

DEVIATION - TOTCO SURVEYS

195'	Off 1/2 Deg.
600	1/2
1240	1/2
1820	1-1/4
2090	1-1/2
2280	2-3/4
2365	2-3/4
2460	3-1/2
2570	2-1/2
2730	2
2840	1-3/4
3005	1-1/4
3190	1/2
3375	1/4
3500	1/4
3645	1/4
3850	1/2
4010	1/2
4140	1/4
4225	1/4
4305	1/4
4380	0
4600	1/2
4705	1/4
4810	1/4
4910	1/4
5005	1/2
5090	1/2
5160	1
5235	1/2
5300	3/4
5385	3/4
5465	3/4
5545	3/4
5650	3/4
5740	1/2
5825	3/4
5900	3/4
5990	3/4
6075	3/4
6130	3/4

6205'	Off 1/2 Deg.
6315	0
6368	1/2
6395	3/4
6445	1/2
6580	3/4
6635	1/2
6710	1/2
6830	1/4
6935	3/4
7045	1/2
7100	1/2
7235	1/4
7280	1/4
7375	1/2
7515	3/4
7560	3/4
7620	1/2
7675	1
7715	1-1/2
7735	1-1/4
7765	1-1/4
7830	0
7845	0
7915	1-1/2
7935	1-1/4
7965	1-1/4
8050	0
8095	1-1/4
8125	1-1/2
8170	1
8220	1-1/2
8275	1-1/4
8320	1-1/2
8375	1-3/4
8415	1-1/2
8460	1-3/4
8515	0
8560	1-3/4
8650	2
8750	2-1/4

DRILL STEM TESTS

- No. 1, 12-2-52 - 1-1/2 Hour Johnston Drill Stem Test from 6275-6400' with 5/8" choke at 6251' - Two packers at 6268' and 6275' - Bombs at 6396' and 6398' - Tool opened 5:45 AM 12-2-52 - Medium blow of air 25 minutes then gas too small to measure - Recovered 300' oil and gas cut drilling mud, cut 15% oil, no water - Hydrostatic Pressure 3375# - Flowing Pressure 500# - 15 Minute BHP 1600#.
- No. 2, 12-3-52 - 3-1/2 Hour Johnston Drill Stem Test from 6400-6514' with 5/8" choke at 6379' - Two packers at 6392' and 6400' - Bombs at 6510' and 6512' - Tool opened 8:55 PM 12-3-52 - Gas to surface in 60 minutes, too small to measure, very weak blow throughout test - Recovered 300' fluid, oil and gas cut drilling mud, cut 5% oil, no water - Hydrostatic Pressure 3500# - Flowing Pressure 375# - 15 Minute BHP 625#.
- No. 3, 12-5-52 - 1 Hour 15 Minute Johnston Drill Stem Test from 6514-6639' with 5/8" choke at 6489' - Two packers at 6505' and 6514' - Bombs at 6635' and 6637' - Tool opened 10:AM 12-5-52 - Medium blow air 45 minutes, decreased to end of test - Recovered 3336' drilling mud gas cut, 26' oil cut mud, cut 2% oil, no water - Hydrostatic Pressure 3100# - Flowing Pressure 1775# - 15 Minute BHP 2725#.
- No. 4, 12-7-52 - 2 Hour Johnston Drill Stem Test from 6639-6764' with 5/8" choke at 6618' - Two packers at 6631' and 6639' - Bombs at 6760' and 6762' - Tool opened 1:25 PM 12-7-52 - Gas to surface 9 minutes, 27,200 cu. ft. throughout test - Reversed out 3 bbls. 39.5 gravity clean oil, 3 bbls. oil and gas cut drilling mud, cut 30% oil - Recovered 90' oil and gas cut mud in tool, cut 30% oil, no water - Hydrostatic Pressure 3525# - Flowing Pressure 1075# - 15 Minute BHP 2450#.
- No. 5, 12-9-52 - 4 Hour Johnston Drill Stem Test from 6764-6880' with 5/8" choke at 6740' - Two packers at 6756' and 6764' - Bombs at 6876' and 6878' - Tool opened 8:25 PM 12-8-52 - Gas to surface 5 minutes, 286,100 cu. ft. 24 hour rate - Mud to surface 1 hour 19 minutes, mud cut oil in 1 hour 24 minutes - Flowed to pits 6 minutes, flowed to tank 36 bbls. 39 gravity clean oil and 3 bbls. mud in 2-1/2 hours, no water - Recovered 90' oil and gas cut mud, cut 50% oil - Hydrostatic Pressure 3375# - Flowing Pressure at surface 0-25# - Bottom hole Flowing Pressure 360-630# - 15 Minute BHP 2475#.
- No. 6, 12-10-52 - 2 Hour Johnston Drill Stem Test from 6879-6993' with 5/8" choke at 6855' - Two packers at 6870' and 6879' - Bombs at 6989' and 6991' - Tool opened 7:40 PM 12-10-52 - Gas to surface in 21 minutes, too small to measure - Recovered 820' fluid, 180' drilling mud, 640' oil and gas cut mud, cut 5% oil, no water - Hydrostatic Pressure 3750# - Flowing Pressure 500-750# - 15 Minute BHP 2750#.
- No. 7, 12-22-52 - 1-1/2 Hour Johnston Drill Stem Test from 7720-7832' with 5/8" choke at 7696' - Two packers at 7712' and 7720' - Bombs at 7828' and 7830' - Tool opened 12:15 PM 12-22-52 - Used no blanket - Gas to surface in 10 minutes, too small to measure - No fluid to surface - Recovered 560' oil and gas cut drilling mud, cut 30% oil - Hydrostatic Pressure 3750# - Flowing Pressure 150# - 15 Minute BHP 550#.
- No. 8, 12-25-52 - 2 Hour 5 Minute Johnston Drill Stem Test from 7881-8002' with 5/8" choke at 7857' - Two packers at 7872' and 7881' - Bombs at 7998' and 8000' - Tool opened 10:55 PM 12-25-52 - Gas to surface in 7 minutes, 24 hour rate 781 MCF, mud to surface in 1 hour, oil in 1 hour 5 minutes - Flowed 37.89 bbls. 39 gravity oil in 1 hour - Pulled 28 stands and reversed out 5 bbls. oil - Recovered 250' oil below pump off sub - Hydrostatic Pressure 3750# - Flowing Pressure 700# - 15 minute BUP 2625#.
- No. 9, 1-6-53 - 2 Hour Johnston Drill Stem Test from 8655-8780' with 5/8" choke at 8629' - Two packers at 8647' and 8655' - Bombs at 8776' and 8778' - Tool opened 10:25 PM 1-5-53 - Good blow air decreasing to very weak blow at end of test - Recovered 4170' fluid, 360' drilling mud, 630' oil and gas cut mud, cut 50% oil and 3180' 40 gravity clean oil, no water - Hydrostatic Pressure 4375# - Flowing Pressure 800-1600# - 15 Minute BHP 1950#.