

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W# 5819  
C# 168

MAILING ADDRESS:  
Box 3667  
Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES  
JAMES L. CALVER, COMMISSIONER  
WATER WELL COMPLETION REPORT

OFFICE ADDRESS:  
McCormick Road  
Charlottesville, Virginia

OWNER: Donald P. Chamblee, Jr. Mailing Address: Rt. 1, Box 392, Reedville, Va.

TENANT: \_\_\_\_\_ Mailing Address: \_\_\_\_\_

DRILLER: Gruy Federal Inc. Mailing Address: 2500 Tanglewilde #150 Houston, Tex.

WELL LOCATION: County \_\_\_\_\_ Approx. 0.9 <sup>1/2</sup> miles North (direction) of \_\_\_\_\_  
Road 652 on Road 651 and \_\_\_\_\_ feet \_\_\_\_\_ miles \_\_\_\_\_ (direction) of \_\_\_\_\_

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: December 5 DATE COMPLETED: December 7, 1978

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 1041' feet

WATER LEVEL: Stands \_\_\_\_\_ feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method \_\_\_\_\_  
Drawdown \_\_\_\_\_ feet  
Rate \_\_\_\_\_ gal. per min.  
Duration \_\_\_\_\_ hrs., \_\_\_\_\_ min.

HOLE SIZE: 77/8 inches from 0 to 1041 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER ZONES: from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet

SCREEN SIZE: \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER: Color \_\_\_\_\_ Taste \_\_\_\_\_  
Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

CASE SIZE: 4 1/2 inches from 2 to 1021 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WELL TO SUPPLY: (check one) Home \_\_\_\_\_  
Farm \_\_\_\_\_ Town \_\_\_\_\_ School \_\_\_\_\_  
Industry \_\_\_\_\_ Other \_\_\_\_\_

GROUTING: Method \_\_\_\_\_  
Material \_\_\_\_\_ Depth \_\_\_\_\_ feet

WATER ANALYSIS AVAILABLE: Yes \_\_\_\_\_ No \_\_\_\_\_

PUMP: Type \_\_\_\_\_  
Capacity \_\_\_\_\_ gal. per min.  
Depth of intake \_\_\_\_\_ feet

DRILL CUTTINGS SAVED: Yes \_\_\_\_\_ No \_\_\_\_\_

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



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

INTERVAL SHEET

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Well Repository No.: W- 5819  
C- 168

Date rec'd: Date Processed: 3-17-80

Sample Interval: from 0 to: 980

PROPERTY: Donald P. Chamblee-Geothermal #59

Number of samples: 94

COMPANY: Gray Federal

Total Depth: 1041'

COUNTY: Northumberland

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To	From-To
0-10	310-320	600-610	900-910	-
10-20	320-330	610-620	910-920	-
20-30	330-340	620-630	920-930	-
30-40	340-350	630-640	930-940	-
40-50	-	640-650	940-950	-
50-60	350-360	650-660	*950-960	-
60-70	360-370	660-670	*960-970	-
70-80	370-380	670-680	970-980	-
80-90	380-390	680-690	-	-
90-100	390-400	690-700	-	-
100-110	400-410	700-710	SPLIT-WASH	*unwashed only
110-120	410-420	710-720	-	-
120-130	420-430	720-730	-	-
130-140	430-440	730-740	-	-
140-150	440-450	740-750	-	-
150-160	-	750-760	-	-
160-170	-	760-770	-	-
170-180	-	770-780	-	-
180-190	480-490	780-790	-	-
190-200	490-500	790-800	-	-
200-210	500-510	800-810	-	-
210-220	510-520	810-820	-	-
220-230	520-530	820-830	-	-
230-240	530-540	830-840	-	-
240-250	540-550	840-850	-	-
250-260	550-560	850-860	-	-
260-270	560-570	860-870	-	-
270-280	570-580	870-880	-	-
280-290	580-590	880-890	-	-
290-300	590-600	890-900	-	-

OWNER:	Donald P. Chamblee,	W# 5819
	Geothermal #59	C# 168
DRILLER:	Gray Federal	Total Depth: 1041'
COUNTY:	Northumberland	Quad: Burgess
		Elev: 8'

Depth  
(feet)

Well Log

0-10	Sand - Pale yellowish brown (10yr 7/2); medium to coarse, with few granules, subangular with few rounded, well sorted; 1% phosphate fragments; 3% shell fragments.
10-30	Sand - Pale yellowish brown (10yr 6/2); sparse clay; medium to coarse with few granules, subangular with few rounded, well sorted; few to 2% shell fragments; plant debris.
30-40	Sand - Moderate yellowish brown (10yr 5/4); moderate clay; medium to coarse, subangular, well sorted; few phosphate fragments; very rare shell fragments.
40-70	Sand - Moderate yellowish brown (10yr 6/2); sparse clay; medium to coarse, subangular, well sorted; few phosphate fragments; 40-50' - 2% shell fragments, 50-70' - 5% shell fragments.
70-90	Gravel, Shell - Pale yellowish brown (10yr 6/2); 50% shell fragments; sparse clay; medium, subangular, well sorted; few phosphate fragments; mica.
90-120	Gravel, Shell - Pale yellowish brown (10yr 6/2); 60% shell fragments; sparse clay with moderate at 110-120; medium to coarse with some granules at 100-110; subangular, well sorted; few phosphate fragments; mica.
120-130	Gravel, Shell - Pale yellowish brown (10yr 6/2); 70% shell fragments; sparse clay; fine to coarse, subangular, moderate sorting; few phosphate fragments; mica.
130-150	Gravel, Shell - Pale yellowish brown (10yr 6/2); 70% shell fragments; sparse clay; fine to medium with some pebbles at 140-150; subangular with some rounded at 140-130'; well sorted at 130-140 and moderately sorted at 140-150; few phosphate fragments; mica.
150-170	Gravel, Shell - Pale yellowish brown (10yr 6/2); 70% shell fragments; sparse clay; fine to coarse, to very coarse at 160-170'; subangular, moderate sorting; few phosphate fragments; mica; 1 20mm pebble; <u>Turritella</u> in shell fragments.

OWNER: Donald P. Chamblee, -2-  
Geothermal #59

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Total Depth: 1041'

Depth  
(feet)

- 170-180 Sand - Light yellowish brown (10yr 6/4); very sparse clay; medium to very coarse, subangular, well sorted; few phosphate fragments; 10% shell fragments.
- 180-190 Sand - Light olive gray (5y 5/2); sparse clay; medium to coarse, subangular, well sorted; few phosphate fragments; 25% shell fragments.
- 190-200 Sand - Light yellowish brown (10yr 6/4); very sparse clay; medium to very coarse, subangular, well sorted; few phosphate fragments; 10% shell fragments.
- 200-230 Sand - Light olive gray (5y 5/2); sparse to moderate (at 220-230') clay; medium to very coarse, subangular, moderate sorting; few phosphate fragments; shell fragments, 25% at 200-210', 40% at 210-230'.
- 230-240 Sand - Pale yellowish brown (10yr 6/2); moderate clay; medium to granule, subangular with some rounded, moderate sorting; few phosphate fragments; 10% shell fragments.
- 240-270 Sand - Pale yellowish brown (10yr 6/2); sparse clay; fine to granule, subangular, moderate sorting at 240-250', poor sorting at 250-270'; few phosphate fragments; 25% shell fragments.
- 270-320 Sand - Pale yellowish brown (10yr 6/2); moderate clay in clasts at 270-280', rest is sparse clay; fine to granule, subangular with some rounded pebbles at 290-300', poorly sorted; few phosphate fragments; 25% shell fragments.
- 320-340 Sand - Light olive gray (5y 6/1); moderate clay in clasts; fine to granule, subangular, poor sorting; 15% shell fragments.
- 340-360 Clay - Light olive gray (5y 6/1); moderate sand; fine to granule, subangular, poorly sorted; shell fragments - 3% at 340-350 and 10% at 350-360.
- 360-400 Clay - Light olive gray (5y 6/1); abundant sand; fine to granule, subangular, poorly sorted; shell fragments 10% at 360-370', 5% at 370-380', 15% at 370-400; Forams-Robulus and Diatoms at 370-400.
- 400-450 Sand - Light olive gray (5y 6/1); abundant clay; fine to very coarse with some granules, subangular, poorly sorted; 10% shell fragments; Diatoms; Forams; few phosphate fragments at 420-450.

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Depth  
(feet)

450-480 No Samples.

480-510 Gravel - Mixed colors; sparse clay; fine to pebble, subangular to rounded, poorly sorted; 3% phosphate fragments; at 480-500 and 1% at 500-510; very rare shell fragments, except at 490-500; Forams at 500-510 - Guttulina, Gyroldina; Rose Quartz.

510-530 Gravel - Light and dark gray; moderate clay; fine to pebble, subangular to rounded, poorly sorted; few phosphate fragments; very rare shell fragments; Forams; Rose quartz.

530-560 Gravel - Mixed colors; very sparse clay; fine to pebble, subangular to rounded, poorly sorted; 1% glauconite; very rare shell fragments; Forams; Ostracod.

560-570 Gravel - Mixed colors; moderate clay; fine to pebbles, subangular and round, poorly sorted; 1% glauconite; very rare shell fragments; Forams; limestone clasts with glauconite/sand.

570-580 Gravel - Mixed colors; sparse clay; sparse limestone clasts; fine to pebble, subangular and rounded, poorly sorted; few glauconite; very rare shell fragments; Forams; Ostracods.

580-610 Gravel - Mixed colors; very sparse clay, sparse at 590-600; fine to pebble, subangular and round, poorly sorted; 3% glauconite; very rare shell fragments; Forams; very sparse limestone clasts.

610-620 Gravel - Mixed colors; very sparse limestone; pebbles (10mm); rounded mostly some subangular, poor sorting; 5% glauconite, medium to granule and weathered (?); very rare shell fragments; Forams.

620-710 Gravel, Glauconitic - Mixed colors from 620-640 and light and dark gray from 640 onward; 50% glauconite; sparse clay; sparse limestone clasts; fine to pebbles, mostly pebbles, subangular and rounded, poorly sorted; very rare shell fragments; Forams, except at: 620-650 and 680-690.

710-740 Gravel - Mixed colors; sparse clay; very sparse limestone clasts; fine to pebbles, subangular and rounded, poorly sorted; glauconite 30% at 710-20, 40% at 720-30, 45% at 730-40; very rare shell fragments; Forams - Robulus; Ostracod and Echinoderm madreporite at 730-40.

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740-780 Gravel, Glauconitic - Light and dark gray; 50% glauconite; very sparse clay; sparse limestone at 750-60; fine to pebble, subangular and rounded, poorly sorted; very rare to 1% shell fragments; Forams-Nonion, Gryoidina, Eponides, Cibicides, Siphogenerina, Globigerina, Bolivina; 740-50 - garnet; 750-60 Ostracod, pyrite; 770-80 - Bryozoa, Ostracod.

780-800 Gravel - Mixed colors; moderate clay; fine to pebble, subangular and rounded, poorly sorted; 40% glauconite; 1% shell fragments; Forams.

800-830 Gravel, Glauconitic - Light and dark gray; 50% glauconite; moderate clay; Ca Co<sub>3</sub> powder at 820-30; fine to pebble, subangular and rounded, poorly sorted; 1% to very rare shell fragments; Forams.

830-840 Gravel, Glauconitic - Light and dark gray; 50% glauconite; abundant clay; fine to pebble, subangular and rounded, poorly sorted; very rare shell fragments; Forams.

840-880 Gravel, Glauconitic - Light and dark gray; 50% glauconite; moderate clay; moderate limestone clasts at 850-70; fine to pebble, subangular and rounded, poorly sorted; very rare shell fragments; Forams; Bone fragment at 840-50; Garnet at 860-80.

880-980 Gravel - Mixed colors; moderate clay; limestone clasts vary from sparse to very sparse with some having Glauconite/Sand included; fine to pebble, subangular and rounded, poorly sorted; 40% glauconite at 880-90 only; the usual very rare shell fragments; Forams; Garnet; Pyrite.

980-1041 No Sample.

Logged by: J. K. Polzin  
Aug. 29/Sept. 2, 1980