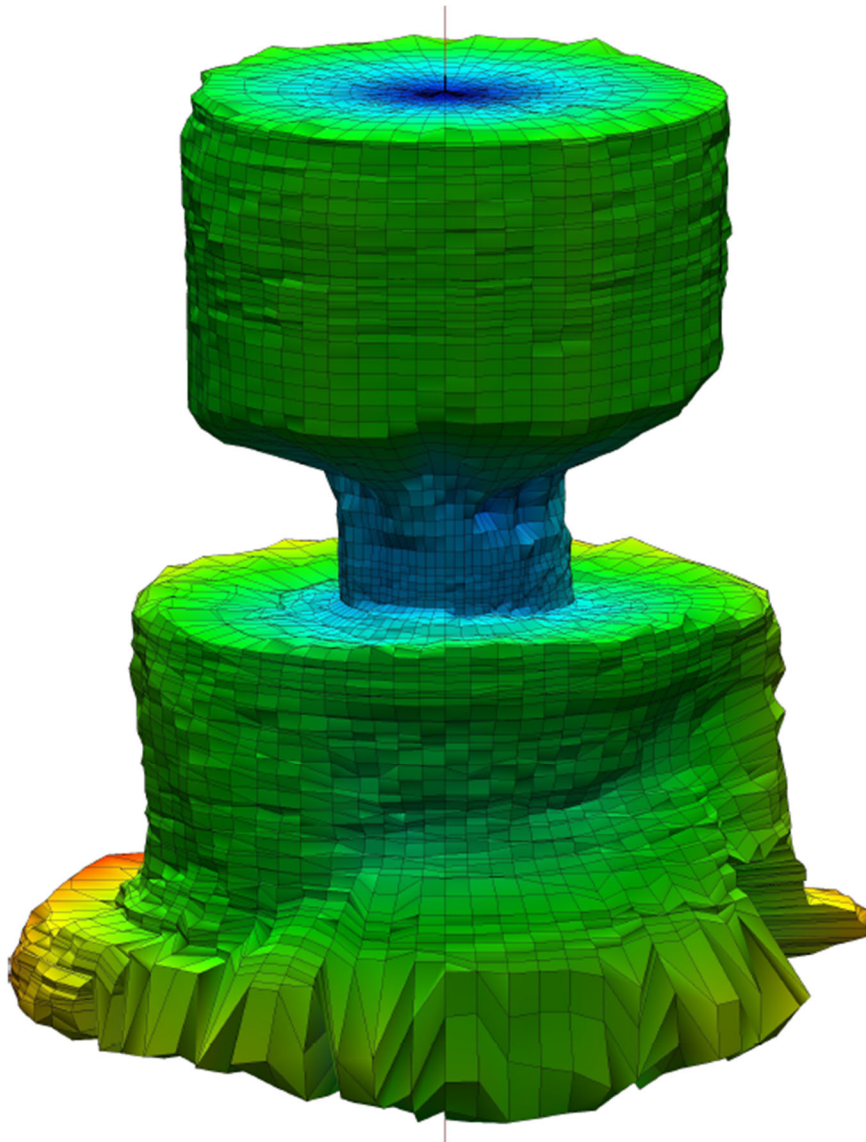


**Westlake Chemicals
PPG No. 007B
Sulphur Mines
Calcasieu Parish, Louisiana
November 2, 2023
Through Pipe Sonar Survey**



Survey Conducted by: Will Guidry / Richard Lawrence
Company Representative: Mr. Don Culpepper – 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	61-118
Solids Views	119-126



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:	3099.6 ft.

Permanent Datum:	B.H.F
Depth Correction:	+7.7 ft.

Total Volume BBL:	9,959,571.02
Total Volume Ft ³ :	55,918,841.46

Sonar Tool Orientation:

Sonar tool serial number SON-073-024 magnetic compass calibration performed on July 20, 2023.

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

Operation No. 4 – Sonic Surveys / Flodim – 2023.02.01 – Through Pipe Sonar
Operation No. 5 – Sonic Surveys / Flodim – 2023.03.16 – Through Pipe Sonar
Operation No. 6 – Sonic Surveys / Flodim – 2023.07.26 – Through Pipe Sonar
Operation No. 7 – Sonic Surveys / Flodim – 2023.11.02 – Through Pipe Sonar

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 2513 ft, with a step of 3 feet.
- Oriented circular horizontal sections from 2513 ft to 2514 ft, with a step of 1 feet.
- Oriented circular horizontal sections from 2514 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 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 50°, 55°, 60°, 65°, 70°, 75°, 80°, 85°, 89° with respect to the horizontal.
- Down-tilted oriented circular sections from 2900 ft with a tilt of -15°, -20°, -25°, -30°, -35°, -40°, -45°, -50°, -55°, -60°, -65° 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°, 50°, 55°, 60°, 65°, 75°, 80°, 85° with respect to the horizontal.
- Down-tilted oriented circular sections from 3050 ft with a tilt of -3°, -6°, -9°, -12°, -15°, -18°, -21°, -24°, -27°, -30°, -33°, -36°, -39°, -42°, -45°, -48°, -51°, -54°, -57°, -60°, -63°, -66°, -69°, -72°, -75°, -78°, -81°, -84°, -87° with respect to the horizontal.
- Up-tilted oriented circular sections from 3080 ft with a tilt of 3°, 6°, 9°, 12°, 15°, 18°, 21°, 24°, 27°, 30°, 33°, 36°, 39°, 42°, 45°, 51°, 55°, 60° with respect to the horizontal.
- 1 complimentary measurement to determine the cavity floor depth.

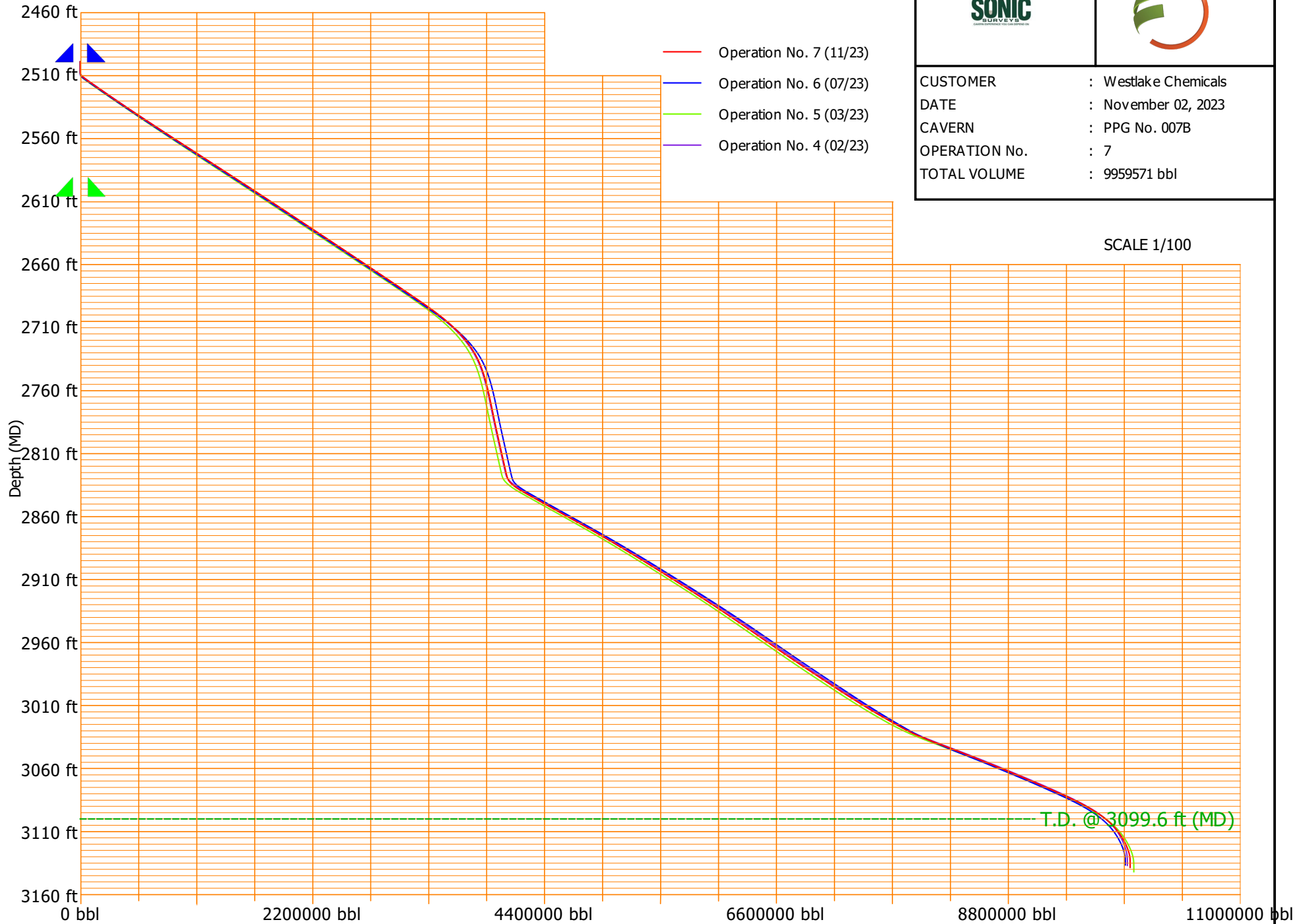
TOTAL VOLUME (bbl) VERSUS DEPTH (ft)

SONIC
SURVEYS
CREATING CONFIDENCE YOU CAN DEPEND ON



CUSTOMER	: Westlake Chemicals
DATE	: November 02, 2023
CAVERN	: PPG No. 007B
OPERATION No.	: 7
TOTAL VOLUME	: 9959571 bbl

SCALE 1/100



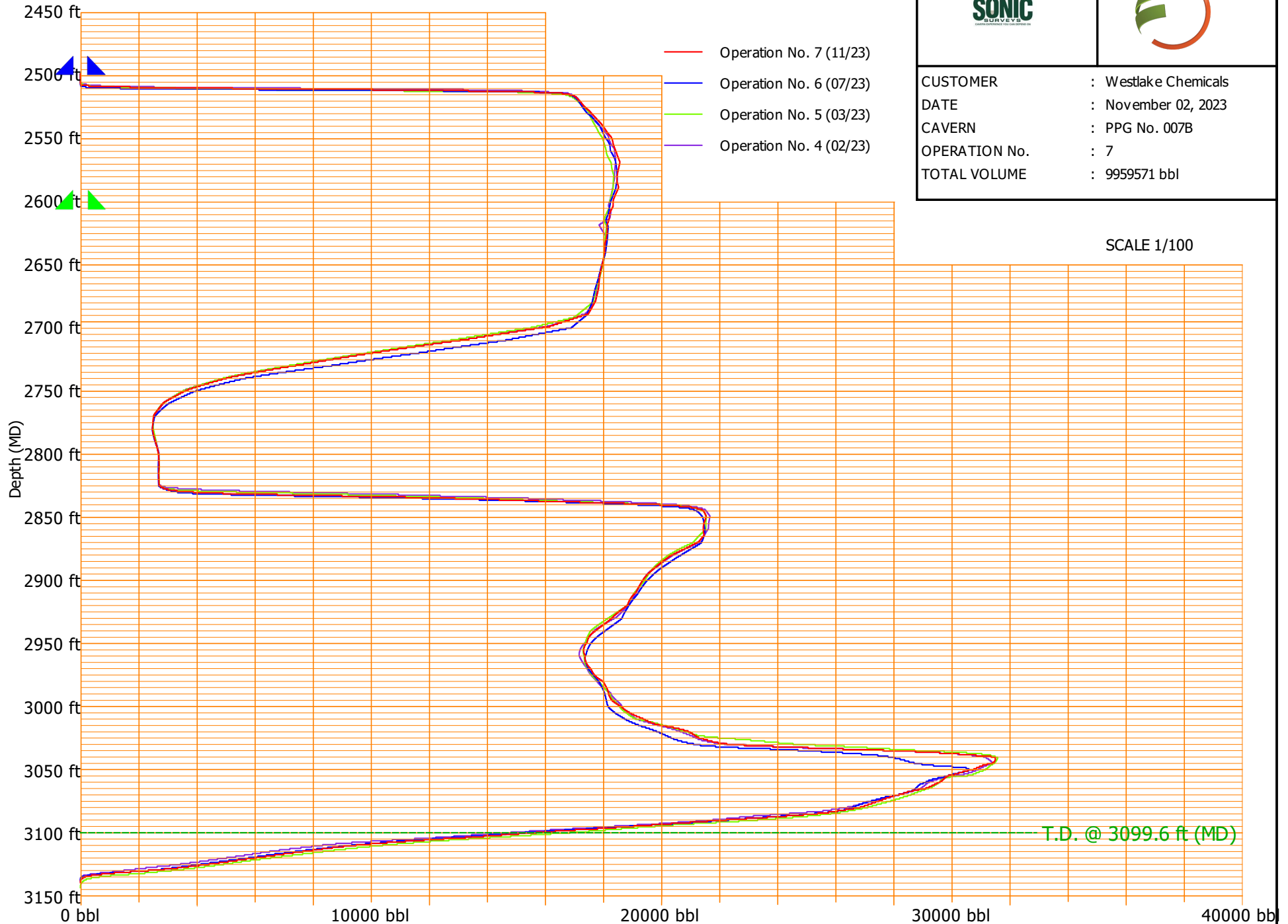
PARTIAL VOLUME (bbl) VERSUS DEPTH EACH 1 ft

SONIC
SURVEYS
CREATING CERTAINLY THE WAY WE LIVE



CUSTOMER	: Westlake Chemicals
DATE	: November 02, 2023
CAVERN	: PPG No. 007B
OPERATION No.	: 7
TOTAL VOLUME	: 9959571 bbl

SCALE 1/100



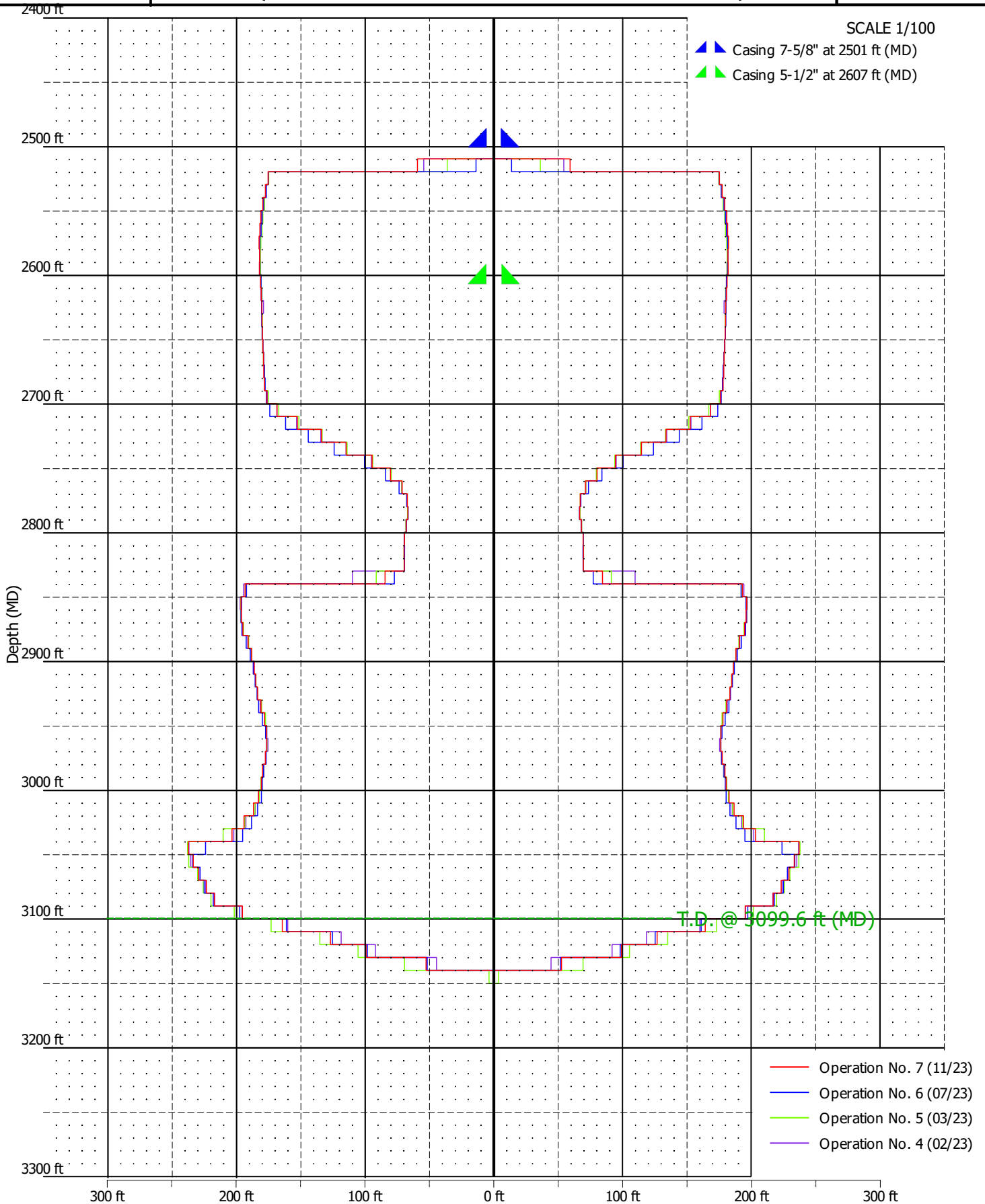


CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**MEAN RADIUS**

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B					
		DATE : November 02, 2023				OPERATION No. : 7					
		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)	(°)
2609.00	1769272.67	18236.80	-	-	-	-	-	-	-	-	-
2610.00	1787501.24	18228.57	102339.89	180.49	360.98	154.33	221.23	162.00	326.46	394.96	162.00
2611.00	1805725.67	18224.43	-	-	-	-	-	-	-	-	-
2612.00	1823945.91	18220.23	-	-	-	-	-	-	-	-	-
2613.00	1842161.88	18215.97	-	-	-	-	-	-	-	-	-
2614.00	1860373.33	18211.45	-	-	-	-	-	-	-	-	-
2615.00	1878572.39	18199.06	-	-	-	-	-	-	-	-	-
2616.00	1896756.66	18184.27	-	-	-	-	-	-	-	-	-
2617.00	1914926.16	18169.50	-	-	-	-	-	-	-	-	-
2618.00	1933080.89	18154.74	-	-	-	-	-	-	-	-	-
2619.00	1951221.30	18140.40	-	-	-	-	-	-	-	-	-
2620.00	1969359.31	18138.01	101838.93	180.05	360.09	154.56	219.14	162.00	326.27	392.20	162.00
2621.00	1987498.49	18139.18	-	-	-	-	-	-	-	-	-
2622.00	2005638.85	18140.36	-	-	-	-	-	-	-	-	-
2623.00	2023780.38	18141.53	-	-	-	-	-	-	-	-	-
2624.00	2041923.08	18142.70	-	-	-	-	-	-	-	-	-
2625.00	2060062.08	18139.00	-	-	-	-	-	-	-	-	-
2626.00	2078195.75	18133.67	-	-	-	-	-	-	-	-	-
2627.00	2096324.07	18128.32	-	-	-	-	-	-	-	-	-
2628.00	2114447.04	18122.97	-	-	-	-	-	-	-	-	-
2629.00	2132564.61	18117.56	-	-	-	-	-	-	-	-	-
2630.00	2150671.83	18107.23	101647.83	179.88	359.75	155.08	219.77	162.00	326.71	392.89	162.00
2631.00	2168767.17	18095.34	-	-	-	-	-	-	-	-	-
2632.00	2186850.68	18083.51	-	-	-	-	-	-	-	-	-
2633.00	2204922.41	18071.73	-	-	-	-	-	-	-	-	-
2634.00	2222982.56	18060.16	-	-	-	-	-	-	-	-	-
2635.00	2241039.98	18057.41	-	-	-	-	-	-	-	-	-
2636.00	2259097.45	18057.47	-	-	-	-	-	-	-	-	-
2637.00	2277155.01	18057.56	-	-	-	-	-	-	-	-	-
2638.00	2295212.68	18057.67	-	-	-	-	-	-	-	-	-
2639.00	2313270.49	18057.81	-	-	-	-	-	-	-	-	-
2640.00	2331323.71	18053.22	101350.36	179.61	359.23	155.21	218.53	<			

SONIC SURVEYS CREATING SURVEYS FOR THE FUTURE		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				5		
		DATE : November 02, 2023				OPERATION No. : 7						
		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)	(°)	
2645.00	2421477.22	18015.55	-	-	-	-	-	-	-	-	-	
2646.00	2439485.11	18007.90	-	-	-	-	-	-	-	-	-	
2647.00	2457485.31	18000.20	-	-	-	-	-	-	-	-	-	
2648.00	2475477.78	17992.46	-	-	-	-	-	-	-	-	-	
2649.00	2493462.46	17984.68	-	-	-	-	-	-	-	-	-	
2650.00	2511437.52	17975.06	100908.22	179.22	358.44	153.38	218.93	168.00	325.37	390.53	168.00	
2651.00	2529402.39	17964.87	-	-	-	-	-	-	-	-	-	
2652.00	2547357.10	17954.71	-	-	-	-	-	-	-	-	-	
2653.00	2565301.70	17944.60	-	-	-	-	-	-	-	-	-	
2654.00	2583236.24	17934.53	-	-	-	-	-	-	-	-	-	
2655.00	2601160.75	17924.51	-	-	-	-	-	-	-	-	-	
2656.00	2619075.27	17914.53	-	-	-	-	-	-	-	-	-	
2657.00	2636979.86	17904.59	-	-	-	-	-	-	-	-	-	
2658.00	2654874.55	17894.69	-	-	-	-	-	-	-	-	-	
2659.00	2672759.38	17884.83	-	-	-	-	-	-	-	-	-	
2660.00	2690638.73	17879.35	100379.70	178.75	357.50	154.28	218.73	168.00	324.04	390.05	168.00	
2661.00	2708514.37	17875.64	-	-	-	-	-	-	-	-	-	
2662.00	2726386.28	17871.91	-	-	-	-	-	-	-	-	-	
2663.00	2744254.46	17868.18	-	-	-	-	-	-	-	-	-	
2664.00	2762118.91	17864.45	-	-	-	-	-	-	-	-	-	
2665.00	2779979.61	17860.70	-	-	-	-	-	-	-	-	-	
2666.00	2797836.57	17856.96	-	-	-	-	-	-	-	-	-	
2667.00	2815689.77	17853.20	-	-	-	-	-	-	-	-	-	
2668.00	2833539.20	17849.44	-	-	-	-	-	-	-	-	-	
2669.00	2851384.87	17845.67	-	-	-	-	-	-	-	-	-	
2670.00	2869221.68	17836.81	100131.45	178.53	357.06	154.18	219.23	168.00	324.59	390.32	168.00	
2671.00	2887047.85	17826.17	-	-	-	-	-	-	-	-	-	
2672.00	2904863.39	17815.54	-	-	-	-	-	-	-	-	-	
2673.00	2922668.34	17804.95	-	-	-	-	-	-	-	-	-	
2674.00	2940462.73	17794.38	-	-	-	-	-	-	-	-	-	
2675.00	2958246.57	17783.84	-	-	-	-	-	-	-	-	-	
2676.00	2976019.89	17773.33	-	-	-	-	-	-	-	-	-	
2677.00	2993782.73	17762.84	-	-	-	-	-	-	-	-	-	
2678.00	3011535.11	17752.38	-	-	-	-	-	-	-	-	-	
2679.00	3029276.24	17741.13	-	-	-	-	-	-	-	-	-	
2680.00	3046995.23	17718.99	99449.84	177.92	355.84	152.97	218.05	168.00	323.59	389.40	168.00	

SONIC SURVEYS		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				8		
		DATE : November 02, 2023				OPERATION No. : 7						
		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)	(°)	
2753.00	3845196.92	3362.97	-	-	-	-	-	-	-	-	-	
2754.00	3848477.44	3280.53	-	-	-	-	-	-	-	-	-	
2755.00	3851676.79	3199.35	-	-	-	-	-	-	-	-	-	
2756.00	3854796.23	3119.44	-	-	-	-	-	-	-	-	-	
2757.00	3857837.02	3040.79	-	-	-	-	-	-	-	-	-	
2758.00	3860800.43	2963.41	-	-	-	-	-	-	-	-	-	
2759.00	3863687.72	2887.29	-	-	-	-	-	-	-	-	-	
2760.00	3866526.70	2838.98	15889.24	71.12	142.24	40.44	101.41	180.00	114.40	164.40	6.00	
2761.00	3869330.51	2803.82	-	-	-	-	-	-	-	-	-	
2762.00	3872099.48	2768.96	-	-	-	-	-	-	-	-	-	
2763.00	3874833.90	2734.43	-	-	-	-	-	-	-	-	-	
2764.00	3877534.11	2700.21	-	-	-	-	-	-	-	-	-	
2765.00	3880200.41	2666.30	-	-	-	-	-	-	-	-	-	
2766.00	3882833.12	2632.71	-	-	-	-	-	-	-	-	-	
2767.00	3885432.56	2599.44	-	-	-	-	-	-	-	-	-	
2768.00	3887999.05	2566.48	-	-	-	-	-	-	-	-	-	
2769.00	3890532.89	2533.85	-	-	-	-	-	-	-	-	-	
2770.00	3893053.24	2520.35	14142.22	67.09	134.19	39.56	87.30	180.00	104.85	148.65	24.00	
2771.00	3895568.08	2514.84	-	-	-	-	-	-	-	-	-	
2772.00	3898077.73	2509.65	-	-	-	-	-	-	-	-	-	
2773.00	3900582.71	2504.99	-	-	-	-	-	-	-	-	-	
2774.00	3903083.36	2500.64	-	-	-	-	-	-	-	-	-	
2775.00	3905580.03	2496.67	-	-	-	-	-	-	-	-	-	
2776.00	3908072.85	2492.82	-	-	-	-	-	-	-	-	-	
2777.00	3910562.02	2489.17	-	-	-	-	-	-	-	-	-	
2778.00	3913047.82	2485.80	-	-	-	-	-	-	-	-	-	
2779.00	3915530.24	2482.42	-	-	-	-	-	-	-	-	-	
2780.00	3918015.05	2484.81	13958.04	66.66	133.31	48.51	87.77	228.00	114.77	145.60	24.00	
2781.00	3920504.96	2489.91	-	-	-	-	-	-	-	-	-	
2782.00	3923001.23	2496.27	-	-	-	-	-	-	-	-	-	
2783.00	3925505.33	2504.10	-	-	-	-	-	-	-	-	-	
2784.00	3928018.42	2513.09	-	-	-	-	-	-	-	-	-	
2785.00	3930541.52	2523.10	-	-	-	-	-	-	-	-	-	
2786.00	3933075.42	2533.90	-	-	-	-	-	-	-	-	-	
2787.00	3935621.11	2545.70	-	-	-	-	-	-	-	-	-	
2788.00	3938179.62	2558.51	-	-	-	-	-	-	-	-	-	

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B					
		DATE : November 02, 2023				OPERATION No. : 7					
		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)	(°)
2789.00	3940751.45	2571.82	-	-	-	-	-	-	-	-	-
2790.00	3943334.14	2582.70	14515.85	67.97	135.95	53.60	88.88	228.00	121.48	143.09	60.00
2791.00	3945927.84	2593.70	-	-	-	-	-	-	-	-	-
2792.00	3948533.19	2605.35	-	-	-	-	-	-	-	-	-
2793.00	3951150.58	2617.40	-	-	-	-	-	-	-	-	-
2794.00	3953780.11	2629.53	-	-	-	-	-	-	-	-	-
2795.00	3956421.66	2641.54	-	-	-	-	-	-	-	-	-
2796.00	3959074.07	2652.41	-	-	-	-	-	-	-	-	-
2797.00	3961736.43	2662.36	-	-	-	-	-	-	-	-	-
2798.00	3964408.49	2672.06	-	-	-	-	-	-	-	-	-
2799.00	3967090.97	2682.48	-	-	-	-	-	-	-	-	-
2800.00	3969778.83	2687.86	15095.88	69.32	138.64	53.51	93.09	228.00	121.31	148.18	0.00
2801.00	3972469.58	2690.75	-	-	-	-	-	-	-	-	-
2802.00	3975163.20	2693.63	-	-	-	-	-	-	-	-	-
2803.00	3977859.84	2696.63	-	-	-	-	-	-	-	-	-
2804.00	3980559.88	2700.05	-	-	-	-	-	-	-	-	-
2805.00	3983262.84	2702.95	-	-	-	-	-	-	-	-	-
2806.00	3985968.17	2705.33	-	-	-	-	-	-	-	-	-
2807.00	3988675.49	2707.32	-	-	-	-	-	-	-	-	-
2808.00	3991384.66	2709.17	-	-	-	-	-	-	-	-	-
2809.00	3994096.17	2711.51	-	-	-	-	-	-	-	-	-
2810.00	3996806.74	2710.57	15214.60	69.59	139.18	53.61	93.01	228.00	120.94	148.11	60.00
2811.00	3999514.60	2707.86	-	-	-	-	-	-	-	-	-
2812.00	4002219.55	2704.95	-	-	-	-	-	-	-	-	-
2813.00	4004921.52	2701.97	-	-	-	-	-	-	-	-	-
2814.00	4007620.74	2699.21	-	-	-	-	-	-	-	-	-
2815.00	4010319.89	2699.15	-	-	-	-	-	-	-	-	-
2816.00	4013019.81	2699.92	-	-	-	-	-	-	-	-	-
2817.00	4015720.56	2700.74	-	-	-	-	-	-	-	-	-
2818.00	4018422.57	2702.02	-	-	-	-	-	-	-	-	-
2819.00	4021126.07	2703.49	-	-	-	-	-	-	-	-	-
2820.00	4023829.64	2703.57	15178.31	69.51	139.02	53.71	92.09	228.00	121.28	147.48	54

SONIC SURVEYS CREATING SURVEYS FOR THE WORLD		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				10		
		DATE : November 02, 2023				OPERATION No. : 7						
		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)	(°)	
2825.00	4037392.25	2737.58	-	-	-	-	-	-	-	-	-	
2826.00	4040174.55	2782.29	-	-	-	-	-	-	-	-	-	
2827.00	4043042.16	2867.62	-	-	-	-	-	-	-	-	-	
2828.00	4046060.67	3018.50	-	-	-	-	-	-	-	-	-	
2829.00	4049385.58	3324.91	-	-	-	-	-	-	-	-	-	
2830.00	4053278.22	3892.65	22341.26	84.38	168.77	56.20	245.28	186.00	125.07	337.87	6.00	
2831.00	4058187.23	4909.01	-	-	-	-	-	-	-	-	-	
2832.00	4064964.78	6777.54	-	-	-	-	-	-	-	-	-	
2833.00	4073974.48	9009.70	-	-	-	-	-	-	-	-	-	
2834.00	4085164.82	11190.34	-	-	-	-	-	-	-	-	-	
2835.00	4098068.66	12903.84	-	-	-	-	-	-	-	-	-	
2836.00	4112491.01	14422.35	-	-	-	-	-	-	-	-	-	
2837.00	4128274.45	15783.44	-	-	-	-	-	-	-	-	-	
2838.00	4145480.90	17206.45	-	-	-	-	-	-	-	-	-	
2839.00	4164209.17	18728.27	-	-	-	-	-	-	-	-	-	
2840.00	4184159.83	19950.66	113491.12	193.04	386.08	85.84	247.22	180.00	354.10	400.44	6.00	
2841.00	4204792.87	20633.03	-	-	-	-	-	-	-	-	-	
2842.00	4225831.13	21038.26	-	-	-	-	-	-	-	-	-	
2843.00	4247079.40	21248.27	-	-	-	-	-	-	-	-	-	
2844.00	4268481.73	21402.34	-	-	-	-	-	-	-	-	-	
2845.00	4289946.19	21464.45	-	-	-	-	-	-	-	-	-	
2846.00	4311434.91	21488.72	-	-	-	-	-	-	-	-	-	
2847.00	4332947.37	21512.46	-	-	-	-	-	-	-	-	-	
2848.00	4354482.19	21534.82	-	-	-	-	-	-	-	-	-	
2849.00	4376032.15	21549.96	-	-	-	-	-	-	-	-	-	
2850.00	4397572.82	21540.66	120913.36	196.18	392.37	147.04	251.30	198.00	365.50	402.03	0.00	
2851.00	4419100.55	21527.73	-	-	-	-	-	-	-	-	-	
2852.00	4440616.95	21516.40	-	-	-	-	-	-	-	-	-	
2853.00	4462118.05	21501.10	-	-	-	-	-	-	-	-	-	
2854.00	4483600.15	21482.10	-	-	-	-	-	-	-	-	-	
2855.00	4505069.26	21469.11	-	-	-	-	-	-	-	-	-	
2856.00	4526531.13	21461.88	-	-	-	-	-	-	-	-	-	
2857.00	4547985.59	21454.46	-	-	-	-	-	-	-	-	-	
2858.00	4569437.57	21451.98	-	-	-	-	-	-	-	-	-	
2859.00	4590888.81	21451.24	-	-	-	-	-	-	-	-	-	
2860.00	4612341.19	21452.38	120451.32	195.81	391.62	149.03	249.90	198.00	363.25	401.71	18.00	

[illegible]

SONIC SURVEYS CREATING SURVEYS FOR THE WORLD		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				15		
		DATE : November 02, 2023				OPERATION No. : 7						
		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)	(°)	
3005.00	7335707.43	18975.95	-	-	-	-	-	-	-	-	-	
3006.00	7354763.93	19056.50	-	-	-	-	-	-	-	-	-	
3007.00	7373914.69	19150.76	-	-	-	-	-	-	-	-	-	
3008.00	7393173.35	19258.66	-	-	-	-	-	-	-	-	-	
3009.00	7412543.56	19370.21	-	-	-	-	-	-	-	-	-	
3010.00	7431997.92	19454.36	109276.09	186.50	373.01	125.52	245.33	234.00	329.35	413.30	54.00	
3011.00	7451535.69	19537.77	-	-	-	-	-	-	-	-	-	
3012.00	7471180.82	19645.13	-	-	-	-	-	-	-	-	-	
3013.00	7490956.19	19775.38	-	-	-	-	-	-	-	-	-	
3014.00	7510885.37	19929.18	-	-	-	-	-	-	-	-	-	
3015.00	7531055.21	20169.84	-	-	-	-	-	-	-	-	-	
3016.00	7551474.81	20419.61	-	-	-	-	-	-	-	-	-	
3017.00	7572091.98	20617.16	-	-	-	-	-	-	-	-	-	
3018.00	7592872.76	20780.78	-	-	-	-	-	-	-	-	-	
3019.00	7613798.82	20926.06	-	-	-	-	-	-	-	-	-	
3020.00	7634807.80	21008.98	118065.08	193.86	387.72	104.74	249.07	228.00	326.30	431.29	132.00	
3021.00	7655884.65	21076.85	-	-	-	-	-	-	-	-	-	
3022.00	7677029.98	21145.33	-	-	-	-	-	-	-	-	-	
3023.00	7698245.28	21215.29	-	-	-	-	-	-	-	-	-	
3024.00	7719536.79	21291.52	-	-	-	-	-	-	-	-	-	
3025.00	7740989.77	21452.98	-	-	-	-	-	-	-	-	-	
3026.00	7762584.88	21595.11	-	-	-	-	-	-	-	-	-	
3027.00	7784338.40	21753.52	-	-	-	-	-	-	-	-	-	
3028.00	7806295.33	21956.93	-	-	-	-	-	-	-	-	-	
3029.00	7828554.21	22258.88	-	-	-	-	-	-	-	-	-	
3030.00	7851417.69	22863.48	129646.20	203.16	406.33	67.61	313.00	198.00	310.71	509.96	138.00	
3031.00	7875256.59	23838.90	-	-	-	-	-	-	-	-	-	
3032.00	7900317.87	25061.28	-	-	-	-	-	-	-	-	-	
3033.00	7926577.69	26259.83	-	-	-	-	-	-	-	-	-	
3034.00	7954242.37	27664.68	-	-	-	-	-	-	-	-	-	
3035.00	7983010.05	28767.68	-	-	-	-	-	-	-	-	-	
3036.00	8012595.99	29585.94	-	-	-	-	-	-	-	-	-	
3037.00	8042857.21	30261.22	-	-	-	-	-	-	-	-	-	
3038.00	8073703.45	30846.23	-	-	-	-	-	-	-	-	-	
3039.00	8105062.42	31358.98	-	-	-	-	-	-	-	-	-	
3040.00	8136567.28	31504.85	176423.40	236.98	473.95	53.53	314.57	198.00	335.64	520.92	138.00	



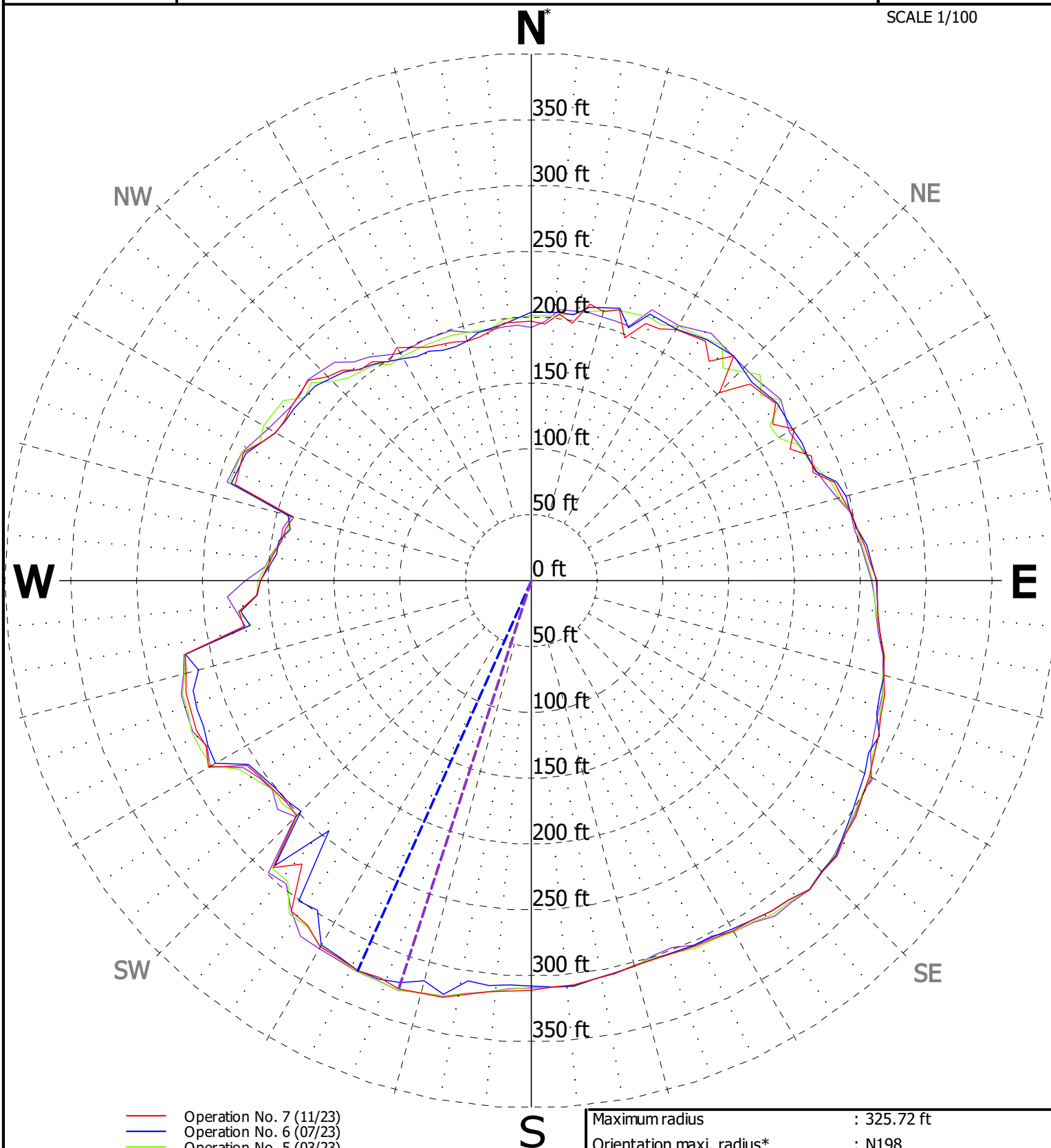
CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



MAXIMUM EXTENSION

SCALE 1/100



- Operation No. 7 (11/23)
- Operation No. 6 (07/23)
- Operation No. 5 (03/23)
- Operation No. 4 (02/23)

Maximum radius : 325.72 ft
Orientation maxi. radius* : N198
Depth maxi. radius (MD) : 3079.05 ft
Surface : 206903.85 ft²
Max distance between points : 547.67 ft

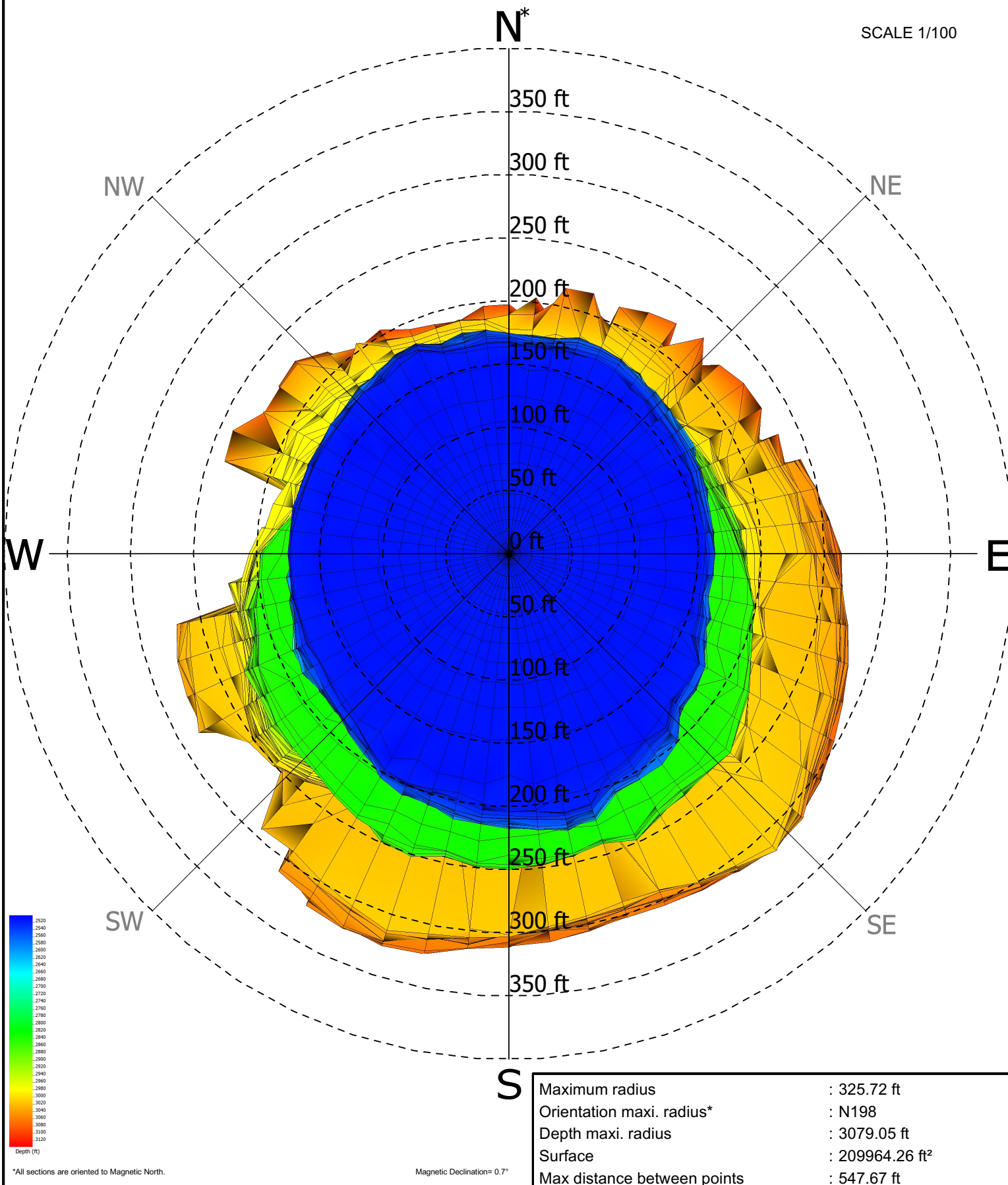
*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



VIEW FROM ABOVE

SCALE 1/100





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



WALL RANGE VS BEARING

Bearing	0.0	3.0	6.0	9.0
0	189.0: 3028.95	177.5: 3024.07	178.0: 3024.07	177.5: 3024.07
12	177.5: 3024.07	176.5: 2568.98	194.9: 3034.01	195.7: 3034.01
24	197.1: 3034.01	196.4: 3034.01	196.4: 3034.01	195.9: 3034.01
36	196.0: 3034.01	197.2: 3034.01	199.0: 3034.01	200.0: 3034.01
48	201.7: 3034.01	203.5: 3034.01	206.0: 3034.01	195.6: 3034.01
60	207.0: 3038.96	209.1: 3038.96	220.1: 3049.03	223.1: 3049.03
72	242.0: 3074	244.3: 3074	248.4: 3068.95	249.8: 3068.95
84	253.3: 3079.05	255.6: 3079.05	258.6: 3079.05	260.2: 3079.05
96	264.6: 3068.95	268.4: 3068.95	274.3: 3084.01	277.2: 3084.01
108	281.9: 3079.05	284.3: 3084.01	288.6: 3084.01	292.1: 3084.01
120	296.4: 3084.01	299.3: 3089.03	304.5: 3079.05	306.6: 3089.03
132	312.3: 3059.01	312.4: 3059.01	314.9: 3038.96	311.2: 3049.03
144	312.7: 3079.05	308.8: 3079.05	306.6: 3084.01	304.6: 3084.01
156	303.8: 3079.05	301.8: 3084.01	302.1: 3074	302.5: 3084.01
168	304.9: 3084.01	306.0: 3084.01	309.5: 3068.95	309.2: 3079.05
180	310.9: 3079.05	311.9: 3079.05	313.7: 3079.05	318.0: 3079.05
192	323.3: 3079.05	324.0: 3079.05	325.7: 3079.05	323.3: 3079.05
204	324.0: 3068.95	321.9: 3068.95	320.8: 3068.95	320.2: 3053.99
216	321.2: 3053.99	320.8: 3053.99	323.6: 3059.01	311.5: 3053.99
228	303.2: 3053.99	288.4: 3038.96	285.1: 3038.96	283.6: 3038.96
240	287.3: 3049.03	280.5: 3044.01	282.7: 3044.01	278.3: 3044.01
252	274.9: 3044.01	226.6: 3018.98	225.5: 3018.98	219.5: 3003.99
264	222.9: 3003.99	208.9: 2978.99	205.6: 2978.99	199.4: 2978.99
276	194.1: 2978.99	188.0: 2978.99	188.3: 2988.96	188.1: 2988.96
288	196.3: 3003.99	195.3: 3003.99	195.4: 3009.01	194.0: 3009.01
300	193.1: 3009.01	192.2: 3009.01	194.4: 3014.03	192.7: 3014.03
312	191.5: 3014.03	189.2: 3014.03	190.6: 3018.98	187.3: 3018.98
324	185.1: 3014.03	184.9: 3018.98	185.8: 3018.98	182.8: 3018.98
336	180.4: 2618.95	179.8: 3018.98	182.9: 3024.07	182.6: 3024.07
348	182.9: 3024.07	182.6: 3024.07	186.1: 3028.95	187.3: 3028.95



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

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

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2501.9	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
2502.9	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
2505.9	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
2510.9	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
2514.7	0	163.88	160.53	157.88	173.69	203.76	178.88	173.73	170.36
2516.9	0	164.36	159.56	156.19	177.91	203.76	179.24	173.25	170.11
2518.8	0	164.12	160.53	154.51	179.85	203.28	179.24	172.77	169.77
2528.8	0	167.74	161.86	158.61	181.93	206.90	190.24	174.95	169.91
2538.8	0	164.86	164.36	162.70	190.67	211.23	185.14	174.71	170.75
2549.0	0	170.88	164.17	162.72	191.97	211.01	185.52	171.37	173.17
2559.0	0	173.47	163.85	162.42	195.52	213.60	186.16	173.95	173.71
2569.0	0	172.57	168.40	161.75	190.04	215.57	186.43	174.01	175.07
2579.0	0	171.62	167.25	160.80	177.53	215.83	187.20	172.34	175.68
2589.0	0	171.13	171.16	160.56	180.79	217.29	186.71	176.42	174.13
2599.0	0	171.13	170.55	159.60	168.22	216.79	186.24	172.10	173.05
2604.0	0	170.91	169.35	159.14	175.35	215.61	187.07	177.69	172.83
2608.9	0	172.11	168.27	159.62	187.27	214.89	184.84	169.71	171.88
2614.0	0	171.40	167.79	160.33	186.82	215.20	185.22	169.95	171.16
2614.1	5	174.98	168.16	160.51	187.82	216.78	185.98	170.48	172.17
2614.1	10	175.95	172.95	162.44	191.33	219.36	187.74	172.73	174.26
2614.1	15	180.07	174.21	167.53	192.55	221.23	190.74	178.78	177.75
2614.1	20	185.59	178.78	172.73	197.13	222.57	193.38	182.70	184.24
2614.1	25	188.49	182.79	175.30	198.00	224.18	200.80	189.13	188.43
2614.1	30	193.31	186.52	178.84	199.79	206.82	201.92	194.27	192.63
2614.1	35	185.91	188.61	182.70	178.67	179.48	179.31	183.66	180.10
2614.1	40	163.35	158.62	160.51	159.10	157.94	159.58	161.80	162.25
2614.1	45	149.26	147.86	145.08	146.09	145.40	146.26	144.76	147.84
2614.1	50	135.43	133.10	131.89	134.39	133.82	134.21	135.11	134.36
2614.1	55	123.85	125.56	124.50	124.76	123.53	124.43	124.50	124.12
2614.1	60	116.46	118.02	117.74	116.74	117.10	116.10	116.78	116.74
2614.1	65	112.60	111.93	110.99	111.61	112.60	111.12	112.28	111.77
2614.1	70	108.42	107.28	106.81	107.76	108.74	107.28	108.42	106.96
2614.1	75	104.88	104.23	104.88	104.39	104.24	104.23	103.27	104.07
2614.1	80	102.31	101.98	101.67	102.31	102.31	102.14	101.99	101.82
2614.1	85	100.38	100.70	101.02	100.38	100.38	100.54	100.38	100.38
2614.1	89	100.06	100.06	100.06	100.06	100.06	100.06	100.06	100.06
2618.9	0	171.95	167.39	159.21	187.13	214.98	184.68	169.79	171.47
2624.0	0	171.98	166.81	158.99	186.91	214.78	184.35	169.81	171.14



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

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

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2629.0	0	171.53	167.57	159.50	185.32	213.37	184.38	169.60	170.45
2634.0	0	171.30	166.02	158.32	187.14	213.88	183.91	170.34	170.71
2639.1	0	172.01	166.73	159.01	186.60	214.88	184.15	169.85	170.81
2649.0	0	170.99	167.21	158.76	185.15	213.80	183.92	169.06	170.43
2659.0	0	171.02	166.91	158.78	184.86	213.19	185.89	169.09	170.78
2669.0	0	173.31	166.30	158.50	184.58	212.92	184.63	169.12	170.02
2678.9	0	170.73	166.15	158.50	185.04	212.92	180.42	169.12	170.66
2689.0	0	164.86	166.19	158.35	183.30	213.05	179.94	151.85	164.63
2699.0	0	141.49	164.39	158.35	183.68	200.04	179.23	141.25	151.90
2709.1	0	127.22	138.11	158.13	158.15	176.57	156.83	135.96	140.83
2718.8	0	100.80	121.49	149.72	136.88	162.25	141.04	125.62	119.52
2729.0	0	84.19	102.68	135.10	119.00	148.82	123.87	104.77	94.93
2739.0	0	71.07	84.69	79.01	101.18	135.73	99.99	83.83	73.59
2748.9	0	67.23	64.46	74.44	83.82	113.67	93.93	71.79	59.29
2759.1	0	55.19	59.42	70.60	67.24	98.04	87.83	63.86	50.25
2769.0	0	58.32	57.75	65.78	64.73	84.56	85.29	62.89	44.09
2779.0	0	60.01	56.68	65.55	63.76	80.23	85.73	64.34	50.84
2789.0	0	60.01	53.67	65.55	66.54	81.68	86.71	67.95	54.99
2799.0	0	59.77	53.91	66.27	66.90	88.18	90.02	65.30	55.46
2804.0	0	60.01	53.91	65.79	66.78	89.14	91.76	66.03	55.35
2809.0	0	59.05	53.68	65.31	67.14	87.71	91.77	67.00	54.86
2814.0	0	58.33	53.32	65.79	67.14	88.43	89.98	68.20	54.99
2819.0	0	58.57	53.80	65.31	67.27	87.71	90.70	68.44	54.75
2824.0	0	60.74	54.28	64.83	67.74	87.95	91.55	68.44	54.25
2829.0	0	59.77	67.11	64.59	67.75	87.46	92.26	68.68	54.01
2834.1	0	99.59	78.17	77.35	68.11	87.71	92.98	70.13	159.94
2839.0	0	105.04	86.01	81.93	126.01	88.67	93.34	71.09	160.19
2844.0	0	152.74	150.21	98.64	136.65	88.68	94.20	188.86	161.30
2849.0	0	152.63	150.46	183.21	233.58	249.52	226.02	186.75	162.86
2854.0	0	152.96	151.61	183.54	232.16	248.57	222.99	186.12	163.68
2859.0	0	152.98	152.44	184.21	231.70	247.95	222.86	185.17	163.38
2864.0	0	152.56	153.31	184.48	232.04	248.97	223.34	181.26	163.46
2869.0	0	151.93	153.49	184.50	228.68	243.51	224.01	181.60	162.30
2879.1	0	147.40	155.87	187.71	214.17	240.58	224.90	171.26	154.93
2889.0	0	138.98	152.53	188.60	212.95	237.89	223.35	171.31	151.89
2899.0	-65	171.44	172.77	230.12	249.59	229.06	205.12	221.29	166.97
2899.0	-60	165.08	167.25	240.02	267.50	258.05	225.63	197.95	165.02
2899.0	-55	276.78	242.37	240.73	281.58	261.94	240.66	187.35	154.23



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

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

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2899.0	-50	283.50	254.90	237.87	298.31	293.75	243.95	199.37	202.78
2899.0	-45	278.55	282.42	284.91	323.40	321.68	244.42	193.68	282.07
2899.0	-40	245.17	295.23	304.70	341.38	343.08	247.70	196.22	288.24
2899.0	-35	232.58	189.82	320.34	354.97	227.39	259.55	198.00	265.60
2899.0	-30	152.17	177.06	207.94	199.63	217.02	354.07	199.29	208.50
2899.0	-25	134.45	169.69	201.89	189.78	203.62	262.34	235.14	164.73
2899.0	-20	130.99	164.26	193.24	188.67	201.80	252.28	213.99	137.06
2899.0	-15	135.31	158.87	191.51	187.16	204.91	240.54	201.02	130.39
2899.0	0	137.06	154.29	187.32	211.32	232.45	224.94	171.31	148.18
2909.0	0	137.38	154.10	187.00	209.87	227.01	226.62	175.47	139.09
2918.9	10	138.38	156.36	187.72	218.80	239.95	222.50	183.52	146.14
2918.9	15	145.48	159.45	190.30	237.49	256.40	229.18	189.65	157.53
2918.9	20	161.92	160.75	192.23	248.45	260.91	241.09	196.10	173.48
2918.9	25	166.44	165.28	194.49	202.64	199.40	213.52	207.06	175.43
2918.9	30	173.21	164.65	159.34	155.89	157.73	168.52	174.82	179.95
2918.9	35	150.31	139.38	144.19	144.04	139.03	141.27	150.64	150.42
2918.9	40	131.61	121.51	121.62	129.57	121.94	121.36	133.22	136.64
2918.9	45	126.45	117.02	114.20	118.15	122.91	126.65	117.75	124.58
2918.9	50	120.97	113.17	111.94	109.94	132.90	139.75	110.33	113.81
2918.9	55	110.01	110.75	113.55	114.63	151.60	151.25	118.39	106.73
2918.9	60	113.55	108.03	126.45	130.41	153.22	162.83	131.93	107.53
2919.0	0	133.22	154.93	185.40	207.11	225.62	227.72	176.43	137.52
2929.1	0	129.39	153.82	186.37	192.91	218.06	230.52	180.93	130.47
2939.0	0	122.98	155.19	184.77	182.23	208.78	232.87	182.21	126.95
2949.0	0	120.74	154.11	184.77	182.25	198.21	233.57	194.69	131.69
2959.0	0	122.36	155.72	185.43	176.05	195.99	235.94	200.15	140.05
2969.1	0	128.44	154.63	181.91	172.99	194.71	233.95	201.76	147.31
2979.0	0	138.36	154.00	181.91	172.54	190.55	225.44	205.60	156.01
2989.0	0	146.38	155.28	181.29	170.79	188.64	238.07	175.52	165.67
2999.0	0	156.32	155.14	182.90	172.51	185.14	238.07	172.97	175.05
3004.0	0	160.31	155.26	182.88	172.24	185.46	237.79	159.66	181.33
3009.0	0	165.92	157.06	184.50	173.27	183.86	240.14	159.20	184.69
3014.0	0	167.85	158.32	187.70	174.28	184.18	240.19	160.80	189.18
3019.0	0	178.75	161.24	198.46	199.45	185.16	244.14	138.40	126.21
3024.1	0	177.45	165.93	197.31	230.20	188.34	244.14	141.27	93.37
3029.0	0	188.98	174.30	197.31	227.08	190.58	244.95	136.79	81.86
3034.0	0	73.27	200.03	234.90	230.74	192.81	245.37	135.87	81.96
3039.0	0	74.69	68.51	238.96	310.49	302.83	292.34	129.51	72.47



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

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

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
3044.0	0	76.20	68.51	242.70	311.23	301.41	213.87	104.75	70.69
3048.9	-87	50.92	50.92	50.12	50.12	50.12	50.12	50.28	50.44
3048.9	-84	51.72	51.08	50.92	50.10	49.32	48.83	50.12	52.04
3048.9	-81	50.92	50.11	52.04	50.03	49.32	48.19	48.99	52.52
3048.9	-78	51.08	49.79	52.04	49.31	49.48	47.47	46.27	53.31
3048.9	-75	55.24	48.43	51.56	49.07	49.64	47.39	45.79	50.03
3048.9	-72	54.76	48.51	51.56	49.63	49.80	47.43	45.63	52.91
3048.9	-69	56.68	51.60	50.28	51.79	50.60	50.34	45.95	53.62
3048.9	-66	57.48	53.79	50.60	51.72	49.32	51.50	46.59	54.51
3048.9	-63	51.08	54.66	51.24	57.76	54.92	50.89	48.03	52.48
3048.9	-60	50.12	55.14	51.40	63.68	56.68	51.98	49.16	51.77
3048.9	-57	49.96	62.02	52.84	66.18	58.76	55.81	51.08	51.59
3048.9	-54	51.08	65.22	54.92	68.89	59.72	54.05	52.20	51.11
3048.9	-51	51.72	65.59	60.68	70.41	64.69	54.16	54.12	51.61
3048.9	-48	52.36	67.39	64.53	72.33	67.73	57.45	56.04	52.40
3048.9	-45	53.96	68.81	73.81	77.35	69.97	59.04	62.28	52.48
3048.9	-42	55.72	67.86	76.21	87.27	72.53	60.78	63.89	52.16
3048.9	-39	56.20	64.73	75.89	105.54	77.18	63.65	69.49	52.30
3048.9	-36	56.84	62.21	83.42	131.63	84.54	65.83	69.33	52.70
3048.9	-33	57.83	65.40	103.89	144.68	99.47	68.28	71.92	53.88
3048.9	-30	58.25	63.28	110.41	160.92	113.98	75.73	82.23	54.93
3048.9	-27	58.88	63.89	127.23	184.20	149.73	79.17	79.07	56.15
3048.9	-24	58.67	62.93	136.69	206.16	158.14	84.87	83.62	58.07
3048.9	-21	62.11	61.65	146.37	226.47	222.45	99.43	82.82	57.41
3048.9	-18	63.75	61.22	141.67	247.02	238.11	145.56	85.27	57.60
3048.9	-15	67.25	60.90	147.63	271.70	252.66	151.76	94.79	58.32
3048.9	-12	68.21	59.28	227.04	288.45	283.08	155.54	99.91	59.17
3048.9	-9	69.46	70.22	260.16	313.52	311.55	168.11	108.00	59.49
3048.9	-6	69.05	61.43	259.76	312.90	311.55	179.39	105.19	58.99
3048.9	-3	63.84	67.72	253.74	311.71	308.61	184.57	105.99	59.83
3048.9	-1	65.84	72.31	248.52	310.70	301.11	194.38	103.98	61.17
3049.0	0	69.74	71.55	243.05	311.59	301.41	194.58	103.69	62.93
3054.0	0	72.92	69.27	254.37	310.87	301.77	311.51	106.17	59.78
3059.0	0	59.40	69.80	251.90	312.40	299.94	247.67	105.31	59.62
3064.0	0	63.64	69.40	251.90	310.99	300.29	183.69	106.02	60.55
3068.9	0	61.52	58.81	255.79	311.34	308.06	180.48	97.54	52.96
3074.0	0	54.10	58.05	256.14	311.15	306.65	165.31	81.65	50.89
3079.0	3	52.69	55.56	255.79	309.92	301.00	176.72	80.59	46.62



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

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

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
3079.0	6	53.02	58.47	252.52	311.42	300.90	184.83	95.39	50.27
3079.0	9	55.49	58.48	243.34	307.59	304.78	194.80	107.75	53.65
3079.0	12	65.38	59.80	233.10	235.97	203.80	249.30	106.69	54.53
3079.0	15	67.50	60.87	206.27	235.83	198.15	248.44	106.69	58.65
3079.0	18	70.32	64.09	203.80	211.00	193.91	248.28	108.81	59.23
3079.0	21	72.09	74.34	197.09	185.68	193.56	250.56	110.22	63.18
3079.0	24	78.44	77.17	197.44	187.04	202.74	255.69	151.54	64.92
3079.0	27	80.92	67.97	200.97	192.90	208.50	257.08	194.97	67.51
3079.0	30	85.51	175.68	208.03	197.94	219.77	264.83	229.22	81.44
3079.0	33	86.40	182.04	216.51	203.55	232.04	271.11	237.34	88.10
3079.0	36	167.78	187.19	226.39	221.41	270.53	278.53	232.40	184.00
3079.0	39	167.78	196.03	236.99	263.10	295.96	287.89	233.46	183.32
3079.0	42	168.13	203.08	246.52	278.76	332.47	292.79	240.52	184.22
3079.0	45	168.73	212.66	261.75	321.17	347.05	306.83	243.43	183.78
3079.0	48	175.48	228.48	272.83	330.20	334.52	329.73	270.42	186.67
3079.0	51	212.11	241.60	287.77	316.27	320.46	320.85	307.05	211.72
3079.0	55	268.55	262.99	298.37	297.03	297.89	298.95	299.34	283.31
3079.0	60	281.51	274.42	276.69	271.53	275.72	278.28	286.33	283.82
3079.0	65	266.57	262.64	266.57	268.91	262.71	263.61	269.94	270.11
3079.1	0	50.73	56.98	258.61	304.11	310.89	103.68	78.12	44.54
3084.0	0	44.16	50.22	143.74	311.33	307.71	58.50	146.99	41.50
3089.0	0	30.79	50.88	136.04	311.51	308.42	39.71	55.51	34.01



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

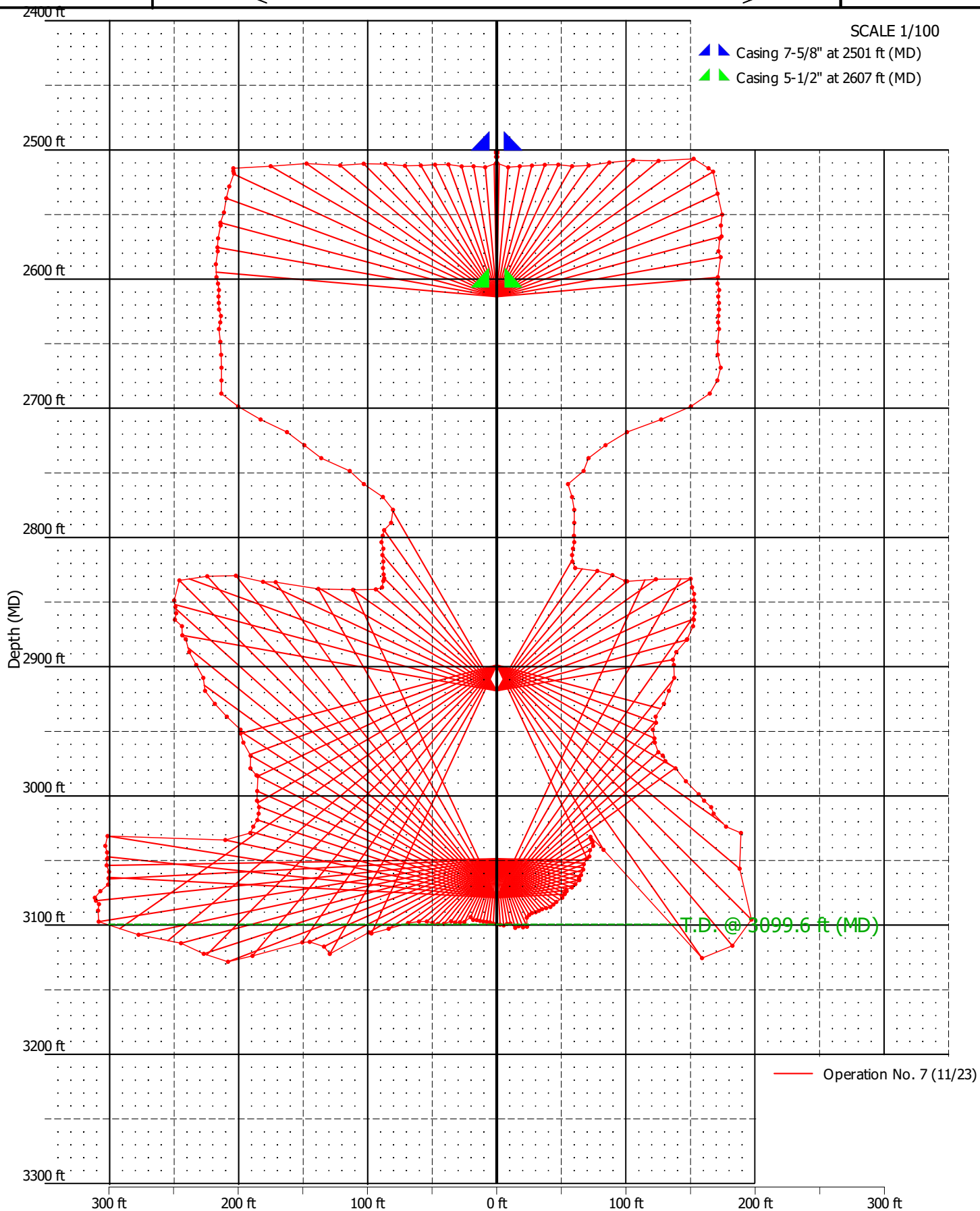
CAVERN : PPG No. 007B

OPERATION No. : 7



TILOED SECTIONS POSITION

← N180 1 N0 →





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

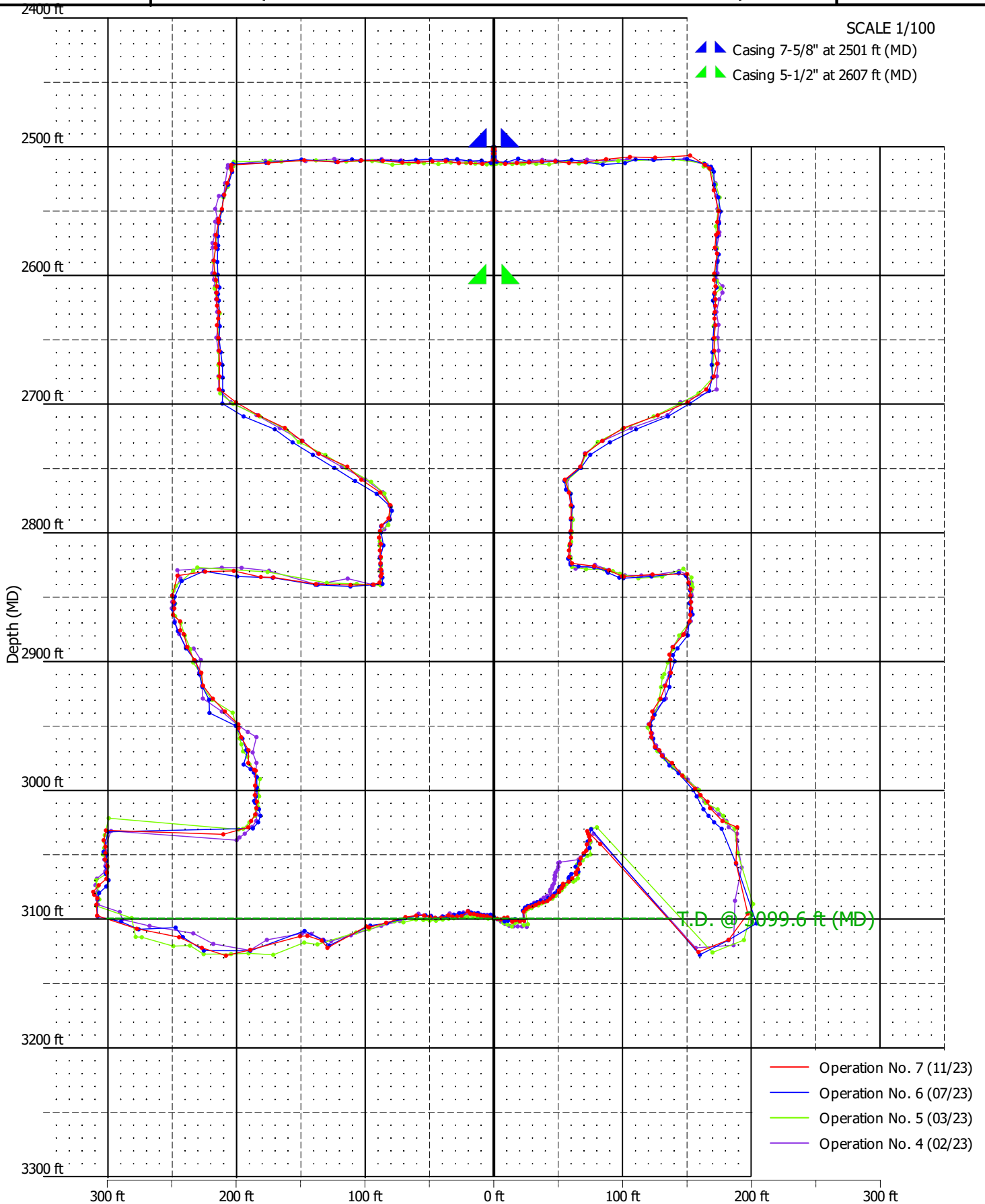
OPERATION No. : 7

**VERTICAL SECTION**

N180

1

N0





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7

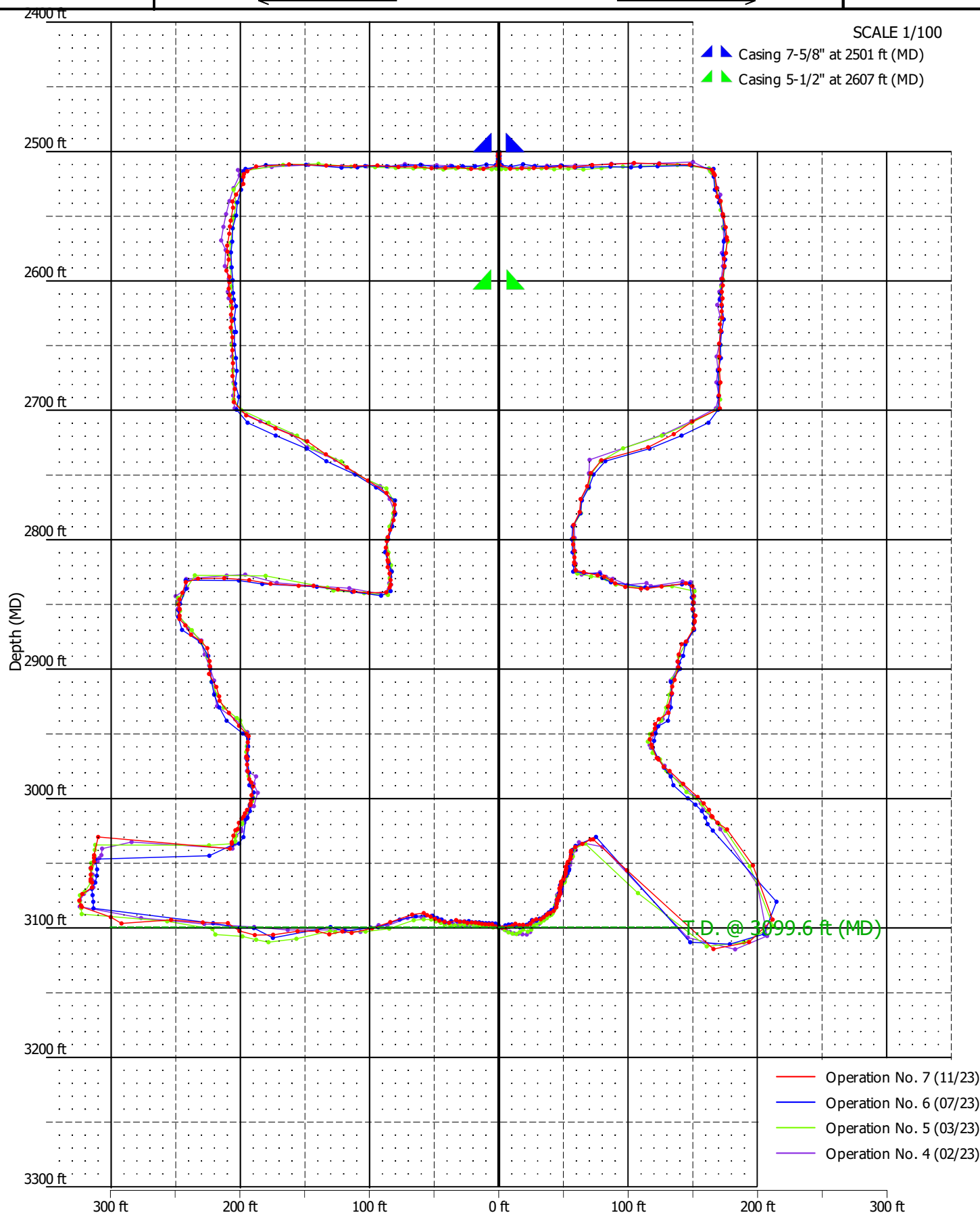


VERTICAL SECTION

N195

2

N15





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

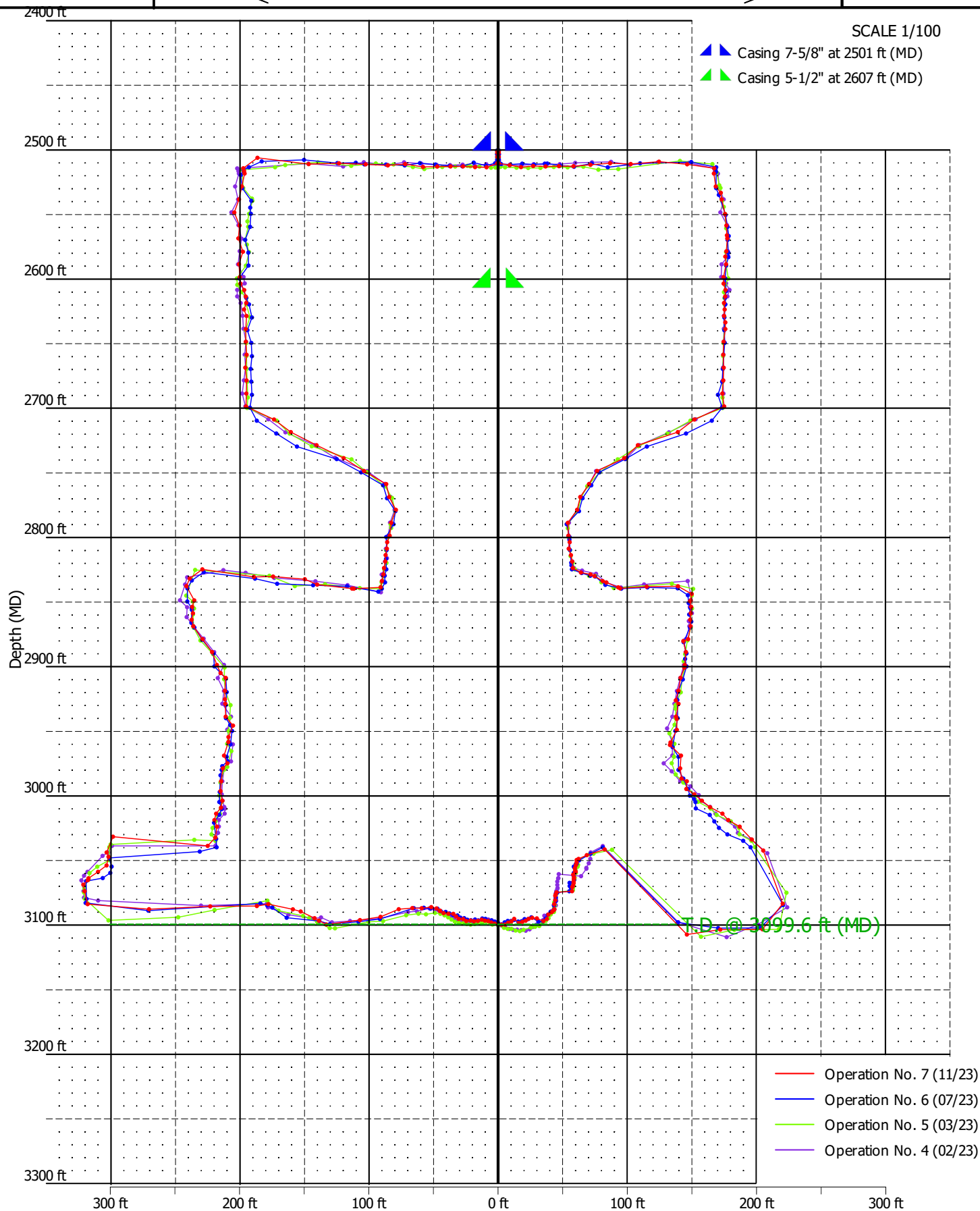
OPERATION No. : 7

**VERTICAL SECTION**

N210

3

N30





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

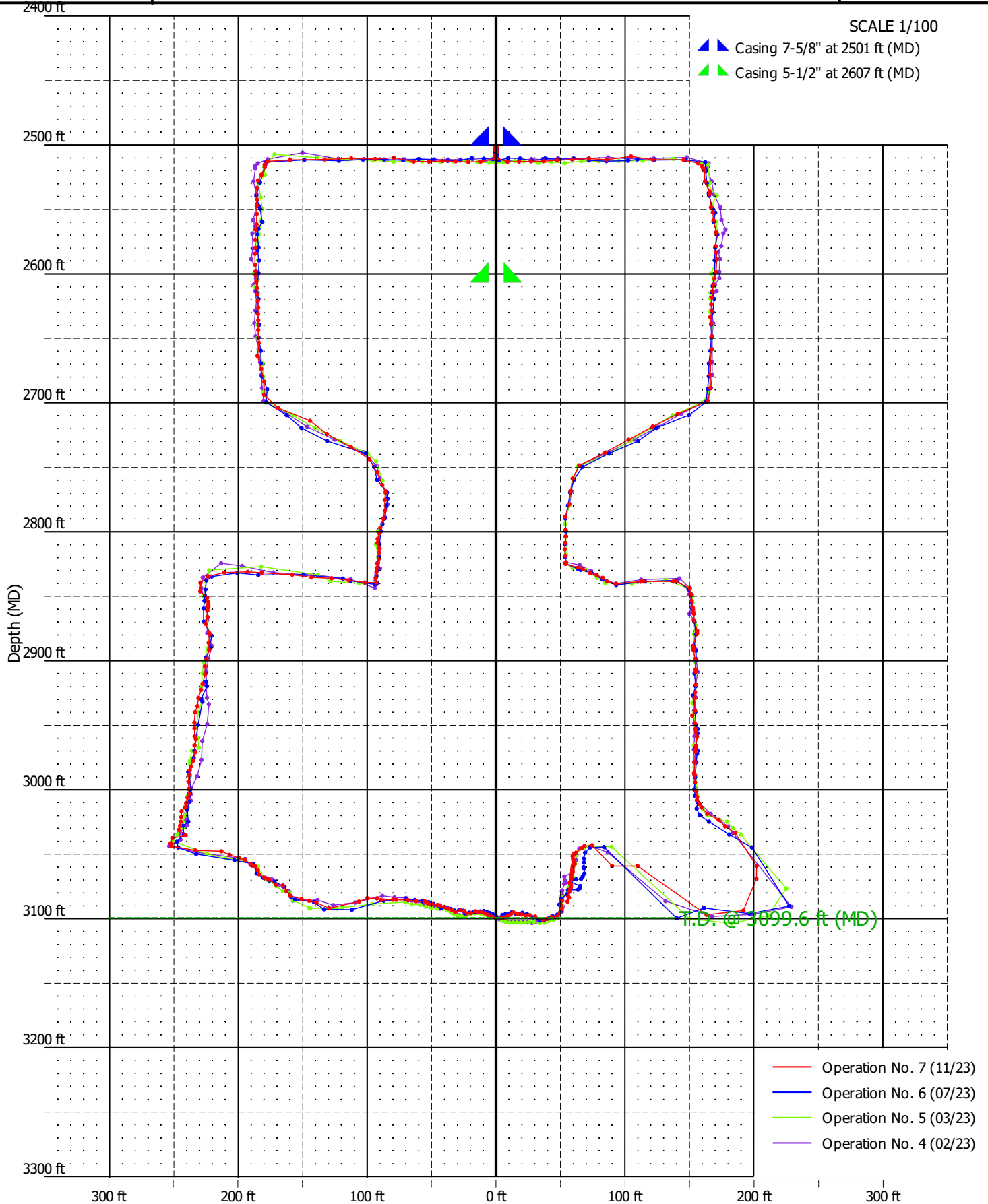
OPERATION No. : 7

**VERTICAL SECTION**

N225

4

N45





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

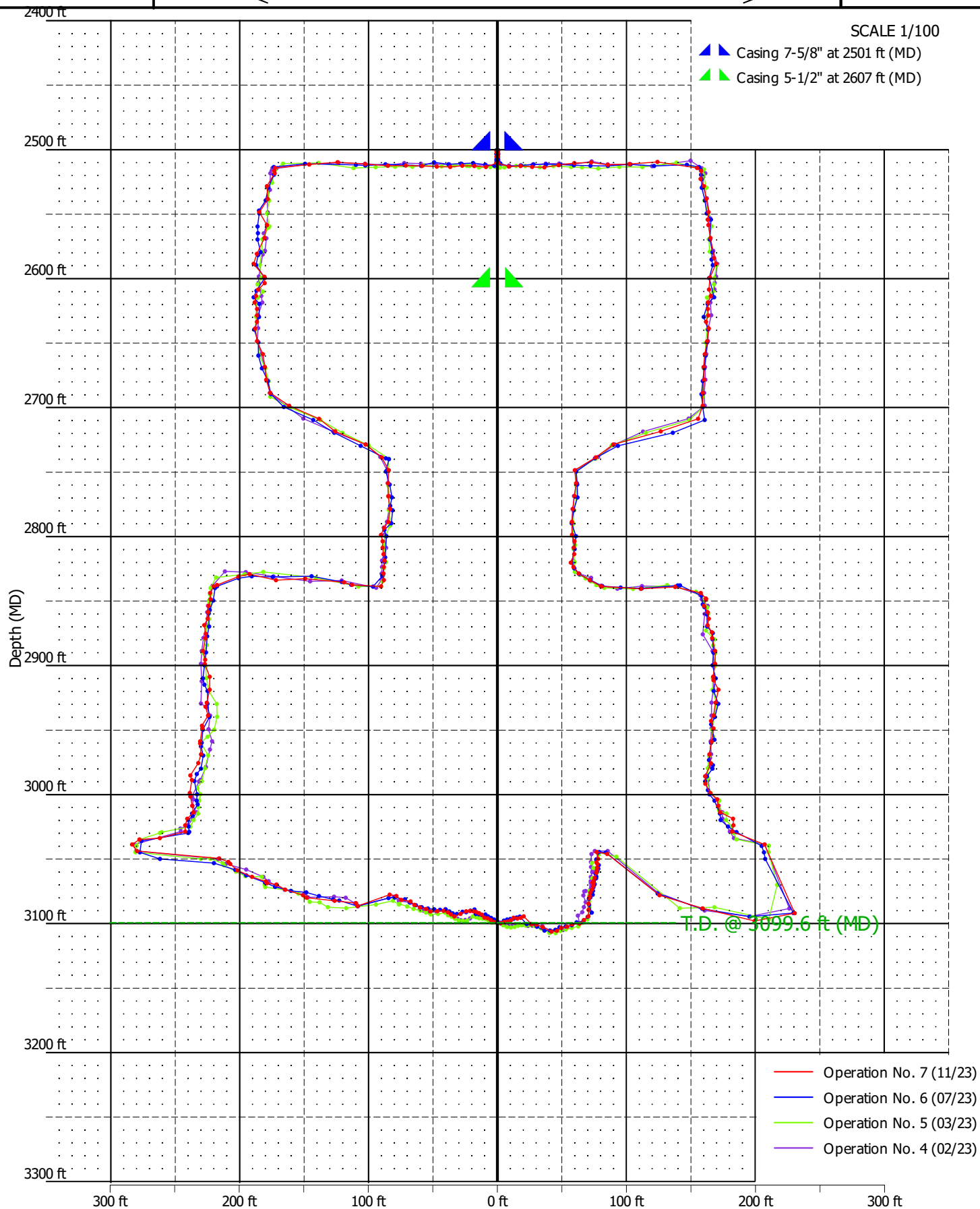
OPERATION No. : 7

**VERTICAL SECTION**

N240

5

N60





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

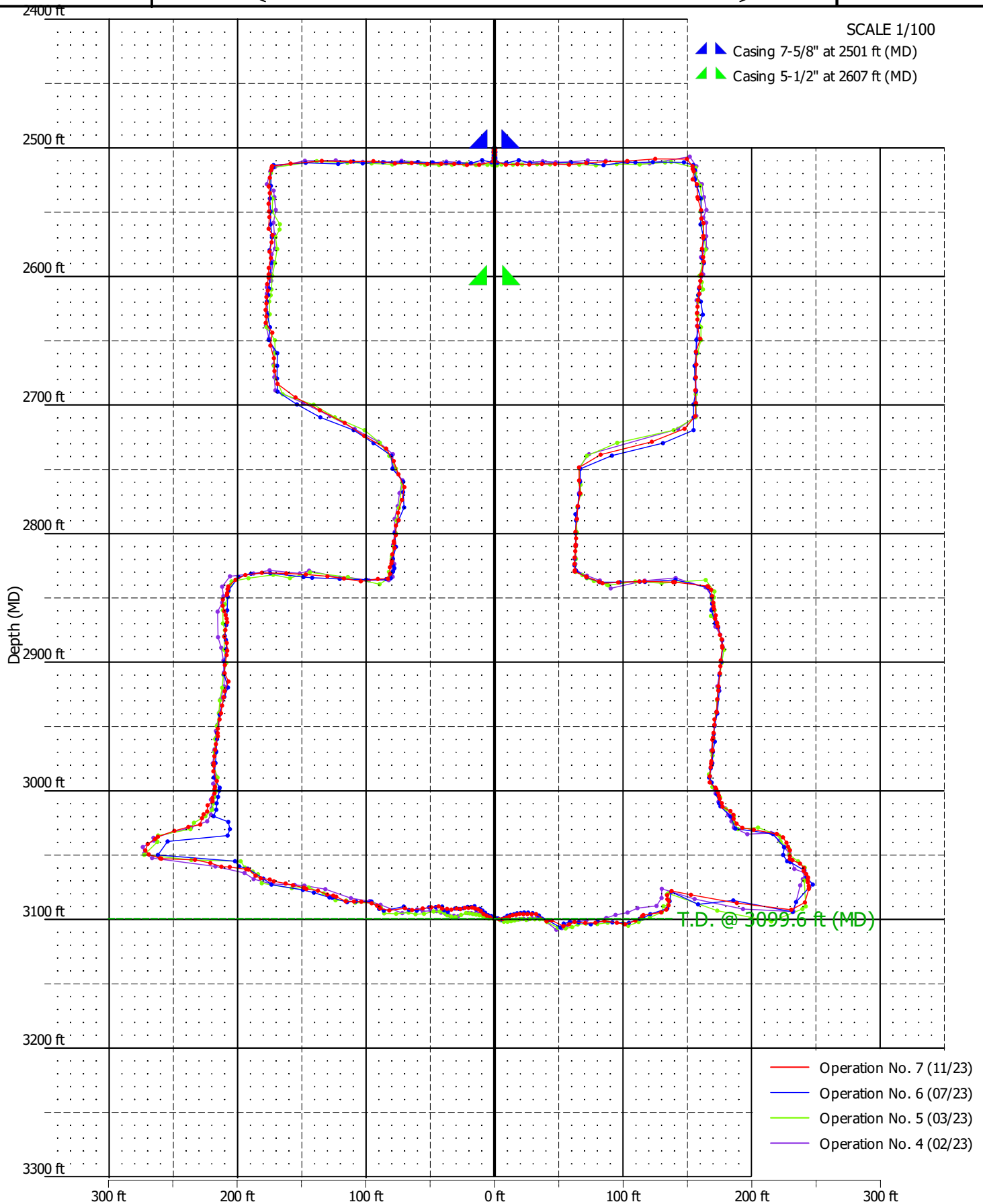
OPERATION No. : 7

**VERTICAL SECTION**

← N255

6

N75 →





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

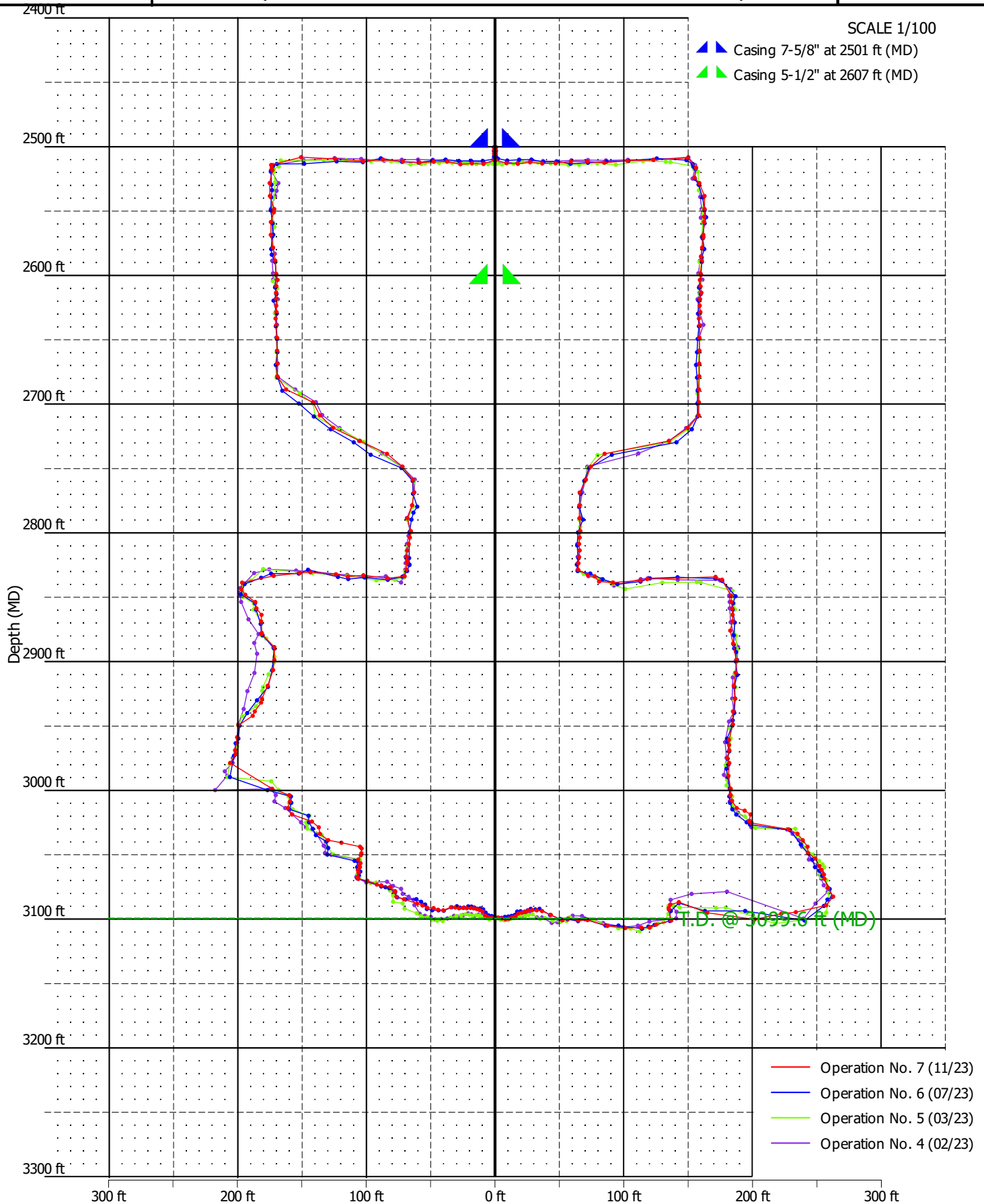
OPERATION No. : 7

**VERTICAL SECTION**

N270

7

N90





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

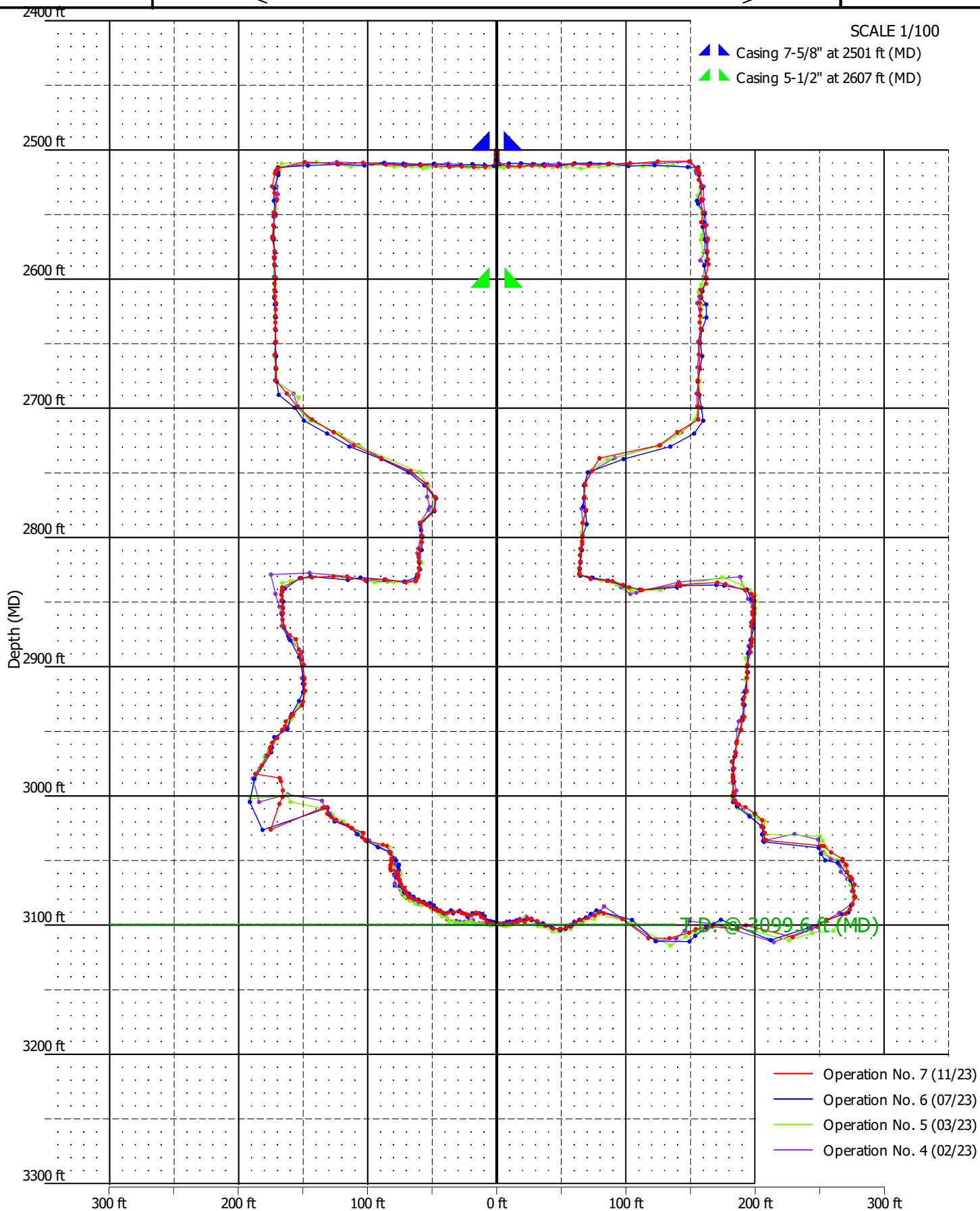
OPERATION No. : 7

**VERTICAL SECTION**

← N285

8

N105 →





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

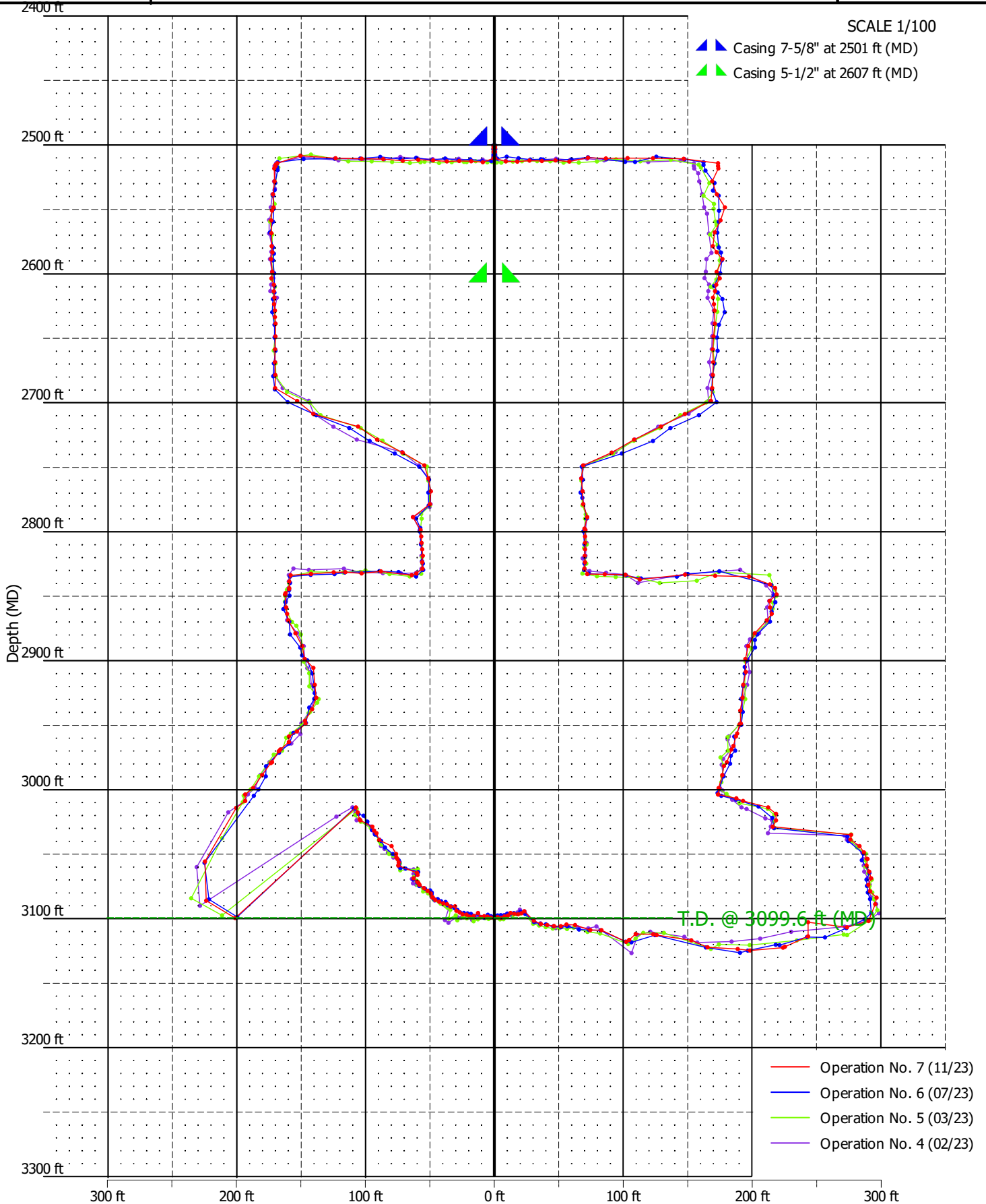
OPERATION No. : 7

**VERTICAL SECTION**

← N300

9

N120 →





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

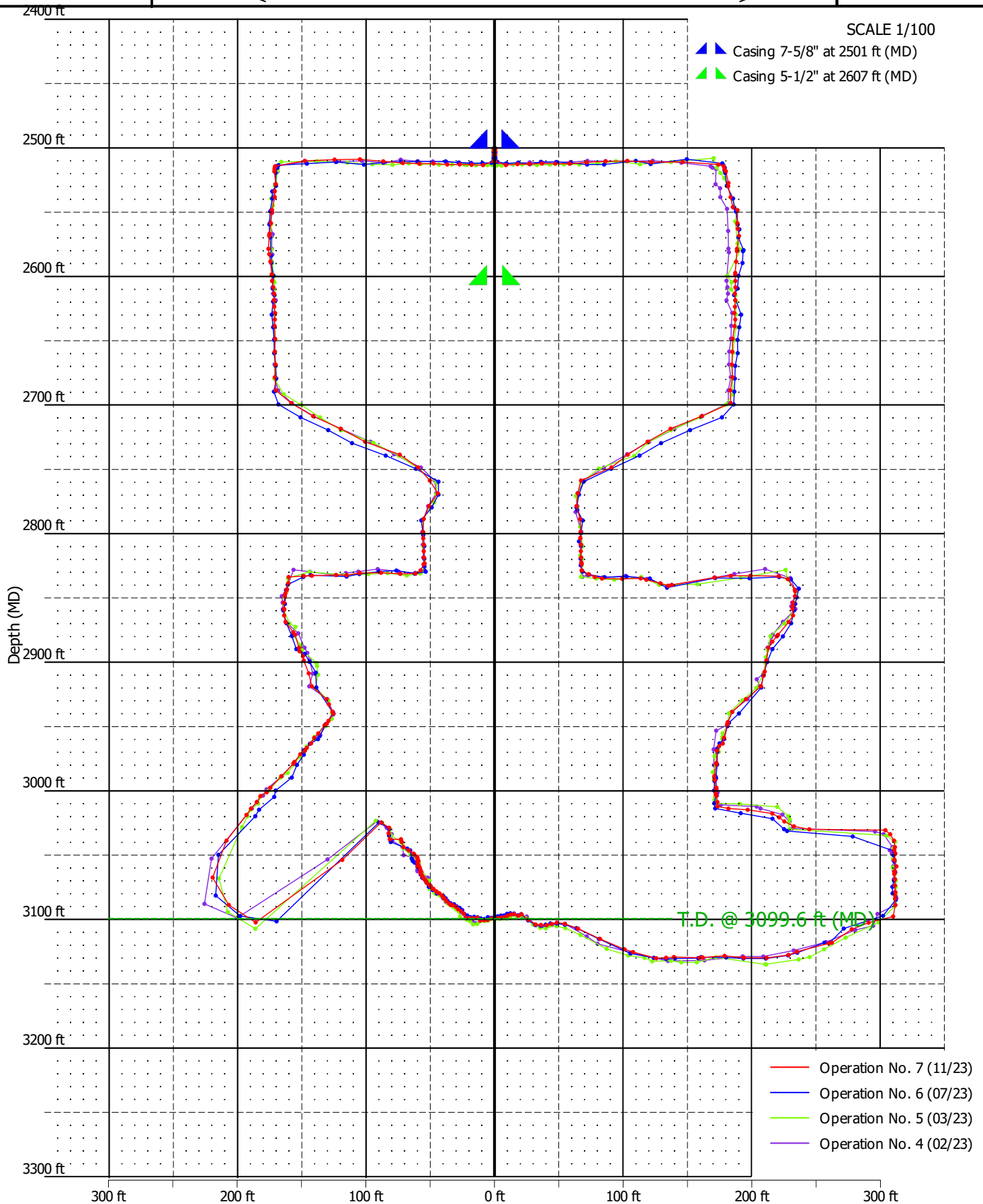
CAVERN : PPG No. 007B

OPERATION No. : 7

**VERTICAL SECTION****10**

← N315

N135 →





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7

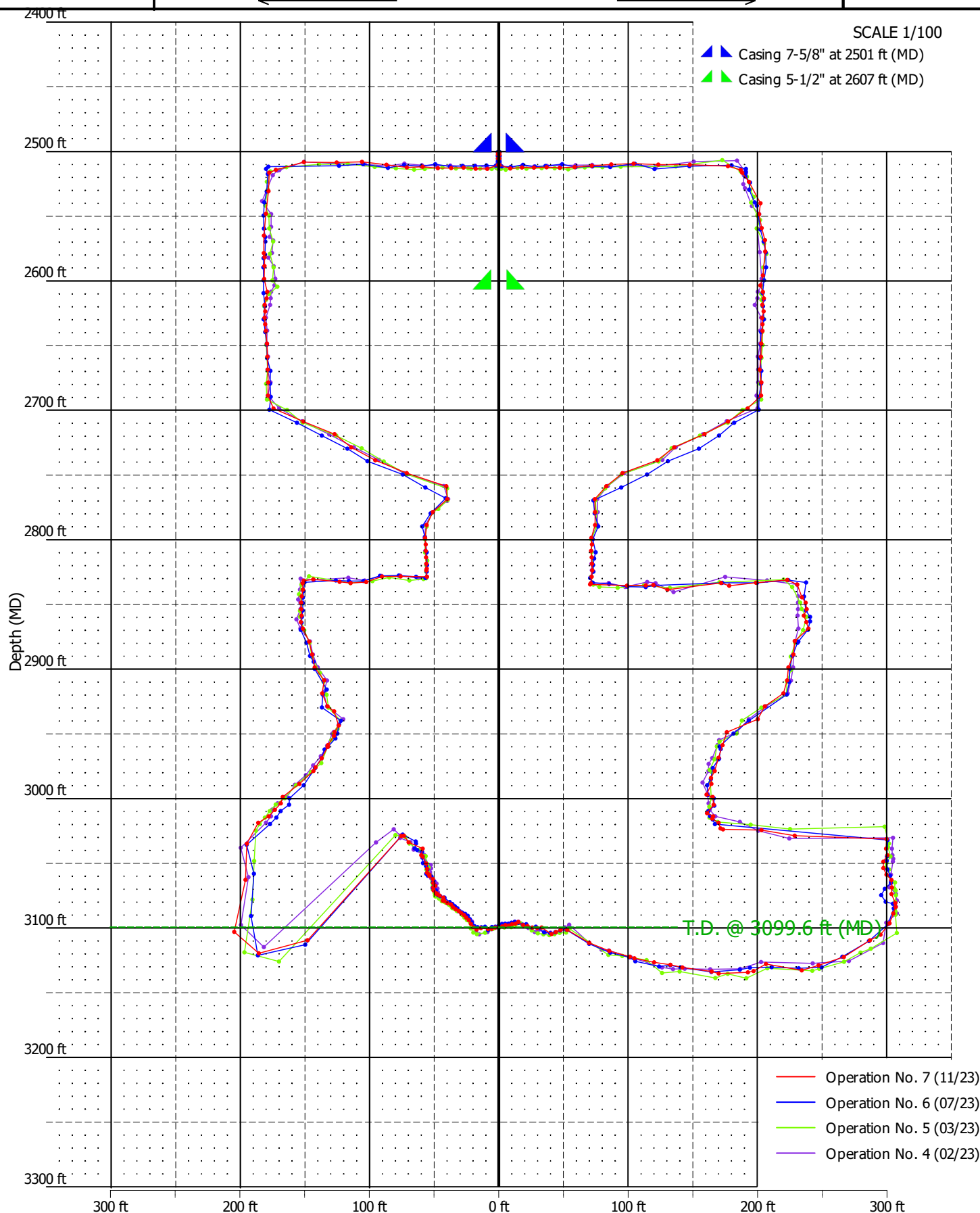


VERTICAL SECTION

11

N330

N150





CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

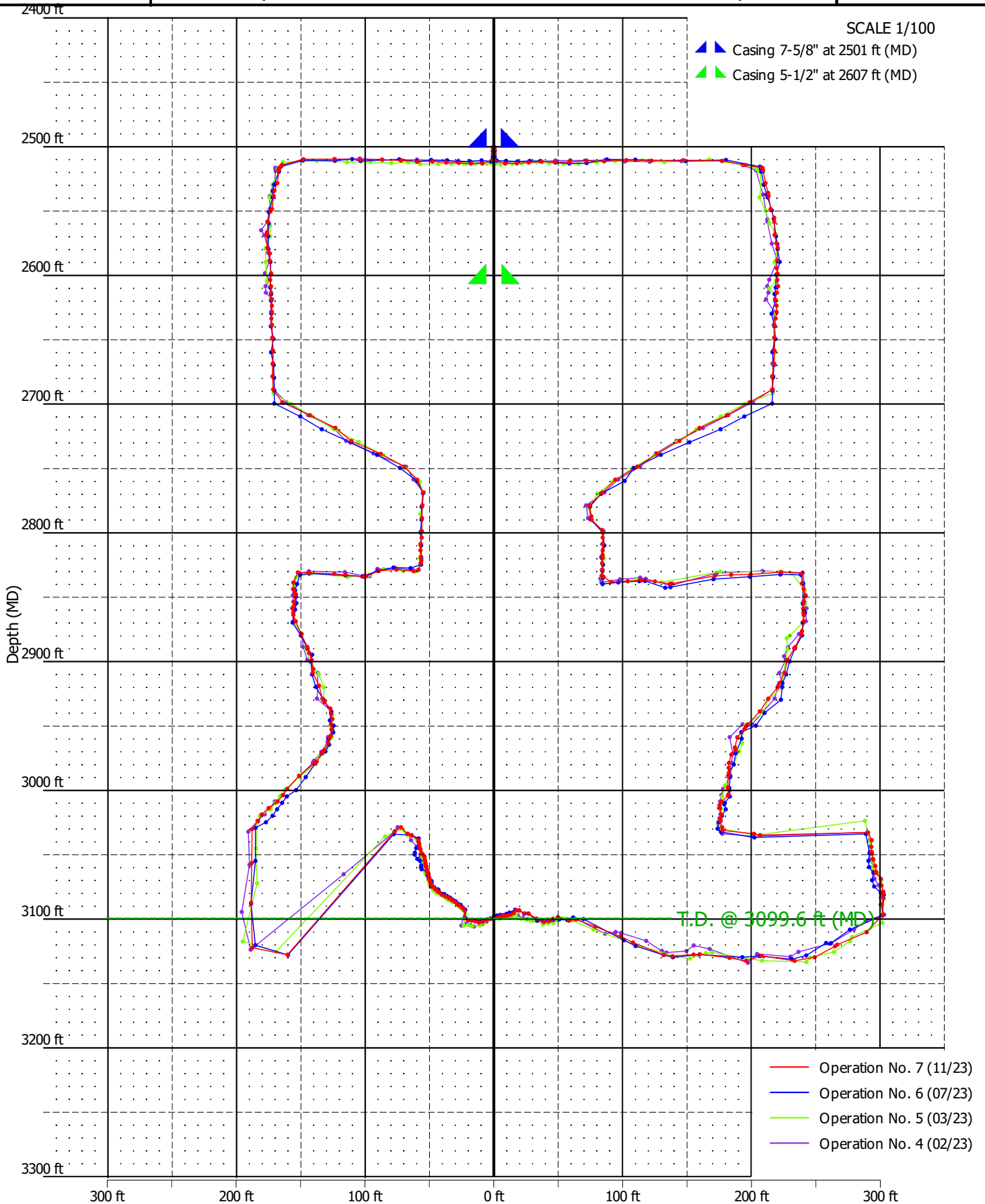


VERTICAL SECTION

12

N345

N165





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



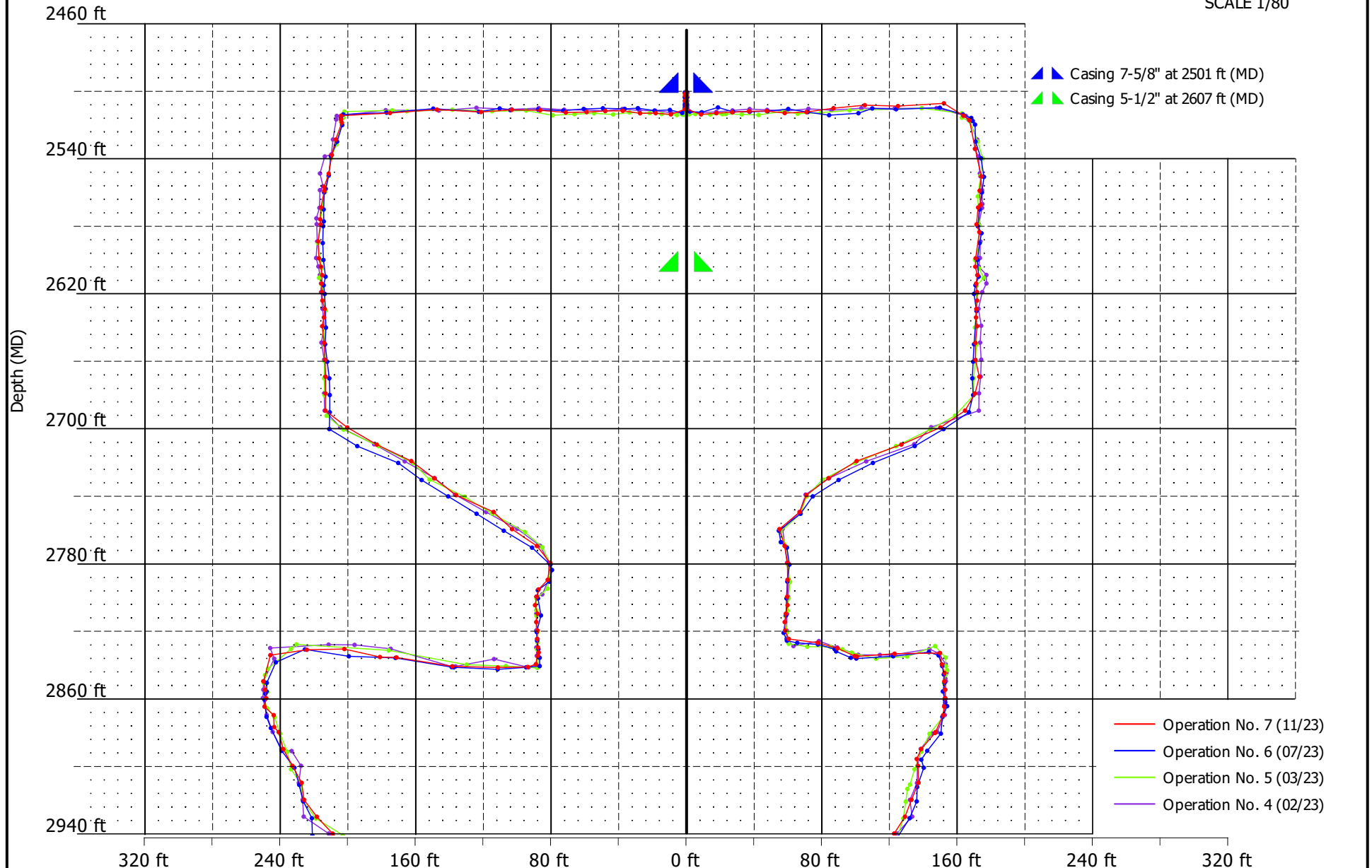
VERTICAL SECTION

← N180

1

N0 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



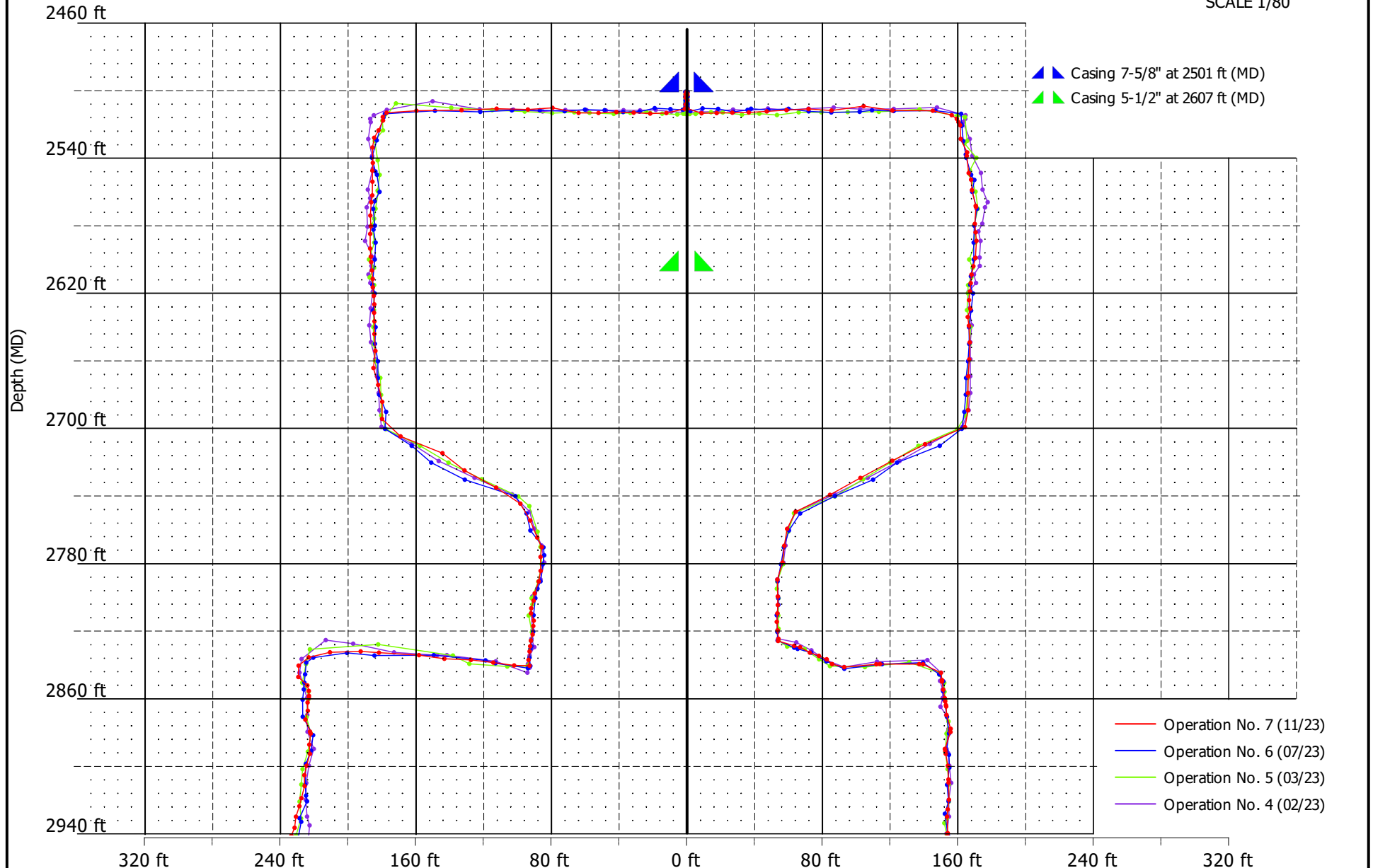
VERTICAL SECTION

← N225

2

N45 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



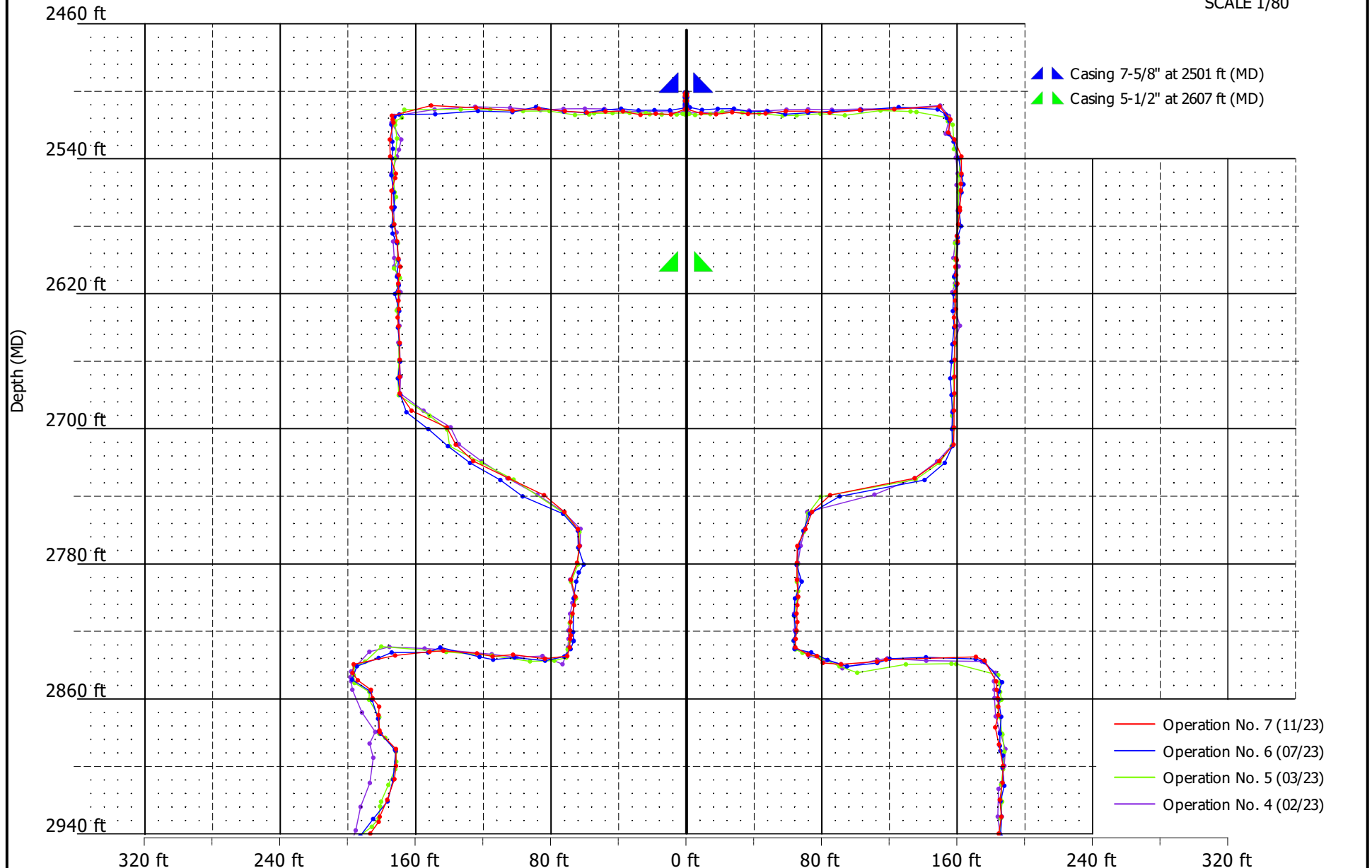
VERTICAL SECTION

← N270

3

N90 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



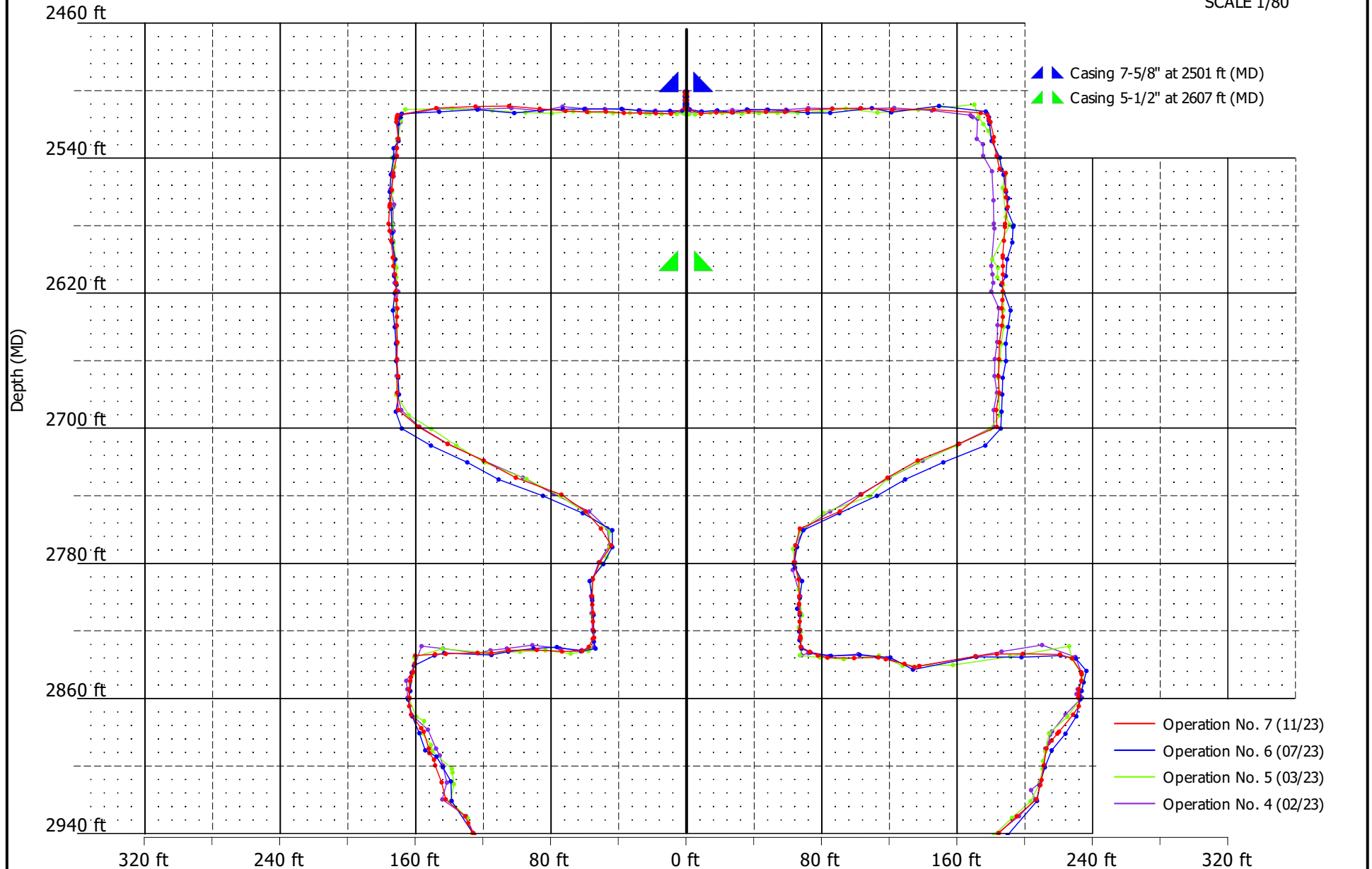
VERTICAL SECTION

← N315

4

N135 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



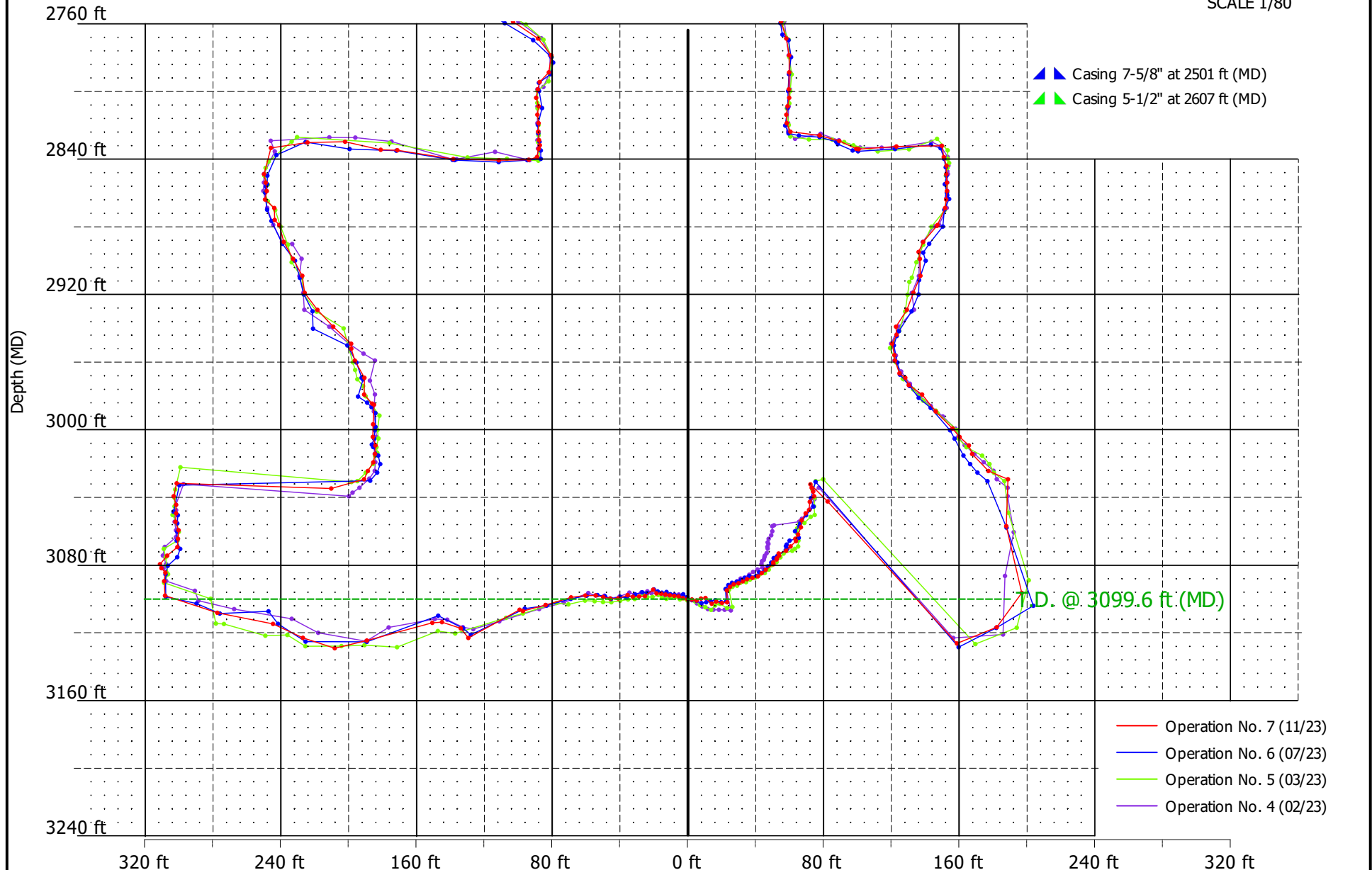
VERTICAL SECTION

← N180

1

N0 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



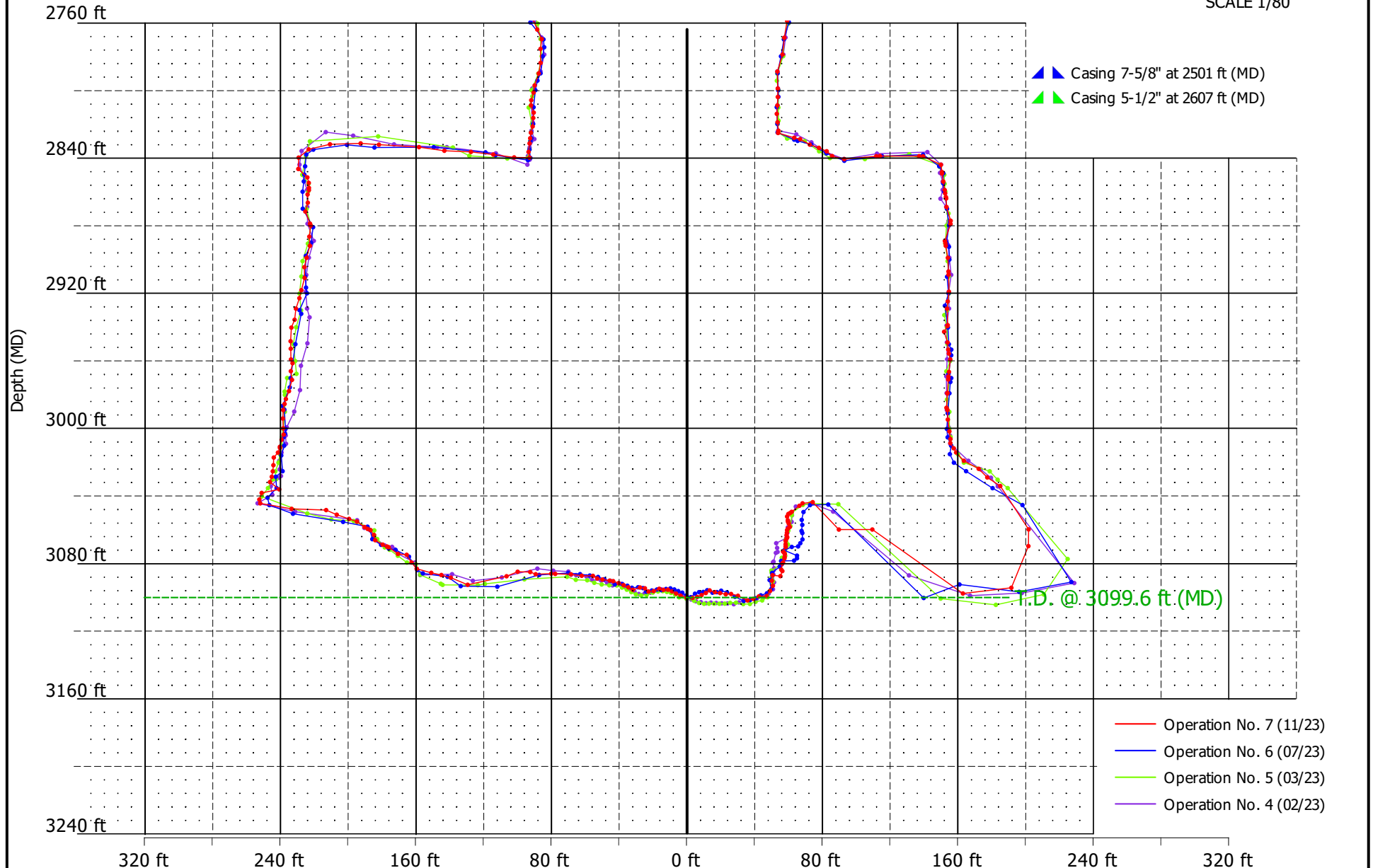
VERTICAL SECTION

← N225

2

N45 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



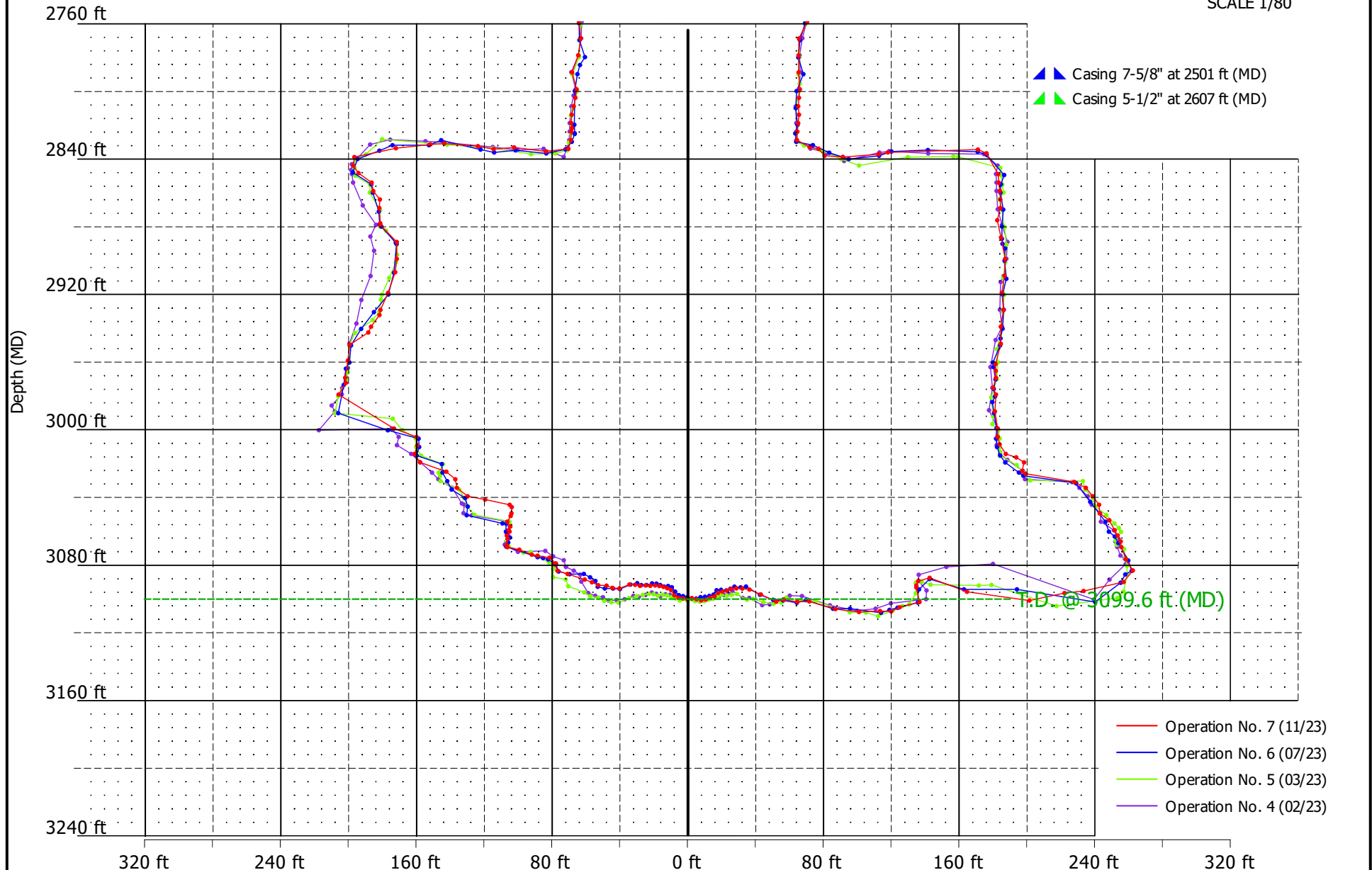
VERTICAL SECTION

← N270

3

N90 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



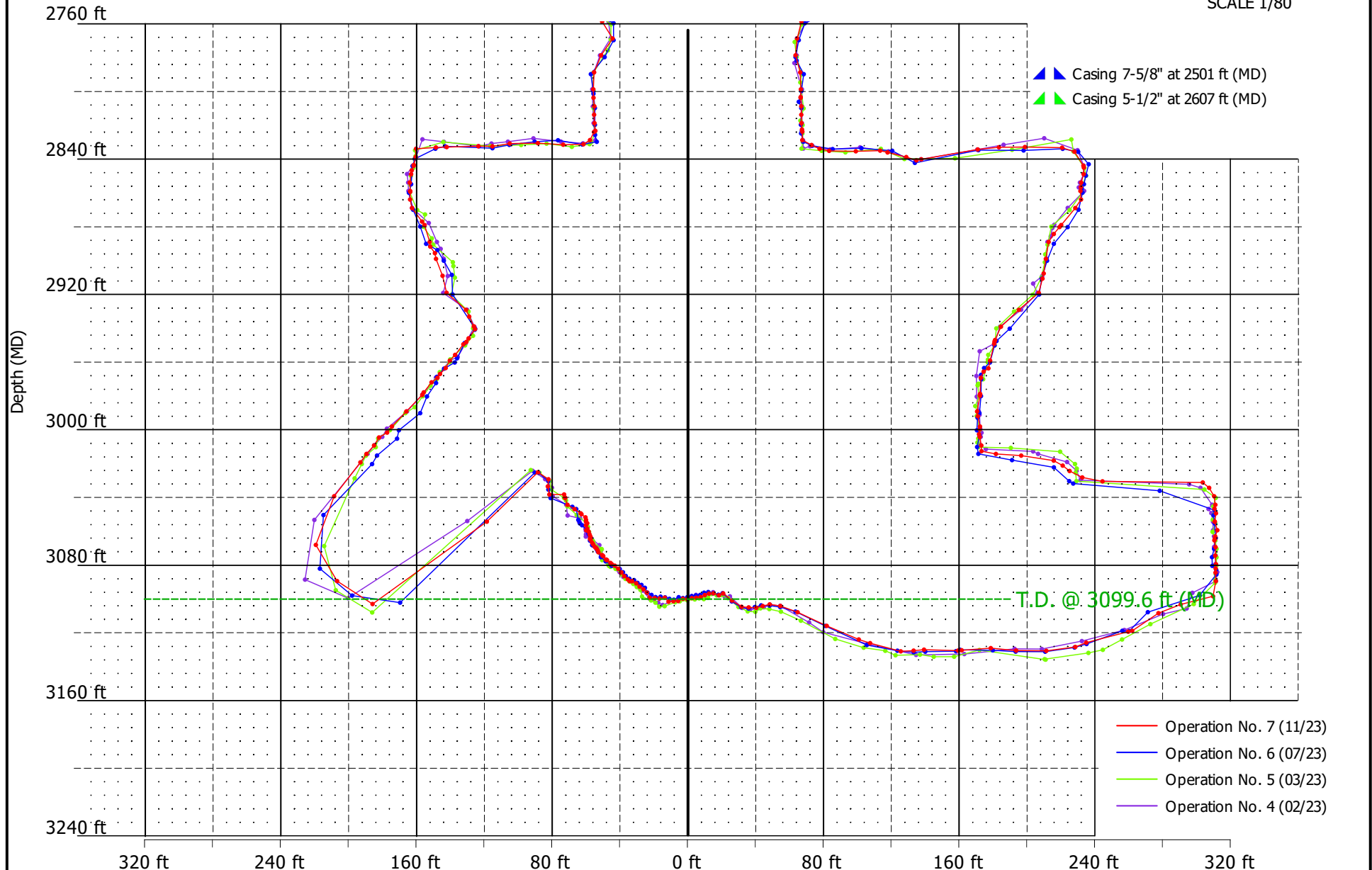
VERTICAL SECTION

← N315

4

N135 →

SCALE 1/80





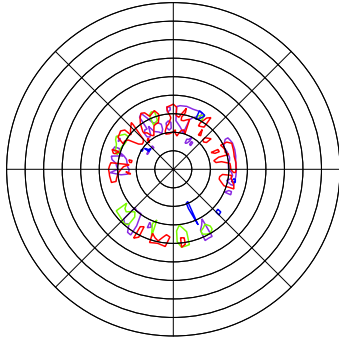
CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7

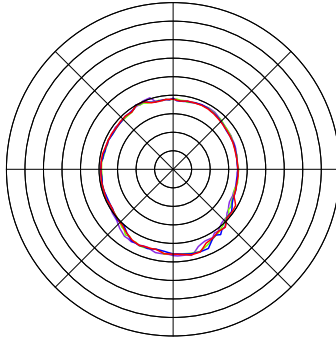


HORIZONTAL SECTIONS between 2510 ft and 2620 ft

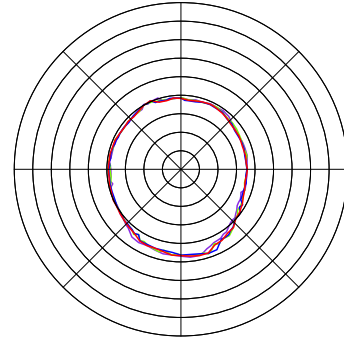
— Operation No. 7 (11/23) — Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) SCALE 50.0 ft per division



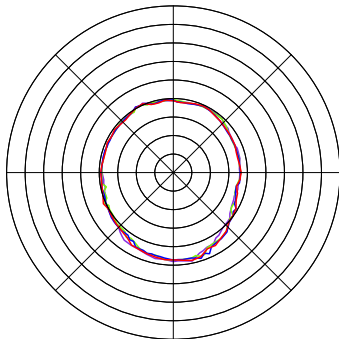
2510 ft / 11019.59 ft²



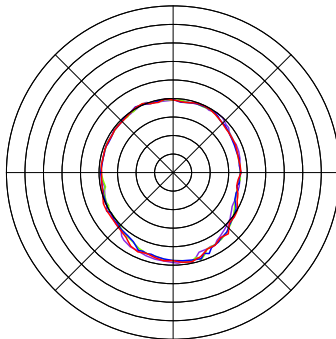
2520 ft / 96378.55 ft²



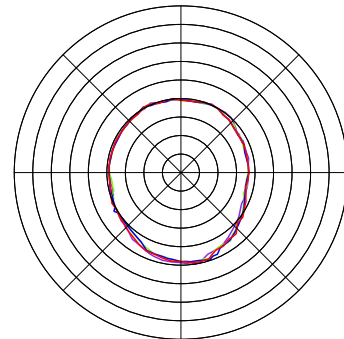
2530 ft / 98727.69 ft²



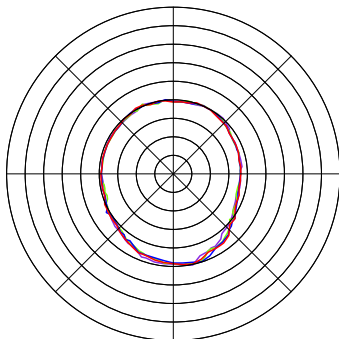
2540 ft / 100931.57 ft²



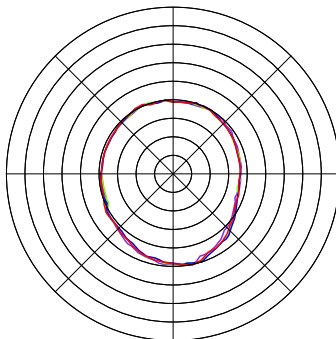
2550 ft / 102726.44 ft²



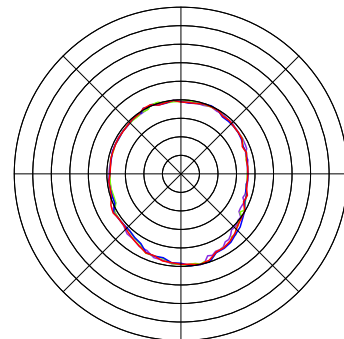
2560 ft / 103501.67 ft²



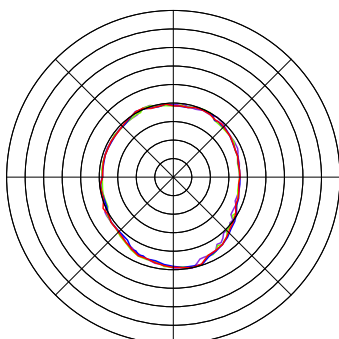
2570 ft / 104281.57 ft²



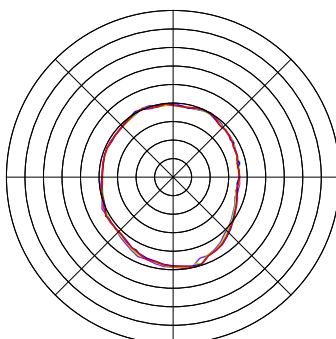
2580 ft / 103787.94 ft²



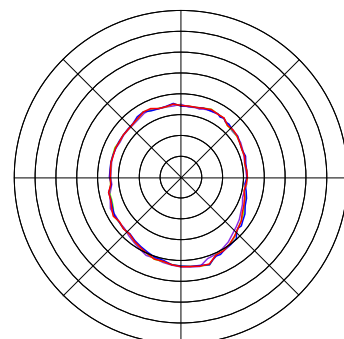
2590 ft / 103977.33 ft²



2600 ft / 103020.73 ft²



2610 ft / 102339.89 ft²



2620 ft / 101838.93 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

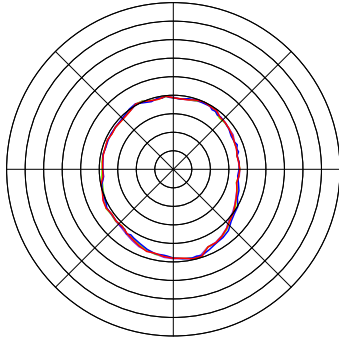
CAVERN : PPG No. 007B
OPERATION No. : 7



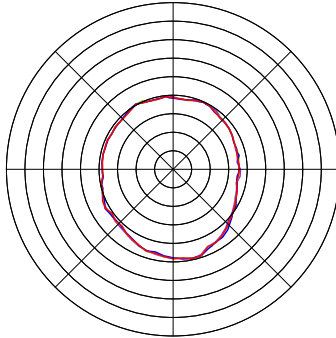
HORIZONTAL SECTIONS between 2630 ft and 2740 ft

— Operation No. 7 (11/23) — Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23)

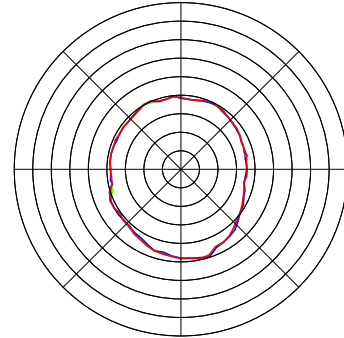
SCALE 50.0 ft per division



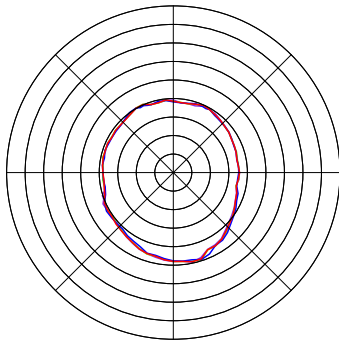
2630 ft / 101647.83 ft²



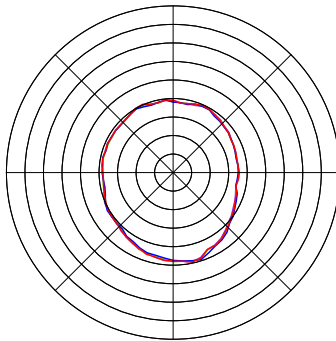
2640 ft / 101350.36 ft²



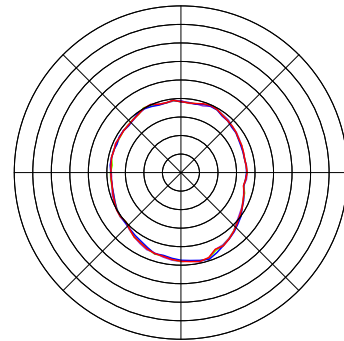
2650 ft / 100908.22 ft²



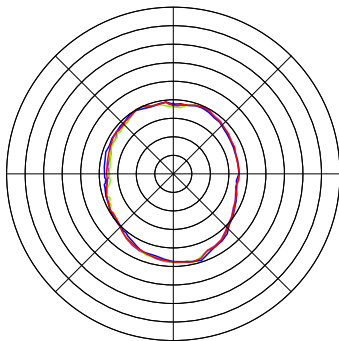
2660 ft / 100379.70 ft²



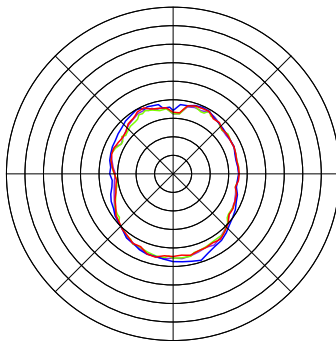
2670 ft / 100131.45 ft²



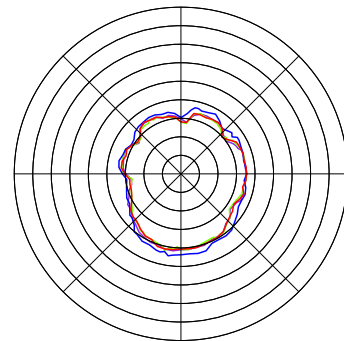
2680 ft / 99449.84 ft²



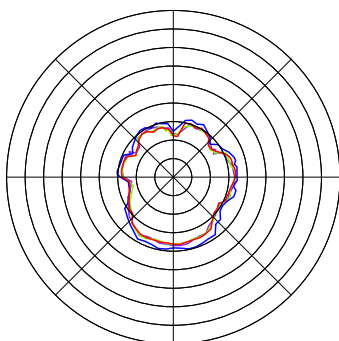
2690 ft / 97436.92 ft²



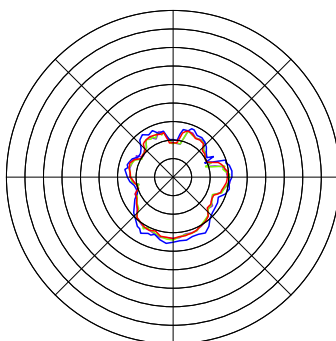
2700 ft / 88962.49 ft²



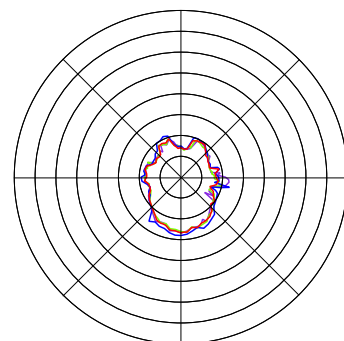
2710 ft / 73015.67 ft²



2720 ft / 56139.68 ft²



2730 ft / 41259.71 ft²



2740 ft / 28016.05 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

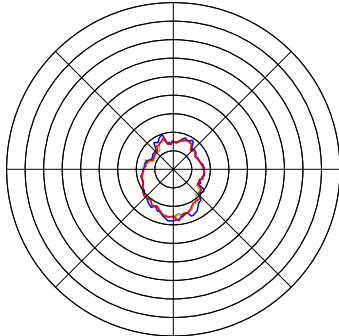
CAVERN : PPG No. 007B
OPERATION No. : 7



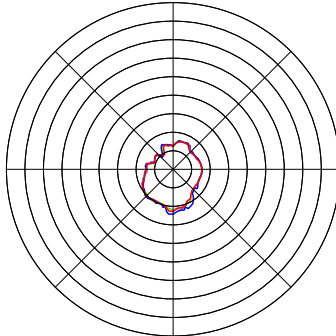
HORIZONTAL SECTIONS between 2750 ft and 2860 ft

— Operation No. 7 (11/23) — Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23)

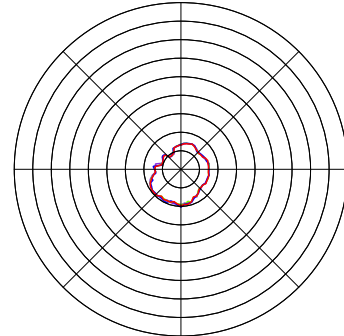
SCALE 50.0 ft per division



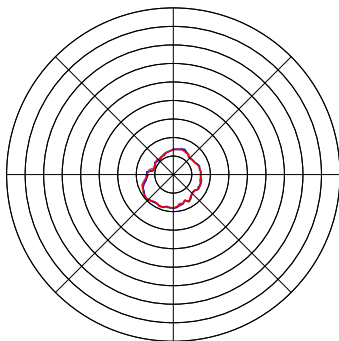
2750 ft / 20186.62 ft²



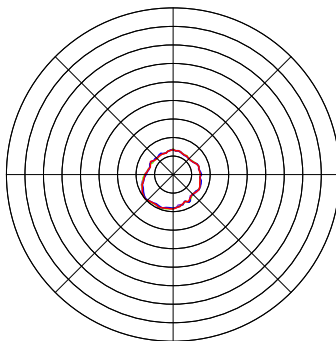
2760 ft / 15889.24 ft²



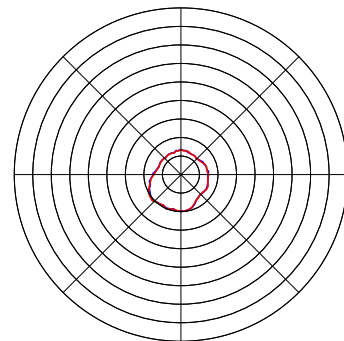
2770 ft / 14142.22 ft²



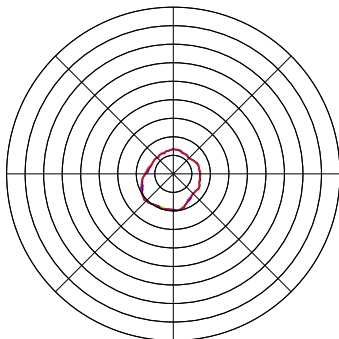
2780 ft / 13958.04 ft²



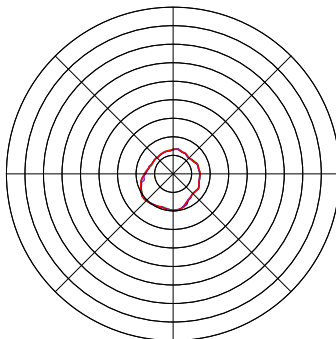
2790 ft / 14515.85 ft²



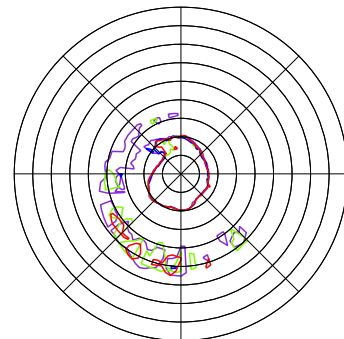
2800 ft / 15095.88 ft²



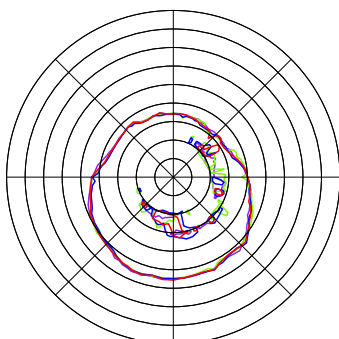
2810 ft / 15214.60 ft²



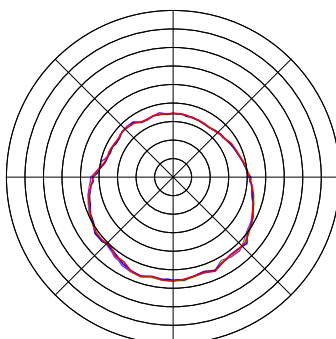
2820 ft / 15178.31 ft²



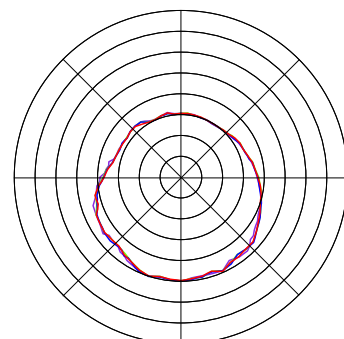
2830 ft / 22341.26 ft²



2840 ft / 113491.12 ft²



2850 ft / 120913.36 ft²



2860 ft / 120451.32 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

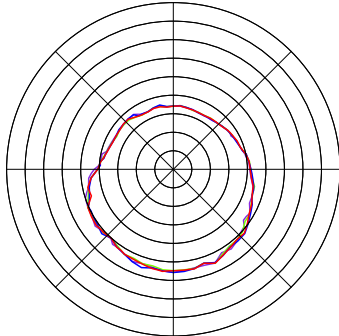
CAVERN : PPG No. 007B
OPERATION No. : 7



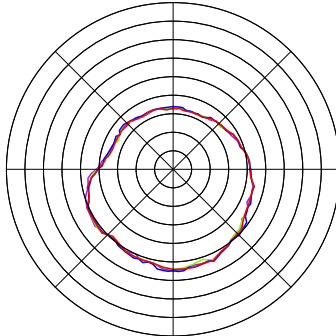
HORIZONTAL SECTIONS between 2870 ft and 2980 ft

— Operation No. 7 (11/23) — Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23)

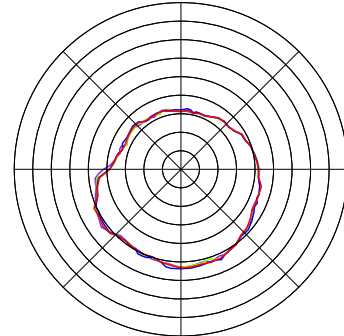
SCALE 50.0 ft per division



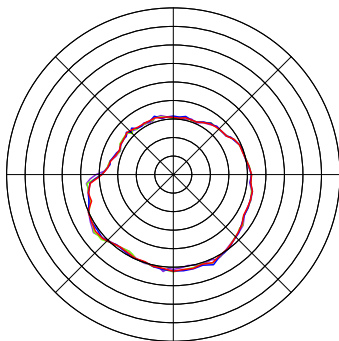
2870 ft / 119079.28 ft²



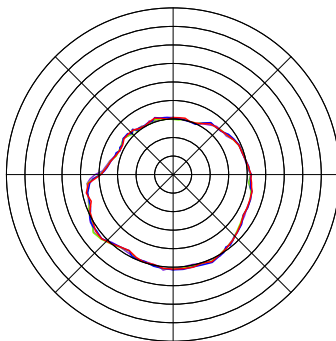
2880 ft / 114150.55 ft²



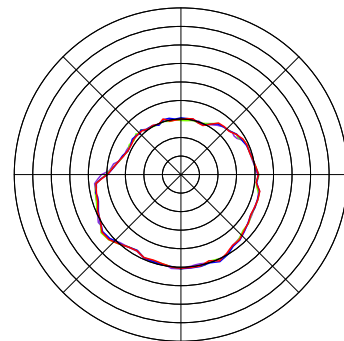
2890 ft / 110946.32 ft²



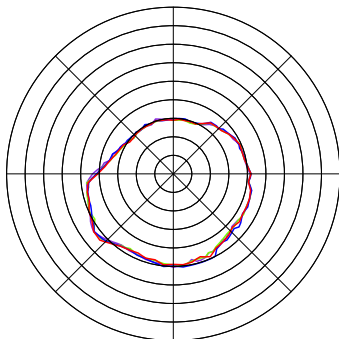
2900 ft / 108632.20 ft²



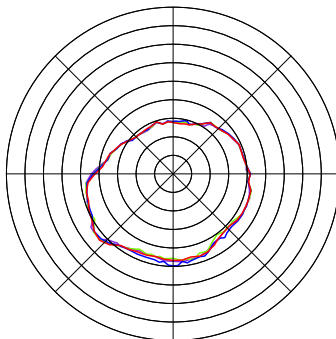
2910 ft / 107163.83 ft²



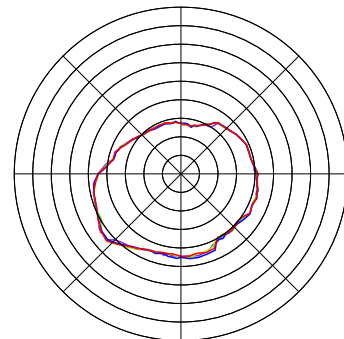
2920 ft / 105506.43 ft²



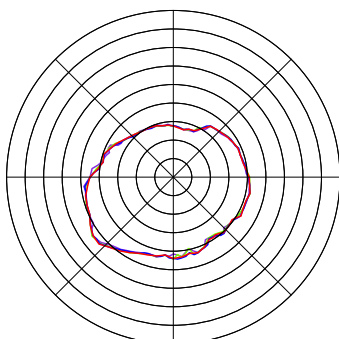
2930 ft / 102555.03 ft²



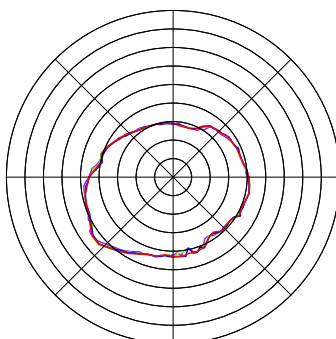
2940 ft / 99393.93 ft²



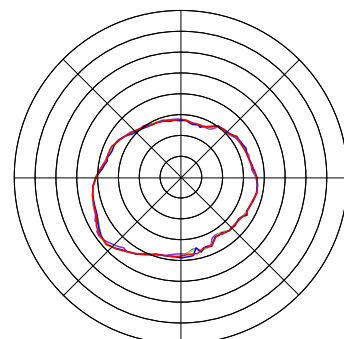
2950 ft / 97681.52 ft²



2960 ft / 97553.85 ft²



2970 ft / 98774.51 ft²



2980 ft / 101146.53 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



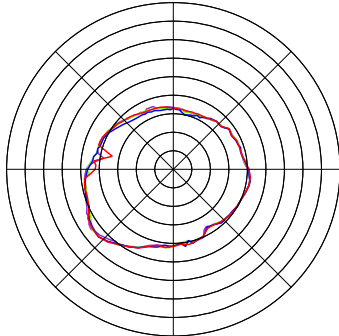
CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7

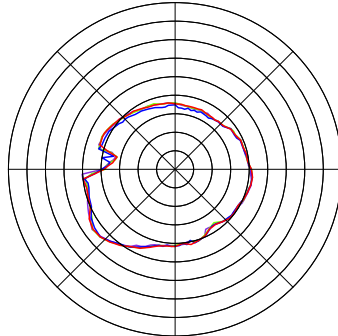


HORIZONTAL SECTIONS between 2990 ft and 3100 ft

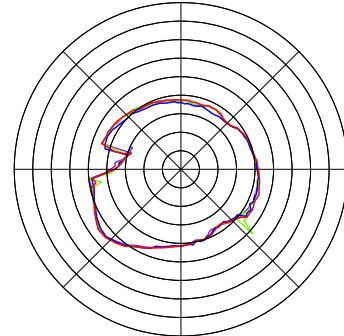
— Operation No. 7 (11/23) — Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) SCALE 50.0 ft per division



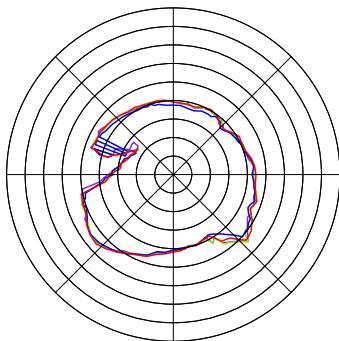
2990 ft / 102197.44 ft²



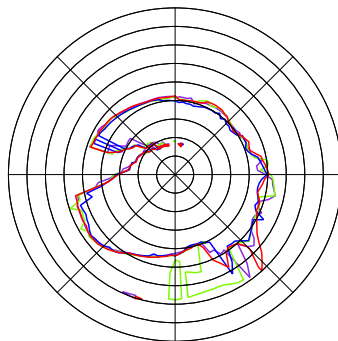
3000 ft / 104759.73 ft²



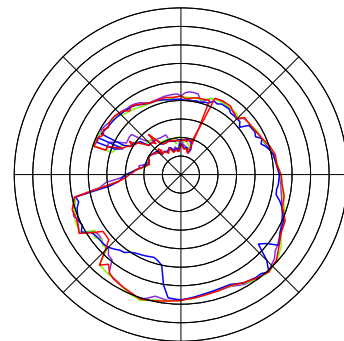
3010 ft / 109276.09 ft²



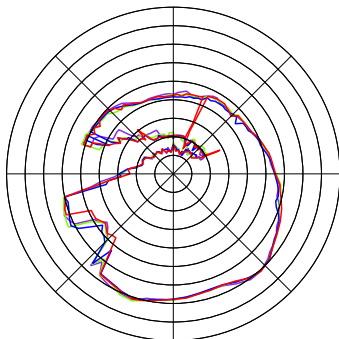
3020 ft / 118065.08 ft²



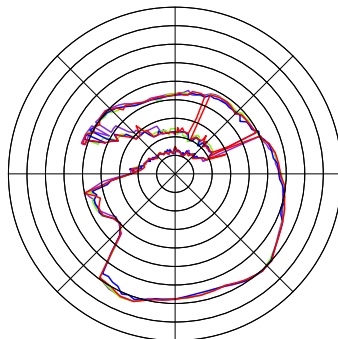
3030 ft / 129646.20 ft²



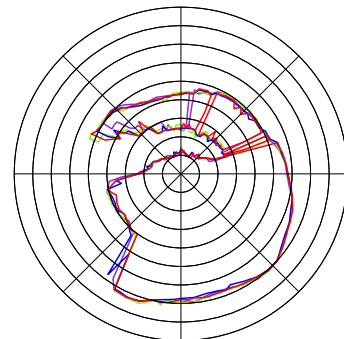
3040 ft / 176423.40 ft²



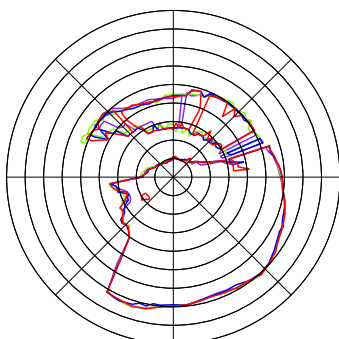
3050 ft / 170881.14 ft²



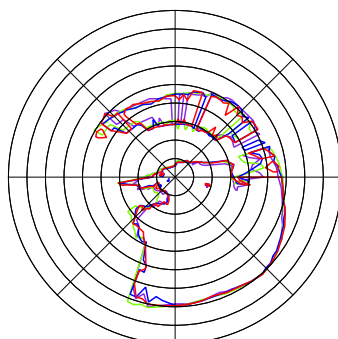
3060 ft / 164874.65 ft²



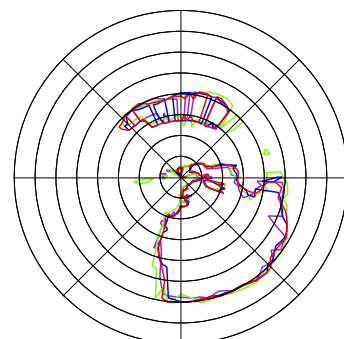
3070 ft / 156291.70 ft²



3080 ft / 147534.27 ft²



3090 ft / 119502.30 ft²



3100 ft / 83834.51 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

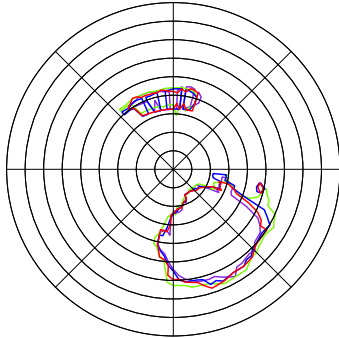
CAVERN : PPG No. 007B
OPERATION No. : 7



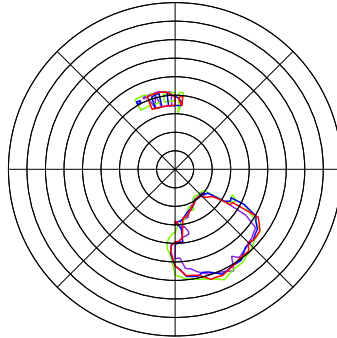
HORIZONTAL SECTIONS between 3110 ft and 3130 ft

— Operation No. 7 (11/23) — Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23)

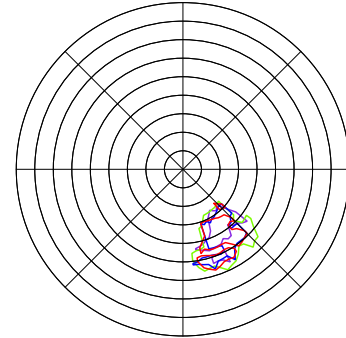
SCALE 50.0 ft per division



3110 ft / 50489.01 ft²



3120 ft / 30861.32 ft²



3130 ft / 8678.13 ft²



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2501.9		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.5
192	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.5
216	0.5	0.3	0.5	0.3	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	2502.9		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	2505.9		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2510.9		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.9	0.5	0.5
192	0.5	0.9	0.5	0.9	0.5	0.9	0.5	0.5
216	0.5	0.9	0.5	0.9	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.9	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.9	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	2514.7		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	163.9	164.1	164.8	164.3	164.2	164.7	165.6	166.9
24	168.7	167.7	167.2	164.1	161.5	161.3	161.5	156.5
48	152.2	154.4	156.9	155.6	154.8	155.6	156.9	155.4
72	154.3	153.9	154.0	154.7	155.7	154.8	154.3	154.2
96	154.3	153.9	153.7	154.9	156.4	150.3	144.8	157.7
120	173.5	173.8	174.7	173.4	172.5	178.1	184.6	183.3
144	182.4	184.4	186.9	188.3	190.3	192.6	195.6	195.1
168	195.2	199.0	203.5	203.4	203.8	193.3	198.1	195.2
192	192.8	192.3	195.1	194.8	198.2	193.1	197.1	192.1
216	187.9	178.6	180.7	178.3	177.6	175.5	174.0	172.9
240	172.3	173.0	174.1	173.2	172.8	172.8	173.7	173.3
264	173.2	173.3	173.7	172.8	172.3	170.8	169.9	169.4
288	169.4	169.1	169.2	168.5	168.2	165.8	168.4	168.6
312	169.2	170.4	172.0	169.7	168.0	169.9	172.4	173.9
336	175.5	170.7	166.3	164.4	162.9	163.0	163.6	163.5

DEPTH	2516.9		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	166.8	165.6	164.6	165.0	165.8	165.9	166.3	167.0
24	168.2	167.4	167.1	164.9	163.2	162.1	161.5	159.6
48	158.1	157.9	158.1	157.8	157.9	156.9	156.4	155.4
72	154.8	154.1	153.8	153.9	154.5	155.1	156.2	156.5
96	157.2	156.5	156.2	156.3	156.9	156.8	157.2	165.2
120	173.5	173.7	174.5	173.6	173.2	178.8	185.3	183.7
144	182.6	185.1	188.1	189.3	191.0	198.9	207.7	208.4
168	209.5	206.6	205.0	204.1	203.8	203.3	203.5	200.4
192	198.0	195.7	196.3	197.2	198.7	197.1	196.5	192.4
216	189.1	184.3	180.7	179.2	178.3	176.2	174.6	173.5
240	172.8	173.6	174.8	173.8	173.3	173.4	174.0	173.4
264	173.2	173.0	173.2	173.0	173.2	172.9	173.0	171.1
288	169.6	169.6	169.9	169.5	169.6	169.0	168.7	169.1
312	170.1	170.9	172.3	170.5	169.2	172.9	177.3	176.6
336	176.2	171.5	167.3	166.5	166.0	166.3	166.8	166.8



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2518.8		TILT	0		VOS	5945.54	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	167.8	165.9	164.4	165.5	167.2	166.9	167.0	167.1
24	167.7	167.1	167.0	165.8	164.9	163.3	162.0	160.5
48	159.6	159.1	159.1	158.2	157.8	157.1	156.7	155.9
72	155.5	154.9	154.8	154.6	154.9	155.2	155.9	156.3
96	157.2	156.7	156.7	156.9	157.6	158.1	159.1	166.0
120	173.7	173.8	174.4	173.8	173.7	179.8	186.9	185.0
144	183.6	186.3	189.5	191.0	192.9	200.7	208.6	209.0
168	209.8	207.1	205.0	203.9	203.3	203.1	203.3	199.6
192	196.5	197.0	196.3	197.8	199.7	197.4	196.1	192.4
216	189.3	185.2	180.9	179.5	178.1	176.4	175.2	173.6
240	172.5	173.7	175.5	174.3	173.7	173.7	174.3	174.0
264	174.2	173.2	172.8	172.8	173.4	173.1	173.3	171.6
288	170.2	170.1	170.3	170.2	170.6	169.2	169.2	169.8
312	170.8	171.1	171.8	170.1	168.9	172.8	177.4	176.9
336	176.8	172.0	167.7	166.8	166.3	167.0	168.0	167.8

DEPTH	2528.8		TILT	0		VOS	5946.52	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.8	167.7	166.1	166.7	167.7	168.3	169.4	169.9
24	170.9	169.4	168.5	167.2	166.5	164.9	163.9	161.9
48	160.3	159.7	159.6	159.6	160.1	158.5	157.4	157.0
72	156.9	157.3	158.1	157.1	156.5	157.3	158.6	157.6
96	156.9	156.6	156.7	158.1	160.1	161.4	163.2	165.8
120	168.9	171.3	174.2	175.4	177.0	181.8	187.7	188.1
144	188.9	192.2	196.0	197.1	198.7	204.4	210.8	210.9
168	211.5	210.1	209.3	207.8	206.9	206.4	206.9	203.9
192	201.6	199.5	198.7	199.5	200.7	199.4	198.3	194.0
216	190.4	188.2	186.9	184.4	183.1	181.6	180.7	179.4
240	178.6	178.4	178.8	177.1	175.9	175.2	175.9	174.6
264	173.7	174.1	175.0	174.2	174.0	174.2	175.0	173.8
288	173.2	172.7	172.8	171.3	170.4	169.9	168.7	169.7
312	171.1	169.9	169.2	170.5	172.3	174.8	177.8	178.7
336	179.8	174.0	168.9	168.0	167.5	169.2	171.4	170.5

DEPTH	2538.8		TILT	0		VOS	5946.52	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.9	170.0	168.5	169.2	170.4	171.5	173.0	173.7
24	174.8	173.7	173.0	170.5	168.5	167.5	167.0	165.5
48	164.3	163.6	163.1	162.4	161.9	161.6	161.6	159.6
72	158.1	157.8	157.9	158.8	160.1	161.1	162.7	161.9
96	161.5	158.2	155.5	158.2	161.5	162.7	164.4	168.1
120	172.5	173.9	175.7	176.9	178.4	183.5	189.2	191.2
144	193.7	197.3	201.4	200.6	200.1	205.9	212.4	213.3
168	214.8	212.6	211.0	209.9	209.3	209.2	209.5	208.1
192	207.1	205.6	204.6	202.7	201.1	200.8	200.4	195.5
216	191.3	188.6	186.5	185.2	184.3	182.5	181.2	179.3
240	177.8	180.5	183.8	180.5	177.8	175.0	174.7	174.0
264	173.7	174.0	174.7	173.3	172.3	171.0	170.1	169.9
288	170.1	171.9	174.2	172.7	171.6	172.5	174.5	172.8
312	171.6	170.7	170.4	172.3	174.5	176.5	178.8	179.6
336	180.6	175.7	171.3	170.9	170.7	172.5	174.6	173.1



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2549.0		TILT	0		VOS	5947.18	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	174.1	172.0	170.4	170.6	171.4	173.1	175.4	175.6
24	176.2	175.6	175.4	173.5	171.9	170.1	168.7	166.6
48	164.9	164.4	164.4	163.8	163.7	163.5	163.7	162.2
72	161.3	160.6	160.3	160.8	161.8	162.0	162.7	159.2
96	156.2	155.9	156.0	159.6	163.9	165.5	167.5	172.7
120	178.8	179.7	181.2	181.0	181.1	188.9	197.8	195.1
144	193.0	196.7	201.2	200.6	200.7	205.7	211.5	214.9
168	218.9	217.6	216.8	213.6	211.0	211.4	212.9	210.5
192	208.6	206.2	204.0	205.5	208.6	203.4	204.0	197.6
216	192.0	188.3	187.2	185.4	184.3	183.6	183.4	183.6
240	184.4	183.6	183.4	180.0	177.1	175.2	173.8	173.0
264	172.8	171.8	171.4	172.0	173.0	172.2	171.8	172.1
288	172.8	172.3	172.3	171.5	171.1	172.1	173.7	173.2
312	173.0	172.9	173.0	174.6	176.4	178.0	179.9	180.3
336	181.0	177.2	173.7	172.1	170.9	174.0	177.6	175.7

DEPTH	2559.0		TILT	0		VOS	5947.18	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.5	172.8	172.5	172.8	173.5	175.4	177.8	177.9
24	178.5	177.4	176.7	173.4	170.6	170.9	171.6	168.5
48	166.0	165.0	164.3	163.8	163.6	163.9	164.6	163.7
72	163.1	162.4	162.2	162.0	162.2	162.1	162.4	161.6
96	161.2	159.7	158.6	160.7	163.4	166.8	170.8	172.9
120	175.4	178.8	182.8	181.8	181.3	188.8	197.5	195.8
144	194.6	198.5	203.1	203.3	204.0	210.1	217.1	217.8
168	218.9	217.6	216.7	214.9	213.6	213.3	213.4	211.4
192	210.0	207.7	206.1	205.5	205.4	202.7	200.0	196.3
216	193.2	190.7	188.8	185.4	184.0	182.7	181.9	179.9
240	178.5	179.7	181.3	179.7	178.5	175.2	173.2	172.6
264	172.5	173.0	174.0	173.4	173.2	173.4	174.0	172.7
288	172.0	172.7	174.0	173.2	173.0	172.8	172.8	173.2
312	174.2	173.7	173.7	173.5	173.7	177.0	180.8	180.4
336	180.3	177.1	174.2	175.3	176.7	177.0	177.7	175.4

DEPTH	2569.0		TILT	0		VOS	5947.18	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.6	173.0	174.0	173.7	173.8	176.5	179.8	178.6
24	177.9	177.4	177.4	175.0	173.2	172.0	171.3	170.9
48	170.9	167.8	165.4	165.0	165.1	165.0	165.4	164.5
72	163.9	162.3	161.0	161.5	162.5	161.9	161.8	161.8
96	162.2	161.3	160.8	163.2	166.1	166.1	166.5	168.3
120	170.8	176.4	182.9	182.2	181.9	190.0	199.5	202.3
144	205.7	205.4	205.7	205.4	205.7	210.0	215.1	217.9
168	221.4	219.9	218.9	216.9	215.6	213.7	214.4	212.8
192	211.7	209.0	206.9	205.7	207.6	202.5	200.9	198.0
216	195.6	191.9	190.1	186.3	183.4	182.9	182.9	181.4
240	180.5	180.1	180.2	176.2	172.8	172.6	173.0	173.4
264	174.2	173.9	174.0	172.6	171.6	172.7	174.2	173.6
288	173.5	173.3	173.5	172.9	172.8	173.2	174.2	173.6
312	173.5	175.1	177.1	176.4	176.2	178.6	181.4	180.7
336	180.2	177.2	174.7	176.4	178.6	176.9	175.7	173.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2579.0		TILT	0		VOS	5947.18	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.6	172.1	173.1	173.4	174.3	175.6	177.4	177.0
24	177.1	176.6	176.7	174.0	171.9	170.9	170.4	170.2
48	170.5	168.6	167.2	166.9	166.9	165.4	164.4	163.1
72	162.2	161.3	160.8	161.5	162.7	161.5	160.8	159.5
96	158.6	159.6	161.0	162.9	165.2	165.2	165.6	167.3
120	169.5	174.5	180.2	181.7	183.6	188.5	194.1	197.0
144	200.5	202.9	205.8	205.9	206.5	211.8	217.9	220.4
168	223.5	220.8	218.7	217.0	215.8	214.4	213.0	211.8
192	211.3	209.4	208.4	206.1	203.7	200.1	197.5	194.4
216	191.9	190.7	189.4	186.3	183.7	183.7	184.1	184.4
240	185.2	183.0	181.2	178.4	176.2	174.3	174.0	173.8
264	174.0	172.9	172.3	172.2	172.6	172.2	172.3	171.9
288	171.9	171.3	171.1	171.6	172.6	172.2	172.1	172.9
312	174.3	175.7	177.6	176.7	176.2	178.6	181.5	181.3
336	181.5	177.6	174.3	175.7	177.6	177.2	177.2	174.1

DEPTH	2589.0		TILT	0		VOS	5947.18	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.5	172.1	172.1	172.2	172.8	174.4	176.4	176.2
24	176.4	176.2	176.4	173.4	170.9	171.6	172.8	171.2
48	170.0	169.6	169.7	169.3	169.4	164.6	160.6	162.6
72	165.1	162.6	160.6	160.5	160.8	160.5	160.6	160.1
96	160.1	160.1	160.6	163.9	167.8	165.6	164.0	170.0
120	176.9	177.8	179.1	181.2	183.7	187.8	192.6	195.8
144	199.7	202.0	204.8	205.1	206.0	211.4	217.7	219.9
168	222.8	220.1	218.0	217.3	217.3	215.2	214.6	214.1
192	214.1	209.7	206.7	207.1	207.7	202.7	200.4	197.4
216	194.9	190.8	189.4	186.7	184.6	184.1	184.1	186.2
240	188.9	186.2	184.1	179.8	176.1	174.4	173.5	173.5
264	174.0	172.1	170.6	170.2	170.2	171.0	172.3	172.0
288	172.1	172.1	172.6	172.6	173.1	172.0	172.6	172.7
312	173.3	174.1	175.5	175.0	175.0	177.7	181.0	181.0
336	181.4	177.2	173.5	173.9	174.7	175.8	177.3	174.7

DEPTH	2599.0		TILT	0		VOS	5947.18	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.1	171.4	172.1	171.1	170.5	172.7	175.5	175.2
24	175.5	174.7	174.5	172.3	170.7	171.4	172.6	170.6
48	169.0	168.3	168.0	166.3	165.0	163.3	162.0	162.0
72	162.4	160.8	159.6	159.4	159.6	159.4	159.6	158.5
96	157.9	159.0	160.6	161.8	163.4	163.3	163.7	167.7
120	172.4	175.3	178.8	180.8	183.3	187.1	191.6	195.4
144	199.8	201.4	203.4	204.0	205.1	211.7	219.3	220.1
168	221.6	219.7	218.5	217.3	216.8	215.0	213.7	211.6
192	210.1	208.1	205.5	206.3	206.7	202.9	199.7	196.4
216	193.7	190.6	188.4	186.3	184.6	184.2	184.3	182.2
240	180.5	182.3	184.6	180.0	176.0	175.5	175.5	176.0
264	176.9	173.1	169.9	170.0	170.5	170.8	171.5	171.4
288	171.8	171.3	171.4	171.5	172.1	171.4	171.1	171.4
312	172.1	173.1	174.5	175.5	176.9	178.8	181.2	180.7
336	180.7	176.7	173.4	172.8	172.7	174.4	176.5	173.6



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2604.0		TILT	0		VOS	5948.16	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.9	170.4	170.4	170.4	170.8	173.1	176.0	175.5
24	175.5	174.8	174.5	171.4	168.8	169.4	170.4	169.3
48	168.7	168.2	168.0	166.0	164.4	162.9	161.9	161.9
72	162.3	160.0	158.2	158.7	159.6	159.2	159.1	159.2
96	159.6	159.9	160.6	161.9	163.7	163.0	162.7	168.3
120	174.8	176.5	178.7	180.8	183.5	187.2	191.6	196.2
144	201.7	201.6	202.2	203.8	206.1	211.9	218.6	220.0
168	222.1	220.5	219.5	217.2	215.6	214.3	213.9	211.7
192	210.1	208.3	206.7	204.7	206.5	201.8	199.3	195.5
216	192.3	189.2	186.8	185.9	184.4	184.6	185.3	182.5
240	180.3	181.9	184.1	180.3	177.2	176.1	175.5	176.1
264	177.2	172.6	168.7	169.5	170.7	171.0	171.9	172.0
288	172.6	172.0	171.9	172.1	172.8	171.8	171.4	171.4
312	171.9	172.8	174.3	175.9	178.1	178.8	180.0	180.0
336	180.5	176.2	172.6	173.6	175.0	175.3	176.1	173.3

DEPTH	2608.9		TILT	0		VOS	5948.16	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.1	170.8	170.0	170.3	171.2	172.3	174.0	175.7
24	177.9	176.7	176.0	175.0	174.5	170.6	167.3	168.3
48	169.7	168.4	167.5	165.5	163.9	162.5	161.5	161.8
72	162.5	159.3	156.7	157.5	158.7	158.9	159.6	158.3
96	157.5	155.7	154.3	158.0	162.3	163.8	165.9	168.7
120	172.1	175.1	178.6	180.8	183.6	187.3	191.6	195.1
144	199.3	201.4	204.1	205.3	207.2	213.9	221.6	220.7
168	220.4	217.7	215.6	215.0	214.9	213.3	212.0	209.5
192	207.7	208.2	207.7	204.0	201.2	199.5	196.4	193.7
216	191.6	188.2	185.1	185.4	185.1	184.7	184.9	184.8
240	185.3	183.4	182.0	178.5	175.7	176.4	176.7	173.5
264	171.0	170.1	169.7	169.8	170.4	170.9	171.9	172.0
288	172.6	172.7	173.3	171.9	170.9	171.6	171.6	171.3
312	171.4	171.9	172.8	173.7	175.0	176.7	178.8	179.3
336	180.3	176.7	173.8	172.8	172.4	173.8	175.7	173.7

DEPTH	2614.0		TILT	0		VOS	5956.36	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.4	171.3	171.6	171.0	170.9	172.9	175.5	176.2
24	177.4	176.3	175.7	175.1	175.0	170.7	167.1	167.8
48	169.0	167.6	166.6	165.8	165.4	163.0	161.1	161.0
72	161.3	159.1	157.4	157.7	158.4	159.1	160.3	158.8
96	157.7	155.8	154.3	157.9	162.0	163.5	165.4	168.0
120	171.2	174.6	178.6	180.6	183.2	186.8	191.1	194.5
144	198.6	201.4	204.8	204.4	204.6	211.6	219.8	219.7
168	220.3	217.5	215.4	215.0	215.2	213.1	211.8	208.9
192	206.5	207.3	208.7	204.3	201.7	197.9	195.2	192.5
216	190.4	187.5	185.1	185.2	185.8	184.9	184.4	185.5
240	187.0	183.9	181.3	179.0	177.2	176.6	176.9	173.0
264	169.7	169.6	170.0	170.0	170.4	171.5	173.1	172.1
288	171.6	172.1	173.1	171.8	170.9	171.1	172.1	171.3
312	170.9	171.2	171.9	173.1	174.8	176.8	179.3	179.6
336	180.3	176.6	173.5	172.8	172.6	174.5	176.9	173.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2614.1		TILT	85		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	100.4	101.2	102.0	101.2	100.4	100.5	100.7	100.9
24	101.0	101.5	102.0	101.3	100.7	100.7	100.7	100.7
48	100.7	100.7	100.7	100.7	100.7	100.7	100.7	100.7
72	100.7	100.7	100.7	100.9	101.0	101.0	101.0	100.9
96	100.7	100.9	101.0	100.9	100.7	100.7	100.7	100.9
120	101.0	100.7	100.4	100.4	100.4	100.4	100.4	100.9
144	101.3	101.0	100.7	100.7	100.7	100.7	100.7	100.7
168	100.7	100.7	100.7	100.5	100.4	101.2	100.4	100.4
192	100.4	101.1	100.4	101.1	100.4	101.2	100.4	100.4
216	100.4	101.1	100.4	101.5	100.7	100.5	100.4	100.4
240	100.4	100.4	100.4	100.4	100.4	101.3	100.4	100.4
264	100.4	100.4	100.4	100.5	100.7	100.5	100.4	100.4
288	100.4	100.4	100.4	100.4	100.4	101.3	100.4	100.4
312	100.4	100.4	100.4	100.5	100.7	100.5	100.4	100.5
336	100.7	100.7	100.7	100.7	100.7	100.5	100.4	100.4

DEPTH	2614.1		TILT	80		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	102.3	102.3	102.3	102.1	102.0	102.0	102.0	102.0
24	102.0	101.8	101.7	101.7	101.7	101.8	102.0	102.0
48	102.0	102.1	102.3	102.3	102.3	102.5	102.6	102.6
72	102.6	102.3	102.0	102.0	102.0	101.8	101.7	101.7
96	101.7	101.8	102.0	102.1	102.3	102.3	102.3	102.1
120	102.0	102.0	102.0	102.1	102.3	102.3	102.3	102.3
144	102.3	102.5	102.6	102.5	102.3	102.1	102.0	102.0
168	102.0	102.1	102.3	102.3	102.3	101.9	101.7	101.5
192	101.3	101.5	101.3	101.5	101.3	101.7	101.7	101.7
216	101.7	101.7	101.3	101.8	103.0	102.5	102.0	102.1
240	102.3	102.0	101.7	101.7	101.7	101.7	102.3	102.0
264	101.7	101.8	102.0	101.8	101.7	101.5	101.3	101.7
288	102.0	102.1	102.3	102.3	102.3	102.0	102.0	102.1
312	102.3	101.8	101.3	101.7	102.0	101.8	101.7	102.0
336	102.3	102.1	102.0	101.8	101.7	101.7	101.7	102.0

DEPTH	2614.1		TILT	75		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	104.9	104.2	103.6	103.9	104.2	104.2	104.2	104.1
24	103.9	104.2	104.6	104.1	103.6	103.9	104.2	104.2
48	104.2	104.4	104.6	104.1	103.6	103.9	104.2	104.2
72	104.2	104.1	103.9	104.7	105.5	105.2	104.9	104.4
96	103.9	104.2	104.6	104.9	105.2	105.0	104.9	104.9
120	104.9	104.9	104.9	104.4	103.9	104.4	104.9	104.2
144	103.6	104.1	104.6	104.2	103.9	104.4	104.9	104.7
168	104.6	104.1	103.6	103.9	104.2	104.1	103.6	104.1
192	104.6	104.3	103.9	103.8	103.9	103.9	104.2	104.1
216	103.9	104.0	104.2	104.0	104.2	104.2	104.2	104.4
240	104.6	104.7	104.9	104.7	104.6	104.1	103.6	103.6
264	103.6	103.4	103.3	103.4	103.6	103.9	104.2	104.1
288	103.9	104.2	104.6	104.6	104.6	104.4	103.9	104.1
312	104.2	104.1	103.9	103.9	103.9	104.2	104.6	104.7
336	104.9	105.0	105.2	104.4	103.6	104.1	104.6	104.7



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2614.1		TILT	70		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	108.4	107.6	106.8	107.1	107.5	107.3	107.1	107.0
24	106.8	107.0	107.1	107.1	107.1	107.3	107.5	107.3
48	107.1	107.1	107.1	106.6	106.2	107.1	108.1	107.4
72	106.8	107.4	108.1	107.8	107.5	107.1	106.8	107.3
96	107.8	107.3	106.8	107.4	108.1	108.1	108.1	107.8
120	107.5	107.4	107.5	107.8	108.1	107.8	107.5	107.6
144	107.8	107.8	107.8	107.6	107.5	107.6	107.8	108.4
168	109.1	108.7	108.4	108.6	108.7	107.9	107.1	107.1
192	107.1	107.4	108.1	107.5	106.8	106.9	107.1	106.8
216	106.5	106.8	107.5	107.3	107.1	107.1	107.1	106.8
240	106.5	107.0	107.5	107.0	106.5	107.5	107.5	107.1
264	106.8	107.6	108.4	107.3	106.2	106.5	106.8	106.6
288	106.5	106.6	106.8	107.0	107.1	107.3	107.5	107.3
312	107.1	107.0	106.8	107.0	107.1	107.1	107.1	107.6
336	108.1	107.9	107.8	107.6	107.5	107.3	107.1	107.8

DEPTH	2614.1		TILT	65		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	112.6	112.1	111.6	112.1	112.6	112.3	112.0	112.4
24	112.9	112.1	111.3	111.0	110.7	111.3	112.0	111.9
48	112.0	111.8	111.6	111.8	112.0	111.9	112.0	111.3
72	110.7	111.3	112.0	111.6	111.3	111.1	111.0	111.3
96	111.6	111.0	110.3	111.1	112.0	111.6	111.3	111.6
120	112.0	111.9	112.0	111.9	112.0	111.6	111.3	111.6
144	112.0	111.6	111.3	112.1	112.9	112.6	112.3	111.9
168	111.6	111.1	110.7	111.6	112.6	112.5	112.3	111.6
192	111.0	111.0	111.3	111.7	112.0	111.1	111.0	111.1
216	111.3	110.8	110.7	111.2	111.6	111.1	110.7	110.6
240	110.7	111.1	111.6	111.3	111.0	111.4	112.9	112.2
264	111.6	111.9	112.3	111.9	111.6	111.6	111.6	111.6
288	111.6	111.4	111.3	111.6	112.0	111.6	111.3	111.3
312	111.3	111.8	112.3	111.9	111.6	111.3	111.0	110.8
336	110.7	111.4	112.3	112.6	112.9	112.2	111.6	112.1

DEPTH	2614.1		TILT	60		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	116.5	116.7	117.1	117.5	118.1	117.1	116.1	115.9
24	115.8	116.1	116.5	117.5	118.7	118.2	117.7	118.0
48	118.4	118.7	119.0	119.0	119.0	117.0	115.2	115.3
72	115.5	115.9	116.5	116.9	117.4	117.5	117.7	117.4
96	117.1	117.5	118.1	118.5	119.0	118.3	117.7	116.9
120	116.1	117.1	118.1	117.7	117.4	116.7	116.1	117.4
144	118.7	117.9	117.1	117.7	118.4	117.2	116.1	117.2
168	118.4	118.4	118.4	117.7	117.1	117.1	117.4	117.1
192	116.8	116.8	116.1	116.3	116.8	117.0	115.8	117.1
216	118.4	117.4	115.8	116.1	116.5	116.6	116.8	116.6
240	116.5	117.1	117.7	116.9	116.1	117.0	117.1	116.4
264	115.8	116.3	116.8	116.7	116.8	117.1	117.4	117.2
288	117.1	117.7	118.4	118.0	117.7	117.8	117.1	116.6
312	116.1	116.7	117.4	117.7	118.1	117.7	117.4	117.4
336	117.4	117.4	117.4	117.7	118.1	117.2	116.5	116.4



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2614.1		TILT	55		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	123.9	125.1	126.4	125.6	124.8	125.7	126.7	125.7
24	124.8	124.6	124.5	125.2	126.1	126.0	126.1	125.6
48	125.1	124.3	123.5	124.9	126.4	125.6	124.8	123.8
72	122.9	124.1	125.5	124.9	124.5	124.4	124.5	124.0
96	123.5	123.8	124.2	123.8	123.5	124.6	125.8	126.0
120	126.4	125.9	125.5	125.6	125.8	124.7	123.9	123.6
144	123.5	124.3	125.1	125.6	126.1	125.6	125.1	125.1
168	125.1	124.6	124.2	123.8	123.5	123.8	122.9	123.5
192	124.2	124.0	125.1	123.5	122.6	123.6	125.1	124.9
216	124.8	124.9	125.8	124.6	123.2	123.8	124.5	124.0
240	123.5	124.7	126.1	124.7	123.5	123.9	125.8	124.3
264	122.9	123.6	124.5	124.8	125.1	123.6	122.2	123.5
288	124.8	124.1	123.5	123.5	123.5	124.6	126.1	125.4
312	124.8	124.1	123.5	124.3	125.1	124.3	123.5	124.0
336	124.5	125.4	126.4	125.4	124.5	124.6	124.8	124.3

DEPTH	2614.1		TILT	50		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	135.4	135.8	136.4	135.5	134.8	135.2	135.8	135.1
24	134.7	134.6	134.7	134.7	134.8	133.9	133.2	133.1
48	133.2	134.7	136.4	134.5	132.9	132.5	132.2	132.5
72	132.9	134.1	135.4	134.7	134.1	132.9	131.9	133.2
96	134.8	134.5	134.5	133.9	133.5	134.7	136.1	135.2
120	134.5	134.2	134.1	133.9	133.8	134.4	135.1	133.7
144	132.5	133.7	135.1	134.9	134.8	134.4	134.1	133.3
168	132.5	133.4	134.5	134.1	133.8	133.2	134.1	134.4
192	134.8	133.2	132.2	133.1	131.9	132.1	132.5	132.1
216	131.9	133.0	132.5	134.5	136.1	134.7	133.5	132.6
240	131.9	132.1	132.5	133.6	134.8	133.4	132.5	133.3
264	134.1	134.5	135.1	134.1	133.2	132.6	132.2	133.3
288	134.5	133.9	133.4	133.6	133.8	133.7	133.4	132.9
312	132.5	134.4	136.4	135.0	133.8	134.2	134.8	134.5
336	134.3	134.1	134.1	135.0	136.1	136.0	136.1	135.7

DEPTH	2614.1		TILT	45		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	149.3	148.3	147.6	147.9	148.3	147.9	147.6	146.7
24	146.0	145.5	145.1	146.1	147.3	147.1	147.0	147.9
48	148.9	147.5	146.4	145.5	144.8	146.7	148.9	146.7
72	144.8	145.9	147.3	147.1	147.0	145.9	145.1	145.3
96	145.7	145.7	145.8	145.1	144.5	144.4	144.4	145.1
120	146.0	145.5	145.1	146.2	147.6	146.1	144.8	145.0
144	145.4	146.3	147.3	146.1	145.1	145.8	146.7	145.6
168	144.8	145.8	147.0	146.1	145.4	145.0	144.1	144.8
192	145.7	144.9	144.4	144.3	146.0	144.7	144.8	144.7
216	144.8	144.3	145.7	145.4	147.0	145.0	143.1	143.8
240	144.8	146.7	148.9	146.9	145.1	145.5	145.7	146.4
264	147.3	145.9	144.8	145.8	147.0	147.4	148.0	146.2
288	144.8	145.9	147.3	146.3	145.4	146.1	147.3	148.5
312	149.9	147.8	146.0	146.3	146.7	147.9	149.3	147.2
336	145.4	145.5	145.7	146.1	146.7	147.1	147.6	148.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2614.1		TILT	40		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	163.4	162.6	162.1	161.7	161.5	161.7	162.1	161.5
24	161.2	161.7	162.4	162.0	161.8	160.2	158.9	158.6
48	158.6	159.9	161.5	161.5	161.8	161.2	160.8	160.9
72	161.2	163.1	165.3	162.8	160.5	160.4	160.5	161.4
96	162.5	163.1	164.0	162.6	161.5	160.9	160.5	160.4
120	160.5	160.4	160.5	159.6	158.9	159.1	159.5	159.3
144	159.2	159.9	160.8	159.1	157.6	157.8	158.3	159.6
168	161.2	160.2	159.5	158.6	157.9	159.6	160.5	159.6
192	158.9	159.3	157.9	159.0	158.6	159.7	160.5	161.0
216	161.8	160.1	158.9	159.6	160.5	161.0	161.8	161.5
240	161.5	160.2	159.2	159.1	159.2	160.2	160.2	160.4
264	160.8	161.2	161.8	162.3	163.1	161.0	159.2	159.4
288	159.9	160.1	160.5	160.4	160.5	161.6	162.1	163.7
312	165.7	162.2	159.2	161.3	163.8	163.4	163.4	163.4
336	163.8	163.1	162.8	161.5	160.5	160.2	160.2	161.6

DEPTH	2614.1		TILT	35		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	185.9	181.3	177.3	179.3	181.7	180.1	178.8	178.2
24	177.9	178.0	178.5	181.0	184.0	180.7	177.9	177.5
48	177.5	176.6	176.2	175.9	176.0	180.3	185.3	184.3
72	183.7	182.5	181.7	182.2	183.0	182.7	182.7	181.7
96	181.1	180.9	181.1	182.5	184.3	178.8	173.9	176.3
120	179.2	179.6	180.4	179.1	178.2	178.7	179.5	180.6
144	182.1	180.9	180.1	180.3	180.8	180.4	180.4	179.5
168	178.8	178.5	178.5	178.8	179.5	179.8	180.4	179.2
192	178.3	179.6	180.1	178.9	180.8	180.6	178.7	179.9
216	181.4	180.2	180.4	177.8	178.5	179.0	179.8	178.7
240	177.9	177.7	177.9	178.3	179.2	178.3	182.4	182.5
264	183.0	183.2	183.7	182.7	182.1	180.7	179.8	181.5
288	183.7	180.0	176.7	179.8	183.3	180.1	184.9	181.5
312	178.5	180.1	182.1	180.1	178.5	180.9	183.7	181.7
336	180.1	180.6	181.4	180.7	180.4	181.1	182.1	183.8

DEPTH	2614.1		TILT	30		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	193.3	191.3	189.8	190.9	192.3	192.1	192.4	193.0
24	194.1	193.2	192.8	191.5	190.4	188.8	187.5	186.5
48	185.9	184.4	183.3	182.3	181.7	181.5	181.7	180.1
72	178.8	177.9	177.2	178.3	179.8	179.1	178.8	178.7
96	178.8	178.5	178.5	180.5	183.0	183.8	184.9	191.5
120	198.9	198.9	199.3	198.8	198.7	200.9	203.6	206.4
144	209.7	206.8	204.4	204.8	205.5	204.2	203.3	204.8
168	206.8	208.8	211.3	206.3	201.8	203.4	211.0	209.7
192	208.7	205.0	210.4	205.1	205.3	205.4	214.9	207.0
216	200.1	200.6	204.2	201.6	200.1	199.4	199.1	198.7
240	198.7	198.6	199.0	198.7	198.8	198.7	199.1	198.9
264	199.0	199.0	199.2	198.8	198.7	197.8	197.2	196.2
288	195.6	195.4	195.6	195.5	195.9	195.0	194.7	195.1
312	195.9	197.0	198.6	196.6	195.0	196.8	198.8	200.2
336	202.0	197.4	193.3	192.4	191.8	192.4	193.3	193.1



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2614.1		TILT	25		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	188.5	187.1	186.2	185.4	184.9	186.2	187.8	188.4
24	189.5	189.6	190.1	188.4	187.2	185.9	184.9	182.8
48	181.1	180.2	179.8	179.0	178.5	178.2	178.2	176.4
72	174.9	174.5	174.5	175.4	176.7	177.8	179.2	178.5
96	178.1	174.0	170.5	174.0	178.1	179.4	181.1	184.6
120	188.6	190.1	192.0	193.1	194.6	200.5	206.8	206.8
144	207.1	209.9	213.2	214.8	216.8	222.4	229.6	229.7
168	230.2	228.2	226.1	225.0	224.4	224.1	224.4	220.3
192	216.8	217.7	219.0	218.8	220.5	218.6	217.1	213.1
216	209.6	207.5	205.2	203.3	201.9	200.4	199.4	197.9
240	196.8	196.9	197.5	195.0	193.0	193.3	193.6	192.4
264	191.6	192.0	192.9	191.8	191.1	190.5	190.4	189.6
288	189.2	190.0	191.3	189.8	188.7	189.0	187.8	188.3
312	189.1	188.4	188.2	189.5	191.4	193.5	196.2	197.3
336	198.8	192.9	187.8	187.8	188.2	189.2	190.7	189.4

DEPTH	2614.1		TILT	20		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	185.6	184.2	183.3	182.9	182.9	184.7	186.9	187.1
24	187.7	187.0	186.9	185.0	183.7	181.7	180.1	178.8
48	177.9	176.2	175.0	174.0	173.4	173.8	174.7	173.0
72	171.8	171.1	170.8	170.6	170.8	171.6	172.7	171.7
96	171.1	168.5	166.3	168.3	170.8	174.9	179.5	184.5
120	190.2	191.1	192.4	192.3	192.7	197.1	202.3	204.9
144	208.1	211.3	215.2	213.9	213.2	219.1	226.1	226.6
168	227.7	225.7	224.2	223.1	222.6	222.4	222.7	221.2
192	220.3	218.9	218.1	216.5	215.3	214.1	214.0	206.9
216	200.7	200.2	199.0	197.2	196.1	195.2	194.8	194.7
240	195.1	194.9	195.2	191.5	188.5	186.4	184.8	183.8
264	183.3	182.8	182.7	183.3	184.3	183.3	182.7	183.1
288	184.0	183.8	184.0	183.4	183.3	183.2	184.6	184.2
312	184.3	184.2	184.6	186.0	187.8	189.4	191.4	191.8
336	192.7	188.6	185.3	184.6	184.3	186.5	189.1	187.1

DEPTH	2614.1		TILT	15		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	180.1	179.4	179.1	179.3	179.9	182.4	185.5	185.0
24	184.9	183.9	183.3	181.1	179.4	178.1	177.3	176.7
48	176.6	173.8	171.3	171.0	171.1	170.8	171.1	170.2
72	169.8	168.0	166.6	167.2	168.2	167.7	167.5	166.8
96	166.6	166.3	166.5	168.9	171.8	171.7	172.0	174.3
120	176.9	182.6	189.3	188.3	187.8	195.7	204.8	204.7
144	205.2	207.4	210.3	210.5	211.2	217.7	225.4	225.3
168	225.7	224.7	224.3	222.5	221.2	220.5	220.8	218.7
192	217.2	215.0	213.3	212.7	212.6	209.6	207.2	203.6
216	200.7	198.0	196.0	192.3	189.1	188.3	188.1	186.9
240	186.2	185.9	186.2	182.0	178.5	179.0	179.1	179.4
264	180.1	179.9	180.1	178.7	177.8	178.8	180.3	179.6
288	179.4	179.3	179.7	179.1	178.9	179.4	180.1	179.7
312	179.7	180.9	182.6	182.2	182.3	184.8	187.8	186.7
336	186.2	183.0	180.4	182.1	184.3	183.9	183.9	181.7



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2614.1		TILT	10		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	175.9	175.4	175.2	174.6	174.3	176.7	179.7	179.4
24	179.5	178.8	178.5	175.3	172.7	173.2	174.2	173.3
48	172.8	171.6	170.8	170.4	170.5	167.0	164.0	164.3
72	165.0	164.6	164.7	163.3	162.4	162.2	162.4	161.9
96	161.8	162.3	163.2	165.9	169.2	167.7	166.6	170.5
120	175.0	178.2	182.1	184.2	186.9	191.3	196.5	199.8
144	203.6	206.0	209.1	209.0	209.5	215.0	221.3	222.7
168	224.8	223.2	222.1	220.4	219.4	217.4	215.8	214.9
192	214.6	212.8	211.6	208.9	206.5	203.1	200.4	197.0
216	194.3	193.3	192.3	189.2	186.6	186.5	186.9	187.8
240	189.1	186.4	184.3	180.5	177.2	177.1	176.6	176.4
264	176.7	175.2	174.1	173.2	172.7	173.5	174.7	175.1
288	175.9	175.4	175.3	174.7	174.7	174.8	175.0	175.5
312	176.5	177.7	179.5	178.7	178.4	180.7	183.7	183.9
336	184.6	180.1	176.3	176.4	176.9	178.4	180.4	177.9

DEPTH	2614.1		TILT	5		VOS	5954.72	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.8	172.0	172.7	171.7	171.1	173.4	176.1	175.9
24	176.1	175.4	175.2	173.0	171.2	172.0	173.2	171.2
48	169.7	168.9	168.6	166.7	165.3	163.8	162.8	162.5
72	162.8	161.1	159.9	159.8	160.2	160.1	160.5	159.0
96	157.9	159.3	161.2	162.4	164.1	164.0	164.4	168.4
120	173.1	176.0	179.5	181.5	184.0	187.8	192.3	195.7
144	199.7	202.0	204.9	204.8	205.2	212.4	220.6	220.3
168	220.6	219.6	219.1	218.2	217.8	216.0	214.8	213.2
192	212.2	209.7	208.1	207.5	207.8	203.9	200.7	197.4
216	194.7	191.7	189.3	187.1	185.3	185.2	185.6	183.4
240	181.8	183.3	185.2	180.6	176.6	176.1	175.9	176.5
264	177.6	173.7	170.5	170.6	171.1	171.4	172.1	172.0
288	172.4	172.0	172.0	172.2	172.7	172.0	171.8	172.0
312	172.7	173.7	175.2	176.1	177.5	179.4	181.9	181.4
336	181.4	177.4	174.0	173.5	173.4	175.0	177.2	174.2

DEPTH	2618.9		TILT	0		VOS	5950.46	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.0	171.6	171.7	171.1	171.0	172.2	173.9	175.7
24	178.0	176.1	174.8	174.8	175.3	170.6	166.7	167.4
48	168.6	167.1	166.2	164.4	163.1	161.5	160.4	160.3
72	160.7	158.2	156.3	157.1	158.2	158.5	159.2	157.8
96	156.8	155.4	154.4	157.0	160.2	162.3	165.0	167.0
120	169.5	173.9	178.9	181.0	183.7	187.1	191.2	194.5
144	198.4	200.7	203.7	204.0	204.9	211.3	218.8	218.3
168	218.3	216.8	215.9	215.2	215.0	212.9	211.6	208.9
192	206.8	206.3	207.3	203.9	200.3	198.0	194.8	192.3
216	190.5	186.9	184.2	184.9	185.7	183.6	182.0	184.8
240	188.1	184.6	181.8	179.4	177.5	177.2	177.7	173.4
264	169.8	169.6	169.8	169.8	170.3	170.8	171.7	171.0
288	170.7	171.0	171.7	170.9	170.5	170.9	171.5	171.0
312	171.0	171.5	172.4	173.7	175.6	177.9	180.8	180.4
336	180.4	176.4	173.2	172.8	172.9	174.3	176.3	173.8



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2624.0		TILT	0		VOS	5951.44	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.0	171.1	170.8	170.9	171.5	172.2	173.4	174.8
24	176.8	175.8	175.3	175.2	175.6	170.3	165.7	166.8
48	168.4	168.0	168.1	165.3	163.1	161.4	160.2	159.7
72	159.7	157.8	156.3	157.1	158.3	158.4	159.0	157.7
96	156.8	155.8	155.1	157.6	160.7	162.5	164.8	167.3
120	170.3	173.9	178.2	180.5	183.3	186.9	191.2	194.5
144	198.4	201.2	204.7	204.6	205.2	212.2	220.3	219.5
168	219.3	217.0	215.3	214.7	214.8	212.6	211.2	208.7
192	206.8	206.4	205.6	203.5	200.8	197.8	196.5	193.4
216	191.0	187.0	183.8	184.4	185.4	184.3	183.8	184.7
240	186.2	184.7	183.8	180.8	178.5	177.6	177.5	173.0
264	169.1	169.2	169.8	169.6	169.8	170.5	171.7	171.0
288	170.8	171.6	172.9	171.6	170.8	171.0	171.7	171.3
312	171.3	171.1	171.5	173.2	175.3	177.6	180.4	179.5
336	179.2	175.6	172.7	172.2	172.2	173.9	176.1	173.8

DEPTH	2629.0		TILT	0		VOS	5952.76	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.5	170.7	170.3	170.3	170.8	172.6	174.9	176.0
24	177.5	176.0	174.9	175.3	176.1	171.8	168.2	167.6
48	167.4	166.2	165.5	164.2	163.3	161.4	160.0	159.4
72	159.3	157.3	155.9	156.6	157.8	158.4	159.5	158.4
96	157.8	156.3	155.2	157.4	160.2	162.5	165.3	167.8
120	170.8	174.0	177.8	180.0	182.8	186.5	190.8	194.3
144	198.5	200.7	203.5	203.7	204.5	211.7	220.1	219.6
168	219.6	216.8	214.6	213.7	213.4	212.2	210.7	208.0
192	205.9	206.5	207.4	203.4	201.3	197.6	194.6	191.8
216	189.6	186.6	184.0	184.3	185.2	183.5	182.3	184.0
240	186.2	185.0	184.3	181.5	179.2	177.6	177.8	173.4
264	169.6	169.4	169.6	170.0	170.8	170.9	171.5	171.4
288	171.8	172.2	173.2	171.4	170.1	170.7	171.8	170.8
312	170.3	170.4	171.0	172.6	174.7	177.5	180.9	179.4
336	178.5	175.4	173.0	172.1	171.8	174.0	176.8	173.9

DEPTH	2634.0		TILT	0		VOS	5953.08	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.3	170.0	169.1	168.5	168.4	170.9	174.0	175.1
24	176.8	176.1	175.9	173.3	171.3	168.0	165.3	166.0
48	167.2	165.8	164.8	163.0	161.7	160.6	160.0	159.4
72	159.3	157.7	156.6	157.1	158.1	158.0	158.3	157.6
96	157.4	155.8	154.7	157.0	159.8	162.4	165.6	168.0
120	170.9	174.0	177.7	179.7	182.4	187.1	192.7	195.4
144	198.7	200.9	203.8	203.1	203.1	210.2	218.4	218.7
168	219.6	216.7	214.4	213.8	213.9	212.0	211.0	209.1
192	207.9	206.6	207.1	203.4	200.5	197.7	194.9	192.2
216	190.2	186.2	183.1	184.3	185.3	183.8	182.8	184.3
240	186.2	185.7	185.7	182.2	179.2	177.5	175.9	172.6
264	169.9	169.9	170.3	170.5	171.1	171.3	172.0	171.3
288	171.1	171.5	172.5	171.1	170.1	170.7	171.3	170.5
312	170.1	170.7	171.8	172.9	174.4	177.1	180.4	177.9
336	175.9	174.5	173.7	172.6	172.0	173.5	175.4	173.1



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2639.1		TILT	0		VOS	5961.29	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.0	170.9	170.3	169.6	169.4	171.7	174.7	175.3
24	176.3	175.9	175.9	172.8	170.3	168.3	166.7	166.7
48	167.2	166.4	166.0	164.7	163.8	161.5	159.7	159.3
72	159.2	157.7	156.6	157.1	158.0	158.3	159.0	157.8
96	157.1	156.0	155.4	158.1	161.4	163.4	166.0	168.3
120	171.0	174.0	177.6	179.9	182.9	186.6	191.0	194.3
144	198.3	200.7	203.8	203.5	203.8	210.4	218.0	218.0
168	218.5	216.0	214.2	214.2	214.9	212.1	210.8	208.1
192	206.0	206.6	206.7	203.2	199.7	197.4	195.1	192.7
216	190.8	186.3	183.1	184.2	185.7	182.9	180.7	183.9
240	187.7	186.2	185.3	180.7	176.8	176.1	176.8	173.2
264	170.1	169.7	169.8	170.2	171.0	171.3	172.0	171.4
288	171.3	171.7	172.5	170.8	169.6	170.7	172.3	171.3
312	170.8	170.8	171.3	172.6	174.4	176.9	180.0	176.9
336	174.4	173.6	173.2	172.4	172.0	173.6	175.6	173.6

DEPTH	2649.0		TILT	0		VOS	5961.29	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.0	169.8	169.1	168.7	168.7	170.3	172.3	174.4
24	177.1	175.6	174.5	172.5	171.0	169.6	168.7	167.2
48	166.2	165.6	165.5	163.8	162.6	160.6	159.1	159.0
72	159.4	160.0	161.0	159.0	157.5	157.9	158.8	158.2
96	158.1	155.4	153.3	156.4	160.0	161.4	163.3	166.3
120	170.0	172.8	176.1	178.7	181.9	185.2	189.0	192.7
144	197.1	199.6	202.9	202.9	203.5	209.9	217.3	217.8
168	219.0	216.1	213.8	213.5	213.8	212.0	210.3	208.8
192	208.0	205.8	206.1	203.3	200.6	197.2	195.1	192.8
216	190.9	187.5	182.6	183.9	185.8	182.8	180.3	182.9
240	186.1	186.5	187.4	183.2	179.7	173.4	169.1	168.8
264	169.1	168.8	169.1	169.6	170.7	171.1	172.0	170.9
288	170.3	171.1	172.3	170.7	169.7	170.3	171.3	170.6
312	170.3	170.4	171.0	172.3	174.2	176.3	179.0	179.0
336	179.4	175.7	172.6	171.9	171.6	173.3	175.5	173.0

DEPTH	2659.0		TILT	0		VOS	5961.94	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.0	169.8	169.1	168.9	169.1	170.4	172.3	174.3
24	176.8	175.3	174.2	172.4	171.0	169.7	168.8	166.9
48	165.5	164.8	164.6	162.4	160.7	160.0	159.7	158.7
72	158.1	156.6	155.6	155.8	156.5	157.4	158.8	157.4
96	156.5	155.2	154.3	156.7	159.7	161.3	163.3	166.1
120	169.4	172.6	176.5	178.8	181.6	184.9	188.7	192.7
144	197.4	199.7	202.6	202.3	202.6	209.6	217.7	217.9
168	218.7	216.3	214.5	213.5	213.2	211.9	210.3	207.4
192	205.1	205.6	204.2	202.4	201.0	197.6	194.5	192.3
216	190.7	188.6	187.1	184.2	185.2	183.0	181.3	181.2
240	181.6	181.4	181.6	176.9	172.9	172.8	169.4	168.2
264	167.5	168.0	169.1	169.7	170.7	171.3	172.3	171.9
288	172.0	171.9	172.3	170.9	170.1	170.5	171.7	170.9
312	170.7	170.8	171.3	172.4	173.9	176.1	178.7	178.5
336	178.7	174.9	171.7	171.3	171.3	173.0	175.2	172.8



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2669.0		TILT	0		VOS	5963.58	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.3	170.1	167.5	167.9	168.8	170.5	172.7	174.0
24	175.9	175.0	174.6	172.1	170.1	168.9	168.2	166.3
48	164.9	164.1	163.6	161.5	159.8	159.4	159.5	158.4
72	157.9	156.8	156.2	156.2	156.6	157.3	158.5	157.3
96	156.6	155.2	154.3	156.9	160.1	161.3	163.0	166.1
120	169.8	172.1	174.9	177.8	181.4	184.6	188.4	192.3
144	196.8	198.9	201.6	201.7	202.3	208.9	216.5	217.6
168	219.4	216.3	213.9	213.1	212.9	211.6	211.6	209.2
192	207.4	205.5	206.2	202.3	199.7	197.4	195.5	193.1
216	191.3	187.8	186.8	183.4	183.0	181.6	180.7	180.1
240	180.1	178.2	176.9	174.8	173.3	171.2	170.4	168.9
264	167.8	168.2	169.1	170.3	172.0	171.8	172.0	170.8
288	170.1	171.0	172.3	171.0	170.1	170.2	171.4	170.5
312	170.1	170.0	170.4	171.9	174.0	175.9	178.5	178.5
336	179.1	175.6	172.7	171.6	171.1	173.0	175.6	174.2

DEPTH	2678.9		TILT	0		VOS	5963.58	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.7	169.2	168.2	168.6	169.4	171.3	173.6	174.7
24	176.2	175.0	174.3	171.6	169.4	168.1	167.2	166.2
48	165.6	164.2	163.3	161.5	160.1	159.4	159.1	158.1
72	157.5	156.5	155.9	156.3	157.2	157.6	158.5	157.0
96	155.9	154.2	153.0	155.5	158.5	160.5	163.0	165.9
120	169.4	171.7	174.6	177.7	181.4	185.0	189.4	192.5
144	196.2	199.2	202.9	202.0	201.6	207.6	214.5	216.0
168	218.1	216.2	214.9	213.6	212.9	211.1	209.7	207.3
192	205.5	204.8	204.5	202.4	200.4	197.0	194.6	192.7
216	191.3	187.3	183.6	180.8	177.8	178.9	180.4	179.5
240	179.1	176.7	174.9	173.1	171.7	169.8	169.1	168.9
264	169.1	168.9	169.1	169.2	169.8	170.5	171.7	170.8
288	170.4	171.0	172.0	170.7	169.8	170.3	170.4	170.2
312	170.4	170.7	171.4	172.1	173.3	175.5	178.1	178.4
336	179.1	175.4	172.3	171.6	171.4	172.7	174.6	172.4

DEPTH	2689.0		TILT	0		VOS	5963.58	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	164.9	166.4	168.5	168.0	168.0	170.1	172.8	173.9
24	175.5	174.3	173.5	171.1	169.2	168.2	167.8	166.2
48	165.1	164.0	163.4	161.1	159.3	159.6	160.3	158.2
72	156.7	156.1	155.9	156.3	157.1	157.5	158.4	156.8
96	155.7	153.9	152.6	156.0	160.0	161.0	162.5	165.4
120	169.0	171.4	174.5	176.6	179.3	183.3	188.0	192.1
144	196.9	199.5	202.7	202.0	202.0	208.3	215.7	216.5
168	217.9	215.7	214.3	213.4	213.0	208.3	209.9	207.6
192	205.8	204.3	202.9	199.8	199.8	197.2	194.7	192.6
216	191.1	187.2	184.4	179.6	176.2	174.5	173.3	174.4
240	175.9	174.1	172.8	171.5	170.6	161.9	166.0	163.3
264	161.2	161.4	162.1	161.6	161.5	161.4	161.8	162.4
288	163.4	164.7	166.5	168.0	169.9	165.4	171.8	169.9
312	168.5	169.9	171.7	172.0	172.8	175.3	178.4	178.3
336	178.8	175.0	171.8	171.3	171.1	172.5	174.3	169.2



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2699.0		TILT	0		VOS	5963.58	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	150.3	149.8	149.6	158.4	168.7	170.9	173.5	173.7
24	174.3	174.4	175.0	169.5	164.7	165.9	167.5	164.4
48	161.8	161.7	162.0	160.3	159.1	159.3	160.0	158.6
72	157.6	156.4	155.7	156.3	157.4	157.7	158.4	157.7
96	157.4	154.7	152.6	156.0	160.0	161.5	163.4	165.4
120	168.0	167.2	166.9	173.0	180.0	183.7	188.0	191.5
144	195.7	193.7	192.3	193.6	195.5	195.5	196.1	198.5
168	201.5	199.3	197.7	198.6	200.0	199.1	199.0	202.3
192	206.3	200.1	204.1	192.9	193.2	190.1	195.0	190.7
216	187.1	179.3	183.4	174.5	175.7	173.5	171.8	166.1
240	161.2	157.9	155.1	150.3	146.1	146.1	141.7	139.6
264	137.9	139.3	141.2	143.7	146.5	149.5	153.1	154.5
288	156.4	155.9	155.7	154.1	152.8	151.0	151.6	152.5
312	153.8	157.9	162.8	163.5	164.7	169.0	174.0	174.6
336	175.6	170.2	165.7	164.1	163.1	162.2	161.8	155.6

DEPTH	2709.1		TILT	0		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	127.2	126.6	126.3	136.7	149.5	149.6	150.2	149.4
24	149.0	150.2	151.9	152.6	153.8	151.5	149.7	140.8
48	133.3	137.3	142.0	148.2	155.5	155.4	155.7	156.2
72	157.2	156.0	155.2	156.1	157.4	157.6	158.1	157.4
96	157.2	154.3	151.9	156.0	160.9	156.9	153.5	150.4
120	147.8	151.0	154.8	156.3	158.4	161.0	164.1	168.3
144	173.3	175.0	177.2	177.4	178.2	178.6	179.5	180.9
168	183.0	182.4	182.3	182.3	182.7	181.6	185.2	185.8
192	186.8	184.3	185.5	180.3	174.0	174.8	173.3	169.1
216	165.6	164.4	157.4	157.2	156.7	153.3	150.4	143.8
240	138.1	134.1	130.7	128.4	126.6	126.7	127.2	126.4
264	125.9	130.6	136.0	140.6	146.1	145.9	146.1	142.9
288	140.3	142.3	144.8	142.3	140.3	132.9	130.4	132.1
312	134.3	140.8	148.5	151.4	154.8	152.6	150.9	151.0
336	151.4	147.0	143.2	142.5	142.2	140.3	138.8	132.6

DEPTH	2718.8		TILT	0		VOS	5965.22	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	100.8	100.3	100.1	114.4	134.0	135.2	136.9	133.9
24	131.4	135.0	139.1	135.7	132.9	130.5	128.5	121.5
48	115.5	115.3	115.5	120.6	126.6	133.8	142.3	144.9
72	148.1	147.7	147.8	149.3	151.3	150.3	149.7	147.1
96	144.9	142.5	140.6	139.6	139.1	139.9	141.0	134.7
120	129.2	130.3	131.7	132.2	133.1	136.9	141.3	148.3
144	156.4	157.5	159.0	159.7	160.9	159.9	159.3	159.7
168	160.6	162.2	164.4	163.1	162.3	162.8	160.1	160.1
192	160.6	161.4	160.6	162.2	161.0	158.9	160.3	157.4
216	155.0	150.8	150.4	138.3	133.1	132.4	132.1	128.6
240	125.6	121.7	118.3	116.2	114.4	109.6	108.0	107.2
264	106.7	115.2	125.6	126.6	127.9	126.8	126.1	126.1
288	126.3	124.2	122.5	113.3	105.6	112.6	111.2	113.1
312	115.5	119.5	124.2	127.1	130.4	128.4	126.8	122.6
336	118.9	121.2	123.9	122.9	122.2	121.5	121.0	109.8



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2729.0		TILT	0		VOS	5958.01	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	84.2	83.9	83.9	96.0	112.7	115.5	118.7	116.5
24	114.6	111.2	108.2	109.5	111.1	110.7	110.5	102.7
48	96.1	95.7	95.6	92.5	89.8	89.8	90.1	102.2
72	118.4	122.3	126.8	131.4	136.7	135.7	135.1	133.6
96	132.4	129.4	126.9	125.9	125.2	116.1	108.5	108.3
120	108.4	110.2	112.5	112.0	111.7	119.0	127.6	129.9
144	132.7	133.9	135.6	138.1	141.1	141.9	143.0	144.1
168	145.7	145.0	144.7	146.5	148.8	147.0	146.9	146.6
192	146.7	141.3	137.5	140.7	141.8	140.4	140.4	138.0
216	136.1	131.2	132.9	122.9	116.3	112.8	109.8	105.7
240	102.1	101.6	101.4	94.6	88.9	93.3	90.8	93.5
264	96.6	100.4	104.8	105.1	105.7	107.7	110.1	110.8
288	111.7	108.2	105.2	97.4	90.8	91.1	92.5	92.4
312	92.5	100.5	110.4	111.1	112.0	112.8	114.0	113.0
336	112.4	110.4	108.8	110.6	112.7	95.8	83.6	83.8

DEPTH	2739.0		TILT	0		VOS	5958.01	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	71.1	69.3	67.9	68.3	68.9	79.3	93.8	95.4
24	97.3	97.3	97.6	98.3	99.2	94.6	90.6	84.7
48	79.7	80.1	80.7	78.3	76.2	75.2	74.4	73.4
72	72.5	82.5	96.0	89.0	83.1	84.0	85.2	88.1
96	91.6	89.6	88.0	79.6	72.8	79.1	87.0	88.8
120	91.0	95.8	101.5	99.1	97.1	103.6	111.4	115.3
144	119.7	121.0	122.6	122.3	122.3	125.4	129.0	126.7
168	124.7	128.8	133.4	134.4	135.7	132.8	131.3	131.1
192	131.2	126.2	122.9	120.2	123.6	121.8	119.5	114.4
216	110.1	110.0	102.8	105.9	97.5	95.5	93.7	91.5
240	89.6	84.7	80.5	79.2	78.3	81.3	80.2	84.7
264	90.0	86.7	83.8	84.3	85.0	87.8	90.9	89.5
288	88.4	82.1	76.8	73.7	71.1	73.6	76.1	74.2
312	72.5	73.6	74.9	83.0	93.5	94.3	95.4	93.2
336	91.3	94.5	98.3	87.8	79.5	74.3	69.9	70.4

DEPTH	2748.9		TILT	0		VOS	5958.01	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.2	65.1	63.4	66.1	69.4	71.2	73.2	74.8
24	76.6	76.5	76.6	76.1	75.9	67.4	60.7	64.5
48	68.9	66.8	65.0	62.3	60.0	61.9	64.1	64.2
72	64.6	65.8	67.2	68.5	70.1	72.1	74.4	74.5
96	74.7	74.3	74.2	73.5	73.0	69.9	67.2	68.0
120	68.9	76.0	85.0	84.9	85.0	90.9	98.0	96.6
144	95.6	95.5	95.6	100.0	105.0	108.1	111.7	111.4
168	111.3	118.8	127.9	120.2	113.7	117.2	116.8	116.0
192	115.6	110.1	106.3	103.1	97.8	103.0	103.7	97.4
216	92.0	96.6	94.2	95.3	93.9	92.3	91.0	87.3
240	84.1	81.5	79.3	78.9	78.8	76.5	78.5	76.2
264	74.2	72.9	71.8	69.2	66.9	67.1	67.5	66.5
288	65.8	59.2	54.0	54.0	54.2	58.4	56.0	57.9
312	60.2	59.3	58.6	64.4	71.7	71.3	71.1	72.6
336	74.4	77.4	80.9	69.4	61.0	61.9	63.1	65.0



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2759.1		TILT	0		VOS	5959.32	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	55.2	59.1	63.9	65.5	67.5	68.3	69.4	69.4
24	69.6	69.9	70.4	67.0	64.1	62.3	60.7	59.4
48	58.3	59.3	60.5	60.6	61.0	61.1	61.4	62.9
72	64.6	65.8	67.2	67.5	67.9	69.2	70.6	69.5
96	68.7	68.7	68.9	68.1	67.5	67.5	67.7	67.5
120	67.5	66.9	66.5	66.4	66.5	67.2	68.2	70.6
144	73.5	77.9	83.1	83.4	83.8	88.7	94.5	94.3
168	94.4	94.7	95.2	98.7	102.8	100.6	102.5	96.4
192	91.3	94.4	89.9	91.2	87.5	88.8	86.5	87.3
216	88.4	89.1	91.1	90.2	90.6	89.1	87.9	86.2
240	84.8	82.2	80.0	76.2	73.0	72.4	71.1	70.3
264	69.6	66.5	63.9	64.2	64.8	65.0	65.3	54.9
288	47.5	48.2	49.2	50.0	51.1	52.6	52.8	53.1
312	53.5	50.2	47.5	44.3	41.7	41.0	40.5	48.1
336	59.3	60.4	61.8	59.4	57.4	57.4	57.6	56.3

DEPTH	2769.0		TILT	0		VOS	5959.32	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.3	59.8	61.4	62.1	62.9	63.3	63.9	65.1
24	66.5	64.9	63.6	61.8	60.2	59.2	58.3	57.8
48	57.4	58.0	58.8	59.2	59.8	62.1	64.8	66.1
72	67.7	66.6	65.8	65.9	66.3	65.9	65.8	65.7
96	65.8	66.6	67.7	67.7	67.9	67.6	67.5	67.9
120	68.4	66.2	64.3	64.6	65.1	64.7	64.6	67.4
144	70.6	72.3	74.2	73.7	73.5	77.6	82.4	84.3
168	86.5	86.0	85.8	86.8	88.0	88.3	84.3	81.6
192	79.3	83.4	82.9	84.1	82.4	83.2	84.2	81.9
216	80.0	83.4	85.3	85.8	85.5	85.9	86.5	85.4
240	84.6	82.5	80.7	77.2	74.2	70.9	67.5	64.2
264	61.4	62.1	62.9	62.6	62.4	54.8	48.9	47.6
288	46.5	47.1	47.7	48.4	49.2	51.1	52.5	51.4
312	50.4	44.1	39.3	38.8	38.3	39.0	39.8	41.0
336	42.4	47.6	54.5	54.9	55.4	56.3	57.4	57.8

DEPTH	2779.0		TILT	0		VOS	5959.65	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.0	60.6	61.5	61.5	61.7	62.6	63.6	63.2
24	62.9	62.0	61.2	60.9	60.7	58.8	57.1	56.7
48	56.4	57.0	57.8	58.0	58.3	59.8	61.5	63.0
72	64.8	64.7	64.8	65.7	66.7	66.1	65.5	65.6
96	65.8	67.0	68.4	69.1	69.9	69.3	68.9	68.8
120	68.9	66.3	64.1	63.4	62.9	63.8	64.8	66.7
144	68.9	71.5	74.5	70.4	67.0	69.9	73.2	74.3
168	75.7	76.3	77.1	78.5	80.2	80.5	79.3	79.4
192	79.8	80.6	81.7	82.6	83.4	81.4	79.0	79.4
216	80.0	81.9	84.1	86.1	87.7	86.1	84.8	83.8
240	83.1	81.3	80.2	78.5	77.1	73.4	69.9	66.9
264	64.3	64.3	64.3	62.4	60.7	54.6	49.7	48.5
288	47.5	48.0	48.7	49.2	49.9	51.8	52.1	52.3
312	52.8	50.8	49.2	50.0	51.1	50.9	50.9	52.6
336	54.7	54.8	55.0	55.5	56.2	57.0	58.1	58.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2789.0		TILT	0		VOS	5959.65	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.0	58.6	57.4	57.9	58.6	57.8	57.1	55.9
24	55.0	54.4	54.0	54.5	55.2	54.5	54.0	53.7
48	53.5	54.1	55.0	56.3	57.8	59.8	62.2	63.4
72	64.8	64.0	63.4	63.6	64.1	64.7	65.5	65.1
96	64.8	65.2	65.8	66.4	67.2	68.6	70.1	71.0
120	72.0	70.7	69.6	68.2	67.0	66.5	66.3	67.8
144	69.6	71.9	74.5	71.9	69.6	72.0	74.7	75.7
168	77.6	78.2	79.0	80.2	81.7	82.8	81.4	81.8
192	82.4	82.6	83.6	84.5	84.8	83.5	82.6	82.8
216	83.1	83.4	85.3	87.0	88.4	87.4	86.7	85.5
240	84.6	82.2	80.2	79.1	78.3	74.6	73.2	71.3
264	69.6	68.7	68.0	65.2	62.9	61.6	60.5	58.9
288	57.6	58.7	60.0	61.4	63.1	56.4	56.7	55.6
312	54.7	55.0	55.4	55.2	55.2	55.4	55.7	55.4
336	55.2	54.5	54.0	55.8	57.8	58.0	58.3	59.1

DEPTH	2799.0		TILT	0		VOS	5959.65	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.8	58.3	57.1	57.6	58.3	57.6	57.1	55.9
24	55.0	54.6	54.5	55.0	55.7	54.5	53.5	53.9
48	54.5	55.1	55.9	56.8	57.8	59.7	61.9	62.4
72	63.1	62.9	62.9	63.3	63.9	65.0	66.3	65.3
96	64.6	65.1	65.8	66.4	67.2	68.8	70.6	70.5
120	70.6	69.0	68.0	67.5	67.2	66.9	66.7	68.0
144	69.4	70.4	71.6	74.4	77.6	80.0	82.9	84.2
168	86.3	86.8	87.7	87.8	88.2	87.0	87.2	85.9
192	84.8	85.8	86.5	87.3	89.4	86.4	83.8	85.4
216	87.2	87.3	87.5	89.9	93.0	92.4	92.0	90.9
240	90.1	86.8	84.1	81.2	78.8	76.7	75.2	72.8
264	70.8	67.9	65.3	63.0	61.0	60.0	59.3	57.7
288	56.4	56.4	56.6	56.8	57.1	57.9	56.9	56.7
312	56.6	55.5	54.5	55.1	55.9	56.3	56.9	56.3
336	55.9	55.0	54.2	55.8	57.6	57.3	57.1	58.3

DEPTH	2804.0		TILT	0		VOS	5959.65	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.0	58.7	57.6	57.9	58.3	57.5	56.9	55.4
24	54.2	54.7	55.4	55.7	56.2	54.7	53.5	53.9
48	54.5	55.3	56.4	58.0	59.8	60.9	62.2	62.9
72	63.9	63.4	63.1	63.2	63.4	64.5	65.8	65.0
96	64.3	64.5	64.8	66.0	67.5	68.7	70.1	70.1
120	70.4	69.5	68.9	67.7	66.7	66.8	67.0	68.5
144	70.4	71.1	72.0	73.9	76.1	79.3	82.6	84.5
168	86.7	87.4	88.4	88.7	89.1	87.1	86.0	85.9
192	86.0	86.8	88.4	87.5	87.7	87.1	85.8	86.4
216	87.2	88.6	90.3	91.0	93.5	92.4	91.7	90.1
240	88.9	86.3	84.1	81.3	79.3	77.5	74.9	73.1
264	71.6	68.6	66.0	64.3	62.9	61.1	59.5	58.0
288	56.6	56.4	56.4	56.4	56.6	56.7	56.9	56.4
312	56.2	55.3	54.7	55.5	56.4	56.3	56.4	55.7
336	55.2	54.8	54.5	55.9	57.6	57.0	56.6	58.2



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2809.0		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.1	58.7	58.6	58.7	59.1	58.4	57.8	56.7
24	55.7	55.1	54.7	55.2	55.9	54.7	53.8	53.7
48	53.8	54.9	56.2	57.6	59.3	60.4	61.7	62.4
72	63.4	63.1	62.9	63.4	64.1	64.6	65.3	64.9
96	64.6	64.7	65.1	64.7	64.6	66.9	69.6	69.9
120	70.4	69.0	68.0	67.6	67.5	67.1	67.0	68.2
144	69.6	70.4	71.3	73.9	76.9	79.8	83.1	84.7
168	86.5	87.2	88.2	87.8	87.7	87.0	85.8	86.0
192	86.5	86.5	88.7	87.8	87.9	87.0	86.0	87.6
216	89.4	89.0	90.4	91.8	93.5	92.1	91.3	90.0
240	88.9	86.4	84.3	81.9	79.8	77.9	77.6	74.5
264	71.8	69.2	67.0	65.6	64.3	62.8	61.7	59.9
288	58.3	57.1	56.2	56.2	56.4	56.4	56.4	56.2
312	56.2	54.9	53.8	54.6	55.7	56.0	56.4	55.5
336	54.7	55.7	56.9	56.9	57.1	57.9	58.8	58.8

DEPTH	2814.0		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.3	58.5	58.8	59.0	59.3	58.5	57.8	56.4
24	55.2	55.7	56.4	55.6	55.0	53.9	53.0	53.3
48	53.8	54.9	56.2	57.7	59.5	60.4	61.9	62.5
72	63.1	62.8	62.7	62.8	63.1	64.4	65.8	64.7
96	63.9	64.0	64.3	64.4	64.6	66.8	69.4	69.8
120	70.4	69.3	68.4	67.6	67.0	67.1	67.5	68.8
144	70.4	71.0	71.8	74.7	78.6	80.6	82.9	84.5
168	86.5	87.0	87.7	87.9	88.4	86.9	85.8	86.4
192	87.2	85.9	85.5	86.3	86.5	86.8	87.0	87.8
216	88.9	88.9	89.2	90.2	91.1	90.8	90.8	89.4
240	88.2	86.0	84.1	82.1	80.5	78.5	75.9	74.6
264	73.3	70.7	68.2	65.0	62.2	61.7	61.5	60.3
288	59.3	57.9	56.6	56.2	55.9	56.1	56.6	56.2
312	55.9	55.0	54.2	54.6	55.2	55.6	56.2	56.2
336	56.4	56.6	56.9	56.9	57.1	56.2	55.4	56.8

DEPTH	2819.0		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.6	58.8	59.3	59.6	60.0	58.7	57.6	56.8
24	56.2	56.7	57.4	56.4	55.7	54.5	53.5	53.8
48	54.2	55.0	55.9	56.7	57.5	59.3	61.9	62.2
72	62.7	62.3	62.2	62.9	63.9	64.5	65.3	64.5
96	63.9	64.4	65.1	64.7	64.6	66.5	68.7	69.3
120	70.1	69.1	68.2	67.7	67.5	67.3	67.2	68.9
144	70.8	71.3	72.1	74.2	76.6	79.5	82.9	84.4
168	86.3	86.5	87.0	87.2	87.7	87.0	86.3	86.5
192	87.0	85.6	84.6	85.2	86.3	86.8	87.2	88.1
216	89.2	89.6	89.6	90.6	92.0	91.7	91.6	89.3
240	87.5	86.0	84.8	82.9	81.4	79.6	78.6	75.7
264	73.3	70.6	68.4	66.0	63.9	62.2	60.7	60.3
288	60.0	58.0	57.4	56.3	55.4	55.5	55.7	55.6
312	55.7	54.7	54.0	54.6	55.4	55.6	55.9	56.0
336	56.2	56.2	56.4	56.6	56.9	56.7	56.6	57.5



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2824.0		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.7	60.3	60.0	60.1	60.3	59.4	58.8	57.8
24	56.9	57.3	57.8	56.8	55.9	55.1	54.5	54.3
48	54.2	55.0	56.2	57.5	59.1	60.3	61.7	62.0
72	62.4	62.2	62.2	63.0	64.1	64.4	64.8	64.1
96	63.6	63.5	63.6	64.0	64.6	66.4	68.7	69.4
120	70.4	69.0	68.0	67.5	67.2	67.7	68.4	68.9
144	69.6	70.8	72.3	75.3	78.8	80.4	82.2	84.0
168	86.3	86.6	87.2	87.5	87.9	86.9	86.3	85.8
192	85.5	85.1	84.8	84.5	83.6	86.5	88.2	87.6
216	87.2	89.5	91.1	91.5	92.3	91.7	91.3	89.5
240	87.9	86.7	85.8	83.8	82.2	80.3	78.6	76.0
264	73.7	70.9	68.4	66.1	64.1	62.7	61.5	60.0
288	58.8	57.0	55.4	55.6	55.9	55.5	55.4	55.5
312	55.7	54.8	53.0	54.1	55.4	55.1	55.9	56.1
336	56.4	56.4	56.6	56.7	56.9	56.9	57.1	58.8

DEPTH	2829.0		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	87.6	88.7	89.3	86.2	83.3	81.5	80.1	78.1
24	76.5	73.4	71.6	72.1	72.8	71.6	70.6	67.1
48	64.1	64.1	64.3	63.8	63.0	62.5	62.2	62.1
72	62.2	62.5	62.9	63.1	63.6	64.0	64.6	63.8
96	63.1	63.3	63.6	63.9	64.3	66.5	68.9	69.3
120	69.9	69.1	68.4	68.0	67.7	67.7	68.0	68.7
144	69.6	70.6	71.8	74.8	78.6	80.7	83.1	84.4
168	86.0	87.0	88.2	87.7	87.5	86.8	86.0	84.7
192	83.6	84.0	83.4	84.9	85.5	86.9	88.7	88.5
216	88.7	89.9	91.3	92.3	93.5	92.5	91.8	89.8
240	88.2	86.4	84.8	83.5	82.4	81.2	80.7	77.6
264	74.9	71.6	68.7	66.6	64.8	63.3	62.4	60.7
288	59.3	58.1	57.1	56.3	55.7	56.6	55.0	55.1
312	55.4	57.4	59.3	57.3	55.2	55.2	55.4	56.3
336	57.4	58.2	59.3	58.5	57.8	57.6	57.6	86.5

DEPTH	2834.1		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	99.6	100.8	102.5	96.6	92.0	89.9	88.2	87.5
24	87.0	83.9	81.0	79.4	78.1	78.8	79.7	78.2
48	76.9	75.2	73.7	72.5	71.6	71.0	70.6	70.9
72	71.3	71.5	71.8	72.2	72.8	74.9	77.4	76.7
96	76.2	80.6	86.5	89.6	93.2	94.6	96.4	99.2
120	102.8	76.0	70.3	72.2	74.9	77.9	81.0	73.6
144	69.4	70.1	71.1	73.9	77.6	79.5	81.7	84.6
168	86.3	86.7	87.5	87.5	87.7	86.9	86.3	84.9
192	84.1	83.4	83.9	85.3	87.0	88.2	89.9	89.5
216	89.4	90.5	92.0	92.9	94.2	92.7	91.6	89.6
240	87.9	86.3	84.8	84.1	83.6	82.2	80.0	78.0
264	76.4	73.6	70.1	67.9	66.0	64.8	63.9	62.7
288	61.7	158.8	56.6	158.6	64.0	153.9	158.7	158.3
312	158.3	159.9	162.1	158.9	156.3	153.6	151.5	150.1
336	106.1	101.3	98.0	99.0	100.0	97.4	95.1	97.2



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2839.0		TILT	0		VOS	5960.30	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.1	152.2	153.7	152.5	151.8	149.9	106.9	99.5
24	91.6	92.2	93.0	92.6	92.5	89.9	87.7	86.0
48	84.6	83.2	82.2	81.3	80.7	79.6	84.8	83.6
72	82.6	83.9	85.5	130.7	124.6	174.7	91.6	92.1
96	92.9	183.3	101.8	102.5	103.4	107.1	111.4	206.1
120	207.8	213.6	128.4	128.4	128.7	129.0	129.7	129.8
144	130.3	130.2	130.3	129.4	128.7	131.7	135.1	130.2
168	86.5	87.0	87.7	88.1	88.7	89.2	88.2	86.0
192	84.1	85.5	85.5	86.3	88.4	91.5	90.8	90.8
216	91.1	91.6	92.3	92.8	94.7	93.7	93.0	91.4
240	90.1	217.6	87.9	211.8	85.5	204.2	204.3	201.3
264	198.9	197.3	196.3	187.5	180.9	174.0	168.9	166.0
288	164.0	162.1	160.7	159.6	159.0	158.9	159.5	158.9
312	158.7	160.2	162.1	162.0	162.4	156.4	151.3	150.7
336	150.6	152.0	153.9	155.6	157.8	154.7	152.2	151.5

DEPTH	2844.0		TILT	0		VOS	5960.96	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.7	152.3	152.3	151.7	151.5	150.5	149.8	149.4
24	149.4	149.4	149.8	148.3	147.2	147.5	148.2	150.2
48	152.7	153.2	154.2	155.6	157.6	159.6	163.0	164.2
72	167.5	168.4	169.7	172.2	174.9	177.5	180.4	184.5
96	189.3	192.0	197.3	197.2	197.4	202.0	206.9	211.4
120	217.8	220.8	224.5	229.4	235.1	233.5	232.5	231.2
144	230.6	232.1	234.0	239.1	245.0	242.1	239.7	240.5
168	241.7	243.0	244.7	246.2	248.2	247.5	247.7	244.8
192	242.5	245.5	249.0	246.7	245.6	240.1	237.8	236.5
216	235.7	230.3	230.6	229.0	229.6	228.3	227.6	224.8
240	222.6	219.5	217.0	213.3	209.5	207.5	206.4	202.1
264	198.5	197.5	197.0	188.8	183.3	176.1	169.8	166.6
288	163.8	162.7	162.0	160.2	159.0	159.4	160.2	160.1
312	160.4	161.3	162.6	162.7	163.3	157.6	152.3	151.2
336	150.6	152.7	155.4	155.3	155.6	153.3	151.5	151.9

DEPTH	2849.0		TILT	0		VOS	5960.96	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.6	152.3	152.3	151.9	152.0	150.4	149.4	149.2
24	149.4	149.0	149.1	148.1	147.5	148.1	149.1	150.8
48	153.0	153.5	154.6	157.9	161.6	162.5	163.9	164.9
72	166.5	169.2	172.6	174.7	177.4	180.0	183.2	186.2
96	190.0	193.2	197.1	199.3	202.2	205.0	209.0	213.5
120	218.9	221.8	225.4	228.9	234.1	233.6	233.7	232.3
144	231.5	234.0	237.2	241.9	247.4	243.6	240.6	241.7
168	243.4	244.7	246.6	247.7	249.5	248.5	248.6	246.1
192	244.4	247.1	251.5	249.0	246.9	240.6	235.0	234.9
216	235.4	228.8	224.4	226.5	228.3	228.0	228.3	224.9
240	222.2	219.1	216.7	214.1	212.2	208.9	206.1	201.8
264	198.0	195.2	193.0	186.5	180.6	174.2	168.7	166.5
288	164.9	164.5	164.5	163.2	162.3	161.0	160.7	162.0
312	164.2	162.9	162.0	160.8	160.6	156.3	152.6	151.3
336	150.4	152.4	154.9	154.0	153.6	152.7	152.3	152.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2854.0		TILT	0		VOS	5961.29	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	153.0	152.4	152.3	151.5	151.0	149.7	148.8	148.7
24	149.1	149.1	149.4	148.9	148.8	149.4	150.4	151.6
48	153.3	154.7	156.5	158.3	160.0	161.4	163.3	165.3
72	167.8	170.1	172.9	175.1	177.6	180.3	183.5	186.1
96	189.3	192.6	196.4	198.4	200.9	204.4	209.0	210.9
120	213.5	217.8	222.8	227.5	232.5	232.2	232.5	233.4
144	235.0	236.2	237.9	242.0	247.3	242.1	237.9	240.4
168	243.7	245.3	247.6	247.7	248.6	248.2	248.9	246.3
192	244.4	246.6	249.5	248.2	247.3	242.2	236.7	234.1
216	232.2	228.1	222.8	223.1	223.8	224.4	225.4	224.4
240	223.8	222.5	221.9	216.5	211.9	211.1	210.6	202.8
264	198.4	191.8	186.1	183.0	177.1	172.2	168.1	165.9
288	164.2	163.7	163.6	162.5	161.8	160.9	160.4	161.6
312	163.3	163.7	164.6	160.9	157.8	155.0	152.6	151.6
336	151.0	153.2	155.9	154.8	154.3	152.9	152.0	152.3

DEPTH	2859.0		TILT	0		VOS	5961.94	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	153.0	153.1	153.6	152.8	152.3	152.0	152.0	150.8
24	150.1	149.4	149.1	148.9	149.1	150.2	151.7	152.4
48	153.6	156.0	158.9	160.8	163.0	162.9	163.3	165.1
72	167.5	170.7	174.5	176.1	178.1	180.9	184.2	187.4
96	191.3	193.3	195.8	197.8	199.7	203.2	207.4	210.3
120	213.8	218.2	223.2	227.3	232.2	231.7	231.9	233.6
144	236.0	235.6	235.7	241.3	247.0	241.9	237.0	240.2
168	244.1	244.2	245.4	246.3	248.0	247.0	246.3	245.0
192	244.1	246.6	249.9	246.6	244.7	240.9	236.0	233.3
216	231.2	226.7	222.8	222.9	223.5	224.6	226.4	224.9
240	224.0	222.8	222.1	215.0	209.4	210.5	211.1	204.4
264	198.7	191.3	185.2	180.9	177.1	171.8	167.1	165.4
288	164.0	163.1	162.4	161.7	161.4	160.6	160.1	161.6
312	163.6	163.4	163.6	160.3	157.5	154.8	152.3	151.5
336	151.0	152.7	154.6	156.0	157.8	154.3	152.3	152.4

DEPTH	2864.0		TILT	0		VOS	5970.80	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.6	152.7	153.2	152.4	151.9	151.2	150.9	149.9
24	149.3	148.8	148.7	149.4	150.6	151.2	152.2	153.3
48	154.8	157.6	160.9	162.2	163.8	163.3	163.2	166.3
72	170.0	171.9	174.5	176.9	180.0	181.9	184.5	187.2
96	190.6	193.0	197.7	198.6	200.0	202.9	206.7	210.5
120	215.1	218.3	222.5	226.6	231.6	232.0	233.2	233.5
144	234.5	235.7	237.7	242.3	247.7	242.6	238.3	240.5
168	243.4	243.3	243.8	246.0	249.0	247.4	246.9	245.4
192	244.6	244.5	250.0	244.8	243.8	239.9	237.0	233.9
216	231.6	226.6	222.2	223.6	225.1	225.1	225.8	224.8
240	224.5	224.3	224.8	214.4	207.1	208.8	211.2	204.6
264	199.0	189.5	181.3	178.7	176.7	171.8	167.4	165.7
288	164.5	163.1	162.2	161.2	160.6	160.3	160.3	161.7
312	163.5	163.5	163.8	160.3	157.4	154.9	152.9	152.0
336	151.6	152.8	154.5	155.6	157.1	154.1	151.6	151.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2869.0		TILT	0		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.9	152.5	153.5	152.2	151.3	150.6	150.3	149.5
24	149.0	148.8	149.0	149.9	151.3	151.7	152.6	153.5
48	154.8	157.3	160.3	161.4	162.9	164.7	167.1	167.8
72	169.0	172.6	177.1	179.4	182.2	183.1	184.5	186.0
96	188.0	191.6	195.5	197.0	199.0	202.3	206.3	208.5
120	211.3	215.7	220.9	225.1	230.0	228.7	228.0	230.1
144	232.9	235.1	239.3	242.9	247.4	241.8	237.1	240.4
168	244.5	243.7	243.5	243.2	243.5	245.2	247.4	245.9
192	245.1	240.6	240.3	240.1	237.1	237.1	235.8	232.8
216	232.2	226.0	223.2	224.2	225.5	226.9	229.0	227.7
240	227.1	225.3	224.2	215.1	206.3	207.8	209.7	203.6
264	198.5	189.5	181.6	178.6	176.1	170.8	167.4	164.9
288	162.9	161.0	159.7	159.5	159.7	159.1	160.0	161.0
312	162.5	162.3	162.5	158.8	155.7	153.2	151.3	150.8
336	150.6	152.0	153.9	153.7	153.9	152.0	150.6	151.1

DEPTH	2879.1		TILT	0		VOS	5970.80	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	147.4	147.0	147.1	145.6	144.5	144.6	145.1	144.9
24	145.1	145.9	147.1	148.2	150.6	152.5	154.8	155.9
48	157.4	158.3	159.7	162.5	166.4	168.3	170.6	170.9
72	171.6	175.2	179.3	181.6	184.5	183.7	183.3	185.2
96	187.4	192.6	198.7	197.6	197.1	197.9	199.3	200.7
120	202.0	204.8	208.3	214.1	220.8	220.4	220.4	222.4
144	225.1	226.6	228.7	233.9	239.9	238.0	236.6	238.7
168	241.4	240.8	240.8	240.4	240.6	238.8	236.7	233.1
192	230.3	229.8	230.6	229.8	229.3	228.5	228.7	224.5
216	221.5	219.2	216.5	222.1	229.0	227.4	226.4	226.0
240	226.2	225.7	225.8	218.1	211.0	209.7	211.4	203.6
264	197.4	188.5	180.9	173.2	166.7	163.3	157.7	155.4
288	153.5	153.3	153.5	153.6	154.2	154.3	154.5	154.4
312	154.8	154.9	155.5	151.8	148.7	147.4	146.4	147.8
336	149.6	149.9	150.6	149.4	148.7	146.4	144.5	145.7

DEPTH	2889.0		TILT	0		VOS	5971.78	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	139.0	141.1	143.8	140.2	137.1	139.1	141.5	141.0
24	140.9	142.9	145.4	149.1	153.4	153.2	153.4	152.5
48	152.1	155.1	157.9	162.9	168.8	168.7	169.1	172.5
72	176.4	177.1	178.4	180.2	182.5	183.7	185.4	186.0
96	187.0	191.8	197.2	196.3	196.0	196.2	196.9	196.7
120	196.9	200.4	204.6	208.8	212.3	212.9	214.2	218.8
144	224.1	225.6	227.7	230.5	234.1	234.1	234.7	234.0
168	233.7	234.7	236.6	236.9	237.9	234.4	232.5	229.9
192	228.0	224.3	220.9	223.8	223.2	222.5	221.2	219.3
216	218.0	218.9	218.0	222.5	229.6	230.2	231.5	229.4
240	228.0	228.3	229.3	218.4	210.0	207.8	204.6	200.4
264	196.9	183.0	171.3	166.8	162.3	159.5	157.1	152.7
288	149.4	148.1	147.3	147.9	149.0	150.0	151.5	151.9
312	152.7	151.9	151.5	147.8	144.7	144.2	144.1	144.9
336	146.0	146.1	146.7	144.6	143.0	141.4	140.3	139.4



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2899.0		TILT	0		VOS	5971.78	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	137.1	136.2	135.8	137.5	139.6	138.8	138.4	138.0
24	138.0	141.0	144.4	147.2	150.2	151.6	153.4	154.3
48	155.6	156.1	156.9	162.9	168.8	171.2	174.2	174.1
72	174.5	175.9	177.7	179.9	182.8	184.8	187.3	186.6
96	186.5	189.8	193.7	193.9	194.7	194.4	194.7	194.4
120	194.7	199.0	203.9	206.0	208.8	211.3	214.5	217.4
144	220.9	222.1	223.8	227.4	231.8	228.6	226.0	227.9
168	230.2	229.6	229.6	230.7	232.5	230.5	226.5	226.0
192	226.0	223.2	219.6	219.9	221.9	218.7	217.5	216.2
216	215.5	217.9	220.4	224.2	228.4	229.7	231.4	228.7
240	226.7	224.9	223.8	214.8	206.2	208.9	207.5	203.3
264	199.8	183.9	171.3	164.1	158.5	156.0	154.0	149.9
288	146.3	144.1	142.2	144.3	147.0	146.5	146.3	148.3
312	150.8	148.2	146.0	143.9	142.2	142.0	142.2	141.6
336	141.3	142.2	143.5	141.3	139.6	139.4	139.6	138.1

DEPTH	2899.0		TILT	-15		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	131.2	132.0	133.2	133.6	134.4	135.6	137.0	135.7
24	136.6	139.5	143.0	149.1	156.9	156.9	157.4	158.8
48	160.8	163.8	167.3	169.0	171.2	174.5	177.2	177.0
72	177.2	176.8	176.8	179.6	183.0	186.6	191.1	189.5
96	188.4	191.4	195.0	195.4	196.3	194.7	193.2	194.9
120	196.7	192.4	191.1	188.7	186.8	187.3	188.1	187.5
144	187.4	186.7	186.7	192.4	201.1	202.0	203.7	202.1
168	200.9	201.4	202.3	203.4	204.9	200.9	198.9	199.3
192	200.2	200.9	203.6	204.0	204.9	210.0	215.7	219.3
216	223.9	228.9	234.7	240.5	247.3	246.3	246.0	241.9
240	238.2	232.1	226.5	224.5	223.1	222.4	222.2	217.8
264	213.7	209.7	206.2	194.2	180.3	173.8	170.8	168.8
288	167.3	158.9	151.7	148.1	145.5	140.2	134.4	133.3
312	132.5	132.8	133.4	132.7	132.3	131.7	131.4	132.3
336	133.6	134.9	137.4	134.0	133.2	133.2	133.6	132.2

DEPTH	2899.0		TILT	-20		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	131.0	129.4	128.4	127.6	127.1	128.4	130.0	133.7
24	137.6	141.8	147.0	152.7	160.8	161.3	162.1	164.6
48	166.9	168.6	170.8	173.9	176.4	178.1	180.3	179.6
72	179.4	180.1	181.1	183.1	185.5	189.5	193.2	195.1
96	197.6	197.3	197.6	196.2	195.4	194.1	193.2	194.9
120	197.1	190.4	183.3	184.8	186.8	188.7	191.1	185.1
144	180.0	181.2	183.0	187.6	192.4	195.8	199.7	199.1
168	198.8	201.2	204.2	203.2	202.9	201.7	201.0	203.1
192	205.9	206.6	207.7	211.4	215.6	218.9	222.6	228.1
216	234.3	240.9	247.7	252.3	257.7	256.1	254.6	253.5
240	252.9	244.4	236.9	235.3	233.4	232.0	231.0	227.4
264	224.4	219.0	214.0	206.2	197.3	189.6	185.0	186.3
288	188.1	182.1	176.8	169.3	161.4	156.2	153.0	145.7
312	139.2	137.1	135.3	133.6	132.3	131.7	131.4	131.7
336	132.3	134.9	137.7	133.2	129.1	130.4	131.9	131.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2899.0		TILT	-25		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	134.4	132.5	131.0	127.7	126.4	129.1	133.7	133.7
24	134.0	140.2	146.6	159.2	167.6	168.3	169.4	170.3
48	171.6	176.5	182.9	182.4	182.4	182.7	183.3	183.9
72	184.8	185.8	187.2	190.1	193.5	196.6	200.2	201.9
96	204.2	203.7	203.7	201.4	199.5	197.6	196.2	196.0
120	196.3	192.6	188.1	188.6	189.2	190.2	191.3	186.5
144	180.8	182.6	184.5	190.9	198.0	197.1	196.7	201.1
168	205.1	204.2	203.7	203.5	203.6	206.4	209.3	208.0
192	207.2	210.7	214.7	221.2	228.5	232.1	236.2	242.8
216	250.6	255.4	261.1	264.6	269.1	270.0	271.8	265.6
240	260.6	253.3	245.7	243.3	241.6	239.9	239.0	242.2
264	246.0	218.4	210.6	212.0	214.2	204.4	210.1	201.1
288	200.6	201.4	202.8	197.4	191.1	184.8	179.4	175.0
312	171.2	160.8	155.5	151.9	148.7	147.0	145.7	145.1
336	144.4	143.1	142.2	139.5	137.9	137.8	137.9	136.2

DEPTH	2899.0		TILT	-30		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	157.4	149.0	145.7	144.2	143.1	142.7	142.1	143.2
24	144.2	153.5	162.7	168.3	173.3	175.3	177.7	177.1
48	176.8	184.3	191.5	188.9	185.9	191.3	197.5	196.6
72	196.1	198.5	201.5	201.6	202.2	206.1	211.1	214.1
96	217.4	216.0	214.4	213.7	213.6	207.6	206.2	203.5
120	201.0	202.1	203.2	202.9	202.7	199.0	195.4	192.7
144	190.2	188.7	187.5	193.6	202.4	204.9	207.9	209.9
168	211.6	209.7	207.2	210.3	213.3	214.0	215.2	218.2
192	222.0	226.6	235.4	239.3	244.0	247.2	251.0	258.6
216	268.2	291.2	292.4	289.9	277.2	277.0	277.4	286.5
240	294.4	297.8	300.7	304.1	308.7	304.5	302.8	228.8
264	225.8	214.1	199.8	193.9	192.4	186.5	179.7	191.2
288	235.7	231.7	226.1	229.1	230.9	226.0	221.9	217.1
312	212.5	203.8	196.5	195.6	192.0	181.9	173.8	171.5
336	169.8	166.2	163.1	161.2	156.9	155.8	154.5	155.4

DEPTH	2899.0		TILT	-35		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	213.1	209.8	208.1	206.9	203.5	202.2	201.2	218.1
24	243.4	245.3	250.3	250.0	250.1	195.1	190.2	190.0
48	189.8	200.3	210.5	216.7	222.5	262.1	271.1	275.7
72	292.6	297.1	302.1	305.6	310.5	314.1	320.3	321.1
96	322.5	325.1	328.1	331.8	337.2	339.9	345.0	349.1
120	354.1	349.4	350.1	350.0	350.6	355.0	360.1	359.7
144	193.2	359.6	196.3	208.8	361.1	212.7	214.0	214.5
168	215.7	220.6	226.0	355.2	355.7	355.3	355.8	352.6
192	350.2	343.1	345.0	329.0	333.3	331.0	329.4	295.5
216	291.6	285.1	257.2	259.5	262.4	258.3	254.6	259.8
240	262.8	262.8	263.3	268.3	270.0	273.1	279.5	237.0
264	203.2	202.0	194.8	186.3	182.0	178.1	174.7	210.7
288	288.4	289.8	291.8	266.8	273.7	261.7	273.2	273.4
312	274.1	257.8	258.1	241.3	250.7	240.2	237.3	233.2
336	229.6	228.9	228.7	228.9	229.6	228.0	227.0	220.6



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2899.0		TILT	-40		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	245.2	250.6	247.6	255.9	280.2	264.5	282.3	257.8
24	278.9	276.2	287.3	290.0	293.3	266.0	299.7	263.4
48	291.3	294.8	298.9	280.1	300.5	269.2	303.8	278.7
72	296.7	301.1	306.2	296.3	304.2	289.5	304.7	309.1
96	314.2	312.8	311.8	317.7	320.6	318.1	316.2	316.5
120	317.4	328.4	337.5	338.2	339.5	341.2	343.9	343.6
144	343.9	345.6	347.9	348.8	350.3	350.0	350.3	345.7
168	341.5	340.7	340.4	335.7	331.7	328.8	326.6	314.6
192	305.8	305.5	296.1	293.8	290.9	290.5	290.5	283.0
216	262.1	260.5	252.4	247.5	243.6	244.2	245.2	249.5
240	253.7	255.4	257.9	252.7	249.0	252.1	256.1	242.1
264	206.0	196.8	192.3	186.2	179.4	179.2	179.4	171.0
288	172.5	217.9	290.8	288.7	291.4	284.5	293.7	295.1
312	296.9	278.0	280.5	268.0	263.6	258.6	255.2	249.8
336	244.9	244.3	244.0	245.2	246.8	243.9	243.2	244.0

DEPTH	2899.0		TILT	-45		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	278.6	272.6	287.7	276.0	293.4	287.0	292.7	253.7
24	296.6	286.5	289.2	285.4	282.1	273.2	282.8	272.4
48	282.4	278.3	274.7	274.4	281.7	242.0	283.9	243.6
72	272.5	266.4	260.9	260.9	254.9	262.8	284.9	278.2
96	294.3	283.6	302.9	288.6	295.2	294.3	293.8	304.2
120	316.4	318.2	321.3	322.5	324.2	323.4	323.1	323.9
144	325.2	327.8	330.9	329.7	329.1	329.9	331.2	330.1
168	329.5	325.5	322.0	319.3	317.0	310.4	305.1	300.6
192	296.6	285.9	279.7	273.3	258.8	261.0	263.7	262.0
216	255.6	245.6	247.1	244.5	242.1	240.8	239.0	240.6
240	241.8	241.4	241.4	240.7	240.5	242.5	245.0	238.4
264	216.7	196.8	191.4	179.7	174.9	174.2	173.8	171.5
288	169.3	166.3	163.6	182.6	283.9	220.7	281.1	281.1
312	281.4	277.7	283.1	277.6	284.9	275.5	288.8	281.2
336	274.3	271.6	269.4	266.3	263.7	267.2	278.2	278.2

DEPTH	2899.0		TILT	-50		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	283.5	281.0	285.6	280.3	282.8	280.1	279.6	185.3
24	276.1	271.5	267.2	266.6	266.2	258.1	261.8	258.2
48	254.9	251.9	249.2	244.6	247.3	198.2	244.5	211.2
72	240.4	237.5	235.1	235.0	234.7	247.5	256.2	251.2
96	249.0	255.2	261.9	264.4	263.0	270.1	278.8	286.2
120	293.4	296.3	299.1	299.7	300.8	301.3	302.2	303.3
144	304.7	305.2	306.1	305.6	305.4	306.5	307.9	304.7
168	301.9	297.8	294.1	293.8	293.8	288.3	282.4	279.2
192	276.4	269.1	266.5	257.9	254.5	252.3	246.7	247.6
216	248.9	247.3	243.9	241.1	244.3	239.2	234.7	234.3
240	234.0	229.8	225.9	227.0	228.4	230.3	232.6	234.3
264	238.3	193.2	185.2	182.1	175.4	172.3	169.7	167.1
288	166.1	164.8	163.7	163.1	162.3	161.1	162.6	191.7
312	269.4	230.0	277.8	197.5	278.9	233.3	288.2	288.1
336	288.4	289.3	290.6	291.5	292.9	284.2	288.6	285.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2899.0		TILT	-55		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	276.8	229.9	278.9	226.7	268.9	223.2	262.3	183.2
24	257.1	237.5	254.5	248.4	242.8	202.7	240.7	200.1
48	244.3	227.1	212.5	209.9	218.8	199.1	215.6	211.0
72	224.7	234.3	241.0	241.4	241.6	238.6	235.1	238.2
96	240.7	245.5	250.6	253.8	260.9	261.6	262.6	265.2
120	266.1	271.5	271.1	275.0	279.3	281.6	284.2	284.6
144	285.6	285.9	286.7	286.0	285.6	283.9	280.7	278.8
168	277.1	271.8	266.9	264.4	261.9	259.1	256.6	257.0
192	257.6	248.5	241.1	241.5	237.4	239.5	241.4	242.5
216	243.9	239.1	238.1	233.2	231.2	230.8	231.9	226.4
240	223.8	221.7	220.1	219.1	218.5	222.4	227.8	230.8
264	234.5	212.9	180.4	187.7	191.2	172.2	168.8	167.2
288	166.1	165.7	165.4	163.8	162.3	160.4	159.6	156.1
312	154.1	153.5	154.5	175.1	152.4	189.5	257.1	262.4
336	268.0	273.2	278.8	279.2	280.0	235.3	278.9	277.6

DEPTH	2899.0		TILT	-60		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	165.1	157.4	150.5	160.2	147.8	161.4	156.9	179.9
24	190.9	183.3	164.7	165.8	166.8	185.3	165.0	185.2
48	169.7	172.9	176.4	176.6	170.0	187.0	185.6	208.3
72	224.0	229.4	234.9	236.5	238.3	239.1	240.0	241.0
96	242.1	239.0	241.8	243.9	246.4	244.3	242.7	244.4
120	246.3	253.0	260.4	263.4	266.9	266.6	266.5	265.6
144	265.0	264.9	265.1	265.4	265.8	265.9	266.2	264.4
168	262.8	257.5	252.8	255.2	258.0	245.3	239.0	237.1
192	235.8	235.8	233.8	228.5	226.9	227.7	229.0	226.5
216	224.4	222.9	223.0	217.7	225.2	220.8	216.7	216.6
240	216.7	215.0	218.1	216.1	215.6	216.2	218.5	220.8
264	229.1	208.8	198.0	185.1	194.8	186.0	173.0	166.4
288	161.3	163.9	167.3	166.3	165.6	163.4	167.4	162.7
312	159.1	160.3	165.1	153.3	151.3	150.4	150.2	150.1
336	149.9	149.5	149.2	153.5	158.0	160.4	157.7	161.3

DEPTH	2899.0		TILT	-65		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	165.3	157.0	151.7	151.7	151.7	150.8	151.8	177.0
24	161.2	162.1	162.3	161.9	161.5	161.0	156.9	160.5
48	161.2	162.3	163.6	167.0	180.2	186.5	201.7	215.7
72	221.0	224.8	229.2	228.5	228.1	228.5	229.1	229.6
96	230.5	216.5	229.9	214.5	217.0	222.7	230.6	234.6
120	241.8	241.3	241.8	243.3	245.0	249.0	254.5	253.0
144	251.8	249.7	247.8	245.8	243.9	242.2	240.7	237.9
168	235.1	235.2	235.4	232.1	229.1	225.5	223.2	221.9
192	220.9	220.4	222.0	220.2	218.5	214.3	214.9	213.3
216	211.7	210.3	207.9	206.0	202.6	198.9	197.2	197.6
240	197.2	202.2	205.6	206.3	209.8	211.5	212.8	216.6
264	219.6	210.2	194.2	194.1	194.1	184.8	177.0	180.7
288	182.6	179.2	173.3	174.8	175.6	169.4	159.9	161.7
312	163.2	161.6	156.5	157.9	159.4	152.7	151.6	153.2
336	160.3	152.4	151.3	150.4	149.5	149.2	149.0	152.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2909.0		TILT	0		VOS	5971.78	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	137.4	137.2	137.4	137.7	138.4	135.8	133.9	134.8
24	136.1	137.8	141.2	145.5	150.5	151.6	153.2	154.7
48	156.2	158.2	160.4	163.5	167.2	169.8	172.6	173.0
72	173.9	175.2	177.1	179.0	181.6	184.0	187.0	188.5
96	190.5	190.1	193.7	193.5	193.7	194.1	195.0	194.7
120	195.0	197.7	201.1	203.8	207.2	209.7	213.2	215.8
144	219.0	220.6	222.8	225.5	228.9	226.2	224.1	225.6
168	227.8	227.2	227.3	226.9	227.0	226.9	226.7	223.5
192	220.9	221.0	222.2	219.2	217.4	214.7	210.7	212.5
216	214.8	218.5	222.8	225.4	231.2	230.4	230.2	226.2
240	222.8	220.3	218.4	212.6	206.5	209.7	213.6	208.7
264	204.9	187.2	173.0	166.3	160.4	156.6	153.4	148.9
288	145.1	142.6	140.6	140.2	140.0	142.5	146.0	145.4
312	145.2	144.3	143.9	140.2	137.1	135.7	134.8	137.0
336	139.2	140.7	142.6	140.5	138.8	136.0	133.9	135.4

DEPTH	2918.9		TILT	60		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	116.8	117.3	117.9	118.0	118.1	116.5	115.1	113.9
24	112.9	113.7	114.6	113.0	111.4	110.0	108.7	108.0
48	107.4	109.9	111.9	112.7	113.6	120.1	123.4	124.9
72	126.5	125.9	125.4	126.6	127.7	129.3	131.1	129.6
96	128.4	129.0	129.7	132.0	134.5	137.5	140.8	140.2
120	139.7	138.1	136.3	134.8	133.4	133.4	133.6	136.0
144	138.6	142.6	147.4	146.6	146.4	147.0	147.7	151.3
168	153.7	153.2	152.9	156.6	160.5	157.8	154.8	156.5
192	158.4	161.1	163.5	165.2	165.8	162.4	159.2	158.5
216	157.7	163.8	169.6	171.0	171.4	170.1	168.4	168.0
240	167.5	163.3	158.1	155.0	152.2	148.9	145.8	143.3
264	140.9	136.2	132.0	129.9	127.9	125.5	122.8	120.6
288	118.9	116.4	110.3	110.9	111.3	110.9	110.7	110.9
312	111.1	109.5	109.0	107.0	105.2	110.8	111.0	111.1
336	111.3	111.1	111.0	112.2	113.5	113.4	113.4	115.0

DEPTH	2918.9		TILT	55		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	115.0	114.7	114.4	114.5	114.6	114.2	113.6	112.8
24	111.9	111.7	111.6	111.1	110.7	111.2	111.9	110.8
48	109.7	110.0	110.3	110.0	109.7	109.3	108.7	108.7
72	108.7	108.7	108.7	110.1	110.9	111.7	112.6	111.2
96	109.9	110.3	110.7	111.4	112.2	115.8	119.5	120.7
120	122.1	120.2	118.5	117.7	117.1	117.6	118.3	120.5
144	123.2	124.1	125.2	129.6	133.9	138.4	144.1	146.6
168	148.7	148.2	147.7	149.6	151.6	150.4	151.3	149.6
192	148.1	148.6	149.3	150.8	152.0	148.9	146.1	147.8
216	149.7	149.9	150.9	153.7	155.8	155.4	155.1	153.9
240	152.9	149.5	146.4	141.9	137.1	136.1	134.7	131.3
264	127.7	123.1	118.4	115.3	112.3	110.4	107.8	106.8
288	105.8	104.5	103.2	104.1	105.2	106.4	104.5	105.4
312	106.5	106.7	107.1	107.4	107.8	108.8	109.9	109.6
336	109.4	109.3	109.4	108.3	107.4	108.0	108.7	111.7



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2918.9		TILT	50		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	121.0	120.1	119.4	119.6	120.0	118.8	117.7	117.5
24	117.4	116.7	115.8	115.6	115.5	114.4	113.6	113.2
48	112.9	112.7	112.6	111.7	110.9	110.6	110.4	110.5
72	110.8	110.8	111.0	111.2	111.5	111.6	111.9	111.9
96	111.9	112.7	113.6	112.8	112.3	114.2	116.3	114.1
120	111.9	111.2	109.7	111.5	112.9	113.6	114.5	112.0
144	108.4	109.0	109.7	116.2	122.3	125.2	128.4	131.3
168	134.2	135.1	136.1	136.7	137.3	135.4	133.7	134.0
192	134.5	133.2	131.7	133.1	134.2	134.8	135.3	136.6
216	138.1	138.4	139.2	142.2	144.8	143.3	141.7	139.3
240	137.0	134.1	131.6	129.0	126.5	124.5	122.7	119.6
264	116.7	113.0	110.6	109.9	109.4	108.8	108.4	109.3
288	110.3	111.1	111.4	112.5	112.1	112.6	112.6	113.3
312	114.2	113.8	113.6	114.1	114.8	116.2	117.7	118.6
336	119.7	118.3	117.1	117.5	118.1	119.6	121.3	118.9

DEPTH	2918.9		TILT	45		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	126.5	126.8	127.1	125.5	123.9	123.1	122.6	121.7
24	121.0	119.5	118.4	118.0	117.7	117.7	117.7	117.0
48	116.5	115.6	114.8	114.0	113.2	112.8	112.6	113.6
72	114.8	114.8	114.8	115.6	116.5	115.2	114.2	114.8
96	115.5	117.9	120.3	120.4	120.6	122.0	123.6	122.2
120	121.0	119.5	118.4	118.1	118.1	118.1	118.4	117.0
144	115.8	117.0	118.3	116.7	115.2	117.0	119.0	119.8
168	121.8	122.9	124.1	123.4	122.9	122.4	121.8	120.0
192	117.7	118.0	117.1	120.5	122.2	123.8	125.6	125.5
216	125.5	127.0	128.9	130.1	131.1	130.2	129.5	126.9
240	124.4	122.0	119.9	119.7	118.6	117.9	116.1	115.7
264	115.5	116.5	117.7	117.8	118.1	118.6	119.4	121.6
288	124.2	122.3	121.9	123.0	124.2	123.4	121.3	122.2
312	123.2	124.6	126.1	127.2	128.4	127.8	127.4	126.8
336	126.5	125.7	125.2	125.9	126.8	125.9	125.2	125.7

DEPTH	2918.9		TILT	40		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	131.6	131.8	132.3	130.4	128.7	127.6	126.8	125.1
24	123.9	123.4	123.2	123.8	124.5	122.6	121.0	121.5
48	122.3	122.2	122.3	122.6	123.1	124.4	125.7	125.5
72	125.2	125.3	125.4	125.5	126.9	125.5	124.9	124.7
96	123.6	125.1	126.7	127.3	128.2	128.5	129.0	130.9
120	132.6	132.8	134.2	132.1	130.3	129.6	129.0	127.6
144	126.5	127.8	129.4	128.3	127.4	126.5	125.8	125.3
168	126.5	124.9	123.6	122.6	121.9	122.0	119.7	119.3
192	119.0	120.9	117.7	120.4	117.1	122.7	124.1	124.2
216	124.4	123.2	121.3	122.9	121.6	122.2	122.9	123.8
240	124.8	125.7	124.3	126.8	125.5	127.9	127.4	128.6
264	130.0	131.5	133.2	132.8	132.6	132.3	132.3	132.9
288	133.9	135.7	136.4	135.2	134.2	135.8	137.7	137.9
312	138.4	136.6	135.2	135.5	136.1	134.7	133.5	133.1
336	132.9	131.9	130.6	131.3	132.3	131.2	130.3	130.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2918.9		TILT	35		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	150.3	146.5	142.8	143.4	143.7	141.1	137.7	137.8
24	138.1	139.0	140.3	140.1	140.2	139.6	139.4	139.4
48	139.7	137.0	134.5	135.3	136.2	139.5	142.6	142.2
72	141.6	141.9	141.8	141.1	140.6	141.4	144.2	142.8
96	132.3	141.1	140.6	136.2	132.8	135.1	138.1	140.4
120	143.1	143.6	144.2	143.2	142.6	144.0	145.8	146.5
144	147.4	146.4	145.8	145.2	144.9	143.5	142.4	142.0
168	142.4	137.9	134.0	135.1	136.1	137.0	138.1	137.1
192	136.4	136.8	137.7	139.0	141.0	137.8	137.7	138.6
216	139.7	140.5	141.5	141.2	141.3	144.1	147.4	146.0
240	144.8	143.8	145.5	145.2	145.2	146.4	148.1	148.7
264	149.7	150.0	150.6	151.3	152.2	153.1	154.2	154.2
288	154.5	153.2	152.2	151.9	151.9	152.9	153.6	151.4
312	149.2	150.4	151.9	151.3	151.0	150.3	150.0	148.3
336	146.4	149.2	152.2	151.1	150.3	149.8	149.7	149.8

DEPTH	2918.9		TILT	30		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.2	169.4	165.9	168.5	171.3	168.4	170.6	167.0
24	163.5	162.5	161.2	161.5	161.6	158.8	155.5	159.7
48	164.5	161.2	158.7	158.7	159.0	159.8	160.8	162.1
72	163.8	161.6	159.7	158.7	158.1	162.5	167.1	166.1
96	164.9	164.5	164.2	163.9	163.9	165.6	167.7	168.3
120	170.7	163.4	157.1	158.1	159.3	155.9	152.9	155.6
144	158.7	160.6	162.6	158.9	155.1	156.5	158.1	157.6
168	157.4	155.8	154.1	155.9	157.4	158.3	159.2	160.7
192	162.5	165.8	169.8	168.3	171.5	165.9	172.6	171.8
216	171.3	165.3	168.0	166.5	169.3	169.7	170.0	171.0
240	171.9	171.3	171.9	173.4	175.1	173.9	174.5	175.0
264	175.8	175.2	174.8	174.7	175.0	172.5	170.1	174.4
288	179.0	174.9	172.5	171.7	170.9	173.8	180.9	175.8
312	171.0	171.1	171.1	170.8	170.4	172.1	173.9	171.0
336	171.9	172.4	173.2	175.6	178.4	175.1	172.2	172.5

DEPTH	2918.9		TILT	25		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.4	168.2	168.4	167.5	167.1	165.8	164.8	164.6
24	164.8	164.1	163.9	162.7	161.9	163.0	164.5	166.4
48	168.6	169.3	170.3	172.4	174.8	176.5	178.1	179.5
72	181.3	183.0	185.0	187.4	190.0	192.0	194.5	195.4
96	196.7	196.2	196.0	195.2	194.7	196.2	197.9	197.6
120	199.2	198.8	197.7	200.2	203.2	202.6	202.5	206.7
144	211.6	203.5	196.4	201.2	206.7	204.9	203.5	203.3
168	203.5	204.9	206.7	202.7	199.4	204.1	205.8	204.9
192	204.5	202.8	201.3	200.5	200.6	205.7	208.4	208.3
216	208.7	205.5	202.8	205.9	214.8	215.2	216.1	213.7
240	211.8	205.0	207.7	208.6	210.0	206.3	208.0	209.9
264	212.2	204.6	197.8	196.5	195.4	191.0	186.5	183.3
288	180.8	179.3	178.4	176.8	175.5	175.9	176.8	176.7
312	177.0	177.9	179.3	179.7	180.6	173.8	168.2	166.9
336	165.9	168.3	171.1	170.5	170.4	168.9	167.8	167.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2918.9		TILT	20		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	162.4	162.5	163.1	162.2	161.6	160.9	160.6	159.5
24	158.8	158.3	158.2	159.1	160.3	160.9	161.9	162.9
48	164.4	167.1	170.2	171.6	173.5	173.4	173.7	175.7
72	178.2	181.1	184.6	186.5	189.0	191.8	195.1	198.3
96	202.0	205.6	209.7	211.0	212.9	216.1	220.0	223.3
120	227.4	230.3	233.8	238.9	244.8	242.8	241.2	240.3
144	239.7	242.3	245.4	251.4	258.3	255.0	252.5	254.6
168	257.4	257.1	257.7	255.1	252.9	254.2	260.9	257.6
192	255.1	253.5	257.0	251.9	248.3	248.1	253.8	251.1
216	249.0	243.6	243.5	239.7	239.3	237.7	236.7	235.0
240	233.8	232.2	231.2	226.5	222.2	220.7	219.6	215.0
264	210.9	208.3	206.3	196.5	188.4	182.9	178.0	176.1
288	174.5	173.3	172.6	171.8	171.5	170.8	170.4	172.0
312	174.0	173.9	174.1	170.5	167.5	164.8	162.6	161.7
336	161.2	162.6	164.4	165.5	167.1	164.0	161.3	161.7

DEPTH	2918.9		TILT	15		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.2	151.9	151.9	148.1	144.8	146.2	148.1	147.7
24	147.7	147.9	148.4	152.8	155.8	158.1	161.0	161.4
48	162.3	163.7	165.4	168.4	172.0	173.0	174.5	175.1
72	176.1	179.7	183.8	186.2	189.0	189.7	190.8	192.6
96	194.9	198.9	203.6	204.4	205.8	209.7	214.0	217.7
120	222.0	226.1	231.0	235.3	240.5	240.1	240.3	241.7
144	243.8	244.4	245.7	250.6	256.0	250.7	246.1	248.9
168	252.3	253.8	256.0	256.5	257.6	257.4	257.5	254.9
192	253.0	255.5	259.9	257.9	257.7	250.7	244.8	241.9
216	239.7	234.8	230.6	230.7	231.4	232.5	234.2	232.7
240	231.9	230.7	230.0	221.7	214.5	216.6	218.6	211.8
264	205.8	196.2	187.9	183.5	179.7	173.1	169.7	165.8
288	162.6	161.9	161.6	160.8	160.5	160.5	160.9	161.2
312	161.8	162.0	162.5	157.9	153.9	152.4	151.4	152.9
336	154.9	155.3	156.1	154.8	153.9	150.4	147.4	149.6

DEPTH	2918.9		TILT	10		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	138.4	139.8	141.6	140.9	140.6	140.4	140.6	139.6
24	139.0	142.8	147.2	150.8	154.7	155.0	155.7	155.4
48	155.5	156.9	158.7	164.6	171.3	171.3	171.7	174.9
72	178.6	179.7	181.3	183.3	185.8	186.5	187.7	188.6
96	190.0	195.1	201.0	200.0	199.5	200.0	201.2	201.6
120	202.6	206.1	210.2	216.2	223.1	222.7	222.9	225.3
144	228.5	230.1	232.2	238.4	245.7	242.8	240.6	242.9
168	246.0	245.5	245.7	246.0	247.0	243.6	242.8	237.9
192	233.8	234.4	235.0	233.9	232.8	232.4	232.5	227.8
216	223.8	221.6	219.0	225.3	232.3	230.8	229.9	229.4
240	229.6	229.2	229.3	221.9	215.4	212.6	212.6	205.9
264	200.2	185.9	174.3	168.8	164.2	161.5	159.3	154.4
288	150.5	148.7	147.3	148.7	150.5	150.6	151.9	152.8
312	154.5	153.5	153.5	148.2	143.5	144.3	145.4	144.5
336	144.1	145.5	147.4	145.6	144.2	142.7	141.6	139.8



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2919.0		TILT	0		VOS	5971.78	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	133.2	134.1	135.5	136.3	137.5	133.8	130.3	129.6
24	129.5	133.9	139.6	144.8	153.1	153.8	155.0	154.9
48	155.3	159.0	163.9	167.3	171.3	172.0	173.2	172.7
72	172.6	174.1	176.1	177.9	180.3	182.5	185.4	183.0
96	181.2	186.9	193.4	193.5	194.0	193.3	193.1	192.8
120	193.1	196.0	199.2	201.3	203.9	207.1	211.0	210.7
144	211.0	215.1	220.0	221.0	227.7	222.0	218.0	220.8
168	224.8	224.5	224.8	224.9	225.6	224.0	223.2	220.7
192	218.7	216.7	216.1	217.2	218.7	214.4	211.3	212.8
216	214.8	218.8	223.5	227.5	232.8	233.4	234.7	228.3
240	222.8	220.5	218.7	214.0	210.0	208.1	207.2	205.9
264	205.2	190.0	176.4	169.6	163.6	157.8	153.1	148.6
288	144.7	142.1	139.9	139.4	139.2	137.7	143.0	142.6
312	142.5	141.9	141.8	138.2	135.1	135.6	136.4	134.3
336	132.6	136.4	140.9	135.6	131.0	131.1	131.6	132.2

DEPTH	2929.1		TILT	0		VOS	5972.44	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	129.4	130.6	132.3	131.3	130.7	130.8	131.3	130.6
24	130.3	134.4	139.6	145.0	151.2	151.9	153.1	153.8
48	155.0	158.8	163.3	166.0	169.1	171.4	174.2	173.3
72	172.9	173.2	173.9	176.0	178.7	182.1	186.4	183.4
96	180.9	185.3	189.2	190.4	192.1	192.2	192.8	192.3
120	192.4	194.1	196.3	193.7	191.8	195.4	199.7	201.3
144	203.5	204.3	205.6	212.4	218.7	213.5	209.1	213.0
168	217.7	218.7	220.3	218.9	218.1	217.7	221.3	216.0
192	211.6	212.4	213.6	210.3	208.1	211.8	211.0	212.8
216	215.2	219.9	224.5	230.5	237.6	236.6	236.3	230.1
240	225.1	223.2	221.9	216.4	211.7	210.7	210.7	208.0
264	206.0	192.6	180.9	172.2	164.6	159.1	154.4	150.4
288	146.4	143.5	141.2	139.4	138.0	134.0	129.4	129.2
312	129.4	130.5	131.9	132.4	133.2	132.6	132.3	131.6
336	131.3	132.7	134.5	133.0	131.9	131.1	130.7	129.8

DEPTH	2939.0		TILT	0		VOS	5972.44	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	123.0	122.2	121.7	122.6	123.9	123.7	123.9	127.1
24	131.3	134.2	137.7	144.2	151.8	152.0	152.3	154.1
48	156.3	159.1	162.2	164.7	167.5	170.2	173.6	172.7
72	172.3	172.7	173.6	175.2	177.4	180.8	184.8	183.2
96	182.2	186.5	191.5	191.4	191.8	191.1	190.8	190.5
120	190.7	190.4	190.3	187.3	184.8	184.8	185.4	187.1
144	189.4	194.4	200.1	200.1	205.9	207.0	208.6	206.5
168	204.9	206.7	209.1	208.6	208.8	207.1	207.2	205.1
192	203.7	204.6	205.9	207.0	205.9	206.8	210.7	211.5
216	212.7	220.3	228.9	232.7	237.6	235.3	233.7	228.5
240	224.1	222.2	220.9	216.8	212.9	212.4	212.3	208.4
264	205.2	195.9	186.5	176.8	169.7	166.1	163.0	159.5
288	156.6	152.7	149.4	145.5	141.9	137.6	133.3	130.1
312	126.8	125.8	125.5	125.1	124.7	125.1	125.2	125.6
336	125.9	128.5	131.6	126.6	121.7	123.7	126.2	124.4



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2949.0		TILT	0		VOS	5972.44	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	120.7	119.6	118.8	118.1	119.2	119.2	122.3	125.3
24	128.7	133.4	138.3	144.5	151.8	151.7	152.1	154.1
48	156.6	159.1	162.0	164.5	167.5	169.0	171.0	170.6
72	170.7	170.9	171.6	173.9	176.8	180.4	184.8	183.2
96	182.2	185.1	188.6	189.2	189.8	188.3	186.8	188.7
120	191.2	186.0	181.6	179.8	180.3	180.9	181.6	180.5
144	179.7	178.0	176.3	185.8	196.9	197.9	199.2	197.1
168	195.3	197.3	199.8	198.7	198.2	195.8	195.7	194.3
192	193.4	196.0	198.2	198.7	203.7	204.8	206.3	210.3
216	214.4	220.6	227.7	233.7	240.5	238.0	236.3	232.1
240	228.6	224.2	220.6	217.7	215.5	214.5	214.5	210.1
264	206.3	202.3	198.1	187.6	178.4	171.5	165.6	166.0
288	166.8	160.5	154.7	150.2	146.4	144.7	139.3	137.4
312	135.1	131.6	128.7	128.2	128.1	127.3	126.8	126.5
336	126.5	127.4	128.7	126.3	124.3	124.1	124.3	122.3

DEPTH	2959.0		TILT	0		VOS	5972.77	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	122.4	120.3	118.5	116.9	115.6	118.2	120.8	121.1
24	121.8	127.3	133.4	141.4	150.9	152.4	154.4	155.7
48	157.5	159.3	161.3	163.8	166.0	168.0	169.8	169.5
72	169.0	169.9	170.6	172.9	175.0	178.5	182.2	182.7
96	183.5	185.7	188.3	185.6	183.8	183.6	183.8	185.4
120	187.3	180.3	174.9	176.0	177.7	178.5	179.7	177.3
144	175.4	173.9	172.9	178.1	184.1	187.4	191.2	189.0
168	187.3	189.8	192.8	194.1	196.0	192.4	187.6	190.2
192	193.1	194.0	196.6	197.4	200.5	204.4	208.8	213.6
216	219.0	221.8	227.0	233.5	240.5	239.0	237.9	233.8
240	230.2	224.4	219.7	218.3	217.4	215.3	214.9	210.5
264	206.9	203.2	200.2	190.6	182.0	176.5	171.7	173.6
288	176.1	171.0	166.0	162.6	159.2	153.1	149.4	145.9
312	142.8	140.0	137.7	135.3	133.2	132.4	132.0	131.6
336	131.6	129.8	128.4	127.3	125.6	125.6	125.3	123.8

DEPTH	2969.1		TILT	0		VOS	5972.77	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	128.4	125.8	123.3	122.9	122.2	122.5	122.6	123.6
24	124.6	132.0	141.6	146.5	152.1	152.7	153.7	154.6
48	156.0	160.1	164.9	164.4	164.3	165.8	167.8	168.0
72	168.4	169.5	171.0	173.8	177.1	179.2	181.9	182.9
96	184.5	185.5	187.0	184.7	182.9	181.8	181.3	182.3
120	183.9	177.9	172.6	171.6	171.0	173.0	175.5	168.6
144	164.3	166.7	169.7	177.0	185.2	186.6	188.6	187.5
168	186.9	189.2	192.0	191.0	190.4	189.1	188.2	190.7
192	193.8	194.4	195.4	198.6	202.1	206.0	212.0	215.3
216	220.6	223.7	228.6	233.1	240.2	239.7	239.9	234.3
240	229.6	224.6	220.3	219.2	218.7	217.1	216.2	211.3
264	207.2	204.2	201.8	193.8	187.0	180.3	174.5	177.6
288	181.3	177.2	173.7	169.2	165.9	161.1	156.9	154.3
312	152.1	147.3	143.2	140.5	138.4	137.4	136.8	134.9
336	133.2	132.9	132.9	131.6	130.7	129.4	128.4	128.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	2979.0		TILT	0		VOS	5972.77	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	138.4	136.7	135.5	133.5	132.0	132.0	132.4	130.5
24	129.1	134.6	140.9	146.1	152.1	152.7	153.7	154.0
48	154.7	159.9	165.9	165.0	164.2	165.0	165.7	166.5
72	167.5	168.4	169.7	172.5	175.7	178.6	181.9	182.9
96	184.5	184.9	185.7	183.1	180.9	179.2	178.1	178.9
120	180.3	175.0	171.3	171.0	171.7	172.5	173.9	169.9
144	166.5	166.4	166.9	173.6	181.1	179.3	177.7	182.5
168	188.0	186.9	186.4	188.2	190.5	191.1	192.8	192.5
192	192.8	194.0	195.7	199.5	204.0	208.0	213.0	216.5
216	220.4	225.4	231.1	235.1	239.7	239.6	239.6	236.6
240	233.7	228.0	222.6	221.1	219.6	218.2	217.4	214.9
264	213.0	208.9	205.6	199.1	194.1	188.5	182.9	183.5
288	183.8	182.4	181.6	176.6	172.3	168.8	165.9	162.4
312	159.5	156.2	153.1	150.8	148.9	145.8	143.2	142.6
336	142.5	140.9	139.6	139.0	138.7	137.0	135.8	136.9

DEPTH	2989.0		TILT	0		VOS	5973.43	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	146.4	144.9	143.8	143.6	141.9	142.5	143.5	143.0
24	144.8	145.2	146.1	147.4	149.3	151.6	154.1	154.1
48	153.7	159.4	165.6	163.2	161.1	163.7	166.5	166.4
72	166.6	167.3	168.5	171.5	175.2	177.4	181.3	183.2
96	185.8	185.0	184.8	182.6	181.0	179.1	177.8	177.0
120	176.8	175.4	174.6	173.4	172.6	170.8	169.4	166.9
144	164.8	164.3	164.3	170.5	177.8	177.9	180.0	181.9
168	184.4	182.2	180.6	182.7	184.9	186.3	189.3	187.6
192	186.4	190.6	195.1	200.5	206.9	210.1	214.3	218.7
216	223.9	229.0	235.1	238.0	241.8	240.8	240.5	238.3
240	236.7	228.9	221.9	218.9	216.5	217.1	217.8	215.2
264	213.3	200.3	189.4	191.1	196.7	172.2	150.3	167.0
288	188.3	187.1	186.4	183.1	180.0	176.2	173.0	170.9
312	167.5	165.7	164.3	161.7	159.2	156.5	154.1	152.9
336	152.1	151.5	151.2	151.1	151.5	149.8	148.6	147.3

DEPTH	2999.0		TILT	0		VOS	5974.08	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	156.3	155.7	155.4	153.9	154.1	153.7	153.8	154.4
24	155.0	153.2	151.8	151.8	152.2	152.0	154.7	154.9
48	156.0	160.2	164.0	164.3	165.0	168.2	172.0	171.3
72	171.0	172.4	174.2	174.6	175.5	178.8	182.9	184.4
96	186.4	185.5	185.1	183.4	182.3	180.5	179.4	176.4
120	173.9	174.5	175.5	175.6	176.2	172.4	169.4	166.5
144	163.8	164.4	165.3	169.2	175.2	177.2	179.8	181.9
168	184.3	181.3	178.9	181.8	185.3	185.1	184.8	186.1
192	188.0	191.1	197.3	201.9	207.6	210.6	214.2	219.5
216	225.1	229.0	234.8	238.0	242.1	242.6	243.7	240.7
240	238.3	229.9	222.6	220.4	218.8	217.5	216.8	218.8
264	221.4	194.0	173.0	161.1	150.9	147.0	143.3	165.6
288	188.7	189.0	189.9	189.7	187.1	184.5	182.6	180.4
312	179.1	175.1	171.7	171.1	171.4	168.9	166.9	164.1
336	161.8	161.4	161.4	160.3	159.5	159.5	159.8	157.8



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3004.0		TILT	0		VOS	5973.43	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	160.5	160.4	160.8	159.4	158.0	158.4	159.2	159.1
24	161.8	159.0	157.7	157.2	157.1	154.5	154.8	155.5
48	156.1	159.9	165.1	167.5	170.3	171.0	171.9	172.2
72	172.9	174.4	176.5	178.3	180.6	181.5	182.9	185.0
96	188.0	186.6	186.1	183.6	181.9	181.3	181.3	177.1
120	173.6	177.5	181.9	179.1	176.5	172.3	168.8	165.4
144	162.7	164.1	165.9	170.4	175.5	177.6	180.3	181.9
168	184.8	181.7	180.0	182.2	185.4	185.7	186.4	187.1
192	188.6	191.7	195.3	201.0	207.5	210.3	213.3	219.8
216	227.1	230.4	234.4	238.0	241.8	242.6	244.0	240.4
240	237.4	229.6	222.9	221.0	219.6	218.4	216.8	219.5
264	222.9	185.8	159.7	152.9	147.1	142.7	139.0	167.0
288	196.3	195.3	194.7	192.5	193.1	189.9	187.4	185.0
312	183.2	181.2	180.3	174.7	173.7	170.7	168.4	167.6
336	167.2	166.0	165.3	163.8	162.7	161.5	160.8	160.4

DEPTH	3004.0		TILT	0		VOS	5971.13	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	160.5	160.4	160.8	159.4	158.0	158.4	159.2	159.1
24	161.8	159.0	157.7	157.2	157.1	154.5	154.8	155.5
48	156.1	159.9	165.1	167.5	170.3	171.0	171.9	172.2
72	172.9	174.4	176.4	178.3	180.6	181.5	182.9	185.0
96	187.7	186.6	186.1	183.6	181.6	181.3	181.3	177.1
120	173.5	177.5	181.9	179.1	176.5	172.3	168.8	165.4
144	162.7	164.1	165.9	170.4	175.5	177.6	180.3	181.9
168	184.8	181.7	180.0	182.2	185.4	185.7	186.4	187.1
192	188.4	191.7	195.3	201.0	207.5	210.3	213.3	219.8
216	227.1	230.4	234.4	238.0	241.8	242.6	244.0	240.4
240	237.4	229.6	222.9	221.0	219.6	218.4	216.8	219.5
264	222.9	185.8	159.7	152.9	147.1	142.7	139.0	167.0
288	196.3	195.3	194.7	192.5	193.1	189.9	187.4	185.0
312	183.2	181.2	180.3	174.7	173.7	170.7	168.4	167.6
336	167.2	166.0	165.3	163.8	162.7	161.5	160.8	160.4

DEPTH	3009.0		TILT	0		VOS	5974.08	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	165.9	165.5	165.6	163.8	164.3	162.5	161.1	163.0
24	165.3	163.6	164.0	162.9	162.2	158.4	156.3	156.1
48	157.0	161.8	167.2	168.9	171.0	172.4	175.0	175.2
72	175.6	176.3	177.7	179.7	182.0	183.0	184.5	186.3
96	188.7	189.0	189.8	192.4	195.5	192.3	189.6	191.1
120	192.9	192.5	192.3	183.0	177.8	173.3	169.4	164.8
144	159.0	163.1	163.0	169.8	174.3	175.9	178.0	176.9
168	176.3	178.2	180.7	182.1	183.9	185.0	186.7	189.2
192	192.2	194.4	197.3	201.5	206.6	210.1	214.3	220.8
216	228.4	232.3	236.7	239.6	244.4	244.4	245.0	240.3
240	236.4	230.8	226.1	223.2	221.0	219.8	219.7	216.7
264	223.1	185.6	159.2	151.1	144.2	140.6	137.5	169.0
288	125.6	197.7	195.4	195.5	193.1	192.2	191.9	189.3
312	187.4	184.7	182.6	180.3	174.3	173.4	173.0	173.4
336	174.3	170.7	167.8	167.7	168.2	167.6	167.5	166.5



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3014.0		TILT	0		VOS	5974.08	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	167.8	168.4	169.4	167.2	165.3	164.8	164.6	166.9
24	168.5	170.4	173.6	171.9	170.7	163.1	158.8	159.2
48	158.2	164.2	171.0	171.6	172.6	177.6	178.4	178.6
72	179.4	179.8	178.1	182.8	188.1	187.7	187.7	188.6
96	189.9	194.2	199.2	199.7	200.9	200.5	200.5	206.0
120	212.4	213.6	214.6	202.5	193.7	181.9	171.7	168.8
144	164.6	164.9	165.7	169.3	173.9	175.4	177.2	175.7
168	174.5	177.8	181.6	182.7	184.2	185.7	187.7	190.3
192	193.5	197.0	201.1	204.8	209.8	213.1	218.1	223.1
216	229.0	233.4	238.6	241.1	244.3	245.2	246.6	240.7
240	235.4	230.5	226.4	223.7	221.6	223.1	225.5	196.5
264	174.6	167.2	160.8	148.2	138.0	137.8	137.6	131.1
288	125.3	120.3	116.0	111.3	107.3	197.0	194.4	193.1
312	191.5	189.2	187.4	184.6	185.1	181.1	177.8	177.8
336	178.4	177.2	176.5	174.8	173.6	171.1	169.1	168.3

DEPTH	3019.0		TILT	0		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.6	171.6	170.8	170.6	169.9	169.1	168.8	171.9
24	176.2	177.2	178.1	176.3	174.9	169.0	161.8	163.9
48	161.1	166.3	172.3	177.1	182.6	180.4	181.3	181.2
72	181.6	185.8	190.6	193.0	195.9	196.9	198.5	197.9
96	198.0	199.3	201.2	205.4	210.5	205.1	200.5	208.8
120	218.5	224.0	230.4	231.8	233.8	217.8	202.3	199.0
144	196.3	181.3	169.9	171.2	173.0	175.3	178.1	176.6
168	175.6	178.8	182.6	183.6	185.2	187.6	190.6	192.9
192	195.7	200.7	206.6	207.6	210.8	214.4	219.4	223.9
216	230.0	234.2	239.9	243.7	249.2	247.6	246.6	243.1
240	240.2	234.2	229.0	228.3	228.3	226.2	225.5	189.9
264	164.3	158.7	157.6	142.5	130.3	130.0	130.1	124.5
288	119.4	117.1	115.0	110.1	105.6	105.2	104.8	196.5
312	195.4	192.7	190.6	187.8	184.5	184.9	185.8	182.8
336	180.4	179.8	179.7	180.1	181.0	179.3	178.1	175.1

DEPTH	3024.1		TILT	0		VOS	5974.08	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	177.5	177.5	178.0	175.8	177.5	176.4	175.9	178.6
24	181.9	183.9	186.9	185.0	183.5	178.5	170.1	172.9
48	167.4	170.3	173.9	177.7	182.9	181.4	180.3	182.1
72	184.5	187.1	190.3	193.0	196.3	196.6	197.3	196.9
96	197.0	198.6	200.7	205.4	211.4	207.7	204.7	211.1
120	218.4	224.7	232.2	235.6	239.7	225.3	213.0	207.7
144	203.2	186.8	173.3	173.5	174.3	175.1	175.2	175.8
168	176.8	180.8	185.5	186.6	188.3	191.2	194.7	195.7
192	197.3	202.1	207.2	209.5	212.7	214.6	217.5	224.0
216	231.6	235.6	240.5	244.1	248.5	247.2	246.6	243.9
240	241.8	236.4	231.9	230.3	229.3	228.0	227.0	188.9
264	162.1	151.9	143.3	131.3	121.4	119.5	118.0	113.8
288	108.6	108.2	108.2	104.9	103.8	101.6	100.3	93.5
312	87.7	196.7	194.4	192.1	80.1	189.1	188.6	186.0
336	183.8	183.5	183.3	182.9	182.9	182.6	182.9	179.5



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3029.0		TILT	0		VOS	5974.08	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	189.0	180.4	75.0	179.4	68.3	179.9	181.4	182.2
24	189.4	190.9	191.6	190.7	190.3	187.1	186.1	177.9
48	178.4	175.9	173.9	177.6	181.9	187.1	188.3	185.7
72	183.5	192.6	203.0	206.9	211.3	214.8	218.7	214.7
96	211.2	206.3	202.1	207.4	213.6	212.2	211.4	213.3
120	215.9	224.4	231.6	248.9	269.0	238.3	221.3	218.1
144	215.5	221.6	228.7	214.1	201.8	187.0	174.6	177.3
168	180.7	182.7	185.3	187.7	190.6	193.3	196.7	199.3
192	202.4	205.0	208.2	210.3	213.3	215.5	218.2	224.2
216	230.9	235.9	241.8	245.0	248.9	249.3	250.5	245.7
240	241.8	240.8	240.5	240.3	240.6	240.0	228.7	191.9
264	160.5	147.5	136.8	123.5	112.8	110.8	109.2	103.2
288	98.0	99.0	100.0	97.4	94.5	93.6	92.4	86.9
312	82.2	81.9	81.8	79.8	78.4	193.1	73.2	73.7
336	74.3	73.4	72.7	72.0	71.5	186.3	186.1	187.3

DEPTH	3034.0		TILT	0		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	73.3	68.9	66.5	65.7	65.1	67.1	74.8	185.9
24	197.1	195.9	196.4	195.9	196.0	192.0	189.6	185.4
48	180.6	176.8	173.6	183.2	194.6	197.7	213.1	205.4
72	218.7	219.8	225.3	227.5	230.3	232.3	234.9	222.2
96	211.2	206.8	203.2	207.4	212.1	221.8	233.0	247.7
120	265.0	275.0	286.4	293.0	300.7	307.6	315.6	310.2
144	305.7	302.2	299.5	294.7	290.7	245.6	206.0	201.9
168	198.5	193.1	188.6	198.2	208.5	203.4	199.0	200.9
192	203.4	206.3	209.8	211.6	213.9	216.9	220.1	226.0
216	232.8	246.2	240.9	242.6	250.7	252.0	254.0	257.3
240	261.5	266.1	271.7	267.7	264.6	256.1	258.2	194.8
264	155.2	144.7	135.9	123.1	112.9	110.6	108.7	102.2
288	99.8	97.6	95.5	93.3	91.3	89.3	87.4	83.6
312	80.3	82.1	83.9	75.0	68.0	68.7	69.6	69.4
336	70.8	69.4	70.1	67.0	64.4	69.2	75.0	68.0

DEPTH	3039.0		TILT	0		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	74.7	67.6	62.0	62.6	63.4	57.8	54.9	112.1
24	199.7	200.6	201.5	201.4	201.3	196.1	193.1	188.6
48	204.1	203.6	203.7	205.0	207.0	210.6	211.9	216.9
72	222.9	225.9	230.7	230.4	230.7	234.4	239.0	238.2
96	238.0	243.1	248.9	252.0	255.4	263.0	271.9	273.6
120	276.1	283.3	290.2	298.0	307.1	310.5	314.9	310.5
144	307.2	302.8	299.3	294.8	291.2	291.2	293.1	293.4
168	294.5	295.7	297.8	299.1	302.8	303.5	304.9	306.4
192	203.8	207.7	212.3	310.1	214.8	303.5	224.7	296.1
216	290.4	270.4	292.9	251.1	236.2	235.7	235.8	256.9
240	283.0	277.0	272.1	272.9	274.5	265.6	259.7	188.8
264	148.6	138.2	129.5	116.3	109.7	99.3	91.0	85.0
288	80.0	83.3	86.4	87.8	89.4	87.3	83.7	81.5
312	79.3	72.3	66.9	67.9	69.0	63.4	58.8	64.1
336	70.4	62.5	56.3	58.4	60.9	58.3	56.0	63.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3044.0		TILT	0		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.0	64.4	59.8	60.7	63.4	55.7	49.9	111.0
24	71.9	73.8	75.2	75.1	74.7	70.3	66.6	68.5
48	70.8	71.7	72.9	207.5	209.2	212.7	216.0	221.1
72	224.8	228.3	232.4	232.1	232.4	237.1	242.7	243.2
96	244.5	251.7	260.0	258.8	258.2	267.6	278.5	280.4
120	283.2	286.6	292.9	300.8	309.9	311.2	313.4	310.5
144	308.4	303.9	300.4	296.0	292.6	292.0	292.2	293.0
168	294.7	296.2	298.6	299.4	301.4	302.8	304.9	307.5
192	311.0	312.6	315.2	310.9	307.4	303.8	302.8	299.6
216	297.2	257.4	292.1	251.6	221.5	218.7	217.2	244.0
240	279.1	275.6	272.8	273.5	274.9	270.4	265.3	191.4
264	149.7	123.1	104.8	106.2	108.2	97.1	88.4	82.9
288	78.2	80.8	83.7	81.5	79.6	72.9	66.6	71.5
312	77.5	70.7	65.1	66.1	67.3	63.1	59.8	63.7
336	68.3	61.0	55.2	57.7	60.4	56.4	53.6	60.9

DEPTH	3048.9		TILT	-1		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	69.0	60.8	54.2	56.2	57.8	53.2	48.2	53.2
24	53.4	59.1	60.6	63.4	66.6	65.5	64.6	60.7
48	57.2	60.8	65.1	70.8	77.9	114.7	221.3	224.5
72	226.0	229.4	232.9	236.5	240.9	244.3	248.5	254.4
96	260.2	263.2	267.0	270.1	273.9	276.6	280.1	284.0
120	288.7	292.2	296.6	302.2	308.8	310.8	313.6	310.7
144	308.7	302.3	297.0	293.9	291.7	292.8	294.9	294.3
168	294.5	296.4	299.1	299.9	301.6	302.7	304.7	306.8
192	309.7	314.9	321.1	316.6	311.1	306.9	302.7	298.7
216	295.5	241.2	204.8	201.6	206.6	200.3	195.4	201.4
240	208.2	210.8	214.0	223.4	263.0	253.4	249.5	189.9
264	153.6	123.7	104.0	106.7	109.7	96.7	86.5	81.4
288	77.1	78.0	78.9	77.4	75.9	70.3	65.0	62.7
312	61.2	61.8	62.8	64.3	66.0	60.5	56.2	60.5
336	65.8	59.0	53.5	55.1	56.9	54.3	51.9	59.2

DEPTH	3048.9		TILT	-3		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.7	60.6	53.8	55.2	56.2	52.3	48.5	51.0
24	48.3	55.7	60.6	60.9	61.8	61.2	61.8	59.3
48	56.8	59.5	62.2	68.6	76.7	115.7	224.8	226.7
72	237.1	240.5	245.1	246.9	249.4	251.2	253.7	258.2
96	263.4	266.7	270.6	274.0	278.2	280.7	284.1	287.1
120	291.0	294.3	298.5	303.9	310.3	310.9	312.3	309.5
144	307.5	305.2	303.7	300.8	298.7	296.7	295.5	297.2
168	299.1	299.0	299.8	299.8	300.5	304.9	310.2	308.7
192	307.9	314.4	322.0	322.5	323.2	320.7	317.6	301.1
216	299.0	240.5	198.3	188.9	181.1	183.0	185.1	192.5
240	200.8	200.5	200.7	194.9	197.9	205.4	221.3	180.1
264	152.6	124.8	105.9	107.9	110.2	97.7	88.0	81.7
288	76.7	75.6	74.7	75.1	75.8	71.5	67.3	61.3
312	57.4	59.8	62.6	64.3	66.2	60.5	55.7	60.2
336	65.0	58.6	53.2	53.7	54.2	52.9	51.3	58.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-6		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.2	60.1	54.2	55.3	56.2	52.3	48.2	48.5
24	48.5	53.6	59.9	57.4	55.0	58.7	63.4	60.1
48	57.4	59.9	62.2	68.9	77.5	80.2	83.2	123.9
72	243.0	245.4	248.4	251.6	255.2	257.3	259.8	262.0
96	265.0	269.5	275.0	278.4	282.6	285.3	288.6	290.4
120	293.3	298.2	304.7	307.1	310.3	312.9	316.4	311.9
144	308.3	307.7	307.9	306.1	305.2	303.5	302.3	303.5
168	305.5	306.7	308.7	309.5	311.5	312.8	315.0	319.4
192	324.8	324.4	324.8	317.5	320.4	319.9	319.5	230.6
216	183.9	185.6	184.4	181.1	177.5	174.2	171.4	175.5
240	180.3	186.3	193.3	186.3	180.3	183.0	189.1	169.9
264	157.2	126.1	105.2	92.9	83.1	94.7	86.0	82.2
288	78.3	75.9	73.5	73.9	74.3	68.2	63.0	60.9
312	56.2	59.3	62.4	64.1	65.9	60.4	55.4	59.4
336	63.5	58.0	53.1	53.6	54.2	52.9	51.7	58.2

DEPTH	3048.9		TILT	-9		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.7	60.1	54.2	54.9	55.8	52.1	48.6	48.2
24	48.1	52.8	60.2	56.8	53.8	59.2	65.3	61.0
48	58.2	60.2	62.6	69.7	77.5	80.4	83.5	124.2
72	239.3	244.1	249.7	247.6	256.5	252.8	260.2	261.0
96	262.6	264.6	267.4	272.8	277.0	283.4	288.3	292.1
120	296.4	297.0	305.9	308.5	312.0	313.5	316.0	314.3
144	313.6	309.1	305.5	305.9	307.1	303.3	305.1	305.5
168	306.7	308.7	311.5	306.6	311.5	311.9	313.2	308.7
192	305.1	297.2	291.1	258.1	251.4	245.2	240.7	212.0
216	181.5	172.4	164.6	166.7	167.8	166.3	165.5	164.8
240	164.4	155.2	147.9	150.2	152.2	158.3	165.5	160.5
264	155.6	127.4	107.3	93.9	83.5	79.2	75.5	77.4
288	79.5	76.6	73.9	73.2	72.5	68.4	63.0	60.2
312	57.8	59.5	61.4	63.1	64.2	59.7	55.8	57.8
336	60.0	56.5	52.6	53.3	54.2	52.5	51.0	58.2

DEPTH	3048.9		TILT	-12		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	65.8	59.9	54.4	54.5	54.8	51.9	49.3	48.4
24	47.6	53.2	59.2	56.7	54.1	59.0	65.4	60.4
48	56.0	59.6	63.1	69.9	76.9	80.2	84.2	118.5
72	132.9	140.5	149.5	149.0	148.9	180.6	227.0	238.4
96	178.7	245.5	243.9	253.2	264.2	269.8	276.7	277.4
120	279.4	279.8	275.7	276.3	277.7	283.7	290.8	291.9
144	293.8	293.0	293.0	296.4	300.7	303.0	306.1	295.6
168	286.6	283.8	281.9	282.1	283.1	277.8	273.5	250.1
192	227.4	227.1	228.6	201.1	180.2	177.5	175.3	181.1
216	181.9	171.6	163.6	162.5	165.7	158.1	151.8	149.6
240	150.8	142.2	134.8	133.8	133.2	139.8	147.6	151.8
264	156.5	123.0	102.6	93.7	84.1	79.8	76.2	77.2
288	78.5	76.1	73.7	69.6	66.6	66.0	62.8	59.1
312	56.4	58.9	62.4	62.0	61.8	57.7	54.4	55.6</



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-15		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	65.6	59.7	54.8	54.2	53.7	51.6	49.3	48.4
24	47.7	53.0	60.5	57.2	53.5	59.9	66.0	61.1
48	56.7	61.3	67.4	71.6	76.2	81.6	87.1	107.4
72	133.3	139.3	145.4	142.0	139.0	142.8	147.6	154.2
96	162.4	171.3	178.7	199.2	225.1	222.7	220.8	235.2
120	251.7	253.8	265.1	265.1	265.8	269.5	273.5	273.3
144	273.6	275.9	278.6	281.1	284.4	282.7	281.8	275.6
168	270.3	269.4	269.0	260.2	252.7	238.0	225.4	225.5
192	226.1	207.2	191.6	182.2	180.0	168.0	157.9	156.2
216	155.0	158.7	156.9	147.2	147.3	143.4	143.3	136.3
240	130.3	126.3	124.9	122.3	120.1	128.3	138.3	143.5
264	149.5	113.3	94.8	89.6	85.2	80.1	75.7	76.6
288	77.6	76.1	74.7	67.5	61.8	63.0	63.7	59.6
312	55.1	59.2	62.1	60.7	59.3	56.0	52.5	53.8
336	55.4	53.5	51.9	53.1	54.4	52.9	51.4	57.9

DEPTH	3048.9		TILT	-18		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.7	59.5	55.3	53.5	51.8	50.4	49.3	48.8
24	47.9	53.8	61.3	57.5	54.5	59.8	66.5	61.3
48	56.7	62.0	67.7	72.0	77.2	83.6	91.4	108.8
72	135.4	140.4	149.8	148.1	146.8	143.9	141.7	144.6
96	149.3	160.1	172.8	171.5	168.8	184.5	202.4	218.3
120	236.7	240.6	250.4	252.0	254.2	247.0	240.8	245.2
144	250.4	254.6	259.6	259.5	259.9	262.2	265.1	261.7
168	259.1	255.9	253.4	245.2	238.1	227.2	216.9	205.5
192	195.6	183.1	172.5	157.3	144.1	148.9	149.0	150.5
216	152.3	148.0	147.1	137.4	131.5	131.3	94.6	121.8
240	115.0	116.5	116.3	115.6	114.7	120.6	128.3	132.2
264	139.2	105.7	85.3	85.3	85.1	81.2	76.6	74.9
288	73.3	73.7	74.1	69.5	65.4	64.6	64.0	60.1
312	56.7	58.4	59.9	56.8	54.6	53.9	53.0	51.9
336	51.3	51.5	51.8	53.1	53.9	53.5	52.9	58.1

DEPTH	3048.9		TILT	-21		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	62.1	59.0	55.5	53.8	52.2	51.2	50.1	49.6
24	48.8	54.9	61.3	57.8	54.5	59.6	65.9	61.7
48	58.0	62.4	67.0	72.8	76.8	83.3	91.3	104.4
72	121.0	130.9	139.5	142.7	146.4	146.2	146.4	145.9
96	145.8	146.8	158.3	159.3	165.2	172.2	180.4	193.6
120	212.2	215.0	217.7	220.1	223.1	226.4	230.5	232.4
144	235.1	227.5	220.9	221.3	222.3	220.8	219.9	222.7
168	226.1	224.7	223.9	222.8	222.5	198.2	182.2	174.1
192	167.0	150.0	136.5	132.9	133.8	133.8	142.0	131.5
216	122.8	122.0	122.3	99.4	83.9	83.5	83.4	83.6
240	83.6	94.2	108.2	103.8	104.3	106.4	106.5	115.8
264	127.2	100.9	82.8	80.5	78.5	77.4	76.6	74.6
288	72.8	70.6	69.3	66.7	63.7	62.8	63.5	60.3
312	57.5	57.4	57.5	54.5	50.7	51.4	52	



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-24		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.7	57.6	56.6	54.5	52.2	51.1	50.3	50.3
24	50.0	55.4	61.9	58.7	55.5	61.5	69.2	63.3
48	57.8	64.0	70.9	74.1	77.6	84.2	91.9	102.9
72	117.1	123.2	129.8	132.7	136.0	136.3	136.7	139.3
96	142.4	138.3	87.9	149.2	162.1	161.3	160.8	164.4
120	180.9	181.3	191.3	195.0	199.4	195.6	192.4	196.0
144	200.2	205.0	210.5	209.6	209.2	208.3	207.8	200.1
168	193.3	181.1	170.2	163.5	158.1	152.5	147.6	141.7
192	136.5	133.3	128.6	119.4	111.6	113.4	116.7	114.8
216	113.1	102.8	94.3	90.3	81.0	79.9	79.1	80.0
240	81.2	83.7	86.6	92.0	98.2	99.7	101.6	110.7
264	122.0	98.8	83.6	79.5	75.9	75.2	74.7	73.5
288	72.6	69.7	67.2	65.1	62.7	59.8	59.1	58.0
312	57.1	57.1	57.2	53.9	50.9	52.9	54.9	50.8
336	47.5	50.0	52.8	53.9	54.9	53.8	52.6	55.8

DEPTH	3048.9		TILT	-27		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.9	58.0	57.3	56.3	55.1	53.1	51.1	51.0
24	50.3	54.5	56.4	56.2	56.3	61.8	68.6	64.1
48	59.6	64.9	70.9	74.9	79.1	86.7	96.1	101.4
72	112.1	118.1	125.8	126.1	126.8	126.9	127.2	128.0
96	129.1	102.2	84.8	92.7	94.8	115.0	131.0	135.6
120	141.1	156.6	169.3	171.8	174.7	178.4	182.7	183.8
144	185.7	187.9	190.5	192.2	194.3	181.7	176.7	173.6
168	170.8	162.7	155.6	152.5	149.7	137.8	121.1	117.0
192	113.9	116.5	123.0	113.5	109.6	96.3	86.0	90.5
216	95.6	87.3	80.8	81.2	77.8	76.9	75.3	75.2
240	75.3	77.6	78.9	85.7	93.2	95.7	99.6	102.4
264	106.6	90.7	79.1	75.4	71.9	70.9	70.0	69.6
288	69.4	66.3	63.3	62.1	61.0	59.1	55.5	56.1
312	56.5	55.6	54.9	53.2	51.5	52.7	54.0	51.1
336	47.9	50.7	53.6	54.0	54.5	53.6	52.8	55.9

DEPTH	3048.9		TILT	-30		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.3	58.1	57.8	56.6	55.5	53.6	51.5	51.7
24	51.6	51.7	52.0	54.2	56.9	62.8	70.2	64.8
48	60.6	66.2	73.2	77.2	81.4	87.1	93.8	96.7
72	99.9	107.1	118.8	116.1	113.8	115.1	116.6	117.1
96	117.9	97.3	83.5	87.4	91.9	103.6	127.7	126.9
120	126.4	136.0	152.0	156.6	161.7	160.9	160.5	160.6
144	161.1	162.2	163.6	164.6	165.8	164.7	163.8	160.1
168	156.9	145.7	136.1	124.0	114.0	109.0	103.0	97.2
192	92.1	89.0	87.7	91.3	88.7	83.3	76.3	76.7
216	77.2	78.2	77.0	74.8	74.7	73.5	72.6	73.1
240	73.8	75.5	77.4	80.3	82.6	86.8	92.7	96.9
264	101.5	86.0	75.2	72.4	69.5	69.1	68.6	66.7
288	65.0	63.1	61.4	60.6	59.5	58.8	57.6	56.5
312	55.5	55.0	54.5	53.1	51.8</			



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-33		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	57.9	57.8	57.7	56.4	55.1	53.7	52.2	52.6
24	52.9	52.9	52.6	55.6	58.9	63.8	69.8	66.7
48	61.6	68.7	75.7	79.5	83.9	84.9	86.0	90.6
72	95.9	97.5	100.5	102.5	104.7	104.2	103.9	98.7
96	94.2	87.0	81.0	83.7	86.9	92.6	99.5	113.4
120	124.5	124.8	129.1	138.7	150.2	149.3	149.1	146.0
144	143.2	142.9	142.9	143.9	145.2	143.1	141.2	123.8
168	111.9	109.2	106.8	102.9	99.5	96.2	93.4	83.4
192	75.5	74.0	68.6	72.8	74.4	73.0	70.2	71.1
216	72.1	70.4	68.1	69.5	68.6	69.4	70.5	70.8
240	71.3	71.4	71.7	74.7	77.0	79.5	80.5	82.9
264	85.6	79.5	71.9	69.6	67.5	67.0	66.7	64.9
288	63.1	61.7	60.6	59.4	58.5	57.8	57.6	56.0
312	54.7	53.9	53.2	52.0	50.9	50.9	51.0	50.7
336	50.3	51.6	52.6	52.8	53.2	53.5	53.9	56.0

DEPTH	3048.9		TILT	-36		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	56.8	56.9	57.2	56.8	56.5	55.3	54.3	54.3
24	53.8	54.1	54.4	57.5	60.7	60.3	59.9	64.0
48	64.8	71.0	77.2	79.7	82.6	83.4	84.4	87.2
72	90.3	91.8	94.5	92.6	90.9	89.7	88.6	89.8
96	91.3	84.3	78.5	80.5	82.8	87.4	92.9	97.3
120	102.5	111.5	118.6	117.4	116.7	128.2	138.8	136.8
144	135.1	129.7	125.0	123.8	122.8	115.7	109.7	97.1
168	87.3	86.4	85.7	85.0	84.5	81.6	79.1	75.8
192	72.9	69.4	65.8	64.4	64.5	65.4	63.7	64.7
216	66.0	66.4	66.0	66.1	65.8	66.5	67.4	67.7
240	68.0	69.0	70.0	71.6	73.5	73.7	78.4	78.2
264	78.3	73.5	69.3	68.1	66.7	65.5	64.4	63.1
288	62.0	60.9	59.9	59.4	58.9	57.1	56.0	54.7
312	53.5	52.7	52.0	51.6	51.2	51.4	51.7	51.3
336	50.7	51.5	52.2	52.0	51.9	52.8	53.8	55.2

DEPTH	3048.9		TILT	-39		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	56.2	56.4	56.7	56.8	57.0	56.6	56.3	56.3
24	56.4	56.3	55.8	59.7	63.9	63.7	61.2	64.7
48	68.8	72.8	77.3	79.4	81.7	80.9	80.4	81.7
72	83.3	85.1	87.4	83.0	79.1	81.0	83.0	81.7
96	80.5	78.9	77.5	78.5	79.6	82.2	85.2	90.0
120	95.6	95.1	95.9	96.5	97.3	105.5	115.4	115.1
144	115.0	112.2	109.7	101.2	94.1	88.5	83.6	81.9
168	80.4	79.4	78.6	77.8	77.2	76.2	75.4	72.7
192	70.3	67.6	65.2	63.1	59.9	61.2	61.0	62.1
216	63.4	62.7	62.6	63.7	64.8	64.4	64.0	65.2
240	66.6	65.2	64.0	65.5	67.1	67.2	67.4	66.7
264	66.1	66.7	67.5	66.7	66.1	64.2	63.2	61.7
288	60.4	59.7	59.2	58.9	58.6	56.9	55.6	54.2
312	52.8	52.2	51.4	51.1	50.9	50.9	50.9	50.7
336	50.6	51.2	51.9	51.5	51.2	51.7	52.2	54.1



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-42		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	55.7	55.6	55.6	56.2	57.0	57.0	57.0	56.4
24	56.2	57.3	58.4	61.2	64.5	64.9	65.0	67.4
48	71.1	73.7	76.7	77.1	77.7	78.2	78.9	79.9
72	81.0	80.8	80.5	79.4	78.5	77.3	76.2	74.9
96	73.8	73.9	74.1	77.4	81.0	83.4	86.0	84.9
120	84.1	86.6	88.2	87.4	86.8	87.3	87.9	92.4
144	97.5	95.6	93.8	93.5	93.3	85.6	79.2	78.5
168	77.8	76.6	75.6	74.0	72.5	71.1	69.8	68.9
192	68.0	66.1	64.4	63.0	61.2	60.6	60.4	60.1
216	60.4	60.1	59.7	60.8	62.0	61.6	61.3	61.8
240	62.4	61.5	60.7	60.8	61.0	62.0	62.2	62.8
264	63.6	63.7	63.9	65.4	67.1	63.7	60.7	60.2
288	59.6	58.8	58.1	57.6	57.2	56.0	55.1	53.7
312	52.2	52.4	52.2	51.8	51.4	50.4	49.5	49.7
336	50.0	50.2	50.4	50.2	50.1	50.9	51.7	53.6

DEPTH	3048.9		TILT	-45		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.0	54.0	54.1	55.2	56.4	56.2	56.0	56.2
24	56.4	57.4	58.4	61.1	64.0	64.9	66.8	68.2
48	71.1	72.8	74.8	75.4	76.1	77.2	78.5	79.0
72	79.7	78.8	79.1	76.6	74.3	74.0	73.8	73.7
96	73.7	74.1	74.6	75.5	76.5	78.7	81.2	80.0
120	78.9	79.6	80.4	79.3	78.3	77.4	76.5	76.2
144	75.9	75.2	74.5	73.4	72.4	71.4	70.6	70.2
168	70.0	70.6	71.4	70.6	70.0	68.5	67.1	66.3
192	65.4	64.6	63.7	62.6	62.1	59.8	59.4	58.5
216	57.6	58.2	58.9	58.8	59.2	59.0	58.8	58.6
240	58.6	58.7	58.9	58.5	58.1	59.3	58.6	59.4
264	60.2	61.2	62.3	64.0	65.8	63.1	60.7	58.9
288	57.3	57.0	56.8	56.3	55.7	54.9	54.0	53.4
312	53.0	52.5	52.0	50.9	49.8	49.8	49.8	49.7
336	49.6	49.6	49.5	49.2	49.0	50.1	51.1	52.4

DEPTH	3048.9		TILT	-48		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	52.4	53.0	53.6	54.3	54.8	55.3	55.9	56.0
24	56.4	57.6	58.0	60.5	63.4	64.0	64.5	67.1
48	70.6	71.7	72.9	73.1	73.5	74.3	75.3	76.7
72	78.3	72.8	76.1	73.9	71.9	68.0	64.5	64.9
96	65.4	68.1	71.3	72.9	74.8	76.0	77.3	77.0
120	76.9	75.6	75.9	74.0	72.2	72.3	72.5	72.7
144	73.0	72.0	71.1	70.8	70.6	69.0	67.6	68.6
168	69.6	69.3	69.0	68.3	67.7	66.2	64.8	63.9
192	63.1	62.6	62.3	61.2	60.7	58.4	57.2	57.0
216	56.8	57.2	57.6	57.5	57.3	57.0	56.8	57.0
240	57.2	57.7	58.3	58.4	58.6	57.8	60.0	58.9
264	58.0	58.8	59.8	56.4	53.5	55.1	56.8	55.9
288	55.1	54.6	54.1	54.1	54.2	53.8	53.4	53.2
312	53.0	52.4	51.9	50.5	49.3	49.4	49.5	49.2
336	49.0	49.1	49.3	48.9	48.5	49.0	49.6	50.9



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-51		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	51.7	52.7	53.8	53.9	54.1	55.2	56.4	56.5
24	56.7	58.1	59.9	61.7	63.7	64.1	64.4	65.2
48	66.9	68.6	70.5	71.7	73.2	72.2	71.4	73.5
72	75.8	67.3	61.0	61.4	62.0	59.8	57.9	58.1
96	58.3	63.5	69.8	69.3	68.8	71.1	73.7	73.4
120	73.3	72.7	71.7	70.8	70.0	70.4	70.9	70.5
144	70.1	70.0	70.0	69.6	69.3	68.7	68.2	67.9
168	67.7	66.6	65.6	65.1	64.7	62.6	60.7	60.8
192	61.0	60.7	60.5	59.5	58.8	57.1	54.8	53.8
216	53.0	55.6	56.9	56.6	56.5	56.6	56.8	56.8
240	56.8	56.5	56.2	56.9	57.6	55.7	54.9	56.2
264	57.6	55.8	54.1	53.4	52.8	51.8	50.9	52.9
288	55.1	54.3	53.6	53.8	54.0	53.7	53.6	52.5
312	51.6	51.6	51.7	50.9	49.8	49.4	49.0	48.9
336	48.8	48.6	48.5	48.4	48.4	48.9	49.5	50.6

DEPTH	3048.9		TILT	-54		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	51.1	52.5	54.0	54.1	54.3	55.0	55.9	55.8
24	57.3	57.0	59.6	60.5	61.5	63.0	65.2	64.1
48	65.3	67.4	69.6	70.3	71.1	69.7	68.5	63.8
72	59.7	61.5	59.6	57.5	55.7	55.3	54.9	54.9
96	54.9	57.7	60.8	64.1	67.7	67.2	66.8	68.1
120	69.5	69.7	69.6	69.0	68.5	68.9	69.3	68.8
144	68.4	68.7	69.2	68.6	68.2	67.3	66.4	66.1
168	65.8	64.9	64.1	61.8	59.7	58.9	58.1	57.4
192	56.8	55.8	54.9	56.5	57.0	56.4	55.1	54.5
216	54.0	54.7	56.0	56.0	55.7	55.9	56.0	56.2
240	56.5	55.6	54.7	54.0	53.3	53.4	52.7	53.0
264	53.5	52.8	52.2	51.8	51.6	51.0	50.6	50.3
288	50.1	51.5	53.0	52.2	51.6	52.8	53.3	52.7
312	52.2	51.1	50.1	49.9	49.6	49.5	49.2	48.9
336	48.7	48.6	48.5	48.6	48.7	48.7	48.7	50.0

DEPTH	3048.9		TILT	-57		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.0	50.5	51.1	51.9	52.8	53.1	53.3	53.9
24	54.0	54.6	54.9	57.4	60.2	59.6	62.0	60.8
48	62.1	63.1	64.2	64.3	64.4	63.8	63.4	60.2
72	57.3	56.1	54.8	54.0	53.3	53.1	52.8	53.1
96	53.3	53.6	53.9	57.4	61.5	63.2	65.2	65.6
120	66.1	66.0	67.1	66.6	66.1	66.2	66.3	63.9
144	61.8	61.2	60.7	61.0	61.3	61.1	60.8	60.6
168	60.4	60.1	59.9	59.3	58.8	56.5	54.4	55.0
192	55.7	55.2	54.8	54.4	54.3	55.1	55.4	54.6
216	54.0	54.6	55.9	54.1	55.8	55.6	55.4	53.7
240	52.2	51.7	51.2	51.6	52.0	51.2	50.6	51.1
264	51.7	51.4	51.1	50.7	50.4	50.1	49.8	49.9
288	50.0	50.9	51.9	52.8	53.8	52.6	52.4	52.5
312	52.7	51.6	50.6	50.4	50.3	49.7	49.2	49.0
336	48.8	48.7	48.5	48.7	48.8	49.1	49.3	49.6



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-60		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.1	51.4	52.8	52.9	53.0	52.7	52.4	52.6
24	52.7	52.8	52.7	53.5	54.4	55.9	55.2	56.7
48	55.1	57.9	61.0	60.6	60.2	57.0	54.1	54.3
72	54.6	54.4	53.5	53.5	53.6	52.5	51.4	51.1
96	50.9	52.1	53.5	53.4	53.3	57.0	61.2	61.1
120	61.0	60.0	62.1	63.4	64.8	63.7	62.6	61.4
144	60.4	59.8	59.2	58.7	58.1	56.8	55.6	54.4
168	53.3	55.6	58.1	57.4	56.7	55.4	54.1	53.6
192	53.2	53.5	54.0	53.9	54.0	53.9	53.8	53.9
216	54.1	53.9	54.6	51.9	49.6	49.2	48.8	48.5
240	48.2	49.0	50.0	49.4	49.0	49.3	49.5	48.7
264	48.0	48.6	49.2	49.3	49.5	49.3	49.2	49.1
288	49.2	51.5	54.1	53.9	53.6	53.6	53.2	52.7
312	52.4	51.8	51.2	50.6	50.0	49.9	50.0	49.5
336	49.2	49.2	49.3	49.1	48.8	49.3	49.8	49.9

DEPTH	3048.9		TILT	-63		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	51.1	52.5	54.1	55.0	55.9	53.8	51.9	52.2
24	52.4	52.3	52.0	52.6	53.2	53.8	54.1	54.6
48	55.2	56.6	58.1	58.1	58.1	55.4	53.0	53.1
72	53.2	52.9	52.7	52.4	52.2	51.7	51.2	50.8
96	50.4	51.5	52.7	51.5	50.4	51.0	51.6	51.3
120	51.1	53.7	52.5	55.5	58.9	57.8	56.7	57.3
144	58.0	57.5	57.2	54.6	52.4	52.2	52.0	52.4
168	52.8	52.0	51.2	53.0	54.9	53.4	52.0	52.4
192	52.8	53.1	53.3	53.1	53.0	53.2	54.0	53.8
216	53.6	53.1	53.2	51.7	48.8	48.5	48.2	47.4
240	46.6	47.1	47.6	47.6	47.7	47.4	47.2	47.1
264	47.1	47.5	48.0	48.2	48.4	48.4	48.5	48.5
288	48.5	50.7	53.2	53.5	53.8	53.7	54.1	53.9
312	53.6	52.5	51.4	51.2	51.1	50.9	50.8	50.5
336	50.3	50.3	50.3	49.9	49.5	50.2	51.1	51.1

DEPTH	3048.9		TILT	-66		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	57.5	56.8	56.2	56.1	56.0	54.1	52.4	52.1
24	52.4	52.3	52.4	52.8	53.3	53.2	53.8	52.9
48	53.8	52.2	50.8	50.3	50.0	50.7	51.4	51.3
72	51.2	51.5	51.4	51.2	51.1	50.8	50.6	50.3
96	50.1	51.7	53.5	53.4	53.3	52.8	52.4	51.9
120	51.6	51.1	51.2	50.2	49.2	51.7	54.6	54.7
144	54.8	54.6	54.4	51.8	49.5	49.5	49.5	48.8
168	48.2	48.0	47.9	48.6	49.3	50.4	51.6	51.2
192	50.9	51.5	52.0	52.2	52.2	52.2	52.2	51.9
216	51.7	51.9	51.7	51.4	51.3	49.1	47.1	46.3
240	45.6	45.5	45.5	45.5	45.5	46.1	46.0	46.0
264	46.1	46.3	46.6	46.7	46.9	47.5	48.0	47.8
288	47.6	49.8	52.4	52.5	52.7	53.3	53.5	53.9
312	54.4	54.5	54.6	53.2	51.9	52.3	52.7	52.6
336	52.6	52.6	52.3	55.4	58.6	56.0	53.4	55.5



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-69		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	56.7	55.5	54.4	54.4	54.4	52.3	50.3	50.8
24	52.2	52.2	52.2	52.4	52.7	51.8	52.8	51.1
48	50.4	50.2	50.0	50.0	50.1	50.1	50.1	50.4
72	50.8	50.6	50.4	50.4	50.4	50.3	50.3	50.2
96	50.1	50.7	51.4	51.0	50.6	50.7	50.9	51.1
120	51.2	50.7	50.8	51.1	51.6	51.8	52.0	52.3
144	52.6	52.5	52.5	50.1	47.9	48.0	48.2	47.7
168	47.2	47.0	46.8	48.6	50.6	50.6	50.6	50.3
192	50.1	50.4	50.8	51.0	51.4	51.4	51.7	51.4
216	51.1	50.6	50.9	49.5	49.8	47.5	45.5	45.4
240	45.3	45.1	45.0	45.2	45.5	45.3	45.3	45.3
264	45.3	45.6	46.0	45.9	46.0	45.0	44.2	44.4
288	44.7	45.8	46.9	49.8	53.2	52.9	53.5	53.2
312	53.0	53.6	54.3	53.8	53.3	53.8	54.3	53.9
336	53.6	54.1	54.6	55.5	56.4	56.3	56.2	56.4

DEPTH	3048.9		TILT	-72		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.8	54.5	54.3	54.6	54.9	51.4	48.4	48.7
24	48.4	50.2	52.2	52.2	52.2	50.3	48.7	49.4
48	48.4	49.1	50.0	49.9	49.8	49.9	50.0	50.1
72	50.3	50.2	50.3	50.2	50.1	50.8	51.6	51.9
96	52.2	52.1	52.0	51.2	50.4	50.0	49.6	49.8
120	50.0	49.8	49.6	49.8	50.0	49.6	49.3	49.4
144	49.5	49.2	49.0	48.9	48.8	48.7	48.5	49.1
168	49.8	49.4	49.0	49.4	49.8	49.8	49.8	49.7
192	49.6	50.0	50.4	50.1	50.0	50.1	50.4	49.6
216	48.8	49.0	48.8	48.1	46.1	45.9	45.8	45.6
240	45.5	45.2	45.0	45.0	45.0	45.2	45.2	45.2
264	45.3	45.5	45.6	45.5	45.5	44.9	44.4	44.6
288	44.8	45.1	45.3	48.3	51.7	52.1	52.3	52.8
312	52.9	52.9	52.7	53.8	55.1	55.1	55.1	55.3
336	55.6	55.3	55.1	55.1	55.1	54.8	54.6	54.7

DEPTH	3048.9		TILT	-75		VOS	5974.41	
Bearing	+							



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-78		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	51.1	50.9	50.8	50.8	50.8	50.5	50.3	49.7
24	50.6	49.4	49.5	49.5	49.5	49.8	49.8	49.6
48	49.8	49.8	49.8	49.8	49.8	50.1	50.4	50.4
72	50.4	50.5	50.6	51.3	52.0	52.0	52.0	51.9
96	51.7	51.6	51.4	50.7	50.0	50.0	50.0	50.0
120	50.0	49.4	49.5	49.2	48.8	49.3	49.8	49.8
144	49.8	49.6	49.3	49.3	49.3	49.6	50.0	49.5
168	49.2	49.4	49.6	49.6	49.5	49.5	49.5	49.5
192	49.5	49.5	49.5	49.2	49.3	49.0	48.8	48.6
216	48.4	48.2	47.7	47.5	47.2	47.3	47.4	47.6
240	47.7	47.4	47.1	46.6	46.1	46.7	46.1	46.1
264	46.1	46.2	46.3	46.7	47.1	47.0	46.9	46.9
288	46.9	46.9	46.8	48.9	51.1	50.4	51.6	52.3
312	53.0	53.3	53.6	53.7	53.8	53.4	52.8	53.0
336	52.8	54.2	55.4	55.2	54.9	55.2	55.6	53.2

DEPTH	3048.9		TILT	-81		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.9	50.8	50.8	50.9	51.1	51.0	50.9	50.5
24	50.1	50.4	50.0	50.0	50.0	50.1	50.1	50.2
48	50.1	50.2	50.3	50.3	50.3	50.4	50.4	50.8
72	51.2	51.0	51.1	51.6	52.0	52.0	52.0	51.7
96	51.4	51.1	50.8	50.8	50.8	50.8	50.8	50.4
120	50.1	50.2	50.1	50.1	50.1	50.0	50.0	50.0
144	50.0	50.0	50.0	49.8	49.6	49.6	49.5	49.4
168	49.3	49.3	49.3	49.3	49.3	49.4	49.5	49.5
192	49.5	49.1	48.7	49.0	48.7	49.0	48.7	48.6
216	48.5	48.5	48.5	48.1	47.9	47.9	47.9	47.8
240	47.7	47.8	47.9	47.9	47.9	48.1	49.0	49.0
264	49.0	49.0	49.0	48.9	48.8	48.8	48.8	49.4
288	50.0	50.0	50.0	50.0	50.0	50.8	50.4	51.5
312	52.5	52.5	52.5	52.5	52.5	52.6	52.7	52.7
336	52.7	52.9	53.2	53.6	54.1	54.1	54.1	52.5

DEPTH	304
-------	-----



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3048.9		TILT	-87		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.8
24	50.9	50.8	50.9	50.9	50.9	50.8	50.9	50.8
48	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9
72	50.9	51.0	50.9	50.9	50.9	50.5	50.1	50.1
96	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
120	50.1	50.4	50.1	50.1	50.1	50.1	50.1	50.1
144	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
168	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
192	50.1	50.1	50.1	49.8	50.1	50.0	50.1	50.1
216	50.1	49.9	50.1	49.9	50.1	50.1	50.1	50.1
240	50.1	50.1	50.1	50.1	50.1	49.8	50.1	50.2
264	50.3	50.3	50.3	50.3	50.3	50.4	50.4	50.4
288	50.4	50.4	50.4	50.4	50.4	50.3	50.4	50.4
312	50.4	50.4	50.4	50.8	51.2	51.1	50.9	50.9
336	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9

DEPTH	3049.0		TILT	0		VOS	5974.41	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	69.7	61.3	54.5	56.8	59.1	53.5	49.2	54.2
24	55.9	61.0	62.3	64.7	67.2	66.3	64.9	62.1
48	59.3	62.8	66.7	72.0	77.8	114.5	220.1	223.3
72	226.8	229.6	235.3	236.5	238.5	240.4	243.1	248.7
96	255.4	259.2	263.9	267.6	272.1	275.8	280.5	283.2
120	286.7	290.6	295.4	302.2	310.3	311.6	313.8	311.2
144	309.5	302.8	297.2	294.1	291.9	291.9	292.9	293.4
168	294.7	296.9	300.0	300.2	301.4	302.8	304.9	307.8
192	311.7	312.6	314.5	311.7	308.5	304.7	301.7	299.8
216	298.6	243.5	206.6	210.3	215.7	209.3	203.8	210.2
240	223.4	242.2	278.5	276.7	275.6	269.2	268.6	193.7
264	155.2	123.9	103.7	106.5	109.6	96.7	86.6	81.5
288	77.0	78.9	81.1	78.9	76.7	70.5	64.1	63.6
312	63.0	62.9	63.0	64.4	66.0	61.0	56.8	61.0
336	66.1	59.2	53.8	55.9	58.4	55.2	52.4	59.9</



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3059.0		TILT	0		VOS	5966.21	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.2	59.4	53.7	54.1	54.5	51.2	48.4	47.5
24	46.7	52.5	60.1	56.6	53.2	58.6	64.7	59.9
48	55.9	59.0	62.9	69.1	77.1	79.9	82.8	123.2
72	236.7	239.4	245.5	247.1	249.4	250.3	251.9	257.6
96	264.3	265.5	267.4	271.1	275.6	278.3	281.9	284.8
120	288.6	292.9	297.5	304.3	312.3	312.4	313.4	310.4
144	308.4	303.5	299.6	295.2	291.8	294.8	295.7	296.2
168	297.5	297.6	298.5	299.1	299.9	300.9	302.8	305.8
192	309.7	315.2	321.8	321.8	321.8	314.7	309.5	308.2
216	307.7	240.7	198.4	188.4	179.5	181.7	184.2	192.2
240	201.4	200.8	200.8	195.1	189.8	212.9	231.6	177.8
264	153.7	124.7	105.3	92.6	83.1	78.7	74.9	76.7
288	78.6	76.0	73.4	73.9	74.4	67.9	62.6	59.9
312	58.0	59.6	61.5	62.4	63.4	58.2	53.7	55.8
336	58.2	54.8	51.6	52.6	53.7	52.0	50.9	57.1

DEPTH	3064.0		TILT	0		VOS	5966.21	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.6	57.8	53.1	52.1	51.3	49.2	47.4	46.6
24	46.0	51.6	58.7	55.6	52.7	58.1	65.0	59.5
48	54.8	58.4	62.6	68.6	75.7	79.3	83.1	123.6
72	237.4	241.5	244.5	246.4	249.1	251.6	254.6	258.4
96	262.9	266.8	271.7	274.6	278.4	280.8	284.0	287.0
120	290.8	294.0	298.2	304.0	310.9	311.0	311.9	309.2
144	307.4	305.0	303.5	300.6	298.5	296.6	295.3	296.5
168	298.5	298.6	299.6	299.5	300.3	304.8	309.9	309.4
192	309.5	315.3	322.2	322.2	323.2	319.9	316.9	310.4
216	310.0	221.2	191.9	184.1	176.7	175.0	173.8	181.3
240	190.1	194.2	198.6	190.6	183.7	188.3	193.1	171.5
264	156.0	126.6	106.0	93.0	83.1	78.6	74.9	76.2
288	77.5	75.0	72.3	66.7	62.0	62.7	61.6	57.8
312	54.0	57.4	61.2	59.5	58.0	54.1	50.7	50



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3074.0		TILT	0		VOS	5966.21	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.1	52.8	51.6	50.4	49.2	47.2	45.3	45.1
24	44.9	48.1	57.3	53.6	50.6	56.3	63.3	58.0
48	53.7	58.5	64.3	67.8	73.2	80.0	88.4	102.0
72	242.0	244.2	247.3	250.4	253.5	255.6	257.8	260.3
96	263.2	267.2	272.0	276.0	280.9	283.6	287.2	288.2
120	290.0	297.2	304.2	306.4	309.5	311.2	313.7	309.4
144	305.9	304.3	303.5	301.8	301.0	301.0	302.1	300.9
168	300.6	299.7	299.6	303.7	306.6	309.5	313.4	316.6
192	320.8	321.7	323.6	322.0	323.6	321.1	319.9	228.1
216	177.7	170.7	164.7	169.0	166.4	165.2	164.1	164.1
240	164.3	151.0	140.0	143.4	146.6	155.0	166.5	158.6
264	153.1	121.3	88.3	85.2	82.2	77.4	73.5	70.7
288	68.2	66.4	64.0	60.8	58.0	53.5	50.0	50.4
312	51.0	49.9	48.8	47.4	46.3	47.0	47.7	45.4
336	43.7	45.4	47.5	48.1	48.5	47.8	47.0	50.3

DEPTH	3079.0		TILT	65		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	271.0	268.7	266.6	266.5	266.6	265.7	263.9	264.0
24	264.0	264.6	265.2	265.2	265.2	264.8	264.5	264.6
48	264.8	263.2	261.7	262.2	262.7	264.8	267.0	266.5
72	266.1	266.3	266.6	265.9	265.7	265.9	266.6	266.2
96	259.9	265.6	265.4	262.9	259.8	262.0	263.7	265.6
120	266.6	267.7	268.9	268.5	268.0	268.9	269.9	268.2
144	266.6	267.5	268.5	267.2	266.1	265.8	265.6	266.5
168	266.6	264.0	261.3	262.1	262.7	263.2	263.2	262.9
192	262.7	263.1	263.5	264.2	263.7	263.5	263.7	264.3
216	264.9	265.4	265.6	265.5	265.5	266.8	268.2	267.1
240	266.1	266.7	264.6	266.0	267.5	268.1	267.5	269.4
264	271.4	270.6	269.9	270.9	271.9	272.2	272.5	273.3
288	274.3	273.1	273.8	273.2	272.8	272.9	273.3	272.0
312	270.9	271.7	272.6	272.7				



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.0		TILT	55		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	266.2	266.8	267.5	266.1	265.0	264.0	263.2	261.4
24	259.9	259.5	259.3	260.8	262.4	263.5	264.8	266.2
48	267.9	270.3	272.8	276.7	281.5	282.9	284.6	286.5
72	287.8	289.6	291.6	292.3	293.2	295.6	298.4	296.5
96	295.0	297.0	299.3	297.4	295.7	296.0	296.4	297.4
120	298.4	297.4	298.4	298.1	298.0	298.3	298.9	298.7
144	298.9	298.9	299.3	300.6	302.2	298.9	296.0	299.1
168	302.7	299.9	297.4	297.5	297.9	298.0	298.0	297.8
192	297.9	297.9	299.1	299.0	299.3	301.0	303.2	300.6
216	298.4	298.8	296.9	300.4	301.3	301.1	301.3	299.9
240	298.9	300.3	300.3	301.6	303.2	302.6	302.4	301.9
264	301.7	300.4	299.3	299.7	300.3	296.5	293.2	289.7
288	285.7	284.8	284.1	283.0	282.0	280.7	279.9	281.9
312	283.9	283.3	283.0	280.3	275.9	269.9	265.8	264.7
336	263.9	266.4	269.8	270.6	271.9	268.9	264.7	265.4

DEPTH	3079.0		TILT	51		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	217.5	217.6	217.9	218.8	219.8	213.3	206.8	206.2
24	204.4	219.6	228.8	235.2	243.0	243.2	243.6	242.8
48	242.4	246.6	252.5	258.3	263.5	265.0	266.7	267.6
72	268.8	272.8	277.1	279.9	282.9	286.8	291.3	296.0
96	300.8	303.2	305.0	305.6	306.6	310.9	315.7	312.8
120	313.8	312.6	315.2	316.3	317.7	316.3	315.2	317.0
144	319.1	317.2	315.7	315.1	314.8	316.3	318.1	316.7
168	315.7	316.0	316.6	318.3	320.5	320.2	322.4	320.9
192	319.8	318.9	319.6	316.3	314.3	318.9	321.8	320.7
216	319.9	319.3	321.0	318.0	321.0	320.9	321.1	319.7
240	318.6	316.8	315.7	315.5	315.7	314.3	313.8	313.1
264	312.7	310.8	309.3	299.2	281.1	272.7	249.9	242.2
288	232.9	228.3	224.3	223.7	222.7	233.3	233.7	238.



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.0		TILT	45		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.6	170.1	167.8	166.4	165.4	167.7	170.8	171.4
24	172.0	188.9	195.5	204.0	214.0	215.5	217.4	218.2
48	219.3	224.9	230.3	233.3	236.7	240.1	244.6	245.2
72	246.1	248.3	251.0	254.5	258.3	260.5	263.1	263.4
96	264.1	271.6	280.5	279.1	278.0	279.5	281.4	290.5
120	304.1	309.0	315.2	323.2	332.3	330.6	329.4	327.9
144	326.9	328.8	331.1	336.3	341.7	339.6	337.9	338.4
168	339.3	340.6	342.2	344.4	347.1	344.5	347.5	343.5
192	339.8	343.3	345.6	344.0	344.2	339.0	340.8	336.7
216	333.1	323.6	315.0	315.3	316.2	317.3	319.3	317.4
240	316.4	315.0	313.8	303.4	293.3	294.3	296.5	287.5
264	278.8	259.2	243.4	236.5	230.0	223.6	217.5	212.5
288	208.7	205.9	203.4	201.6	199.6	195.8	192.3	189.0
312	186.5	184.7	182.8	182.3	182.0	180.8	179.8	180.7
336	181.7	180.7	179.8	178.2	176.4	176.6	176.4	174.6

DEPTH	3079.0		TILT	42		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.1	166.4	165.0	164.5	164.2	164.3	164.6	164.8
24	165.3	171.6	179.4	194.5	203.8	202.0	200.6	205.8
48	210.1	214.4	219.1	223.3	228.2	230.7	233.5	232.7
72	232.3	234.1	236.3	239.5	242.9	246.7	251.1	249.4
96	244.8	258.0	260.5	260.7	261.2	261.4	262.0	261.8
120	262.0	267.8	274.6	280.1	288.8	290.7	293.0	301.2
144	311.9	316.4	320.1	325.4	332.4	326.0	320.7	323.3
168	326.3	329.1	330.9	332.3	334.1	333.2	333.6	330.5
192	328.4	331.9	335.7	332.2	329.6	323.4	318.1	312.3
216	296.3	293.8	291.3	299.2	305.8	305.3	305.1	304.3
240	303.8	303.3	303.1	293.2	281.8	279.6	277.0	272.6
264	268.8	252.4	237.8	229.5	222.2	218.3	214.8	212.2
288	209.9	207.1	203.1	200.1	1			



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.0		TILT	36		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.5	169.3	168.4	167.1	83.6	166.1	61.5	165.7
24	166.7	168.5	174.3	180.7	187.9	188.8	190.1	191.6
48	193.4	196.6	200.3	202.4	205.2	208.0	210.3	210.0
72	209.4	210.5	211.3	214.6	218.0	223.1	228.3	226.5
96	225.1	229.2	233.9	233.9	234.3	235.1	236.3	235.8
120	235.7	233.7	216.9	227.2	223.0	224.1	225.2	224.8
144	224.1	219.4	216.7	276.4	282.2	275.0	267.4	273.4
168	279.3	278.9	279.0	279.0	279.5	277.7	277.0	273.1
192	270.0	267.0	264.4	262.7	269.1	265.2	261.1	263.1
216	265.6	270.5	275.1	279.8	282.5	283.0	283.9	279.3
240	275.4	272.6	270.6	265.1	260.3	259.8	259.3	256.8
264	254.5	241.9	232.4	226.4	220.5	215.4	210.9	210.0
288	209.4	207.1	204.7	200.9	196.7	194.7	192.1	189.3
312	186.8	184.4	181.6	179.6	178.0	176.2	174.8	174.1
336	173.7	172.5	171.7	170.9	170.7	169.7	168.9	169.6

DEPTH	3079.0		TILT	33		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	86.4	82.0	74.2	75.0	76.1	66.4	59.4	168.4
24	168.1	168.5	169.2	173.9	180.8	181.8	183.2	183.7
48	184.4	190.8	197.0	196.7	196.4	198.0	199.7	200.0
72	200.6	202.1	203.7	206.4	209.2	212.4	216.5	217.6
96	219.0	221.4	224.5	221.5	218.3	218.4	218.8	221.4
120	224.5	213.7	206.6	208.1	209.9	208.8	207.0	201.1
144	193.9	198.0	202.4	209.7	219.0	227.0	235.7	232.2
168	229.2	231.0	232.8	234.6	236.2	229.5	223.2	225.7
192	228.5	230.6	230.6	235.7	236.3	244.5	244.4	248.4
216	252.9	262.6	269.3	274.9	279.4	279.5	280.1	274.5
240	269.5	266.4	263.9	258.5	254.3	253.7	253.6	249.3
264	245.6	240.8	237.3	226.7	217.6	212.5	205.9	208.7
288	211.4	207.7	204.1	201.6				



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.0		TILT	27		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	80.9	69.5	60.5	62.8	67.1	58.3	54.0	54.3
24	54.1	173.6	172.5	172.4	172.6	171.7	73.1	76.5
48	63.6	180.2	186.2	184.5	183.2	185.9	189.0	188.6
72	188.6	187.7	187.2	190.5	194.3	199.4	203.6	205.4
96	207.8	207.4	207.3	204.9	203.0	201.0	199.5	198.7
120	198.4	196.9	196.0	195.0	194.4	192.1	190.1	187.4
144	184.8	182.4	180.1	189.0	197.4	200.3	201.6	204.9
168	209.8	208.5	207.7	207.8	208.5	212.9	215.4	214.7
192	214.4	217.4	219.5	223.7	228.1	231.1	236.7	241.7
216	245.8	250.6	255.3	261.5	269.8	268.1	267.0	262.4
240	258.3	251.6	245.5	245.1	245.2	243.6	242.5	238.2
264	234.7	231.1	228.2	222.9	164.9	159.2	154.3	147.1
288	110.0	111.9	114.6	108.9	104.8	101.0	69.6	81.8
312	88.8	79.8	72.1	72.5	73.1	68.2	62.9	68.4
336	73.7	66.4	59.7	60.5	61.8	59.4	58.0	67.8

DEPTH	3079.0		TILT	24		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	78.4	66.4	59.1	60.4	61.4	56		



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.0		TILT	18		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.3	62.1	56.2	55.8	55.3	52.4	49.9	49.0
24	48.3	54.0	62.6	58.4	55.5	61.1	68.2	62.5
48	57.8	61.6	65.5	72.3	81.4	190.1	190.4	190.6
72	191.4	195.0	197.6	199.2	201.3	202.3	203.8	204.1
96	204.9	206.9	209.5	210.0	210.8	210.5	210.6	213.0
120	216.0	215.7	213.7	210.8	208.0	206.9	206.3	204.4
144	203.1	191.2	180.1	180.5	181.2	182.8	184.0	185.0
168	185.5	188.8	192.3	193.2	194.6	196.0	197.8	201.0
192	204.9	207.8	210.9	214.4	218.3	221.7	225.3	231.7
216	239.0	242.3	246.5	250.1	254.5	255.0	256.3	252.8
240	250.1	241.5	235.6	232.6	230.3	230.4	230.6	201.5
264	169.5	154.0	108.8	111.2	113.6	101.6	91.1	85.7
288	80.9	78.8	77.0	77.8	78.6	71.3	65.6	61.6
312	57.3	61.0	64.6	65.7	68.1	59.9	53.4	55.6
336	57.8	55.0	52.7	54.3	55.7	54.0	52.3	59.8

DEPTH	3079.0
-------	--------



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.0		TILT	9		VOS	5964.57	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.5	55.9	52.7	50.6	49.1	47.8	46.3	46.2
24	45.5	51.6	58.7	54.7	51.6	56.6	64.4	59.2
48	54.6	59.7	65.9	70.0	75.3	79.7	83.4	124.7
72	227.4	230.7	234.7	234.4	234.7	238.7	243.4	245.3
96	247.9	250.9	254.6	255.5	257.1	264.0	271.9	275.6
120	280.1	281.0	288.6	294.6	301.6	307.6	314.7	311.0
144	308.3	305.4	303.4	298.3	294.2	278.6	292.8	294.1
168	296.3	297.7	299.8	278.1	304.8	302.8	301.6	278.9
192	310.8	313.3	316.8	274.6	308.7	271.6	301.6	268.5
216	266.7	266.7	271.3	254.3	224.6	216.7	209.9	260.2
240	280.8	277.6	275.1	273.2	271.9	266.4	262.6	197.3
264	153.7	126.4	107.8	94.2	83.4	79.0	74.6	75.7
288	77.0	75.1	73.5	67.7	63.1	62.3	61.5	57.4
312	54.1	53.7	53.4	50.0	46.8	48.9	51.0	46.4
336	43.5	45.9	49.1	50.0	51.0	49.5	48.1	53.3



CUSTOMER : Westlake Chemicals

DATE : November 02, 2023

CAVERN : PPG No. 007B

OPERATION No. : 7

**WALL RANGES VS DEPTH**

DEPTH	3079.1		TILT	0		VOS	5966.21	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.7	50.2	49.8	47.9	46.3	45.3	44.0	44.0
24	44.2	44.4	44.2	46.8	49.5	54.6	62.2	56.9
48	52.7	57.8	64.7	67.9	71.8	78.0	86.4	104.3
72	129.0	136.7	247.1	250.3	149.8	257.4	260.4	262.3
96	263.9	268.3	273.1	277.1	281.9	284.2	287.2	289.0
120	291.5	296.8	304.5	306.5	309.0	311.6	314.4	310.4
144	306.6	306.1	305.6	304.5	303.8	302.3	301.1	302.4
168	304.2	305.9	308.4	307.5	310.9	311.9	313.7	318.0
192	323.3	324.0	325.7	322.0	321.8	319.9	318.7	223.0
216	180.5	170.6	161.4	162.2	77.4	77.3	150.3	77.8
240	78.0	136.0	127.2	122.7	118.0	134.3	145.6	150.2
264	153.0	107.5	78.1	74.9	72.1	70.4	68.6	66.4
288	64.0	59.2	55.5	53.0	51.2	50.4	49.3	47.5
312	45.6	44.5	43.7	43.4	43.2	43.2	43.2	41.8
336	40.9	42.0	42.9	43.1	42.8	44.0	45.1	47.5



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

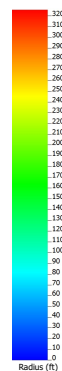
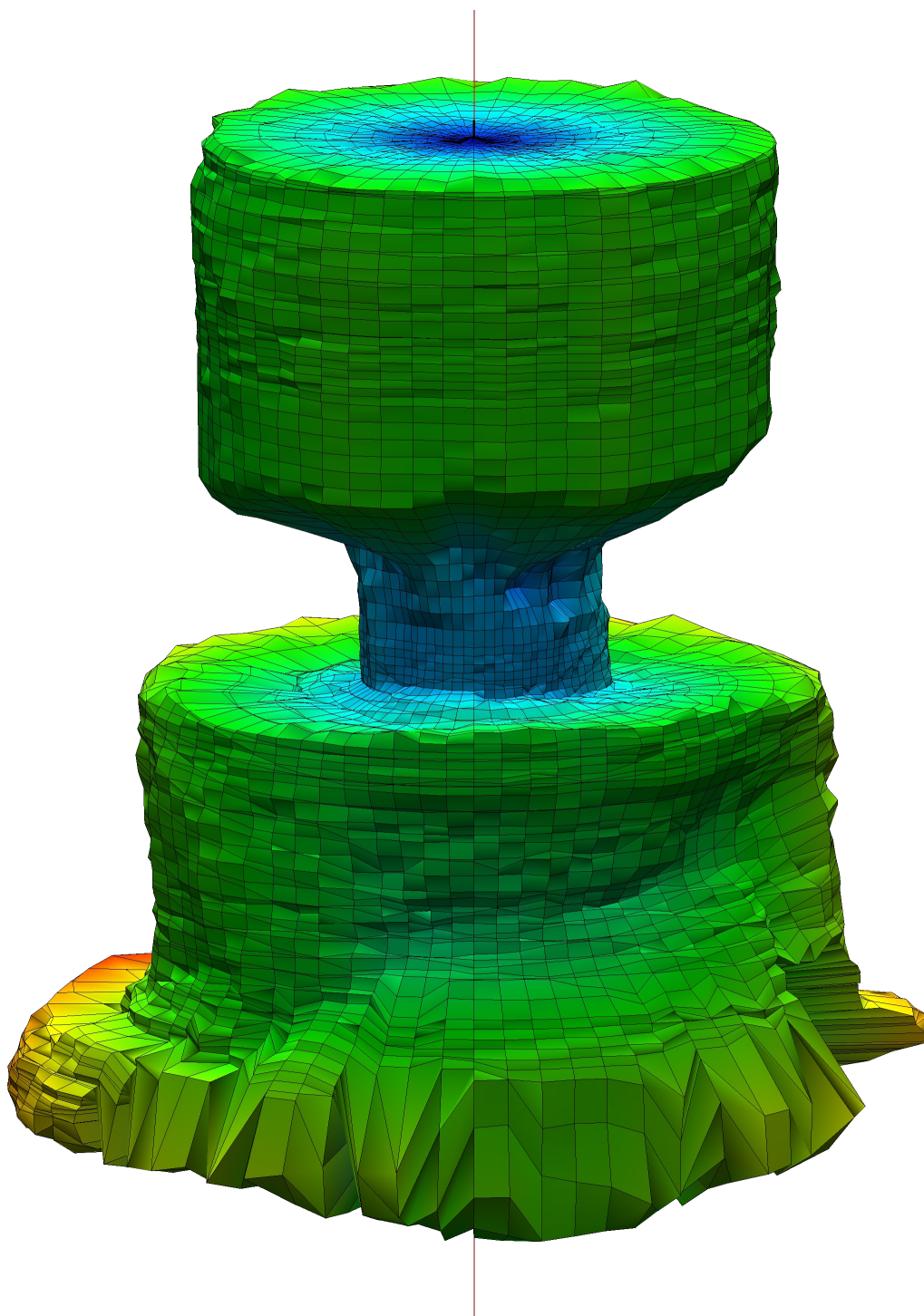
CAVERN : PPG No. 007B
OPERATION No. : 7



VIEW FROM NORTH

with an overhang of 10°

SCALE 1/100





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN : PPG No. 007B
OPERATION No. : 7



CUSTOMER :Westlake Chemicals
DATE :November 02, 2023

CAVERN :PPG No. 007B
OPERATION No. :7



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023



CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN PPG No. 007B
OPERATION No. 7



VIEW FROM NORTH
with an overhang of 0°

2400 ft

2500 ft

2600 ft

2700 ft

2800 ft

Depth (MD)

2900 ft

3000 ft

3100 ft

3200 ft

3300 ft

300 ft

200 ft

100 ft

0 ft

100 ft

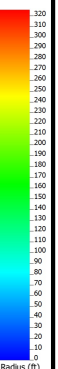
200 ft

300 ft

SCALE 1/100

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

T.D. @ 3099.6 ft (MD)





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

CAVERN PPG No. 007B
OPERATION No. 7



VIEW FROM EAST
with an overhang of 0°

2400 ft

2500 ft

2600 ft

2700 ft

2800 ft

Depth (MD)

2900 ft

3000 ft

3100 ft

3200 ft

3300 ft

300 ft

200 ft

100 ft

0 ft

100 ft

200 ft

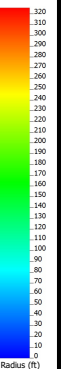
300 ft

SCALE 1/100

▲ Casing 7-5/8" at 2501 ft (MD)

▲ Casing 5-1/2" at 2607 ft (MD)

T.D. @ 3099.6 ft (MD)





CUSTOMER : Westlake Chemicals
DATE : November 02, 2023

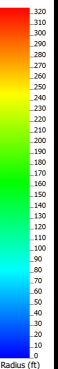
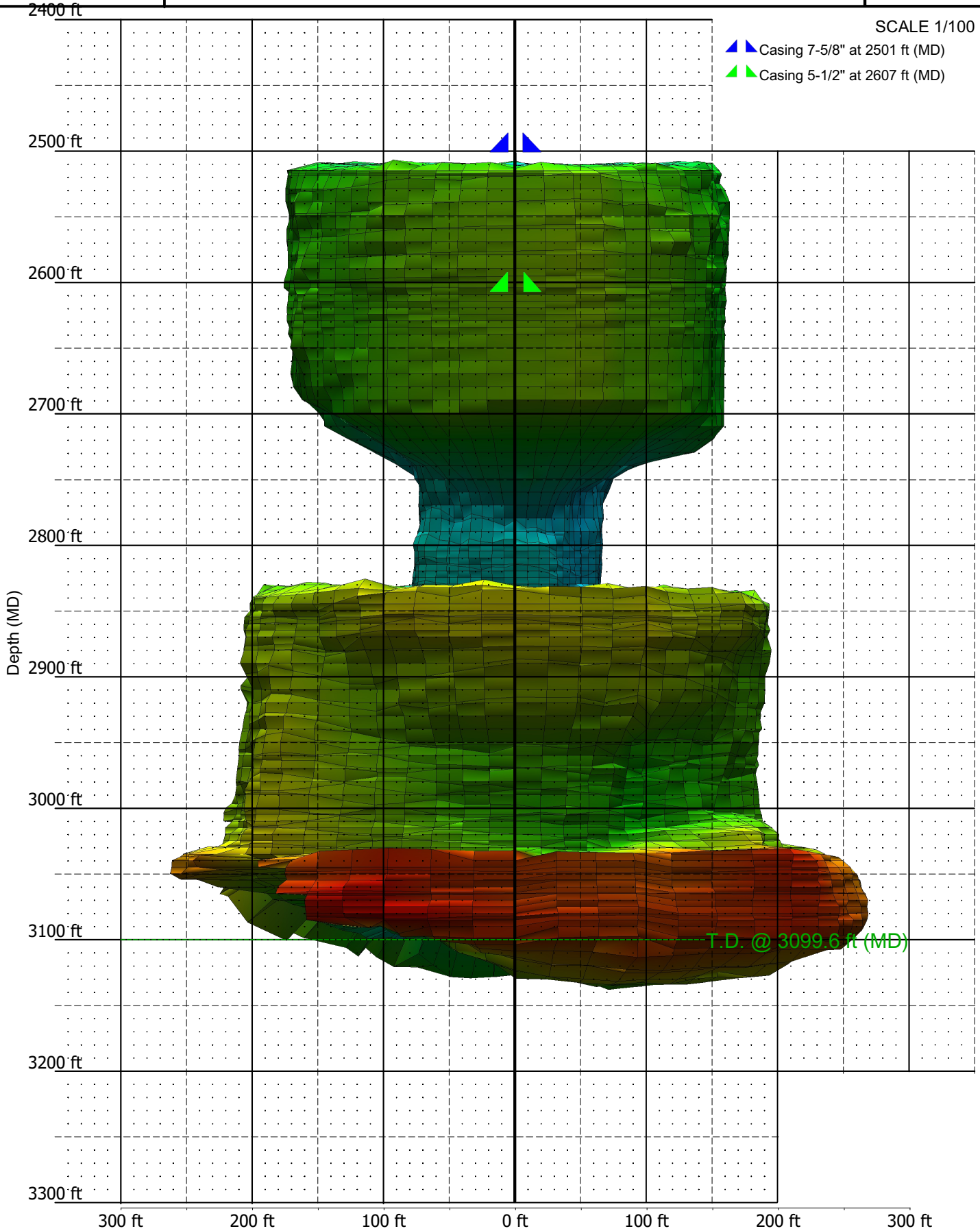
CAVERN PPG No. 007B
OPERATION No. 7



VIEW FROM SOUTH
with an overhang of 0°

SCALE 1/100

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





CUSTOMER : Westlake Chemicals

CAVERN

PPG No. 007B

DATE : November 02, 2023

OPERATION No. 7



VIEW FROM WEST

with an overhang of 0°

2400 ft

2500 ft

2600 ft

2700 ft

2800 ft

Depth (MD)

2900 ft

3000 ft

3100 ft

3200 ft

3300 ft

300 ft

200 ft

100 ft

0 ft

100 ft

200 ft

300 ft

SCALE 1/100

▲ Casing 7-5/8" at 2501 ft (MD)

▲ Casing 5-1/2" at 2607 ft (MD)

T.D. @ 3099.6 ft (MD)

