

RAINYREE OIL CO.
SAMUEL LIVERSAY
LIVERSAY #1

LE-99
HUBBARD SPRINGS-7 1/2

Date: April 15, 1983

Operator's
Well No. Liversay #1

**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 (if available), 1/2 Bbl/d
After stimulation, ? Bbl/d

Gravity and grade: 44° Pennsylvanian



DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow:

Before stimulation (if available), _____ Bbl/d
After stimulation, _____ Bbl/d

Rock pressure: _____ psig

RECORD OF STIMULATION

Full description of stimulation: _____

Fracturing - Judymite explosives

CASING AND TUBING PROGRAM

PRELIMINARY INFORMATION

Is the subject well underlaid by the red shales? YES ___/ No X/
If "YES", was a coal protection string set to the red shales? YES ___/ NO X/

PROGRAM DETAILS

SIZE	TOP	BOTTOM	LENGTH	PERFORATED	
				FROM	TO
Conductor 9 3/4"	0	50'	50'		

Casing circulated and cemented in to the surface:

7" O.D. Cemented to 894'

Coal protection casing set under the special rule of Code of Virginia S 45.1-334.B:

N/A

Other casing and tubing left in the well:

2" tubing to 2590'

Liners left in well, under Code of Virginia S 45.1-336 or otherwise:

Other casing used in drilling but not left in the well:

<u>Packers or bridge plugs:</u>	<u>Kind</u>	<u>Size</u>	<u>Set At</u>
	Baker Bridge Plug	6 3/4	2600'
	Tension Packer	6 3/4	2290'

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

SAMPLES AND CUTTINGS

will ___/ will not ___/ be available for examination by a member of the
Division of Mineral Resources

will X/ will not ___/ be furnished the Division of Mineral Resources
upon request

will ___/ will not ___/ require sacks to be furnished by the Division of
Mineral Resources

DRILLER'S LOG

COMPILED BY _____

<u>Geologic Age</u>	<u>Formation</u>	<u>General</u>		<u>Depth Ft.</u>		<u>Thickness</u>	<u>Remark</u>
		<u>Lithology</u>	<u>Color</u>	<u>Top</u>	<u>Bottom</u>		
Cambrian (Over-thrust)	Copper Ridge	Dolomite	Brown/Gray	0'	765'	765'	
Silurian	Hancock	Dolomite	Gray	765'	896'	131'	
Silurian	Clinton	Shale	Green/red	896'	147'	251'	
Silurian	Clinch	Sandstone	Green/White	1147'	1412'	265'	(Include Shale)
Ordovician	Sequatchie	Siltstone	Green/red	1412'	1810'	398'	
Ordovician	Reedville	Shale	Gray/Green	1810'	2290'	480'	
Ordovician	Trenton	Limestone	Gray	2290'	2880'	590'	

DATE: _____
 Operator's _____
 Well No. _____

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

DRILLING CONTRACTOR Stone Oilwell Completions

ADDRESS P. O. Box 2768 Crossville, TN 38555

TELEPHONE _____

Geological Target Formation - Trenton Limestone
 DEPTH OF COMPLETED WELL 2880' FEET

DRILLING RIG Rotary X / Cable Tool _____ /

GEOLOGICAL DATA

	DEPTH		THICKNESS
	Top	Bottom	

Fresh water: None

Salt water: None

Coal seams: None

Name	MINING IN AREA?		
	Yes	No	Mined Out
_____	_____	_____	_____

Oil and gas: 1220-1380' Clinch

1890'-1910', 1950'-1955' _____
 1955'-1960', 1960'-2290' Reedville

2290'-2390', 2464'-2499', 2503, _____
 2520'-2650', 2650'-2880' Trenton

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 the possession of the Inspector

X As follows: information from previous wells drilled in the area.

OTHER GENERAL INFORMATION

An electric log survey was ___/ was not X/ conducted pursuant to Code of Virginia S 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 S 45.1-333.B.3.

Deviation surveys were ___/ were not X/ required under Code of Virginia S 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 S 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:

HUBBARD SPRINGS WELL
6-10
SUMMARY REPORT

API No. 45-105-20528-00-03 VDMR Well Rep. No. _____
DMQ File No. LE-99

Operator RAINTREE OIL COMPANY
Farm SAMUEL LIVERSAY
Co. Well No. LIVERSAY #1

County LEE Quadrangle HUBBARD SPRINGS - 7 1/2'
Location (UTM) N4,063,580; E307,330 UTM Zone 17
(Lat. and Long.) _____

Field BEN HUR Province VALLEY AND RIDGE
Elev. (specify) 1811' GR TD 2880' Form. at TD TRENTON
Age ORDOVICIAN

Date compl. or abandoned APRIL 15, 1983

Result OIL WELL; SHUT IN FOR EVALUATION

Gas Shows _____

Gas Pays _____

Main Production _____ Prod. Form. TRENTON
Age ORDOVICIAN

Treatment: FRACTURING - JUDYMITE EXPLOSIVES

Initial Production 1/2 BARREL PER DAY

Oil shows 1220' TO 1380'; 1890' TO 1910'; 1955' TO 1960'; 2290 TO 2390';
2520' TO 2650'; 1950' TO 1955'; 1960 TO 2290'; 2464' TO 2499'; 2650'
Water FW _____ at _____ at _____ at _____ TO 2880' 2503
SW _____ at _____ at _____ at _____

Coal _____

Plat _____ Plotted _____ Completion Report X

Drillers Log X Geologic Log _____

Samples _____ Interval Sheet _____

Sample Interval _____

Remarks _____

Geophysical Logs S.P. _____ Res _____ Gamma X Neutron _____

Density _____ Sonic _____ Other LITHO DENSITY AIR, DUAL INDUCTION,
LITHODENSITY LIQUID, AUDIO, DIRECTIONAL PLOTS, SIDEWALL FRAC LOG,
TEMPERATURE

Stratigraphic Data Source

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
<u>COPPERRIDGE</u>	<u>0</u>	<u>1811</u>	<u>765</u>
<u>HANCOCK</u>	<u>765</u>	<u>1046</u>	<u>131</u>
<u>CLINTON</u>	<u>896</u>	<u>915</u>	<u>251</u>
<u>CLINCH</u>	<u>1147</u>	<u>664</u>	<u>265</u>
<u>SEQUATCHIE</u>	<u>1412</u>	<u>399</u>	<u>398</u>
<u>REEDSVILLE</u>	<u>1810</u>	<u>1</u>	<u>480</u>
<u>TRENTON</u>	<u>2290</u>	<u>479</u>	<u>590</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Remarks _____

References _____

Released to Open File: Completion JULY 14, 1983

Samples NO

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

OIL AND GAS WELL SUMMARY REPORT

API No.: 45-105-20528-00-03

VDMR Well Rep. No.

Div. Gas & Oil File No.: LE-99

Operator: RAINTREE OIL COMPANY

Farm: SAMUEL LIVERSAY

County: LEE

Co. Well No.: LIVERSAY #1

Quadrangle: HUBBARD SPRINGS - 7-1/2'

Location (UTM): N 4,063,580; E 307,330

UTM Zone: 17

Field: BEN HUR

Province: VALLEY AND RIDGE

Elev. (specify): 1811' GR TD: 2880'

Formation at TD: TRENTON

Initial Gas Flow

Age: ORDOVICIAN

Date compl. or abandoned: APRIL 15, 1983

Result: OIL WELL; SHUT IN FOR EVALUATION

Gas Shows

Gas Pays

Main Production

Producing Formation: TRENTON

Final Gas Flow

Age: ORDOVICIAN

Treatment: FRACTURING - JUDYMITE EXPLOSIVES

Initial Oil Production: 1/2 BARREL PER DAY

Final Production:

Oil Shows: 1220' TO 1380'; 1890' TO 1910'; 1955' TO 1960'; 2290 TO 2390';
2520' TO 2650'; 1950' TO 1955'; 1960 TO 2290'; 2464' TO 2499'; 2650' TO
2880' 2503

Water	FW	at	at	at
	SW:	at:	at	at

Coal

Plat

Plotted

Completion Report: X

Drillers Log: X

Geologic Log

Samples

Interval Sheet

Sample Interval

Geophysical Logs

S.P.

Res

Gamma:

Neutron

Density Sonic Other: LITHO DENSITY AIR, DUAL INDUCTION,
LITHODENSITY LIQUID, AUDIO, DIRECTIONAL PLOTS, SIDEWALL FRAC LOG,
TEMPERATURE

Stratigraphic Data Source:

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
COPPERRIDGE	0	1811	765
HANCOCK	765	1046	131
CLINTON	896	915	251
CLINCH	1147	664	265
SEQUATCHIE	1412	399	398
REEDSVILLE	1810	1	480
TRENTON	2290	479	590

Remarks:

References:

Released to Open File: Completion: JULY 14, 1983
Samples: NO

(Note: IITM measurements in meters all others in feet)

OIL AND GAS WELL
SUMMARY REPORT

API No. 45-105-20528-00-03 VDMR Well Rep. No. _____

DMQ File No. IE 99

Operator RAINTREE OIL COMPANY

Farm SAMUEL LIVERSAY

Co. Well No. LIVERSAY # 1

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(Lat. and Long.) _____

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Age ORDOVICIAN

Date compl. or abandoned APRIL 15, 1983

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Gas Pays _____

Main Production _____ Prod. Form. TRENTON

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Treatment: FRACTURING - JUDYMITTE EXPLOSIVES

Initial Production 1/2 BARREL PER DAY

Oil shows 1220' TO 1380'; 1890' TO 1910'; 1955 TO 1960'; 2290 TO 2390'; 2520' TO 2650'

Water FW at _____ at _____ at _____

SW at _____ at _____ at _____

Coal _____

Plat _____ Plotted _____ Completion Report x

Drillers Log x Geologic Log _____

Samples _____ Interval Sheet _____

Sample Interval _____

Remarks _____

Geophysical Logs S.P. _____ Res _____ Gamma _____ Neutron _____

Density _____ Sonic _____ Other _____

Stratigraphic Data Source

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CLINTON	896	915	251
CLINCH	1147	664	265
SEQUATCHIE	1412	399	398
REEDSVILLE	1810	1	480
TRENTON	2290	479	590

Remarks

References

Released to Open File: Completion JULY 14, 1983

Samples NO

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

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

INTERVAL SHEET

Page 1 of 2

Well Repository No: 7296

Date rec'd: Date Processed:

Sample Interval: from: to:

PROPERTY: Samuel Livesey #1

Number of samples: 255

COMPANY: Lantree oil co

Total Depth: 2880

COUNTY: Lee (Hubbard Spr.) (Le-089)

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
120 - 30	450 - 60	200 - 10	60 - 70
30 - 40	60 - 70	10 - 20	70 - 80
40 - 50	70 - 80	-	80 - 90
-	80 - 90	40 - 50	90 - 1000
-	90 - 500	-	-
60 - 70	500 - 10	-	1000 - 10
70 - 80	10 - 20	60 - 70	10 - 20
-	20 - 30	70 - 80	20 - 30
-	30 - 40	80 - 90	30 - 40
240 - 300	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	-	20 - 30	70 - 80
30 - 40	-	30 - 40	80 - 90
40 - 50	90 - 700	40 - 50	90 - 1200

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

INTERVAL SHEET
 Continued

Page 2 of 2

Well Repository No.: W- 7296

From-To	From-To	From-To	From-To	From-To
<u>1200</u> - 10	<u>1600</u> - 10	<u>2000</u> - 10	<u>2400</u> - 10	<u>2800</u> - 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	70 - 80
80 - 90	80 - 90	80 - 90	80 - 90	80 - 90
90 - <u>1300</u>	90 - <u>1700</u>	90 - <u>2100</u>	90 - <u>2500</u>	90 - <u>2890</u>
<u>1300</u> - 10	<u>1700</u> - 10	<u>2100</u> - 10	<u>2500</u> - 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	-
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>1400</u>	90 - <u>1800</u>	90 - <u>2200</u>	90 - <u>2600</u>	-
<u>1400</u> - 10	<u>1800</u> - 10	<u>2200</u> - 10	<u>2600</u> - 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	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 - <u>1500</u>	90 - <u>1900</u>	90 - <u>2300</u>	90 - <u>2700</u>	-
<u>1500</u> - 10	<u>1900</u> - 10	<u>2300</u> - 10	<u>2700</u> - 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	-
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 - <u>1600</u>	90 - <u>2000</u>	90 - <u>2400</u>	90 - <u>2800</u>	-

Date: August 2, 1982Operator's
Well No. RET #2
 VIRGINIA OIL AND GAS INSPECTOR
 DEPARTMENT OF LABOR AND INDUSTRY
 DIVISION OF MINES
 219 Wood Avenue
 Big Stone Gap, Virginia 24219-1799
 Phone 703-523-0335

LE-99

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

Well operator RET

Address P.O. Box 39027 Birmingham Ala. 35208
 Farm Samuel P. & Disie Livesay
 Tract No. 3 Acres 10.41 Lease No.
 Elevation 1811±
 Quadrangle Hubbard Springs
 County Lee District Jonesville
 Registered Engineer Registration No.
 Certified Land Surveyor Jerry A. Carter Cert. No. 001412
 File No. Drawing No. 0-156-46-06
 Date 7-30-82 Scale 1" = 200'

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.

Jerry A. Carter
 Registered Engineer or Certified Land Surveyor
 in Charge

