



Job Number: SVMO-141479
 Company: BOPCO, LP
 Lease/Well: Big Eddy Drilling Island 4 269H
 Location: Eddy County, NM
 Rig Name: Independence Contract Drilling #202
 RKB: 26'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.32°
 Grid: East To Grid North
 File name: Y:\WINSER-1\2014SU-1\BOPCO\MOIBIGEDD-2\4269H.SVY
 Date/Time: 04-Nov-14 / 12:48
 Curve Name: Surface - 658' M.D. (Rate Gyro)

MS Survey

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 60.41
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 658' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 Holly Patterson 11/11/14
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
88.00	.17	75.01	88.00	.03	.13	.13	.13	75.01	.19
178.00	.19	38.55	178.00	.19	.35	.39	.39	62.01	.13
268.00	.22	42.26	268.00	.43	.56	.70	.70	52.37	.04
358.00	.21	35.51	358.00	.69	.77	1.01	1.03	48.04	.03
448.00	.25	38.47	448.00	.98	.99	1.34	1.39	45.22	.05
538.00	.26	36.94	538.00	1.30	1.23	1.71	1.79	43.54	.01
628.00	.27	12.03	628.00	1.67	1.40	2.04	2.18	40.00	.13
Last Survey Depth Recorded									
658.00	.18	47.67	658.00	1.77	1.45	2.13	2.29	39.33	.54

30-015-42638