

Lithology Log

CLATSKANINE TEXACO WELL

617 Feet north and 1274 feet west of E $\frac{1}{4}$ corner, sec. 36, T. 7 N., R. 4 W. Elevation, 271'. Measurements from Kelley Bushing, 286.7'.

#1	628-638	Rec. 5'	Medium gray micaceous carbonaceous medium to fine-grained sandstone.
#2	638-48	Rec. 9 $\frac{1}{2}$ '	Same lithology.
#3	648-58	Rec. 9'	About same. Dip about 10°.
#4	730-740	Rec. 8'	Basaltic, breccia-zeolitic.
#5	740-750	Rec. 4'	Brownish color, largely breccia with some sandy material.
#6	750-60	Rec. 2'	Med. gray shale or siltstone.
#7	760-70	Rec. 4'	Basaltic breccia-serpentinized claystone.
#8	778-80	Rec. 2 $\frac{1}{2}$ '	Basaltic breccia-serpentinized claystone.
#9	1005-1010	Rec. 4"	Basalt-fine grained flow basalt.
#10	1143-54	Rec. 8"	Cut in one hour. Same thing.
#11	1154-55	Rec. 2-3"	Fine-grained basalt.
#12	1227-37	Rec. 2 $\frac{1}{2}$ '	Medium gray micaceous carbonaceous fine-grained sandstone.
#13	1237-47	Rec. 2'	Tuffaceous medium gray siltstone and fine grit.
#14	1247-57	Rec. 8'	Brownish gray tuffaceous fine sandstone grading into micaceous carbonaceous siltstone.
#15	1257-67	Rec. 9'	Massive medium gray siltstone tuffaceous. A few slickensides.
#16	1267-77	Rec. 5'	Same stuff. A little more micaceous.
#17	1277-87	Rec. 9'	Tuffaceous fine sandstone and siltstone. A Nuculana, medium gray.
#18	1287-97	Rec. 7'	Fine-grained micaceous tuffaceous sandstone. Gritty lenses.
#19	1297-1307	Rec. 7'	Same stuff mostly sandstone and/or siltstone.
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#20	1307-1317	Rec. 10'	Tray 1 and 2: Massive gray siltstone, bugs and some mica. Tray 3: Same with a lens of serpentine 4'. Tray 4: Same as.
#21	1317-1326	Rec. 8'	3 trays. Buggy (?) micaceous tuffaceous gray siltstone, rather massive. Has big forams. when sheared, chloritic or serpentinous veinlets.
#22	1327-1328	Rec. 10'	4 trays. Same peculiar lines, either staining or plant fragments. Some light colored buff fragments. Small Nuculana. Good spiral bug maybe Robulus. Some slickenside and some serpentine.
#23	1338-1349	Rec. 10'	Massive siltstone with some phases approaching a sandstone.
#24	1349-60	Rec. 10'	Tuffaceous gray buggy siltstone and grit, almost a fine volcanic breccia.
#25	1360-71	Rec. 6 $\frac{1}{2}$ '	4 trays. Small fossils as well as bugs. Same lithology. Some slickensides and broken to small pieces.
#26	1371-81	Rec. 4'	Micaceous darker gray slickensided siltstone. Small folding and Nuculana.
#27	1381-91	Rec. 1 $\frac{1}{2}$ '	1 tray. Slickensided gray micaceous. Little bedding.
#28	1391-1401	Rec. 12'	5 trays. Darker gray sheared micaceous tuffaceous siltstone. Some grit in tray 4 and 5.
#29	1401-1411	Rec. 1 $\frac{1}{2}$ '	1 tray. Tuff grit fine to course grit.
#30			
#31	1421-1427	Rec. 3'	Dark gray tuff, gritty sandstone.
#32	1427-38	Rec. 2'	2 trays. Basic tuffaceous, almost basalt.
#33	1438-49	Rec. 6 $\frac{1}{2}$ '	Tuff gritty siltstone. Tuff gritty gray siltstone. Some micas. 3 trays all about the same.
#34	1540-57	Rec. 9'	4 trays. Gray siltstone and grit with poor sorting. May be contemporaneous volcanism.
#35	1551-62	No recovery	

#36	1562-1573	Rec. 10'	Tuffaceous gray siltstone--gray massive and slickensided.
#37	1573-1584	Rec. 6½'	Gray slightly micaceous tuffaceous siltstone.
#38	1684-96	Rec. 11	Micaceous darker gray fine tuff dirty muddy sandstone. Some slickensided. Badly slickensided. Upper part of sample (lower in section) is same color siltstone.
#39	1696-1708	Rec. 9'	Dark gray siltstone. Breaks with angular blocky fracture. Lenses of basaltic grit in the bottom.
#40	1708-1720	Rec. 4'	Brittle siltstone--basic tuffaceous siltstone or fine sandstone and minute flakes of mica.
#41	1820-1830	Rec. 3 or 3½'	Serpentinized slickensided basalt flow or flow breccia.
#42	1830-1840	Rec. 2½'	Serpentinized flow breccia, fine grained black basalt with zeolites.
#43	1874-89	Rec. 2'	Zeolitized amygdaloidal black basaltic flow breccia. 1889 Bit sample, ropy lava.
#44	1979-89	Rec. 9'	Basic basaltic grit, serpentinized.
#45	1989-2001	Rec. 3'	Tuffaceous grit.
#46	2001-13	Rec. 12'	Medium textured grit with some rounded small pebbles, some calcite veinlets--dark colored.
#47	2013-25	Rec. 3'	Same lithology.
#48	2025-37	Rec. 8'	Gritty tuffaceous sandstone with some calcite veinlets.
	2037-61		(Sample from outer barrel after missing recovery on #49-50.) Dark gray sandstone, tuffaceous and coarse with some small pieces of tuffaceous grit.
#50	2044-61	Practically no recovery	Basaltic dark gray sandstone.
#51	2124-36	Rec. 7'	Medium gray sandstone with mica and some calcareous veinlets. Some gritty lenses near the bottom.
#52	2159-2170	Rec. 3'	Core burned blue flame 6" high one second. Quartzose micaceous calcareous sandstone--friable.
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#53	2340-2352	Rec. 1½'	Friable light colored quartzose micaceous. Permeable?
#54	2352-2354	Rec. 1'	Heavy mica hard light gray siltstone. Looks like a core through a calcareous concretion. Steel gray, slickensided. Serpentine?
#55	2450-62	Rec. 8'	Brownish gray tuffaceous basaltic sandstone.
#56	2462-74	Rec. 5'	Dark gray predominantly brownish gray sandstone.
#57	2510-2514	Rec. 4'	Medium dark gray slickensided and calcite veined basaltic siltstone.
#58	2622-34	Rec. 12'	No. burn. medium light gray rather friable tuffaceous and quartzose (arkosic) sandstone. Medium grained in lower part and has darker thin lining, perhaps of organic material plus small flakes of coal.
#59	2634-45	Rec. 8'	Same, dip 25 degrees.
#60	2645-56	Rec. 10'	Medium grained sandstone. Medium to light gray in color--friable. Tuffaceous and quartzose with some organic matter. Inclined to be massive.
#61	2656-67	Rec. 10½'	Slight burn. Black to dark gray--highly carbonaceous siltstone--fine mica, coaly seams and very high in carbon. Dip about 25°
#62	2690-2698	Rec. 8'	Medium gray micaceous quartzose slightly tuffaceous medium grained sandstone.
#63	2698-2710	Rec. 12'	Gritty and highly tuffaceous, slickensided, interbedded medium gray sandstone and tuffaceous grit. Friable and broken up.
#64	2805-2817		Friable medium gray and medium grained sandstone with darker carbonaceous seams.
#65	2817-27	Rec. 7'	Ditto-- Dip about 15° and gritty tuffaceous streaks.
#66	2827-39	Rec. 5½'	About the same.
#67	2954-2966		Interbedded medium gray sandstone and siltstone with slickensided tuffaceous grit. Very fine tuffaceous grit. Darker crumpled small scale deformation showing on lighter gray sandstone background.
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#68	2966-78	Rec. 4'	Crumbly fine medium gray to dark gray micaceous tuffaceous sandstone. Dip about 20° where shown.
#69	2995-99	Rec. 3½'	Carbonaceous micaceous gray slickensided silt and sandstone. Mottled color as if mollusk bored when soft.
#70	3132-43	Rec. 9'	Very dark basaltic grit--fine textured, slickensided massive and homogeneous. Perhaps fine breccia--zeolitized.
#71	3143-50	Rec. 6½'	Nearly horizontal basaltic zeolitized grit grading down into bedded tuffaceous sandstone. Dark gray. Some may be a siltstone.
#72	3385-95	Rec. 9'	Basaltic siltstone, slickensided and serpentinized.
#73	3395-3401	Rec. 6½'	Slickensided dark gray basaltic fine grit and finer sandstone and calcite seams.
#74	3804-3816	Rec. 11'	One core 3 feet unbroken dark gray basaltic breccia. Slickensided with calcite in places.
#75	4336-4348	Rec. 8'	Nearly same. Slickensided zeolitic serpentinized, basaltic tuff. Poorly sorted. Makes good cores - has calcareous seams.
#76	4540-50	Rec. 9½'	Massive fine-grained dark gray tuffaceous sandstone. Calcite seams, brittle--grades into siltstone.
#77	4760-72	Rec. 4'	Nearly black slickensided zeolitic basalt.
#78	4772-84	Rec. 2' in bit.	Black glassy serpentinized basalt.
#79	4858-70	Rec. 12'	Dark gray basaltic siltstone. Bottom part breaks off in platy disks. Serpentinizes where each disc spins on each other when cored. Zeolitic, could almost be a straight basalt.
#80	4870-82	Rec. 10'	Same stuff. Broke into small discs. Harder parts look like an actual basalt or basaltic tuff.
#81	4882-87	Rec. 3'	Zeolitic dark gray tuff.
#82	4887-99	Rec. 12'	Makes good cores. Zeolitic fine grained basalt, serpentinized and slickensided. Black shiny augite phenocrysts.
#83	5114-26	Rec. 6'	Micaceous medium gray arkosic sandstone with calcareous seams.
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#84	5126-38	Rec. 5'	Same stuff. Massive medium gray in color and medium grained sandstone, micaceous and carbonaceous.
#85	5138-44	Rec. 7'	Interbedded hard brittle tuffaceous siltstone and same kind of sandstone.
#86	5144-56	Rec. 9'	About same interbedded series. Dip of about 30°, tuffaceous silt badly slickensided.
#87	5275-87	Rec. 10'	Very serpentinized and slickensided dark gray basaltic tuff. Brittle.
#88	5287-99	Rec. 8'	Same stuff. Badly slickensided.
#89	5441-5454	Rec. 7'	Basaltic grit serpentinized grading into a less tuffaceous sandstone with calcite seams. Calcite veinlets.
#90	5454-61	Rec. 4½'	Medium gray tuffaceous sandstone. Slickensided.
#91	5551-63	Rec. 6'	Dark gray basaltic siltstone badly slickensided.
#92	5563-64	Not recovered	
#93	5564-76	Rec. 3'	Same stuff.
#94	5576-84	Rec. 4'	Pressure on barrel- Would not burn. Crumbly tuff, basal, or fine breccia.
#95	5584-92	Rec. 4'	Dark gray slickensided tuffaceous siltstone or tuff.
#96	5592-5604	Rec. 5'	Nearly same, probably best called a siltstone.
#97	5604-15	Rec. 5'	Slickensided dark gray siltstone. Same tuff.
#98	5615-21	Rec. (3' in bit E.C.)	Nearly black fine textured siltstone.
#99	5621-33	Rec. 8'	Slickensided dark gray siltstone. A little mica and calcite veinlets.
#100	5633-44	Rec. 5'	Tuffaceous breccia or grit. Dark gray siltstone and serpentinized. Almost a breccia in parts.
#101	5644-50 TD	Rec. 4'	Dark gray slickensided siltstone.