STA TEX OIL COMPANY

(R.A. Stamey)  
August 13, 1962

Russell No. 1  
Sec. 14, T. 19 S., R. 44 E.  
Malheur County, Oregon

Descriptions of Well Cuttings*

0 – 40  Gravel

40 – 310  Shale: With a few thin interbedded sands.


652 – 1320  Shale: Sandy.

1320 – 1360  Sand: Tan, soft - firm, extremely fine grained.  
Possible oil fluorescence reported by Well Logging  
Company. No gas detected in this interval, however.

1360 – 1750  Shale: Firm to hard.

1750 – 1809  Sand: Brownish white, soft - firm, fine grained.  
Gas show, 15 units dry gas and 18 units of wet gas  
recorded on the logging unit in this interval.

1809 – 1828  Sand: Greenish-white, soft - firm, fine grained.

1828 – 2248  Shale: Firm and some soft, grayish green to  
whitish, fine-grained sand. Small show of gas.

2248 – 2289  Sand: Grayish white, soft, fine grained, thinly  
interbedded with shale. Gas logging unit recorded  
32 units of dry gas and 35 units of wet gas.

2289 – 2321  Shale: Medium to dark grayish black, firm.

2321 – 2336  Siltstone: Light gray and greenish, firm, with  
some thin interbedded whitish, feldspathic very  
fine-grained sandstone.

Sandstone: Light gray, very fine grained, silty,  
frangible, with an occasional large mica flake.  
A thin layer of coarse sandstone composed of quartz  
and feldspar toward the bottom of the zone. Gas  
logging unit recorded 10 units methane, 1/4 units  
propane.

*By V.C. Newton, Jr., Petroleum Engineer, State of Oregon Department  
of Geology and Mineral Industries.

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2336 - 2350  Siltstone: Medium to light gray, firm, and some thinly interbedded medium to dark grayish-black shale.

2350 - 2356  Sandstone: Whitish gray, very fine grained, silty, and some silty coarse-grained friable sandstone with quartz, basalt, and white ash. Occasional large mica flakes. Gas logging unit recorded 14 units methane, 10 units propane.

2356 - 2390  Siltstone: Medium to light gray, firm, and thin interbeds of dark-gray siltstone.

2390 - 2406  Sandstone: Whitish-gray, friable, very fine-grained silty, tuffaceous sandstone.

2406 - 2417  Siltstone: Light grayish, fine sandy, and thinly layered black shale and white ash interbedded.

2417 - 2510  Sandstone: Whitish light green, very fine silty, tuffaceous, and thinly interbedded siltstone. Occasional mica flakes and thin layers of white ash.

2510 - 2545  Siltstone: Light gray, very fine sandy, tuffaceous. Small pieces of black shale and white ash intermixed with siltstone in the cutting sample. Occasional large flakes of mica in the siltstone. Grades back and forth between sandy siltstone and silty sandstone.


2575 - 2580  Siltstone: Whitish gray, fine sandy, firm to friable, slightly calcareous, tuffaceous.

2580 - 2644  Sandstone: Whitish, fine to coarse, tuffaceous, slightly calcareous, composed of quartz and feldspar, some chert, white ash, and a small amount of coal, and interbeds of light-gray, firm to hard siltstone.

2644 - 2680  Sand: Whitish, loose, coarse to medium grained, composed of subangular quartz and feldspar with fragments of white ash, some dark-gray chert and interbedded light-gray, firm to hard, siltstone.

2680 - 2684  Siltstone: Light gray, firm to brittle, thinly bedded. Some interbedded black shale.

2684 - 2690  Sandstone: Friable, whitish, coarse grained, composed of subangular quartz and feldspar grains. Some subrounded pieces of basalt.

2740 - 2840 Siltstone and shale: Light-gray to medium-gray, firm siltstone, and interbedded dark-gray to black, firm, carbonaceous shale. Some thin layers of coal. Occasional layers of fine silty sandstone. Medium-sized grains of quartz and small basalt fragments appear to be scattered in the siltstone. Gas logging unit recorded 8 units methane, 6 units propane, 4 units butane.

2840 - 2850 Shale: Medium dark gray to grayish black, firm to hard. Some white ash fragments intermixed.

2850 - 2900 Siltstone: Medium gray, fine, sandy, firm with some white ash fragments intermixed. Occasional areas of pyrite mineralization. Some interbedded dark-gray and grayish-black shale at bottom. Occasional thin layers of coal.

2900 - 2906 Sandstone: Dark-gray, very fine-grained, firm graywacke. Some white and light-brown, very fine-grained tuffaceous sandstone, with medium quartz grains and basalt particles.

2906 - 2916 Siltstone: Light to medium gray, some light green, firm. Some of the medium-gray siltstone contained small splinters of carbonaceous material. Some thinly interbedded black shale.

2916 - 2920 Siltstone and ash: Light-gray, firm siltstone and fragments of firm white ash.

2920 - 2960 White ash: Very fine, particles, mostly crystal debris. Some interbedded light-gray siltstone and black carbonaceous material.

2960 - 2965 Claystone: Light greenish gray, waxy looking, firm.

2965 - 3003 Siltstone: Medium light gray, fine sandy, with some scattered white ash fragments, some black carbonaceous fragments also. Some greenish-gray claystone.

3003 - 3020 Sandstone: Light gray, medium to coarse grained, silty, composed of subangular quartz and feldspar grains, some subrounded chert fragments, slightly calcareous.

3048 - 3060

Siltstone: Light gray, tuffaceous, fine sandy, friable, with scattered medium-sized grains of quartz; some feldspar and a small amount white ash.

3060 - 3070

Sandstone: Whitish, fine, silty, feldspathic, with small pieces of biotite.

3070 - 3088

Siltstone: Light gray, firm, fine sandy, with scattered medium-sized subangular grains of quartz and feldspar. Some gray chert fragments and a small amount of ash fragments, occasional mica flakes. A few thin interbeds of black shale and coal.

3088 - 3095

Shale: Medium gray to grayish black, firm. Also some black microcrystalline basalt fragments intermixed in the cutting sample in this interval.

3095 - 3100

Siltstone: Light gray, fine sandy, firm, with medium-sized grains of quartz scattered throughout.

3100 - 3110

Sand: Light color, loose to friable, composed of medium-sized grains of quartz, chert, and occasional fragments of white ash.

3110 - 3160

Siltstone: Light gray, firm, some interbedded black shale and coal.

3160 - 3165

Shale: Black, firm, and shaly black coal.

3165 - 3175

Sandstone: Whitish, very fine grained, silty, feldspathic.

3175 - 3195

Siltstone: Light gray, firm, with occasional mica (muscovite) flakes.

3195 - 3220

Sandstone: Whitish, firm, fine-to medium-grained, feldspathic sandstone with fragments of medium-to dark-gray chert. Partly cemented with silica (?).

3220 - 3230

Siltstone: Light gray, tan, and greenish, firm.

3230 - 3235

Shale: Dark gray to black, firm; some coal.

3235 - 3250

Siltstone: Light gray and greenish, fine sandy, firm. Some interbedded black shale and shaly coal.

3250 - 3290

3290 - 3295  **Basalt:** Brownish black, hard, microcrystalline; some of the olivine weathered brownish pink.

3295 - 3305  **Siltstone:** Light gray to medium gray, firm; some thin interbeds of whitish medium-grained feldspathic sandstone, partially cemented with silica.

3305 - 3315  **Shale:** Black, brittle, and some shaly coal.

3315 - 3437  **Basalt:** Brownish black, firm, weathered, microcrystalline; some quartz veinlets and some interbedded medium-gray, firm siltstone.

3437 - 3450  **Basalt:** Black, hard, microcrystalline.

3450 - 3480  **Siltstone:** Medium gray, some pinkish, firm, tuffaceous, fine sandy, and interbeds of firm white ash.

3480 - 3500  **Basalt:** Brownish black, weathered, some zeolite.

3500 - 3580  **Siltstone:** Light gray, sandy, tuffaceous, firm, with grains of quartz and feldspar (contains fragments of white ash and basalt); some interbedded thin black shale layers.

3580 - 3640  **Basalt:** Brownish black, fairly hard, microcrystalline with veinlets and cavity fillings of quartz; some calcite. Some of the basalt is softer, weathered. Thin interbeds of medium-gray siltstone and reddish, baked clay. Gas logging unit recorded 6 units methane, 2 units propane (3619-3635).

3640 - 3770  **Sand:** Loose, coarse to medium grained, angular grains of quartz and feldspar; some basalt fragments. Occasional grayish-green chert fragments. Contains a small amount of magnetite, slightly calcareous. Gas logging unit recorded 14 units methane, 14 units propane, 20 units butane.

3770 - 3820  **Siltstone:** Light gray and green, brittle. Grades to fine sandy siltstone. Some fine white ash interbedded. Medium-sized grains of quartz and feldspar scattered throughout siltstone. Gas logging unit recorded 6 units methane, 4 units propane, 2 units butane.

3820 - 3860  **Sand:** Loose, friable, medium grained, composed of quartz and feldspar grains; some basalt fragments and scattered grains of olivine.
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3860 - 3895  **Siltstone:** Medium gray, light gray, and greenish gray, firm, with some thinly interbedded dark-gray siltstone and shale. Some thin coal layers.

3895 - 4110  **Sand:** Loose to friable, medium grained, fairly uniform, composed of subangular grains of quartz and feldspar, some basalt fragments. Somewhat limy in portions. Some of the cuttings' samples contain a considerable amount of basalt which may represent cobbles or boulders of basalt. Interval (4020 to 4025) had a great deal of pyroclastic material intermixed with the sand. Also some magnetite.

4110 - 4150  **Basalt:** Grayish black, microcrystalline, hard, with some calcite veinlets.

4150 - 4170  **Shale:** Black, firm to brittle, and shaly coal. Also medium-gray shale.

4170 - 4195  **Sand:** Loose to friable, composed of subangular grains of quartz and feldspar with some basalt fragments. Bottom portion finer and partially cemented with lime.

4195 - 4210  **Siltstone:** Whitish, light green, and pink, firm.

4210 - 4215  **Shale:** Medium gray to black, firm.

4215 - 4255  **Sandstone:** Whitish gray, firm, silty, fine, with medium to coarse grains of quartz and feldspar scattered throughout. Also some basalt fragments. Slightly calcareous. A small amount of limestone, also. Occasional pieces of greenish-gray chert scattered in the sandstone. Thin interbeds of dark-gray siltstone and shale.

4255 - 4320  **Sand:** Loose to friable, fine to medium grained, subangular, composed of quartz and feldspar with lesser amount of basalt fragments. Slightly calcareous. Interbedded whitish-colored siltstone.

**Note:** No gas shows were reported below 3806 in the well records, but the records must be missing as the sands in the bottom of the hole should contain gas.