In excel 10/03/09 JM

McCasey "C" #16

Form 664-C 300 5-42—31340-D

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	PERMEABILITY MILLIDARCY Vertical	PERMEABILITY MILLIDARCY Horizontal	Porosity Per Cent	SATURATION OIL Per Cent	SATURATION OIL Bbls./Acre Ft.	SATURATION Water Per Cent	SATURATION Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	REMARKS
Core-Can													
						McCasey No. 16							
						Burbank Sand							
1.			Cored From 2998 To 3000.5					Recovered 2.5 Feet					
1-1	2998	2998.4	.4			16.4	44.9		49.3	94.2	3936	111,500	Firm fine grained sand
					14.1	17.2							
1-2	2998.4	2998.8	.4			15.4	33.4		64.5	97.9	4174	106,500	
					3.2	14.7	30.6		56.6	87.2			
					9.2	17.1							
1-3	2998.8	2999.2	.4			16.9	30.3		56.8	87.1	4468	106,500	
					3.0	16.0							
1-4	2999.2	2999.6	.4			17.5	33.6		55.0	88.6	4503	105,500	
					7.6	19.8							
1-5	2999.6	3000.0	.4			16.5	33.0		54.3	87.3	4539	113,000	
					10.6	15.7							
1-6	3000.0	3000.5	.5			17.8	22.2		56.9	81.1	4645	97,400	
					22.2	17.8	18.8		48.5	67.3			
2			Cored From 3000.5 To 3003.5					Recovered 3.0 Feet					
2-7	3000.5	3000.9	.4			16.6	41.8		58.0	99.8	5071	120,000	Medium grained soft sand
					12.2	17.2							
2-8	3000.9	3001.3	.4			13.0	40.7		51.2	91.9	4712	114,600	
					29.8	16.8	43.6		54.5	98.1			
					3.6	15.9							
2-9	3001.3	3001.7	.4			5.5	10.5		89.5	100.	1525	81,900	Shale streaked sand
					8.3	17.1							
2-10	3001.7	3002.1	.4			18.3	48.0		52.0	100.	3936	91,900	
					16.2	15.5							
2-11	3002.1	3002.5	.4			13.2	38.0		62.0	100.	5425	108,000	
					1	13.2							
2-12	3002.5	3003.0	.5			15.2	44.0		55.9	99.9	4468	122,500	
					3.0	14.4							
2-13	3003.0	3003.5	.5			10.2	36.6		63.4	100.	2979	119,500	
					10.1	27.4							
3			Cored From 3003.5 TO 3006.5					Recovered 3.0 Feet					
3-14	3003.5	3003.9	.4			27.5	58.2		41.6	99.8	5071	88,500	Soft medium grained sand
					965	26.3	61.9		34.9	96.8			
					1360	23.5							
3-15	3003.9	3004.3	.4			23.6	61.6		38.4	100.	4645	82,400	
				706	1243	24.0							

* Parts chloride per million parts of water distilled from core

Approved ..... Tests made by ..... Date .....

S. S. No. 28,305
Page No. 9

Form 214 C 300 3-46—13465

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	PERMEABILITY MILLIDARCY Vertical	PERMEABILITY MILLIDARCY Horizontal	Porosity Per Cent	SATURATION OIL Per Cent	SATURATION OIL Bbls./Acre Ft.	SATURATION Water Per Cent	SATURATION Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	REMARKS
3-16	3004.3	3004.7	.4			28.6	67.0		32.8	99.8	5234	109,000	Very soft sand
					2300	29.2	69.9		30.0	99.9			
					2050	30.5							
3-17	3004.7	3005.1	.4			27.3	64.7		35.1	99.8	4184	87,200	
					1160	29.1							
3-18	3005.1	3005.5	.4			28.3	65.5		32.6	98.1	3262	68,000	
					1550	27.7	57.8		39.0	96.8			
					950	26.6							
3-19	3005	3005.9	.4			27.9	60.6		39.2	99.8	5815	106,700	Soft Medium Grained sand
					747	26.6							
3-20	3005.9	3006.1	.2			27.7	61.0		39.0	100.	5745	104,300	
					1,000	28.2							
3-21	3006.1	3006.3	.2			27.9	60.9		38.6	99.5	5135	93,800	
					873	28.0							
3-22	3006.3	3006.5	.2			26.1	59.0		40.6	99.6	5957	114,500	
					797	27.1							
4.				Cored From	3006.5	To 3009.0		Recovered 2.5 Feet					
4-23	3006.5	3006.9	.4			26.7	56.5		43.4	99.9	4433	75,100	
					562	27.3							
4-24	3006.9	3007.3	.4			28.5	55.6		41.5	97.1	5674	92,000	
					971	27.9							
4-25	3007.3	3007.7	.4			27.5	47.1		41.0	88.1	5142	88,500	
					904	28.7							
4-26	3007.7	3008.1	.4			28.7	58.6		38.7	97.3	9113	157,000	
					875	28.3	60.7		39.3	100.			
					938	28.5							
4-27	3008.1	3008.5	.4			25.5	49.1		40.7	89.8	2715	52,300	
					324	28.1							
4-28	3008.5	3009	.5			25.4	49.5		46.0	95.5	4610	79,100	
				916	1120	28.9							
5				Cored From	3009	To 3012		Recovered 3.0 Feet					
5-29	3009	3009.3	.3			25.3	60.6		39.4	100.	5354	109,000	
					774	27.2							

* Parts chloride per million parts of water distilled from core

Approved

Tests made by

Date

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Form 864C 30-1-42—37340-D

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	Permeability Millidarcy Vertical	Permeability Millidarcy Horizontal	Porosity Per Cent	Saturation Oil Per Cent	Saturation Oil Bbls./Acre Ft.	Saturation Water Per Cent	Saturation Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	Remarks
-30	3009.3	3009.6	.3			27.7	60.1		39.[illegible]	[illegible]9.9	[illegible]248	94,900	Soft Medium grained sand
					854	27.7							
-31	3009.6	3009.9	.3			28.0	56.7		43.3	100.	5993	97,600	
					751	27.6							
-32	3009.9	3010.2	.3			24.6	49.7		50.3	100.	6454	109,000	
					449	26.4							
-33	3010.2	3010.5	.3			27.1	47.3		52.6	99.9	7872	111,000	
					684	26.9							
-34	3010.5	3010.8	.3			27.3	53.4		46.4	100.	5493	87,000	
5-35	3010.8	3011.1	.3			29.1	83.8		5.2	100.	4823	213,000	
5-36	3011.1	3011.4	.3			27.4	57.6		42.4	100.	6454	114,000	
					673	27.2							
5-37	3011.4	3011.7	.3			24.3	50.1		49.9	100.	6347	113,000	
					622	27.5							
5-38	3011.7	3012	.3			23.4	54.4		45.5	99.9	5957	122,000	
					660	29.2							
6.		Cored From 3012 to 3015					Recovered 3.0 Feet						
6-39	3012	3012.4	.4			26.7	52.2		47.8	100.	6454	101,500	
					782	25.9	55.3		43.4	98.7			
					664	28.6							
6-40	3012.4	3012.8	.4			26.4	53.0		44.5	97.5	6986	116,500	
					623	30.0							
6-41	3012.8	3013.2	.4			23.6	60.0		40.0	100.	6525	124,000	
				615	676	27.3							
6-42	3013.2	3013.6	.4			26.9	62.6		37.4	100.	6028	119,000	
					605	30.8							
6-43	3013.6	3014.0	.4			26.9	60.9		39.1	100.	5425	102 000	
					560	27.2							
6-44	3014.0	3014.4	.4			27.8	63.0		37.0	100.	6206	121,000	
				640	247	27.7							
6-45	3014.4	3014.6	.2			26.5	62.4		37.6	100.	6483	129,000	
					588	28.1							
6-46	3014.6	3014.8	.2			27.8	64.2		35.8	100.	6028	121,000	
					675	27.0							

* Parts chloride per million parts of water distilled from core

Approved Tests made by Date

S. E. [illegible] 28 305
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Form 864-C 300 5-42—31340-D

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	Permeability Millidarcy Vertical	Permeability Millidarcy Horizontal	Porosity Per Cent	Saturation Oil Per Cent	Saturation Oil Bbls./Acre Ft.	Saturation Water Per Cent	Saturation Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	Remarks
6-47	3014.8	3015	.2			26.8	65.6		33.9	99.5	5780	12,500	Soft medium grained sand
7.			Cored From 3015 To 3018					Recovered 3.0 Feet					
7-48	3015	3015.4	.4			27.5	53.5		46.5	100.	7979	128,500	
7-49	3015.4	3015.8	.4			26.8	47.8		52.1	99.9	8163	118,000	
					627	26.6							
7-50	3015.8	3016.2	.4			27.1	51.0		49.0	100.	7021	106,000	
					522	26.8							
7-51	3016.2	3016.6	.4			27.0	56.0		43.9	99.9	7234	123,000	
					561	26.9							
7-52	3016.6	3017.0	.4			25.9	53.0		47.0	100.	7340	121,000	
7-53	3017.0	3017.5	.5			26.5	35.5		50.8	86.3	7659	11[illegible],500	
					645	27.3							
7-54	3017.5	3018.0	.5			26.8	55.6		39.5	95.1	6170	126,000	
					915	24.7	54.5		45.0	99.5			
					600	28.0							
8.			Cored From 3018 To 3021					Recovered 3.0 Feet					
8-55	3018	3018.3	.3			26.7	47.8		52.2	100	8652	142,000	
8-56	3018.3	3018.6	.3			26.9	45.0		52.1	97.1	7872	110,000	
					650	26.3							
8-57	3018.6	3018.9	.3			26.8	47.8		52.2	100	7588	107,000	
					869	26.3	40.4		59.6	100			
					1110	27.6							
8-58	3018.9	3019.2	.3			25.0	53.2		46.7	99.9	6206	106,600	
					925	27.9							
8-59	3019.2	3019.5	.3			27.6	56.8		43.2	100	6566	113,700	
					700	27.6							
8-60	3019.5	3019.8	.3			25.1	51.8		47.0	98.8	6702	114,000	
					640	28.1							

* Parts chloride per million parts of water distilled from cores.

Approved ..... Tests made by ..... Date .....

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Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	PERMEABILITY MILLIDARCY Vertical	PERMEABILITY MILLIDARCY Horizontal	Porosity Per Cent	SATURATION OIL Per Cent	SATURATION OIL Bbls./Acre Ft.	SATURATION Water Per Cent	SATURATION Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	REMARKS
8-61	3019.8	3020.1	.3			26.7	51.4		47.5	98.9	7837	122,000	Soft Medium grained sand
					544	26.2							
8-62	3020.1	3020.4	.3			26.4	53.1		45.5	98.6	8439	138,000	
					645.	26.8							
8-63	3020.4	3020.7	.3			26.4	55.2		44.8	99.5	7447	126,200	
					514	26.3							
8-64	3020.7	3021.0	.3			26.9	57.8		42.2	100	6773	120,000	
					770	26.8	52.9		45.9	98.8			
					461	26.4							
9.			Cored From 3021 To 3024					Recovered 3.0 Feet					
9-65	3021	3021.4	.4			26.1	34.9		63.5	98.4	7269	87,000	
					429	25.4	11.2		67.4	78.6			
					487	27.0							
9-66	3021.4	3021.8	.4			26.4	34.3		65.7	100	6413	75,000	
					445	26.0	34.0		66.0	100			
					400	26.9							
9-67	3021.8	3022.2	.4			27.2	34.6		65.3	99.9	6560	75,500	
					432	26.4							
9-68	3022.2	3022.6	.4			26.4	30.0		63.5	93.5	7198	78,700	
					498	27.6							
9-69	3022.6	3023.0	.4			26.[illegible]	29.5		70.5	100	8971	99,400	
					611	26.8	24.7		70.0	94.7			
					560	26.9							
9-70	3023	3023.5	.5			24.8	32.1		67.8	100	6525	79,000	
					487	26.0							
9-71	3023.5	3024.0	.5			23.6	43.1		53.4	96.5	5390	90,000	
					455	27.1							
10			Cored From 3024 3027					Recovered 2.5 Feet			Lost Core was distributed.		
10-72	3024.0	3024.4	.4			22.0	48.6		51.4	100	3688	69,200	Firm medium grained sand
					143	22.6							
10-73	3024.4	3024.8	.4			18.0	33.0		64.9	97.9	4220	79,200	
					65.5	15.8							

* Parts chloride per million parts of water distilled from core.

Approved

Tests made by

Date

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Form 664 [illegible]

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	PERMEABILITY MILLIDARCY Vertical	PERMEABILITY MILLIDARCY Horizontal	Porosity Per Cent	SATURATION OIL Per Cent	SATURATION OIL Bbls./Acre Ft.	SATURATION Water Per Cent	SATURATION Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	REMARKS
10-74	3024.8	3025.2	.4			19.5	30.9		51.3	82.2	3688	79,800	Sand with shaly zones
						18.5	27.3		61.9	89.2			
10-75	3025.2	3025.6	.4			20.9	40.0		58.2	98.2	4078	71,000	
					1	11.1	27.9		63.6	91.5			
					16.3	19.4							
10-76	3025.6	3026.0	.4			17.9	38.1		59.6	97.7	3227	56,200	
					96.0	19.6							
10-77	3026.0	3026.4	.4			17.1	35.8		64.1	99.9	3475	70,600	
					7.3	13.8							
10-78	3026.4	3026.6	.2			19.0	39.9		45.1	85.0	3014	52,500	
					2.3	12.4							
10-79	3026.6	3026.8	.2			15.7	34.4		60.6	95.0	2660	63,200	Hard shaly sand
10-80	3026.8	3027.0	.2			14.1	35.7		62.5	98.2	1915	50,000	
					1.8	13.7							
11.	Cored From 3027 To 3030								Recovered 1.3 Feet. Lost core assumed to be at the bottom of core				
11-81	3027	3027.6	.6			14.6	35.0		65.0	100	2269	55,400	Hard shaly sand
					1.2	13.7							
11-82	3027.6	3028.3	.7			16.0	31.8		68.2	100	2305	47,900	
					2.5	15.3							
	3028.3	3030.0		1.7 Feet Lost core									
12.		Cored From 3030 To 3032							Recovered 1.5 Feet. Lost core was distributed.				
12-83	3030	3030.4	.4			12.9	16.3		78.8	95.1	2199	50,200	Hard shaly sand
12-84	3030.4	3030.8	.4			13.5	19.4		65.5	84.9	1583	36,200	
					1	13.0	24.2		60.3	84.5			
				1	1.2	12.8							
12-85	3030.8	3031.2	.4			12.2	22.8		77.2	100	2021	53,900	
					1	12.1	25.2		67.6	92.8			
					1	12.8							
12-86	3031.2	3031.6	.4			11.4	23.6		75.1	98.7	2163	59,100	
					3.0	13.3							

* Parts chloride per million parts of water distilled from [illegible]

Approved

Tests made by

Date

Form 864-C 300 5-42--31340-D

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	Permeability Millidarcy Vertical	Permeability Millidarcy Horizontal	Porosity Per Cent	Saturation Oil Per Cent	Saturation Oil Bbls./Acre Ft.	Saturation Water Per Cent	Saturation Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	Remarks
12-87	3031.6	3032	.4			12.9	28.1		52.4	80.5	2589	90,000	Hard shaly sand
					1.3	13.7							
13.		Cored From 3032 To 3034.5							Recovered 2.5 Feet				
13-88	3032	3032.5	.5			14.0	14.6		67.9	82.5	3014	72,600	
					1	16.0							
13-89	3032.5	3033	.5			12.4	15.4		73.2	88.6	2943	76,000	
					1.3	14.0	17.9		58.1	76.0			
					1.6	13.4							
13-90	3033	3033.5	.5			13.6	20.0		74.6	94.6	3652	83,500	
					2.4	13.8	14.9		71.5	86.4			
					3.4	14.8							
13-91	3033.5	3034	.5			13.0	17.7		72.0	89.7	2695	67,400	Fine fine grained sand
					7.8	13.2	27.8		65.3	93.1			
					5.7	14.3							
13-92	3034	3034.5	.5			14.5	19.7		69.0	88.7	2021	46,500	
					14.7	14.3	15.3		52.6	67.9			
					14.8	12.0							
14.		Cored From 3034.5 To 3037							Recovered 1.5 Feet. Lost core assumed to be at bottom of core.				
14-93	3034.5	3034.8	.3			14.3	24.8		70.6	95.4	3014	68,100	
					21.8	16.7							
14-94	3034.8	3035.1	.3			15.8	23.8		70.0	93.8	2801	57,300	
					18.0	16.1							
14-95	3035.1	3035.4	.3			14.7	24.6		73.0	97.6	1525	22,400	
					24.2	16.4							
14-96	3035.4	3035.7	.3			15.1	27.2		55.4	82.6	1773	43,000	
					29.4	14.4	23.2		57.1	80.3			
					11.6	16.8							
14-97	3035.7	3036.0	.3			15.3	25.2		53.6	78.8	2482	63,500	
				9.8	22.3	16.1							
	3036.0	3037.0		1.0	Lost Lost Core								

* Parts chloride per million parts of water distilled from core.

Approved

Tests made by

Date

S. S. No. 28 305
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CORE ANALYSIS

Sample No.	Depth	Formation Represented P. Feet S.	Core Represented P. Feet S.	PLUNGERS					SATURATION Oil		Water		Chloride Content Sand P.P.M.	Water P.P.M.	REMARKS
17		Cored from 3043 to 3046							Recovered 2 8 Feet				Lost core was distributed		
[illegible]-114	3043	3043.4	.4			1	13.1		25.1		45.4	70.5	2021	76,900	Hard fine grained sand
[illegible]-115	304[illegible]	3043.8	.4			1	15.7								slightly micaceous sand
[illegible]	3043.6	3044.2	.4				20.[illegible]		41.0		58.5	89.5	1738	67,500	
[illegible]-116	3044.2	3044.6	.4			1	10.6		35.1		45.7	70.0	3898	104,000	
17-116	3044.6	3045	.4			3.8	14.7								
							14.4		29.1		46.1	75.2	2189	75,700	
17-117	3045	3045.4	.4			2.3	14.7								
							13.8		29.8		50.0	79.8	2624	87,600	
						5.0	15.2								
							15.2		34.0		45.6	79.6	1915	62,500	
						13.2	13.8		36.0		43.3	79.3			
17-118	3045.4	3045.6	.2			7.4	15.[illegible]								
							13.6		35.4		42.8	73.2	2021	80,300	
17-119	3045.6	3045.8	.2			10.1	15.7								
							15.9		28.9		31.1	60.0	2376	102,000	
17-[illegible]	304[illegible]	3046	.2			8.6	14.7								
							14.[illegible]		35.4		35.7	71.1	2234	100,000	
						10.7	14.8								
18		Cored from 3046 to 3050							Recovered [illegible] Feet						
[illegible]-121	3046	3046.4	.4				15.5		[illegible]		41.0	28.4	2669	94,000	
3-122	3046.4	3046.8	.4			12.2	14.7								
							14.1		30.2		57.0	87.2	4107	114,000	
[illegible]-123	3046.8	3047.2	.4			9.5	14.7								
							14.5		[illegible]		[illegible]	[illegible]	4152	[illegible]	
[illegible]-124	3047.2	3047.6	.4			[illegible]	15.4								
							15.[illegible]		[illegible]		[illegible]	55.6	[illegible]	[illegible]	
[illegible]-125	3047.6	3048	.4			12.6	15.2								
							15.7		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	3048	3048.4	.4			4.2	[illegible]								
							15.2		36.7		[illegible]	70.6	[illegible]	98,500	
						1.0	11.2								

CORE ANALYSIS

[illegible]	Permeability Millidarcy Vertical	Permeability Millidarcy Horizontal	Porosity Per Cent	Saturation Oil Per Cent	Saturation Oil Bbls. per Acre Ft.	Saturation Water Per Cent	Saturation Total Per Cent	Chloride Salt P.P.M.	Chloride Water P.P.M.	Remarks
[illegible] To 3040				Recovered [illegible] Feet						
[illegible]			22.3	36.4		53.8	90.0	[illegible]	72,300	Fine sand [illegible]
		1	8.9							[illegible]
[illegible]			23.9	21.9		70.2	5[illegible]	[illegible]	[illegible]	
		5.0	12.4							
[illegible]			13.2	18.6		67.7	86.3	3050	74,700	
		2.3	14.2							
[illegible]			14.5	22.6		59.3	82.9	3404	[illegible]	
		1.9	15.0							
[illegible]			13.2	32.7		44.0	76.7	2589	103,000	
		1	14.7							
[illegible]			18.4	29.1		36.5	65.6	2340	111,000	
		1	12.9							
3040 To 3043				Recovered 3.0 Feet						
[illegible]			16.1	21.7		54.5	76.2	2079	[illegible]	
		11.8	15.9							
[illegible]			14.7	22.2		63.7	85.9	2589	54,[illegible]	
		11.2	17.[illegible]							
[illegible]			13.5	34.7		42.4	77.1	[illegible]	[illegible]	
		[illegible]	[illegible]							
			[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
		[illegible]	[illegible]							
			[illegible]	33.[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
		[illegible]	[illegible]							
			[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
		[illegible]	[illegible]							
			[illegible]	[illegible]		[illegible]				
			[illegible]	[illegible]						
		[illegible]	[illegible]							

Tests made by

Form 604-C 300 5-42—31340-D

CORE ANALYSIS

Core No.	Depth Feet	Formation Represented P. Feet S.	Core Represented P. Feet S.	Permeability Millidarcy Vertical	Permeability Millidarcy Horizontal	Porosity Per Cent	Saturation Oil Per Cent	Saturation Oil Bbls./Acre Ft.	Saturation Water Per Cent	Saturation Total Per Cent	Chloride Content Sand P. P. M.	Chloride Content Water P.P.M.P.*	REMARKS
18-127	3048.8	3048.8	.4			12.8	28.0		42.5	70.5	2553	110,000	Hard fine grained slightly micaceous sand
					21.8	15.4							
18-128	3048.8	3049.2	.4			13.6	30.7		46.0	73.7	2624	96,700	
					25.0	15.3							
18-129	3049.2	3049.6	.4			12.6	37.6		39.7	77.3	2766	129,000	
					16.2	13.4							
18-130	3049.6	3050	.4			14.2	40.7		34.9	75.6	2660	123,000	
				20.5	54.0	16.4							
19.			Cored From 3050 to 3053				Recovered 2.0 Feet.		Lost core assumed to be shale at bottom of co				
19-131	3050	3050.3	.3			13.1	37.5		40.0	77.5	2624	116,000	
				<1	8.6	12.2							
19-132	3050.3	3050.6	.3			17.5	28.0		34.5	62.5	2801	102,900	
				1.8	18.1	13.3							
19-133	3050.6	3050.9	.3			15.3	28.3		56.6	84.9	3333	87,000	
				<1	<1	14.8							
19-134	3050.9	3051.2	.3	This sample was not received in the laboratory.									
19-135	3051.2	3051.6	.4			10.9	29.7		46.6	76.3	2553	116,000	Sand contained a black carbonaceous residue
					<1	13.1							
19-136	3051.6	3052	.4			11.4	32.4		37.9	70.3	2128	114,000	
					<1	11.7							
	3052	3053		1.0 Foot lost core									
20.			Cored From 3053 TO 3056				Recovered 2.0 Feet						
20-137	3053	3053.3	.3			11.5	26.6		39.7	66.3	2057	105,000	
				<1	<1	8.9							
20-138	3053.3	3053.6	.3			12.2	24.3		34.4	58.7	2199	114,000	
					<1	10.5							
20-139	3053.6	3053.9	.3			10.1	21.6		55.0	77.6	2269	96,600	Black shaly sand
					<1	12.7							
20-140	3053.9	3054.2	.3			10.4	29.3		50.0	79.3	2057	96,000	
				<1	<1	11.2							
20-141	3054.2	3054.6	.4			7.4	36.0		48.6	84.6	1525	104,000	
					<1	10.1							
20-142	3054.6	3055	.4			12.0	16.8		60.0	76.8	3546	116,000	
					<1	10.6							

* Parts chloride per million parts of water distilled from core

Approved

Tests made by

Date

S. S. No. 28,305
Page No. 18

Form 884 20M 11-36 A 15430

66

BOTTOM HOLE PRESSURE TESTS

Lease C. McCasney

Total Depth 3086 — Cable Tools.

Well No 16

Elevation (D. F.) 1136.34 Rotary Cable Tools 1134

Pipe Set 7" OD @ 2989 RKB 2984 GL

Top of Pay 2991

Open Hole 2989 - 3056

Date	Depth	Reading	Fluid Level	Shut in Pressure	B. H. Sample	B. H. Temp.	Date of Last Calibration	Make Of Bomb	Offset Prod. Status N	E	S	W	Operator	Remarks

NO BOTTOM HOLE PRESSURE TESTS

CORE ANALYSIS · WATER REPRESSURING ENGINEERING · WATER ANALYSIS · FLOODING WATER TREATMENT · SURVEYING

SUSPENSE FILE

OILFIELD RESEARCH LABORATORIES

- REGISTERED ENGINEERS -

700 NORTH MISSION
OKMULGEE, OKLAHOMA
PHONE: 4444

536 N. HIGHLAND
CHANUTE, KANSAS
PHONE: HE 1-2680

Chanute, Kansas

July 11, 1962

30-15A

Phillips Petroleum Company
Production Department
Bartlesville, Oklahoma

Gentlemen:

Enclosed herewith are the results of permeability and porosity tests run on the Rotary core taken from the North Burbank Unit, Well No. 30-15A, Osage County, Oklahoma, and submitted to our laboratory on July 3, 1962.

This core was taken and shipped to our laboratory by a representative of the Phillips Petroleum Company.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

[signature]
Benjamin R. Pearman

Company [illegible]

Location [illegible]

Section 15 Top [illegible] Cum. [illegible]

Name of Sand		[illegible]
Top of Core		[illegible]
Bottom of Core		[illegible]
Top of Sand	(Tested)	[illegible]
Bottom of Sand	(Tested)	[illegible]
Total Feet of Permeable Sand		[illegible]
Total Feet of Floodable Sand		[illegible]

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	14.0	14.0
1 - 10	9.0	23.0
10 - 50	16.0	39.0
50 - 100	3.0	42.0
100 & above	2.0	44.0

Average Permeability Millidarcys	20.8
Average Percent Porosity	12.3
Average Percent Oil Saturation	
Average Percent Water Saturation	
Average Oil Content, Bbls./A. Ft.	
Total Oil Content, Bbls./Acre	
Average Percent Oil Recovery by Laboratory Flooding Tests	
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	
Total Calculated Oil Recovery, Bbls./Acre	
Packer Setting, Feet	
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F	
Elevation, Feet	

[illegible]

Depth [illegible] Feet	
[illegible]	[illegible]
3108.0 - 3115.0	Grayish [illegible]
3115.0 - 3129.0	Brownish gray, fine grained, [illegible] sandstone containing a vertical fracture.
3129.0 - 3130.0	Brownish gray, fine grained, [illegible] shaly sandstone

Oilfield Research Laboratories

RESULTS OF PERMEABILITY AND POROSITY TESTS

SHEET 1 A

Company Phillips Petroleum Company Lease N.B.U. Well No. 30-15A

Sample No.	Depth Feet	Permeability Millidarcys	Feet of Core Ft.	Feet of Core Cum. Ft.	Permeability Capacity Ft. x Md.	Percent Porosity
1	3086.1	17.	0.6	0.6	10.20	13.7
2	3087.1	.13	1.0	1.6	0.13	11.1
3	3088.1	7.4	1.0	2.6	7.40	13.5
4	3089.1	27.	1.0	3.6	27.00	14.3
5	3090.1	29.	1.0	4.6	29.00	14.2
6	3091.1	71.	1.0	5.6	71.00	14.3
7	3092.1	48.	1.0	6.6	48.00	17.5
8	3093.1	11.	1.0	7.6	11.00	14.0
9	3094.1	31.	1.0	8.6	31.00	14.5
10	3095.1	29.	1.0	9.6	29.00	13.8
11	3096.1	8.3	1.0	10.6	8.30	14.0
12	3097.1	.46	1.0	11.6	0.46	11.5
13	3098.1	3.2	1.0	12.6	3.20	13.5
14	3099.1	35.	1.0	13.6	35.00	12.0
15	3100.1	.15	1.0	14.6	0.15	10.6
16	3101.1	39.	1.0	15.6	39.00	12.7
17	3102.1	56.	1.0	16.6	56.00	13.3
18	3103.1	17.	1.0	17.6	17.00	13.1
19	3104.1	12.	1.0	18.6	12.00	12.4
20	3105.1	16.	1.0	19.6	16.00	13.1
21	3106.1	1.9	1.0	20.6	1.90	10.7
22	3107.1	12.	1.4	22.0	16.80	12.1
23	3108.1	.51	0.6	22.6	0.31	10.7
24	3109.1	15.	1.0	23.6	15.00	12.8
25	3110.1	2.6	1.0	24.6	2.60	9.8
26	3111.1	2.0	1.0	25.6	2.00	11.0
27	3112.1	1.1	1.0	26.6	1.10	10.3
28	3113.1	2.0	1.0	27.6	2.00	11.2
29	3114.1	15.	1.4	29.0	21.00	13.0
30	3115.1	28.	0.6	29.6	16.80	13.1
31	3116.1	155.	1.0	30.6	155.00	14.8
32	3117.1	159.	1.0	31.6	159.00	15.1
33	3118.1	62.	1.0	32.6	62.00	13.9
34	3119.1	4.0	1.0	33.6	4.00	14.4
35	3120.1	.10	1.0	34.6	0.10	9.9
36	3121.1	.04	1.0	35.6	0.04	9.6
37	3122.1	.11	1.0	36.6	0.11	11.0
38	3123.1	.05	1.0	37.6	0.05	10.8
39	3124.1	.05	1.0	38.6	0.05	10.4
40	3125.1	.03	1.0	39.6	0.03	9.1
41	3126.1	.03	1.0	40.6	0.03	9.6
42	3127.1	.03	1.0	41.6	0.03	11.3
43	3128.1	.03	1.4	43.0	0.04	10.8
44	3129.1	.09	1.0	44.0	0.09	10.5