



Chesapeake

Brooke County Park
BRK 8H

Brooke Co. WV

DIRECTIONAL DRILLING COORDINATOR
Mike Long

DISTRICT OPERATIONS MANAGER
DAVID FONTENOT



Scientific Drilling

RECEIVED
Oil and Gas
APR 25 2014
West Virginia Department of
Environmental Protection



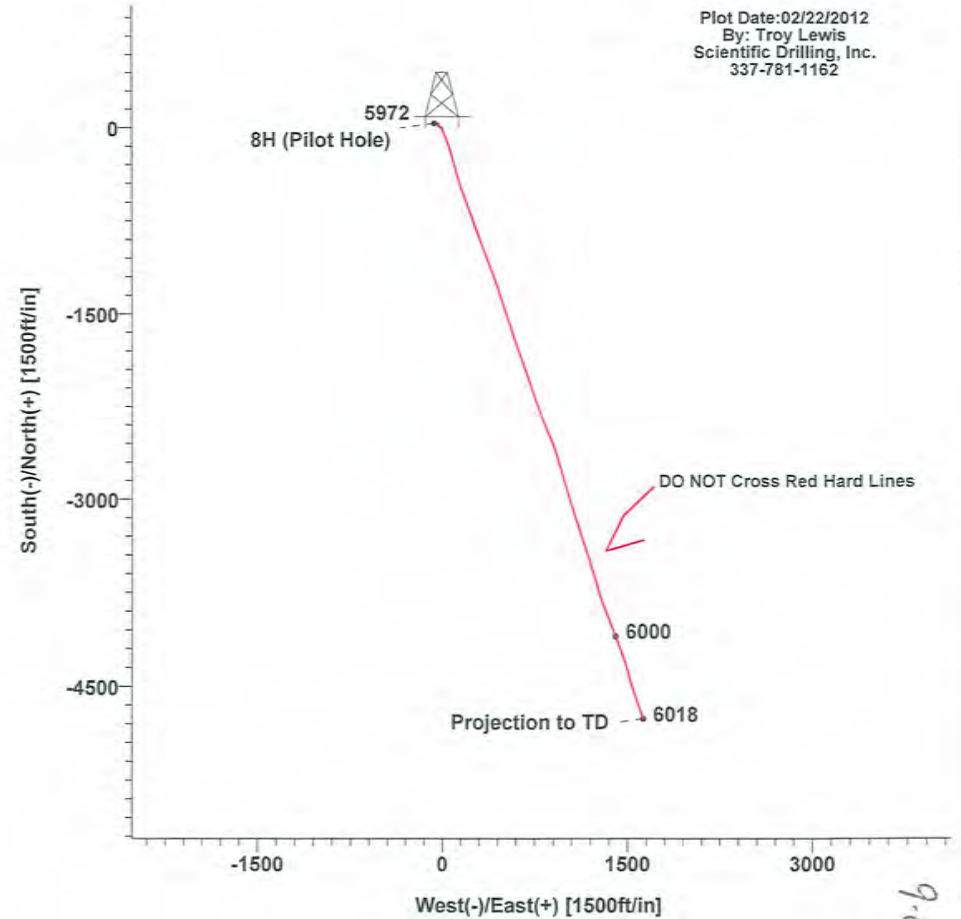
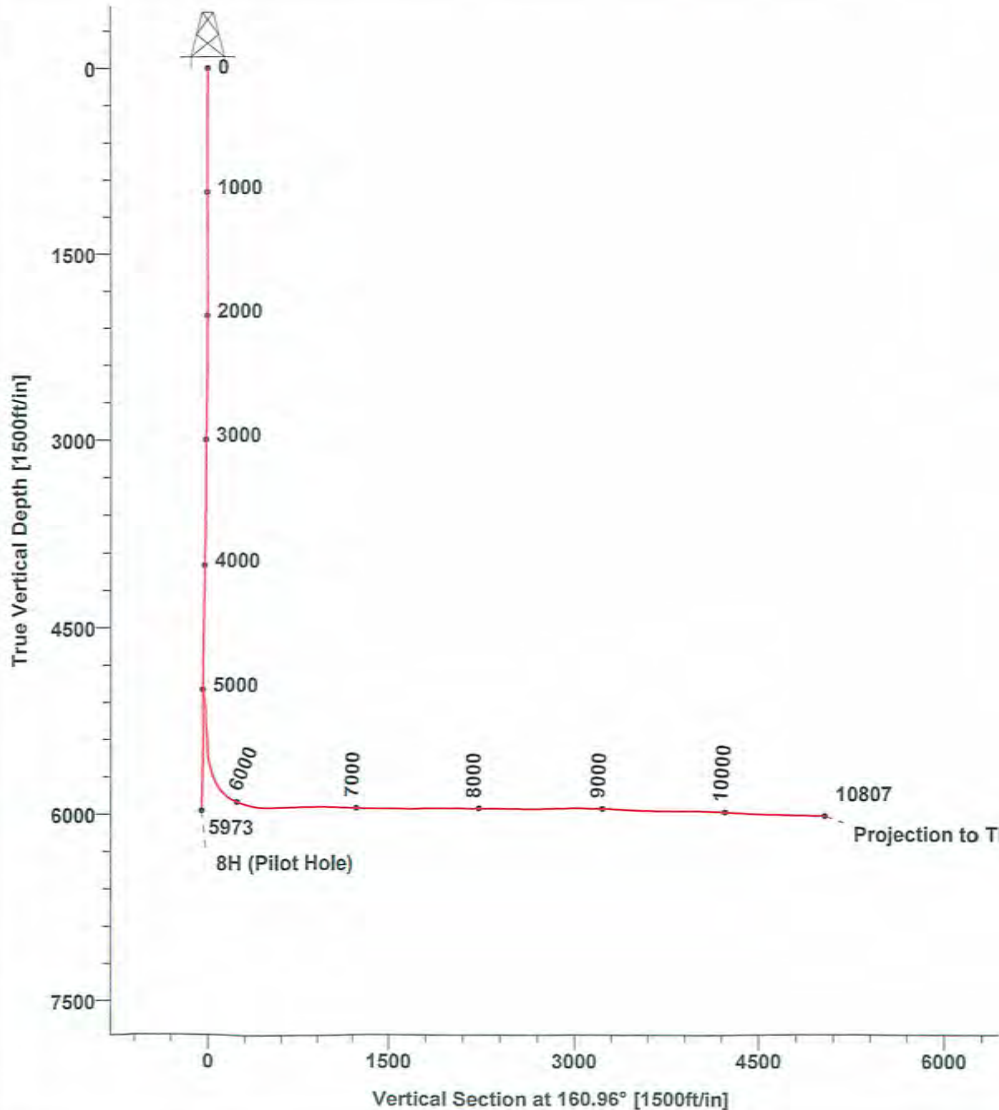
CHESAPEAKE

Field: Brooke, WV
 Site: Brooke County Park
 Well: 8H
 Wellpath: Lateral



Plot Date: 02/22/2012
 By: Troy Lewis
 Scientific Drilling, Inc.
 337-781-1162

WELL DETAILS							
Name	N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
8H	0.00	0.00	642935.50	1707482.20	40°15'37.713N	080°32'53.109W	N/A



Azimuths to Grid North
 True North: 0.67°
 Magnetic North: -8.11°

Magnetic Field
 Strength: 53046nT
 Dip Angle: 67.76°
 Date: 02/22/2012
 Model: IGRF2010

110011

SDI Survey Report

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:01:36	Page: 1
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North	Vertical (TVD) Reference: GL 1206+19 1225.0	
Site: Brooke County Park	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)	Survey Calculation Method: Minimum Curvature	
Well: 8H	Db: Sybase		
Wellpath: Pilot Hole			

Field: Brooke, WV	Map System: US State Plane Coordinate System 1927	Map Zone: West Virginia, Northern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Well Centre	
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010	

Site: Brooke County Park			
Site Position:	Northing: 642935.50 ft	Latitude: 40 15 37.713 N	
From: Map	Easting: 1707482.20 ft	Longitude: 80 32 53.109 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 1206.00 ft		Grid Convergence: -0.67 deg	

Well: 8H	Slot Name:
Well Position: +N/-S 0.00 ft	Northing: 642935.50 ft
+E/-W 0.00 ft	Easting : 1707482.20 ft
Position Uncertainty: 0.00 ft	Latitude: 40 15 37.713 N
	Longitude: 80 32 53.109 W

Wellpath: Pilot Hole	Drilled From: Surface
Current Datum: GL 1206+19	Tie-on Depth: 0.00 ft
Magnetic Data: 01/25/2012	Above System Datum: Mean Sea Level
Field Strength: 53056 nT	Declination: -8.78 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 67.76 deg
ft	+N/-S ft
ft	+E/-W ft
ft	Direction deg
0.00	0.00
0.00	0.00
0.00	160.96

Survey Program for Definitive Wellpath			
Date: 01/30/2012	Validated: No	Version: 3	
Actual From ft	To ft	Survey	Toolcode Tool Name
0.00	5040.00	Survey #1 (0.00-5040.00)	NS-GYRO-MS North sensing gyrocompassing m
5040.00	5973.00	Survey #2 (5040.00-5973.00)	SDI MWD SDI MWD - Standard ver 1.0.1

Survey										
MD	Incl	Azim	TVD	+N/-S	+E/-W	VS	DLS	Build	Turn	Tool/Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
100.00	1.53	289.46	99.99	0.44	-1.26	-0.83	1.53	1.53	0.00	NS-GYRO-MS
200.00	1.38	294.70	199.96	1.39	-3.61	-2.49	0.20	-0.15	5.24	NS-GYRO-MS
300.00	0.88	297.10	299.94	2.25	-5.39	-3.88	0.50	-0.50	2.40	NS-GYRO-MS
400.00	0.87	277.84	399.92	2.70	-6.82	-4.78	0.29	-0.01	-19.26	NS-GYRO-MS
500.00	0.84	274.43	499.91	2.86	-8.31	-5.41	0.06	-0.03	-3.41	NS-GYRO-MS
600.00	0.82	246.38	599.90	2.63	-9.69	-5.65	0.40	-0.02	-28.05	NS-GYRO-MS
700.00	0.70	267.17	699.89	2.31	-10.96	-5.76	0.30	-0.12	20.79	NS-GYRO-MS
800.00	0.61	256.02	799.89	2.15	-12.09	-5.98	0.16	-0.09	-11.15	NS-GYRO-MS
900.00	0.63	262.19	899.88	1.95	-13.15	-6.13	0.07	0.02	6.17	NS-GYRO-MS
1000.00	0.22	268.65	999.88	1.87	-13.88	-6.30	0.41	-0.41	6.46	NS-GYRO-MS
1100.00	0.11	279.31	1099.88	1.88	-14.17	-6.40	0.11	-0.11	10.66	NS-GYRO-MS
1200.00	0.24	304.55	1199.88	2.02	-14.44	-6.62	0.15	0.13	25.24	NS-GYRO-MS
1300.00	0.17	201.33	1299.88	2.00	-14.66	-6.67	0.32	-0.07	-193.22	NS-GYRO-MS
1400.00	0.13	221.33	1399.88	1.77	-14.79	-6.50	0.07	-0.04	20.00	NS-GYRO-MS
1500.00	0.06	243.03	1499.88	1.66	-14.92	-6.44	0.08	-0.07	21.70	NS-GYRO-MS
1600.00	0.27	241.11	1599.88	1.53	-15.17	-6.39	0.21	0.21	-1.92	NS-GYRO-MS
1700.00	0.47	264.64	1699.88	1.37	-15.78	-6.45	0.25	0.20	23.53	NS-GYRO-MS
1800.00	0.52	307.29	1799.87	1.61	-16.55	-6.92	0.36	0.05	42.65	NS-GYRO-MS
1900.00	0.46	303.95	1899.87	2.11	-17.25	-7.62	0.07	-0.06	-3.34	NS-GYRO-MS
2000.00	0.52	304.21	1999.86	2.59	-17.95	-8.31	0.06	0.06	0.26	NS-GYRO-MS
2100.00	0.62	293.00	2099.86	3.06	-18.83	-9.03	0.15	0.10	-11.21	NS-GYRO-MS

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SDI Survey Report

9-00111

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:01:36	Page: 2
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North		
Site: Brooke County Park	Vertical (TVD) Reference: GL 1206+19 1225.0		
Well: 8H	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Wellpath: Pilot Hole	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
2200.00	0.67	290.63	2199.85	3.47	-19.87	-9.77	0.06	0.05	-2.37	NS-GYRO-MS
2300.00	0.19	319.11	2299.85	3.81	-20.53	-10.29	0.51	-0.48	28.48	NS-GYRO-MS
2400.00	0.31	305.82	2399.85	4.09	-20.86	-10.67	0.13	0.12	-13.29	NS-GYRO-MS
2500.00	0.35	325.05	2499.85	4.50	-21.25	-11.18	0.12	0.04	19.23	NS-GYRO-MS
2600.00	0.63	327.89	2599.84	5.21	-21.72	-12.01	0.28	0.28	2.84	NS-GYRO-MS
2700.00	0.79	332.61	2699.84	6.29	-22.33	-13.23	0.17	0.16	4.72	NS-GYRO-MS
2800.00	0.70	332.46	2799.83	7.45	-22.93	-14.52	0.09	-0.09	-0.15	NS-GYRO-MS
2900.00	0.66	324.92	2899.82	8.46	-23.54	-15.67	0.10	-0.04	-7.54	NS-GYRO-MS
3000.00	0.45	306.76	2999.82	9.16	-24.19	-16.55	0.27	-0.21	-18.16	NS-GYRO-MS
3100.00	0.92	284.34	3099.81	9.60	-25.28	-17.32	0.53	0.47	-22.42	NS-GYRO-MS
3200.00	0.83	288.70	3199.80	10.03	-26.74	-18.20	0.11	-0.09	4.36	NS-GYRO-MS
3300.00	0.57	295.87	3299.79	10.48	-27.88	-19.00	0.27	-0.26	7.17	NS-GYRO-MS
3400.00	0.58	299.83	3399.78	10.95	-28.76	-19.73	0.04	0.01	3.96	NS-GYRO-MS
3500.00	0.51	342.39	3499.78	11.62	-29.34	-20.56	0.40	-0.07	42.56	NS-GYRO-MS
3600.00	0.65	307.56	3599.78	12.39	-29.92	-21.48	0.37	0.14	-34.83	NS-GYRO-MS
3700.00	0.56	351.90	3699.77	13.22	-30.44	-22.43	0.46	-0.09	44.34	NS-GYRO-MS
3800.00	0.98	323.76	3799.76	14.40	-31.01	-23.73	0.55	0.42	-28.14	NS-GYRO-MS
3900.00	0.77	351.01	3899.75	15.75	-31.62	-25.20	0.46	-0.21	27.25	NS-GYRO-MS
4000.00	0.71	4.54	3999.74	17.03	-31.68	-26.43	0.18	-0.06	13.53	NS-GYRO-MS
4100.00	0.82	347.75	4099.73	18.35	-31.78	-27.71	0.25	0.11	-16.79	NS-GYRO-MS
4200.00	1.30	0.62	4199.72	20.18	-31.92	-29.49	0.53	0.48	12.87	NS-GYRO-MS
4300.00	0.94	7.12	4299.70	22.13	-31.81	-31.30	0.38	-0.36	6.50	NS-GYRO-MS
4400.00	1.28	355.37	4399.68	24.06	-31.80	-33.11	0.41	0.34	-11.75	NS-GYRO-MS
4500.00	1.14	19.01	4499.66	26.11	-31.56	-34.98	0.51	-0.14	23.64	NS-GYRO-MS
4600.00	1.23	15.19	4599.63	28.09	-30.96	-36.65	0.12	0.09	-3.82	NS-GYRO-MS
4700.00	1.29	352.69	4699.61	30.24	-30.82	-38.64	0.50	0.06	-22.50	NS-GYRO-MS
4800.00	0.87	3.73	4799.59	32.11	-30.91	-40.44	0.47	-0.42	11.04	NS-GYRO-MS
4900.00	1.09	14.75	4899.58	33.79	-30.62	-41.93	0.29	0.22	11.02	NS-GYRO-MS
5000.00	0.88	346.56	4999.56	35.46	-30.56	-43.49	0.52	-0.21	-28.19	NS-GYRO-MS
5040.00	0.45	7.62	5039.56	35.91	-30.61	-43.93	1.22	-1.07	52.65	NS-GYRO-MS
5067.00	0.20	286.36	5066.56	36.03	-30.64	-44.06	1.72	-0.93	-300.96	SDI MWD
5098.00	0.68	222.69	5097.56	35.91	-30.82	-44.00	1.99	1.55	-205.39	SDI MWD
5129.00	1.44	215.28	5128.55	35.46	-31.17	-43.68	2.49	2.45	-23.90	SDI MWD
5161.00	2.34	219.40	5160.54	34.62	-31.81	-43.11	2.84	2.81	12.87	SDI MWD
5193.00	2.87	228.06	5192.50	33.58	-32.82	-42.45	2.06	1.66	27.06	SDI MWD
5224.00	3.25	234.52	5223.46	32.56	-34.12	-41.90	1.65	1.23	20.84	SDI MWD
5288.00	3.06	240.58	5287.36	30.66	-37.08	-41.08	0.60	-0.30	9.47	SDI MWD
5352.00	2.58	255.69	5351.29	29.47	-39.97	-40.89	1.38	-0.75	23.61	SDI MWD
5415.00	2.52	260.05	5414.22	28.88	-42.70	-41.23	0.32	-0.10	6.92	SDI MWD
5478.00	2.52	277.74	5477.16	28.83	-45.44	-42.07	1.23	0.00	28.08	SDI MWD
5542.00	2.39	282.94	5541.11	29.31	-48.14	-43.41	0.40	-0.20	8.12	SDI MWD
5605.00	2.16	277.14	5604.06	29.76	-50.59	-44.63	0.52	-0.37	-9.21	SDI MWD
5668.00	1.86	289.10	5667.02	30.24	-52.74	-45.79	0.82	-0.48	18.98	SDI MWD
5731.00	1.62	285.81	5729.99	30.81	-54.56	-46.93	0.41	-0.38	-5.22	SDI MWD
5795.00	1.88	284.99	5793.96	31.33	-56.45	-48.03	0.41	0.41	-1.28	SDI MWD
5858.00	2.03	300.69	5856.92	32.17	-58.40	-49.46	0.88	0.24	24.92	SDI MWD
5922.00	1.87	294.00	5920.89	33.17	-60.33	-51.04	0.43	-0.25	-10.45	SDI MWD
5973.00	1.87	294.00	5971.86	33.85	-61.85	-52.18	0.00	0.00	0.00	SDI MWD

SDI Survey Report - Geographic

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:02:01	Page: 1
Field: Brooke, WV	Co-ordinate(N/E) Reference: Well: 8H, Grid North	Vertical (TVD) Reference: GL 1206+19 1225.0	
Site: Brooke County Park	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Well: 8H	Survey Calculation Method: Minimum Curvature		Db: Sybase
Wellpath: Pilot Hole			

Field: Brooke, WV	
Map System: US State Plane Coordinate System 1927	Map Zone: West Virginia, Northern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Brooke County Park		
Site Position:	Northing: 642935.50 ft	Latitude: 40 15 37.713 N
From: Map	Easting: 1707482.20 ft	Longitude: 80 32 53.109 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 1206.00 ft		Grid Convergence: -0.67 deg

Well: 8H		Slot Name:	
Well Position:	+N/-S 0.00 ft	Northing: 642935.50 ft	Latitude: 40 15 37.713 N
	+E/-W 0.00 ft	Easting: 1707482.20 ft	Longitude: 80 32 53.109 W
Position Uncertainty: 0.00 ft			

Wellpath: Pilot Hole		Drilled From: Surface	
Current Datum: GL 1206+19	Height 1225.00 ft	Tie-on Depth: 0.00 ft	
Magnetic Data: 01/25/2012		Above System Datum: Mean Sea Level	
Field Strength: 53056 nT		Declination: -8.78 deg	
Vertical Section: Depth From (TVD)	+N/-S	+E/-W	Direction
ft	ft	ft	deg
0.00	0.00	0.00	160.96

Survey Program for Definitive Wellpath			
Date: 01/30/2012	Validated: No	Version: 3	
Actual From ft	To ft	Survey	Toolcode Tool Name
0.00	5040.00	Survey #1 (0.00-5040.00)	NS-GYRO-MS North sensing gyrocompassing m
5040.00	5973.00	Survey #2 (5040.00-5973.00)	SDI MWD SDI MWD - Standard ver 1.0.1

Survey													
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →			← Longitude →		
								Deg	Min	Sec	Deg	Min	Sec
0.00	0.00	0.00	0.00	0.00	0.00	642935.50	1707482.20	40	15	37.713 N	80	32	53.109 W
100.00	1.53	289.46	99.99	0.44	-1.26	642935.94	1707480.94	40	15	37.717 N	80	32	53.125 W
200.00	1.38	294.70	199.96	1.39	-3.61	642936.89	1707478.59	40	15	37.726 N	80	32	53.156 W
300.00	0.88	297.10	299.94	2.25	-5.39	642937.75	1707476.81	40	15	37.735 N	80	32	53.179 W
400.00	0.87	277.84	399.92	2.70	-6.82	642938.20	1707475.38	40	15	37.739 N	80	32	53.197 W
500.00	0.84	274.43	499.91	2.86	-8.31	642938.36	1707473.89	40	15	37.740 N	80	32	53.216 W
600.00	0.82	246.38	599.90	2.63	-9.69	642938.13	1707472.51	40	15	37.738 N	80	32	53.234 W
700.00	0.70	267.17	699.89	2.31	-10.96	642937.81	1707471.24	40	15	37.735 N	80	32	53.251 W
800.00	0.61	256.02	799.89	2.15	-12.09	642937.65	1707470.11	40	15	37.733 N	80	32	53.265 W
900.00	0.63	262.19	899.88	1.95	-13.15	642937.45	1707469.05	40	15	37.731 N	80	32	53.279 W
1000.00	0.22	268.65	999.88	1.87	-13.88	642937.37	1707468.32	40	15	37.730 N	80	32	53.288 W
1100.00	0.11	279.31	1099.88	1.88	-14.17	642937.38	1707468.03	40	15	37.730 N	80	32	53.292 W
1200.00	0.24	304.55	1199.88	2.02	-14.44	642937.52	1707467.76	40	15	37.731 N	80	32	53.295 W
1300.00	0.17	201.33	1299.88	2.00	-14.66	642937.50	1707467.54	40	15	37.731 N	80	32	53.298 W
1400.00	0.13	221.33	1399.88	1.77	-14.79	642937.27	1707467.41	40	15	37.729 N	80	32	53.300 W
1500.00	0.06	243.03	1499.88	1.66	-14.92	642937.16	1707467.28	40	15	37.728 N	80	32	53.301 W
1600.00	0.27	241.11	1599.88	1.53	-15.17	642937.03	1707467.03	40	15	37.726 N	80	32	53.305 W
1700.00	0.47	264.64	1699.88	1.37	-15.78	642936.87	1707466.42	40	15	37.725 N	80	32	53.313 W
1800.00	0.52	307.29	1799.87	1.61	-16.55	642937.11	1707465.65	40	15	37.727 N	80	32	53.323 W
1900.00	0.46	303.95	1899.87	2.11	-17.25	642937.61	1707464.95	40	15	37.732 N	80	32	53.332 W
2000.00	0.52	304.21	1999.86	2.59	-17.95	642938.09	1707464.25	40	15	37.737 N	80	32	53.341 W

9-00111

SDI Survey Report - Geographic

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:02:01	Page: 2
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North		
Site: Brooke County Park	Vertical (TVD) Reference: GL 1206+19 1225.0		
Well: 8H	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Wellpath: Pilot Hole	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N-S ft	+E-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->				
								Deg	Min	Sec	Deg	Min	Sec		
2100.00	0.62	293.00	2099.86	3.06	-18.83	642938.56	1707463.37	40	15	37.741	N	80	32	53.352	W
2200.00	0.67	290.63	2199.85	3.47	-19.87	642938.97	1707462.33	40	15	37.745	N	80	32	53.366	W
2300.00	0.19	319.11	2299.85	3.81	-20.53	642939.31	1707461.67	40	15	37.748	N	80	32	53.374	W
2400.00	0.31	305.82	2399.85	4.09	-20.86	642939.59	1707461.34	40	15	37.751	N	80	32	53.378	W
2500.00	0.35	325.05	2499.85	4.50	-21.25	642940.00	1707460.95	40	15	37.755	N	80	32	53.384	W
2600.00	0.63	327.89	2599.84	5.21	-21.72	642940.71	1707460.48	40	15	37.762	N	80	32	53.390	W
2700.00	0.79	332.61	2699.84	6.29	-22.33	642941.79	1707459.87	40	15	37.773	N	80	32	53.398	W
2800.00	0.70	332.46	2799.83	7.45	-22.93	642942.95	1707459.27	40	15	37.784	N	80	32	53.406	W
2900.00	0.66	324.92	2899.82	8.46	-23.54	642943.96	1707458.66	40	15	37.794	N	80	32	53.414	W
3000.00	0.45	306.76	2999.82	9.16	-24.19	642944.66	1707458.01	40	15	37.801	N	80	32	53.422	W
3100.00	0.92	284.34	3099.81	9.60	-25.28	642945.10	1707456.92	40	15	37.805	N	80	32	53.436	W
3200.00	0.83	288.70	3199.80	10.03	-26.74	642945.53	1707455.46	40	15	37.809	N	80	32	53.455	W
3300.00	0.57	295.87	3299.79	10.48	-27.88	642945.98	1707454.32	40	15	37.813	N	80	32	53.470	W
3400.00	0.58	299.83	3399.78	10.95	-28.76	642946.45	1707453.44	40	15	37.818	N	80	32	53.481	W
3500.00	0.51	342.39	3499.78	11.62	-29.34	642947.12	1707452.86	40	15	37.825	N	80	32	53.489	W
3600.00	0.65	307.56	3599.78	12.39	-29.92	642947.89	1707452.28	40	15	37.832	N	80	32	53.497	W
3700.00	0.56	351.90	3699.77	13.22	-30.44	642948.72	1707451.76	40	15	37.840	N	80	32	53.503	W
3800.00	0.98	323.76	3799.76	14.40	-31.01	642949.90	1707451.19	40	15	37.852	N	80	32	53.511	W
3900.00	0.77	351.01	3899.75	15.75	-31.62	642951.25	1707450.58	40	15	37.865	N	80	32	53.519	W
4000.00	0.71	4.54	3999.74	17.03	-31.68	642952.53	1707450.52	40	15	37.878	N	80	32	53.520	W
4100.00	0.82	347.75	4099.73	18.35	-31.78	642953.85	1707450.42	40	15	37.891	N	80	32	53.521	W
4200.00	1.30	0.62	4199.72	20.18	-31.92	642955.68	1707450.28	40	15	37.909	N	80	32	53.524	W
4300.00	0.94	7.12	4299.70	22.13	-31.81	642957.63	1707450.39	40	15	37.928	N	80	32	53.522	W
4400.00	1.28	355.37	4399.68	24.06	-31.80	642959.56	1707450.40	40	15	37.947	N	80	32	53.523	W
4500.00	1.14	19.01	4499.66	26.11	-31.56	642961.61	1707450.64	40	15	37.967	N	80	32	53.520	W
4600.00	1.23	15.19	4599.63	28.09	-30.96	642963.59	1707451.24	40	15	37.987	N	80	32	53.512	W
4700.00	1.29	352.69	4699.61	30.24	-30.82	642965.74	1707451.38	40	15	38.008	N	80	32	53.511	W
4800.00	0.87	3.73	4799.59	32.11	-30.91	642967.61	1707451.29	40	15	38.027	N	80	32	53.512	W
4900.00	1.09	14.75	4899.58	33.79	-30.62	642969.29	1707451.58	40	15	38.043	N	80	32	53.509	W
5000.00	0.88	346.56	4999.56	35.46	-30.56	642970.96	1707451.64	40	15	38.060	N	80	32	53.508	W
5040.00	0.45	7.62	5039.56	35.91	-30.61	642971.41	1707451.59	40	15	38.064	N	80	32	53.509	W
5067.00	0.20	286.36	5066.56	36.03	-30.64	642971.53	1707451.56	40	15	38.066	N	80	32	53.509	W
5098.00	0.68	222.69	5097.56	35.91	-30.82	642971.41	1707451.38	40	15	38.064	N	80	32	53.512	W
5129.00	1.44	215.28	5128.55	35.46	-31.17	642970.96	1707451.03	40	15	38.060	N	80	32	53.516	W
5161.00	2.34	219.40	5160.54	34.62	-31.81	642970.12	1707450.39	40	15	38.052	N	80	32	53.524	W
5193.00	2.87	228.06	5192.50	33.58	-32.82	642969.08	1707449.38	40	15	38.041	N	80	32	53.537	W
5224.00	3.25	234.52	5223.46	32.56	-34.12	642968.06	1707448.08	40	15	38.031	N	80	32	53.554	W
5288.00	3.06	240.58	5287.36	30.66	-37.08	642966.16	1707445.12	40	15	38.012	N	80	32	53.592	W
5352.00	2.58	255.69	5351.29	29.47	-39.97	642964.97	1707442.23	40	15	38.000	N	80	32	53.629	W
5415.00	2.52	260.05	5414.22	28.88	-42.70	642964.38	1707439.50	40	15	37.994	N	80	32	53.664	W
5478.00	2.52	277.74	5477.16	28.83	-45.44	642964.33	1707436.76	40	15	37.993	N	80	32	53.699	W
5542.00	2.39	282.94	5541.11	29.31	-48.14	642964.81	1707434.06	40	15	37.997	N	80	32	53.734	W
5605.00	2.16	277.14	5604.06	29.76	-50.59	642965.26	1707431.61	40	15	38.001	N	80	32	53.766	W
5668.00	1.86	289.10	5667.02	30.24	-52.74	642965.74	1707429.46	40	15	38.006	N	80	32	53.794	W
5731.00	1.62	285.81	5729.99	30.81	-54.56	642966.31	1707427.64	40	15	38.011	N	80	32	53.817	W
5795.00	1.88	284.99	5793.96	31.33	-56.45	642966.83	1707425.75	40	15	38.016	N	80	32	53.842	W
5858.00	2.03	300.69	5856.92	32.17	-58.40	642967.67	1707423.80	40	15	38.024	N	80	32	53.867	W
5922.00	1.87	294.00	5920.89	33.17	-60.33	642968.67	1707421.87	40	15	38.034	N	80	32	53.892	W
5973.00	1.87	294.00	5971.86	33.85	-61.85	642969.35	1707420.35	40	15	38.040	N	80	32	53.912	W

Office of
 NR 20532
 05/2014
 Action

SDI Survey Report

9-00111

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:04:05	Page: 1
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North		
Site: Brooke County Park	Vertical (TVD) Reference: GL 1206+19 1225.0		
Well: 8H	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Wellpath: Lateral	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Brooke, WV

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: West Virginia, Northern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Brooke County Park

Site Position:	Northing: 642935.50 ft	Latitude: 40 15 37.713 N	
From: Map	Easting: 1707482.20 ft	Longitude: 80 32 53.109 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 1206.00 ft		Grid Convergence: -0.67 deg	

Well: 8H

Slot Name:

Well Position:	+N/-S 0.00 ft	Northing: 642935.50 ft	Latitude: 40 15 37.713 N
	+E/-W 0.00 ft	Easting: 1707482.20 ft	Longitude: 80 32 53.109 W
Position Uncertainty: 0.00 ft			

Wellpath: Lateral

Current Datum: GL 1206+19	Height 1225.00 ft	Drilled From: Pilot Hole
Magnetic Data: 02/22/2012		Tie-on Depth: 5011.00 ft
Field Strength: 53046 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S	Declination: -8.78 deg
ft	ft	Mag Dip Angle: 67.76 deg
		+E/-W
		ft
		Direction
		deg
0.00	0.00	0.00
		160.96

Survey Program for Definitive Wellpath

Date: 02/11/2012	Validated: No	Version: 7	
Actual From	To	Survey	Toolcode Tool Name
ft	ft		
0.00	4900.00	Survey #1 (0.00-5040.00) (0)	NS-GYRO-MS North sensing gyrocompassing m
4900.00	10807.00	Survey #1 (4900.00-10807.00)	SDI MWD SDI MWD - Standard ver 1.0.1

Survey

MD	Incl	Azim	TVD	+N/-S	+E/-W	VS	DLS	Build	Turn	Tool/Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	TIE LINE
100.00	1.53	289.46	99.99	0.44	-1.26	-0.83	1.53	1.53	0.00	NS-GYRO-MS
200.00	1.38	294.70	199.96	1.39	-3.61	-2.49	0.20	-0.15	5.24	NS-GYRO-MS
300.00	0.88	297.10	299.94	2.25	-5.39	-3.88	0.50	-0.50	2.40	NS-GYRO-MS
400.00	0.87	277.84	399.92	2.70	-6.82	-4.78	0.29	-0.01	-19.26	NS-GYRO-MS
500.00	0.84	274.43	499.91	2.86	-8.31	-5.41	0.06	-0.03	-3.41	NS-GYRO-MS
600.00	0.82	246.38	599.90	2.63	-9.69	-5.65	0.40	-0.02	-28.05	NS-GYRO-MS
700.00	0.70	267.17	699.89	2.31	-10.96	-5.76	0.30	-0.12	20.79	NS-GYRO-MS
800.00	0.61	256.02	799.89	2.15	-12.09	-5.98	0.16	-0.09	-11.15	NS-GYRO-MS
900.00	0.63	262.19	899.88	1.95	-13.15	-6.13	0.07	0.02	6.17	NS-GYRO-MS
1000.00	0.22	268.65	999.88	1.87	-13.88	-6.30	0.41	-0.41	6.46	NS-GYRO-MS
1100.00	0.11	279.31	1099.88	1.88	-14.17	-6.40	0.11	-0.11	10.66	NS-GYRO-MS
1200.00	0.24	304.55	1199.88	2.02	-14.44	-6.62	0.15	0.13	25.24	NS-GYRO-MS
1300.00	0.17	201.33	1299.88	2.00	-14.66	-6.67	0.32	-0.07	-103.22	NS-GYRO-MS
1400.00	0.13	221.33	1399.88	1.77	-14.79	-6.50	0.07	-0.04	20.00	NS-GYRO-MS
1500.00	0.06	243.03	1499.88	1.66	-14.92	-6.44	0.08	-0.07	21.70	NS-GYRO-MS
1600.00	0.27	241.11	1599.88	1.53	-15.17	-6.39	0.21	0.21	-1.92	NS-GYRO-MS
1700.00	0.47	264.64	1699.88	1.37	-15.78	-6.45	0.25	0.20	23.53	NS-GYRO-MS
1800.00	0.52	307.29	1799.87	1.61	-16.55	-6.92	0.36	0.05	42.65	NS-GYRO-MS
1900.00	0.46	303.95	1899.87	2.11	-17.25	-7.62	0.07	-0.06	-3.34	NS-GYRO-MS
2000.00	0.52	304.21	1999.86	2.59	-17.95	-8.31	0.06	0.06	0.26	NS-GYRO-MS
2100.00	0.62	293.00	2099.86	3.06	-18.83	-9.03	0.15	0.10	-11.21	NS-GYRO-MS

SDI Survey Report

9-00111

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:04:05	Page: 2
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North		
Site: Brooke County Park	Vertical (TVD) Reference: GL 1206+19 1225.0		
Well: 8H	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Wellpath: Lateral	Survey Calculation Method: Minimum Curvature	Dh: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
2200.00	0.67	290.63	2199.85	3.47	-19.87	-9.77	0.06	0.05	-2.37	NS-GYRO-MS
2300.00	0.19	319.11	2299.85	3.81	-20.53	-10.29	0.51	-0.48	28.48	NS-GYRO-MS
2400.00	0.31	305.82	2399.85	4.09	-20.86	-10.67	0.13	0.12	-13.29	NS-GYRO-MS
2500.00	0.35	325.05	2499.85	4.50	-21.25	-11.18	0.12	0.04	19.23	NS-GYRO-MS
2600.00	0.63	327.89	2599.84	5.21	-21.72	-12.01	0.28	0.28	2.84	NS-GYRO-MS
2700.00	0.79	332.61	2699.84	6.29	-22.33	-13.23	0.17	0.16	4.72	NS-GYRO-MS
2800.00	0.70	332.46	2799.83	7.45	-22.93	-14.52	0.09	-0.09	-0.15	NS-GYRO-MS
2900.00	0.66	324.92	2899.82	8.46	-23.54	-15.67	0.10	-0.04	-7.54	NS-GYRO-MS
3000.00	0.45	306.76	2999.82	9.16	-24.19	-16.55	0.27	-0.21	-18.16	NS-GYRO-MS
3100.00	0.92	284.34	3099.81	9.60	-25.28	-17.32	0.53	0.47	-22.42	NS-GYRO-MS
3200.00	0.83	288.70	3199.80	10.03	-26.74	-18.20	0.11	-0.09	4.36	NS-GYRO-MS
3300.00	0.57	295.87	3299.79	10.48	-27.88	-19.00	0.27	-0.26	7.17	NS-GYRO-MS
3400.00	0.58	299.83	3399.78	10.95	-28.76	-19.73	0.04	0.01	3.96	NS-GYRO-MS
3500.00	0.51	342.39	3499.78	11.62	-29.34	-20.56	0.40	-0.07	42.56	NS-GYRO-MS
3600.00	0.65	307.56	3599.78	12.39	-29.92	-21.48	0.37	0.14	-34.83	NS-GYRO-MS
3700.00	0.56	351.90	3699.77	13.22	-30.44	-22.43	0.46	-0.09	44.34	NS-GYRO-MS
3800.00	0.98	323.76	3799.76	14.40	-31.01	-23.73	0.55	0.42	-28.14	NS-GYRO-MS
3900.00	0.77	351.01	3899.75	15.75	-31.62	-25.20	0.46	-0.21	27.25	NS-GYRO-MS
4000.00	0.71	4.54	3999.74	17.03	-31.68	-26.43	0.18	-0.06	13.53	NS-GYRO-MS
4100.00	0.82	347.75	4099.73	18.35	-31.78	-27.71	0.25	0.11	-16.79	NS-GYRO-MS
4200.00	1.30	0.62	4199.72	20.18	-31.92	-29.49	0.53	0.48	12.87	NS-GYRO-MS
4300.00	0.94	7.12	4299.70	22.13	-31.81	-31.30	0.38	-0.36	6.50	NS-GYRO-MS
4400.00	1.28	355.37	4399.68	24.06	-31.80	-33.11	0.41	0.34	-11.75	NS-GYRO-MS
4500.00	1.14	19.01	4499.66	26.11	-31.56	-34.98	0.51	-0.14	23.64	NS-GYRO-MS
4600.00	1.23	15.19	4599.63	28.09	-30.96	-36.65	0.12	0.09	-3.82	NS-GYRO-MS
4700.00	1.29	352.69	4699.61	30.24	-30.82	-38.64	0.50	0.06	-22.50	NS-GYRO-MS
4800.00	0.87	3.73	4799.59	32.11	-30.91	-40.44	0.47	-0.42	11.04	NS-GYRO-MS
4900.00	1.09	14.75	4899.58	33.79	-30.62	-41.93	0.29	0.22	11.02	NS-GYRO-MS
4947.00	0.74	136.24	4946.58	34.00	-30.30	-42.03	3.42	-0.74	258.49	SDI MWD
4979.00	5.93	160.19	4978.51	32.30	-29.59	-40.19	16.44	16.22	74.84	SDI MWD
5011.00	8.37	163.30	5010.26	28.51	-28.37	-36.21	7.72	7.62	9.72	SDI MWD
5074.00	7.11	156.81	5072.69	20.54	-25.51	-27.73	2.43	-2.00	-10.30	SDI MWD
5137.00	3.70	137.09	5135.40	15.46	-22.59	-21.99	6.09	-5.41	-31.30	SDI MWD
5201.00	2.09	106.91	5199.32	13.61	-20.07	-19.41	3.38	-2.52	-47.16	SDI MWD
5264.00	2.99	119.14	5262.26	12.47	-17.53	-17.51	1.66	1.43	19.41	SDI MWD
5327.00	5.79	133.18	5325.07	9.50	-13.78	-13.48	4.73	4.44	22.29	SDI MWD
5390.00	4.19	130.86	5387.83	5.82	-9.72	-8.67	2.56	-2.54	-3.68	SDI MWD
5453.00	2.83	131.36	5450.71	3.29	-6.81	-5.33	2.16	-2.16	0.79	SDI MWD
5485.00	2.48	133.56	5482.67	2.29	-5.72	-4.03	1.14	-1.09	6.87	SDI MWD
5517.00	4.41	143.16	5514.62	0.82	-4.48	-2.24	6.27	6.03	30.00	SDI MWD
5549.00	8.42	147.12	5546.41	-2.13	-2.47	1.21	12.60	12.53	12.37	SDI MWD
5581.00	11.25	149.83	5577.94	-6.80	0.37	6.55	8.96	8.84	8.47	SDI MWD
5613.00	14.10	157.62	5609.15	-13.10	3.42	13.50	10.37	8.91	24.34	SDI MWD
5644.00	15.92	160.01	5639.10	-20.59	6.32	21.52	6.20	5.87	7.71	SDI MWD
5676.00	18.27	159.93	5669.68	-29.43	9.54	30.93	7.34	7.34	-0.25	SDI MWD
5708.00	20.38	158.17	5699.88	-39.31	13.33	41.51	6.84	6.59	-5.50	SDI MWD
5739.00	23.69	157.28	5728.61	-50.07	17.75	53.12	10.73	10.68	-2.87	SDI MWD
5771.00	28.90	157.88	5757.29	-63.17	23.14	67.26	16.30	16.28	1.87	SDI MWD
5803.00	34.13	157.86	5784.56	-78.66	29.44	83.96	16.34	16.34	-0.06	SDI MWD
5835.00	39.39	158.24	5810.18	-96.42	36.60	103.08	16.45	16.44	1.19	SDI MWD
5867.00	44.95	159.91	5833.89	-116.48	44.25	124.54	17.72	17.37	5.22	SDI MWD
5899.00	50.80	161.31	5855.35	-138.86	52.11	148.27	18.57	18.28	4.37	SDI MWD
5931.00	58.47	162.54	5873.86	-163.65	60.19	174.34	24.17	23.97	3.84	SDI MWD

SDI Survey Report

9-00111

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:04:05	Page: 3
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North		
Site: Brooke County Park	Vertical (TVD) Reference: GL 1206+19 1225.0		
Well: 8H	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Wellpath: Lateral	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5962.00	64.41	163.91	5888.67	-189.71	68.03	201.53	19.55	19.16	4.42	SDI MWD
5994.00	67.47	164.38	5901.72	-217.82	76.02	230.70	9.66	9.56	1.47	SDI MWD
6025.00	68.98	164.34	5913.21	-245.54	83.78	259.44	4.87	4.87	-0.13	SDI MWD
6057.00	71.43	164.15	5924.05	-274.52	91.95	289.49	7.68	7.66	-0.59	SDI MWD
6089.00	74.26	164.10	5933.49	-303.92	100.31	320.02	8.85	8.84	-0.16	SDI MWD
6121.00	77.75	164.06	5941.23	-333.78	108.83	351.02	10.91	10.91	-0.12	SDI MWD
6152.00	80.77	164.06	5947.00	-363.06	117.19	381.43	9.74	9.74	0.00	SDI MWD
6184.00	84.11	164.47	5951.21	-393.59	125.79	413.09	10.51	10.44	1.28	SDI MWD
6216.00	87.21	163.64	5953.63	-424.27	134.56	444.95	10.03	9.69	-2.59	SDI MWD
6247.00	90.71	162.79	5954.20	-453.93	143.51	475.92	11.62	11.29	-2.74	SDI MWD
6284.00	91.24	159.86	5953.57	-488.98	155.35	512.91	8.05	1.43	-7.92	SDI MWD
6315.00	91.34	160.27	5952.87	-518.11	165.92	543.89	1.36	0.32	1.32	SDI MWD
6345.00	91.48	160.73	5952.13	-546.38	175.93	573.88	1.60	0.47	1.53	SDI MWD
6375.00	91.44	160.09	5951.37	-574.64	185.99	603.87	2.14	-0.13	-2.13	SDI MWD
6406.00	91.38	159.38	5950.60	-603.71	196.72	634.86	2.30	-0.19	-2.29	SDI MWD
6436.00	91.58	159.57	5949.83	-631.80	207.24	664.84	0.92	0.67	0.63	SDI MWD
6467.00	91.71	158.87	5948.94	-660.77	218.23	695.81	2.30	0.42	-2.26	SDI MWD
6497.00	91.68	159.11	5948.05	-688.76	228.98	725.78	0.81	-0.10	0.80	SDI MWD
6528.00	91.51	159.30	5947.19	-717.73	239.98	756.75	0.82	-0.55	0.61	SDI MWD
6591.00	90.67	160.04	5945.99	-776.79	261.87	819.72	1.78	-1.33	1.17	SDI MWD
6655.00	90.37	159.90	5945.41	-836.92	283.79	883.71	0.52	-0.47	-0.22	SDI MWD
6719.00	90.37	160.30	5945.00	-897.10	305.57	947.70	0.62	0.00	0.62	SDI MWD
6782.00	88.82	159.03	5945.44	-956.17	327.46	1010.68	3.18	-2.46	-2.02	SDI MWD
6845.00	87.32	158.48	5947.56	-1014.85	350.27	1073.60	2.54	-2.38	-0.87	SDI MWD
6909.00	87.49	158.53	5950.46	-1074.34	373.70	1137.47	0.28	0.27	0.08	SDI MWD
6972.00	87.95	158.57	5952.97	-1132.93	396.72	1200.37	0.73	0.73	0.06	SDI MWD
7036.00	88.56	159.79	5954.92	-1192.72	419.46	1264.31	2.13	0.95	1.91	SDI MWD
7099.00	89.03	160.96	5956.24	-1252.04	440.61	1327.29	2.00	0.75	1.86	SDI MWD
7163.00	89.30	161.41	5957.17	-1312.62	461.25	1391.28	0.82	0.42	0.70	SDI MWD
7194.00	89.19	161.92	5957.58	-1342.04	471.00	1422.27	1.68	-0.35	1.65	SDI MWD
7258.00	89.80	161.93	5958.15	-1402.88	490.86	1486.26	0.95	0.95	0.02	SDI MWD
7319.00	89.80	161.76	5958.36	-1460.84	509.86	1547.25	0.28	0.00	-0.28	SDI MWD
7383.00	89.50	161.29	5958.75	-1521.54	530.15	1611.25	0.87	-0.47	-0.73	SDI MWD
7446.00	90.07	162.08	5958.99	-1581.35	549.94	1674.24	1.55	0.90	1.25	SDI MWD
7510.00	90.27	162.23	5958.80	-1642.27	569.55	1738.23	0.39	0.31	0.23	SDI MWD
7573.00	90.17	161.46	5958.55	-1702.13	589.18	1801.22	1.23	-0.16	-1.22	SDI MWD
7637.00	90.07	160.65	5958.42	-1762.67	609.96	1865.22	1.28	-0.16	-1.27	SDI MWD
7700.00	90.03	160.36	5958.37	-1822.06	630.99	1928.22	0.46	-0.06	-0.46	SDI MWD
7763.00	90.07	160.77	5958.31	-1881.47	651.95	1991.22	0.65	0.06	0.65	SDI MWD
7827.00	89.60	160.82	5958.49	-1941.90	673.00	2055.22	0.74	-0.73	0.08	SDI MWD
7891.00	89.83	161.49	5958.81	-2002.47	693.67	2119.21	1.11	0.36	1.05	SDI MWD
7954.00	89.93	161.45	5958.94	-2062.21	713.70	2182.21	0.17	0.16	-0.06	SDI MWD
8018.00	89.93	161.79	5959.02	-2122.94	733.88	2246.21	0.53	0.00	0.53	SDI MWD
8081.00	89.60	161.40	5959.28	-2182.72	753.77	2309.20	0.81	-0.52	-0.62	SDI MWD
8145.00	88.69	159.88	5960.24	-2243.09	774.98	2373.19	2.77	-1.42	-1.97	SDI MWD
8208.00	89.26	159.85	5961.36	-2302.23	796.66	2436.17	0.91	0.90	-0.05	SDI MWD
8272.00	88.93	158.42	5962.37	-2362.02	819.45	2500.13	2.29	-0.52	-2.23	SDI MWD
8334.00	88.76	156.94	5963.62	-2419.36	842.99	2562.01	2.40	-0.27	-2.39	SDI MWD
8398.00	89.53	157.43	5964.58	-2478.35	867.81	2625.87	1.43	1.20	0.77	SDI MWD
8462.00	90.54	158.24	5964.54	-2537.62	891.95	2689.77	2.02	1.58	1.27	SDI MWD
8525.00	91.44	160.69	5963.45	-2596.60	914.05	2752.73	4.14	1.43	3.89	SDI MWD
8589.00	91.71	163.89	5961.69	-2657.54	933.51	2816.68	5.02	0.42	5.00	SDI MWD
8652.00	91.24	163.86	5960.07	-2718.04	951.00	2879.58	0.75	-0.75	-0.05	SDI MWD
8715.00	90.74	163.73	5958.98	-2778.53	968.58	2942.49	0.82	-0.79	-0.21	SDI MWD

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SDI Survey Report

9-00111

Company: CHESAPEAKE	Date: 02/25/2012	Time: 14:04:05	Page: 4
Field: Brooke, WV	Co-ordinate(NE) Reference: Well: 8H, Grid North		
Site: Brooke County Park	Vertical (TVD) Reference: GL 1206+19 1225.0		
Well: 8H	Section (VS) Reference: Well (0.00N,0.00E,160.96Azi)		
Wellpath: Lateral	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
8778.00	90.03	163.90	5958.56	-2839.03	986.14	3005.41	1.16	-1.13	0.27	SDI MWD
8842.00	89.63	163.96	5958.75	-2900.53	1003.85	3069.33	0.63	-0.62	0.09	SDI MWD
8905.00	89.06	162.94	5959.47	-2960.91	1021.80	3132.26	1.85	-0.90	-1.62	SDI MWD
8969.00	88.05	162.36	5961.08	-3021.98	1040.88	3196.21	1.82	-1.58	-0.91	SDI MWD
9033.00	87.18	162.35	5963.75	-3082.92	1060.26	3260.14	1.36	-1.36	-0.02	SDI MWD
9097.00	87.11	161.86	5966.93	-3143.74	1079.90	3324.05	0.77	-0.11	-0.77	SDI MWD
9160.00	87.18	162.57	5970.07	-3203.66	1099.12	3386.95	1.13	0.11	1.13	SDI MWD
9223.00	87.41	162.51	5973.04	-3263.69	1118.00	3449.86	0.38	0.37	-0.10	SDI MWD
9287.00	87.82	161.90	5975.71	-3324.57	1137.54	3513.79	1.15	0.64	-0.95	SDI MWD
9350.00	88.36	161.12	5977.81	-3384.29	1157.51	3576.75	1.51	0.86	-1.24	SDI MWD
9414.00	88.25	160.98	5979.70	-3444.79	1178.28	3640.72	0.28	-0.17	-0.22	SDI MWD
9477.00	90.00	163.47	5980.66	-3504.77	1197.51	3703.69	4.83	2.78	3.95	SDI MWD
9541.00	89.26	163.60	5981.08	-3566.14	1215.65	3767.62	1.17	-1.16	0.20	SDI MWD
9604.00	88.73	162.24	5982.18	-3626.35	1234.15	3830.58	2.32	-0.84	-2.16	SDI MWD
9667.00	90.07	164.69	5982.84	-3686.74	1252.08	3893.51	4.43	2.13	3.89	SDI MWD
9731.00	90.10	163.08	5982.75	-3748.22	1269.84	3957.42	2.52	0.05	-2.52	SDI MWD
9794.00	88.39	159.55	5983.58	-3807.89	1290.02	4020.40	6.23	-2.71	-5.60	SDI MWD
9857.00	87.92	159.19	5985.60	-3866.82	1312.20	4083.34	0.94	-0.75	-0.57	SDI MWD
9921.00	86.75	158.18	5988.58	-3926.37	1335.44	4147.22	2.41	-1.83	-1.58	SDI MWD
9984.00	86.07	158.51	5992.53	-3984.81	1358.64	4210.03	1.20	-1.08	0.52	SDI MWD
10047.00	86.71	158.30	5996.49	-4043.27	1381.78	4272.84	1.07	1.02	-0.33	SDI MWD
10111.00	87.32	159.10	5999.82	-4102.82	1405.00	4336.71	1.57	0.95	1.25	SDI MWD
10174.00	87.35	159.97	6002.75	-4161.78	1427.00	4399.62	1.38	0.05	1.38	SDI MWD
10237.00	87.93	160.02	6005.35	-4220.93	1448.54	4462.56	0.92	0.92	0.08	SDI MWD
10301.00	88.52	160.49	6007.33	-4281.13	1470.15	4526.52	1.18	0.92	0.73	SDI MWD
10365.00	89.16	162.70	6008.63	-4341.84	1490.35	4590.50	3.59	1.00	3.45	SDI MWD
10429.00	89.13	166.06	6009.58	-4403.46	1507.58	4654.37	5.25	-0.05	5.25	SDI MWD
10493.00	88.42	163.17	6010.95	-4465.15	1524.55	4718.22	4.65	-1.11	-4.52	SDI MWD
10556.00	88.11	160.38	6012.86	-4524.96	1544.24	4781.18	4.45	-0.49	-4.43	SDI MWD
10619.00	88.86	160.62	6014.52	-4584.32	1565.27	4844.15	1.25	1.19	0.38	SDI MWD
10683.00	88.96	160.36	6015.74	-4644.63	1586.64	4908.14	0.44	0.16	-0.41	SDI MWD
10746.00	88.86	160.55	6016.94	-4703.99	1607.71	4971.12	0.34	-0.16	0.30	SDI MWD
10807.00	88.86	160.55	6018.15	-4761.50	1628.02	5032.11	0.00	0.00	0.00	Projection to TD

Annotation

MD ft	TVD ft	Comment
10807.00	6018.15	Projection to TD