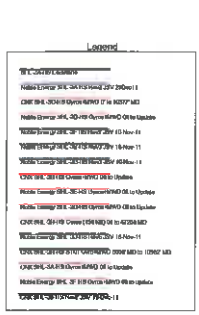
noble energy

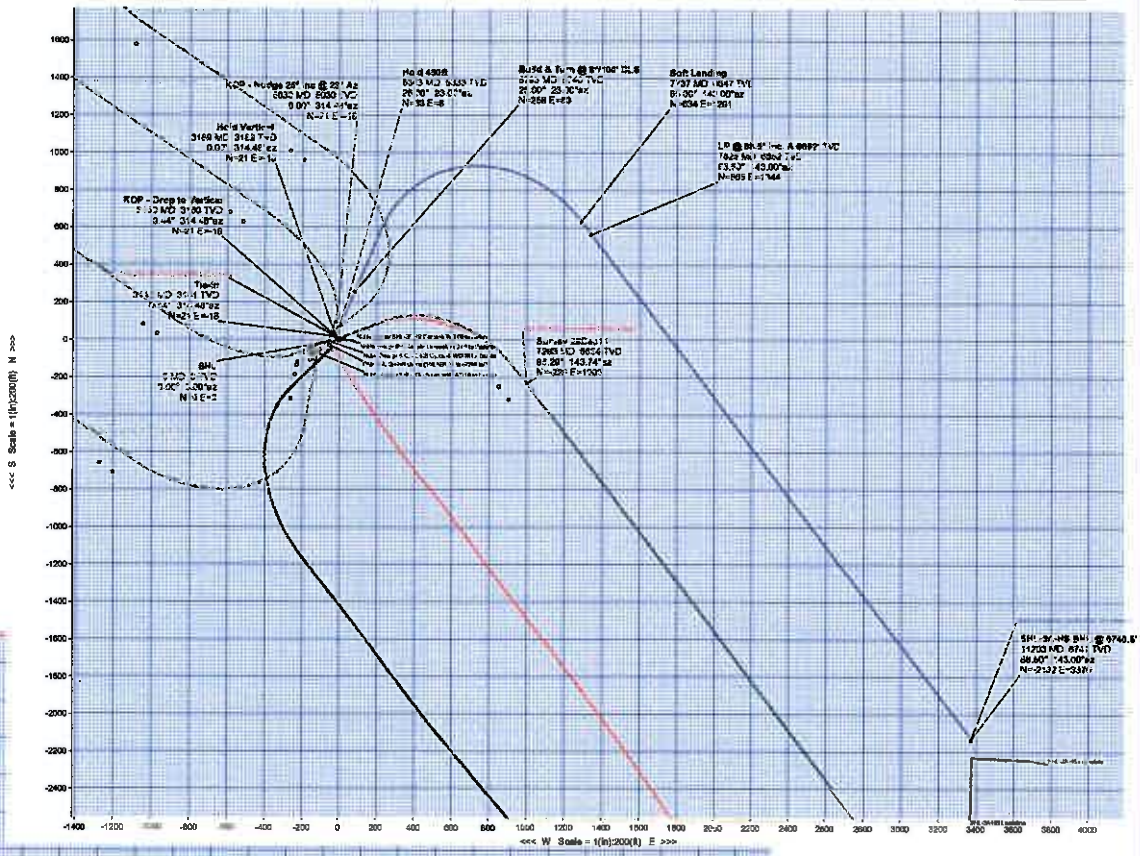
Noble Energy

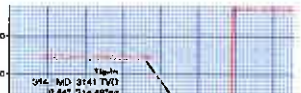
PATHFINDER
A Schlumberger Company

WELL	FIELD	STRUCTURE
SHL-3A-HS	WV Marshall County (NAD 27)	Nabors M59

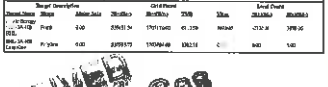
Magnetic Parameters				Surface Location			NAD27 West Virginia State Plane, Northern Zone, US Feet			Miscellaneous			
Model: BGGM 2011	Dip: 67.502°	Date: November 05, 2011		Lat: N 39 58 16.216	Northing: 537583.75 flUS	Grid Conv: -0.67405448°				Slot: Noble Energy SHL-3A-HS	TVD Ref:	RB (1012.18ft above Unknown)	
	Mag Dec: -8.718°	FS: 52997.0nT		Lon: W 80 33 24.583	Eastings: 1703794.58 flUS	Scale Fact: 0.99995385				Plot: Rc 2 REV 2(Dec11	Srvy Date:	November 05, 2011	

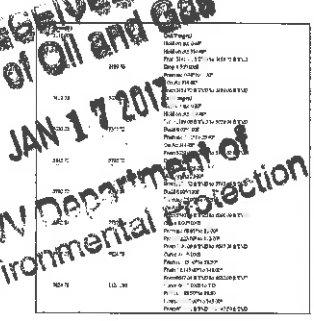






Comments	Survey MD(ft)	Inclination(deg)	Azimuth(deg)	TVD(ft)	Sub-Sea TVD(ft)	VSec(ft)	Critical Points N/S(ft)	Critical Points E/W(ft)	Latitude	Longitude	Eastings(ftUS)	Northings(ftUS)	Closure(ft)	Closure Azimuth(deg)	DLS(deg/100ft)	Tool Face(deg)
SHL	0.00	0.00	0.00	0.00	-1312.18	0.00	0.00	0.00	N 39 58 16.216	W 80 33 24.583	1703794.58	537583.75	0.00			107.48
Tie-In	3141.00	0.44	314.48	3140.72	1828.54	-25.68	20.78	-17.60	N 39 58 16.419	W 80 33 24.912	1703777.08	537804.53	27.24	319.73	0.29	314.48
KOP - Drop to Vertical	3150.00	0.44	314.48	3159.72	1847.54	-26.12	20.89	-17.71	N 39 58 16.420	W 80 33 24.914	1703776.97	537804.63	27.38	319.71	0.00	314.48
Hold Vertical	3169.33	0.00	314.48	3182.06	1876.88	-26.28	20.98	-17.79	N 39 58 16.421	W 80 33 24.915	1703776.89	537804.71	27.49	319.89	1.50	314.48
KOP - Nudge 25° Inc @ 23° Az	5030.22	0.00	314.48	5029.94	3717.76	-26.23	20.98	-17.79	N 39 58 16.421	W 80 33 24.915	1703776.89	537804.71	27.49	319.89	0.00	23.00
Hold 4500	5342.72	25.00	23.00	5332.62	4020.44	-37.05	82.73	8.43	N 39 58 17.034	W 80 33 24.587	1703803.11	537896.46	83.16	5.82	8.00	0.00
Build & Turn @ 8°/100' DLS	5792.72	25.00	23.00	5740.46	4428.28	-67.71	257.79	82.74	N 39 58 18.779	W 80 33 23.659	1703877.42	537841.53	270.74	17.79	0.00	0.00
	6302.84	65.81	23.00	6091.09	4778.91	-126.03	555.15	221.89	N 39 58 22.024	W 80 33 21.924	1704016.36	538168.87	625.75	20.75	8.00	108.20
Soft Landing	7737.21	85.00	143.00	6647.04	5334.85	752.84	834.46	1291.21	N 39 58 22.635	W 80 33 9.196	1705065.83	538218.18	1438.66	63.83	8.00	0.00
LP @ 89.5° Inc. & 6652' TVD	7824.76	89.50	143.00	6652.00	5339.82	834.61	864.67	1343.79	N 39 58 21.952	W 80 33 7.510	1705138.41	538148.40	1457.61	67.21	4.00	151.51
SHL-3A-HS BHL @ 6740.5' TVD	11202.86	89.50	143.00	6740.50	5428.32	3693.06	-2132.31	3376.06	N 39 57 55.535	W 80 32 41.006	1707170.60	535451.54	3993.06	122.28	0.00	





Received
Office of Oil and Gas
JAN 17 2017
WV Department of
Environmental Protection

Drawn By:	J.Vannoni
Date Created:	December 29, 2011 04:39:03 PM
Checked By:	
Checked Date:	
Approved By:	
Approved Date:	

01/27/2017