

A Gyrodata Directional Survey

CONCHO RESOURCES

Well: SHUGART 31 FED #1, 4-1/2" DRILLPIPE

Location: PATTERSON DRILLING RIG #144, EDDY COUNTY, NEW MEXICO

Job Number: MD0501GMW203

MEASURED DEPTH feet	I N C L deg.	A Z I M U T H deg.	V E R T I C A L S E C T I O N feet	D O G L E G S E V E R I T Y deg./ 100 ft.	V E R T I C A L D E P T H feet	C L O S U R E D I S T . feet	A Z I M U T H deg.	H O R I Z O N T A L C O O R D I N A T E S feet
0.0	0.00	0.00	0.0	0.00	0.0	0.0	0.0	0.00 N 0.00 E

0 - 7052 FT RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4-1/2" DRILLPIPE								
ALL MEASUREMENTS AND COORDINATES REFERENCED TO PATTERSON #144 R.K.B.								

100.0	0.59	106.56	0.1	0.59	100.0	0.5	106.6	0.15 S 0.49 E
200.0	0.68	104.80	0.4	0.09	200.0	1.6	105.9	0.45 S 1.56 E
300.0	0.61	108.89	0.8	0.08	300.0	2.8	106.3	0.77 S 2.64 E
400.0	0.44	94.75	1.0	0.21	400.0	3.7	105.4	0.98 S 3.54 E
500.0	0.46	85.87	1.0	0.07	500.0	4.4	102.8	0.98 S 4.32 E
600.0	0.47	87.18	0.9	0.02	600.0	5.2	100.3	0.93 S 5.14 E
700.0	0.59	87.60	0.9	0.12	700.0	6.1	98.3	0.89 S 6.07 E
800.0	0.69	91.75	0.9	0.11	800.0	7.2	97.0	0.89 S 7.19 E
900.0	0.67	80.51	0.8	0.13	900.0	8.4	95.5	0.81 S 8.37 E
1000.0	0.65	74.92	0.6	0.07	1000.0	9.5	93.4	0.56 S 9.50 E
1100.0	0.65	79.74	0.3	0.05	1099.9	10.6	91.7	0.31 S 10.60 E
1200.0	0.68	80.47	0.1	0.03	1199.9	11.7	90.6	0.12 S 11.75 E
1300.0	0.63	85.71	-0.0	0.08	1299.9	12.9	89.9	0.02 N 12.88 E
1400.0	0.64	82.58	-0.1	0.04	1399.9	14.0	89.4	0.14 N 13.99 E
1500.0	0.69	77.63	-0.3	0.07	1499.9	15.1	88.7	0.34 N 15.13 E
1600.0	0.73	76.04	-0.6	0.04	1599.9	16.3	87.8	0.62 N 16.33 E
1700.0	0.79	74.30	-1.0	0.07	1699.9	17.6	86.9	0.96 N 17.61 E
1800.0	0.82	71.25	-1.4	0.05	1799.9	19.0	85.8	1.38 N 18.96 E
1900.0	0.88	72.56	-1.8	0.07	1899.9	20.4	84.8	1.84 N 20.36 E
2000.0	0.80	63.98	-2.4	0.15	1999.9	21.9	83.8	2.37 N 21.73 E