



Commonwealth of Virginia  
Department of Mines, Minerals, and Energy  
Division of Gas and Oil  
P.O. Box 1416, Abingdon, VA 24212  
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<b>Tracking Number:</b>	<u>1793</u>
<b>Company:</b>	<u>Chesapeake Appalachia, LLC</u>
<b>File Number:</b>	<u>BU-2950</u>
<b>Operations Name:</b>	<u>CNR 824733 (HCS-32) W/PL</u>
<b>Operation Type:</b>	<u>Gas/Pipeline</u>
<b>Drilling Report Type:</b>	<u>Revision</u>

## DRILLING REPORT (DGO-GO-14)

### 1. Drilling Data

Date drilling commenced:	<u>6/5/2008</u>	Drilling Contractor:	<u>S.W. Jack Drilling Rig #17</u>
Date drilling completed:	<u>6/27/2008</u>	Rig Type:	<input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Cable
Driller's Total Depth (feet):	<u>5710.00</u>		
Log Total Depth (feet):	<u>5703.00</u>	Formation At Total Depth	<u>Java Shale</u>

### 2. Final Location Plat (as required by 4 VAC25-150-360.C.)

Permitted State Plane X:	<u>10440316.7300</u>	Final Plat State Plane X:	<u>10440314.8070</u>
Permitted State Plane Y:	<u>3676482.3100</u>	Final Plat State Plane Y:	<u>3676482.2990</u>

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
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### 3. Geological Data

*Fresh Water At:*

Depth (in feet)	Rate	Unit of Measure
322	1/2	INCH

*Salt Water At:*

Depth (in feet)	Rate	Unit of Measure
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*Coal Seams:*

List of Attached Items:

Description	FileName
824733 Coal Seams	CoalBeds 824733.xls

*Gas and Oil Shows:*

List of Attached Items:

Description	FileName
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### 4. Electric Logs (As required by 4VAC25-150-280.A)

List all logs run: GR, LDT, CNL, AIT, PE, Audio, & Temp.

Did logs disclose vertical locations of a coal seam?

### 5. Survey Results (As required by 4VAC25-150-280.B.2)

List of Attached Items:

Description	FileName
824733 Survey Results	Survey Results 824733.xls

### 6. Casing and Tubing Program

List of Attached Items:

Description	FileName
824733 Casing Program	Casing Program 824733.xls

### 7. Remarks

Use this space to note any conditions or occurrences, such as lost circulation, fishing jobs, junk left in hole, sidetracks, squeeze jobs, etc., not shown above. Include data and depth of condition/occurrence.

See Casing Program.

### 8. Drillers Log

Compiled By: Aaron Casto

List of Attached Items:

Description	FileName
824733 Drillers Log	DrillersLog 824733.xls

### 9. Comments

### 10. Signature

Permitee: Chesapeake Appalachia, LLC Date: 4/2/2009

Signed By: Aaron Casto Title: Sr. Completion Foreman

### INTERNAL USE ONLY

Submit Date: 4/2/2009

Status: A

Date: 4/20/2009

Final PDF Date: 4/20/2009

Well 824733 DD COALBEDS				MINING IN AREA		
NAME	TOP	BOTTOM	THICKNESS	YES	NO	MINED OUT
Unknown	55	57	2		X	NO
Unknown	146	147	1		X	NO
Unknown	187	189	2		X	NO
Unknown	415	419	4		X	Yes
Unknown	705	706	1		X	NO
Unknown	780	781	1		X	NO
Unknown	860	861	1		X	NO
Unknown	1036	1037	1		X	NO

Well 824733 SURVEY RESULTS	
Depth of Survey	Direction/Distance/Degree From True Vertical
194	1/4 deg
401	1/4 deg
600	1/4 deg
810	1/4 deg
1012	1/4 deg
1201	1/2 deg
1411	1/2 deg
1610	1/2 deg
1803	1/2 deg
2069	0.6 deg
2224	5.7 deg
2263	5.5 deg
2289	5.6 deg

Well 824733 CASING PROGRAM							
	Casing	Casing	Hole	Cement Used	Cemented To Surface	Date	Packers Or Bridge Plugs
Casing Type	Size	Interval	Size	In Cubic Ft.	Yes/No	Cemented	Kind/Size/Set
Conductor	12 3/4"	21'	15"	Driven	No		
Surface	9-5/8"	466'	12 1/4"	177	Yes	10/09/05	Grout basket at 396'
Intermediate	7"	2023'	8 7/8"	410	Yes	10/10/05	Grout basket at 94'
Production	4-1/2"	5675'	6-1/4"	340.5	No	06/28/08	

While drilling on bridge @ 2175', having caving problems. Cement back to 2040' using 75 sks class A cement on 6/8/2008. Drilled cement out and resume drilling on fill @ 2175'. Drilled 6 1/4" hole to 5642', during logging operation, could not get tools past 2275'. TIH with 6 1/4" bit to clean hole, while cleaning back to bottom the drill string bacame hung @ 3955'. Were able to work Drill string free and TOH. Spotted another cement plug back to 2069' using 150 sks of class A cement on 6/18/2008. Side tracked around bad section of hole and resume drilling formation @ 2324', continue drilling formation to TD of 5710'.

Well 824733 DRILLER'S LOG		General		Depth	Depth		
Geologic Age	Formation	Lithology	Color	Top	Bottom	Thickness	Remarks
Penn	Lee	Siltstone & Shale & Coal		0	1177	1177	
Penn	Salt Sand	Sandstone		1177	1975	798	
Miss	Pennington	Siltstone & Shale		1975	2290	315	
Miss	Ravenclyff	Sandstone		2290	2378	88	
Miss	Pennington	Siltstone & Shale		2378	2450	72	
Miss	Maxon	Sandstone		2450	2590	140	
Miss	Pennington	Siltstone & Shale		2590	3108	518	
Miss	Bradley	Sandstone		3108	3172	64	
Miss	Pennington	Siltstone & Shale		3172	3190	18	
Miss	Little Lime	Limestone		3190	3230	40	
Miss	Big Lime	Limestone		3230	3747	517	
Miss	Pocono	Siltstone & Shale		3747	3834	87	
Miss	Weir	Sandstone		3834	3962	128	
Miss	Pocono	Shale		3962	4285	323	
Miss	Sunbury	Shale		4285	4326	41	
Miss	Berea	Sandstone		4326	4334	8	
Devonian	Devonian	Shale		4334	4408	74	
Devonian	Gordon	Sandstone		4408	4520	112	
Devonian	Devonian	Shale		4520	5275	755	
Devonian	Lower Huron	Shale		5275	5609	334	
Devonian	Java	Shale		5609	5703	94	