

OIL SHALE ASSAY REPORT

PAGE 1 of 33

R.H. GODDE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

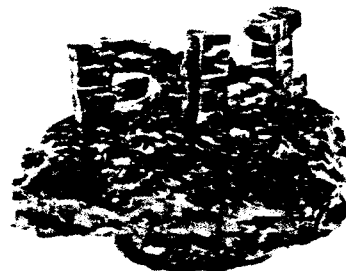
Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
2140.0 - 2141.0 → 5.0 CORE LOSS - 1.0'									
1	2141.0 - 2142.0	6.2	.6	2.4	.3	96.8	.6	.910	N
2	2142.0 - 2143.0	4.7a	.5	1.8	.2	97.2	.8		N
3	2143.0 - 2144.0	4.5a	.7	1.7	.3	96.7	1.3		N
4	2144.0 - 2145.0	3.5a	2.2	1.4	.9	95.6	2.2		N
5	2145.0 - 2146.0	4.9a	.5	1.9	.2	97.3	.6		N
6	2146.0 - 2147.0	5.3	.7	2.0	.3	97.0	.7	.905	N
7	2147.0 - 2148.0	5.8	.5	2.2	.2	97.0	.6	.900	N
8	2148.0 - 2149.0	9.2	.7	3.4	.3	95.0	1.3	.896	N
9	2149.0 - 2150.0	13.7	.5	5.1	.2	93.2	1.5	.902	N
10	2150.0 - 2151.0	22.9	1.0	8.7	.4	89.1	1.8	.909	S
11	2151.0 - 2152.0	8.4	.5	3.2	.2	95.6	1.0	.919	N
12	2152.0 - 2153.0	7.3	.5	2.8	.2	96.1	.9	.913	N
13	2153.0 - 2154.0	6.3	.5	2.4	.2	96.5	.9	.906	N
14	2154.0 - 2155.0	4.1a	.5	1.6	.2	96.3	1.9		N
15	2155.0 - 2156.0	3.3a	1.0	1.3	.4	95.6	2.7		N
16	2156.0 - 2157.0	3.3a	.2	1.3	.1	92.4	6.2		N
17	2157.0 - 2158.0	3.9a	.7	1.5	.3	94.4	3.8		N
18	2158.0 - 2159.0	4.1a	1.0	1.6	.4	96.1	1.9		N
19	2159.0 - 2160.0	4.5a	5.0	1.7	2.1	90.9	5.3		N
2160.0 - 2160.6 → 4.7 CORE LOSS - 0.6'									
20	2160.6 - 2162.0	4.9a	3.8	1.9	1.6	91.9	4.6		N
21	2162.0 - 2163.0	4.0a	1.8	1.5	.8	95.7	2.0		N
22	2163.0 - 2164.0	2.6a	1.4	1.0	.6	97.1	1.3		N
23	2164.0 - 2165.0	1.5a	1.4	.6	.6	96.7	2.1		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920



Dickinson Laboratories, Inc.
COAL ANALYSTS

P.O. BOX 12006 • EL PASO, TEXAS 79912 • (915) 584-9496

SBR-5177P

OIL SHALE ASSAY REPORT

PAGE 2 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Cone Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
24	2165.0 - 2166.0	2.5a	1.4	1.0	.6	97.0	1.5		N
25	2166.0 - 2167.0	4.8a	.7	1.9	.3	96.9	1.0		N
26	2167.0 - 2168.0	5.2a	3.2	2.0	1.4	93.0	3.7		N
27	2168.0 - 2169.0	7.4	.6	2.9	.3	96.0	.9	.917	N
28	2169.0 - 2170.0	5.0a	.5	1.9	.2	97.1	.8		N
29	2170.0 - 2171.0	6.7	.7	2.5	.3	96.3	.9	.911	N
30	2171.0 - 2172.0	5.9	.7	2.2	.3	96.7	.8	.906	N
31	2172.0 - 2173.0	6.3	.6	2.4	.3	96.7	.7	.908	N
32	2173.0 - 2174.0	8.2	1.0	3.1	.4	95.0	1.5	.907	N
33	2174.0 - 2175.0	3.9a	.5	1.5	.2	97.4	.9		N
34	2175.0 - 2176.0	8.8	.7	3.3	.3	95.4	1.0	.908	N
35	2176.0 - 2177.0	24.2	.7	9.2	.3	88.4	2.1	.909	S
36	2177.0 - 2178.0	15.0	1.0	5.7	.4	92.6	1.3	.918	S
37	2178.0 - 2179.0	8.7	.5	3.3	.2	95.8	.7	.920	N
38	2179.0 - 2180.0	7.5	.5	2.9	.2	96.1	.8	.913	N
39	2180.0 - 2181.0	8.0	.7	3.1	.3	95.7	.9	.915	N
40	2181.0 - 2182.0	9.3	.7	3.6	.3	95.3	.8	.921	N
41	2182.0 - 2183.0	10.1	.5	3.9	.2	94.8	1.1	.925	N
42	2183.0 - 2184.0	9.3	4.3	3.6	1.8	89.5	5.1	.927	N
43	2184.0 - 2185.0	9.5	2.0	3.6	.9	93.3	2.2	.923	N
44	2185.0 - 2186.0	9.8	.7	3.8	.3	95.0	.9	.922	N
45	2186.0 - 2187.0	9.2	3.4	3.6	1.4	91.1	4.0	.928	N
46	2187.0 - 2188.0	7.9	4.1	3.1	1.7	90.6	4.6	.924	N
47	2188.0 - 2189.0	8.5	3.8	3.3	1.6	90.7	4.4	.930	N
48	2189.0 - 2190.0	10.2	.7	3.9	.3	94.8	1.0	.926	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 3 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
49	2190.0 - 2191.0	12.0	.5	4.7	.2	94.2	1.0	.930	N
50	2191.0 - 2192.0	8.6	.6	3.3	.3	95.6	.9	.920	N
51	2192.0 - 2193.0	7.7	.7	2.9	.3	96.1	.7	.912	N
52	2193.0 - 2194.0	8.1	.5	3.1	.2	96.2	.5	.910	N
53	2194.0 - 2195.0	8.6	.5	3.3	.2	95.7	.8	.920	N
54	2195.0 - 2196.0	9.5	1.7	3.6	.7	94.2	1.5	.916	N
55	2196.0 - 2197.0	8.1	1.0	3.1	.4	95.3	.7	.920	N
56	2197.0 - 2198.0	8.1	.8	3.1	.4	95.6	.9	.925	N
57	2198.0 - 2199.0	8.5	1.4	3.3	.6	94.1	2.0	.921	N
58	2199.0 - 2200.0	8.3	.5	3.2	.2	95.9	.7	.917	N
59	2200.0 - 2201.0	7.7	.5	3.0	.2	96.2	.7	.919	N
60	2201.0 - 2202.0	7.3	.5	2.8	.2	96.4	.6	.914	N
61	2202.0 - 2203.0	7.4	.7	2.8	.3	96.3	.6	.912	N
62	2203.0 - 2204.0	7.6	.7	2.9	.3	96.2	.6	.916	N
63	2204.0 - 2205.0	8.0	.5	3.1	.2	95.9	.8	.914	N
64	2205.0 - 2206.0	8.4	.2	3.2	.1	96.2	.5	.923	N
65	2206.0 - 2207.0	8.5	.6	3.3	.3	95.9	.6	.925	N
66	2207.0 - 2208.0	9.5	.5	3.7	.2	95.5	.7	.923	N
67	2208.0 - 2209.0	13.1	.7	5.0	.3	93.7	1.0	.918	N
68	2209.0 - 2210.0	14.8	.5	5.6	.2	93.2	1.0	.913	N
69	2210.0 - 2211.0	7.3	.5	2.8	.2	96.4	.6	.916	N
70	2211.0 - 2212.0	6.3	.5	2.4	.2	96.9	.5	.905	N
71	2212.0 - 2213.0	7.3	.7	2.8	.3	96.4	.5	.910	N
72	2213.0 - 2214.0	7.1	.5	2.7	.2	96.6	.5	.911	N
73	2214.0 - 2215.0	7.1	.7	2.7	.3	96.5	.5	.911	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 4 of 33

R.H. GODFRE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
74	2215.0 - 2216.0	13.3	1.0	5.1	.4	93.2	1.4	.910	N
75	2216.0 - 2217.0	8.4	.4	3.2	.2	96.0	.6	.921	N
76	2217.0 - 2218.0	9.9	.2	3.8	.1	95.4	.7	.924	N
77	2218.0 - 2219.0	10.4	.5	4.0	.2	95.1	.7	.925	N
78	2219.0 - 2220.0	10.9	.6	4.2	.3	94.8	.7	.925	N
79	2220.0 - 2221.0	10.5	1.2	4.1	.5	93.9	1.6	.924	N
80	2221.0 - 2222.0	9.5	3.8	3.7	1.6	90.4	4.3	.923	N
81	2222.0 - 2223.0	9.1	3.4	3.5	1.4	91.4	3.7	.918	N
82	2223.0 - 2224.0	9.8	.5	3.8	.2	95.2	.9	.913	N
83	2224.0 - 2225.0	8.5	3.8	3.3	1.6	90.6	4.6	.922	N
84	2225.0 - 2226.0	12.4	1.7	4.8	.7	92.5	2.0	.919	N
85	2226.0 - 2227.0	7.0	10.1	2.7	4.2	81.3	11.8	.921	N
86	2227.0 - 2228.0	8.4	.7	3.2	.3	95.7	.8	.915	N
87	2228.0 - 2229.0	9.1	.2	3.5	.1	95.6	.8	.913	N
88	2229.0 - 2230.0	7.9	3.6	3.0	1.5	91.5	4.0	.920	N
89	2230.0 - 2231.0	6.8	6.7	2.6	2.8	85.9	8.7	.923	N
90	2231.0 - 2232.0	9.4	.5	3.6	.2	95.4	.8	.920	N
91	2232.0 - 2233.0	10.9	.5	4.2	.2	94.9	.7	.921	N
92	2233.0 - 2234.0	9.2	.5	3.5	.2	95.6	.7	.919	N
93	2234.0 - 2235.0	8.3	.5	3.2	.2	96.0	.6	.916	N
94	2235.0 - 2236.0	9.7	1.7	3.7	.7	93.7	1.9	.914	N
95	2236.0 - 2237.0	8.6	1.2	3.3	.5	95.0	1.2	.920	N
96	2237.0 - 2238.0	8.4	1.4	3.2	.6	94.6	1.6	.918	N
97	2238.0 - 2239.0	7.1	.5	2.7	.2	96.3	.8	.916	N
98	2239.0 - 2240.0	8.5	.5	3.3	.2	95.8	.7	.915	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 5 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
99	2240.0 - 2241.0	16.1	1.9	6.1	.8	90.7	2.4	.908	N
100	2241.0 - 2242.0	16.4	.8	6.2	.4	92.2	1.2	.909	N
101	2242.0 - 2243.0	6.8	.2	2.6	.1	96.8	.5	.921	N
102	2243.0 - 2244.0	6.1	.5	2.3	.2	97.0	.5	.916	N
103	2244.0 - 2245.0	5.4	.5	2.0	.2	97.1	.7	.905	N
104	2245.0 - 2246.0	8.1	.7	3.1	.3	95.9	.7	.911	N
105	2246.0 - 2247.0	6.4	.5	2.5	.2	96.5	.8	.918	N
106	2247.0 - 2248.0	8.5	.5	3.3	.2	95.8	.7	.924	N
107	2248.0 - 2249.0	8.0	.5	3.1	.2	95.9	.8	.930	N
108	2249.0 - 2250.0	8.1	.5	3.1	.2	95.8	.9	.926	N
109	2250.0 - 2251.0	8.5	.2	3.3	.1	95.8	.8	.925	N
110	2251.0 - 2252.0	6.7	.5	2.6	.2	96.4	.8	.920	N
111	2252.0 - 2253.0	6.7	.6	2.6	.3	96.7	.5	.912	N
112	2253.0 - 2254.0	6.9	.5	2.6	.2	96.5	.7	.913	N
113	2254.0 - 2255.0	7.1	.5	2.7	.2	96.3	.8	.917	N
114	2255.0 - 2256.0	6.9	.6	2.7	.3	96.3	.8	.919	N
115	2256.0 - 2257.0	8.1	.2	3.1	.1	96.2	.6	.915	N
116	2257.0 - 2258.0	8.9	.5	3.4	.2	95.9	.5	.915	N
117	2258.0 - 2259.0	13.8	.5	5.3	.2	93.6	.9	.911	N
118	2259.0 - 2260.0	17.6	1.0	6.7	.4	91.6	1.3	.909	N
119	2260.0 - 2261.0	7.2	.5	2.8	.2	96.6	.5	.918	N
120	2261.0 - 2262.0	7.2	.5	2.8	.2	96.3	.8	.915	N
121	2262.0 - 2263.0	7.5	.2	2.9	.1	96.3	.7	.911	N
122	2263.0 - 2264.0	7.3	.5	2.8	.2	96.3	.7	.913	N
123	2264.0 - 2265.0	7.1	.4	2.7	.2	96.3	.8	.913	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 6 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
124	2265.0 - 2266.0	7.0	.5	2.7	.2	96.6	.6	.912	N
125	2266.0 - 2267.0	6.7	.7	2.6	.3	96.5	.6	.914	N
126	2267.0 - 2268.0	6.6	.6	2.5	.3	96.6	.6	.913	N
127	2268.0 - 2269.0	6.3	.6	2.4	.3	96.9	.5	.916	N
128	2269.0 - 2270.0	6.2	.5	2.4	.2	96.9	.5	.913	N
129	2270.0 - 2271.0	6.9	.2	2.6	.1	96.8	.5	.914	N
130	2271.0 - 2272.0	6.3	.4	2.4	.2	96.9	.5	.914	N
131	2272.0 - 2273.0	5.9	.2	2.3	.1	96.9	.7	.922	N
132	2273.0 - 2274.0	6.7	.5	2.6	.2	96.7	.5	.918	N
133	2274.0 - 2275.0	7.1	.5	2.7	.2	96.4	.7	.912	N
134	2275.0 - 2276.0	6.4	.7	2.5	.3	96.5	.8	.911	N
135	2276.0 - 2277.0	6.1	.7	2.3	.3	96.8	.6	.910	N
136	2277.0 - 2278.0	6.3	.7	2.4	.3	96.7	.6	.910	N
137	2278.0 - 2279.0	7.0	.7	2.7	.3	96.4	.6	.921	N
138	2279.0 - 2280.0	7.8	.7	3.0	.3	96.1	.6	.915	N
139	2280.0 - 2281.0	17.3	1.0	6.6	.4	91.7	1.3	.917	N
140	2281.0 - 2282.0	19.1	.7	7.3	.3	91.1	1.3	.917	N
141	2282.0 - 2283.0	8.1	.5	3.1	.2	96.0	.7	.916	N
142	2283.0 - 2284.0	6.0	.8	2.3	.4	96.6	.7	.916	N
143	2284.0 - 2285.0	7.2	.7	2.8	.3	96.3	.7	.916	N
144	2285.0 - 2286.0	7.1	.7	2.7	.3	96.3	.7	.913	N
145	2286.0 - 2287.0	6.3	.7	2.4	.3	96.6	.7	.912	N
146	2287.0 - 2288.0	6.4	.6	2.4	.3	96.7	.6	.909	N
147	2288.0 - 2289.0	21.9	1.0	8.3	.4	89.4	1.9	.911	N
148	2289.0 - 2290.0	10.2	.7	3.9	.3	95.1	.7	.912	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 7 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
149	2290.0 - 2291.0	8.6	.5	3.3	.2	95.7	.8	.923	N
150	2291.0 - 2292.0	7.7	.7	3.0	.3	96.1	.6	.925	N
151	2292.0 - 2293.0	7.2	.5	2.8	.2	96.5	.5	.923	N
152	2293.0 - 2294.0	7.4	.5	2.9	.2	96.2	.7	.922	N
153	2294.0 - 2295.0	7.5	.5	2.9	.2	96.0	.9	.919	N
154	2295.0 - 2296.0	7.1	.7	2.7	.3	96.3	.7	.914	N
155	2296.0 - 2297.0	7.3	.6	2.8	.3	96.2	.7	.924	N
156	2297.0 - 2298.0	10.3	.5	4.0	.2	95.0	.8	.930	N
157	2298.0 - 2299.0	8.7	.7	3.3	.3	95.5	.9	.921	N
158	2299.0 - 2300.0	9.1	.5	3.5	.2	95.5	.8	.924	N
159	2300.0 - 2301.0	6.8	.5	2.6	.2	96.6	.6	.915	N
160	2301.0 - 2302.0	6.8	.7	2.6	.3	96.4	.7	.915	N
161	2302.0 - 2303.0	8.1	.5	3.1	.2	96.0	.7	.918	N
162	2303.0 - 2304.0	7.8	.7	3.0	.3	96.0	.7	.919	N
163	2304.0 - 2305.0	7.6	.7	2.9	.3	96.0	.8	.920	N
164	2305.0 - 2306.0	7.1	.7	2.7	.3	96.2	.8	.923	N
165	2306.0 - 2307.0	6.7	.7	2.6	.3	96.4	.8	.918	N
166	2307.0 - 2308.0	5.7	.7	2.2	.3	96.9	.6	.920	N
167	2308.0 - 2309.0	9.7	.7	3.8	.3	95.2	.8	.925	N
168	2309.0 - 2310.0	17.4	.8	6.7	.4	91.5	1.4	.922	N
169	2310.0 - 2311.0	13.9	.5	5.3	.2	93.3	1.2	.915	N
170	2311.0 - 2312.0	7.3	.7	2.8	.3	96.3	.6	.918	N
171	2312.0 - 2313.0	7.2	.5	2.8	.2	96.4	.6	.916	N
172	2313.0 - 2314.0	6.4	.5	2.5	.2	96.7	.7	.921	N
173	2314.0 - 2315.0	6.3	.5	2.4	.2	96.7	.7	.915	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 8 of 33

R.H. GODDE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
174	2315.0 - 2316.0	9.6	.8	3.7	.4	95.2	.8	.918	N
175	2316.0 - 2317.0	8.8	1.0	3.4	.4	95.5	.8	.917	N
176	2317.0 - 2318.0	8.8	.7	3.4	.3	95.5	.8	.921	N
177	2318.0 - 2319.0	7.2	.5	2.8	.2	96.2	.8	.919	N
178	2319.0 - 2320.0	11.7	.7	4.5	.3	94.0	1.2	.918	N
179	2320.0 - 2321.0	12.2	1.0	4.6	.4	94.0	1.0	.909	N
180	2321.0 - 2322.0	9.6	1.0	3.7	.4	95.1	.8	.916	N
181	2322.0 - 2323.0	9.3	.7	3.5	.3	95.4	.8	.913	N
182	2323.0 - 2324.0	7.7	.7	2.9	.3	96.0	.8	.913	N
183	2324.0 - 2325.0	6.9	1.0	2.6	.4	96.0	1.0	.909	N
184	2325.0 - 2326.0	5.0a	.7	1.9	.3	97.2	.6		N
185	2326.0 - 2327.0	21.8	1.0	8.3	.4	89.8	1.5	.907	N
186	2327.0 - 2328.0	19.5	.7	7.5	.3	90.8	1.4	.921	N
187	2328.0 - 2329.0	10.1	.5	3.9	.2	95.0	.9	.921	N
188	2329.0 - 2330.0	7.8	.7	3.0	.3	96.0	.7	.921	N
189	2330.0 - 2331.0	8.4	.2	3.2	.1	95.8	.9	.920	N
190	2331.0 - 2332.0	8.9	.5	3.4	.2	95.7	.7	.915	N
191	2332.0 - 2333.0	8.4	.7	3.2	.3	95.8	.7	.914	N
192	2333.0 - 2334.0	8.9	.7	3.4	.3	95.6	.7	.911	N
193	2334.0 - 2335.0	13.8	.7	5.3	.3	93.5	1.0	.909	N
194	2335.0 - 2336.0	20.4	.8	7.8	.3	90.4	1.4	.919	N
195	2336.0 - 2337.0	12.4	.5	4.7	.2	94.0	1.1	.917	N
196	2337.0 - 2338.0	9.8	.7	3.7	.3	95.0	1.0	.909	N
197	2338.0 - 2339.0	8.3	.7	3.2	.3	95.8	.7	.914	N
198	2339.0 - 2340.0	9.6	.8	3.7	.4	95.1	.9	.914	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 9 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
199	2340.0 - 2341.0	12.6	.4	4.8	.2	94.3	.8	.914	N
200	2341.0 - 2342.0	11.8	.5	4.5	.2	94.4	.9	.920	N
201	2342.0 - 2343.0	10.6	.2	4.1	.1	94.9	.9	.921	N
202	2343.0 - 2344.0	10.0	.5	3.8	.2	95.2	.8	.916	N
203	2344.0 - 2345.0	10.1	.5	3.9	.2	95.3	.6	.921	N
204	2345.0 - 2346.0	9.7	.5	3.7	.2	95.5	.6	.916	N
205	2346.0 - 2347.0	14.5	.7	5.6	.3	93.0	1.2	.921	N
206	2347.0 - 2348.0	23.9	1.2	9.1	.5	88.5	1.9	.910	S
207	2348.0 - 2349.0	14.6	.7	5.5	.3	93.2	1.0	.908	N
208	2349.0 - 2350.0	10.0	.7	3.8	.3	95.2	.7	.913	N
209	2350.0 - 2351.0	12.6	.7	4.8	.3	93.8	1.1	.921	N
210	2351.0 - 2352.0	14.9	1.2	5.7	.5	92.6	1.2	.908	N
211	2352.0 - 2353.0	17.1	1.1	6.5	.5	91.7	1.3	.914	N
212	2353.0 - 2354.0	12.6	.7	4.8	.3	93.9	1.0	.918	N
213	2354.0 - 2355.0	13.0	1.0	5.0	.4	93.5	1.1	.920	N
214	2355.0 - 2356.0	14.3	.7	5.5	.3	93.3	.9	.917	N
215	2356.0 - 2357.0	13.8	.7	5.3	.3	93.1	1.3	.920	N
216	2357.0 - 2358.0	13.3	.7	5.1	.3	93.5	1.1	.918	N
217	2358.0 - 2359.0	11.5	.5	4.4	.2	94.8	.6	.916	N
218	2359.0 - 2360.0	14.1	.5	5.4	.2	93.3	1.1	.919	N
219	2360.0 - 2361.0	14.0	.5	5.3	.2	93.1	1.4	.918	N
220	2361.0 - 2362.0	12.9	.2	5.0	.1	93.5	1.4	.922	N
221	2362.0 - 2363.0	12.4	.7	4.7	.3	94.1	.9	.916	N
222	2363.0 - 2364.0	13.2	1.0	5.0	.4	93.6	1.0	.906	N
223	2364.0 - 2365.0	13.4	.7	5.0	.3	93.5	1.2	.900	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 10 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
224	2365.0 - 2366.0	15.8	1.0	5.9	.4	92.4	1.3	.901	N
225	2366.0 - 2367.0	14.6	.7	5.5	.3	93.0	1.2	.900	N
226	2367.0 - 2368.0	13.1	.2	4.9	.1	93.6	1.4	.904	N
227	2368.0 - 2369.0	13.7	.5	5.1	.2	93.4	1.3	.902	N
228	2369.0 - 2370.0	12.7	.7	4.8	.3	93.8	1.1	.904	N
229	2370.0 - 2371.0	13.0	1.0	4.9	.4	93.6	1.1	.904	N
230	2371.0 - 2372.0	15.1	.7	5.7	.3	92.9	1.1	.908	N
231	2372.0 - 2373.0	16.0	.7	6.1	.3	92.4	1.3	.906	N
232	2373.0 - 2374.0	17.7	.7	6.7	.3	91.7	1.3	.904	N
233	2374.0 - 2375.0	16.2	1.0	6.1	.4	92.3	1.2	.904	N
234	2375.0 - 2376.0	15.9	.7	6.0	.3	92.5	1.2	.905	N
235	2376.0 - 2377.0	30.4	1.2	11.5	.5	85.8	2.2	.907	N
236	2377.0 - 2378.0	23.1	1.0	8.8	.4	89.1	1.7	.909	N
237	2378.0 - 2379.0	22.5	1.0	8.5	.4	89.5	1.6	.903	N
238	2379.0 - 2380.0	24.9	1.1	9.4	.5	88.4	1.8	.901	N
239	2380.0 - 2381.0	22.9	1.0	8.7	.4	89.2	1.7	.908	N
240	2381.0 - 2382.0	17.8	1.2	6.7	.5	91.6	1.2	.904	N
241	2382.0 - 2383.0	17.0	1.0	6.4	.4	92.1	1.1	.903	N
242	2383.0 - 2384.0	13.7	.7	5.2	.3	93.5	1.1	.903	N
243	2384.0 - 2385.0	10.3	.5	3.9	.2	94.6	1.3	.914	N
244	2385.0 - 2386.0	11.5	1.0	4.3	.4	94.4	.9	.907	N
245	2386.0 - 2387.0	15.2	1.0	5.8	.4	92.6	1.2	.907	N
246	2387.0 - 2388.0	14.6	1.1	5.5	.5	92.9	1.1	.904	N
247	2388.0 - 2389.0	10.0	.8	3.8	.4	95.0	.9	.909	N
248	2389.0 - 2390.0	8.8	.8	3.4	.4	95.5	.8	.909	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 11 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
249	2390.0 - 2391.0	9.1	.2	3.5	.1	95.4	1.0	.912	N
250	2391.0 - 2392.0	12.2	.7	4.6	.3	94.3	.8	.902	N
251	2392.0 - 2393.0	26.5	1.2	10.1	.5	87.3	2.1	.914	N
252	2393.0 - 2394.0	24.6	1.2	9.3	.5	88.3	1.9	.907	N
253	2394.0 - 2395.0	12.4	1.0	4.7	.4	93.9	1.0	.905	N
254	2395.0 - 2396.0	10.0	1.0	3.8	.4	95.0	.8	.907	N
255	2396.0 - 2397.0	9.7	1.0	3.7	.4	94.8	1.1	.908	N
256	2397.0 - 2398.0	8.2	.7	3.1	.3	95.9	.7	.907	N
257	2398.0 - 2399.0	9.5	.5	3.6	.2	95.7	.5	.914	N
258	2399.0 - 2400.0	14.4	1.0	5.5	.4	93.1	1.0	.908	N
259	2400.0 - 2401.0	11.7	.7	4.5	.3	94.1	1.1	.913	N
260	2401.0 - 2402.0	21.8	.7	8.3	.3	89.7	1.7	.910	N
261	2402.0 - 2403.0	25.5	.7	9.7	.3	88.0	2.0	.909	N
262	2403.0 - 2404.0	8.3	.7	3.2	.3	95.5	1.1	.910	N
263	2404.0 - 2405.0	8.2	.7	3.1	.3	95.9	.7	.908	N
264	2405.0 - 2406.0	9.7	.7	3.7	.3	95.2	.8	.908	N
265	2406.0 - 2407.0	10.0	.7	3.8	.3	95.1	.8	.909	N
266	2407.0 - 2408.0	9.7	.7	3.7	.3	95.3	.7	.905	N
267	2408.0 - 2409.0	8.5	.7	3.2	.3	95.9	.6	.909	N
268	2409.0 - 2410.0	9.9	.7	3.7	.3	95.1	.9	.906	N
269	2410.0 - 2411.0	17.1	1.0	6.5	.4	91.7	1.4	.904	N
270	2411.0 - 2412.0	28.1	1.0	10.7	.4	86.7	2.2	.912	N
271	2412.0 - 2413.0	8.1	.5	3.1	.2	96.2	.5	.908	N
272	2413.0 - 2414.0	7.6	.5	2.9	.2	96.4	.5	.908	N
273	2414.0 - 2415.0	8.3	.7	3.2	.3	95.8	.8	.906	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 12 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
274	2415.0 - 2416.0	9.9	1.0	3.7	.4	95.0	.9	.902	N
275	2416.0 - 2417.0	7.8	1.0	3.0	.4	95.9	.8	.911	N
276	2417.0 - 2418.0	5.4	1.0	2.1	.4	96.9	.7	.906	N
277	2418.0 - 2419.0	7.2	1.0	2.7	.4	96.1	.8	.902	N
278	2419.0 - 2420.0	11.1	.7	4.2	.3	94.7	.8	.903	N
279	2420.0 - 2421.0	10.6	.2	4.0	.1	94.9	1.0	.909	N
280	2421.0 - 2422.0	10.4	.5	3.9	.2	95.3	.6	.907	N
281	2422.0 - 2423.0	10.2	.7	3.9	.3	95.1	.7	.907	N
282	2423.0 - 2424.0	10.6	.7	4.0	.3	94.8	.9	.912	N
283	2424.0 - 2425.0	16.2	.7	6.2	.3	92.2	1.4	.912	S
284	2425.0 - 2426.0	43.2	1.2	16.4	.5	80.1	3.0	.911	S
285	2426.0 - 2427.0	32.9	1.2	12.5	.5	84.6	2.4	.912	S
286	2427.0 - 2428.0	15.3	.6	5.8	.3	92.8	1.2	.904	N
287	2428.0 - 2429.0	12.9	.7	4.9	.3	93.6	1.2	.909	N
288	2429.0 - 2430.0	9.8	.7	3.7	.3	95.1	.9	.907	N
289	2430.0 - 2431.0	9.4	1.0	3.6	.4	95.1	.9	.907	N
290	2431.0 - 2432.0	9.5	.7	3.6	.3	95.2	.9	.911	N
291	2432.0 - 2433.0	18.3	.7	7.0	.3	91.4	1.3	.912	N
292	2433.0 - 2434.0	23.5	.5	9.1	.2	88.0	2.8	.924	N
293	2434.0 - 2435.0	14.5	1.0	5.5	.4	92.9	1.2	.914	N
294	2435.0 - 2436.0	7.5	.7	2.9	.3	96.2	.6	.916	N
295	2436.0 - 2437.0	7.7	.7	2.9	.3	95.8	1.0	.909	N
296	2437.0 - 2438.0	8.6	.7	3.3	.3	95.6	.8	.911	N
297	2438.0 - 2439.0	9.0	.5	3.4	.2	95.4	1.0	.914	N
298	2439.0 - 2440.0	10.5	.5	4.0	.2	94.7	1.1	.913	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 13 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
299	2440.0 - 2441.0	33.3	1.1	12.7	.4	84.1	2.7	.915	S
300	2441.0 - 2442.0	19.1	1.0	7.2	.4	91.0	1.4	.907	N
301	2442.0 - 2443.0	11.1	.5	4.2	.2	95.0	.7	.894	N
302	2443.0 - 2444.0	12.6	.7	4.7	.3	94.0	1.0	.893	N
303	2444.0 - 2445.0	13.3	.2	5.0	.1	93.8	1.2	.895	N
304	2445.0 - 2446.0	12.0	.7	4.5	.3	94.3	.9	.901	N
305	2446.0 - 2447.0	12.2	.5	4.6	.2	94.0	1.2	.906	N
306	2447.0 - 2448.0	12.6	.5	4.7	.2	94.1	1.0	.900	N
307	2448.0 - 2449.0	27.7	1.0	10.4	.4	86.9	2.3	.897	S
308	2449.0 - 2450.0	41.5	1.4	15.7	.6	80.5	3.2	.908	S
309	2450.0 - 2451.0	16.1	.7	6.1	.3	92.2	1.4	.903	S
310	2451.0 - 2452.0	13.5	.7	5.1	.3	93.5	1.1	.902	N
311	2452.0 - 2453.0	11.5	.7	4.4	.3	94.6	.8	.909	N
312	2453.0 - 2454.0	11.9	.5	4.5	.2	94.4	.9	.906	N
313	2454.0 - 2455.0	13.6	.4	5.1	.2	93.8	.9	.901	N
314	2455.0 - 2456.0	14.3	.7	5.4	.3	93.1	1.2	.903	N
315	2456.0 - 2457.0	16.3	.5	6.2	.2	92.4	1.3	.903	N
316	2457.0 - 2458.0	13.5	.5	5.1	.2	93.8	.9	.902	N
317	2458.0 - 2459.0	11.4	.5	4.3	.2	94.8	.7	.899	N
318	2459.0 - 2460.0	11.4	.2	4.3	.1	95.1	.5	.900	N
319	2460.0 - 2461.0	12.3	.5	4.7	.2	94.6	.5	.913	N
320	2461.0 - 2462.0	11.9	.5	4.6	.2	94.5	.7	.920	N
321	2462.0 - 2463.0	11.1	.7	4.2	.3	94.5	.9	.917	N
322	2463.0 - 2464.0	13.5	.7	5.1	.3	93.7	.9	.909	N
323	2464.0 - 2465.0	13.6	1.0	5.2	.4	93.5	.9	.912	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 14 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
324	2465.0 - 2466.0	18.1	1.1	6.9	.5	91.2	1.5	.911	N
325	2466.0 - 2467.0	13.4	.5	5.1	.2	92.7	2.0	.910	N
326	2467.0 - 2468.0	14.8	.5	5.6	.2	93.4	.8	.902	N
327	2468.0 - 2469.0	13.4	.5	5.1	.2	93.7	1.0	.903	N
328	2469.0 - 2470.0	12.7	.6	4.8	.3	94.0	1.0	.903	N
329	2470.0 - 2471.0	17.1	.5	6.4	.2	92.4	1.0	.898	N
330	2471.0 - 2472.0	13.3	.5	5.0	.2	94.1	.7	.906	N
331	2472.0 - 2473.0	14.2	.5	5.4	.2	93.3	1.1	.910	N
332	2473.0 - 2474.0	15.6	.8	5.9	.3	92.7	1.1	.910	N
333	2474.0 - 2475.0	17.2	1.0	6.5	.4	91.9	1.1	.908	N
334	2475.0 - 2476.0	12.1	.7	4.6	.3	94.3	.8	.907	N
335	2476.0 - 2477.0	15.9	.7	6.0	.3	93.0	.8	.899	N
336	2477.0 - 2478.0	13.7	.7	5.1	.3	93.8	.8	.899	N
337	2478.0 - 2479.0	10.9	.7	4.1	.3	94.8	.8	.905	N
338	2479.0 - 2480.0	14.8	.7	5.6	.3	92.9	1.2	.906	N
	2480.0 - 2481.6	> 11/2		CORE LOSS - 1.6'					
339	2481.6 - 2483.0	11.3	.5	4.3	.2	94.6	.9	.910	N
340	2483.0 - 2484.0	11.4	.2	4.4	.1	94.7	.8	.915	N
341	2484.0 - 2485.0	12.1	.5	4.7	.2	94.1	1.1	.923	N
342	2485.0 - 2486.0	13.4	.7	5.1	.3	93.5	1.1	.912	N
343	2486.0 - 2487.0	12.5	1.0	4.7	.4	93.8	1.1	.911	N
344	2487.0 - 2488.0	12.8	.5	4.9	.2	93.9	1.0	.914	N
345	2488.0 - 2489.0	12.3	.5	4.7	.2	94.2	1.0	.909	N
346	2489.0 - 2490.0	14.0	.2	5.3	.1	93.7	.9	.903	N
347	2490.0 - 2491.0	14.3	1.2	5.4	.5	93.1	1.0	.904	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 15 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
348	2491.0 - 2492.0	15.5	1.0	5.9	.4	92.8	.9	.910	N
349	2492.0 - 2493.0	14.5	.5	5.5	.2	93.2	1.1	.911	N
350	2493.0 - 2494.0	19.2	.7	7.2	.3	90.9	1.6	.906	N
351	2494.0 - 2495.0	17.5	.8	6.7	.3	91.6	1.4	.917	N
352	2495.0 - 2496.0	16.8	.7	6.4	.3	91.8	1.5	.917	N
353	2496.0 - 2497.0	11.3	.7	4.3	.3	94.4	1.0	.917	N
354	2497.0 - 2498.0	11.4	.4	4.3	.2	94.6	.9	.910	N
355	2498.0 - 2499.0	11.1	.5	4.2	.2	94.8	.8	.907	N
356	2499.0 - 2500.0	15.6	.5	5.9	.2	93.0	1.0	.899	N
357	2500.0 - 2501.0	11.2	.3	4.2	.1	95.0	.7	.903	N
358	2501.0 - 2502.0	14.7	.8	5.6	.3	92.8	1.2	.910	N
359	2502.0 - 2503.0	22.1	1.0	8.4	.4	89.2	2.0	.916	N
360	2503.0 - 2504.0	14.9	.9	5.7	.4	92.6	1.3	.916	N
361	2504.0 - 2505.0	12.5	.7	4.7	.3	93.9	1.1	.912	N
362	2505.0 - 2506.0	11.2	.7	4.3	.3	94.2	1.2	.916	N
363	2506.0 - 2507.0	10.8	.5	4.1	.2	94.9	.8	.913	N
364	2507.0 - 2508.0	8.2	.7	3.1	.3	96.0	.6	.911	N
365	2508.0 - 2509.0	13.0	.5	4.9	.2	94.0	.9	.910	N
366	2509.0 - 2510.0	21.1	1.2	8.0	.5	90.1	1.4	.912	N
367	2510.0 - 2511.0	14.7	2.3	5.6	1.0	92.3	1.2	.906	N
368	2511.0 - 2512.0	17.9	1.2	6.7	.5	91.6	1.2	.901	N
369	2512.0 - 2513.0	17.6	1.9	6.6	.8	91.4	1.2	.904	N
370	2513.0 - 2514.0	11.8	.5	4.5	.2	94.3	1.0	.910	N
371	2514.0 - 2515.0	15.5	.5	5.9	.2	92.8	1.1	.907	N
372	2515.0 - 2516.0	16.4	.5	6.2	.2	92.0	1.6	.912	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 16 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
373	2516.0 - 2517.0	18.0	.7	6.9	.3	91.0	1.8	.912	N
374	2517.0 - 2518.0	15.4	.7	5.9	.3	92.1	1.7	.916	N
375	2518.0 - 2519.0	13.7	.5	5.2	.2	93.4	1.2	.909	N
376	2519.0 - 2520.0	13.0	.5	4.9	.2	93.8	1.1	.909	N
377	2520.0 - 2521.0	17.6	.5	6.7	.2	91.5	1.6	.915	N
378	2521.0 - 2522.0	22.8	1.0	8.7	.4	89.0	2.0	.911	N
379	2522.0 - 2523.0	26.4	.7	10.0	.3	87.6	2.1	.911	N
380	2523.0 - 2524.0	16.5	.7	6.3	.3	91.8	1.6	.915	N
381	2524.0 - 2525.0	13.2	.7	5.0	.3	93.6	1.1	.907	N
382	2525.0 - 2526.0	11.9	.7	4.5	.3	94.0	1.2	.909	N
383	2526.0 - 2527.0	12.1	.7	4.6	.3	94.0	1.1	.910	N
384	2527.0 - 2528.0	10.7	1.0	4.1	.4	94.5	1.0	.909	N
385	2528.0 - 2529.0	9.6	.7	3.6	.3	95.2	.9	.908	N
386	2529.0 - 2530.0	10.7	.5	4.1	.2	94.8	1.0	.910	N
387	2530.0 - 2531.0	13.3	.4	5.1	.2	93.1	1.7	.911	N
388	2531.0 - 2532.0	14.0	.2	5.3	.1	93.4	1.2	.909	N
389	2532.0 - 2533.0	16.3	.7	6.2	.3	92.2	1.3	.911	N
390	2533.0 - 2534.0	12.8	.5	4.9	.2	93.9	1.0	.909	N
391	2534.0 - 2535.0	10.4	1.0	3.9	.4	94.8	.9	.907	N
392	2535.0 - 2536.0	10.8	.7	4.1	.3	94.9	.7	.904	N
393	2536.0 - 2537.0	10.6	.8	4.0	.3	94.9	.8	.906	N
394	2537.0 - 2538.0	10.4	.5	3.9	.2	95.1	.8	.906	N
395	2538.0 - 2539.0	8.7	.7	3.3	.3	95.9	.5	.905	N
396	2539.0 - 2540.0	12.1	.7	4.6	.3	94.4	.7	.907	N
397	2540.0 - 2541.0	16.8	1.0	6.4	.4	92.0	1.2	.907	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 17 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
398	2541.0 - 2542.0	16.5	.5	6.3	.2	92.3	1.2	.908	N
399	2542.0 - 2543.0	15.9	.5	6.1	.2	92.5	1.3	.909	N
400	2543.0 - 2544.0	12.7	.5	4.8	.2	93.7	1.3	.908	N
401	2544.0 - 2545.0	11.5	.7	4.4	.3	94.4	1.0	.909	N
402	2545.0 - 2546.0	24.7	1.0	9.5	.4	88.3	1.8	.919	N
403	2546.0 - 2547.0	44.0	1.2	17.0	.5	79.2	3.3	.929	N
404	2547.0 - 2548.0	39.8	1.2	15.4	.5	81.1	3.1	.924	N
405	2548.0 - 2549.0	20.2	.7	7.7	.3	90.7	1.3	.913	N
406	2549.0 - 2550.0	14.4	.5	5.5	.2	93.3	1.0	.909	N
407	2550.0 - 2551.0	12.8	.7	4.9	.3	93.7	1.2	.908	N
408	2551.0 - 2552.0	17.6	1.0	6.7	.4	91.7	1.2	.910	N
409	2552.0 - 2553.0	13.4	.5	5.1	.2	93.6	1.1	.906	N
410	2553.0 - 2554.0	16.9	.5	6.4	.2	92.1	1.3	.907	N
411	2554.0 - 2555.0	16.1	.5	6.1	.2	92.6	1.1	.909	N
412	2555.0 - 2556.0	15.5	.7	5.8	.3	92.7	1.2	.901	N
413	2556.0 - 2557.0	16.8	.5	6.3	.2	92.3	1.2	.904	N
414	2557.0 - 2558.0	23.2	.7	8.8	.3	89.4	1.5	.905	N
415	2558.0 - 2559.0	43.8	1.1	16.7	.5	79.3	3.6	.912	N
416	2559.0 - 2560.0	20.3	1.0	7.7	.4	90.4	1.5	.905	N
417	2560.0 - 2561.0	15.5	.7	5.9	.3	92.5	1.3	.908	N
418	2561.0 - 2562.0	12.1	1.1	4.6	.5	91.4	3.6	.902	N
419	2562.0 - 2563.0	17.8	1.0	6.7	.4	91.4	1.5	.903	N
420	2563.0 - 2564.0	41.1	1.2	15.4	.5	80.7	3.4	.900	S
421	2564.0 - 2565.0	25.5	1.0	9.6	.4	88.1	1.9	.901	N
422	2565.0 - 2566.0	16.4	1.0	6.2	.4	91.9	1.5	.907	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 18 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
T/A-45 423	2566.0 - 2567.0	7.2	.5	2.7	.2	96.2	.9	.910	N
424	2567.0 - 2568.0	5.9	.2	2.3	.1	96.8	.9	.914	N
425	2568.0 - 2569.0	5.7	.5	2.2	.2	97.0	.6	.911	N
426	2569.0 - 2570.0	6.0	.2	2.3	.1	96.9	.7	.905	N
427	2570.0 - 2571.0	5.0a	.5	1.9	.2	97.4	.5		N
428	2571.0 - 2572.0	9.4	.7	3.6	.3	95.0	1.1	.911	N
429	2572.0 - 2573.0	4.1a	6.5	1.6	2.7	88.2	7.5		N
430	2573.0 - 2574.0	4.1a	4.4	1.6	1.9	91.3	5.3		N
431	2574.0 - 2575.0	5.0a	.7	1.9	.3	97.3	.5		N
432	2575.0 - 2576.0	3.4a	1.0	1.3	.4	97.6	.7		N
433	2576.0 - 2577.0	2.9a	.7	1.1	.3	98.0	.6		N
434	2577.0 - 2578.0	2.8a	.7	1.1	.3	97.6	1.0		N
435	2578.0 - 2579.0	5.1a	.5	2.0	.2	96.9	.9		N
B/A-46 436	2579.0 - 2580.0	7.1	.5	2.7	.2	96.6	.5	.899	N
437	2580.0 - 2581.0	18.4	.5	6.9	.2	91.6	1.3	.894	N
438	2581.0 - 2582.0	12.8	.2	4.8	.1	94.1	1.0	.893	N
439	2582.0 - 2583.0	11.1	13.7	4.2	5.7	75.1	15.1	.901	N
440	2583.0 - 2584.0	6.3a	19.3	2.4	8.0	66.4	23.1		N
441	2584.0 - 2585.0	14.8	12.0	5.6	5.0	75.8	13.6	.908	N
442	2585.0 - 2586.0	17.2	1.2	6.5	.5	91.5	1.5	.902	N
443	2586.0 - 2587.0	15.8	1.0	5.9	.4	92.6	1.1	.896	N
444	2587.0 - 2588.0	11.7	.7	4.4	.3	94.7	.6	.896	N
445	2588.0 - 2589.0	15.2	.5	5.7	.2	93.1	1.0	.894	N
446	2589.0 - 2590.0	17.7	1.0	6.7	.4	91.3	1.6	.900	N
447	2590.0 - 2591.0	23.6	1.0	9.0	.4	88.0	2.6	.915	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 19 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
448	2591.0 - 2592.0	30.2	1.2	11.5	.5	85.7	2.3	.914	N
449	2592.0 - 2593.0	21.8	1.7	8.2	.7	89.5	1.6	.903	N
450	2593.0 - 2594.0	28.1	1.3	10.5	.6	86.8	2.1	.898	N
451	2594.0 - 2595.0	42.9	1.0	15.9	.4	80.6	3.0	.890	S
452	2595.0 - 2596.0	42.0	.7	15.7	.3	81.0	2.9	.899	S
453	2596.0 - 2597.0	32.3	1.0	12.0	.4	85.7	1.9	.889	N
454	2597.0 - 2598.0	28.8	1.0	10.7	.4	87.2	1.7	.888	N
455	2598.0 - 2599.0	22.1	1.1	8.2	.5	89.8	1.5	.890	N
456	2599.0 - 2600.0	21.1	1.0	7.9	.4	90.0	1.7	.901	N
457	2600.0 - 2601.0	15.7	1.0	5.9	.4	92.5	1.2	.899	N
458	2601.0 - 2602.0	12.3	.7	4.7	.3	93.8	1.3	.904	N
459	2602.0 - 2603.0	15.3	1.0	5.8	.4	92.7	1.1	.907	N
460	2603.0 - 2604.0	22.2	.8	8.4	.4	89.6	1.7	.906	N
461	2604.0 - 2605.0	18.1	1.0	6.3	.4	91.6	1.2	.899	N
462	2605.0 - 2606.0	10.9	1.0	4.1	.4	94.7	.8	.900	N
463	2606.0 - 2607.0	12.7	.8	4.8	.4	93.8	1.1	.905	N
464	2607.0 - 2608.0	10.0	1.7	3.8	.7	94.7	.8	.906	N
465	2608.0 - 2609.0	10.0	.7	3.8	.3	95.1	.8	.904	N
466	2609.0 - 2610.0	9.2	.5	3.5	.2	95.5	.8	.900	N
467	2610.0 - 2611.0	9.2	.5	3.4	.2	95.6	.8	.893	N
468	2611.0 - 2612.0	11.2	.7	4.2	.3	94.9	.6	.899	N
469	2612.0 - 2613.0	15.4	.6	5.8	.3	92.7	1.3	.902	N
470	2613.0 - 2614.0	43.7	1.4	16.6	.6	79.6	3.2	.911	S
471	2614.0 - 2615.0	34.2	1.7	12.9	.7	83.7	2.7	.907	N
472	2615.0 - 2616.0	20.6	1.2	7.7	.5	90.2	1.6	.900	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 20 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
473	2616.0 - 2617.0	20.4	1.0	7.6	.4	90.7	1.3	.892	N
474	2617.0 - 2618.0	21.7	.7	8.1	.3	90.3	1.3	.893	N
475	2618.0 - 2619.0	19.5	.7	7.3	.3	91.3	1.1	.893	N
476	2619.0 - 2620.0	29.6	.5	11.1	.2	86.6	2.1	.898	N
477	2620.0 - 2621.0	31.8	.7	12.0	.3	85.8	1.9	.906	N
478	2621.0 - 2622.0	30.6	1.0	11.6	.4	85.6	2.4	.908	N
479	2622.0 - 2623.0	43.3	1.0	16.4	.4	80.4	2.8	.907	S
480	2623.0 - 2624.0	61.1	1.1	23.1	.5	72.2	4.2	.907	H
481	2624.0 - 2625.0	38.6	1.0	14.4	.4	81.8	3.4	.896	S
482	2625.0 - 2626.0	65.4	1.4	24.8	.6	70.0	4.7	.908	H
483	2626.0 - 2627.0	70.2	1.5	26.3	.6	68.4	4.7	.897	H
484	2627.0 - 2628.0	60.9	1.5	22.8	.6	72.2	4.3	.900	H
485	2628.0 - 2629.0	51.0	1.3	19.1	.6	76.5	3.9	.897	S
486	2629.0 - 2630.0	37.3	1.4	14.1	.6	82.5	2.8	.907	N
487	2630.0 - 2631.0	46.9	1.2	17.6	.5	78.8	3.2	.898	S
488	2631.0 - 2632.0	44.4	1.0	17.0	.4	79.1	3.5	.916	N
489	2632.0 - 2633.0	31.2	1.2	11.9	.5	85.1	2.5	.913	N
490	2633.0 - 2634.0	20.5	1.7	7.9	.7	89.4	2.0	.922	N
491	2634.0 - 2635.0	17.3	1.7	6.6	.7	91.0	1.7	.916	N
492	2635.0 - 2636.0	22.5	1.7	8.5	.7	89.1	1.7	.910	N
493	2636.0 - 2637.0	25.1	1.2	9.5	.5	88.3	1.7	.905	N
494	2637.0 - 2638.0	34.8	1.4	13.3	.6	83.8	2.3	.915	N
495	2638.0 - 2639.0	17.6	1.6	6.7	.7	91.3	1.4	.911	N
496	2639.0 - 2640.0	16.6	1.9	6.3	.8	91.5	1.4	.910	N
497	2640.0 - 2641.0	34.4	1.4	13.0	.6	84.2	2.3	.904	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 21 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
498	2641.0 - 2642.0	41.9	1.0	15.6	.4	81.1	2.9	.893	N
499	2642.0 - 2643.0	27.5	1.0	10.2	.4	87.1	2.3	.891	N
500	2643.0 - 2644.0	40.8	1.0	15.4	.4	80.5	3.7	.906	N
501	2644.0 - 2645.0	26.1	1.0	9.7	.4	87.7	2.2	.888	N
502	2645.0 - 2646.0	20.7	1.0	7.6	.4	90.3	1.7	.882	N
503	2646.0 - 2647.0	20.2	1.0	7.4	.4	90.5	1.7	.875	N
504	2647.0 - 2648.0	31.5	1.0	11.7	.4	85.5	2.4	.888	N
505	2648.0 - 2649.0	32.3	1.4	12.2	.6	84.7	2.5	.903	N
506	2649.0 - 2650.0	19.1	1.3	7.2	.6	90.9	1.4	.900	N
507	2650.0 - 2651.0	18.3	.7	6.8	.3	91.6	1.3	.895	N
508	2651.0 - 2652.0	16.3	.7	6.1	.3	92.4	1.2	.899	N
509	2652.0 - 2653.0	20.0	.7	7.5	.3	90.7	1.5	.896	N
510	2653.0 - 2654.0	39.4	1.2	15.1	.5	81.4	3.1	.915	S
511	2654.0 - 2655.0	22.4	1.7	8.5	.7	88.8	2.0	.906	N
512	2655.0 - 2656.0	14.2	1.0	5.3	.4	92.8	1.5	.903	N
513	2656.0 - 2657.0	14.8	.5	5.6	.2	93.0	1.2	.899	N
514	2657.0 - 2658.0	17.9	.5	6.7	.2	92.0	1.1	.895	N
515	2658.0 - 2659.0	15.8	.5	5.9	.2	92.9	1.0	.889	N
516	2659.0 - 2660.0	24.6	.5	9.2	.2	89.3	1.3	.895	N
517	2660.0 - 2661.0	34.0	1.0	12.7	.4	84.3	2.6	.898	N
518	2661.0 - 2662.0	25.6	7.2	9.6	3.0	78.4	9.0	.898	N
519	2662.0 - 2663.0	14.3	14.4	5.3	6.0	72.2	16.5	.894	N
520	2663.0 - 2664.0	19.4	7.0	7.3	2.9	80.9	8.9	.895	N
521	2664.0 - 2665.0	23.4	1.6	8.8	.7	88.2	2.4	.901	N
522	2665.0 - 2666.0	22.1	1.2	8.3	.5	89.3	1.9	.903	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 22 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
523	2666.0 - 2667.0	27.3	1.1	10.3	.5	87.1	2.2	.902	N
524	2667.0 - 2668.0	36.7	.7	13.8	.3	82.5	3.4	.899	N
525	2668.0 - 2669.0	20.9	.7	7.8	.3	90.3	1.6	.895	N
526	2669.0 - 2670.0	19.6	.7	7.3	.3	90.8	1.6	.898	N
527	2670.0 - 2671.0	22.7	1.0	8.5	.4	89.4	1.7	.897	N
528	2671.0 - 2672.0	16.3	1.2	6.2	.5	92.0	1.4	.903	N
529	2672.0 - 2673.0	14.7	1.0	5.5	.4	92.9	1.2	.903	N
530	2673.0 - 2674.0	11.6	.7	4.4	.3	94.4	1.0	.903	N
531	2674.0 - 2675.0	14.2	.7	5.3	.3	93.4	1.0	.902	N
532	2675.0 - 2676.0	18.8	1.2	7.1	.5	90.9	1.5	.904	N
533	2676.0 - 2677.0	16.9	1.0	6.4	.4	92.0	1.2	.903	N
534	2677.0 - 2678.0	12.0	.5	4.5	.2	94.5	.8	.905	N
535	2678.0 - 2679.0	12.3	1.0	4.6	.4	94.1	.9	.902	N
536	2679.0 - 2680.0	10.2	.8	3.8	.4	95.0	.8	.901	N
537	2680.0 - 2681.0	6.8	.6	2.5	.3	96.5	.7	.893	N
538	2681.0 - 2682.0	9.4	.5	3.5	.2	95.5	.8	.888	N
539	2682.0 - 2683.0	10.9	.7	4.1	.3	94.7	.9	.895	N
540	2683.0 - 2684.0	16.5	1.0	6.2	.4	92.2	1.2	.895	N
541	2684.0 - 2685.0	15.2	.7	5.6	.3	93.0	1.1	.885	N
542	2685.0 - 2686.0	5.7	.6	2.1	.3	97.0	.7	.884	N
543	2686.0 - 2687.0	7.9	.7	2.9	.3	96.2	.6	.890	N
544	2687.0 - 2688.0	6.8	.5	2.5	.2	96.7	.6	.892	N
545	2688.0 - 2689.0	9.9	.5	3.7	.2	94.2	1.9	.905	N
546	2689.0 - 2690.0	10.6	1.0	4.0	.4	94.8	.8	.904	N
547	2690.0 - 2691.0	25.2	1.0	9.5	.4	88.1	2.0	.905	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

OIL SHALE ASSAY REPORT

PAGE 23 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
548	2691.0 - 2692.0	17.4	1.0	6.6	.4	91.4	1.6	.904	N
549	2692.0 - 2693.0	10.5	.7	4.0	.3	94.7	1.0	.908	N
550	2693.0 - 2694.0	10.7	1.0	4.0	.4	94.4	1.2	.902	N
551	2694.0 - 2695.0	10.2	.7	3.8	.3	94.9	1.0	.892	N
552	2695.0 - 2696.0	9.3	.6	3.4	.3	95.5	.8	.882	N
553	2696.0 - 2697.0	16.6	.7	6.2	.3	92.2	1.3	.896	N
554	2697.0 - 2698.0	26.3	1.3	9.9	.6	87.4	2.2	.903	N
555	2698.0 - 2699.0	41.4	1.0	15.8	.4	81.0	2.8	.915	N
556	2699.0 - 2700.0	17.5	1.0	6.6	.4	91.6	1.4	.908	N
557	2700.0 - 2701.0	14.3	1.0	5.4	.4	93.2	1.0	.906	N
558	2701.0 - 2702.0	9.0	.5	3.4	.2	95.5	.9	.901	N
559	2702.0 - 2703.0	8.6	.7	3.3	.3	95.7	.7	.907	N
560	2703.0 - 2704.0	4.5a	.6	1.7	.3	97.3	.7		N
561	2704.0 - 2705.0	2.6a	2.8	1.0	1.2	97.2	.7		N
562	2705.0 - 2706.0	4.4a	.5	1.7	.2	97.6	.5		N
563	2706.0 - 2707.0	11.9	.7	4.5	.3	94.3	.9	.906	N
564	2707.0 - 2708.0	25.7	2.1	9.7	.9	87.6	1.8	.907	N
565	2708.0 - 2709.0	23.8	3.1	8.9	1.3	88.3	1.5	.900	N
566	2709.0 - 2710.0	16.5	4.6	6.2	1.9	90.6	1.3	.906	N
567	2710.0 - 2711.0	18.6	.9	7.0	.4	91.3	1.3	.905	N
568	2711.0 - 2712.0	15.8	1.4	6.0	.6	91.2	2.3	.911	N
569	2712.0 - 2713.0	26.0	1.8	9.8	.7	87.2	2.2	.907	N
570	2713.0 - 2714.0	12.4	1.1	4.7	.5	93.3	1.6	.908	N
571	2714.0 - 2715.0	10.1	1.2	3.8	.5	94.6	1.1	.903	N
572	2715.0 - 2716.0	10.3	1.5	3.9	.6	94.4	1.0	.910	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 24 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
573	2716.0 - 2717.0	9.5	.7	3.6	.3	95.2	.9	.909	N
574	2717.0 - 2718.0	8.6	1.0	3.2	.4	95.7	.7	.907	N
575	2718.0 - 2719.0	8.3	.9	3.1	.4	95.6	.9	.908	N
576	2719.0 - 2720.0	3.8a	.7	1.5	.3	97.7	.5		N
577	2720.0 - 2721.0	5.4	1.0	2.1	.4	96.4	1.1	.927	N
578	2721.0 - 2722.0	4.1a	.7	1.6	.3	97.5	.6		N
579	2722.0 - 2723.0	6.3	.2	2.4	.1	96.3	1.1	.924	N
580	2723.0 - 2724.0	7.1	1.0	2.7	.4	96.1	.8	.914	N
581	2724.0 - 2725.0	5.1a	1.0	2.0	.4	97.0	.7		N
582	2725.0 - 2726.0	5.7	1.0	2.2	.4	96.6	.8	.915	N
583	2726.0 - 2727.0	9.1	1.4	3.5	.6	95.1	.9	.913	N
584	2727.0 - 2728.0	11.1	1.5	4.2	.6	94.0	1.2	.913	N
585	2728.0 - 2729.0	4.5a	1.2	1.7	.5	97.0	.8		N
586	2729.0 - 2730.0	8.1	1.6	3.1	.7	95.5	.8	.908	N
587	2730.0 - 2731.0	8.4	2.4	3.2	1.0	94.9	.9	.913	N
588	2731.0 - 2732.0	8.5	3.1	3.2	1.3	94.5	.9	.910	N
589	2732.0 - 2733.0	8.1	3.3	3.0	1.4	94.6	1.0	.906	N
590	2733.0 - 2734.0	5.5	2.9	2.1	1.2	96.1	.6	.907	N
591	2734.0 - 2735.0	6.1	2.6	2.3	1.1	96.0	.6	.907	N
592	2735.0 - 2736.0	3.0a	2.5	1.1	1.1	97.2	.6		N
593	2736.0 - 2737.0	3.5a	3.1	1.3	1.3	96.7	.7		N
594	2737.0 - 2738.0	2.3a	2.6	.9	1.1	97.5	.5		N
595	2738.0 - 2739.0	2.9a	2.6	1.1	1.1	97.2	.6		N
596	2739.0 - 2740.0	5.2a	3.8	2.0	1.6	95.9	.5		N
597	2740.0 - 2741.0	3.4a	2.4	1.3	1.0	96.7	1.0		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 25 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
598	2741.0 - 2742.0	4.4a	2.7	1.7	1.1	96.9	.3		N
599	2742.0 - 2743.0	4.8a	4.6	1.9	1.9	95.7	.5		N
600	2743.0 - 2744.0	4.2a	3.6	1.6	1.5	96.4	.5		N
601	2744.0 - 2745.0	3.3a	3.4	1.3	1.4	96.6	.7		N
602	2745.0 - 2746.0	4.7a	4.1	1.8	1.7	95.9	.6		N
603	2746.0 - 2747.0	3.9a	3.6	1.5	1.5	96.5	.5		N
604	2747.0 - 2748.0	2.8a	4.1	1.1	1.7	96.7	.5		N
605	2748.0 - 2749.0	2.7a	3.4	1.0	1.4	97.0	.6		N
606	2749.0 - 2750.0	3.5a	3.6	1.3	1.5	96.6	.6		N
607	2750.0 - 2751.0	3.7a	3.2	1.4	1.4	96.7	.5		N
608	2751.0 - 2752.0	4.3a	2.4	1.7	1.0	96.9	.5		N
609	2752.0 - 2753.0	4.9a	3.1	1.9	1.3	96.2	.6		N
610	2753.0 - 2754.0	4.8a	2.9	1.9	1.2	96.5	.4		N
611	2754.0 - 2755.0	4.2a	4.3	1.6	1.8	96.0	.6		N
612	2755.0 - 2756.0	4.8a	2.6	1.9	1.1	96.6	.5		N
613	2756.0 - 2757.0	3.0a	2.8	1.1	1.2	96.3	1.4		N
614	2757.0 - 2758.0	2.8a	2.8	1.1	1.2	97.3	.5		N
615	2758.0 - 2759.0	3.2a	3.8	1.2	1.6	96.6	.6		N
616	2759.0 - 2760.0	4.0a	2.0	1.5	.8	96.7	.9		N
617	2760.0 - 2761.0	1.5a	1.0	.6	.4	98.5	.5		N
618	2761.0 - 2762.0	2.7a	1.0	1.0	.4	97.9	.6		N
619	2762.0 - 2763.0	2.7a	1.0	1.0	.4	97.7	.9		N
620	2763.0 - 2764.0	3.0a	1.2	1.2	.5	97.7	.6		N
621	2764.0 - 2765.0	3.3a	.7	1.3	.3	97.5	.9		N
622	2765.0 - 2766.0	3.6a	.7	1.4	.3	97.7	.6		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 26 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
623	2766.0 - 2767.0	2.5a	1.2	1.0	.5	97.9	.6		N
624	2767.0 - 2768.0	2.7a	1.2	1.1	.5	97.9	.6		N
625	2768.0 - 2769.0	1.6a	.7	.6	.3	98.4	.7		N
626	2769.0 - 2770.0	2.0a	1.2	.8	.5	98.1	.6		N
627	2770.0 - 2771.0	1.3a	1.4	.5	.6	98.3	.6		N
628	2771.0 - 2772.0	1.4a	1.4	.5	.6	98.3	.6		N
629	2772.0 - 2773.0	1.3a	1.7	.5	.7	97.8	1.0		N
630	2773.0 - 2774.0	1.6a	1.7	.6	.7	98.1	.6		N
631	2774.0 - 2775.0	1.7a	1.4	.7	.6	98.2	.5		N
632	2775.0 - 2776.0	1.7a	1.4	.7	.6	98.4	.3		N
633	2776.0 - 2777.0	2.3a	1.5	.9	.6	98.0	.5		N
634	2777.0 - 2778.0	2.0a	1.7	.8	.7	98.0	.5		N
635	2778.0 - 2779.0	2.2a	1.9	.9	.8	97.8	.6		N
636	2779.0 - 2780.0	1.9a	2.0	.7	.8	98.0	.5		N
637	2780.0 - 2781.0	1.4a	2.2	.5	.9	98.1	.5		N
638	2781.0 - 2782.0	1.2a	2.4	.5	1.0	98.1	.5		N
639	2782.0 - 2783.0	1.6a	2.4	.6	1.0	98.0	.4		N
640	2783.0 - 2784.0	1.7a	2.2	.7	.9	98.1	.3		N
641	2784.0 - 2785.0	3.3a	1.7	1.3	.7	97.5	.6		N
642	2785.0 - 2786.0	2.8a	1.9	1.1	.8	97.7	.4		N
643	2786.0 - 2787.0	1.6a	2.4	.6	1.0	98.0	.4		N
644	2787.0 - 2788.0	1.7a	2.5	.7	1.0	97.7	.6		N
645	2788.0 - 2789.0	2.9a	1.7	1.1	.7	97.6	.6		N
646	2789.0 - 2790.0	3.8a	1.4	1.4	.6	97.5	.5		N
647	2790.0 - 2791.0	7.0	1.2	2.7	.5	96.1	.8	.907	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 27 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 920171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
648	2791.0 - 2792.0	3.6a	1.2	1.4	.5	97.6	.5		N
649	2792.0 - 2793.0	4.6a	1.9	1.8	.8	96.9	.5		N
650	2793.0 - 2794.0	25.3	1.0	9.6	.4	88.0	2.0	.911	N
651	2794.0 - 2795.0	19.2	1.2	7.2	.5	90.1	2.1	.903	N
652	2795.0 - 2796.0	25.6	1.7	9.7	.7	86.7	3.0	.906	N
653	2796.0 - 2797.0	26.2	12.0	9.8	5.0	70.9	14.3	.899	S
654	2797.0 - 2798.0	20.1	4.9	7.6	2.0	84.1	6.3	.902	N
655	2798.0 - 2799.0	13.9	1.2	5.2	.5	92.7	1.6	.892	N
656	2799.0 - 2800.0	12.7	.8	4.7	.3	93.5	1.5	.891	N
657	2800.0 - 2801.0	54.7	1.6	20.4	.7	73.6	5.3	.897	M
658	2801.0 - 2802.0	50.9	1.8	19.0	.7	76.2	4.0	.894	S
659	2802.0 - 2803.0	35.4	2.8	13.1	1.2	81.1	4.6	.890	S
660	2803.0 - 2804.0	25.1	5.9	9.3	2.5	80.8	7.4	.892	N
661	2804.0 - 2805.0	24.3	1.2	9.0	.5	88.7	1.8	.888	N
662	2805.0 - 2806.0	13.5	1.2	5.0	.5	93.4	1.1	.892	N
663	2806.0 - 2807.0	12.0	1.0	4.5	.4	94.0	1.1	.898	N
664	2807.0 - 2808.0	12.3	1.2	4.6	.5	93.6	1.3	.899	N
665	2808.0 - 2809.0	17.5	1.0	6.6	.4	91.0	2.0	.902	N
666	2809.0 - 2810.0	17.1	1.0	6.4	.4	91.6	1.6	.897	N
667	2810.0 - 2811.0	18.0	1.0	6.8	.4	91.5	1.4	.897	N
668	2811.0 - 2812.0	8.4	.7	3.2	.3	95.7	.8	.901	N
669	2812.0 - 2813.0	2.2a	4.6	.9	1.9	90.6	6.6		N
670	2813.0 - 2814.0	2.4a	8.5	.9	3.5	85.0	10.5		N
671	2814.0 - 2815.0	7.2	2.6	2.7	1.1	92.7	3.5	.907	N
672	2815.0 - 2816.0	10.8	.8	4.1	.3	94.5	1.1	.899	N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 28 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
673	2816.0 - 2817.0	15.8	.7	5.9	.3	92.4	1.4	.894	N
674	2817.0 - 2818.0	7.5	.7	2.8	.3	96.0	.9	.900	N
675	2818.0 - 2819.0	12.2	.7	4.6	.3	93.9	1.2	.904	N
676	2819.0 - 2820.0	16.5	1.0	6.2	.4	92.0	1.4	.907	N
677	2820.0 - 2821.0	17.0	.7	6.5	.3	91.0	2.2	.911	N
678	2821.0 - 2822.0	35.0	1.4	13.2	.6	82.5	3.7	.907	N
679	2822.0 - 2823.0	14.2	.7	5.3	.3	92.5	1.9	.897	N
680	2823.0 - 2824.0	12.3	1.0	4.6	.4	93.9	1.1	.895	N
681	2824.0 - 2825.0	21.0	1.0	7.8	.4	90.2	1.6	.886	N
682	2825.0 - 2826.0	12.5	1.0	4.6	.4	93.4	1.6	.879	N
683	2826.0 - 2827.0	15.2	1.0	5.6	.4	92.3	1.7	.889	N
684	2827.0 - 2828.0	17.2	1.2	6.3	.5	91.9	1.3	.882	N
685	2828.0 - 2829.0	16.3	1.7	6.1	.7	91.5	1.7	.892	N
686	2829.0 - 2830.0	19.0	1.2	7.1	.5	90.4	2.0	.894	N
687	2830.0 - 2831.0	43.5	1.4	16.3	.6	79.4	3.7	.900	S
688	2831.0 - 2832.0	23.9	1.4	8.9	.6	88.4	2.1	.890	N
689	2832.0 - 2833.0	13.9	1.0	5.2	.4	92.6	1.8	.899	N
690	2833.0 - 2834.0	13.4	1.2	5.0	.5	93.1	1.4	.897	N
691	2834.0 - 2835.0	43.4	1.7	16.4	.7	79.7	3.2	.907	N
692	2835.0 - 2836.0	26.7	2.4	10.0	1.0	86.8	2.2	.894	N
693	2836.0 - 2837.0	26.0	1.4	9.7	.6	87.0	2.7	.894	N
694	2837.0 - 2838.0	37.0	1.9	14.0	.8	82.0	3.2	.910	N
695	2838.0 - 2839.0	32.5	2.9	12.5	1.2	83.6	2.7	.919	N
696	2839.0 - 2840.0	18.3	1.9	6.9	.8	90.4	1.9	.904	N
697	2840.0 - 2841.0	5.0a	2.4	1.9	1.0	96.2	.9		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 29 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
698	2841.0 - 2842.0	7.1	1.4	2.7	.6	96.1	.6	.903	N
699	2842.0 - 2843.0	7.8	2.3	3.0	1.0	95.3	.8	.911	S
700	2843.0 - 2844.0	14.4	2.6	5.5	1.1	92.1	1.3	.916	N
701	2844.0 - 2845.0	16.7	1.7	6.3	.7	91.8	1.2	.905	N
702	2845.0 - 2846.0	12.5	3.4	4.7	1.4	92.7	1.3	.893	N
703	2846.0 - 2847.0	20.4	1.9	7.7	.8	89.8	1.8	.898	N
704	2847.0 - 2848.0	14.5	4.6	5.5	1.9	91.2	1.4	.901	N
705	2848.0 - 2849.0	21.4	2.9	8.0	1.2	89.0	1.8	.896	N
706	2849.0 - 2850.0	14.2	3.8	5.3	1.6	92.0	1.1	.889	N
707	2850.0 - 2851.0	23.0	1.2	8.6	.5	89.5	1.4	.895	N
708	2851.0 - 2852.0	20.7	3.1	7.9	1.3	89.2	1.6	.911	N
709	2852.0 - 2853.0	22.9	4.1	8.8	1.7	87.4	2.1	.925	S
710	2853.0 - 2854.0	15.6	4.8	5.9	2.0	90.4	1.7	.905	N
711	2854.0 - 2855.0	11.2	1.9	4.2	.8	93.3	1.7	.896	N
712	2855.0 - 2856.0	13.5	2.4	5.1	1.0	92.4	1.5	.900	N
713	2856.0 - 2857.0	8.7	2.2	3.3	.9	95.1	.7	.899	N
714	2857.0 - 2858.0	9.1	1.9	3.4	.8	94.5	1.3	.902	N
715	2858.0 - 2859.0	15.0	2.9	5.7	1.2	91.9	1.2	.909	N
716	2859.0 - 2860.0	18.5	4.3	7.0	1.8	89.5	1.7	.901	N
717	2860.0 - 2861.0	16.4	2.4	6.3	1.0	90.5	2.2	.914	N
718	2861.0 - 2862.0	23.6	3.5	9.0	1.5	87.9	1.7	.908	N
719	2862.0 - 2863.0	9.3	2.2	3.6	.9	94.3	1.3	.917	N
720	2863.0 - 2864.0	8.0	2.5	3.0	1.1	95.1	.8	.910	N
721	2864.0 - 2865.0	4.4a	2.9	1.7	1.2	96.4	.7		N
722	2865.0 - 2866.0	3.7a	3.4	1.4	1.4	96.6	.6		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 30 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
723	2866.0 - 2867.0	1.9a	6.0	.7	2.5	96.1	.7		N
724	2867.0 - 2868.0	4.0a	3.1	1.5	1.3	96.3	.9		N
725	2868.0 - 2869.0	3.1a	3.1	1.2	1.3	97.0	.5		N
726	2869.0 - 2870.0	3.6a	1.9	1.4	.8	97.2	.6		N
727	2870.0 - 2871.0	8.0	2.6	3.0	1.1	95.4	.5	.908	N
728	2871.0 - 2872.0	5.5	2.6	2.1	1.1	96.3	.5	.904	N
729	2872.0 - 2873.0	6.1	2.9	2.3	1.2	95.8	.7	.906	N
730	2873.0 - 2874.0	7.7	2.9	2.9	1.2	95.1	.8	.912	N
731	2874.0 - 2875.0	25.5	3.6	9.7	1.5	86.8	2.0	.916	S
732	2875.0 - 2876.0	22.5	3.8	8.6	1.6	88.0	1.8	.914	N
733	2876.0 - 2877.0	13.0	5.3	5.0	2.2	91.6	1.2	.922	N
734	2877.0 - 2878.0	9.2	6.5	3.5	2.7	92.9	.9	.914	N
735	2878.0 - 2879.0	7.9	2.6	3.0	1.1	94.9	1.0	.911	N
736	2879.0 - 2880.0	9.3	3.4	3.5	1.4	94.3	.8	.910	N
737	2880.0 - 2881.0	13.2	4.1	5.0	1.7	92.0	1.3	.913	N
738	2881.0 - 2882.0	16.9	4.4	6.4	1.9	90.2	1.5	.910	N
739	2882.0 - 2883.0	20.6	4.3	7.9	1.8	88.6	1.7	.920	N
740	2883.0 - 2884.0	10.2	2.4	3.9	1.0	94.3	.8	.906	N
741	2884.0 - 2885.0	6.8	1.7	2.5	.7	95.9	.9	.896	N
742	2885.0 - 2886.0	2.4a	1.7	.9	.7	98.0	.4		N
743	2886.0 - 2887.0	1.0a	1.7	.4	.7	98.5	.4		N
744	2887.0 - 2888.0	1.2a	2.0	.5	.9	98.1	.6		N
745	2888.0 - 2889.0	.8a	2.4	.3	1.0	98.1	.6		N
746	2889.0 - 2890.0	1.1a	2.9	.4	1.2	97.8	.6		N
747	2890.0 - 2891.0	1.4a	4.0	.5	1.7	97.4	.4		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 31 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
748	2891.0 - 2892.0	2.0a	2.9	.8	1.2	97.7	.3		N
749	2892.0 - 2893.0	4.8a	3.8	1.8	1.6	96.0	.6		N
750	2893.0 - 2894.0	27.8	3.6	10.5	1.3	86.1	1.9	.902	N
751	2894.0 - 2895.0	35.1	3.5	13.3	1.5	82.6	2.7	.908	N
752	2895.0 - 2896.0	41.1	3.1	15.4	1.3	80.3	3.0	.896	N
753	2896.0 - 2897.0	16.5	5.0	6.3	2.1	90.2	1.5	.905	N
754	2897.0 - 2898.0	11.2	3.6	4.2	1.5	93.0	1.3	.908	N
755	2898.0 - 2899.0	5.1a	1.4	1.9	.6	96.8	.7		N
756	2899.0 - 2900.0	2.9a	1.7	1.1	.7	97.3	.9		N
757	2900.0 - 2901.0	3.5a	1.9	1.3	.8	97.3	.6		N
758	2901.0 - 2902.0	4.7a	1.7	1.8	.7	96.7	.8		N
759	2902.0 - 2903.0	3.9a	1.7	1.5	.7	97.0	.8		N
760	2903.0 - 2904.0	3.8a	1.9	1.4	.8	97.0	.8		N
761	2904.0 - 2905.0	3.4a	2.2	1.3	.9	97.3	.5		N
762	2905.0 - 2906.0	3.5a	2.2	1.3	.9	97.1	.7		N
763	2906.0 - 2907.0	5.6a	1.2	2.1	.5	96.7	.7		N
764	2907.0 - 2908.0	5.7a	1.4	2.2	.6	96.7	.5		N
765	2908.0 - 2909.0	6.2	1.7	2.3	.7	96.4	.6	.889	N
766	2909.0 - 2910.0	9.6	4.1	3.6	1.7	93.7	1.0	.888	N
767	2910.0 - 2911.0	5.9	4.6	2.2	1.9	94.9	1.0	.891	N
768	2911.0 - 2912.0	4.0a	5.0	1.5	2.1	95.6	.8		N
769	2912.0 - 2913.0	4.6a	4.8	1.8	2.0	95.3	.9		N
770	2913.0 - 2914.0	5.6	4.6	2.1	1.9	95.3	.7	.894	N
771	2914.0 - 2915.0	6.1	4.8	2.3	2.0	94.9	.8	.898	N
772	2915.0 - 2916.0	3.9a	4.3	1.5	1.8	96.1	.6		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 32 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
773	2916.0 - 2917.0	4.0a	3.8	1.5	1.6	96.2	.7		N
774	2917.0 - 2918.0	4.7a	2.9	1.8	1.2	96.3	.7		N
775	2918.0 - 2919.0	3.4a	2.2	1.3	.9	97.3	.5		N
776	2919.0 - 2920.0	3.3a	1.9	1.3	.8	97.6	.3		N
777	2920.0 - 2921.0	3.2a	2.2	1.2	.9	97.5	.4		N
778	2921.0 - 2922.0	3.4a	1.4	1.3	.6	97.7	.4		N
779	2922.0 - 2923.0	2.8a	2.2	1.1	.9	97.4	.6		N
780	2923.0 - 2924.0	3.2a	2.2	1.2	.9	97.5	.4		N
781	2924.0 - 2925.0	2.6a	2.4	1.0	1.0	97.4	.6		N
782	2925.0 - 2926.0	2.8a	1.7	1.1	.7	97.6	.6		N
783	2926.0 - 2927.0	1.4a	1.4	.5	.6	97.5	1.4		N
784	2927.0 - 2928.0	2.8a	2.5	1.1	1.1	97.5	.4		N
785	2928.0 - 2929.0	1.3a	2.3	.5	1.0	97.1	1.4		N
786	2929.0 - 2930.0	2.1a	2.6	.8	1.1	97.6	.5		N
787	2930.0 - 2931.0	1.3a	2.4	.5	1.0	98.0	.5		N
788	2931.0 - 2932.0	2.6a	2.2	1.0	.9	97.6	.5		N
789	2932.0 - 2933.0	3.4a	1.9	1.3	.8	97.3	.6		N
790	2933.0 - 2934.0	2.6a	2.3	1.0	1.0	97.7	.4		N
791	2934.0 - 2935.0	4.0a	2.4	1.5	1.0	97.0	.5		N
792	2935.0 - 2936.0	13.3	3.4	5.0	1.4	92.4	1.2	.910	N
793	2936.0 - 2937.0	6.5	4.8	2.5	2.0	94.7	.8	.917	N
794	2937.0 - 2938.0	7.9	4.1	3.0	1.7	94.3	1.0	.909	N
795	2938.0 - 2939.0	2.7a	5.5	1.0	2.3	95.8	.9		N
796	2939.0 - 2940.0	3.9a	6.2	1.5	2.6	94.7	1.2		N
797	2940.0 - 2941.0	3.8a	5.8	1.5	2.4	95.3	.9		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

OIL SHALE ASSAY REPORT

PAGE 33 of 33

R.H. GODBE
7562 S. SAULSBURY CT.
LITTLETON, CO 80123

Date: 01 APR 82

Lab #: 820171 - CD #2-82

Project: U.S.G.S.

Core Hole: RW-1

Elevation:

Location:

Remarks: 806 SAMPLES; AIR-DRIED

Sample Number	Client ID	Gallons/Ton		Weight Percent				Specific Gravity 60°/60°F	Tend to Coke
		Oil	Water	Oil	Water	Spent Shale	Gas+ Loss		
798	2941.0 - 2942.0	4.9a	4.8	1.9	2.0	95.5	.6		N
799	2942.0 - 2943.0	5.2a	4.3	2.0	1.8	94.8	1.4		N
800	2943.0 - 2944.0	3.6a	3.4	1.4	1.4	96.7	.5		N
801	2944.0 - 2945.0	2.2a	3.4	.9	1.4	97.0	.8		N
802	2945.0 - 2946.0	2.5a	3.4	1.0	1.4	97.0	.7		N
803	2946.0 - 2947.0	2.2a	3.6	.9	1.5	97.2	.5		N
804	2947.0 - 2948.0	2.0a	3.4	.8	1.4	97.3	.6		N
805	2948.0 - 2949.0	1.3a	3.4	.5	1.4	97.4	.7		N
806	2949.0 - 2950.0	.9a	2.4	.4	1.0	98.1	.5		N

Coking Tendency of Spent Shale:

N=none S=slight M=moderate H=heavy

a = Specific gravity estimated @ 0.920

Originals

assay by other

Company United States Geological Survey

Well name Red Wash 1

Location SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$
Sec 1, T 9 S, R 22 E, S.L.B. & M.
Uintah County, Utah
LAT 40° 38' min 73 sec LONG 109° 23' 15" W

Elevation 4818 surface (estimated)

Sample type - cores

Assayed interval 2161 to 2970 *these are the footages*
after

(add 20 to all footages on
oil shale assay report)

Illustration No: SBR-5177P

Fischer assays by Dickinson Labs



United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 939
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

Larry

IN REPLY REFER TO:

Office of Energy Resources
Branch of Sedimentary Mineral Resources

May 21, 1982

Mr. Pete Dana
Laramie Energy Technical Center
Energy Research & Development Admin.
P.O. Box 3395 - University Station
Laramie, Wyoming 82070

Dear Pete:

Concerning the data that I sent you on May 19, please make a note that 20 feet should be added to all depth intervals for the Fischer assay analysis of the Red Wash - 1 drill hole (RW-1) to correct the information to actual depth.

Sincerely yours,

Richard W. Scott, Jr.

Richard W. Scott, Jr., Geologist
Branch of Sedimentary Mineral Resources