27-24-21E

September 24, 1951

Mr. M. C. Colt
Iola, Kansas

Dear Sir:

Attached hereto are the results of effective permeability tests made on the Cable Tool core taken from the Grubaugh Lease, Well No. 5-A-0, Allen County, Kansas, and submitted to our laboratory on September 20, 1951.

Very truly yours,

OIL FIELD RESEARCH LABORATORIES

Carl L. Pate

CLP:pac

c.c.

Grubaugh 5-A-0

TWP 24S RGE 21E SEC 27

OIL FIELD RESEARCH LABORATORIES

CHANUTE, KANSAS

LOG

Company M. C. Colt K. B. Project Lease Grubaugh Well No. 5-A-0

Depth Interval, Feet	Description
696.30 - 699.00	Laminated sandy shale.
699.00 - 706.30	Gray shale.
706.30 - 708.50	Laminated sandy shale.
708.50 - 709.00	Gray shale.
709.00 - 710.55	Laminated sandy shale.
710.55 - 710.75	Hard sandstone.
710.75 - 711.20	Brown fine grained micaceous sandstone.
711.20 - 715.40	Brown medium grained micaceous sandstone.
715.40 - 730.45	Dark brown medium grained micaceous sandstone.
730.45 - 730.65	Hard conglomeratic sandstone.
730.65 - 731.45	Dark carbonaceous sandstone.
731.45 - 731.85	Brown fine grained slightly carbonaceous micaceous sandstone.
731.85 - 732.30	Coal.

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SHOT RECOMMENDATION

Company M. C. Colt K. B. Project Lease Grubaugh Well No. 5-A-0

Depth Interval, Feet	Feet of Sand	Size of Shell Inches	Qts./Ft.	Total Quarts
716.5 - 730.0	13.5	3⅛	2.0	27.0

Recommended Packer Setting 711.5 feet.

Note: Plug hole back to 731.5 feet.

RESULTS OF EFFECTIVE PERMEABILITY TESTS

TABLE I

Company M.C. Colt, K.B. Project Lease Grubaugh Well No. 5-A-0

Sample No.	Depth Ft.	Effective Permeability Millidarcys	Feet of Sand Ft.	Feet of Sand Cum. Ft.
1	710.80	0.225	0.45	0.45
2	711.80	11.22	0.95	1.40
3A	712.55	9.83	0.95	2.35
4	713.50	21.73	1.00	3.35
5	714.66	13.71	1.30	4.65
6	715.55	1.84	0.60	5.25
7	716.50	9.94	0.90	6.15
8	717.35	4.80	0.95	7.10
9	718.35	32.10	1.15	8.25
10	719.50	59.42	1.05	9.30
11	720.65	49.54	1.05	10.35
12	721.50	30.01	1.00	11.35
13	722.70	90.35	1.05	12.40
14	723.60	52.54	0.80	13.20
15	724.35	17.54	0.95	14.15
16	725.45	17.24	1.10	15.25
17	726.45	5.84	1.00	16.25
18	727.50	122.40	0.85	17.10
19	728.25	37.06	0.80	17.90
20	729.05	2.89	1.10	19.00
21	730.40	25.61	0.70	19.70
22	731.10	0.573	0.80	20.50

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SUMMARY OF PERMEABILITY & POROSITY TESTS

TABLE II A

Company M. C. Colt, K. B. Project Lease Grubaugh Well No. 5-A-0

Depth Interval, Feet	Feet of Core Analyzed	Average Air Permeability, Millidarcys	Average Effective Permeability, Millidarcys	Permeability Capacity Ft. x Md.	Average Percent Porosity
710.75-717.85	7.10	-	10.46	-	-
717.85-731.45	13.40	-	38.43	-	-
711.50-731.50	19.75	-	29.65	-	-