

WEEK ENDING June 21, 1951

SHELL OIL COMPANY

AREA OR FIELD PITAH CREEK AREA

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil CompanyCORES EXAMINED BY J. KennellSection A - Diamond 1A

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRENGTH	DENSITY	CORE INDICATIONS	
							OIL - GAS	CORE OR BITCH
	50	55	1-1/2'	3'				
				15'				
	55	60	3'	3'				
	60	70	6'	6'				
	70	80	0'					
	80	90	4'	4'				
	90	100	4'	4'				
	100	110	1'	1'				
	110	120	3'	3'				
	120	130	4'	4'				
	130	135	1'	1'				
	135	145	6'	6'				

WEEK ENDING June 22, 1951

SHELL OIL COMPANY

AREA OR FIELD Pitah Creek Area

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil CompanyCORES EXAMINED BY M. Kirk, T. Bergen

Page 2

Section A - Diamond 1A

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRENGTH	DENSITY	CORE INDICATIONS	
							OIL - GAS	CORE OR BITCH
	145	155	1'	1'				
	155	162	2'	2'				
	162	172	3'	3'				
	172	180	3'	3'				
	180	190	5'	5'				
	190	200	3'	3'				
	200	205	4'	4'				
	205	210	3'	3'				
	210	215	1-1/2'	1-1/2'				
	215	220	3'	3'				

REMARKS: C-CLAY OR SHALE (1000-0.05%), S-CLAY OR SHALE WITH SAND (1000-0.05%), S-CLAY OR SHALE AND SAND (1000-0.05%), S-SAND WITH SHALE STRIPS (1000-0.05%), S-SAND (1000-0.05%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING July 4, 1951

CORE FROM _____ TO _____

CORES EXAMINED BY T. Bergum, W. Kirk

CORE RECORD

Page 3

AREA OR FIELD Fitch Creek Area

COMPANY Shell Oil Company

Section A - Diamond 14

XXXXXXXXXXXXXXXXXXXX

NO.	FROM	TO	SECT. EXED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAIN.	WATER DEP.	CORE INDICATIONS	
							OIL - GAS	CORE OR BITUMEN
226	233	2'	2'	Silty shale, dark gray, massive, firm, well indurated, micromicaceous, abundant slickensides throughout. Lower 1 foot argillaceous. Abundant microfossils, common "sporbo" and shell fragments, minor pyrite scattered throughout.				
233	238	4'	4'	Silty shale, medium gray, massive, firm, fairly well indurated, micromicaceous, very abundant "sporbo", becoming less abundant at bottom, abundant microfauna, scattered shell fragments, top 1-1/2' quite limy (almost a limestone), slickensiding becoming more noticeable to the bottom, sporbo quite green, particularly in limy portions.				
238	248	6'	6'	Silty shale, generally as above, marked decrease in sporbo, abundant slickensiding, particularly in bottom 2 feet.				
248	258	8'	8'	Silty shale, generally as above, sporbo rather rare.				
258	268	6'	6'	Silty shale, generally as last above, rare pyrite, sporbo rather common in bottom 2 feet, rare fish scales.				
268	278	5'	5'	Silty shale, medium gray, slight greenish cast, massive, firm, fairly well indurated, micromicaceous, becoming calcareous in bottom 3 feet (almost a limestone), abundant microfossils and shell fragments throughout, abundant green sporbo in limy portion, scattered slicks.				
278	288	9'	9'	Silty shale, generally as above, scattered 4 and 5 grain mica scattered throughout.				
288	298	6'	6'	Silty shale, generally as above, grading to dense gray limestone,				

WEEK ENDING July 7, 1951

CORE FROM _____ TO _____

CORES EXAMINED BY W. Kirk, B. Yancey

CORE RECORD

Page 4

AREA OR FIELD FITCH CREEK AREA

COMPANY Shell Oil Company

Section A - Diamond 14

XXXXXXXXXXXXXXXXXXXX

NO.	FROM	TO	SECT. EXED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAIN.	WATER DEP.	CORE INDICATIONS	
							OIL - GAS	CORE OR BITUMEN
298	308	10'	3'	Silty shale, generally as above, becoming more silty to the bottom, fairly abundant pyrite, scattered throughout, rather rare fish remains, grading down to silty sandstone.				
			7'	Silty sandstone medium gray, massive, firm, well indurated, 2-3 grain, common scattered 4 grain mica, rare pyrite, rare sporbo, more noticeable in top 1 foot, fairly common megafossil remains, fracture at 85° at 9 feet.				
308	318	10'	10'	Silty sandstone, generally as last above, 2-3 grain, no sporbo, scattered 4-6 grain biotite in top 4 feet, scattered rare 6 grain quartz, rare megafossil fragments.				
318	328	10'	10'	Silty sandstone, generally as last above, 2-3 grain, scattered 4 quartz and 4 and 5 biotite, rather rare megafossils, rather rare black sporbo, scattered 30° fractures.				
328	338	10'	10'	Silty shale light gray, poorly bedded, firm, well indurated, micromicaceous abundant biotite, rather common chlorite. Common microfauna and shell fragments, common fractures and slickensides.				
338	348	9'	9'	Silty shale, generally as above, less common fractures and slickensides.				
348	358	7'	7'	Silty shale, generally as above, but less silty with minor scattered pyrite.				
358	368	6'	6'	Shale light gray, poorly bedded to very crumbly, micromicaceous, rare carbonaceous material partially pyritized, very common microfauna. Top 1 foot glauconitic (?).				
368	375	6-1/2'	6-1/2'	Shale, generally as above, with 2" bed of light gray sandstone 2 to 4 with 5 and 6 grain 2 feet from bottom.				

SPORBO: C-CLAY OR SHALE (100%); 1-CLAY OR SHALE WITH SAND STRIPS (25-50%); 2-CLAY OR SHALE AND SAND (25-50%); 3-SAND WITH SHALE STRIPS (25-50%); 4-SAND (10-25%);
NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING July 7, 1951

SHELL OIL COMPANY

CORE FROM _____ TO _____

CORE RECORD

AREA OR FIELD PUTAH CREEK AREA

CORES EXAMINED BY T. Barger

COMPANY Shell Oil Company

Section A - Diamond 1A

Page 5

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	STRENGTH	CORE INDICATIONS DIL - S&P
	375	380	4'	4' Silty shale, medium gray, massive, firm, well indurated, micaceous, abundant microfauna. Common slickensides scattered throughout the interval.			
	380	385	2-1/2'	2-1/2' Sandy shale, medium gray, massive, firm, well indurated, micaceous, contains abundant 4 and 5 sand grains of quartz, chert, and vari-colored minerals, rare carbonaceous material partially pyritized. 1" bed of sandstone at 2 feet light gray 2-5 grain - abundant microfauna in shale.			
	385	395	7'	7' Silty shale, medium gray, massive, firm well indurated, micaceous, abundant microfossils.			
	395	405	5'	5' Silty shale, generally as above, common slicks throughout.			
	405	415	4'	4' Silty shale, generally as above, common slicks. Rare pyritized carbonaceous material.			
	415	425	1'	1' Silty shale medium gray, massive, rather crumbly, fairly well indurated, micaceous, abundant microfossils, rare shell fragments.			
	425	435	7'	7' Silty shale, medium gray, as above.			
	435	445	8'	8' Silty shale, as above.			
	445	450	3'	3' Silty shale, as above, rare pyritized pods.			
	450	460	9'	9' Silty shale, as above.			
	460	470	6'	6' Silty shale, medium gray, fairly well bedded, firm, fairly well indurated, micaceous, abundant microfauna.			
	470	480	7'	7' Silty shale, generally as above, minor fractures, scattered pyrite abundant forams.			

SYMBOLS: C-CLAY OR SHALE (100% C+); S-CLAY OR SHALE WITH SAND STRIATIONS (25-50% S); E-CLAY OR SHALE AND SAND (25-50% S); S-SAND WITH SHALE STRIATIONS (25-50% S); S-SAND (10-100% S).

NOTE: Show Plastic Content as in STANDARD LABOR.

WESTPORT June 4, 1951

SHELL OIL COMPANY

AREA OF FIELD Prish Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell
Section A, Diamond 1

CORES EXAMINED BY J. Kennell, R. Yancey

NO.	FROM	TO	SECTION	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRATA	SHELLS	CORE INDICATIONS	
							DIL-GAS	CORE OR BITUM.
	78	80	2'	2' Shale, light to medium gray, very irregular partings, firm, well indurated, brittle, micromicaceous, common microfauna.				
	80	90	2'	2' Shale, as above.				
	90	100	5'	5' Shale, as above, fair to irregular partings.				
	100	110	4'	4' Shale as above.				
	110	130	9'	9' Claystone, silty, gray, massive, fairly well indurated, minor scattered biotite, rare carbonaceous matter, fine sandy streaks in middle of core, 2-3 grains. Micaceous. Scattered varicolored minerals in sandy streaks. Rather abundant microfauna. One indeterminate shell fragment observed.				
	130	150	12'	12' Silty claystone, generally as above.				
	150	160	6'	6' Silty claystone, generally as above. Minor slickensides.				
	160	180	14'	14' Claystone, silty, generally as above. Poorly preserved shell fragments.				
	180	200	12'	12' Claystone, silty, light to medium gray, firm, well indurated, micromicaceous, very irregular, parting approximately 10°, low grade slickensides. Rather common microfauna. Rare megafossils.				
	200	220	5'	5' Claystone, silty, as above.				
	220	235	5'	5' Claystone, silty as above with rare light gray silty sandstone clusters 2-3 grain.				
	235	255	8'	8' Claystone, silty as in interval 180-200'.				
	255	271	9'	9' Claystone, silty as above.				

WESTPORT June 8, 1951

SHELL OIL COMPANY

AREA OF FIELD Prish Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell

CORES EXAMINED BY Kennell, Kirk, Yancey

PAGE 2

Section A, Diamond 1

NO.	FROM	TO	SECTION	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRATA	SHELLS	CORE INDICATIONS	
							DIL-GAS	CORE OR BITUM.
	271	295	13'	13' Claystone, silty, light to medium gray, massive, firm, well indurated with scattered 3-4 grains of biotite, micromicaceous. Rather common microfauna.				
	295	310	6'	6' Claystone, silty as above. Prisms (?).				
	310	320	8'	8' Claystone, silty, generally as above, slickenside surfaces scattered throughout.				
	320	330	10'	10' Silty shale, medium gray, massive, fairly well indurated, firm, micromicaceous. Scattered carbonaceous material, in part pyritized. Rare microfauna. Rather rare shell fragments. Low grade slickenside surfaces throughout core.				
	330	340	10'	10' Silty shale as above.				
	340	350	9'	9' Silty shale as above, becoming slightly more silty in lower 4'.				
	350	360	6'	6' Silty shale, medium gray, fair parting 0-10°, firm, fairly well indurated, micromicaceous. Rare carbonaceous material, in part pyritized, rather common microfossils and shell fragments.				
	360	370	6'	6' Silty shale, medium gray as above.				
	370	380	8'	8' Silty shale, gray, massive, well indurated, micromicaceous, rather common carbonaceous matter, common pyrite, rare siderite, minor slickensides near bottom with 5' sandstone 4' from top, gray, massive, well indurated, dense, common biotite, muscovite, minor feldspars, scattered varicolored minerals throughout, fractures healed with calcite.				
	380	390	9'	9' Silty shale, generally as above, thin streaks of very fine sand common throughout.				
	390	400	9'	9' Silty shale, generally as above, with minor slickensides.				

STRATA: C-LAY OR SHALE (1000-2000); L-LAY OR SHALE WITH SAND STRIATIONS (1000-2000); S-LAY OR SHALE AND SAND (1000-2000); S-SAND WITH SHALE STRIATIONS (1000-2000); S-SAND (2000-4000).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING June 12, 1953

SHELL OIL COMPANY

AREA OR FIELD Prish Coast

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell

CORES EXAMINED BY Yancy, Kennell, Bergan

PAGE 3

Section 1 Diamond 1

NO.	FROM	TO	RECORDED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAT.	DEPTH IN	CORE INDICATIONS OIL - GAS CORE OR BITCH
	400	410	9'	9' Silty shale, generally as above, somewhat more crumbly, scattered microfauna.			
	410	420	9'	9' Silty shale, generally as above, with some shell fragments, more abundant microfauna.			
	420	430	10'	10' Silty shale, dark medium gray, massive to poorly bedded, firm, well indurated, micromicaceous. Scattered low grade slickensides throughout interval. Common microfauna and shell fragments. Minor siltstone stringers scattered throughout core.			
	430	440	6'	6' Silty shale, gray, massive, firm, well indurated, micromicaceous, microfauna rather common. 2" silt beds rather common throughout.			
	440	450	6'	6' Silty shale as above. Rare shell fragments, minor slickensides throughout. 1" limy bed 1' from bot tom.			
	450	460	5'	5' Silty shale as above.			
	460	470	5'	5' Silty shale as above. Mottite flakes more common, minor slickensides, more common than above.			
	470	480	6'	6' Silty shale, medium gray, very poorly bedded, firm, well indurated, micromicaceous, common carbonaceous material, in part pyritised. Common microfauna.			
	480	488	1'	1' Silty shale as above.			
	488	498	9'	9' Silty shale generally as above. 6" of very well indurated limy, silty shale 1' from top.			
	498	506	2'	2' Silty shale as above.			
	506	516	10'	10' Silty shale as above.			

EXAMPLE: 2-CLAY OR SHALE (100% 0-10%). 1-CLAY OR SHALE WITH SAND STRIPS (100% 0-10%). 2-CLAY OR SHALE AND SAND (100% 10-15%). 3-SAND WITH SHALE STRIPS (100% 10-15%). 4-SAND (100% 10-15%).
 NOTE: SHOW PLAIN CONTENT AS IN STANDARD LOGS.

WEEK ENDING July 31, 1951
 CORE FROM _____ TO _____
 CORES EXAMINED BY Johnson, J. & M.Kirk

SHELL OIL COMPANY
CORE RECORD

AREA OR FIELD Putah Creek
 COMPANY Shell
Section 4, Diamond 2

PAGE 1

NO.	FROM	TO	RECORD EXER.	FORMATIONAL STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAIG.	CORRECTED DIP	CORE INDICATIONS OIL-GAS
							CORE OR BITUM
43	48	3'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous, common microfossils.			
48	53	5'		Silty shale, medium gray, massive, hard, well indurated (muddy when wet), micromicaceous, 2° 2 to 5 grain, medium gray hard sandstone at top.			
48	53						
53	60	2'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous, abundant low grade slickensides, badly sheared and fractured.			
60	70	3'		Silty shale, generally as above.			
70	80	7'		Silty shale, generally as above.			
80	90	10'		Silty shale, generally as above.			
90	100	10'		Silty shale, generally as above.			
100	110	9'		Silty shale, generally as above. Top 4' consists of a light gray silty mud.			
110	120	6'		Silty shale, generally as above, top 2' muddy as above.			
120	130	2'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous, common slickensides, rare microfossils.			
130	140	7'		Silty shale, medium gray, massive to poorly bedded, firm, well indurated, micromicaceous, common slickensides, rare microfossils, rare thin stringers 3 grain sandstone.			
140	149	7'		Silty shale, generally as above, scattered shell fragments.			
149	158	6'		Silty shale, dark gray, massive, firm, to crumbly, poorly to well indurated, common slickensides, common microfossils, scattered shell fragments, 3° claystone at top, light gray, crumbly.			
158	160	2'		Silty shale, generally as above, no slickensides.			

STRAIG. CLAY OR SHALE (100% 0-5%). SILTY OR SHALE WITH SAND STRINGS (100% 0-5%). SILTY OR SHALE AND SAND (100% 0-5%). S-SAND WITH SHALE STRINGS (100% 0-5%). S-SAND (100-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING AUG. 2, 1951
 CORE FROM _____ TO _____
 CORES EXAMINED BY J. Johnson & M.Kirk

SHELL OIL COMPANY
CORE RECORD

AREA OR FIELD Putah Creek
 COMPANY Shell
Section 4, Diamond 2

PAGE 2

NO.	FROM	TO	RECORD EXER.	FORMATIONAL STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAIG.	CORRECTED DIP	CORE INDICATIONS OIL-GAS
							CORE OR BITUM
160	170	2'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous, scattered shell fragments, 1° limy bed in bottom 6".			
170	180	8'		Silty shale, dark gray, generally as above, thin stringers light gray 2 to 3 grain sandstone in middle 3'. Rare slickensides, rare pyrite, common microfossils.			
180	188	5'		Silty shale, generally as above, no slickensides, no shell fragments.			
188	198	6'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous, rare shell fragments, rare slickensides.			
198	204	5'		Silty shale, generally as above, rare microfossils.			
204	214	8'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous.			
214	224	10'		Silty shale, generally as above, rare slickensides.			
224	228	4'		Silty shale, generally as above.			
228	238	6'		Silty shale, medium gray, massive, firm, well indurated, micromicaceous, rare slickensides, rare microfossils.			
238	246	4'		Silty shale, generally as above.			
246	256	8'		Silty shale, generally as above.			
256	266	7'		Silty shale, medium gray, massive, firm, fairly well indurated, micromicaceous, minor thin, irregular inclusions of light gray, 2-3 grain sandstone scattered throughout, minor low-grade slickensides, fairly common 3-4 grains mica.			
266	276	9'		Silty shale, generally as above.			
276	286	10'		Silty shale, generally as above, scattered thin beds light gray 2-3 grain sandstone showing subaqueous slumping.			

STRAIG. CLAY OR SHALE (100% 0-5%). SILTY OR SHALE WITH SAND

S-SAND (100% 0-5%). S-SAND WITH SHALE STRINGS (100% 0-5%). S-SAND (100-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING August 6, 1951

SHELL OIL COMPANY

AREA OR FIELD Putah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell

CORES EXAMINED BY Kirk & Bergen & Johnson

PAGE 3

Section 4, Diamond 2

NO.	FROM	TO	SECY. FEET	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	OTHER	REMARKS	CORE INDICATIONS	
							OIL-4AS	CORE OR BITUM.
	286	296	9'	Silty shale, generally as above, more noticeable slickensides.				
	296	306	10'	Silty shale, generally as above.				
	306	311	5'	Silty shale, medium gray, massive, firm, well indurated, micromicaceous, rare shell fragments, minor inclusions and thin beds of sandstone, light gray, 2-3 grained.				
	311	318	4'	Silty shale, generally as above. Rare microfossils, rare slickensides.				
	318	328	6'	Silty shale, generally as above. More common inclusions and thin beds of sandstone in bottom 3'. Very abundant slickensides in bottom 3'.				
	328	338	10'	Sandy shale, dark gray, massive, firm, well indurated, micromicaceous, common 4-6 grains of quartz with scarce feldspar, fairly common slickensides.				
	338	348	3'	Silty shale, dark gray, fairly well bedded, firm, well indurated, fairly common microfossils. Rare carbonaceous material partially pyritized. Common slickensides. 3' of limestone at bottom, medium dark gray, dense, very hard.				
	348	358	8'	Silty shale, generally as last above. More common carbonaceous partially pyritized, fairly common shell fragments, common slickensides in bottom 1'.				
	358	368	4'	Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous, rare pyrite, rare microfossils.				
	368	373	1'	Silty shale, generally as above, 2-3 grain, light gray sandstone inclusion at bottom. No microfossils.				
	373	378	2'	Silty shale, generally as first above, no pyrite.				
	378	388	3'	Silty shale, generally as last above, rare slickensides.				
	388	398	8'	Silty shale, generally as last above. 1' limsy bed at bottom.				

STANDARD: C-CLAY OR SHALE (100% 0-2%), L-CLAY OR SHALE WITH SAND STRIPS (10-20%), S-CLAY OR SHALE AND SILT (10-20%), S-SAND WITH SHALE STRIPS (10-20%), S-SAND (10-20%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGGING.

WEEK ENDING Aug. 11, 1951

SHELL OIL COMPANY

AREA OR FIELD Putah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell

CORES EXAMINED BY Bergen and Kirk and Johnson

PAGE 4

Section 4, Diamond 2

NO.	FROM	TO	SECY. FEET	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	OTHER	REMARKS	CORE INDICATIONS	
							OIL-4AS	CORE OR BITUM.
	398	406	5'	Silty shale, medium gray, massive, firm to crumbly, well indurated, micromicaceous. Common 6 and 7 flakes of biotite. Rare carbonaceous material, abundant microfossils, scattered shell fragments.				
	406	416	6'	Silty shale, medium gray, well bedded, firm to hard, well indurated, micromicaceous. Common 4-6 grains of biotite, common pyrite. Common thin stringers of sandstone light gray 2 to 3 grain; rare limsy concretions up to 1" thick. 2" sandstone at bottom, light gray 2 to 4 grain.				
	416	425	4'	4" Sandstone, medium gray, massive, hard, well indurated, 2-4 with 6 biotite, common carbonaceous material. 3/8" Silty shale, generally as last above, rare slickensides.				
	425	433	4'	Silty shale, generally as last above. Irregular inclusions of light gray 2-3 grain sandstone, shows subaqueous slumping.				
	433	443	7'	Silty shale, generally as last above. Fairly common slickensides. 3" sandstone at bottom, medium gray, 2 to 4 grain.				
	443	453	5'	Silty shale, generally as last above, common microfossils and shell fragments.				
	453	454	1'	Silty shale, generally as last above, common microfossils and shell fragments.				
	454	460	3'	Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous. Abundant 4 and 5 grains of biotite scattered throughout, rather common pyrite, rather rare carbonaceous matter, fairly common microfossils, scattered thin beds of light gray 2 to 4 grain sandstone throughout. Minor low-grade slickensides.				
	460	465	1'	Silty shale, medium gray, massive, firm, well indurated, micromicaceous.				
	465	469	6"	Silty shale, generally as above, rare slickensides.				
	469	479	4'	Silty shale, medium gray, massive, firm, well indurated, micromicaceous, common slickensides, common microfossils, scattered shell fragments.				

STANDARD: C-CLAY OR SHALE (100% 0-2%), L-CLAY OR SHALE WITH SAND STRIPS (10-20%), S-CLAY OR SHALE AND SILT (10-20%), S-SAND WITH SHALE STRIPS (10-20%), S-SAND (10-20%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGGING.

WEEK ENDING Aug. 14, 1951

SHELL OIL COMPANY

AREA OR FIELD Potah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY ShellCORES EXAMINED BY Bergen and Johnson

PAGE 5

Section 1, Diamond 2
KICKAPOO RESERVE, OK

L	FROM	TO	RECORDED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	CYCLES	SHELLS	CORE INDICATIONS	
							OIL-GAS	CORE ON BITCH
	479	489	7'	Silty shale, generally as above, abundant sickenides, less common microfossils.				
	489	493	2'	Silty shale, generally as above, common, very hard, limy inclusions, up to 3".				
	493	496	1'	Silty shale, medium gray, massive, crumbly, well indurated, micromicaceous, 1" hard, limy inclusion.				
	496	506	7'	Silty shale, dark gray, fairly well bedded, firm, well indurated, micromicaceous, abundant sickenides, common microfossils and shell fragments.				
	506	511	5'	Silty shale, medium gray, massive, firm to crumbly, well indurated, abundant sickenides scattered throughout.				
	511	517	4'	Silty shale, generally as last above. Rare microfossils.				
	517	523	6'	Silty shale, generally as above, scattered shell fragments.				
	523	533	2'	Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous; rare pyrite, common sickenides; rare microfossils; scattered shell fragments.				
	533	540	4'	Silty shale, generally as above, no pyrite, more common microfossils.				

SYMBOLS: C-CLAY OR SHALE (100% 0-1%); L-CLAY OR SHALE WITH SAND STRIPS (100% 1-11%); S-CLAY OR SHALE AND SAND (100% 11-20%); B-SAND WITH SHALE STRIPS (100% 20-25%); B-SAND (100-100%).

NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING August 22, 1951

SHELL OIL COMPANY

AREA OR FIELD Putah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY M. Kirk, J. Johnson

Section 1 Diamond 3

NO.	FROM	TO	RECON- DARD	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAIG.	RECOVERED BY	CORE INDICATIONS GIL-848	
							CORE ON BITUM.	
14	22	3'	3'	Silty shale, dark gray, massive, firm, well indurated, micromicaceous, scattered thin stringers light gray, 2-3 grain sandstone, fairly common fractures and slickensides, top 1-1/2' shows weathering along fracture surfaces, small limestone concretions.				
2	32	1'	1'	Silty shale, generally as above, scattered microfossils, 4" limestone bed at top, limestone fractured, abundant pyrite and calcite crystals on fracture surfaces.				
32	42	5'	5'	Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous, rare inclusions of sandstone, light gray, 2-3 grain, no microfossils visible.				
42	52	10'	10'	Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous, rare inclusions of sandstone light gray, 2-3 grain, no microfossils visible.				
52	62	7'	7'	Silty shale, generally as above, rare slickensides.				
62	68	4'	4'	Silty shale, generally as above, with 2-4 grain biotite in bottom 2', 1" limy concretion at bottom, slickensides more common than above.				
68	78	7'	7'	Silty shale, dark gray, generally as above, abundant pyrite concentrated on fracture surfaces, common microfossils.				
78	88	6'	6'	Silty shale, generally as above, less common microfossils, rare inclusions of amber, common shell fragments.				
88	98	4'	4'	Silty shale, generally as above, no amber, firm to crumbly.				
98	108	3'	3'	Silty shale, generally as last above, 6" bed of highly calcareous cemented sandstone at bottom.				

WEEK ENDING August 24, 1951

SHELL OIL COMPANY

AREA OR FIELD Putah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY T. Bergen, M. Kirk

Page 2

Section 1 Diamond 3

NO.	FROM	TO	RECON- DARD	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STRAIG.	RECOVERED BY	CORE INDICATIONS GIL-848	
							CORE ON BITUM.	
108	118	7'	7'	Silty shale, dark gray, well bedded, firm, well indurated, micromicaceous, common slickensides. Rare thin beds light silty sandstone. Abundant microfossils. Common pyrite rods. Common shell fragments.				
118	125	6'	6'	Silty shale, generally as above.				
125	132	6'	6'	Silty shale, generally as above. Contains common 3 grain sand grains.				
132	142	4'	4'	Silty shale, generally as above. Microfossils less common than above.				
142	152	6'	6'	Silty shale, generally as last above. Rare microfossils and shell fragments.				
152	162	2'	2'	Silty shale, as last above.				
162	172	5'	1'	Limestone, dark gray, massive, hard, well indurated, micromicaceous, minor irregular calcite veins, rare shell fragments.				
			4'	Silty shale, dark gray, massive to poorly bedded, firm to crumbly, fairly well indurated, micromicaceous, fairly common pyritized carbonaceous matter, fairly common 4 and 5 grain biotite throughout, scattered 5 and 6 quartz grains, rare microfossils, scattered thin beds and irregular inclusions of light gray, 2-5 grain silty sandstone scattered throughout.				
172	182	6'	6'	Silty shale, generally as last above, somewhat harder.				
182	192	6'	6'	Silty shale, generally as last above, 30% 2-4 grain, light gray sandstone inclusions.				
192	194	6'	6'	Sandstone, silty medium gray, massive, firm, fairly well indurated, 2-3 grain with abundant 5 and 6, larger grains are predominantly quartz, feldspar, and dark cherts, common biotite and partially pyritized carbonaceous matter, generally more silty toward bottom.				

EXAMPLE: C-CLAY OR SHALE (GIL-848), L-CLAY OR SHALE WITH SAND STRIERS (GIL-848), S-CLAY OR SHALE (GIL-848), S-SAND WITH SHALE STRIERS (GIL-848), S-SAND (GIL-848).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGS.

WEEK ENDING August 25, 1951
 CORE FROM _____ TO _____
 CORES EXAMINED BY M. Kirk, J. Johnson

SHELL OIL COMPANY
CORE RECORD

AREA OR FIELD Putah Creek
 COMPANY Shell Oil Company
 Section A Diamond 3

Page 1

NO.	FROM	TO	RECORD PAGE	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	ANALYSIS	CORE INDICATIONS	
							OIL - GAS	CORE ON BITUMEN
194	204	10'	10'	Silty shale, dark gray, massive to well bedded, firm, fairly well indurated, micromicaceous, scattered 4 and 5 grains biotite on bedding planes, rare carbonaceous matter, common low grade slickensides, thin stringers light gray, 2-3 grain sandstone, scattered inclusions dark gray silty sandstone in bottom 2'.				
204	214	6'	6'	Silty shale, generally as last above, bottom 3' harder, more massive, rare slickensides.				
214	224	9'	9'	Silty shale, dark gray, generally as last above, massive, somewhat harder, minor slickensides, rare inclusions of light gray, 2-3 grain sandstone.				
224	230	3'	3'	Silty shale, generally as last above.				
230	240	10'	10'	Silty shale, generally as last above, with common inclusions of light gray, 2-3 grain sandstone in bottom 3'.				
240	245							
245	255	7'	7'	Silty shale, dark gray, massive to poorly bedded, firm, fairly well indurated; micromicaceous, scattered to common 5 grain biotite, fairly common 3 and 4 grain sand, rare shell fragments, rather rare partially pyritized carbonaceous material, common thin beds (some up to 1" thick) of light gray 2 to 3 grain sandstone 30% rare slickensiding.				
255	265	8'	8'	Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous, common slickensides. Thin beds and stringers of sandstone light gray, massive, friable with difficulty, well indurated, 2-3 grain, predominate quartz and feldspar with common dark chert and biotite distributed as follows: 4" at 3'; 4" at bottom - common shell fragments and microfossils.				
265	275	10'	5'	Silty shale medium gray fairly well bedded, firm to crumbly, generally as above.				

WEEK ENDING August 27, 1951
 CORE FROM _____ TO _____
 CORES EXAMINED BY J. Johnson

SHELL OIL COMPANY
CORE RECORD

AREA OR FIELD Putah Creek
 COMPANY Shell Oil Company
 Section A Diamond 3

Page 4

NO.	FROM	TO	RECORD PAGE	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	ANALYSIS	CORE INDICATIONS	
							OIL - GAS	CORE ON BITUMEN
265	275	10'	(cont'd.)					
				3' Sandstone and silty shale interbedded, silty shale approximately 30% generally as above with common pyrite. Sandstone medium gray, well bedded, 2-3 grain with 4 biotite, generally as above.				
				2' Silty shale, medium gray, generally as above with more sandy inclusions.				
275	285	4'	4'	Silty shale, medium gray, massive, firm, well indurated, micromicaceous, abundant pyrite scattered throughout, common microfossils, scattered irregular inclusions of light gray, 2-3 grain sandstone, minor slickensides, small ammonite fragment observed.				
285	295	6'	6'	Silty shale, generally as above, somewhat darker, fairly common microfossils.				
295	305	8'	8'	Siltstone, dark gray, massive, firm, well indurated, micromicaceous, scattered carbonaceous matter, scattered 5 and 6 biotite flakes, fairly common slickensides in top 4', core badly fractured.				
05	315	5'	5'	Siltstone, generally as above, core badly slickensided and fractured, top 2' ground to mud.				
315	325	7'	7'	Sandy siltstone, medium gray, massive, firm, well indurated, micromicaceous, 4, 5 and 6 sand grains throughout, subangular to subangular quartz, minor feldspar, common dark chert, common carbonaceous matter, scattered varicolored minerals, scattered shell fragments, rare low grade slickensides.				
325	335	7'	3'	Sandstone, light gray, massive, friable with ease, fairly well indurated, 2-6 grain, predominate quartz and feldspar, common dark colored minerals, scattered biotite, porosity and permeability appears good.				
				4' Siltstone, generally as above, abundant low grade slickensides in bottom 2'.				

SYMBOL: CLAY OR SHALE (40% < 4µ); SILT OR SHALE WITH SAND STRIERS (40% < 4µ); SILT OR SHALE AND SAND (40% < 4µ); SAND WITH SHALE STRIERS (40% < 4µ); SAND (40% < 4µ).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

WEEK ENDING August 30, 1951

SHELL OIL COMPANY

AREA OR FIELD Prich Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil Company

CORES EXAMINED BY J. Johnson

Section A Diamond 3

Page 6

IN.	FROM	TO	SECT.	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	ANALYZED BY	CORE INDICATIONS	
							CHL	SAS
								CORE ON BITUM
	385	395	8'	8' (continued) 6" limy bed at bottom, dark gray, very hard, well indurated.				
	395	405	8'	8' Silty shale, generally as last above, sandy stringers less common, slickensides more common.				
	405	415	9'	9' Sandstone and silty shale. Shale 50%. Silty shale medium gray, well bedded, firm, well indurated, micaceous, rare slickensides, rare carbonaceous matter. Rare forams, rare shell fragments. Sandstone light gray, massive, friable with ease, poorly indurated 2 to 4 grain predominate subangular subrounded quartz and feldspar, common chert and biotite scattered varicolored minerals occurring in beds as follows: 5" top 1', 2" at 3', 6" at 4' and 3" at bottom. Sandstone light gray 2 to 3 grain occurs throughout as thin stringers and on bedding planes of shale. 3" limy bed, medium gray, massive, very hard, fractured at 8'.				
	415	425	8'	8' Sandstone and silty shale. Shale 20%. Generally as above 3" bed of 2 to 4 grain sandstone in top 1', rare microfossils.				
	425	435	10'	10' Sandstone and silty shale interbedded. Shale 60%, generally as above. Sandstone light gray 2 to 3 grain scattered throughout in thin stringers and on bedding planes.				

SYMBOLS: C-CLAY OR SHALE (100% C-1); S-CLAY OR SHALE WITH SAND STRINGERS (10-25% S); E-CLAY OR SHALE AND SAND (10-25% E); S-SAND WITH SHALE STRINGS (10-25% S); S-SAND (10-25% S).
NOTE: Sandstone Percentages as in Standard Logbook.

WEEK ENDING September 4, 1951
 CORE FROM _____ TO _____
 CORES EXAMINED BY T. Bergen

SHELL OIL COMPANY
CORE RECORD

AREA OR FIELD Pitch Creek
 COMPANY Shell Oil Co.
 Section A Diamond 4

NO.	FROM	TO	RECON- SIDED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STATUS	REMOVED BY	CORE INDICATIONS
							OIL - GAS
							CORE OR BITCH
	49	50	1'	1' Silty shale, medium gray, massive, firm, well indurated, micromicaceous, common fractures. Buff weathering along fracture surfaces.			
	50	60	5'	5' Silty shale, generally as above, with common 5 and 6 grain quartz and biotite. Rare slickensides, rare microfossils.			
	60	70	8'	8' Silty shale, generally as above, without sand grains. Common microfossils mostly crushed.			
	70	80	8'	8' Silty shale, generally as last above. Common carbonaceous material scattered throughout. Common 5 and 6 grain quartz and biotite in bottom 3 feet.			
	80	90	5'	5' Silty shale, generally as above. Common thin stringers of light gray 2-3 grain sandstone scattered throughout. Rare slick with common pyrite on slick surfaces.			
	90	100	4'	4' Silty shale, generally as last above.			
	100	110	8'	8' Silty shale, generally as last above.			
	110	120	8'	8' Silty shale, generally as above. Rare carbonaceous material. Common 4 and 5 flakes of mica.			
	120	130	4'	4' Silty shale, medium gray, fairly well bedded, firm to crumbly, well indurated, micromicaceous, rare slickensides, thin stringers 2-3 grain. Light gray sandstone scattered throughout, no microfossils observed.			
	130	140	5'	5' Silty shale, medium gray, generally as above, slickensides, rare pyrite, fairly common microfossils poorly preserved.			
	140	150	7'	7' Silty shale, medium gray, generally as above, slickensides less common, microfossils common, no pyrite.			

WEEK ENDING September 9, 1951
 CORE FROM _____ TO _____
 CORES EXAMINED BY J. Johnson

SHELL OIL COMPANY
CORE RECORD

AREA OR FIELD Pitch Creek
 COMPANY Shell Oil Co.
 Section A Diamond 4

Page 2

NO.	FROM	TO	RECON- SIDED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STATUS	REMOVED BY	CORE INDICATIONS
							OIL - GAS
							CORE OR BITCH
	150	160	6'	6' Silty shale, medium gray, generally as last above.			
	160	170	4'	4' Silty shale, medium gray, generally as last above.			
	170	180	8'	8' Silty shale, medium gray, generally as last above, rare pyrite, less common sand stringers.			
	180	190	10'	10' Silty shale, medium gray, generally as above, more common pyrite, common microfossils.			
	190	200	6'	6' Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous. Fairly common concentrations of pyrite.			
	200	210	8'	8' Silty shale, generally as above, common slickensides, fairly common microfossils.			
	210	220	7'	7' Silty shale, generally as last above. Slickensides less common, no pyrite, microfossils less common.			
	220	230	9'	9' Silty shale, generally as last above. Rare thin stringers of medium gray 2 to 3 grain sandstone, rare pyrite pods.			
	230	240	6'	6' Silty shale, generally as last above. Slickensides more common.			
	240	250	4'	4' Silty shale, medium gray, well bedded, firm, well indurated, micromicaceous with 2 to 3 grain mica flakes on bedding planes. Fairly common carbonaceous matter, partially pyritized scattered throughout. Rare slickensides.			
	250	260	10'	10' Silty shale, medium gray, massive, firm, well indurated, micromicaceous. Rather rare carbonaceous matter. Common 2-4 grain mica scattered throughout. Very common slick in top 4'.			
	260	270	10'	10' Silty shale, generally as last above. Less common slick. Somewhat more common carbonaceous matter.			

STRENGTH: 1-CLAY OR SHALE (1000-4000); 2-CLAY OR SHALE WITH SAND STRINGS (1000-2000); 3-CLAY OR SHALE AND SAND (1000-2000); 4-SAND WITH SMALL STONES (1000-4000); 5-SAND (100-4000).
 NOTE: Some Flow Control as in Stratum Logbook.

WEEK ENDING September 7, 1951

SHELL OIL COMPANY

AREA OR FIELD Fulah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil Company
Section A Diamond 4CORES EXAMINED BY M. Kirk, T. Berger Page 3

NO.	FROM	TO	RECORDED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STUDIAL	CORRECTED	CORE INDICATIONS	
							OIL - GAS	CORE OR BITCH
270	280	10'	10'	Silty shale, generally as last above. Very abundant slick in bottom 2'. Rare shell fragments.				
280	290	8'	8'	Silty shale, generally as last above. Fairly common 2-5 sand grains scattered throughout particularly in bottom 5'. Rare slick. No shell fragments.				
290	300	10'	10'	Silty shale, generally as above. Scattered thin beds of light gray 2-3 grain sandstone, more common slick., rather common 2-5 sand grains at top 3'.				
300	305	5'	5'	Silty shale, generally as last above. Scattered thin beds and irregular inclusions of light gray 2-6 grain sandstone.				
305	315	3'	3'	Silty shale, medium gray, massive, firm, well indurated, micromicaceous, common slickensides. Fairly common beds and irregular inclusions of light gray 2 to 3 and 2 to 5 grain sandstone 1" bed of light gray limestone at 1' common 4 and 5 quartz grains in 1" bed of shale in top 1'.				
315	325	6'	6'	Sandstone and silty shale, interbedded sandstone 80% light gray, well bedded, firm, well indurated, 2 to 3 grain, scattered biotite and carbonaceous matter on bedding planes. Porosity and permeability appears poor. Silty shale is medium gray, massive to fairly well bedded, firm, well indurated. Micromicaceous, rare 2 to 4 grain mica flakes.				
325	335	8'	8'	Sandstone, light gray, well bedded, firm, well indurated, 2-3 grain, scattered biotite and carbonaceous matter concentrated on bedding planes, minor thin beds of medium gray silty shale, minor slickensiding, 6" bed of medium gray, hard limestone at 7', porosity and permeability appears poor.				
335	345	4'	4'	Sandstone, generally as last above, more common silty shale in bottom half.				

WEEK ENDING

September 12, 1951

SHELL OIL COMPANY

AREA OR FIELD Fulah Creek

CORE FROM _____ TO _____

CORE RECORD

COMPANY Shell Oil Company
Section A Diamond 4CORES EXAMINED BY M. Kirk Page 4

NO.	FROM	TO	RECORDED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	STUDIAL	CORRECTED	CORE INDICATIONS	
							OIL - GAS	CORE OR BITCH
345	355	3'	6"	Silty shale, medium gray, massive, firm, well indurated, micromicaceous, minor slicks.				
			2'	Sandstone, medium gray, massive to well bedded, hard, well indurated, 2-6 grain, predominate quartz and feldspar, common red and black chert, scattered biotite and varicolored minerals, red predominating, rather common carbonaceous matter on bedding planes of well bedded portion.				
			6"	Silty shale, generally as last above.				
355	365	3'	3'	Silty shale, generally as last above, more common slickensides, scattered irregular inclusions of light gray, 2-6 grain sandstone in top 2', rare carbonaceous matter.				
365	375	7'	1'	Silty shale, generally as last above, somewhat better bedded, becoming sandier to bottom with thin stringers of 2-3 grain sandstone.				
			2'	Sandstone, light to medium gray, massive, firm, well indurated, 2-3 grain scattered irregular inclusions of medium gray silty shale.				
			4'	Silty shale, generally as last above.				
375	385	5'	2'	Silty shale, medium gray, massive, generally as above, scattered irregular inclusions medium gray sandstone with 2-3, with 5 and 6 grains.				
			3'	Sandstone light gray, well bedded, 2-3 grain generally as above.				
385	395	1'	1'	Sandstone, light to medium gray, well bedded, 2-3 grain, generally as above, scattered irregular inclusions 2-6 grain sandstone.				
395	405	6'	1-1/2'	Sandstone as last above.				

LEGEND: C-CALY OR SHALE (10-15%), S-SILT OR SHALE WITH SAND STRINGS (10-15%), S-SILT OR SHALE AND SAND (10-15%), S-SAND WITH SHALE STRINGS (10-15%), S-SAND (10-15%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

CORE RECORD

NO.	FROM	TO	RECDY- TAGS	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OPTIMUM DEPTH	CORE INDICATIONS
							OIL-GAS
				CORES ON DITCH			
395	405	6'		(cont'd.) 4-1/2' Silty shale, medium gray, generally as above, scattered 2-4 grains biotite and carbonaceous matter throughout, more noticeable toward top, scattered thin beds light gray, 2-3 grain sandstone throughout.			
405	425	5'		5' Silty shale, generally as last above, bottom 1' rather common 4-6 grain sand grains scattered throughout, abundant carbonaceous matter, rare shell fragments.			
425	425	8'		2' Silty shale, medium gray, fairly well bedded, firm, well indurated, micromicaceous, common slickensides. 6' Sandy sandstone medium gray, fairly well bedded, firm, well indurated, common 4 and 5 sand grains, predominate quartz and feldspar, common biotite, scattered vari-colored minerals, rare carbonaceous material, common slickensides and common shell fragments.			
425	435	9'		2' Silty shale, generally as above, rare shell fragments. 7' Sandy sandstone, generally as above. Contains rare granules up to 4 m.m. in diameter grades down to 2-5 grain sandstone at bottom.			
435	445	6'		6' Sandy sandstone, generally as above, coarser grain with more granules in top 1' grades down to 1' silty shale at 3'.			
445	455	10'		10' Silty shale dark gray, massive, firm, well indurated, micromicaceous, scattered irregular inclusions of 4-6 grain quartz and mica, scattered carbonaceous matter, common slickensides. 1 (?) foram observed.			
455	465	6'		6' Silty shale, generally as above. More common 4-6 grain sandstone and biotite in middle of core. Scattered thin beds of light gray 2-3 grain sandstone in top 2'.			
465	466	1'		1' Silty shale, generally as above.			

SYMBOLS: 1-CLAY OR SHALE (LESS THAN 50%), 2-CLAY OR SHALE WITH SAND STRIATIONS (LESS THAN 50%), 3-CLAY OR SHALE AND SAND (LESS THAN 50%), 4-SAND WITH SHALE STRIATIONS (LESS THAN 50%), 5-SAND (50-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LOGGING.