

OIL AND GAS WELL  
SUMMARY REPORT

API No. 45-051-20738

VDMR Well  
Rep. No.

W-6842  
W-7113

DMQ File No. DI-231

Operator PHILADELPHIA OIL COMPANY

Farm RAINWATER RAMSEY

Co. Well No. P-175

County DICKENSON

Quadrangle NORA - 7-1/2'

Location (UTM) N4,107,340; E381,900

UTM Zone 17

(Lat. and Long.)

Field

Province APPALACHIAN PLATEAUS

Elev. (specify) 2168.08 GR

TD 6152

Form. at TD DEVONIAN

Age DEVONIAN

Date compl. or abandoned SEPTEMBER 5, 1985

Result GAS WELL

Gas Shows

Gas Pays

Main Production

Prod. Form. DEVONIAN;BEREA, BIG LIME

FINAL FLOW - 871,000 CU. FT.

Age DEVONIAN;MISSISSIPPIAN

Treatment: DEVONIAN-FOAM FRACED WITH 60,000 POUNDS OF 20/40 SAND, 354 BARRELS OF WATER AND 550,000 SCF OF N2. BEREA-FRACED WITH 65 QUALITY FOAM WITH 60,000 POUNDS OF SAND, 490 BARRELS OF WATER AND 605,000 SCF OF N2. BIG LIME-ACIDIZED WITH 4000 GALLON OF 15% ACID.

Initial Production

Oil shows

Water FW at at at

SW YES at 752 at at

Coal 2-4, 73-75, 132-135, 265-268, 382-384, 402-404, 612-615, 660-665, 749-752, 851-854, 1379-1382, 1843-1847, 1900-1907

Plat X Plotted Completion Report X

Drillers Log X Geologic Log

Samples X Interval Sheet X

Sample Interval 0' to 6155'; 300' to 5840'

Remarks

Geophysical Logs S.P. Res Gamma Neutron

Density Sonic Other

Stratigraphic Data Source

BRIANT CAMP

Formation	Top	Datum (Subsea)	Thickness
SAND AND SHALE	0	+ 2168.08	2795
RAVENCLIFF	2795	- 626.92	147
LITTLE STONE GAP	2942	- 773.92	62
SANDY SHALES	3004	- 835.92	249
MAXON	3253	- 1084.92	451
SANDY SHALE	3704	- 1535.92	116
LITTLE LIME	3820	- 1651.92	65
LIME AND SHALE	3885	- 1716.92	129
BIG LIME	4014	- 1845.92	444
KEENER	4458	- 2289.92	30
WEIR	4488	- 2319.92	502
COFFEE SHALE	4990	- 2821.92	62
Remarks BEREA	5052	- 2883.92	114
BROWN SHALE	5166	- 2997.92	848
WHITE SLATE	6014	- 3845.92	138

References

Released to Open File: Completion DECEMBER 5, 1985

Samples NO YES

(Note: UTM measurements in meters, all others in feet)

(FOR OFFICE USE ONLY: API Well No. 45 - -  
State County Permit

Date: November 27, 1984

Operator's Well No. P-175

*WV. 231*

VIRGINIA OIL AND GAS INSPECTOR  
DEPARTMENT OF LABOR AND INDUSTRY  
DIVISION OF MINES  
OIL AND GAS SECTION  
205 W. MAIN STREET  
ABINGDON, VIRGINIA 24210  
PHONE 703 628-8115

WELL PLAT

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000. Latitude and longitude lines are represented by border lines as shown.

This plat is new X / updated    /

This plat is X / is not    / based on a mine coordinate system established for the areas of the well location.

Well operator Philadelphia Oil Company

Address Box 431 Prestonsburg, KY. 41653  
Farm Rainwater Ramsey  
Tract T-115 Acres 1153.22 Lease No. PO-148  
Elevation 2168.08'  
Quadrangle Nora, VA.  
County Dickenson District Ervinton  
Registered Engineer            Registration No.             
Certified Land Surveyor            Cert. No.             
File No.            Drawing No.             
Date 11-27-1984 Scale 1"=400'

Certification of Well Plat

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief, and shows all the information required by law and the regulations of the Virginia Well Review Board.

*Luther Adkins, Jr. Va. #971*  
Registered Engineer or Certified Land Surveyor  
in Charge

10880'

Latitude 37° 07' 30"

Longitude 82° 17' 30"

BIG  
BRANCH

PO-148 LT-115)  
RAINWATER RAMSEY  
1153.22 AC.

P-154  
N. 83° 33' W  
3016'

IRON PIN  
N. 62° 14' W 113.12'

P-175  
N. 2448.37  
E. 15850.89

N. 75° 54' E  
1635'

IRON PIN  
N. 82° 57' W 142.96'

N. 27° 08' W  
1700'

S. 50° 55' W  
2666.0'

P-174

API WELL NO. 45 - 051 - 20738  
State County Permit

Date: 9-19-85

Operator's Well

Name Rainwater Ramsey No. P-175

API 10/85

DI-231  
PHILA OIL CO.  
R. RAMSEY  
P-175  
NORA 7 1/2'  
EL 2168.08

VIRGINIA OIL AND GAS INSPECTOR  
205 W. MAIN STREET  
ABINGDON, VA 24210  
703-628-8115



REPORT OF COMPLETION OF WELL WORK

Pursuant to Regulation 4.06 of the Regulations under the Virginia Oil and Gas Act, the undersigned well operator reports completion of the type(s) of well work specified below on the referenced well in Ervinton District, Dickenson County, Virginia on 5th day, September month, 19 85.

WELL TYPE: Oil \_\_\_/ Gas x/ Enhanced recovery \_\_\_/ Waste Disposal \_\_\_/ If "Gas", Production x/ Underground Storage \_\_\_/

Exempt by Code Section 45.1-300.B.1. from general oil and gas conservation law: yes \_\_\_/ no X/

WELL WORK: Drill x/ Deepen \_\_\_/ Redrill \_\_\_/ Stimulate \_\_\_/ Plug off old formation \_\_\_/ Perforate new formation \_\_\_/ Plug \_\_\_/ Replug \_\_\_/ Other physical change in well (specify \_\_\_)

The well work was done as shown in the Appendix(es) applicable to the type(s) of well work involved.

CONFIDENTIALITY STATUS UNDER CODE OF VIRGINIA SECTION 45.1-332.

- X Ninety days from the filing of this report
- OR
- Two years from \_\_\_\_\_, 19\_\_\_, the date on which the referenced well was COMPLETED, the well being an exploratory well as defined in Code of Virginia Section 45.1-288.21.

APPLICANT: Philadelphia Oil Company  
BY Brint Camp  
ITS District Geologist  
ADDRESS 1101 N. Eastman Road Kingsport, TN 37664  
TELEPHONE 615-246-4332

FORM 16  
APPENDIX A,  
SHEET 1, (OBSERVE)

API WELL NO. 45 - 051 - 20738  
State County Permit  
Date: 9-19-85  
Operator's Well  
Name Rainwater Ramsey No. P-175

REPORT OF COMPLETION OF WELL WORK  
IF DRILLING, REDRILLING, OR DEEPENING IS INVOLVED

DRILLING CONTRACTOR Union Drilling  
ADDRESS P. O. Drawer 40, Buckhannon, WV 26201  
TELEPHONE 304-472-4610

GEOLOGICAL TARGET FORMATION Dev. Brown Shale  
DEPTH OF COMPLETED WELL 6152 FEET  
DATE DRILLING COMMENCED 7-13-85  
DATE DRILLING COMPLETED 7-27-85  
DRILLING RIG: ROTARY x / CABLE TOOL        /

GEOLOGICAL DATA      Depth      Thickness  
                            Top      Bottom

Fresh water

Salt water  
752'

MINING IN AREA  
Name      Yes      No      Mined Out  
Coal Seams      2-4', 73-75', 132-135', 265-268', 382-384', 402-404', 612-615',  
660-665', 749-752', 851-854', 1379-1382', 1843-1847', 1900-1907'

Oil      Formation

Gas      Formation

The data on depth of strata is based on the source(s) checked  
below:

- Applicant's own drilling experience in the area
- Information supplied by the coal operator in the area
- Information already in possession of the Inspector
- Other (as follows) \_\_\_\_\_

Form 16  
Appendix A, Sheet 1 (Reverse)  
Continued from Obverse side

#### OTHER GENERAL INFORMATION

An electric log survey was \_\_\_/ was not \_\_\_/ conducted pursuant to Code of Virginia Section 45.1-333.B.2, at the coal owner's or operator's request.

An electric log survey was X/ was not \_\_\_/ run for other purposes. This survey did \_\_\_/ did not X/ disclose the vertical location of a coal seam.

Note: If a coal seam was located, the part of the survey from the surface through the coal is attached in accordance with Code of Virginia Section 45.1-333.B.3.

Deviation surveys were X/ were not \_\_\_/ required under Code of Virginia Section 45.1-333.C "to the bottom of the lowest published coal seam depth."

Note: If deviation surveys were required, the survey results are attached.

A continuous survey was \_\_\_/ was not X/ required under Code of Virginia Section 45.1-333.C.

Note: If a continuous directional survey was required, the survey results are attached.

#### CHANGES IN THE PERMITTED WELL WORK

The well operator did \_\_\_/ did not X/ make any change(s) in the permitted well work, verbally approved by the Inspector or Assistant Inspector under Regulation 4.03 of the Regulations under the Virginia Oil and Gas Act, for the purpose of insuring successful completion of the well work.

Note: The nature and purpose of each such change, if any, is set out below or on additional sheets if such are required.

CASING AND TUBING PROGRAM

PRELIMINARY INFORMATION

Is the subject well underlaid by the red shales? Yes X / No \_\_\_ /  
If Yes, was a coal protection string set to the red shales? Yes X / No \_\_\_ /

	SIZE	TOP	BOTTOM	LENGTH	PERFORATIONS	
					FROM	TO
<u>CONDUCTOR:</u>	11 3/4"	0	23	23		
<u>CASING CIRCULATED AND CEMENTED IN TO SURFACE:</u>	8 5/8"	0	2391	2391		
<u>COAL PROTECTION CASING SET UNDER SPECIAL RULE OF CODE OF VIRGINIA 45.1-334.B:</u>						
<u>OTHER CASING AND TUBING LEFT IN WELL;</u>	4 1/2"	0	6068	6068	5841-6009	5058-5162 4336-4394
<u>LINERS LEFT IN WELL UNDER CODE OF VIRGINIA SECTION 45.1-336 OR OTHERWISE:</u>	2"	0	5860	5860		

<u>PACKERS OR BRIDGE PLUGS:</u>	<u>KIND</u>	<u>SIZE</u>	<u>SET AT</u>
	Frac Retainer	4 1/2"	4518

REMARKS: SHUT DOWN DEPTHS, DATES; FISHING JOB DEPTHS, DATES; CAVING; ETC.)

SAMPLES AND CUTTINGS

WILL X WILL NOT \_\_\_ BE AVAILABLE FOR EXAMINATION BY A MEMBER OF THE VIRGINIA DIVISION OF MINERAL RESOURCES  
 WILL X WILL NOT \_\_\_ BE FURNISHED THE VIRGINIA DIVISION OF MINERAL RESOURCES UPON REQUEST  
 WILL \_\_\_ WILL NOT X REQUIRE SACKS TO BE FURNISHED BY THE VIRGINIA DIVISION OF MINERAL RESOURCES.



DRILLER'S LOG

DI-231

Compiled by \_\_\_\_\_

Geolo- gical Age	Formation	General Lithology	Color	Depth (feet)		Thickness	Remarks
				Top	Bottom		
	Sand & Shale			0	2795	2795	
	Ravencliff			2795	2942	147	
	Little Stone Gap			2942	3004	62	
	Sandy Shales			3004	3253	249	
	Maxon Sands			3253	3704	451	
	Sandy Shale			3704	3820	116	
	Little Lime			3820	3885	65	
	Lime & Shales			3885	4014	129	
	Big Lime			4014	4458	444	
	Keener			4458	4488	30	
	Weir			4488	4990	502	
	Coffee Shale			4990	5052	62	
	Berea			5052	5166	114	
	Brown Shale			5166	6014	848	
	White Slate			6014	6152	138	
	Logger's TD			6152			

Complete on supplemental sheet as necessary

APPENDIX TO REPORT OF COMPLETION OF WELL WORK  
ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation \_\_\_\_\_ - \_\_\_\_\_ BOD  
Gravity and grade: \_\_\_\_\_

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation \_\_\_\_\_ 0 \_\_\_\_\_ MCFD  
Rock pressure: \_\_\_\_\_ psig \_\_\_\_\_ hour test

RECORD OF STIMULATION

Full description of stimulation:

Zone 1: Brown Shale Formation L. Huron  
The Brown Shale was foam fraced with 60,000# 20/40 sand, \_\_\_\_\_  
354 bbls. water, and 550,000 scfn2.  
Perforated 5841-6009 # Perfs. 23 Perf. Size .5  
Breakdown 2510 psig. Avg. Injection 3000 psig.  
Avg. I.R. 11 BPM Init. S.I.P. \_\_\_\_\_ psig 15 Min. S.I.P. \_\_\_\_\_ psig

Zone 2: Berea Formation  
The Berea was fraced with a 65Q foam with 60,000# sand, \_\_\_\_\_  
490 bbls. water and 605,000 scfn2  
Perforated 5058-5162' # Perfs. 19 Perf. Size .5  
Breakdown 1300 psig. Avg. Injection 1700 psig.  
Avg. I.R. 11 BPM Init. S.I.P. 900 psig 15 Min. S.I.P. \_\_\_\_\_ psig

Zone 3: Big Lime Formation  
The Big Lime was acidized with 4000 gal. of 15% acid  
Perforated 4336-4394 # Perfs. 11 Perf. Size .5  
Breakdown 1700 psig. Avg. Injection 1900 psig.  
Avg. I.R. 10 BPM Init. S.I.P. \_\_\_\_\_ psig 15 Min. S.I.P. \_\_\_\_\_ psig

Final production ( ) natural ( ) after stimulation

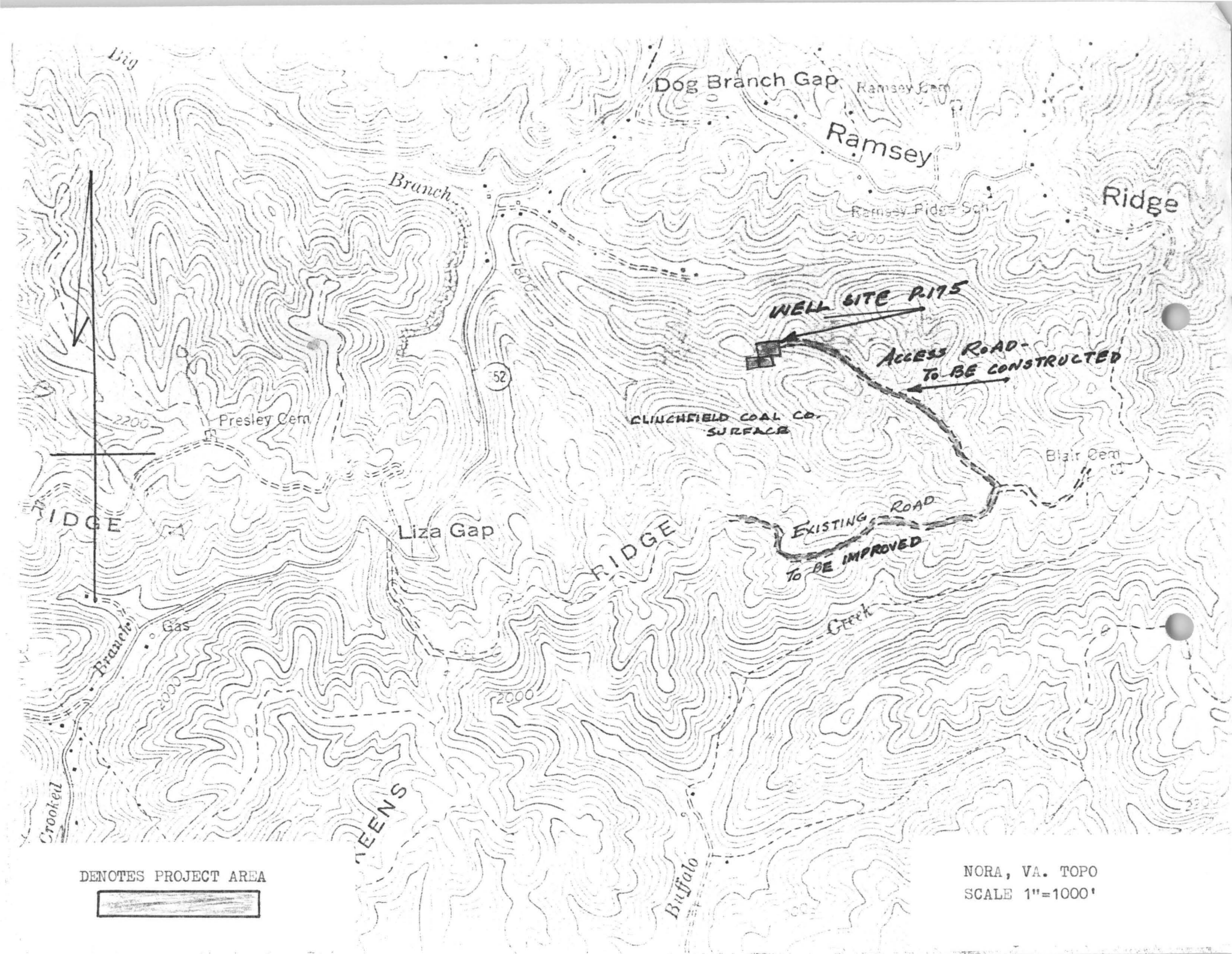
	BOD	MCFD	Hours Tested	Rock Pressure	Hours Tested
Zone 1:	_____	<u>318</u>	<u>7 hrs.</u>	_____	_____
Zone 2:	_____	<u>332</u>	<u>7 hrs.</u>	<u>700#</u>	<u>48 hrs.</u>
Zone 3:	_____	<u>539</u>	<u>7 hrs.</u>	<u>895#</u>	<u>48 hrs.</u>

Final production if gas zones are comingled: 1189 MCFD

\_\_\_\_\_ hours tested: \_\_\_\_\_ psig. \_\_\_\_\_ hours tested

DIRECTIONAL SURVEY

<u>Depth</u>	<u>Degrees</u>
207'	0°
425	1/4°
643	0°
831	1/2°
1020	1/4°
1427	1/2°
1609	0°
1829	1/2°
2017	3/4°
2230	1/2°
2698	1/2°



Big

Dog Branch Gap Ramsey Cem

Ramsey

Ridge

Branch

Ramsey Ridge Sch

2000

WELL SITE R175

ACCESS ROAD TO BE CONSTRUCTED

52

CLINCHFIELD COAL CO. SURFACE

Blair Cem

Presley Cem

Liza Gap

RIDGE

EXISTING ROAD TO BE IMPROVED

Creek

Gas

2000

TEENS

Buffalo

DENOTES PROJECT AREA



NORA, VA. TOPO  
SCALE 1"=1000'

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

Page 1 of 4 Well Repository No: 6842  
 Date rec'd: Date Processed: 6/17/87 Sample Interval: from: 300 to: 6155  
 PROPERTY: R. Ramsey P-175 DE-231 Number of samples: 559  
 COMPANY: Philadelphia Oil Co. Total Depth: 6155  
 COUNTY: Dickenson Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
-	500-10	50-60	1000-10
-	10-20	60-70	10-20
-	20-30	70-80	20-30
-	30-40	80-90	30-40
-	40-50	90-800	40-50
300-10	50-60	800-10	50-60
10-20	60-70	10-20	60-70
20-30	70-80	20-30	70-80
30-40	80-90	30-40	80-90
40-50	90-600	40-50	90-1100
50-60	600-10	50-60	1100-10
60-70	10-20	60-70	10-20
70-80	20-30	70-80	20-30
80-90	30-40	80-90	30-40
90-400	40-50	90-900	40-50
400-10	50-60	900-10	50-60
10-20	60-70	10-20	60-70
20-30	70-80	20-30	70-80
30-40	80-90	30-40	80-90
40-50	90-700	40-50	90-1200
50-60	700-10	50-60	1200-10
60-70	10-20	60-70	10-20
70-80	20-30	70-80	20-30
80-90	30-40	80-90	30-40
90-500	40-50	90-1000	40-50

Washed only.

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

Page 2 of 4

Well Repository No.: W- 6842

From-To	From-To	From-To	From-To	From-To
1250-60	-	50-60	50-60	50-60
60-70	-	60-70	60-70	60-70
70-80	NO Samples	70-80	-	70-80
80-90	-	80-90	-	80-90
90-1300	1600-1700	90-2100	-	90-2900
1300-10	1700-10	2100-10	-	2900-10
10-20	10-20	10-20	-	10-20
20-30	20-30	20-30	-	20-30
30-40	30-40	30-40	-	30-40
40-50	40-50	40-50	-	40-50
50-60	50-60	50-60	2550-60	50-60
60-70	60-70	60-70	60-70	60-70
70-80	70-80	70-80	70-80	70-80
80-90	80-90	-	80-90	80-90
90-1400	-	90-2200	90-2600	90-3000
1400-10	1600-10	2200-10	2600-10	3000-10
10-20	10-20	10-20	10-20	10-20
20-30	20-30	20-30	20-30	20-30
30-40	30-40	30-40	30-40	30-40
40-50	40-50	40-50	40-50	40-50
50-60	50-60	50-60	50-60	50-60
60-70	-	60-70	60-70	-
70-80	-	70-80	70-80	-
80-90	80-90	80-90	-	80-90
90-1500	90-1900	90-2300	90-2700	90-3100
1500-10	1900-10	2300-10	2700-10	3100-10
10-20	10-20	10-20	10-20	10-20
20-30	20-30	20-30	20-30	20-30
30-40	30-40	30-40	30-40	30-40
40-50	40-50	40-50	40-50	40-50
50-60	50-60	50-60	50-60	50-60
60-70	60-70	60-70	60-70	60-70
70-80	-	70-80	70-80	70-80
80-90	-	80-90	80-90	80-90
90-1600	90-2000	90-2400	-	90-3200
1600-10	2000-10	2400-10	2800-10	3200-10
10-20	10-20	10-20	10-20	10-20
20-30	20-30	20-30	20-30	20-30
30-40	30-40	30-40	30-40	30-40
40-50	40-50	-	40-50	40-50

177 Washed only

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

Page 3 of 4

Well Repository No.: W- 6847

From-To	From-To	From-To	From-To	From-To
3250 - 60	3600 - 10	4000 - 10	4400 - 10	4800 - 10
60 - 70	10 - 20	10 - 20	10 - 20	10 - 20
70 - 80	20 - 30	20 - 30	20 - 30	20 - 30
80 - 90	30 - 40	30 - 40	30 - 40	30 - 40
90 - <u>3300</u>	40 - 50	40 - 50	40 - 50	40 - 50
3300 - 10	50 - 60	50 - 60	50 - 60	50 - 60
10 - 20	60 - 70	60 - 70	60 - 70	60 - 70
20 - 30	70 - 80	70 - 80	70 - 80	70 - 80
30 - 40	80 - 90	80 - 90	80 - 90	80 - 90
40 - 50	90 - <u>3700</u>	90 - <u>4100</u>	90 - <u>4500</u>	90 - <u>4900</u>
50 - 60	3700 - 10	4100 - 10	4500 - 10	4900 - 10
60 - 70	10 - 20	10 - 20	10 - 20	10 - 20
70 - 80	20 - 30	20 - 30	20 - 30	20 - 30
80 - 90	30 - 40	30 - 40	30 - 40	30 - 40
-	40 - 50	40 - 50	40 - 50	40 - 50
3. 90 - 10	50 - 60	50 - 60	50 - 60	50 - 60
10 - 20	60 - 70	60 - 70	60 - 70	60 - 70
20 - 30	70 - 80	70 - 80	70 - 80	70 - 80
30 - 40	80 - 90	80 - 90	80 - 90	80 - 90
40 - 50	90 - <u>3800</u>	90 - <u>4200</u>	-	90 - <u>5000</u>
50 - 60	3800 - 10	4200 - 10	4600 - 10	5000 - 10
60 - 70	10 - 20	10 - 20	10 - 20	10 - 20
70 - 80	20 - 30	20 - 30	20 - 30	20 - 30
80 - 90	30 - 40	30 - 40	30 - 40	30 - 40
90 - <u>3500</u>	40 - 50	40 - 50	40 - 50	40 - 50
3500 - 10	50 - 60	50 - 60	50 - 60	50 - 60
10 - 20	60 - 70	60 - 70	60 - 70	60 - 70
20 - 30	70 - 80	70 - 80	70 - 80	70 - 80
30 - 40	80 - 90	80 - 90	80 - 90	80 - 90
40 - 50	90 - <u>3900</u>	90 - <u>4300</u>	90 - <u>4700</u>	90 - <u>5100</u>
50 - 60	3900 - 10	4300 - 10	4700 - 10	5100 - 10
60 - 70	-	10 - 20	10 - 20	10 - 20
70 - 80	20 - 30	20 - 30	20 - 30	20 - 30
80 - 90	30 - 40	30 - 40	30 - 40	30 - 40
90 - <u>3600</u>	40 - 50	40 - 50	40 - 50	-
-	50 - 60	50 - 60	50 - 60	-
-	60 - 70	60 - 70	60 - 70	-
-	70 - 80	70 - 80	70 - 80	-
-	80 - 90	80 - 90	-	-
-	90 - <u>4000</u>	90 - <u>4400</u>	-	90 - <u>5200</u>

185

Washed only

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

Page 4 of 4

Well Repository No.: W- 6842

From-To	From-To	From-To	From-To	From-To
5200 - 10	5600 - 10	6000 - 10	-	-
10 - 20	10 - 20	10 - 20	-	-
20 - 30	20 - 30	20 - 30	-	-
30 - 40	30 - 40	30 - 40	-	-
40 - 50	40 - 50	40 - 50	-	-
50 - 60	50 - 60	50 - 60	-	-
60 - 70	60 - 70	60 - 70	-	-
70 - 80	70 - 80	70 - 80	-	-
80 - 90	80 - 90	80 - 90	-	-
90 - 5300	90 - 5700	-	-	-
5300 - 10	5700 - 10	6100 - 10	-	-
10 - 20	10 - 20	10 - 20	-	-
20 - 30	20 - 30	-	-	-
30 - 40	30 - 40	30 - 40	-	-
40 - 50	40 - 50	40 - 45	-	-
50 - 60	50 - 60	50 - 55	-	-
60 - 70	60 - 70	-	-	-
70 - 80	70 - 80	-	-	-
80 - 90	80 - 90	-	-	-
90 - 5400	90 - 5800	-	-	-
5400 - 10	5800 - 10	-	-	-
10 - 20	10 - 20	-	-	-
20 - 30	20 - 30	-	-	-
30 - 40	30 - 40	-	-	-
40 - 50	40 - 50	-	-	-
50 - 60	50 - 60	-	-	-
60 - 70	60 - 70	-	-	-
70 - 80	70 - 80	-	-	-
80 - 90	80 - 90	-	-	-
-	90 - 5700	-	-	-
5500 - 10	5900 - 10	-	-	-
10 - 20	10 - 20	-	-	-
20 - 30	20 - 30	-	-	-
30 - 40	30 - 40	-	-	-
40 - 50	40 - 50	-	-	-
50 - 60	50 - 60	-	-	-
60 - 70	60 - 70	-	-	-
70 - 80	70 - 80	-	-	-
80 - 90	80 - 90	-	-	-
90 - 5600	-	-	-	-

Washed only.



VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

Page 1 of 3

Date rec'd:

Date Processed: 7/15/86

Well Repository No.: W- 6842

Sample Interval: from 300' to: 580'

PROPERTY: R. Ramsey P-175

Number of samples: 289

COMPANY: Philadelphia Oil Co.

Total Depth: 6152'

COUNTY: Albemarle

Oil or Gas:  Water:  Exploratory:

From-To	From-To	From-To	From-To	From-To
-	50-60	50-60	-	2300-10
-	60-70	60-70	-	10-20
NO Samples	70-80	70-80	NO Samples	20-30
-	80-90	80-90	-	30-40
-	90-600	90-900	-	40-50
300-10	600-10	900-10	1690-1700	50-60
10-20	10-20	10-20	1700-10	60-70
20-30	20-30	20-30	10-20	70-80
30-40	30-40	30-40	20-30	80-90
40-50	40-50	40-50	30-40	90-2400
50-60	50-60	50-60	40-50	-
60-70	60-70	60-70	50-60	-
70-80	70-80	70-80	60-70	-
80-90	80-90	80-90	70-80	-
90-400	90-700	90-1000	80-90	-
400-10	700-10	-	-	2800-10
10-20	10-20	-	-	-
20-30	20-30	NO Samples	NO Samples	20-30
30-40	30-40	-	-	30-40
40-50	40-50	-	-	-
50-60	50-60	1100-10	2200-10	-
60-70	60-70	10-20	10-20	60-70
70-80	70-80	20-30	20-30	70-80
80-90	80-90	30-40	30-40	80-90
90-500	90-800	40-50	40-50	90-2900
500-10	800-10	50-60	50-60	-
10-20	10-20	60-70	60-70	-
20-30	20-30	70-80	70-80	NO Samples
30-40	30-40	80-90	80-90	-
40-50	40-50	90-1200	90-2300	-

Washed Samples only.

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

Page 2 of 3

Well Repository No.: W- 6842

From-To	From-To	From-To	From-To	From-To
3000 - 10	50 - 60	4300 - 10	50 - 60	-
10 - 20	60 - 70	10 - 20	60 - 70	-
20 - 30	-	20 - 30	70 - 80	-
30 - 40	80 - 90	30 - 40	-	-
40 - 50	90 - 3700	40 - 50	-	90 - 5200
50 - 60	3700 - 10	50 - 60	-	5200 - 10
-	-	60 - 70	4810 - 20	10 - 20
-	-	70 - 80	20 - 30	20 - 30
-	-	80 - 90	30 - 40	30 - 40
90 - 3100	-	90 - 4400	40 - 50	40 - 50
3100 - 10	3900 - 10	4400 - 10	50 - 60	50 - 60
-	-	-	60 - 70	60 - 70
No Samples	20 - 30	-	70 - 80	70 - 80
-	-	-	80 - 90	80 - 90
-	40 - 50	-	90 - 4900	90 - 5300
3400 - 10	50 - 60	4500 - 10	4900 - 10	5300 - 10
10 - 20	60 - 70	10 - 20	10 - 20	10 - 20
20 - 30	70 - 80	20 - 30	20 - 30	20 - 30
30 - 40	80 - 90	30 - 40	30 - 40	30 - 40
40 - 50	90 - 4000	40 - 50	40 - 50	40 - 50
50 - 60	-	50 - 60	50 - 60	50 - 60
60 - 70	-	60 - 70	60 - 70	60 - 70
70 - 80	-	70 - 80	70 - 80	70 - 80
80 - 90	-	80 - 90	80 - 90	80 - 90
90 - 3500	-	-	90 - 5000	90 - 5400
3500 - 10	4100 - 10	-	5000 - 10	5400 - 10
10 - 20	-	4610 - 20	10 - 20	10 - 20
20 - 30	20 - 30	-	20 - 30	20 - 30
30 - 40	30 - 40	30 - 40	-	30 - 40
40 - 50	-	40 - 50	-	40 - 50
50 - 60	70 - 80	-	60 - 70	50 - 60
60 - 70	-	-	70 - 80	60 - 70
70 - 80	-	-	80 - 90	70 - 80
-	-	-	90 - 5100	80 - 90
90 - 3600	-	90 - 4700	-	90 -
3600 - 10	4200 - 10	-	5100 - 10	5500 - 10
10 - 20	-	4720 - 30	10 - 20	10 - 20
20 - 30	-	30 - 40	20 - 30	20 - 30
30 - 40	-	40 - 50	30 - 40	30 - 40
40 - 50	80 - 90	-	-	40 - 50

Washed Samples only

(147)



VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

Page 1 of 3

Well Repository No: 7113

Date rec'd: Date Processed: 6/7/87

Sample Interval: from: to:

PROPERTY: R. Ramsey

Number of samples: 327

COMPANY: Philadelphia Oil Co P-175

Total Depth:

COUNTY: Dickenson

Oil or Gas:  Water:  Exploratory:

From-To	From-To	From-To	From-To
-	50-60	1500-10	50-60
-	60-70	10-20	-
-	70-80	20-30	-
-	80-90	30-40	80-90
-	90-1300	40-50	90-1900
<u>1000-10</u>	1300-10	50-60	1900-10
10-20	10-20	60-70	10-20
20-30	20-30	70-80	20-30
30-40	30-40	80-90	30-40
40-50	40-50	90-1600	40-50
50-60	50-60	1600-10	50-60
60-70	60-70	10-20	60-70
70-80	70-80	20-30	-
80-90	80-90	30-40	-
90-1100	90-1400	40-50	90-2000
-	1400-10	-	2000-10
-	10-20	-	10-20
-	20-30	-	20-30
-	30-40	-	30-40
-	40-50	-	40-50
<u>1200-10</u>	50-60	1800-10	50-60
10-20	60-70	10-20	60-70
20-30	70-80	20-30	70-80
30-40	80-90	30-40	80-90
40-50	90-1500	40-50	90-2100

(81)

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

Page 2 of 3

Well Repository No.: W- 7113

From-To	From-To	From-To	From-To	From-To
2100 - 10	2700 - 10	-	3500 - 10	3900 - 10
10 - 20	10 - 20	10 - 20	10 - 20	-
20 - 30	20 - 30	20 - 30	20 - 30	20 - 30
30 - 40	30 - 40	30 - 40	30 - 40	30 - 40
40 - 50	40 - 50	40 - 50	40 - 50	40 - 50
50 - 60	50 - 60	50 - 60	50 - 60	-
60 - 70	60 - 70	60 - 70	60 - 70	60 - 70
70 - 80	70 - 80	70 - 80	70 - 80	-
90 - <u>2200</u>	80 - 90	80 - 90	80 - 90	-
-	-	90 - <u>3200</u>	90 - <u>3600</u>	90 - <u>4000</u>
-	2800 - 10	3200 - 10	3600 - 10	4000 - 10
-	10 - 20	10 - 20	10 - 20	10 - 20
-	-	20 - 30	20 - 30	20 - 30
30 - 40	-	30 - 40	30 - 40	30 - 40
-	40 - 50	40 - 50	40 - 50	40 - 50
2400 - 10	50 - 60	50 - 60	50 - 60	50 - 60
10 - 20	60 - 70	60 - 70	60 - 70	60 - 70
20 - 30	-	70 - 80	70 - 80	70 - 80
30 - 40	80 - 90	80 - 90	80 - 90	80 - 90
-	90 - <u>2900</u>	90 - <u>3300</u>	90 - <u>3700</u>	90 - <u>4100</u>
50 - 60	2500 - 10	3300 - 10	3700 - 10	-
60 - 70	10 - 20	10 - 20	10 - 20	10 - 20
-	20 - 30	20 - 30	20 - 30	-
-	30 - 40	30 - 40	30 - 40	-
-	40 - 50	40 - 50	40 - 50	40 - 50
2550 - 60	50 - 60	50 - 60	50 - 60	50 - 60
60 - 70	60 - 70	60 - 70	60 - 70	60 - 70
70 - 80	70 - 80	70 - 80	70 - 80	70 - 80
80 - 90	80 - 90	80 - 90	80 - 90	80 - 90
90 - <u>2600</u>	90 - <u>3000</u>	-	90 - <u>3800</u>	90 - <u>4200</u>
2600 - 10	3000 - 10	3400 - 10	3800 - 10	-
10 - 20	10 - 20	10 - 20	10 - 20	10 - 20
20 - 30	20 - 30	20 - 30	20 - 30	20 - 30
30 - 40	30 - 40	-	30 - 40	30 - 40
40 - 50	40 - 50	40 - 50	40 - 50	40 - 50
50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
60 - 70	-	-	60 - 70	60 - 70
70 - 80	-	70 - 80	70 - 80	70 - 80
-	80 - 90	80 - 90	80 - 90	80 - 90
90 - <u>2700</u>	90 - <u>3100</u>	90 - <u>3500</u>	90 - <u>3900</u>	90 - <u>4300</u>

INTERVAL SHEET  
 Continued

Page 3 of 3

Well Repository No.: W- 7113

From-To	From-To	From-To	From-To	From-To
4300-10	4800-10	50-60	-	-
10-20	-	60-70	-	-
-	-	70-80	-	-
30-40	30-40	80-90	-	-
-	-	90- <u>5900</u>	-	-
-	-	5900-10	-	-
-	-	10-20	-	-
-	-	20-30	-	-
-	80-90	30-40	-	-
90- <u>4400</u>	90-4400	40-50	-	-
-	4900-10	50-60	-	-
10-20	10-20	60-70	-	-
20-30	20-30	70-80	-	-
30-40	-	80-90	-	-
40-50	40-50	-	-	-
50-60	-	6000-10	-	-
60-70	-	10-20	-	-
70-80	-	20-30	-	-
80-90	70-80	30-40	-	-
90- <u>4500</u>	90-5000	40-50	-	-
-	5000-10	50-60	-	-
-	10-20	60-70	-	-
-	20-30	70-80	-	-
-	30-40	80-90	-	-
-	40-50	-	-	-
4600-10	50-60	6100-10	-	-
-	60-70	10-20	-	-
20-30	70-80	-	-	-
-	-	30-40	-	-
50-60	-	40-45	-	-
60-70	-	50-55	-	-
70-80	-	-	-	-
80-90	-	-	-	-
-	-	-	-	-
-	-	-	-	-
4700-10	5800-10	-	-	-
10-20	10-20	-	-	-
-	20-30	-	-	-
-	30-40	-	-	-
-	40-50	-	-	-