Hole No. 52-4
Coordinates
Type Drill
Bit Size

Sheet No. 24
Date Started
Date Completed

PHILLIPS PETROLEUM CO.

Collar Elevation
Total Footage
Overall Core Recovery
Logged By

GEOLOGIC LOG

FROM	TO	FT. OF CORE	CORE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2487.5	2656		233	Basalt, variable textures		
2656	2666		234	Basalt, fresh, aphanitic, b/k		
2666	2675.5		235	Basalt AA	BASALT	
2675.5	2684		236	Basalt AA		
2684	2691		237	Basalt AA		
2691	2700		238	Basalt AA		
2700	2710		239	Basalt AA		
2710	2720		240	Basalt AA		
2720	2730		241	Basalt AA		
2730	2740		242	Basalt AA		
2738	2740		243	Basalt AA		
2740	2744		243	Red Scoriaceous basalt	SCORIACEOUS	BASALT
2744	2756		244	" " "		

Hole No. 52-4
Coordinates
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Bit Size

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Date Started
Date Completed

PHILLIPS PETROLEUM CO.

Collar Elevation
Total Footage
Overall Core Recovery
Logged By

GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2756	2767		245	Red Scoriaceous Basalt		
2767	2774		246	AA. grading back into black aphanitic basalt		
2774	2784		247	Basalt AA.		
2784	2792		248	Basalt AA	BASALT	
2792	2801		249	Basalt - dk red to black, fine grnd, Altered		
2801	2811		250	Basalt, AA		
2811	2819		251	Basalt, fresh blk aphan, Hi grnen fract coatings		
2819	2828		252	Basalt AA		
2828	2838		253	AA		
2838	2848.5		254	AA		
2848.5	2857		255	AA		
2857	2867		256	AA		

Hole No. 52-4
Coordinates
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PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	SAMPLE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2867	2876		257	Basalt, fresh, blk, fine grnd		
2876	2886		258	AA		
2886	2895.5		259	AA		
2895.5	2904.5		260	AA		
2904.5	2914		261	AA		
					BASALT	
2914	2924		262	AA		
2924	2934		263	AA		
2934	2943		264	AA		
2943	2953		265	AA		
2953	2963		266	AA		
2963	2972		267	AA		
2972	2982		268	AA		

Hole No. 52-4
Coordinates
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Bit Size

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PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2983	2992		269	A.A		
2992	3003		270	AA	BASALT	
3003	3012		271	AA		
3012	3021		272	AA		
3021	3031		273	AA/3022 FM changes to Bright red basalt/cinders v. consolidated		
3031	3041		274	Red basalt/cinders AA	CINDER	
3041	3051		275	AA → dk red/black basalt		
3051	3061		276	Blk basalt, broken up		
3061	3074.5		277	Blk, fine grnd basalt, fresh	BASALT	
3074	3083		278	A.A.		
3085	3093		279	AA		
3093	3103		280	AA		

Hole No. 52-4
Coordinates
Type Drill
Bit Size 4 Ø

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PHILLIPS PETROLEUM CO.

Collar Elevation
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Logged By

GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
3103	3111		281	Basalt AA		
3111	3122		282	AA		
3122	3132		283	AA - fresh, vesicular		
3132	3140		284	AA		
3140	3148		285	AA	BASALT	
3148	3158		286	AA		
3158	3164		287	Basalt, AA		
3164	3175		288	BASALT; AA		
3175	3185		289	BASALT, AA		
3185	3186		290	BASALT; AA		
3186	3190		290	Cinders; Red; massive; vesicular	CINDER	
3190	3195		290	Basalt? (andesite?); m-dk gray, porphyritic w/ phenos of feldspar observable.	BASALT	

Hole No. 52-4
Coordinates
Type Drill
Bit Size

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PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
3195	3196		291	Basalt; AA	BASALT	
3196	3200		291	Cinder; Red, vesicular, massive	CINDER	
3200	3204		291	Basalt; dk gray; massive w/ few vesicles; much parting, no obsv. phenos		
3204	3216		292	Basalt; AA		
3216	3225		293	Basalt; AA	BASALT	
3225	3235		294	Basat; AA		
3235	3244		295	Basat; AA, becoming pl. vesicular at 3239		
3244	3253		296	Basalt; AA; becoming less vesic at 3252		
3253	3259		297	Basalt; AA		
3259	3263		297	Basalt; AA except much clay and Rx in parts		
3263	3273		298	Basalt; AA; occ clay seams		
3273	3280		299	Basalt; AA		

Hole No. 52-4
Coordinates
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Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
3280	3289		300	Basalt, AA		
3289	3299		301	Basalt, AA		
3299	3305		302	Basalt, AA		
3305	3315		303	Basalt AA		
3315	3324		304	Basalt, AA	BASALT	
3324	3334		305	Basalt, AA		
3334	3344		306	Basalt, AA		
3344	3354		307	Basalt, AA		
3354	3363		308	Basalt, AA		
3363	3372		309	Basalt, AA		
3372	3383		310	Basalt AA		
3383	3393		311	Basalt, AA		

Hole No. 52-4
Coordinates
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Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
3393	3403		312	Basalt; AA		
3403	3412		313	Basalt; AA		
3412	3422		314	Basalt; AA		
3422	3431		315	Basalt; AA		
3431	3441		316	Basalt - AA		
3441	3451		317	Basalt; AA	BASALT	
3451	3461		318	Basalt; lg clay seam at 3456		
3461	3469		319	Basalt; AA		
3469	3479		320	Basalt, AA		
3479	34865		321	Basalt; AA		
34865	3495		322	Basalt; AA		
3495	3500	TD	323	Basalt; AA		

Hole No. 52-4
Coordinates
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Bit Size

Sheet No. 1A
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PHILLIPS PETROLEUM CO.

Collar Elevation
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Logged By Beall

GEOLOGIC LOG

						METALLIZATION	
			FT. OF CORE	CORE NO.			
Gas H	3500	3508		1	Basalt, V. fresh, fine grnd, black.		
	3508	3511		2	Basalt, AA but brecciated		
Andesite	3511	3517		2	Andesite, lt. pinkish-grey, phenos of wht plagioclase ± for Hornblende		
	3517	3526.5		3	A.A.		
Aph Basalt	3526.5	3535		4	Basalt, Aphanitic, black, v. fresh, Mod. broken up		
	3535	3543		5	AA		
	3543	3552		6	AA		
	3552	3562		7	AA		
	3562	3573		8	AA but very broken up, thin cinder/ash bed 3572-73		
Porph Andesite & Basalt	3573	3582.5		9	Basalt/Andes, porph w/ abd. white plag phenos, less common pyrox/Hb phenos		
	3582.5	3592.5		10	AA		
	3592.5	3602		11	AA		
	3602	3610		12	AA		
	3610	3619		13	AA		
	3619	3628		14	AA (lighter colored w/ more abund pyrox/Hb phenos)		
	3628	3636		15	AA		
	3636	3644		16	AA		
	3644	3646		16	Basalt, fresh, fine grained, black		
	3646	3654.5		17	AA		
	3654	3663		18	AA		
Int. Breccia	3663	3663		19	Andesite, porphyritic – poss inclusion of above unit		
	3663	3672		19	Breccia – Andesite fragments in basalt matrix		
Porph Andes/Bas	3672	3681.5		20	Basalt/Andes, porph w/ Abd plag and pyrox phenos		
	3681.5	3690.5		21	AA		

Hole No. 52-4
Coordinates
Type Drill
Bit Size

Sheet No. 2A

PHILLIPS PETROLEUM CO.

Date Started
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Collar Elevation
Total Footage
Overall Core Recovery
Logged By Beall

GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
3680.5	3699.5		22	AA		
3699.5	3709.5		23	AA		
3709.5	3718		24	AA		
3718	3727.5		25	AA		
3727	3736		26	AA		
3736	3746		27	AA		
3746	3754.5		28	AA		
3754.5	3764.5		29	AA		
3764.5	3773.5		30	AA		
3773.5	3774		31	AA		
3774	3777		31	Basalt, dk-brick red, poss intrusive sill		
3777	3782		31	Porph Andesite, Abund. plag + pyrox/hblende phenos in lt to dk grey g-mass		
3782	3785		32	Breccia - porph andes (AA) frags in brick red matrix		
3785	3788		32	Basaltic dike - high ∠ contact, fine grnd black		
3788	3791		32	Porph Andes, plag + pyrox/Hblde phenos, badly broken up - Altered		
3791	3800		33	AA (less broken up)		
3800	3809.5		34	AA w/green chlorite on fract surfaces		
3809.5	3818		35	AA		
3818	3827		36	AA w/rel more alteration or oshy zones - mod broken up		
3827	3837		37	Porphyritic Andesite, dk red to dk green, brecciated zones, chlorite on fracture surf's.		
3837	3846		38	AA - sharp contact w/basalt dike at 3845', High ∠ cont		
3846	3855		39	Basalt, black, fine grained, fresh		
3855	3856		40	AA - high ∠ cont (45°)		

Porphyritic Bas/And
Sill
Porph And Bas
Dike

Hole No. 52-4
Coordinates
Type Drill
Bit Size

Sheet No. 3A
Date Started
Date Completed

PHILLIPS PETROLEUM CO.

Collar Elevation
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Overall Core Recovery
Logged By Beall

GEOLOGIC LOG

FROM	TO	FT. OF	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
3856	3864		40	Porphyritic Andesite - dk grey to dk greyish-purple - Abund. pheno-crysts of plag - Mod altered & brecciated		
3864	3874		41	AA		
3874	3882		42	AA - grading to basalt, black, fine grained, fresh		
3882	3891.5		43	AA.		
3891.5	3900		44	AA.		
3900	3909		45	AA porphyritic w/white plag phenos		
3909	3918		46	AA		
3918	3928		47	AA		
3928	3938		48	AA		
3938	3948		49	AA w/2 ft dk red-brown, hard clay -		
3948	3958		50	AA, Fresh basalt w/abund white plag phenos		
3958	3967		51	AA		
3967	3977		52	AA		
3977	3987.5		53			
3987.5	3996.5		54	AA		
3996.5	4000		55	AA		

Hole No. 52-H
Coordinates
Type Drill
Bit Size BOX

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PHILLIPS PETROLEUM CO.

Collar Elevation
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Logged By

GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION. ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
367	369		1	LAHAR; fragments of obsidian, lapilli, basalt?, in mud/Ash(?) matrix.		
369	381.5		1	LAhar; less consolidated matrix more of a rubble zone; more reddish matrix than above	LAHAR	
381.5	396		2	Lahar/Rubble AA		
396	401		2	Obsidian; black, glass, some devitrification (hydration) present		
401	425		3	Obsian AA	Obsidian	
425	435		4	Obsidian AA Spherulites/Axiggd(?) forming along flow banding planes.		
435	445		5	Obsidian, AA; flow banding obscure to be mixture of xtlln rhyolite at 444		
445	447		6	Osidian AA		
447	452		6	Rhyolite; m-lt. red; prominent flow banding indicated by inter layered lt. glass; Not porphyritic vit fn gr to glassy.		
452	461		7	Rhyolite, AA	Rhyolite	
461	470		8	Rhyolite; AA		
470	480		9	Rhyolite		

Hole No. 52-4

Coordinates

Type Drill

Bit Size

Sheet No. 2

Date Started

Date Completed

PHILLIPS PETROLEUM CO.

GEOLOGIC LOG

Collar Elevation

Total Footage

Overall Core Recovery

Logged By

FROM	TO	FT. OF CORE	BOX		ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION	DEPTH
480	489		10		Rhyolite, AA			
489	497		11		Rhyolite, AA becoming reddish gray due to increase in presence of obsidian portion			
497	506		12		Rhyolite AA			
506	514		13		Rhyolite, AA			
514	521		14		Rhyolite, AA			
521	531		15		Rhyolite, AA	Rhyolite		
531	540		16		Rhyolite; AA hz to vert. flow banding			
540	549		17		Rhyolite, AA			
549	557		18		Rhyolite, AA			
557	565.5		19		Rhyolite; AA			
565.5	575		20		Rhyolite, AA Recheck this box			
575	585		21		Rhyolite/Welded Tuff?: m. dk gray, has occ. highly porous areas resembling pumice lapilli, needs TS, flow banding still prominent	TS		

Coordinates _____ Sheet No. 3 PHILLIPS PETROLEUM CO. Collar Elevation _____

_____ Date Started _____ _____ Total Footage _____

Type Drill _____ Date Completed _____ Overall Core Recovery _____

Bit Size _____ **GEOLOGIC LOG** Logged By _____

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
585	595		22	Rhyolite or Welded Ash?; presence of pumaceous areas may be gas charged areas w/no flow		
595	604		23	Rhyolite; AA; occ. vesicular areas of red color	Rhyolite	
604	614		24	Rhyolite; AA rubbly; becomes dk gray and less fractured at 610		
614	621		25	Rhyolite; AA; rubbly and brecciated at bottom		
621	624		25	Obsidian; black, vitreous; occ. zones of ash between blocks of flow (631.5)	Obsidian	
624	637		26	Obsidian, AA		
637	637.5		27	Obsidian AA		
637.5	646		27	Ash; lt. gray; fn - coarse, occ. glass blocks	Ash?	
646	649		27	Ash; reddish brown; fn to clay; occ. large pebble size felt frag.	weathered zone of Rhyolite?	
649	656		28	Ash/clay zone AA		
656	659		28	Dacite? (altered) Reddish brown; more massive and harder than above, occ. phenocrysts	Dacite	
659	668.5		29	Dacite; Reddish brown to dk gray, weathered (altered) to fresh; porphyritic with phenos of feldspar in glassy matrix		

Hole No.
Coordinates
Type Drill
Bit Size

Sheet No. 4
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Date Completed

PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF	BOX TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
668.5	679		30	Altered or Weathered Dacite; AA; Alternating zones of fresh and highly altered material.		
679	694		31	Dacite; altered?; AA		
694	699		32	Dacite; AA; alternating		
699	703		32	Altered Dacite; intensly weathered; brown; V. soft.	Dacite	
703	704		33	Altered Dac.; AA		
704	709		33	Dacite; fresh to weathered; m gray-brown		
709	712		33	Altered Dacite; AA		
712	722		34	Altered Dacite AA		
722	727		35	Altered Dacite AA		
27	733		35	Dacite; m. gray; porphyritic; rubbly		
733	737		36	Dacite; AA; Rubbly and broken		
737	745		36	Cinder; red; occ. faint pebbles	Cinder	

Hole No. 52-4
Coordinates
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Bit Size

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PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
745	749		37	Altered dacite; reddish m. gray, soft to hard; porphyritic		
749	753		37	Dacite; (Phyolitic) m. gray; porphyritic; no visible qtz xtls so it will be called dacite		
753	763		38	Dacite; m. gray; AA;	DACITE	
763	773		39	Dacite; AA		
773	782		40	Dacite; AA		
782	790		41 &	Dacite; AA		
790	799		42	Dacite; AA		
799	809		43	Dacite; AA		
809	819		44	DACITE; AA		
819	829		45	DACITE; AA		
829	837		46	DACITE; AA		
837	847		47	DACITE		

Hole No. 52-4
Coordinates
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PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF ~~CORE~~	~~TYPE~~ bar	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
847	850.5		48	DACITE; AA		
850.5	856		48	Altered/Weathered Dacite; Reddish gray-red; friable; clay in matrix; occ zones of "rotten" looking		
856	865		49	Altered Dacite AA		
865	875		50	Altered Dacite AA		
875	886		51	Altered Dacite; AA		
886	894		52	Altered Dacite; AA		
894	903		53	Altered Dacite; AA; occ. blocks of highly vesicular material like basalt. Prob. an interflow rubble zone.		
903	912		54	Andesite?; lt gray; porphyritic w/ phenos of feldspar and ferromags in lith xtl/n matrix	ANDESITE	
912	921		55	Andesite? (Could be same as dacite above)		
921	926		56	Andesite? AA		
926	930		56	Altered Andesite/Rubble Zone; brecciated blocks of xtl/n material w/in altered areas of same material. Matrix is V. Soft		
930	941		57	Altered Andesite (or dacite) Rubble Zone; AA; highly vesicular blocks		

Hole No. 52-4
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PHILLIPS PETROLEUM CO.

Collar Elevation
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Logged By

GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
941	950		58	Altered Andesite/or Dacite; AA;		
950	958		59	Altered Andesite or Dacite; AA		
958	960		59	Basalt; m-dk gray; vesicular; slp porphyritic; occ. fragments of fn x/tn lt gray wallmaterial.		
960	969		60	Basalt; AA		
969	978		61	Basalt; AA; occ. rubbly areas	BASALT	
978	987		~~62~~	Basalt; AA		
987	996		63	Basalt; AA becoming less vesicular at 994		
996	1005		64	Basalt; AA parting thickness varys		
1005	1015		65	Basalt; AA		
1015	1025		66	Basalt; AA		
1025	1034		67	Basalt; AA		
1034	1044		68	Basalt; AA becoming dk gray, less porphyritic; v. fn xtl'n; red-pink stain on parting surfaces		

Hole No. 52-4
Coordinates
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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1044	1051		69	Basalt; AA		
1051	1056.5		70	Basalt; AA;		
1056.5	1059		70	Basalt Breccia; blocks of angular basalt frag. in red and matrix.		RUBBLE
1059	1066		71	Basalt; m-dk gray, v. fn xtlln; occ. frag of light gray wall material.		Basalt
1066	1068		71	Basalt Breccia & Ash; red ash w/occ. frag of basalt.		
1068	1078		72	Ash; red; massive to rubbly; occ. basalt frag. v. soft to v. hard		ASH
1078	1087		73	Ash		
1087	1096		74	Ash; can be v. highly welded; [needs TS]	TS	
1096	1097		75	Ash; AA		
1097	1103		75	Basalt; dk gray; v. fn xtlln; occ. phen.		BASALT
1103	1108		76	Basalt; AA		
1108	1109		76	Welded Cinders; red to reddish gray; massive; lapilli size cinders w/in		CINDER

Hole No. 52-4
Coordinates
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PHILLIPS PETROLEUM CO.

GEOLOGIC LOG

Collar Elevation
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FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1109	1122		77	Cinders; AA; more friable less massive; occ. fragments of basalt.		
1122	1133		78	Cinders; AA		CINDER
1133	1145		79	Cinders; AA; ~~[illegible]~~ contain lighter colored (lt. brown to tan) clay for matrix at 1143		
1145	1147		80	Cinder/Ash; AA		
1147	1156		80	Lithic Tuff (lahar??); reddish gray with fragments of lt. gray to dk gray material;		
1156	1170		81	lithic tuff/lahar AA		
1170	1180		82	lithic tuff; fragments of pumice increasing		LITHIC TUFF
1180	1194		83	lithic tuff, AA		
1194	1204		84	lithic tuff; AA; more muddy matrix		
1204	1214		85	lithic tuff, AA		
1214	1225		86	lithic tuff		
1225	1241		87	lithic tuff; AA		

Hole No. 52-4
Coordinates
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PHILLIPS PETROLEUM CO.

Collar Elevation
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Logged By Beall/Smith

GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1241	1251		88	lithic tuff; AA		
1251	1261		89	lithic tuff; AA pumice increasing at 1260	Lithic Tuff	
1261	1272		90	lithic tuff; AA		
1272	1276		91	lithic tuff AA; Nice change at 1273 to brown ash		
1276	1282		91	Basalt; dk gray; vesicular; fN xtlN;		
1282	1292		92	Basalt; AA; interflow rubble at 1290.5		
1292	1302		93	Basalt; AA	BASALT	
1302	1312		94	Basalt, A.A. 2' of Scoriaceous Bas 1305-07		
1312	1333	?	95	Basalt, AA 1315'-1330' Cinders, Scoria		
1333	1344		96	Basalt / Scoria - interbedded		
1344	1353		97	Fresh, hard, black Basalt, non-vesicular, Aphanitic - fine grnd		
1353	1363		98			

Hole No.
Coordinates

Type Drill
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PHILLIPS PETROLEUM CO.

GEOLOGIC LOG

Collar Elevation
Total Footage
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Logged By Beall

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1363	73		99	A.A. But grading to lighter color		
1373	82		100	Basalt, A A		
1382	905		101	Basalt, A A		
1390.5	1392		102	Basalt. A A		
1392	1400		102	Cinders, Red-orange, poorly consolidated		
1400	1417		103	Cinders, A.A.	CINDER	
1417	1430		104	Cinders, AA		
1430	45		105	Cinders, A A		
1445	62.5		106	Cinders, AA		
1462.5	88		107	" " , Some sects slightly more consol.		
1488	1501		108	Cinders, A.A., Real soft orange crud from 1494.		
1501	1510		109	Cinders, Soft, orange clay grading to yellow		
1510	1520		110	Red to Orange Cinders		

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Coordinates
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PHILLIPS PETROLEUM CO.

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GEOLOGIC LOG

FROM	TO	FT. OF CORE	~~TYPE~~	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1520	1529		111	Cinders, Red to Orange		
1529	1537		112	" " "		
1537	1545.5		113	" " "		
1545.5	1555		114	Cinders, Red, soft		
1555	57		115	" " "		
1557	63		115	Cinders, grading to dk red Basalt		
1563	71		116	DK red Basalt, hard,	BASALT	
1571	80		117	" " " ", Fine grnd-aphanitic		
1580	89		118	DK red Basalt grading into fine grnd, med grey-black basalt?		
1589	97		119	Fresh, grey-black fine grnd aphanitic Basalt		
1597	1607		120	" " " " A. A.		
1607	1616		121	A. A.		

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PHILLIPS PETROLEUM CO.

Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF ~~CORE~~	~~CORE~~	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1616	1625		122	Basalt, A.A.	BASALT	
1625	1634		123	Basalt A.A.		
1634	1642		124	Basalt A.A. - developing a planar parting orientation		
1642	1651		125	Basalt, AA		
1651	1659		126	Basalt, AA		
1659	1668.5		127	Basalt AA - grading back into dk red basalt		
1668.5	1679		128	DK red basalt grading to poorly consol red cinders		
1679	1686		129	Red cinders w/ lbbd of red basalt	CINDER	
1686	1700		130	Cinders, v. poorly consol		
1700	1710		131	A.A.		
1710	1718		132	Cinders interbedded w/ scoriaceous basalt and dk red basalt.		
1718	1722		133	A.A.		
1722	1727		133	DK red Basalt grading into black basalt	BASALT	

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Coordinates
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PHILLIPS PETROLEUM CO.

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GEOLOGIC LOG

FROM	TO	FT. OF CORE	~~TYPE~~	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1727	1736		134	Basalt, black, fine-grnd - aphanitic		
1736	1745		135	Basalt, AA	BASALT	
1745	1752		136	Basalt, AA		
1752	1760		137	Basalt AA - grading to slightly lighter, dk grey		
1760	1770		138	A.A.		
1770	1785		139	AA - grading lighter & devel a good, close spaced // parting - looking much like platy Andesite		
~~1785~~	1787		140	Platy ~~Andesite~~ Basalt A.A.		
1787	1796		141	Basalt, fine-grained - linear texture w/in rx but dolerit // platy parting surfaces		
1796	1804		142	Basalt AA		
1804	1804.5		142	Cinder; red; massive; sl. vesicular in place	CINDER	
1804.5	1816		143	Cinder/Ash; Red; friable grades into red ash		
1816	1831		144	Cinder/Ash; AA		

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Coordinates

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GEOLOGIC LOG

FROM	TO	FT. OF	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1831	1844		145	Cinder/Ash; AA; becoming grayer	CINDER	
1844	1857		146	Cindy/Ash; AA; more massive; high % of ash		
1857	1866.5		147	Ash/Cinder AA		
1866.5	1868		147	Basalt; m gray; v. fn xtlln; looks sl. altered to greenish tint???	BASALT	
1868	1878		148	Basalt; AA		
1878	1887		149	Basat; AA		
1887	1896		150	Basalt; AA highly fractured		
1896	1905		151	Basalt; AA		
1905	1913		152	Basalt; AA		
1913	1919		153	Basalt; AA		
1919	1926		154	BASALT AA		
1926	1931		155	Basalt; AA		

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GEOLOGIC LOG

FROM	TO	FT. OF	TYPE	ROCK DESCRIPTION. ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
1934	1941.5		156	BASALT; AA	BASALT	
1941.5	1949		157	BASALT; AA		
1949	1958		158	BASALT; AA		
1958	1968		159	BASALT; AA		
1968	1974		160	BASALT; AA		
1974	1975		161	BASALT; A		
1975	1984		161	NO RETURNS	Ash	
1984	1986.5		161	Ash, lt brown; fn sing, sdt;		
1986.5	1994		161	Cinder; dk reddish gray; vesicular; welded to broken	CINDER	
1994	2002		162	Cinder; AA		
2002	2002.5		162	BASALT; m. gray, fn xtlln,	BASALT	
2002.5	2010		163	BASALT; AA		

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Coordinates

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PHILLIPS PETROLEUM CO.

Collar Elevation

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GEOLOGIC LOG

FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2010	2022		164	BASALT; AA	BASALT	
2022	2029		165	BASALT; AA; broken and brecc. at 2028		
2029	2032		165	Cinder; dk gray to red; oxidized zone w/in	CINDER	
2032	2039		166	Cinder AA		
2039	2048		167	Cinder; AA; lapilli of gray cinders in red ash matrix; matrix = 60% frx		
2048	2051		168	Cinder; AA		
2051	2060		168	Basalt; dk gray; vesicular	BASALT	
2060	2067		169	BASALT; becoming m. gray AA; becoming less vesicular		
2067	2074		170	BASALT; AA; massive		
2074	2082		171	BASALT; AA		
2082	2093		172	BASALT; AA		
2093	2103		173	BASALT; AA		

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Coordinates
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Collar Elevation
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GEOLOGIC LOG

FROM	TO	FT. OF	TYPE	ROCK DESCRIPTION. ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2103	2111		174	BASALT; AA		
2111	2121		175	BASALT; AA		
2121	2130		176	BASALT; AA		
2130	2134		177	BASALT; AA; Brecciated at 2133		
2134	2140		177	Cinder; red; massive at top becoming less welded by 2136	CINDER	
2140	2149		178	Cinder; AA		
2149	2158		179	Cinder; AA		
2158	21685		180	Cinder AA;		
21685	2170		181	Cinder; AA		
2170	2177.5		181	BASALT; M. gray; vesicular to massive;	BASALT	
2177.5	2185		182	BASALT; AA		
2185	2195		183	BASALT; AA massive w/no vesic.		

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FROM	TO	FT. OF	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2195	22035		184	BASALT, AA	BASALT	
2203.5	2212		185	BASALT; AA		
2212	2215		186	BASALT; AA; v. broken		
2215	2227		186	ABk/TUFF; pink-buff; sm. lithic fragments of red cinder, pumice, basalt; occ. clay zones. poorly welded		
2227	2237		187	TUFF; AA	TUFF	
2237	2240		188	TUFF; AA		
2240	2247		188	Altered or weathered Dacite; soft; massive	DACITE	
2247	2255		189	DACITE?; dk gray; vesicular; porphyritic w/ phenos of K-spar and plag; fractures and some vesicles are filled w/ manganese material		
2255	2266		190	DACITE; AA		
2266	2272		191	DACITE?; AA; becoming less vesicular; greenish alteration noticeable in rx, soft prob. chlorite		
2272	2275		192	DACITE?; AA		

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GEOLOGIC LOG

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FROM	TO	FT. OF CORE	TYPE		ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION	DEPTH
2275	2281.5		192		Tuff; yellowish green; hard; lithic frag noticeable green altn present.	Tuff		
2281.5	2288		193		Tuff; AA			
2288	2291		193		DACITE Rubble; vesicular, broken			
2291	2300		194		DACITE ~~RUBBLE~~; AA less rubbly, vesicular weathered			
2300	2309		195		DACITE; lt-m gray; becoming less weathered and less vesicular at 2302.5; looks andesitic??			
2309	2319		196		DACITE? AA	DACITE		
2319	2328		197		DACITE?; AA, becomes weathered and soft @ 2327.5			
2328	2338		198		DACITE; AA; red and weathered, vesicular, probably a flow boundary.			
2338	2345		199		DACITE; AA, less vesicular at 2343			
2345	2356		200		DACITE; becomes weathered, broken, and brown colored at 2347 (another flow boundary?)			
2356	2357		201		DACITE; AA			
2357	2365		201		BASALT; Rubbly; m-dk gray, fn xtlln, not porphyritic, vesicular to massive	BASALT		

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PHILLIPS PETROLEUM CO.

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FROM	TO	FT. OF CORE	TYPE		ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION	DEPTH
2365	2374		202		BASALT; AA becomes massive at 2367	BASALT		
2374	2374.5		203		BASALT; AA			
2374.5	2376.5		203		Ash; red to buff; lithic w/frag of basalt w/in	ASH/CINDER		
2376.5	2379		203		Cinder + Rubble			
2379	2382		203		BASALT; m gray + dk f.n xtlln; few planes, lots of water staining and deposits on fract. surfaces	BASALT		
2382	2390.5		204		BASALT, broken by oxidized rubble zones			
2390.5	2400		205		BASALT; X flows as AA			
2400	2409.5		206		BASALT; X flows AA			
2409.5	2419		207		BASALT; becoming v. massive at 2415			
2419	2428		208		BASALT; AA; vert. fractures			
2428	2438		209		BASALT; AA; rubbly and broken and vesicular at 2433.5.			
2438	2439		210		BASALT; AA			

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GEOLOGIC LOG

FROM	TO	FT. OF CORE	~~TYPE~~ ROCK	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2439	2447		210	Cinder, Red, fm to pebble size;	CINDER	
2447	2456		211	Cinder, AA		
2456	2470		212	Cinder, AA becomes reddish gray at 2461		
2470	2479		213	Cinder, AA, becoming more massive		
2479	24795		213	BASALT; dk gray; fn xtlln, massive, vertical fractures	BASALT	
24795	2487		214	BASALT, AA		
2487	2497		215	BASALT, AA		
2497	2506		216	BASALT; AA		
2506	2516		217	BASALT; AA v. massive,		
2516	2524		218	BASALT, AA		
2524	2534		219	BASALT, AA		
2534	2543		220	BASALT, AA		

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FROM	TO	FT. OF CORE	TYPE	ROCK DESCRIPTION, ALTERATION AND REMARKS	METALLIZATION	SECTION DEPTH
2548	2553		221	BASALT; AA		
2553	2564		222	BASALT; AA		
2564	2573		223	BASALT; AA		
2573	2583		224	BASALT; AA	BASALT	
2583	2592		225	BASALT, AA		
2592	2602		226	BASALT; AA		
2602	2609		227	BASALT, AA		
2609	2613.5		228	BASALT; AA		
2613.5	2620		229	Basalt - fresh black aphanitic, non vesic		
2620	2621		"	Red scoriaceous basalt	SCORIACEOUS	BASALT
2621	2630		230	Red scoriaceous basalt		
2630	2638.5		231	Scoriaceous basalt → dk grey to blk or brown zeolite in amygdules.	BASALT	
2638.5	2647.5		232	A.A. grading to fresh, Aphanitic basalt, Slightly vesic w/ soft lt. grn min form amygdules		