.6	54.6	195.4
24	72.9	72.6	78.4	78.1	78.4	72.9	69.8	65.7
48	78.0	215.5	213.0	216.2	218.0	216.7	219.3	224.9
72	234.4	237.8	242.6	247.5	239.2	248.5	253.7	253.6
96	257.1	262.7	270.3	272.7	278.9	280.3	283.8	284.4
120	288.9	292.7	296.5	303.9	309.7	310.7	312.0	312.2
144	307.4	302.9	299.2	295.3	292.0	291.6	294.7	294.6
168	293.5	298.8	298.5	299.8	299.5	301.4	302.4	303.7
192	308.4	320.5	321.0	324.0	323.2	323.2	311.7	306.9
216	317.4	312.4	205.4	200.9	198.8	196.1	193.4	202.4
240	202.9	205.5	206.3	207.7	204.6	197.7	186.3	171.4
264	154.2	133.8	103.3	103.8	107.9	95.4	85.7	89.2
288	77.8	78.8	81.6	85.4	84.3	78.5	80.5	65.7
312	78.0	76.7	64.6	65.7	66.7	68.4	64.6	63.3
336	68.5	68.4	66.6	68.5	63.0	58.1	70.4	70.4

DEPTH	3034.0		TILT	-9		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	71.7	67.9	63.4	57.7	62.9	60.8	54.6	53.9
24	72.9	71.5	70.5	70.9	67.4	69.0	65.6	65.7
48	71.4	82.9	66.7	73.6	75.3	76.4	229.8	233.4
72	238.8	242.9	249.5	250.6	251.6	254.1	260.6	260.3
96	264.4	269.9	273.9	276.8	281.0	282.4	285.8	290.0
120	295.2	299.3	304.5	308.3	313.1	315.0	316.7	314.8
144	309.5	309.7	308.5	305.6	303.2	307.3	300.2	303.5
168	304.8	309.3	310.7	311.4	310.7	313.8	315.9	316.6
192	323.3	324.4	323.5	326.3	317.4	319.5	316.6	291.7
216	196.0	192.4	193.0	184.6	178.2	180.7	185.7	185.6
240	186.8	187.1	201.1	196.1	194.2	193.3	188.2	172.7
264	149.1	126.9	105.1	107.9	109.2	95.7	85.0	86.1
288	77.6	79.8	82.2	81.9	79.1	76.0	78.5	68.2
312	75.2	70.9	64.6	65.5	66.8	65.3	64.3	63.7
336	68.0	67.4	64.6	67.1	62.5	60.1	68.5	53.6

DEPTH	3034.0		TILT	-12		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	69.5	67.5	60.8	58.1	62.2	57.9	53.4	50.5
24	72.9	69.8	65.8	68.1	67.5	67.1	67.2	66.1
48	72.9	68.9	66.2	67.4	75.3	78.1	91.9	237.8
72	242.6	246.6	247.5	250.8	254.0	258.2	260.6	263.9
96	266.3	264.1	266.8	268.5	275.8	277.5	283.6	291.0
120	295.9	297.6	302.4	305.2	308.8	302.8	303.2	310.3
144	305.7	308.2	313.1	306.2	310.4	308.3	306.6	305.5
168	308.6	307.6	311.1	301.5	310.7	313.1	313.8	305.7
192	299.7	302.4	296.9	290.3	258.2	268.4	265.9	214.3
216	185.3	186.6	183.9	173.5	179.3	178.5	175.6	174.2
240	174.2	171.4	175.2	171.4	167.6	168.3	174.9	176.3
264	153.1	125.8	105.8	110.6	112.0	97.7	86.8	76.8
288	77.1	79.8	81.6	78.1	76.9	78.5	60.8	69.2
312	71.5	66.7	65.0	65.7	66.3	66.6	60.2	63.4
336	65.3	65.6	54.6	66.7	61.6	55.4	59.9	53.6



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	3034.0		TILT	-15		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.2	66.4	58.9	58.8	61.2	55.8	51.9	49.1
24	70.9	67.4	61.8	62.1	62.1	65.3	67.2	66.7
48	79.6	69.1	67.3	64.3	77.1	78.8	86.4	85.7
72	230.6	232.7	228.7	238.2	181.1	240.0	248.2	246.6
96	253.1	254.7	261.1	262.5	260.6	264.9	270.3	272.2
120	273.8	277.5	273.4	283.3	279.2	281.4	289.8	292.9
144	292.7	297.7	298.3	297.3	298.1	300.7	297.3	303.6
168	294.8	291.9	287.6	286.3	287.3	282.0	283.8	261.2
192	252.0	238.6	234.0	230.5	220.9	189.8	192.7	183.9
216	184.6	182.8	171.6	165.9	171.8	173.1	165.2	166.5
240	161.9	158.3	151.8	154.3	152.2	152.6	151.7	162.7
264	156.0	122.2	107.8	112.2	85.0	85.7	84.7	77.8
288	80.0	80.5	80.5	80.0	77.0	76.4	63.9	69.5
312	64.2	64.4	64.5	65.0	68.8	62.4	58.0	62.9
336	64.6	64.1	53.9	67.5	61.6	52.9	53.5	53.9

DEPTH	3034.0		TILT	-18		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.8	65.9	57.3	58.7	60.5	55.5	50.5	49.0
24	68.0	65.0	63.2	61.9	57.8	64.1	67.4	67.9
48	79.1	71.6	67.2	64.3	74.8	76.3	86.1	87.3
72	175.7	176.5	157.6	150.5	152.9	154.0	186.5	226.3
96	225.2	231.8	231.5	240.8	237.7	243.9	241.0	239.0
120	244.9	252.3	267.3	264.9	264.6	268.5	271.5	280.5
144	273.8	275.6	285.2	283.1	285.2	284.5	281.9	279.4
168	281.2	275.8	273.8	272.6	267.3	256.2	252.7	235.3
192	228.5	222.3	214.4	195.6	178.2	177.5	173.2	175.2
216	178.2	170.7	163.3	163.4	165.5	164.8	152.6	154.9
240	151.1	151.2	139.5	141.2	136.6	143.7	146.3	153.4
264	153.7	117.9	109.9	103.1	86.2	85.8	78.4	78.1
288	79.9	81.9	76.6	80.1	77.2	69.4	66.7	68.1
312	61.1	63.6	65.1	65.5	68.7	57.1	58.4	62.3
336	62.7	62.9	53.9	68.1	62.3	53.7	53.6	53.9

DEPTH	3034.0		TILT	-21		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.7	65.0	56.2	58.6	59.6	56.4	51.5	50.1
24	66.2	64.7	63.2	62.0	57.8	65.0	68.4	68.7
48	78.8	76.4	69.0	65.4	77.6	76.8	87.6	87.1
72	138.5	137.7	149.9	146.8	146.1	147.9	164.0	167.3
96	157.3	156.4	161.5	176.7	182.3	188.0	210.1	215.8
120	239.7	237.1	248.1	242.5	255.6	257.7	258.0	251.8
144	248.2	257.6	267.3	260.6	266.0	261.4	261.7	268.5
168	266.8	255.2	252.3	250.0	259.6	241.9	231.2	221.1
192	217.8	208.6	194.3	182.9	170.7	168.0	159.4	160.9
216	161.6	163.5	158.2	159.7	149.0	149.0	147.0	146.2
240	138.1	135.0	132.6	134.7	131.6	136.1	139.7	141.0
264	143.1	114.6	105.9	100.4	87.0	86.7	77.3	77.9
288	81.1	81.9	77.8	77.8	66.2	63.3	66.4	67.3
312	59.0	63.5	65.3	65.0	65.3	56.4	56.9	61.9
336	57.8	58.4	54.3	66.8	61.2	53.6	54.0	54.2



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3034.0		TILT	-24		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.3	64.2	58.3	56.8	59.0	56.6	53.8	50.6
24	62.1	65.0	64.1	62.7	58.1	66.3	69.5	70.9
48	80.4	75.8	70.9	66.8	79.3	78.6	91.0	89.2
72	125.4	141.2	150.5	150.8	153.7	143.2	152.8	146.6
96	149.7	149.9	152.3	158.8	173.7	179.0	185.6	194.8
120	218.0	216.5	216.3	219.9	224.7	231.0	233.9	235.3
144	237.8	237.9	241.6	233.2	230.3	228.7	233.9	240.0
168	236.0	234.6	235.0	226.3	224.7	228.5	212.9	208.6
192	196.7	192.5	177.5	156.7	145.0	149.3	149.3	152.8
216	154.6	156.1	142.9	149.9	140.9	141.8	140.3	138.8
240	126.4	125.4	124.5	125.5	125.1	126.9	124.2	133.2
264	133.2	112.6	100.4	98.0	88.9	86.6	79.8	79.5
288	82.3	79.9	78.7	77.7	64.7	64.7	67.6	66.7
312	60.0	63.7	65.8	66.0	60.0	56.8	57.2	61.6
336	55.7	57.2	55.4	65.3	61.0	54.3	54.8	55.4

DEPTH	3034.0		TILT	-30		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	71.2	66.1	61.6	59.4	58.4	58.1	58.1	52.6
24	52.4	53.1	66.0	65.2	59.2	64.2	69.3	72.9
48	75.6	80.6	73.7	76.2	82.3	83.2	98.5	100.5
72	113.8	124.6	133.1	134.4	140.0	139.0	139.1	140.6
96	142.2	148.3	150.1	154.6	163.0	163.5	164.9	166.1
120	168.4	172.6	186.9	189.4	191.1	191.8	189.9	192.7
144	195.7	192.9	197.3	197.8	204.8	201.6	195.9	194.9
168	192.7	183.2	174.4	170.0	163.7	163.5	167.1	153.6
192	146.7	141.4	141.4	142.8	135.3	130.1	139.1	132.7
216	127.1	123.0	118.8	102.1	98.1	99.5	89.6	89.1
240	91.8	90.1	105.3	106.9	104.7	106.2	104.3	115.0
264	128.0	107.0	89.9	90.2	90.0	84.9	83.7	83.9
288	83.3	79.3	79.2	75.6	63.3	68.0	68.4	68.6
312	60.6	62.8	66.9	65.2	54.6	57.0	59.0	60.2
336	52.5	54.0	57.0	65.4	60.8	54.9	56.5	55.8

DEPTH	3034.0		TILT	-33		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	68.3	67.3	62.5	59.0	59.0	58.4	59.0	53.6
24	54.0	54.5	67.9	66.5	60.2	61.8	70.8	70.7
48	72.5	77.8	74.8	78.4	83.3	85.7	98.9	103.7
72	109.6	119.1	125.6	131.7	131.9	132.1	133.5	130.5
96	136.9	141.2	137.1	141.8	97.9	143.2	136.4	135.5
120	135.9	143.8	147.9	168.3	171.3	174.5	179.4	174.0
144	177.6	179.2	177.9	181.0	183.1	174.2	179.5	179.7
168	177.7	167.4	168.6	168.4	157.0	153.4	138.4	139.1
192	132.5	135.1	130.8	123.2	117.5	116.1	116.1	116.1
216	99.7	99.7	94.4	93.7	94.0	89.6	86.9	86.9
240	86.9	86.9	86.7	91.4	97.5	102.7	104.2	111.4
264	114.6	103.2	87.8	88.1	86.1	84.9	83.3	82.3
288	80.4	79.0	77.2	73.4	70.2	70.7	70.5	69.3
312	62.4	64.6	65.6	64.6	55.6	57.0	59.2	60.0
336	52.9	54.9	57.5	65.6	60.6	56.4	57.2	55.6



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	3034.0		TILT	-36		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.1	66.5	63.2	59.4	59.2	59.2	57.7	56.0
24	55.3	56.3	68.8	68.3	61.8	60.7	71.4	69.4
48	68.9	73.9	76.5	80.7	86.1	87.0	101.5	103.3
72	105.6	108.2	113.5	124.4	123.4	123.0	123.0	123.2
96	125.6	100.7	94.8	92.4	97.5	99.9	105.8	135.7
120	132.1	135.5	137.2	149.9	160.7	164.7	164.6	165.7
144	164.7	164.0	168.9	170.6	162.5	159.5	157.6	157.4
168	148.5	140.0	141.4	143.6	129.3	124.9	117.5	118.7
192	110.6	110.0	107.2	107.2	105.0	99.7	97.5	92.9
216	91.2	89.3	87.5	86.5	86.0	85.7	84.5	83.3
240	83.3	84.7	84.5	85.7	89.3	93.4	98.1	103.1
264	110.8	99.1	85.9	85.6	82.9	82.7	81.7	78.4
288	78.4	77.2	75.0	74.8	71.5	70.7	69.7	67.5
312	62.6	65.1	64.0	64.0	56.4	58.4	60.6	60.3
336	54.3	54.9	57.1	65.1	62.1	57.6	58.6	57.0

DEPTH	3034.0		TILT	-39		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.6	67.3	65.1	58.1	62.0	60.2	57.4	57.7
24	57.3	57.3	71.0	70.4	63.8	62.3	72.0	75.8
48	67.0	71.6	79.0	82.8	89.0	89.5	96.4	100.7
72	102.7	104.3	106.6	111.6	116.0	113.7	110.6	111.2
96	103.7	98.1	92.6	90.6	94.4	97.6	102.5	132.2
120	132.5	133.3	131.7	139.9	142.2	152.7	150.4	153.6
144	150.6	151.0	145.1	141.2	144.1	134.3	142.3	138.0
168	133.0	127.8	120.1	115.3	113.9	107.7	103.0	102.1
192	99.5	96.0	91.7	91.0	93.4	90.0	87.9	85.3
216	83.1	83.3	85.1	83.7	82.5	83.1	82.7	81.7
240	82.3	82.3	82.7	83.7	86.5	91.0	91.6	94.2
264	103.7	95.4	83.8	82.1	79.3	78.9	76.4	76.8
288	76.6	75.4	74.2	70.9	69.7	68.9	67.4	66.3
312	65.6	65.8	64.6	64.0	57.8	59.4	61.9	60.8
336	55.6	55.3	59.7	64.0	63.6	57.2	59.7	58.1

DEPTH	3034.0		TILT	-42		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.9	67.1	67.5	59.6	62.2	62.6	59.5	57.7
24	58.8	59.5	70.3	70.7	66.1	64.4	74.7	76.8
48	68.6	70.8	82.6	84.9	92.6	93.0	93.8	96.0
72	100.9	100.1	104.2	105.2	106.5	102.3	96.9	97.6
96	99.8	95.1	93.2	88.9	90.2	94.4	98.1	102.1
120	109.2	127.0	124.8	130.1	135.8	138.3	141.3	132.5
144	138.6	137.8	130.4	127.6	127.4	122.9	121.7	118.3
168	113.1	97.7	98.6	103.0	101.5	101.5	92.4	92.6
192	89.1	87.5	78.9	80.5	83.6	81.9	78.2	80.8
216	81.0	81.0	79.6	77.8	77.8	79.4	79.6	80.0
240	80.4	81.4	81.9	81.9	81.9	87.1	87.7	87.5
264	92.6	87.7	82.1	79.6	77.8	78.0	76.6	75.4
288	74.2	72.5	71.9	69.5	69.7	67.3	66.2	64.5
312	65.0	64.4	64.0	63.4	58.6	60.8	61.9	59.6
336	57.8	58.1	62.1	62.8	62.8	58.7	60.4	59.6



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	3034.0		TILT	-45		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.6	66.9	67.3	60.8	63.0	64.3	61.8	59.1
24	61.0	61.8	71.5	70.7	68.2	68.9	77.2	76.8
48	71.8	74.0	86.9	86.7	91.2	91.8	92.0	93.4
72	94.7	95.5	100.3	100.7	91.0	93.8	92.8	93.8
96	96.4	92.6	88.5	87.3	88.1	90.8	94.0	96.4
120	99.9	106.7	108.4	111.2	127.6	128.8	123.0	124.8
144	123.6	122.0	120.1	117.9	116.3	108.4	110.6	94.0
168	93.0	91.4	92.0	91.9	89.5	92.4	87.9	85.5
192	83.3	78.6	76.1	76.4	76.4	74.4	78.2	78.2
216	77.8	76.4	76.4	76.8	76.4	76.4	77.0	76.6
240	76.6	78.0	79.2	79.2	79.9	83.1	83.3	81.9
264	84.9	85.3	80.0	77.5	77.1	76.6	75.6	74.4
288	73.5	72.3	69.7	69.5	68.3	68.5	67.1	65.4
312	64.6	63.2	63.2	63.2	61.6	62.2	61.2	61.7
336	57.4	59.8	62.4	62.2	62.4	60.5	62.4	61.0

DEPTH	3034.0		TILT	-48		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.8	66.9	66.7	63.0	65.1	65.0	63.6	64.6
24	63.2	65.6	70.4	70.6	71.2	74.4	76.9	78.4
48	77.0	77.4	87.0	86.9	88.9	89.8	89.8	90.6
72	91.0	92.0	91.6	93.4	88.9	88.3	87.3	86.7
96	89.8	89.8	84.5	87.1	88.3	90.8	92.2	93.2
120	97.0	96.8	99.3	104.5	104.2	105.2	103.1	108.2
144	110.4	108.4	108.1	105.9	103.7	97.4	102.1	89.8
168	89.6	88.7	88.7	86.5	86.7	85.7	84.3	84.3
192	80.0	78.6	73.7	72.9	72.1	72.5	72.9	74.4
216	74.4	74.6	75.4	75.0	74.8	75.0	75.2	75.6
240	74.8	76.2	75.7	75.6	75.6	77.2	77.2	77.6
264	79.4	77.6	77.6	79.8	79.8	76.0	74.2	72.1
288	70.9	70.9	70.5	69.9	69.1	66.7	66.5	64.8
312	64.8	63.8	62.8	61.8	62.0	62.0	61.1	61.8
336	57.1	60.4	62.4	62.2	62.2	62.0	62.0	64.0

DEPTH	3034.0		TILT	-51		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.6	66.5	66.9	66.5	65.8	67.3	67.3	67.9
24	65.3	69.1	69.3	69.7	75.6	75.6	76.4	80.6
48	81.0	81.0	85.5	86.8	87.1	87.9	88.7	89.1
72	89.3	91.2	90.2	89.8	86.1	86.1	86.3	86.5
96	87.1	87.5	85.1	86.3	88.9	88.7	91.0	90.6
120	93.2	93.8	91.8	93.8	93.2	95.7	96.4	97.6
144	98.1	90.2	89.7	85.3	84.1	82.3	82.5	80.2
168	81.7	81.7	85.5	84.9	84.3	82.1	81.0	79.4
192	79.4	78.0	76.2	75.4	71.0	71.3	71.6	70.9
216	70.9	71.3	70.9	72.5	72.9	72.9	73.1	73.3
240	73.7	73.7	73.5	72.9	72.1	72.7	73.7	75.2
264	75.6	74.8	77.4	77.4	77.4	77.2	72.5	71.9
288	70.5	70.5	70.1	69.5	68.7	67.5	67.3	64.4
312	64.2	63.4	62.6	61.8	61.8	61.8	61.4	61.4
336	59.6	61.6	61.8	61.8	62.0	61.8	61.4	63.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3034.0		TILT	-54		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.2	66.3	66.3	66.7	66.5	67.7	67.7	68.1
24	67.7	68.9	68.7	69.5	75.0	75.0	75.6	78.2
48	80.4	81.4	84.3	86.1	86.1	86.5	86.9	88.3
72	90.4	90.2	89.6	88.5	83.9	85.1	84.1	84.1
96	84.3	82.8	83.3	84.8	85.5	86.9	87.7	88.5
120	89.6	89.8	88.3	89.3	88.3	89.3	85.7	85.7
144	85.7	85.7	85.7	84.7	82.5	82.3	82.3	79.0
168	80.4	82.3	82.9	83.1	81.9	80.6	79.8	78.6
192	77.8	76.8	74.8	74.8	73.7	71.7	71.1	70.9
216	69.9	69.3	69.5	71.3	70.9	71.7	71.7	70.1
240	70.9	69.5	70.1	70.1	70.1	70.5	70.5	71.3
264	70.9	72.7	73.1	74.4	77.4	77.4	72.5	72.1
288	69.3	68.7	68.4	68.1	67.3	66.4	67.1	65.2
312	65.2	64.2	64.0	63.4	61.3	61.0	60.8	61.0
336	60.8	61.0	61.4	60.6	60.4	60.4	62.4	62.6

DEPTH	3034.0		TILT	-57		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	64.0	65.2	65.4	66.2	67.3	67.5	68.3	68.3
24	68.3	68.3	68.3	70.3	73.2	74.4	75.6	76.8
48	77.8	79.8	81.7	83.7	84.7	85.3	85.7	86.1
72	86.9	87.7	86.7	86.7	74.0	75.2	76.2	76.0
96	75.8	76.0	76.4	81.9	81.9	85.7	85.5	87.1
120	87.1	84.9	86.7	86.7	84.1	84.1	83.5	83.5
144	83.3	83.3	82.9	83.1	81.7	81.7	80.8	80.6
168	80.8	80.8	81.0	81.0	80.0	77.8	76.4	74.8
192	74.8	73.7	73.7	74.0	72.3	72.1	70.7	69.7
216	68.7	68.7	68.7	69.9	69.7	69.3	68.9	69.1
240	69.3	69.3	69.7	70.3	70.3	71.3	70.3	70.5
264	69.9	69.9	71.3	70.1	70.3	67.6	67.5	68.7
288	68.7	68.7	67.1	68.5	66.0	65.5	65.5	64.7
312	65.0	64.0	64.0	64.0	63.2	61.6	61.4	61.4
336	61.2	61.2	61.4	61.2	60.8	60.8	61.0	62.4

DEPTH	3034.0		TILT	-60		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	62.4	65.2	66.0	66.3	66.9	66.7	67.3	68.5
24	68.5	68.5	69.3	69.3	71.7	74.6	74.4	75.6
48	78.0	78.0	80.8	81.2	83.7	83.5	81.2	81.9
72	82.8	81.2	73.1	72.3	72.5	73.1	73.3	72.5
96	70.5	72.7	73.1	73.1	80.2	81.2	82.3	83.1
120	83.3	83.1	82.7	82.5	81.7	81.7	81.7	82.1
144	81.9	81.4	81.4	81.9	81.0	80.0	80.2	78.4
168	78.2	77.8	77.8	76.6	73.7	72.9	73.1	72.5
192	72.9	72.1	72.1	70.1	70.1	69.5	68.5	67.5
216	66.7	65.6	68.8	68.8	68.9	68.9	68.5	69.3
240	69.3	69.3	69.1	69.3	69.3	70.9	70.9	69.1
264	69.6	67.1	67.1	67.1	68.1	65.1	67.1	67.8
288	67.6	66.7	66.5	66.3	66.5	66.5	65.8	65.8
312	65.0	64.0	64.2	63.0	62.2	62.0	61.4	61.8
336	61.6	61.8	61.8	61.2	61.2	60.8	61.4	61.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	3034.0		TILT	-63		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	61.8	63.8	63.8	65.8	66.0	66.0	66.3	66.7
24	68.1	69.9	69.9	71.1	72.3	73.3	73.3	75.2
48	75.6	75.8	78.6	78.2	78.0	77.4	81.2	77.6
72	71.9	72.5	71.7	70.9	70.5	67.1	67.3	66.0
96	66.3	67.1	68.7	71.5	71.5	75.0	78.0	78.0
120	77.2	79.2	79.2	79.2	79.8	80.0	80.8	80.8
144	79.6	76.8	78.6	77.6	77.6	77.6	77.2	75.8
168	75.8	76.6	72.5	72.3	72.3	72.9	70.5	70.3
192	68.9	68.7	69.1	69.1	70.1	70.1	68.1	67.5
216	66.9	66.9	69.3	69.1	69.1	68.7	68.7	68.9
240	68.9	66.9	66.9	66.9	67.4	67.1	67.1	66.3
264	65.6	65.6	65.4	65.4	65.0	64.6	64.2	63.8
288	63.8	63.6	63.6	65.2	65.0	64.8	66.3	66.0
312	65.2	65.0	64.8	63.2	62.8	61.7	62.0	62.0
336	62.2	61.8	62.0	61.2	61.4	61.6	61.8	61.6

DEPTH	3034.0		TILT	-66		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	62.8	63.0	63.4	66.3	66.0	66.3	66.3	66.0
24	66.3	66.5	66.5	67.9	68.1	68.1	69.5	69.5
48	69.6	70.1	74.6	75.2	74.2	74.2	75.0	75.0
72	68.5	68.5	67.7	67.5	67.5	66.0	65.8	65.4
96	65.4	66.1	67.4	68.1	67.8	68.8	73.3	74.8
120	74.8	75.6	75.4	75.8	76.6	75.8	76.2	75.6
144	73.7	73.1	72.7	71.7	72.5	72.3	72.5	73.0
168	72.8	73.5	72.9	70.9	70.5	70.5	67.5	67.5
192	67.9	68.7	68.7	67.5	67.5	67.5	67.9	67.9
216	67.7	67.7	67.1	68.1	68.3	68.9	64.8	65.4
240	64.0	65.2	64.4	64.4	64.0	61.6	64.6	63.4
264	63.4	63.4	64.8	63.8	64.4	64.2	64.0	63.6
288	63.6	63.4	68.7	67.9	67.9	67.3	67.3	66.7
312	66.0	66.0	65.0	64.4	63.6	63.6	63.6	62.8
336	62.6	62.6	62.6	62.2	62.4	62.6	62.6	62.6

DEPTH	3034.0		TILT	-69		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	64.0	63.8	65.9	66.9	68.5	67.7	67.7	65.6
24	65.8	65.8	66.0	66.5	66.5	67.3	67.9	67.9
48	67.9	68.9	69.9	70.1	71.3	71.3	67.1	66.3
72	67.5	67.5	66.5	66.3	66.0	66.0	66.0	65.0
96	65.0	64.8	64.8	66.5	66.5	65.2	65.2	65.2
120	65.6	65.6	66.4	65.9	66.7	66.7	71.8	70.1
144	70.1	71.5	70.9	70.5	70.5	70.5	66.7	67.3
168	67.3	67.3	66.3	68.3	68.3	66.5	66.5	66.5
192	66.7	66.3	67.3	67.5	67.5	67.9	67.7	67.7
216	67.9	67.9	67.9	68.3	64.4	64.2	64.2	62.6
240	62.6	61.4	61.4	61.4	60.2	60.2	60.2	61.8
264	62.2	62.2	62.2	62.4	62.6	62.4	62.8	63.2
288	63.6	63.6	67.5	67.5	67.5	67.7	67.9	67.9
312	67.9	67.5	66.0	64.8	64.8	64.6	64.6	63.8
336	63.4	63.6	63.0	63.0	63.0	63.0	63.2	63.4



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3034.0		TILT	-72		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.1	71.9	70.9	70.9	70.5	69.9	66.5	66.5
24	65.8	65.8	66.0	66.0	66.0	67.3	67.3	67.3
48	67.9	65.4	65.4	64.6	64.4	65.8	65.8	65.6
72	65.6	65.6	65.8	66.0	66.0	65.6	65.4	64.4
96	64.2	64.2	64.2	66.7	67.3	67.3	67.3	66.3
120	66.3	65.6	65.6	65.6	63.2	63.2	66.6	68.3
144	68.9	68.3	67.4	66.9	66.9	64.6	64.2	63.0
168	63.0	63.0	63.4	62.4	63.6	63.6	65.6	65.8
192	65.8	65.6	65.8	66.5	66.3	66.0	66.0	66.9
216	67.3	66.0	65.4	65.4	65.2	60.7	61.0	61.2
240	61.2	61.4	59.8	59.8	60.0	60.0	60.0	60.4
264	60.6	60.6	61.0	61.4	61.8	62.0	62.0	62.0
288	62.0	62.2	65.6	67.1	67.1	67.1	68.1	68.1
312	68.5	68.5	67.5	67.5	68.7	68.1	66.5	66.5
336	66.3	67.6	66.6	73.1	64.4	64.4	65.9	72.1

DEPTH	3034.0		TILT	-75		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.9	70.7	68.9	68.9	69.3	69.1	63.9	63.6
24	63.6	66.7	66.9	66.3	66.3	66.9	67.1	67.1
48	63.7	64.8	65.0	64.6	64.6	64.6	64.6	64.4
72	65.0	65.0	65.4	64.8	64.6	64.6	64.4	64.2
96	64.2	64.2	65.2	65.2	65.0	65.2	64.8	65.2
120	65.2	65.2	65.2	65.2	65.4	65.4	65.4	66.9
144	67.3	67.3	64.8	64.6	64.6	62.6	62.6	62.4
168	62.0	64.4	64.4	64.2	64.4	64.4	64.4	64.6
192	64.4	64.6	64.2	64.2	64.2	65.2	65.2	65.2
216	65.2	64.6	64.8	63.8	63.8	60.4	60.6	60.4
240	60.4	59.8	59.8	59.6	59.6	59.6	59.8	59.8
264	60.0	60.0	60.0	60.8	60.6	60.8	60.8	61.6
288	61.8	61.6	61.8	65.1	65.4	67.3	67.3	67.1
312	67.1	67.7	67.3	67.3	67.3	68.3	68.5	68.5
336	68.5	69.5	69.5	69.5	69.5	70.5	70.3	70.3

DEPTH	3034.0		TILT	-78		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	69.3	69.1	69.1	68.9	63.2	63.0	63.0	63.0
24	63.0	63.0	65.0	64.8	65.0	65.0	65.0	65.0
48	63.2	63.4	63.2	63.2	63.2	64.6	64.6	64.8
72	64.8	64.8	64.8	64.8	65.0	65.0	64.8	65.8
96	65.8	65.8	65.6	65.6	65.4	65.6	65.6	65.4
120	65.4	63.6	63.6	63.8	63.8	63.8	63.8	63.8
144	63.8	63.6	63.2	63.0	63.0	63.0	63.0	63.0
168	63.0	63.8	64.0	64.2	64.2	64.2	64.2	64.2
192	64.2	64.4	64.4	64.2	64.4	64.4	64.4	64.2
216	64.0	64.0	62.6	62.4	62.0	62.0	62.0	62.0
240	60.2	60.2	60.0	60.0	60.0	60.0	60.0	60.0
264	60.0	60.0	60.0	60.0	60.4	60.4	59.2	59.4
288	59.4	59.4	59.4	59.4	59.4	61.6	66.7	66.7
312	66.7	67.5	67.5	67.3	67.5	67.5	67.7	68.1
336	67.9	69.1	69.1	69.3	69.3	69.1	69.1	69.1



CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	3034.0		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	183.3	76.6	72.6	71.2	66.8	181.1	183.6	186.8
24	185.9	194.9	194.9	184.0	187.6	188.7	184.0	174.6
48	173.9	173.8	173.2	178.5	192.3	187.2	208.6	212.2
72	215.1	215.5	219.8	222.0	197.3	199.1	201.5	200.9
96	200.9	199.4	200.6	246.9	229.7	231.3	225.9	229.5
120	214.6	217.3	226.3	231.1	237.8	219.3	220.5	218.2
144	217.9	225.3	200.6	201.2	177.6	173.8	204.9	175.8
168	175.0	185.4	184.7	190.1	189.0	191.3	194.6	198.8
192	199.1	202.1	206.2	210.4	211.0	212.8	217.6	224.7
216	229.8	233.6	239.0	248.2	249.1	250.6	250.3	262.1
240	248.0	250.5	240.7	265.7	240.5	238.8	190.9	185.8
264	153.5	146.3	133.8	109.2	109.4	113.0	107.6	94.5
288	97.8	95.1	94.2	91.5	90.6	92.6	85.6	87.8
312	79.6	81.4	71.6	71.2	69.5	69.4	68.9	67.6
336	71.0	73.4	69.5	69.8	67.6	63.8	184.3	186.3

DEPTH	3038.9		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.6	69.9	71.6	64.0	65.4	64.0	55.0	190.8
24	192.1	195.7	195.0	195.3	195.0	195.0	195.4	182.3
48	198.8	199.8	200.5	203.4	203.6	205.5	208.4	213.4
72	216.6	217.2	222.4	229.3	228.6	231.0	232.2	235.7
96	236.9	239.0	245.9	248.3	250.8	256.2	258.7	264.6
120	276.4	277.2	280.1	230.2	235.8	235.1	223.3	312.8
144	302.8	303.5	299.4	291.2	203.7	289.8	289.8	290.2
168	290.6	292.6	296.3	297.7	299.9	196.4	197.4	196.7
192	200.5	202.6	206.9	211.0	212.2	230.0	240.9	250.9
216	250.6	285.2	288.9	253.7	257.3	258.7	290.2	283.8
240	280.5	268.2	271.0	271.0	265.1	261.3	236.9	180.5
264	157.3	138.7	126.3	104.4	108.2	102.6	101.2	90.3
288	79.1	82.9	82.6	89.9	86.1	85.1	82.0	66.1
312	78.9	79.4	65.8	66.1	67.1	70.4	65.0	64.1
336	69.0	71.9	68.1	70.0	63.4	59.2	73.0	72.6

DEPTH	3044.0		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.3	67.8	62.5	57.6	62.6	59.6	53.6	50.4
24	72.3	71.9	72.0	72.2	68.2	69.2	65.4	65.6
48	72.4	205.7	72.6	76.1	82.6	210.2	210.5	214.7
72	218.1	222.3	223.9	229.9	232.0	232.7	237.8	239.2
96	238.2	245.8	248.2	251.3	260.0	264.0	267.9	267.9
120	276.9	283.0	289.8	295.6	306.1	310.4	313.5	312.8
144	302.8	303.5	298.7	294.4	290.7	290.8	290.7	291.1
168	291.4	294.8	296.9	298.3	299.7	301.1	303.5	299.4
192	227.7	205.4	211.2	310.3	307.4	304.2	298.3	294.2
216	289.7	293.5	291.4	259.3	265.6	266.9	291.3	282.4
240	277.2	273.8	270.0	276.3	274.7	268.8	261.4	181.2
264	157.3	135.5	103.4	103.7	108.2	95.6	86.1	88.4
288	77.8	79.2	82.0	84.7	83.0	77.0	60.5	68.1
312	76.8	72.2	64.3	65.4	66.8	65.3	63.7	63.7
336	68.1	67.3	54.3	67.0	62.3	57.8	68.8	53.2



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	68.0	66.2	57.6	57.4	60.5	53.8	48.7	47.3
24	72.0	68.2	62.0	65.0	63.2	65.2	66.2	65.2
48	72.0	68.1	65.5	64.9	74.5	76.6	217.4	219.2
72	224.9	227.5	228.9	231.7	232.1	236.7	240.8	242.9
96	247.1	248.2	255.1	261.1	263.9	264.3	268.2	272.1
120	285.4	286.4	293.6	297.2	306.5	311.1	312.2	313.3
144	311.5	303.2	298.6	294.7	290.7	290.4	291.1	290.4
168	292.2	295.7	295.7	298.2	300.4	301.1	303.6	300.7
192	305.0	310.8	316.1	311.8	309.9	304.3	300.4	296.1
216	294.0	295.0	292.2	206.1	216.7	212.1	204.3	282.2
240	278.6	280.7	281.1	277.1	277.2	269.3	263.7	171.8
264	154.7	133.2	103.4	105.2	108.9	95.4	85.5	75.9
288	76.9	79.4	81.6	78.4	76.2	78.1	62.3	68.7
312	65.1	63.7	63.3	63.3	65.8	64.8	56.5	62.0
336	63.4	63.7	52.3	64.8	60.4	50.8	52.3	52.4

DEPTH	3054.2		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	68.4	63.3	53.0	56.2	57.0	53.3	48.3	46.9
24	65.8	62.0	60.5	59.4	54.7	61.6	64.8	65.3
48	77.6	66.8	64.6	61.6	74.6	76.7	85.2	223.5
72	229.2	231.0	240.8	240.3	237.8	243.2	247.5	249.6
96	256.1	258.6	261.8	261.8	270.4	268.1	276.1	280.7
120	285.4	291.8	295.2	300.0	307.5	310.8	312.5	312.5
144	307.9	303.6	299.5	294.9	291.1	289.7	291.5	291.1
168	292.5	294.6	297.2	299.1	300.0	302.2	303.6	303.6
192	308.6	316.5	317.7	312.2	312.8	307.2	302.1	301.1
216	298.2	295.7	206.0	203.0	199.1	195.6	192.2	214.9
240	280.7	283.9	215.7	212.4	210.6	204.2	185.6	170.6
264	150.6	124.9	104.1	108.7	83.0	96.3	84.1	75.9
288	78.0	78.4	78.6	78.0	75.0	72.9	64.2	66.2
312	56.2	60.5	62.6	63.0	67.6	53.3	53.8	59.3
336	55.1	57.0	51.2	65.5	58.6	50.1	50.8	50.8

DEPTH	3059.0		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.9	59.4	54.0	52.4	53.8	52.1	49.8	46.3
24	60.1	60.7	59.4	58.0	52.9	61.5	64.4	64.9
48	75.5	71.9	65.1	61.7	71.9	72.6	82.6	224.2
72	234.4	237.5	242.0	246.2	238.9	247.3	252.5	252.5
96	255.3	260.0	267.5	269.3	273.9	274.3	276.8	282.5
120	286.4	291.8	297.5	302.5	306.5	311.8	311.5	311.5
144	307.2	302.2	297.5	294.3	290.7	290.0	291.5	291.1
168	292.2	294.3	297.2	299.7	300.0	300.7	301.8	304.7
192	307.5	318.4	319.7	316.8	315.8	311.0	302.2	301.1
216	301.5	193.5	199.9	189.6	177.0	181.3	185.6	193.9
240	193.4	282.8	206.9	203.0	200.0	198.1	186.3	171.0
264	146.8	123.9	104.4	108.7	82.4	82.3	72.3	74.8
288	76.7	78.6	73.0	76.9	59.4	59.4	62.6	62.6
312	55.5	59.8	60.8	60.5	48.7	52.2	52.7	56.8
336	47.7	48.0	50.6	61.7	56.3	49.7	50.3	49.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9



WALL RANGES VS DEPTH

DEPTH	3064.2		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	64.4	58.7	53.8	52.3	51.6	50.3	50.6	45.5
24	45.8	46.0	58.0	57.5	51.9	60.5	63.7	65.3
48	74.6	70.3	64.9	61.2	73.2	72.6	82.3	81.9
72	237.7	241.0	244.6	248.2	246.0	251.4	251.0	254.6
96	261.1	263.6	267.9	271.8	277.9	279.5	283.0	283.7
120	288.1	291.8	295.8	301.8	306.5	310.4	310.8	310.8
144	306.1	301.5	297.9	294.3	291.1	290.7	293.6	293.6
168	292.5	297.9	297.5	299.0	298.6	300.4	301.5	302.5
192	307.2	319.7	319.7	322.9	320.4	318.4	307.9	304.7
216	194.3	190.0	191.3	180.0	176.3	178.6	183.5	181.3
240	183.5	184.5	203.9	194.9	190.7	175.3	183.9	171.8
264	150.2	120.2	105.3	106.9	81.9	81.9	73.4	73.4
288	76.2	76.0	73.2	71.9	55.8	59.4	61.6	60.7
312	53.1	55.3	58.9	59.4	47.3	48.3	50.8	52.6
336	44.4	46.5	49.8	57.6	53.4	47.8	48.7	47.3

DEPTH	3069.1		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.3	56.9	52.3	48.6	48.3	48.3	45.5	45.7
24	45.1	45.1	57.6	56.5	50.7	49.8	60.5	64.6
48	72.8	71.9	64.8	65.9	73.0	72.6	83.7	81.9
72	237.5	241.0	247.8	247.8	248.9	251.4	250.7	256.8
96	261.4	263.2	267.9	276.1	277.1	279.7	283.4	284.3
120	288.6	294.0	295.0	306.5	308.6	311.5	311.1	311.1
144	307.2	303.7	300.6	296.3	291.1	291.5	297.1	295.4
168	296.1	297.5	297.5	298.9	298.6	300.6	301.1	304.1
192	309.2	319.3	320.1	322.9	322.9	322.2	316.5	311.8
216	182.8	182.4	180.0	171.3	176.6	176.3	173.5	176.3
240	179.6	174.0	177.6	172.4	162.0	163.6	174.1	173.8
264	150.9	114.1	105.5	94.4	81.6	79.8	73.0	72.6
288	75.5	70.7	70.1	70.5	56.2	59.8	59.9	59.9
312	52.3	54.4	56.0	54.8	45.7	47.3	50.1	49.5
336	43.7	43.7	46.9	56.5	50.8	46.0	47.7	46.2

DEPTH	3073.9		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.5	53.3	51.2	44.7	49.0	47.2	44.7	43.0
24	44.0	44.7	56.2	55.8	50.1	48.7	59.2	56.9
48	53.3	70.8	63.3	66.6	71.2	72.6	85.9	88.0
72	235.7	240.7	246.8	248.2	250.0	251.8	257.3	257.7
96	261.8	267.1	271.4	274.9	277.8	279.6	283.2	284.7
120	288.6	294.3	295.7	305.8	309.3	311.5	310.8	310.4
144	306.1	306.1	305.0	302.2	299.0	299.8	297.2	299.0
168	298.7	303.2	306.5	304.7	305.8	301.1	301.1	309.7
192	319.7	320.4	319.3	322.9	322.2	320.4	317.9	311.5
216	181.7	182.4	179.2	164.4	173.5	173.5	168.9	163.1
240	162.6	159.8	143.6	148.8	144.5	145.5	145.2	174.2
264	151.5	108.4	95.5	83.7	81.6	79.8	72.3	73.7
288	74.8	69.4	68.5	61.9	59.1	58.3	58.0	54.6
312	51.5	52.4	51.0	51.2	44.0	45.8	47.6	44.7
336	42.5	43.8	47.3	50.8	50.1	44.0	45.6	44.7



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	64		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	267.9	268.9	266.4	268.9	266.1	267.9	266.4	266.4
24	266.4	262.8	263.2	264.3	264.3	264.3	262.1	265.4
48	265.0	262.8	262.5	265.7	264.3	264.3	264.3	265.7
72	265.0	266.4	266.4	266.4	266.5	265.5	266.4	266.4
96	257.1	263.7	268.1	261.8	262.3	260.7	261.8	261.8
120	262.1	263.9	266.1	266.6	266.7	266.7	267.5	267.5
144	267.9	267.9	267.9	267.5	266.4	264.6	264.6	265.0
168	263.2	263.2	264.6	263.9	263.9	264.3	264.3	266.4
192	265.7	261.1	260.3	265.4	265.4	265.7	262.8	261.4
216	265.0	263.6	265.0	266.6	264.6	264.6	264.6	267.2
240	268.1	267.9	267.8	270.0	268.9	268.9	268.7	268.9
264	270.7	272.1	272.1	272.1	270.7	270.4	271.8	272.1
288	273.9	271.4	275.4	273.2	273.2	273.3	273.0	271.7
312	272.6	272.2	271.1	273.6	272.3	274.1	272.1	271.8
336	272.1	272.4	273.2	268.2	269.3	269.2	268.9	271.1

DEPTH	3079.1		TILT	59		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	284.3	281.1	281.4	281.4	281.8	279.7	279.7	278.9
24	279.3	277.9	276.8	276.8	275.7	276.1	273.9	278.2
48	279.3	278.9	278.6	278.6	278.6	274.6	279.7	279.7
72	281.1	277.1	279.7	281.4	279.3	279.3	280.0	278.9
96	275.0	280.7	279.3	280.0	280.4	276.1	277.1	276.9
120	273.7	272.0	279.8	274.2	274.0	274.1	276.2	276.7
144	280.7	280.5	280.2	281.7	276.4	276.4	276.5	280.0
168	279.4	280.3	280.2	280.1	279.3	279.8	277.5	276.8
192	277.1	277.1	276.8	277.6	278.5	278.5	278.5	282.4
216	281.1	282.5	282.5	282.5	282.3	279.3	281.4	282.9
240	282.9	284.3	285.7	283.9	283.9	284.3	285.0	285.0
264	284.3	284.7	286.2	283.9	286.1	282.9	282.9	285.7
288	286.1	287.5	287.9	285.7	285.0	290.7	287.2	287.2
312	287.9	287.9	283.2	286.1	284.3	286.1	286.1	285.0
336	283.6	283.6	285.4	285.4	282.5	282.5	280.7	281.1

DEPTH	3079.1		TILT	54		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	234.7	232.9	258.0	245.4	236.0	236.0	253.3	244.4
24	246.3	247.0	240.3	253.4	255.5	255.8	257.0	258.3
48	259.9	265.8	272.1	272.5	272.9	275.0	277.1	279.8
72	283.9	284.7	287.0	289.3	291.1	291.1	295.4	298.3
96	299.4	299.2	298.0	297.2	299.8	298.6	300.4	295.4
120	298.2	296.8	299.6	298.4	298.9	297.9	301.5	302.2
144	299.8	298.9	298.2	299.9	299.0	299.7	301.2	299.2
168	300.2	302.2	300.2	300.9	299.1	299.6	303.5	302.4
192	300.1	302.5	301.8	301.3	301.6	302.7	302.6	300.7
216	301.3	300.4	301.6	302.9	305.0	300.6	301.8	301.5
240	301.8	301.8	303.8	303.0	301.1	302.9	304.0	302.5
264	300.1	301.2	303.6	300.4	299.3	294.4	285.9	279.5
288	276.7	276.4	276.7	274.6	273.2	272.5	272.5	273.2
312	276.6	275.9	275.9	271.5	266.1	265.9	255.6	253.5
336	252.3	256.2	260.7	260.7	263.5	259.7	244.6	255.6



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	50		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	202.1	206.4	206.1	202.8	204.6	210.4	209.1	205.2
24	205.3	212.1	220.8	224.5	232.4	239.3	242.9	242.9
48	240.2	241.4	240.3	247.7	258.9	259.8	261.1	260.7
72	262.8	264.6	270.7	275.4	275.4	280.0	285.3	288.5
96	291.8	296.7	303.9	306.9	307.9	312.2	312.9	315.0
120	317.2	315.8	319.7	314.0	312.9	316.6	319.0	318.6
144	319.2	317.5	315.4	314.3	314.7	319.7	320.5	318.5
168	319.0	317.6	319.0	319.6	319.6	319.3	323.4	322.0
192	319.3	323.5	321.7	317.9	320.1	319.7	322.2	320.3
216	319.8	316.6	317.5	318.8	319.0	317.9	316.5	316.5
240	316.7	320.4	317.6	315.8	315.8	314.0	307.4	310.8
264	306.8	300.6	288.9	275.6	270.5	241.0	234.7	226.9
288	224.7	221.7	217.4	216.0	221.4	225.6	229.8	224.3
312	232.5	211.7	202.1	209.9	208.1	213.4	206.7	202.6
336	202.6	213.5	219.0	215.0	201.5	204.3	204.3	203.9

DEPTH	3079.1		TILT	47		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	175.6	170.2	169.5	167.7	171.0	168.5	172.7	179.2
24	190.5	197.2	199.4	207.1	218.8	226.4	228.5	228.0
48	227.7	228.1	229.9	241.3	245.9	246.7	252.0	253.8
72	255.9	256.4	265.0	265.0	266.1	270.0	271.4	271.4
96	272.9	280.6	288.0	288.8	290.4	298.8	304.7	311.1
120	316.0	319.5	321.8	324.3	327.5	333.3	334.7	333.2
144	336.6	334.2	330.8	333.3	335.3	337.7	337.1	335.8
168	335.8	335.3	335.8	336.2	338.2	337.1	339.4	338.3
192	338.3	341.4	337.9	334.0	335.1	333.3	338.8	337.9
216	336.1	331.0	330.4	329.4	327.2	327.2	328.5	324.7
240	322.5	319.5	319.3	312.9	307.5	307.2	304.8	296.6
264	288.9	277.1	248.2	238.5	232.0	226.0	215.6	213.1
288	208.5	208.5	204.6	202.1	200.3	197.4	189.9	187.6
312	186.3	183.5	182.0	182.0	182.0	180.6	180.6	181.0
336	180.6	181.7	182.0	187.2	180.4	181.0	180.6	180.5

DEPTH	3079.1		TILT	44		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.6	167.4	167.0	164.2	163.1	163.1	164.5	171.4
24	180.7	183.0	189.1	196.0	207.6	213.2	215.8	215.8
48	215.1	222.9	224.7	228.6	231.5	239.8	238.9	236.9
72	239.1	242.5	243.8	246.3	252.0	260.2	259.9	254.3
96	250.7	264.7	269.3	271.5	271.0	269.8	269.4	267.5
120	268.6	273.3	289.8	316.3	325.7	323.9	321.8	322.2
144	321.8	324.5	327.5	335.4	339.4	338.3	335.1	332.2
168	335.4	337.1	339.7	341.9	342.9	341.2	341.5	342.2
192	341.9	340.4	343.7	344.0	344.0	339.4	337.9	329.3
216	320.1	313.8	308.5	311.5	316.8	317.2	309.9	308.7
240	308.4	310.4	308.8	302.8	297.8	294.3	294.3	286.7
264	275.5	255.3	239.1	233.4	223.9	215.3	213.1	212.4
288	208.5	204.0	202.0	198.2	197.1	192.4	189.9	185.8
312	184.9	183.5	182.0	180.3	179.9	179.5	178.1	178.8
336	179.2	178.8	178.8	174.4	171.6	172.0	171.6	169.9



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	41		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	166.7	166.7	163.5	163.1	163.1	163.1	163.5	162.4
24	166.3	172.2	181.7	188.3	199.6	202.1	204.2	203.1
48	204.9	211.7	214.1	218.4	223.0	229.3	229.6	225.6
72	228.2	227.1	229.4	231.3	236.0	241.0	244.9	242.4
96	239.6	250.7	251.0	257.4	255.2	254.3	255.0	259.4
120	255.7	263.9	268.6	275.4	276.8	282.9	285.4	285.4
144	293.7	296.5	302.2	315.7	325.6	321.3	318.6	319.2
168	321.1	320.8	321.5	324.7	328.4	326.2	325.0	321.5
192	318.1	319.3	329.2	317.3	309.3	306.4	303.6	295.2
216	280.4	288.5	285.4	295.4	298.4	299.7	302.5	301.8
240	298.9	298.3	299.3	290.4	288.2	282.9	283.2	277.1
264	264.1	249.1	234.9	229.3	219.1	214.6	210.3	211.7
288	208.1	206.0	201.4	197.0	195.6	190.1	188.1	186.7
312	183.6	182.0	181.1	179.5	177.4	177.8	174.9	173.5
336	173.5	172.4	172.4	171.3	167.6	166.9	167.1	167.4

DEPTH	3079.1		TILT	38		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	166.7	166.3	166.3	163.5	163.1	162.4	162.4	162.0
24	162.0	163.1	173.2	181.5	189.8	193.2	194.9	195.6
48	194.6	201.4	203.9	208.1	208.5	216.4	216.7	213.9
72	215.3	215.5	216.6	220.4	224.0	228.2	234.0	234.6
96	230.8	238.0	240.0	244.4	242.5	241.9	242.3	247.1
120	242.8	243.7	251.2	232.9	256.7	259.8	265.0	266.4
144	269.6	283.6	286.8	285.4	293.4	293.7	284.6	288.2
168	283.3	285.0	283.3	299.3	297.1	292.3	287.9	285.4
192	277.1	284.3	283.9	271.8	276.4	273.3	268.2	265.0
216	270.7	271.4	279.1	285.6	289.6	293.1	292.6	286.8
240	279.3	280.4	276.1	269.0	264.4	260.1	271.6	267.2
264	262.5	246.0	229.3	224.0	219.2	213.5	208.1	210.6
288	208.5	205.6	201.4	199.2	195.6	191.0	190.6	186.3
312	184.2	181.0	179.4	178.5	175.6	174.2	172.4	171.7
336	171.0	171.0	171.0	170.6	170.6	168.5	168.1	166.3

DEPTH	3079.1		TILT	35		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	167.9	166.7	166.3	164.8	164.0	162.2	163.5	163.1
24	163.1	164.2	165.2	175.3	181.4	185.4	187.3	188.1
48	186.7	195.3	197.8	199.6	199.8	206.1	208.9	204.9
72	205.3	204.9	206.7	210.0	213.9	218.5	223.5	223.5
96	222.1	222.1	229.8	232.1	235.3	231.4	231.2	235.1
120	231.7	224.2	215.3	207.1	216.1	219.9	218.2	214.9
144	200.4	200.6	221.0	210.8	275.3	274.6	267.7	258.7
168	267.1	271.1	267.7	272.9	276.1	269.4	268.0	266.0
192	264.9	266.4	260.0	261.2	259.8	256.8	255.6	255.5
216	260.2	265.7	270.0	276.5	280.2	283.7	283.6	272.6
240	270.0	269.6	264.5	262.3	255.4	254.3	256.8	260.0
264	249.5	239.9	230.8	224.2	222.8	213.9	207.8	210.3
288	208.5	205.6	203.1	199.6	196.3	193.5	191.0	187.0
312	186.3	180.1	178.2	178.5	175.1	175.6	173.5	172.2
336	171.8	171.3	171.8	170.0	168.5	167.4	167.0	168.1



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	32		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.9	167.3	85.4	80.7	78.1	74.4	59.1	55.8
24	166.1	167.0	166.3	169.7	173.8	178.3	180.0	180.0
48	182.0	187.7	193.7	191.3	190.3	195.9	196.3	198.5
72	197.4	195.3	198.1	202.4	205.8	211.3	216.1	215.8
96	215.7	214.9	216.7	222.1	214.1	214.3	213.1	212.4
120	211.7	203.7	200.6	199.1	201.2	198.8	204.6	201.7
144	191.3	190.2	191.4	202.1	211.7	219.5	208.5	212.1
168	224.8	233.4	224.8	228.1	231.7	229.5	223.2	223.2
192	225.3	228.6	231.0	233.9	234.2	243.2	246.4	249.5
216	253.1	256.8	262.8	267.9	273.9	277.9	277.5	266.8
240	265.4	260.0	257.8	255.1	249.0	248.7	250.2	251.1
264	236.9	233.7	235.0	227.1	217.4	208.0	205.6	206.0
288	208.9	207.4	203.1	199.6	196.7	194.6	191.3	185.1
312	103.1	103.7	81.6	79.1	79.8	79.8	76.3	74.8
336	81.6	86.5	63.0	82.6	74.5	61.6	61.6	62.2

DEPTH	3079.1		TILT	29		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	82.4	77.7	79.1	66.6	70.8	60.8	55.5	53.0
24	167.2	170.6	167.7	168.3	168.3	174.4	77.6	74.9
48	176.0	177.4	186.5	187.4	187.6	186.8	192.3	193.8
72	189.1	189.1	191.7	193.5	199.7	206.5	206.9	208.8
96	209.4	211.0	210.3	209.2	207.3	203.8	201.7	202.8
120	201.7	197.8	195.6	194.9	195.6	193.5	195.3	190.6
144	186.0	181.6	186.6	195.7	203.4	204.5	204.9	208.8
168	214.3	217.3	213.9	214.2	217.3	220.4	214.2	220.7
192	221.2	219.6	222.5	224.4	228.5	235.1	240.7	243.6
216	247.8	254.3	257.8	266.4	269.2	272.1	268.2	262.7
240	262.5	256.1	248.9	250.3	245.7	244.1	243.6	243.9
264	233.5	231.4	228.5	228.2	213.5	208.9	204.3	203.5
288	207.8	206.3	203.8	200.4	197.8	116.0	68.7	75.9
312	89.8	92.8	74.1	75.1	76.6	77.0	65.8	72.5
336	78.4	77.2	59.2	78.0	70.4	59.0	58.7	59.2

DEPTH	3079.1		TILT	26		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	80.2	74.8	59.4	63.8	66.1	59.1	55.1	51.2
24	80.2	79.4	66.9	66.6	60.8	74.6	73.4	72.4
48	79.0	75.5	72.6	183.4	182.0	182.8	189.1	187.3
72	187.4	186.7	185.3	187.0	190.3	196.6	201.4	202.7
96	204.0	203.5	204.9	201.7	199.6	197.1	196.7	196.3
120	194.1	194.6	191.7	193.8	194.9	190.3	187.0	183.1
144	181.7	177.9	180.3	187.9	196.9	194.9	198.8	192.6
168	206.1	203.1	203.1	204.1	209.3	209.2	202.4	209.4
192	213.6	210.8	215.0	218.5	226.8	230.6	234.1	240.1
216	243.2	250.0	252.5	261.0	264.2	266.8	263.6	262.9
240	259.0	249.1	243.7	243.4	241.5	239.7	239.1	236.4
264	229.3	226.4	196.1	175.3	178.5	125.3	142.7	118.5
288	132.3	89.4	91.2	100.5	100.5	102.8	69.0	75.1
312	86.8	75.5	70.1	71.6	72.6	59.1	60.1	68.7
336	70.5	71.6	56.7	73.3	66.8	55.5	56.3	56.3



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	23		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	73.0	69.4	58.3	56.9	60.8	56.5	54.0	50.1
24	49.8	70.7	65.8	64.4	59.0	66.8	71.0	70.6
48	78.0	73.4	71.1	67.2	90.2	82.5	185.5	185.6
72	185.6	186.7	188.8	190.6	191.0	192.4	196.3	197.5
96	199.5	201.8	199.9	199.2	197.8	195.3	194.6	193.1
120	188.0	187.4	187.8	188.5	190.3	185.0	181.4	176.2
144	175.6	172.4	177.9	184.1	188.8	190.2	193.8	183.5
168	199.1	197.4	195.0	194.6	199.9	198.8	196.7	198.1
192	202.1	206.2	207.8	213.5	222.1	227.1	229.6	236.5
216	240.3	243.2	248.2	255.7	260.3	262.1	258.3	256.3
240	250.5	249.3	240.0	238.2	237.8	236.4	235.2	231.2
264	229.9	224.3	174.2	121.9	118.9	123.1	93.2	97.1
288	83.7	86.2	89.1	92.3	90.0	83.0	68.0	74.8
312	59.8	66.6	67.6	68.5	72.6	56.8	58.0	64.4
336	50.1	57.9	55.1	71.4	63.3	54.7	54.8	54.0

DEPTH	3079.1		TILT	20		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.6	65.5	57.3	55.5	56.5	55.1	52.5	48.3
24	48.7	49.2	63.3	61.2	55.9	65.1	68.6	69.2
48	79.8	71.5	68.5	65.5	79.5	81.8	185.8	188.8
72	187.8	189.4	189.9	190.5	191.7	193.5	193.8	195.3
96	198.5	198.8	196.6	195.5	195.3	194.6	193.8	195.6
120	192.4	191.0	188.5	187.8	187.8	184.9	181.3	175.1
144	174.5	173.8	175.0	180.0	183.9	184.5	187.4	180.3
168	183.8	192.0	191.0	190.5	195.3	196.6	196.7	197.1
192	199.9	205.0	208.1	212.4	218.4	222.4	228.4	231.9
216	237.3	241.8	243.5	249.6	257.0	257.8	254.6	257.1
240	252.1	246.0	235.5	234.1	234.5	233.9	232.5	231.0
264	174.5	156.2	110.2	111.3	115.2	101.5	90.5	80.5
288	81.2	83.6	86.1	81.9	63.0	63.0	66.6	68.0
312	58.9	63.3	66.2	65.5	50.5	55.1	55.8	60.8
336	47.6	49.9	53.3	69.4	59.8	50.8	53.0	52.3

DEPTH	3079.1		TILT	17		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	69.8	61.7	56.5	54.2	53.5	52.8	52.9	47.6
24	47.3	48.0	61.6	60.1	54.0	63.9	67.2	67.7
48	80.7	73.7	68.0	64.4	75.0	77.4	187.5	188.4
72	188.7	191.2	193.9	195.2	200.3	197.8	193.5	198.5
96	201.0	204.8	207.1	211.0	204.6	204.4	206.2	208.7
120	210.8	216.9	218.5	209.5	208.1	202.8	199.5	190.9
144	186.5	187.8	177.8	180.6	179.5	181.0	183.1	179.2
168	180.3	187.0	187.8	192.2	192.4	194.6	196.3	196.7
192	200.6	204.9	207.7	213.0	215.3	218.5	223.2	231.3
216	235.3	240.4	244.9	248.8	252.5	253.6	253.2	254.0
240	245.1	239.4	233.3	232.5	232.8	233.5	232.5	191.3
264	160.2	148.4	108.0	109.8	112.3	99.8	89.1	78.7
288	81.0	81.9	76.6	81.2	78.0	61.9	65.5	64.4
312	56.1	58.3	63.4	63.7	49.0	50.4	53.9	56.2
336	46.3	48.2	51.9	62.3	58.1	49.9	50.8	49.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	14		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.6	59.8	55.8	50.3	50.8	50.5	49.9	47.3
24	46.5	47.3	59.4	59.1	52.6	62.5	65.8	67.3
48	77.0	74.1	67.3	63.0	75.1	74.4	191.7	192.1
72	195.6	197.4	194.9	198.1	201.0	201.0	203.5	201.7
96	202.4	205.3	207.2	213.8	214.9	212.8	209.9	218.9
120	222.3	228.0	228.9	236.4	236.4	217.3	214.7	213.9
144	209.6	208.5	189.1	193.5	183.1	191.7	190.9	185.7
168	185.6	190.6	190.3	193.5	192.4	196.7	196.7	200.3
192	204.5	206.3	211.9	214.2	216.4	218.9	222.4	229.6
216	233.9	237.5	243.9	247.1	248.9	252.8	252.5	255.3
240	246.8	239.9	235.3	232.5	231.5	231.8	194.9	192.2
264	162.0	138.8	107.3	112.3	84.9	85.2	74.8	75.5
288	79.1	80.7	75.5	77.0	56.9	61.1	63.4	62.5
312	54.4	56.6	60.5	60.9	47.3	49.9	51.5	53.0
336	45.8	45.1	48.2	59.2	53.0	49.0	49.8	48.0

DEPTH	3079.1		TILT	11		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	64.8	58.7	53.3	46.5	48.7	48.3	45.8	46.2
24	45.8	45.8	58.7	57.6	51.5	50.5	62.6	66.4
48	75.8	70.1	65.1	62.6	74.4	73.7	83.8	83.4
72	220.0	219.9	225.7	229.6	229.0	230.3	233.4	233.8
96	237.5	241.2	246.0	248.6	235.0	236.0	233.6	235.3
120	236.4	221.4	234.5	235.3	243.2	227.8	228.2	222.8
144	234.4	235.4	231.0	216.9	209.2	231.3	230.3	226.3
168	226.9	228.6	229.7	230.5	231.1	202.1	201.7	205.3
192	206.4	207.1	210.6	214.9	215.7	217.1	222.4	230.0
216	235.1	237.9	243.3	249.1	252.4	255.0	252.5	254.6
240	246.4	240.3	240.3	251.3	240.7	240.0	221.5	182.4
264	157.4	126.7	106.2	110.9	84.4	83.5	75.1	74.8
288	77.6	77.1	74.4	73.0	56.9	60.5	60.8	61.2
312	53.3	55.8	59.0	56.9	46.2	48.2	50.5	50.0
336	44.3	44.4	47.7	58.0	51.6	45.1	48.7	46.5

DEPTH	3079.1		TILT	8		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.7	57.6	51.9	45.5	49.0	47.6	45.1	43.3
24	45.1	45.1	58.0	56.7	50.8	49.8	60.8	64.5
48	74.2	72.5	65.1	67.2	73.7	73.3	83.4	82.7
72	226.4	226.4	227.8	230.7	234.2	233.9	239.6	242.5
96	241.4	248.9	250.9	253.3	261.5	265.3	268.1	269.0
120	279.2	281.1	285.4	289.7	292.9	306.5	316.8	312.2
144	305.8	306.5	302.5	293.6	292.2	292.5	291.1	290.7
168	292.9	295.0	299.0	300.4	302.9	262.4	257.2	261.1
192	241.0	261.1	252.5	270.7	264.2	269.4	269.8	270.7
216	266.3	288.5	210.8	207.4	219.9	199.2	200.0	286.4
240	282.7	276.8	273.6	275.6	272.1	268.1	187.8	172.0
264	147.9	123.1	106.2	110.2	82.4	81.1	73.7	73.3
288	76.3	71.3	70.7	70.8	60.1	60.5	60.5	59.6
312	51.9	54.0	52.3	52.6	45.8	46.5	49.8	48.2
336	43.8	44.0	48.0	54.8	51.2	44.5	46.7	45.5



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	5		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.5	53.4	51.2	44.0	47.6	47.3	44.4	42.2
24	44.0	44.7	56.4	56.0	50.2	48.7	59.4	56.5
48	53.3	71.9	64.1	66.8	71.8	72.6	84.1	82.6
72	235.0	238.0	242.6	245.6	239.3	247.0	251.5	252.3
96	256.1	260.2	262.4	266.1	272.3	271.8	277.5	282.5
120	286.4	292.3	296.0	300.5	308.3	312.1	314.0	314.0
144	310.5	304.7	301.1	296.1	292.2	290.7	292.5	292.2
168	293.6	295.7	298.2	300.0	301.2	303.2	304.7	304.7
192	308.4	315.4	315.4	312.9	312.5	306.8	303.2	301.0
216	297.2	193.5	192.1	182.4	177.0	179.6	184.6	183.5
240	185.7	186.1	206.5	200.2	196.4	196.0	188.1	172.4
264	151.0	114.4	105.9	94.6	82.6	80.1	72.6	75.1
288	75.9	69.4	70.1	63.0	59.4	58.5	58.0	54.1
312	51.7	52.3	50.8	49.8	44.2	45.8	47.3	44.7
336	39.0	42.6	47.3	49.0	49.0	43.3	45.1	44.4

DEPTH	3079.1		TILT	2		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	52.1	51.5	52.1	43.4	45.5	47.3	44.2	42.9
24	43.8	44.2	56.2	55.5	49.8	48.3	57.8	58.1
48	52.2	64.4	63.3	66.4	71.2	72.6	86.6	87.7
72	236.7	240.7	247.8	247.8	248.9	250.7	251.4	257.1
96	261.6	264.0	268.2	276.1	277.3	279.8	283.6	284.5
120	288.7	294.0	295.2	306.0	309.0	311.8	311.5	311.8
144	307.2	303.6	300.5	296.1	291.1	291.5	297.1	295.5
168	296.1	297.7	297.7	298.6	298.6	300.7	301.5	303.6
192	307.9	319.6	320.2	323.1	322.6	322.3	313.6	308.3
216	182.0	182.4	180.0	165.3	175.7	174.1	171.8	164.3
240	163.8	160.7	143.0	148.9	141.9	145.1	145.0	173.8
264	151.7	107.2	81.6	81.9	82.6	73.4	71.9	71.9
288	71.9	67.0	63.7	62.3	55.1	54.8	50.1	47.6
312	49.0	47.3	46.9	46.5	44.0	45.1	43.3	44.2
336	38.3	41.5	45.1	45.1	45.5	43.3	44.7	43.5

DEPTH	3079.2		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	49.4	49.0	50.6	43.0	44.7	46.2	43.3	43.2
24	43.3	44.0	55.5	55.1	49.4	48.0	56.6	59.9
48	51.5	56.0	62.3	66.2	70.5	72.5	86.3	87.6
72	237.7	241.0	247.5	248.5	248.9	257.3	259.7	260.5
96	261.8	267.5	271.1	273.9	277.5	280.4	283.9	287.2
120	291.9	295.9	299.9	305.8	309.7	311.8	312.9	310.8
144	306.8	306.1	305.4	302.2	300.0	302.8	297.2	300.0
168	301.5	307.2	307.2	306.9	306.9	308.6	310.0	311.8
192	319.3	320.4	324.3	322.6	322.6	320.1	318.4	208.2
216	180.0	178.5	163.1	160.6	164.9	167.0	76.6	76.2
240	76.2	76.6	128.6	133.5	129.1	135.6	139.6	149.6
264	147.9	103.8	78.0	78.4	78.1	71.6	70.4	67.4
288	65.4	63.2	59.8	54.5	53.5	50.1	49.4	46.5
312	46.2	44.4	44.0	41.9	41.9	42.2	41.5	42.6
336	38.3	40.7	43.5	42.6	43.0	42.9	44.7	43.0



CUSTOMER : Westlake Chemicals

DATE : July 08, 2024

CAVERN : PPG No. 007B

OPERATION No. : 9

**WALL RANGES VS DEPTH**

DEPTH	3083.8		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	39.9	44.4	44.0	41.9	43.7	43.0	42.6	43.5
24	41.9	43.7	52.1	50.6	48.3	49.4	56.1	59.0
48	51.2	53.0	61.9	65.5	70.3	71.2	85.9	87.7
72	128.8	127.7	141.6	137.7	139.1	144.5	258.6	261.2
96	261.8	266.8	272.0	274.2	277.9	280.4	286.1	287.5
120	292.9	298.3	302.2	305.0	309.5	311.8	313.6	311.8
144	306.1	306.8	305.4	302.9	300.4	302.2	297.2	298.6
168	302.2	304.0	308.3	307.6	307.3	311.1	312.7	314.0
192	320.8	322.2	320.5	322.9	177.8	181.4	177.0	178.1
216	177.8	169.9	156.3	91.9	82.9	71.5	67.3	66.9
240	66.2	68.7	68.5	117.3	117.3	124.9	135.9	133.5
264	138.4	99.8	71.1	71.6	62.3	58.7	58.7	56.4
288	55.1	53.4	49.9	48.6	46.9	44.4	44.6	41.4
312	41.1	39.9	38.3	38.0	36.2	35.5	35.1	34.7
336	35.5	36.2	35.1	35.1	35.5	36.2	37.6	39.2

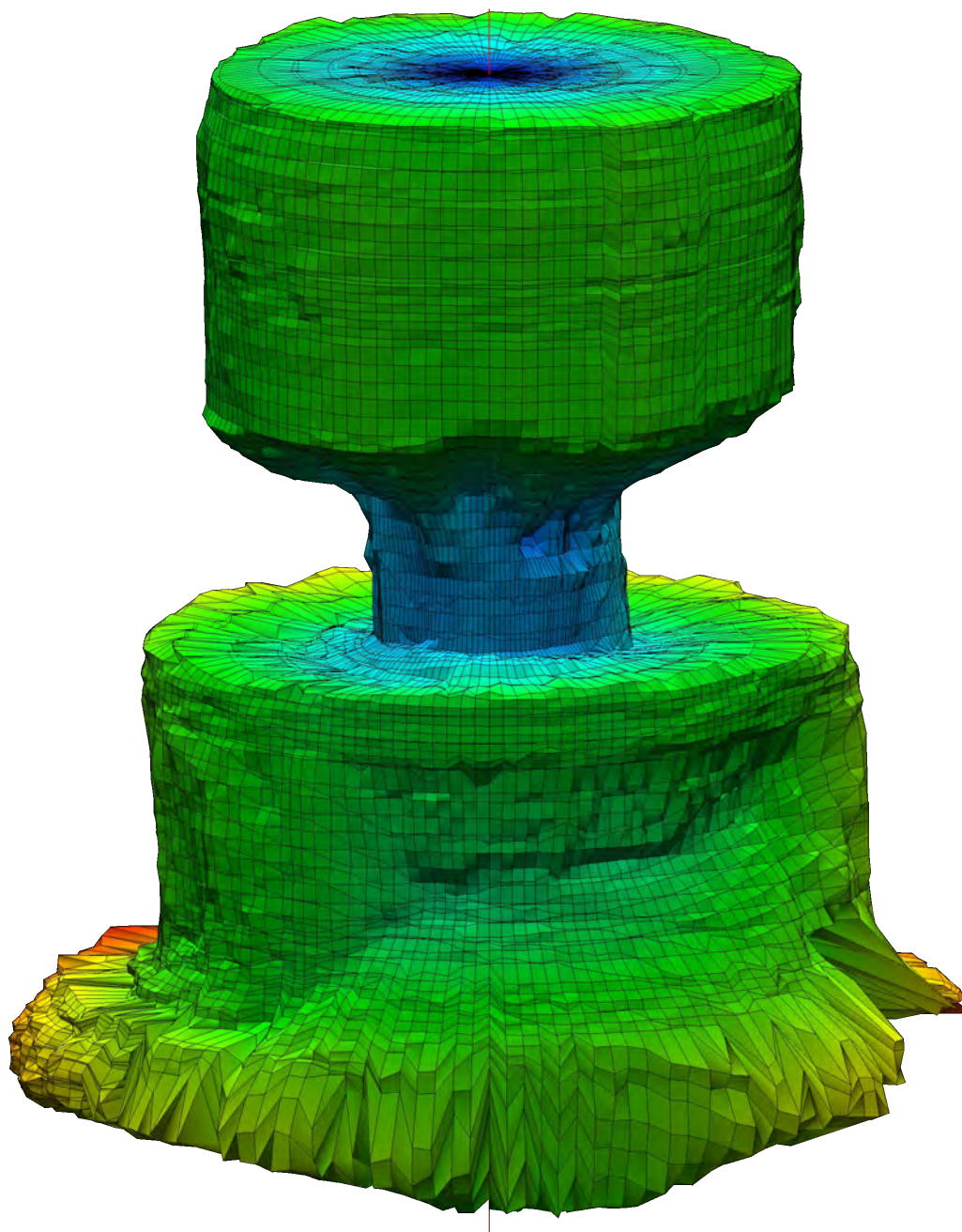
DEPTH	3089.2		TILT	0		VOS	5959.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.5	34.7	35.5	37.2	39.0	38.7	39.8	40.4
24	39.8	42.6	42.2	42.1	48.0	50.2	54.4	54.0
48	51.5	52.5	61.9	64.0	69.8	70.1	82.6	87.7
72	102.3	129.1	140.8	137.7	134.8	137.9	252.9	258.6
96	167.4	151.3	74.6	74.5	81.9	281.8	286.4	288.9
120	293.6	298.2	301.1	305.4	307.5	307.8	313.6	311.5
144	307.9	306.8	305.4	303.2	302.9	302.5	298.2	299.3
168	302.5	304.0	307.2	305.0	306.3	311.5	312.5	314.3
192	308.9	311.4	49.7	49.0	45.1	45.5	46.4	45.1
216	45.1	51.2	45.1	52.3	51.6	51.9	52.9	53.0
240	51.7	55.6	59.8	59.8	60.5	75.4	89.0	104.8
264	117.1	90.2	58.6	54.2	54.2	52.6	50.3	46.8
288	44.4	43.0	41.5	40.5	37.6	35.8	35.5	34.0
312	34.0	33.7	32.6	29.7	29.4	28.3	28.7	28.8
336	29.0	28.4	28.8	27.5	27.8	28.1	28.4	28.1



VIEW FROM NORTH

with an overhang of 10°

SCALE 1/100

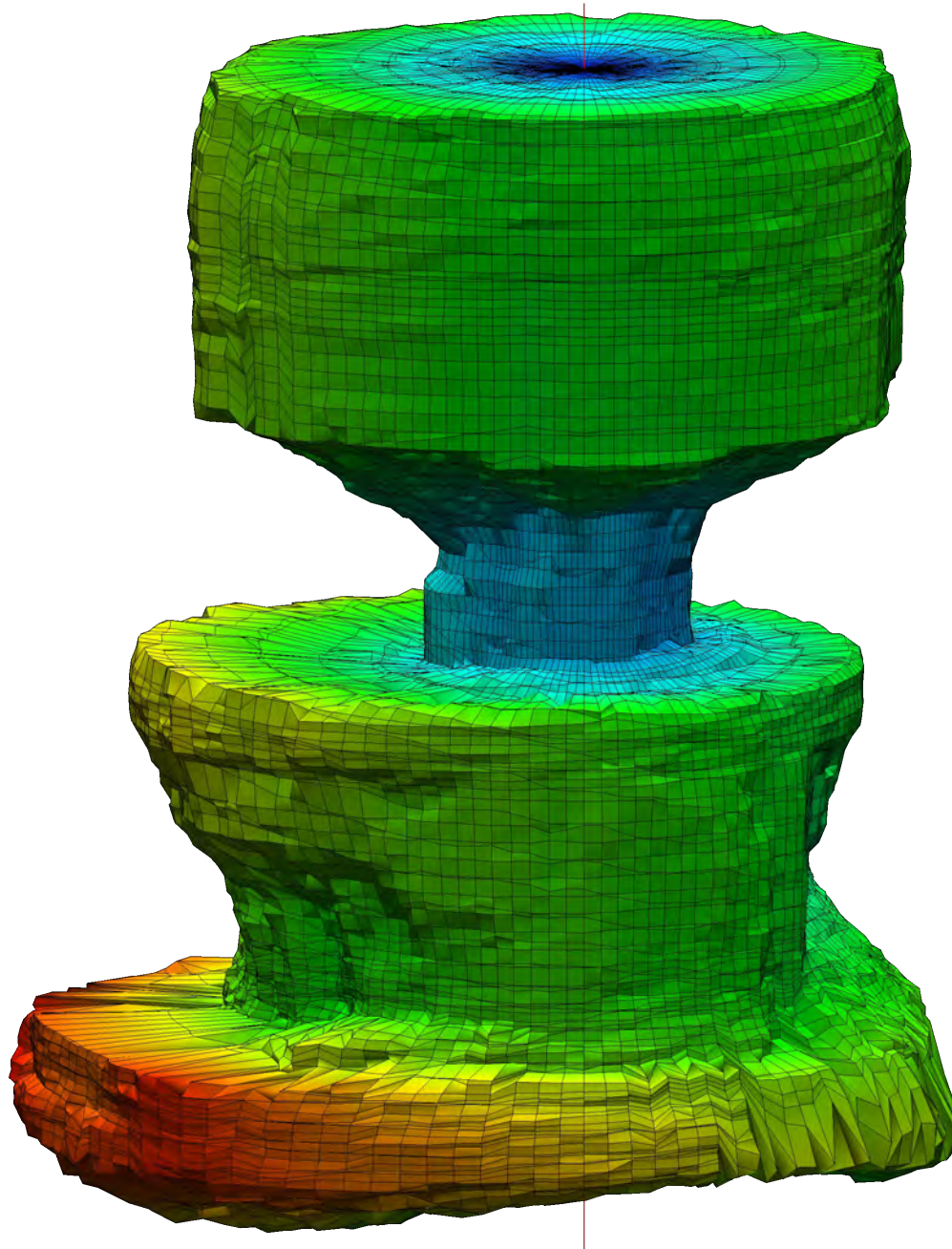




VIEW FROM EAST

with an overhang of 10°

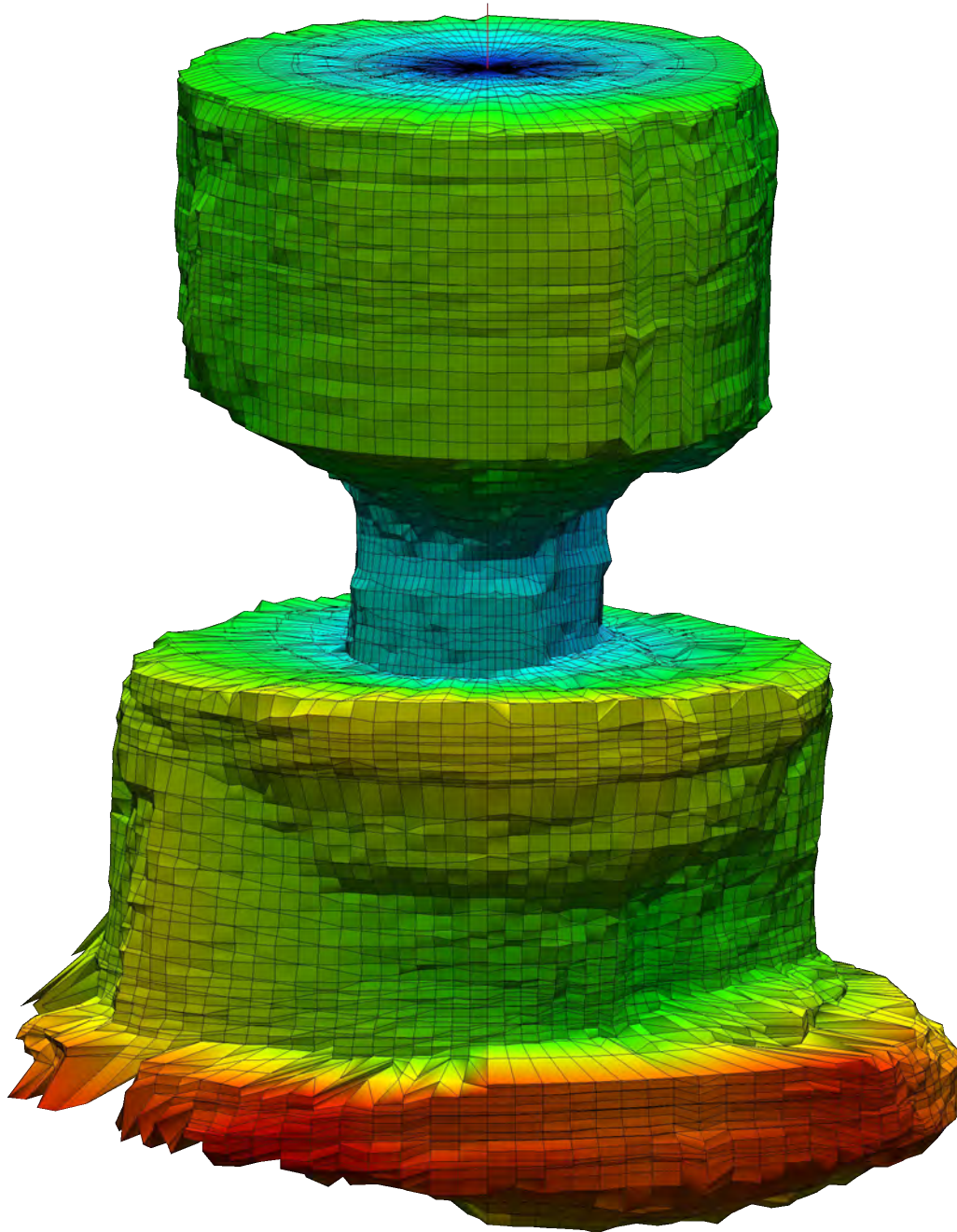
SCALE 1/100





VIEW FROM SOUTH
with an overhang of 10°

SCALE 1/100

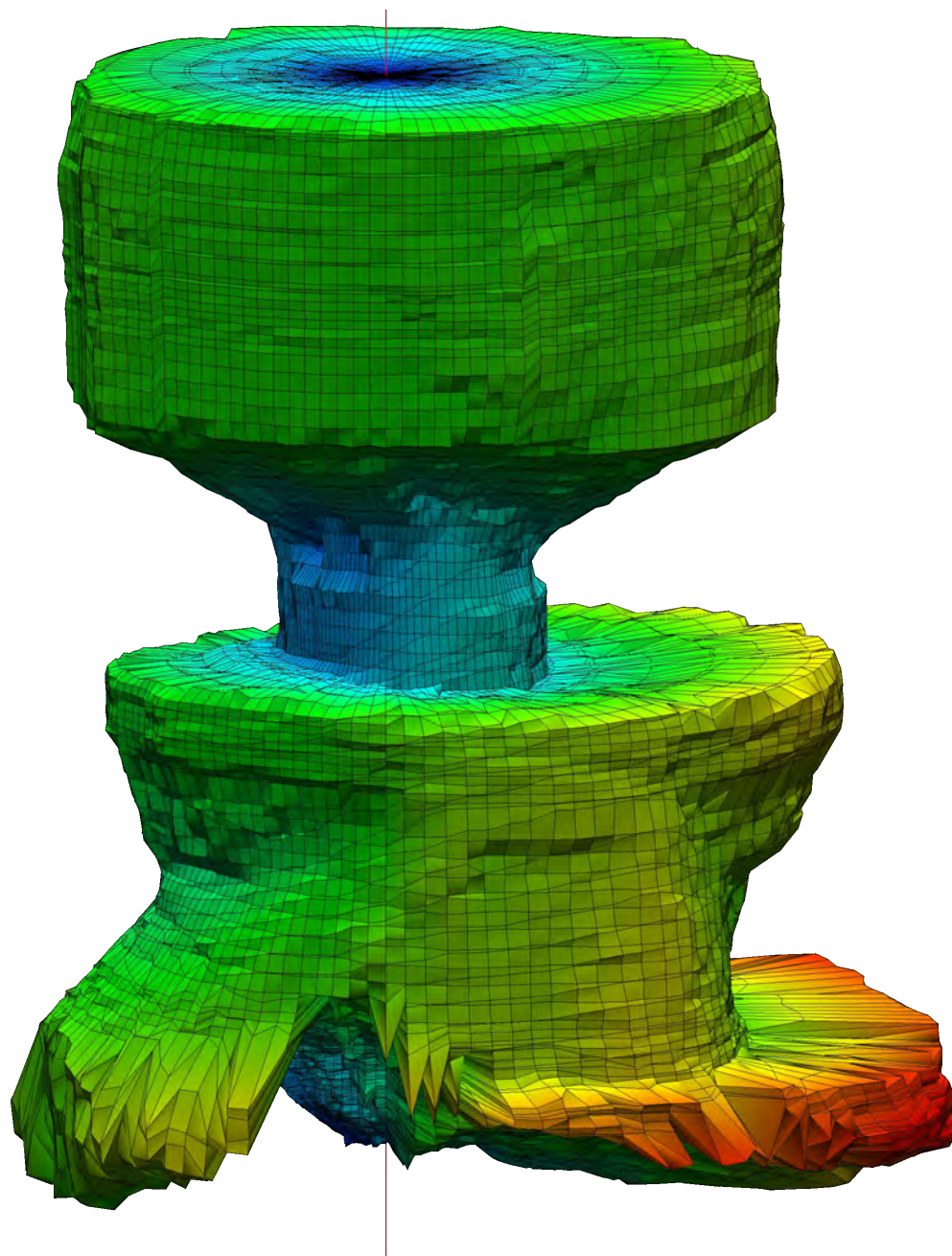




VIEW FROM WEST

with an overhang of 10°

SCALE 1/100





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



VIEW FROM NORTH

2380 ft

SCALE 1/100

- ▲ Casing 7-5/8" at 2501 ft (MD)
- ▲ Casing 5-1/2" at 2607 ft (MD)

2480 ft

2580 ft

2680 ft

2780 ft

Depth (MD)

2880 ft

2980 ft

3080 ft

T.D. @ 3100 ft (MD)

3180 ft

3280 ft

300 ft

200 ft

100 ft

0 ft

100 ft

200 ft

300 ft





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

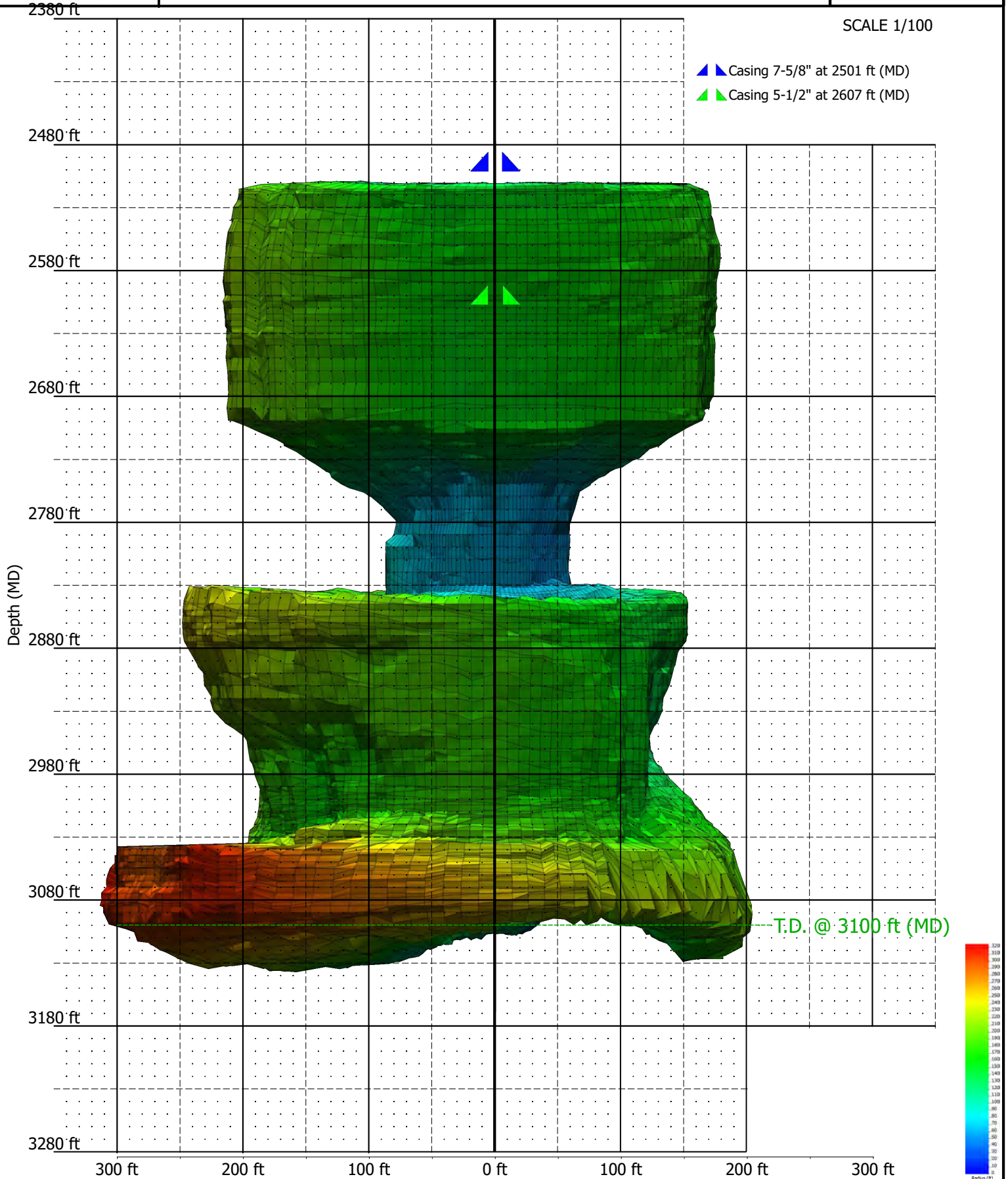
CAVERN : PPG No. 007B
OPERATION No. : 9



VIEW FROM EAST

SCALE 1/100

- ▲ Casing 7-5/8" at 2501 ft (MD)
- ▲ Casing 5-1/2" at 2607 ft (MD)





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



VIEW FROM SOUTH

2380 ft

SCALE 1/100

- ▲ Casing 7-5/8" at 2501 ft (MD)
- ▲ Casing 5-1/2" at 2607 ft (MD)

2480 ft

2580 ft

2680 ft

2780 ft

Depth (MD)

2880 ft

2980 ft

3080 ft

T.D. @ 3100 ft (MD)

3180 ft

3280 ft

300 ft

200 ft

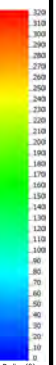
100 ft

0 ft

100 ft

200 ft

300 ft





CUSTOMER : Westlake Chemicals
DATE : July 08, 2024

CAVERN : PPG No. 007B
OPERATION No. : 9



VIEW FROM WEST

2380 ft

SCALE 1/100

- ▲ Casing 7-5/8" at 2501 ft (MD)
- ▲ Casing 5-1/2" at 2607 ft (MD)

2480 ft

2580 ft

2680 ft

2780 ft

Depth (MD)

2880 ft

2980 ft

3080 ft

T.D. @ 3100 ft (MD)

3180 ft

3280 ft

300 ft

200 ft

100 ft

0 ft

100 ft

200 ft

300 ft

