



Map of Leased Land



Planimetric features adapted from  
USGS 7 1/2 minute quadrangles,  
Little America, Wyo.; Antelope  
Knoll NE., Wyo.

**Tenneco Minerals Company**  
**Soda Ash Project**

Drawing No. SL-001  
Scale: 1" = 1000'

Date: 3-10-81  
Drawn: LW

HOLE NO. 36-5

Drill Hole Log

Sweetwater Co., Wyoming

S. A. Scott & Co., Inc.

State: Wyoming

County: Sweetwater

Location: Center of Section 36, T18N, R110W  
304, 226.2 N, 218, 149.4 E, Wyoming Transverse MercatorContractor: Kay-Way Drilling Co. Driller: Leroy Kay  
Operator: S. A. Scott & Co., Inc. Geologist: Barry McMullan

Started: 25 February 1978

Completed: 10 March 1978

Total Depth: 1805 feet

Rotary Drilling: 0 - 1478 feet Bit Size: 4-1/4"

Core Drilling: 1478 - 1805 feet Core Recovery 99 %

Casing: None Core Size: H.Q., 2.5"

Plugging: Top to bottom with Portland Cement

Drilling Fluid: Water saturated with Soda Ash

Rig Type: Longyear 44 - Wireline

Ground Elevation: 6293.4 feet

Kelly Bushing Elevation: N/A

Miscellaneous: Geophysical Logs by Berge Exploration; Caliper, Density, Gamma,  
Resistivity and Spontaneous Potential.Geological Markers

<u>Unit</u>	<u>Depth</u>	<u>Thickness</u>	<u>Estimated % Trona</u>
Middle Wilkins Peak	1205 ft	N/A	N/A
Westvaco	1555 ft	12.7 ft	90%
Kern	1611 ft	7.1 ft	N/A
Duval #1	1648 ft	9.9 ft	N/A
Duval #2	1680 ft	8.3 ft	90%

# ROCK QUALITY DESIGNATION ( R.Q.D. )

HOLE NO. 36-5  
LOCATION Little America, Wy  
DATE 10 March, 1978  
COMPANY Tenneco Oil Co.

Run No.	Box No.	Depth Cored		Core Recovery	Coring Interval	Number of 4 in. pieces	Length of 4 in. piece
		From	To				
1	1 & 2	1478	1493.3	15.5	15.3	5	15.25
2	2 & 3	1493.3	1509.0	15.4	15.7	9	13.9
3	3, 4 & 5	1509.0	1524.0	15.7	15.0	10	15.53
4	5, 6 & 7	1524.0	1539.0	15.1	15.0	6	14.78
5	7 & 8	1539.0	1554.0	15.2	15.0	10	14.68
6	8, 9 & 10	1554.0	1569.0	14.78	15.0	4	14.78
7	10, 11, & 12	1569.0	1585.0	15.8	16.0	10	15.2
8	12 & 13	1585.0	1601.0	16.0	16.0	12	15.6
9	13, 14, & 15	1601.0	1617.0	15.3	16.0	9	15.3
10	15 & 16	1617.0	1632.0	15.8	15.0	9	15.5
11	16, 17 & 18	1632.0	1647.5	15.8	15.5	6	14.65
12	18, 19 & 20	1647.5	1663.0	15.5	15.5	11	14.9
13	20 & 21	1663.0	1679.0	15.9	16.0	13	15.56
14	21, 22, & 23	1679.0	1695.0	15.7	16.0	8	15.1
15	23, 24, & 25	1695.0	1711.0	15.9	16.0	17	15.5
16	25 & 26	1711.0	1727.0	16.0	16.0	15	15.45
17	26, 27, & 28	1727.0	1742.5	16.0	16.0	17	13.5
18	28, 29 & 30	1742.5	1758.5	15.6	16.0	9	15.3
19	30 & 31	1758.5	1774.5	16.0	16.0	15	14.0
20	31, 32, & 33	1774.5	1789.0	14.9	14.5	5	14.9
21	33 & 34	1789.0	1805.5	15.6	16.0	8	15.5
22							

HOLE 36-5

<u>Run</u>	<u>Recovery (%)</u>	<u>R.Q.D. (%)</u>
1	100	99.7
2	100	95.9
3	100	95.9
4	100	98.5
5	100	97.9
6	98.5	98.5
7	98.8	95.0
8	100	97.5
9	100	99.4
10	100	99.4
11	100	94.5
12	100	96.1
13	99.4	97.25
14	98.1	94.4
15	99.4	96.9
16	100	96.6
17	100	84.4
18	97.5	95.6
19	100	87.5
20	100	99.7
21	100	99.7

HOLE 36-5

INDEX

<u>Box</u>	<u>Interval</u>		
1	1478.0	-	1487.8
2	1487.8	-	1497.2
3	1497.2	-	1507.1
4	1507.1	-	1516.8
5	1516.8	-	1526.0
6	1526.0	-	1535.50
7	1535.50	-	1545.0
8	1545.0	-	1554.5
9	1554.5	-	1564.4
10	1564.4	-	1574.3
11	1574.3	-	1584.4
12	1584.4	-	1594.3
13	1594.3	-	1603.8
14	1603.8	-	1614.3
15	1614.3	-	1623.8
16	1623.8	-	1632.8
17	1632.8	-	1642.0
18	1642.0	-	1651.6
19	1651.6	-	1661.3
20	1661.3	-	1670.9
21	1670.9	-	1680.7
22	1680.7	-	1690.6
23	1690.6	-	1700.2
24	1700.2	-	1710.2
25	1710.2	-	1719.9

HOLE 36-5  
(Continued)

<u>Box</u>	<u>Interval</u>
26	1719.9 - 1729.5
27	1729.5 - 1738.7
28	1738.7 - 1748.3
29	1748.3 - 1758.3
30	1758.3 - 1767.7
31	1767.7 - 1777.3
32	1777.3 - 1786.45
33	1786.45 - 1796.2
34	1796.2 - 1805.0

## Core Lithology

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Westvaco Bed

Well No. 36-5

DEPTH (Feet)				INTERVAL		EST. %		DESCRIPTION
From		To		Feet		Shale	P	
1535	50	1536	40		90			Oil Shale, Olive Brown to Moderate Brown Compete
Begin Box #7								Scattered Shortite, Ash and Shortite Bands at:
								1536.25 .1' Clay Nodules
								1536.3 .05' Ash
1536	40	1543	00	6	60			Shale, Brown Olive Grades to Gray Green, Scattered
								Shortite, Shortite Bands at:
								1537.7 .1'
								1537.9 .06'
								1538.1 2 X .02'
								1538.3 .02 & .01'
								1538.4 .04'
								1538.5 .02'
								1538.7 .03'
								1538.8 .02'
								1538.9 .08'
								1539.35 .1'
								1539.5 3 X .04'
								1539.75 Clay Nodules
								1540.0 .1'
								1540.1 .03'
								1540.3 2 X .03'
								1540.7 2 X .02'
								1540.8 5 X .01'
								1541.2 .8' 90% Shortite
								1542.1 .05'
								1542.2 .1'
								1542.5 .05'
								1542.9 .05'
1543	00	1545	00	2	00			Oil Shale, Olive Brown to Moderate Brown, Compete
								Scattered Shortite, much large Scattered Shortite.
1545	00	1548	90	3	90			Shale, Olive to Gray Green, Scattered Shortite,
Begin Box #8								Shortite Bands at:

## Core Lithology

Westvaco Bed

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Well No. 36-5

DEPTH (Feet)		INTERVAL		EST. %		DESCRIPTION
From	To	Feet	Shale	P		
						1545.2 .1'
						1545.4 .2'
						1545.9 .2'
						1546.25 2 X .15'
						1546.5 .2'
						1546.8 .2'
						1547.1 .2'
						1547.5 .05'
						1548.1 .01'
						1548.2 .01'
						1548.4 2 X .02'
1548 90	1550 50	1 60				Oil Shale, Olive Brown, Scattered Shortite, Short Bands at:
						1549.1 .1'
						1549.3 .1'
						1549.5 .2'
						1549.8 .05'
1550 50	1555 10	4 60				Shale, Olive to Gray Green, Scattered Shortite an Shortite bands at:
						1551.9 .2'
						1551.3 .5' Much Medium Shortite
						1552.0 .6' Much Scattered Shortit
						1552.6 5 X .02'
						1553.1 .03'
						1553.2 .03'
						1553.3 .1'
						1553.4 2 X .02'
						1553.5 .1'
						1553.65 .04' X .02'
						1553.75 .1' Clay Nodules
						1553.8 .7' Much Scattered Shortit.
1554 50	Begin Box #9					Continued - Olive Shale

## Core Lithology

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Westvaco Bed

Well No. 36-5

DEPTH (Feet)				INTERVAL		EST. %		DESCRIPTION
From		To		Feet		Shale	P	
1555	10	1567	80	12	70			Trona, Golden, Crystalline, Shale Stringers at:
								1555.5 .09'
								1555.92 .19'
								1556.29 .16'
								1556.5 .17'
								1557.13 .07'
								1557.61 .02'
								1557.88 .26'
								1558.52 .17'
								1559.34 .08'
								1559.7 .05'
								1559.8 .12'
								1560.14 .03'
								1560.45 .02'
								1560.78 .02'
								1561.3 .03'
1564	40	Box #10 Begins						1561.63 .05'
								1567.37 .02'
1567	80	1569	70	1	90			Oil Shale, Olive Brown, Scattered Shortite, Shorti
								Bands at:
								1568.6 .15'
								1568.8 .08'
								1569.05 .2'
								1569.4 .01'
1569	70	1571	10	1	40			Shale, Brownish Olive, Scattered Shortite, Shortit
								Bands at:
								1570.1 .02'
								1570.2 .02'
								1570.6 .02'
1571	10	1576	40	5	30			Oil Shale, Olive Brown, Scattered Shortite, Shorti
								Bands at:
1574	30	Begin Box #11						1573.3 .1'

## Core Lithology

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Westvaco Bed

Well No. 36-5

DEPTH (Feet)		INTERVAL		EST. %		DESCRIPTION
From	To	Feet		Shale	P	
						1571.2 to 1574.2 Moderate to Heavy with Scattered Shortite Fine
						1575.8 .3 Yellow-White Ash
1576 40	1579 70	3 30				Shale, Olive to Light Green Gray, Scattered Shortite Bands at:
						1577.1 .08'
						1577.2 .01'
						1577.3 .02'
						1577.45 .01'
						1577.5 .04'
						1577.55 .01'
						1577.6 .03' Ash
						1577.7 .05'
						1577.85 .05 & .03'
						1578.1 .02'
						1578.3 .05'
						1578.5 .05'
						1578.7 .05' Clay Nodules
						1579.0 .05'
						1579.1 2 X .02'
						1579.3 .03' Ash
						1579.5 .05' Ash
1579 70	1581 10	1 40				Oil Shale, Olive Brown, Scattered Shortite, Banded Shortite at:
						1579.8 .02'
						(Medium size Scattered Shortite Thru-out.)
1581 10	1582 10	1 00				Shale, Olive to Gray Green, Scattered Shortite, Shortite Bands at:
						1581.5 .04'
						1581.7 2 X .03'
						1581.9 .02'
1582 10	1584 40	2 30				Shale, Blue Gray to Green Gray, Less Scattered

Westvaco Bed

Well No. 36-5

[illegible]

## Core Lithology

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Duval #2 Bed

Well No. 36-5

DEPTH (Feet)				INTERVAL		EST. %		DESCRIPTION
From	To			Feet		Shale	P	
1661 30	1680 10			18	80			Shale, Olive to Green Gray, Scattered Shortite,
Begin Box #20								Shortite, Trona and Ash Bands at:
								1661.3 .04' Ash
								1661.45 5 X .01'
								1662.0 .05'
								1662.2 .03'
								1662.7 .01'
								1663.3 .03' and .02'
								1663.9 .01'
								1664.7 .03' Ash
								1664.8 .01' Ash
								1665.8 .01'
								1666.1 .01'
								1666.4 .03' Ash
								1667.8 .03'
								1669.1 .01'
1670 90	Begin Box #21							1670.8 .01'
								1673.0 2.5' Much Scattered Shortite
								1673.2 .03' Loughlinitite
								1674.5 .02'
								1674.8 .1'
								1675.0 .1'
								1675.7 .02'
								1675.8 .03'
								1675.9 1.25'
								1676.7 .03'
								1676.9 .1'
								1677.3 2.7' Much-Densely Scattered
								Shortite - Incompetent
								1677.3 .03'
1680 10	1688 40			8	30			Trona, Dirty Gray-Shaley, grades to Golden,
								Crystalline, Shale Stringers at:

## Core Lithology

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Duval #2 Bed

Well No. 36-5

DEPTH (Feet)		INTERVAL	EST. %	DESCRIPTION
From	To			
1680 70	Begin Box #22			1680.3 .05'
				1680.4 .12'
				1681.5 .15'
				1681.8 .02'
				1683.4 .05'
				1684.1 .1'
				1686.6 .06' Ash
				1686.8 .1' Ash
				1687.0 .1'
				1687.4 .25'
1688 40	1688 90	50		Oil Shale, Moderate Brown, Shale Olive and Brown
1688 90	1696 70	7 80		Olive, Scattered Shortite, Shortite Bands at:
				1689.6 .03'
				1690.1 .05'
				1690.3 .05'
				1690.45 .02'
				1690.5 .02'
				1690.55 .02'
				1690.9 .02'
1690 60				1691.5 .3' Trona
Begin Box #23				1691.9 .04'
				1693.5 .3' Ash
				1695.5 .03'
				1695.6 .04'
				1695.7 .01'
1696 70	1700 20	3 50		Trona, Gray Green to Golden, Dirty-Shaley to
	End of Box #23			Crystalline, Shale at:
				1697.6 .07'
				1699.4 .15'

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
6293	0		Bit #1 Eocene Bridger Formation		Soil - very fine sand & silt Light Olive Gray Reacts to HCl
6283	10		Drill Rate Faster than 50 ft./hr		" Mudstone Medium Light Gray Reacts to HCl
6273	20				" Mudstone Medium Light Gray Reacts to HCl
6263	30				" Mudstone - Silty Shale Medium Light Gray Reacts to HCl
6253	40				" Mudstone Medium Gray Reacts to HCl
6243	50				" Shale Medium Gray Reacts to HCl
6233	60				" Shale Medium Light Gray Reacts to HCl
6223	70				" Mudstone - V. F. Sandstone Medium Gray Reacts to HCl
6213	80				" Shale Medium Light Gray Reacts to HCl
6203	90				" Mudstone Yellowish Gray Reacts to HCl

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
6193	100				Shale Light Gray Reacts to HCl "
6183	110				" Mudstone / Sandstone Medium Light Gray Reacts to HCl "
6173	120				" Mudstone Light Gray Reacts to HCl "
6163	130				" Shale - Silty Medium Light Gray Reacts to HCl "
6153	140				" Mudstone Medium Light Gray Reacts to HCl "
6143	150				" Mudstone Medium Gray Reacts to HCl "
6133	160				" Shale - Silty Medium Light Gray Reacts to HCl "
6123	170				" Shale - Silty Dark Gray Reacts to HCl "
6113	180				" Shale - Silty Medium Gray Reacts to HCl "
6103	190				" Shale - Silty Medium Gray Reacts to HCl "

Drill Rate  
20 ft./hr.

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
6093	200				Shale Medium Gray Reacts to HCl "
6083	210				" Silty-Shale & Sandstone Medium Light Gray Reacts to HCl "
6073	220				" Silty Shale & Sandstone Medium Light Gray Reacts to HCl "
6063	230				" Silty Shale - Mudstone - Sand Medium Light Gray Reacts to HCl "
6053	240				" Silty Shale & Sandstone Reacts to HCl "
6043	250				" Mudstone - Silty Shale Medium Light Gray Reacts to HCl "
6033	260				" Silty Shale & Sandstone Medium Light Gray Reacts to HCl "
6023	270				" Shale Reacts to HCl Medium Light Gray "
6013	280				" Shale & Sandstone Light Gray Reacts to HCl "
6003	290				" Sandy Shale Medium Light Gray Reacts to HCl "

CUTTINGS  
LITHOLOGIC DESCRIPTION/NOTES

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	
5993	300				Shale Medium Light Gray Reacts to HCl "
5983	310				" Shale + Sandstone Medium Light Gray Reacts to HCl "
5973	320				" Shale - Silty Medium Light Gray Reacts to HCl "
5963	330				" Mudstone - Silty Shale Medium Light Gray Reacts to HCl "
5953	340				" Mudstone Medium Gray Reacts to HCl "
5943	350				" Mudstone + Sandstone Medium Gray Reacts to HCl "
5933	360				" Shale + Sandstone Brownish Gray Reacts to HCl "
5923	370				" Very Fine Sandstone - Mudstone Medium Gray Reacts to HCl "
5913	380				" Shale Brownish Gray Reacts to HCl "
5903	390				" Very Fine Sandstone Medium Light Gray Reacts to HCl "
5893	400				"

ELEV.	DEPTH	LITHO.	D.S.	WATER	MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
5873	400					Very Fine Sandstone Medium Light Gray Reacts to HCl "
5883	410					" Very Fine Sandstone Medium Light Gray Reacts to HCl "
5873	420		Bit #2			" Shale + Sandstone Medium Light Gray Reacts to HCl "
5863	430					" Shale + Sandstone Brownish Gray Reacts to HCl "
5853	440					" Silty Shale + Sandstone Medium Light Gray Reacts to HCl "
5843	450					" Shale + Sandstone Dark Gray Reacts to HCl "
5833	460		Hit a hard zone.			" Silty Shale + Sandstone Light Olive Gray Reacts to HCl "
5823	470					" Silty Shale + Sandstone Light Olive Gray Reacts to HCl "
5813	480					" Silty Shale + Sandstone Light Bluish Gray Reacts to HCl "
5803	490					" Silty Shale + Sandstone Light Bluish Gray Reacts to HCl "

CUTTINGS  
LITHOLOGIC DESCRIPTION/NOTES

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
5773	520				Silty Shale + Sandstone Light Bluish Gray Reacts to HCl "
5783	510				" Shale + Sandstone Olive Gray Reacts to HCl "
5773	520				" Shale + Sandstone Olive Black Reacts to HCl "
5763	530				" Shale + Sandstone Medium Bluish Gray Reacts to HCl "
5753	540		Drill Rate 30 ft. /hr.		" Silty Shale + Sandstone Medium Bluish Gray Reacts to HCl "
5743	550				" Shale + Sandstone Olive Black Reacts to HCl "
5733	560		Drill Rate 12 ft. /hr.		" Silty Shale + Sandstone Medium Bluish Gray Reacts to HCl "
5723	570		Bubbles returning in drill mud (? methane)		" Shale + Sandstone Light Brownish Gray Reacts to HCl "
5713	580				" Shale Medium Bluish Gray Reacts to HCl "
5703	590				" Sandstone Greenish Gray Reacts to HCl "
5693	600				"

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
5693	600				Shale Medium Bluish Gray Reacts to HCl "
5683	610				" Silty Shale Medium Bluish Gray Reacts to HCl "
5673	620				" Silty Shale Medium Bluish Gray Reacts to HCl "
5663	630				" Silty Shale Medium Bluish Gray Reacts to HCl "
5653	640		Drill Rate 8 ft. / hr. very Hard		" Silty Shale Greenish Black Reacts to HCl "
5643	650				" Silty Shale Medium Light Gray Reacts to HCl "
5633	660				" Silty Shale Medium Light Gray Reacts to HCl "
5623	670				" Silty Shale Medium Light Gray Reacts to HCl "
5613	680				" Shale Medium Light Gray Reacts to HCl "
5603	690				" Mudstone Medium Gray Reacts to HCl "
5593	700				" Shale Medium Light Gray Reacts to HCl "

ELEV.	DEPTH	LITHO.	D.S.	WATER	CUTTINGS	LITHOLOGIC DESCRIPTION / NOTES
				MIN.		
5573	700					Silty Shale Medium Gray Reacts to HCl "
5583	710					" Mudstone - Silty Shale Medium Gray Reacts to HCl "
5573	720					" Silty Shale Medium Gray Reacts to HCl "
5563	730	Bit # 3				" Silty Shale Medium Gray Reacts to HCl "
5553	740					" Silty Shale Medium Gray Reacts to HCl "
5543	750					" Silty Shale Medium Gray Reacts to HCl "
5533	760					" Shale Medium Bluish Gray Reacts to HCl "
5523	770					" Shale Brownish Gray Reacts to HCl "
5513	780					" Silty Shale Medium Light Gray Reacts to HCl "
5503	790					" Silty Shale Medium Light Gray Reacts to HCl "
						" Silty Shale Medium Gray Reacts to HCl "

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION / NOTES
5493	800				Shale Greenish Black Reacts to HCl
5483	810				" " Shale Dark Greenish Gray Reacts to HCl
5473	820				" " Shale Olive Black Reacts to HCl
5463	830				" " Mudstone Medium Light Gray Reacts to HCl
5453	840				" " Mudstone Medium Light Gray Reacts to HCl
5443	850				" " Mudstone Medium Light Gray Reacts to HCl
5433	860				" " Silty Shale Light Olive Gray Reacts to HCl
5423	870				" " Silty Shale Olive Gray Reacts to HCl
5413	880				" " Silty Shale Medium Dark Gray Reacts to HCl
5403	890				" " Shale Olive Gray Reacts to HCl
					" " Shale Olive Gray Reacts to HCl

Laney Shale Member  
of Eocene Green

↑ River Formation

Drill Rate  
12 ft. / hr.

Upper Wilkins Park  
Member of Eocene

Green River  
Formation

Drill Rate  
8 ft. / hr.  
very Hard

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION / NOTES
5393	900				Shale Olive Gray Reacts to HCl
5383	910				" " No Sample
5373	920				" " Mudstone Medium Bluish Gray Reacts to HCl
5363	930				" Bit #4 Water observed high in drill pipe after changing bit. Artesian flow not known.
5353	940				" Oil shale Dark Brownish Gray Reacts to HCl
5343	950				" " Silty Oil shale Brownish Black Reacts to HCl
5333	960				" " Silty shale Dark Gray Reacts to HCl
5323	970				" " Oil (silty) shale Dark Gray Reacts to HCl
5313	980				" " Oil (silty) shale Dark Gray Reacts to HCl
5303	990				" " Oil (silty) shale Medium Light Gray Reacts to HCl Medium "
5293	1000				" " Oil (silty) shale Medium Dark Gray Reacts to HCl

CUTTINGS  
LITHOLOGIC DESCRIPTION / NOTES

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	
5293	1000				Silty - Very Fine Sandstone Light Medium Gray Reacts to HCl
5283	1010				" "
5273	1020				Silty - Very Fine Sandstone Medium Gray Reacts to HCl
5263	1030				" "
5253	1040		Bit # 5		Very Fine Sandstone - Mudstone Brownish Black Reacts to HCl
5243	1050				" "
5233	1060				Sandy Shale Medium Dark Gray Reacts to HCl
5223	1070				" "
5213	1080				Sandy Shale Dark Gray Reacts to HCl
5203	1090				" "
					Very Fine Sandstone - Mudstone Olive Gray Reacts to HCl
					" "
					Very Fine Sandstone - Mudstone Medium Dark & Light Gray Reacts to HCl
					" "
					Mudstone - Very Fine Sandstone Medium Light Gray Reacts to HCl
					" "
					Mudstone - Very Fine Sandstone Medium & Medium Dark Gray Reacts to HCl
					" "
					Mudstone - Very Fine Sandstone Medium & Medium Dark Gray Reacts to HCl
					" "

ELEV.	DEPTH	LITHO	D.S.	WATER	MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
5193	1100					Mudstone Olive Gray Reacts to HCl
5185	1110					"
5175	1120					Very Fine Sandstone Medium Light Gray Reacts to HCl
5163	1130					" Very Fine Sandstone Medium Gray Reacts to HCl
5153	1140					" Mudstone Medium Gray Reacts to HCl
5143	1150	Drill Rate 7.5 ft./hr. Very Hard Bit #6				" Mudstone Medium Light Gray Reacts to HCl
5133	1160					" Mudstone Shale (? some sand) Light Gray Reacts to HCl
5123	1170					" Mudstone - Silty Shale Medium Dark Gray Reacts to HCl
5113	1180					" Very Fine Sandstone Medium Light Gray Reacts to HCl
5103	1190					" Mudstone Light Gray Reacts to HCl
						" Shale Dark Gray Reacts to HCl

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION / NOTES
5093	1200				Shale Medium Dark Gray Reacts to HCl
5083	1210				" " Shale Medium Bluish Gray Reacts to HCl
5073	1220				" " Shale Medium Light Gray Reacts to HCl
5063	1230				" " Silty Shale Medium Light Gray Reacts to HCl
5053	1240				" " Shale Olive Gray Reacts to HCl
5043	1250		Bit #7		" " Silty Shale Dark Greenish Gray Reacts to HCl
5033	1260				" " Silty Shale - Very Fine Sandstone Medium Gray Reacts to HCl
5023	1270				" " Silty Shale - Mudstone Medium Light Gray Reacts to HCl
5013	1280		Artesian flow greater than 2 G. P. M.		" " Silty Shale Olive Gray Reacts to HCl
5003	1290		Drill Rate 10 ft. / hr. Hard		" " Silty Shale Medium Light Gray Reacts to HCl
4993	1300				" "

ELEV.	DEPTH	LITHO.	D.S.	WATER	MIN.	CUTTINGS LITHOLOGIC DESCRIPTION / NOTES
4993	1300					Shale Yellowish Gray Reacts to HCl
4983	1310					" " " "
4973	1320					Silty Shale Yellowish Gray Reacts to HCl
4963	1330					" " " "
4953	1340					Silty Shale Yellowish Gray Reacts to HCl
4943	1350					" " " "
4933	1360					Mudstone Yellowish Gray Reacts to HCl
4923	1370					" " " "
4913	1380					Oil Shale Brownish Gray Reacts to HCl
4903	1390					" " " "
						Oil Shale Brownish Gray Reacts to HCl
						" " " "
						Shale Light Gray Reacts to HCl
						" " " "
						Oil Shale Brownish Gray Reacts to HCl
						" " " "
						Silty Shale Greenish Gray Reacts to HCl
						" " " "
						Shale Olive Gray Reacts to HCl
						" " " "

ELEV.	DEPTH	LITHO.	D.S.	WATER MIN.	CUTTINGS LITHOLOGIC DESCRIPTION/NOTES
4893	1420				Shale - Oil Shale Olive Gray Reacts to HCl "
4883	1410				Shale - Oil Shale Olive Gray Reacts to HCl "
4873	1420				Shale - Oil Shale Medium Light Gray Reacts to HCl "
4863	1430				Oil Shale Brownish Black Reacts to HCl "
4853	1440				Oil Shale Brownish Black Reacts to HCl "
4843	1450				Shale - Oil Shale Light Olive Gray Reacts to HCl "
4833	1460				Shale - Oil Shale Reacts to HCl Light Olive Gray "
4823	1470				Mudstone Medium Light Gray Reacts to HCl "
4813	1480				End of Rotary Drilling
4803	1490				

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1470					
1470-1471	1471					
	1472					
	1473					
	1474					
	1475					
	1476					
	1477		Artesian Flow greater than 2 G. P. M. ↓			
1477-1478	1478		Box 1, Run 1	↑	↑	Begin Coring Shale Gray & Blue Green 1/16" to 1/8" laminations Reacts to HCl Very Competent Horizontal bedding some 1/4" to 1/2" layers of oil shale " "
	1479					

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1480					Same as Above (Shale)
						"
						"
						"
						"
	1481					"
						"
						"
	1482					"
						Oil Shale
						Dark Grayish Brown
						1/16" to 1/8" Horizontal lamination
						React to HCl
	1483					Very Competent
						Shale, Blue-Greenish Gray
						Very Competent, Reacts to HCl
						Horizontal Bedding
						Oil Shale, DK. Gray. Brown, Comp
	1484			155	5	Shale
				1525		Medium grayish green
						1/16" to 1/8" lamination
						Reacts to HCl
	1485					Horizontal Bedding
						Very Competent
						"
						"
	1486					"
						"
						"
						Oil Shale
						olive Brown, Reacts to HCl
	1487					Competent, Horizontal Bed
						Shale
						Light greyish Green
						Disseminated, shortite crystals
	1488					1/16" to 1/8" lamination
						Horizontal Bedding
						Very Competent
						Reacts to HCl
						"
	1489					"
						Shale
						Medium to Dark grayish Green
						with dark greenish gray bands

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1490					Very Competent Reacts to HCl 1/4" to 2" banding
	1491					"
	1492					"
	1493					"
	1494	Run 2		X	X	Shale, Fair Competence gray to dark grayish green Reacts to HCl, Horizontal Bedding
	1495					Shale Light greenish gray
	1496					Shale gray and dark grayish green Horizontal Bedding Fair Competence Reacts to HCl
	1497	Box 3				"
	1498					"
	1499					"



FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1510					Reacts to HCl
						"
						"
						"
						"
	1511					"
						"
						"
						"
	1512					"
						"
						Same as Above (grayish green shale) with some brown
	1513					"
						Shale
						grayish green with greenish gray horizontal bedding, reacts to HCl
	1514			15.7	10 1553	Oil Shale, Reddish Brown Shale, grayish green, Reacts to HCl, Fair Competence Shale
	1515					Grayish Green with greenish gray Horizontal Bedding Fair Competence Reacts to HCl
						"
	1516					"
						"
						"
						"
						"
	1517					"
						Shale
						Greenish Gray
						Horizontal Bedding
	1518					Reacts to HCl ← 0.3 Trunc Fair Competence
						"
						Shale
						Fine Bedding to Massive
						Horizontal Bedding
	1519					Grayish green with greenish gray Reacts to HCl Fair Competence

Box 5

1510-1519

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1520					Same as Above (Shale)
						"
						"
						"
						"
	1521					"
						"
						"
						"
						Dark Grayish Brown Oil Shale
						Shale, grayish green to white
						← .04' St. - These
	1522					Shale
						grayish green
						Horizontal bedding
						Reacts to HCl
						Fair Competence
						"
						"
						"
						"
	1524	Run 4		X	X	Shale
						Greenish Gray with grayish green
						Horizontal Bedding
						Competent
						Reacts to HCl
	1525					"
						"
						"
						"
						"
						"
	1526	Box 6				"
						"
						"
						"
						"
						"
	1527					"
						"
						"
						"
						"
						"
						"
	1528					"
						"
						"
						"
						"
						"
	1529					"
						"
						"

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1530			15.1	6 14.78	Grayish green with greenish gray with some brown lamination Competent Reacts to HCl Horizontal Bedding
	1531					" " " " "
	1532					" " " " "
	1533					" Shale Gray & Dark grayish green bands Competent, Reacts to HCl Horizontal Bedding
	1534					Shale Greenish gray with grayish green and a hint of brown Horizontal Bedding Competent Reacts to HCl
	1535					" " " "
	1536					" Oil Shale Medium Brown with olive brown Horizontal Bedding Reacts to HCl Competent
	1537					Shale Dark grayish green with greenish gray, Competent, Reacts to HCl, Horizontal Bedding
	1538					Shale grayish green with greenish gray Competent, Horizontal Bedding
	1539			X	X	Shale Grayish Green & greenish gray Bands, Reacts to HCl Horizontal Bedding Fair Competence

Box 7

Run 5

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1540					Same as Above but darker " " " " " " " "
	1541					" " " " " " Oil Shale Olive Brown Horizontal Bedding Fair Competence Reacts to HCl " " " " " " " " " "
	1542					" " " " " " " " " " " "
	1543					" " " " " " " " " " " "
	1544					" " " "
	1545	Box 8		15.2	10 14.5	Shale Grayish green with white and brown laminations Horizontal Bedding Fair Competence Reacts to HCl " " " "
	1546					" " Oil Shale Olive Brown with greenish gray Fair Competence Horizontal Bedding Reacts to HCl " " " " " " " " " " " "
	1547					" " " " " " " " " " " "
	1548					" " " " " " " " " " " "
	1549					" " " " " " " " " " " "

CORE		LITHOLOGIC DESCRIPTION/NOTES		
FRA	DEP	TES	REC	
	1550			Same as Above (oil shale)
				"
				"
				"
				"
	1551			"
				"
				"
				"
				"
	1552			Shale
				grayish green with gray banding
				Horizontal Bedding
				Fair Competence
	1553			Reacts to HCl
				"
				"
				"
	1554	Run 6	X X	Shale
		Box 9		Greenish Gray
				Horizontal Bedding
				Reacts to HCl
				Very Competent
	1555			"
		Westvaco Bed #17		Trona
		↓		Translucent
				Golden Brown
	1556			Shale Stringers Throughout
				Strong reaction to HCl
				10.8' Trona
				1.55' Shale
				"
	1557			"
				"
				"
				"
				"
				"
	1558			"
				"
				"
				"
				"
	1559			"
				"
				"
				"
				"
	1560			"

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1560					Same as Above (Trona)
				14.72	14.78	"
						"
						"
						"
	1561					"
						"
						"
						"
	1562					"
						"
						"
						"
	1563					"
						"
						"
						"
	1564					"
						"
						"
						"
	1565					"
						"
						"
						"
	1566					"
						"
						"
						"
	1567					"
						"
						"
						"
	1568					Oil Shale Olive Brown 1/16" to 1/8" banding Horizontal Bedding Reacts to HCl Very Competent
	1569	Run 7		X	X	Same as Above (oil shale)
						"
						"
						"
						"



FRAG.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1580					Brown Oil Shale Massive to very fine horizontal band Disseminated shortite Reacts to HCl Fair Competence
	1581					Shale Light grayish green 1/16" to 1/4" horizontal bands Disseminated shortite crystals Reacts to HCl Fair Competence
	1582					Shale Greenish gray 1/16" to 1/2" banding Horizontal bedding ← as from
	1583					Disseminated shortite Reacts to HCl Fair Competence
	1584					" " " " "
	1585	Run 8		X	X	Shale Greenish Gray with light gray banding, 1/4" to 2" bands Disseminated shortite crystals Reacts to HCl
	1586					Horizontal Bedding Fair Competence " " "
	1587					" " " ← .4' Pyritic broken & incomplete " "
	1588					" " " " "
	1589					" " " " "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1590					Same as Above ( shale " Trona - mixed with shale Oil shale Light Brown to dark to light with depth Horizontal bedding 1/2" to 1" bands of gray in the thin bed Disseminated shortite crystals Reacts to HCl Fair Competence " " "
	1591					" " Shale Light greenish gray Horizontal Bedding Very Fine to Massive Bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1592					" " Shale Light greenish gray Horizontal Bedding Very Fine to Massive Bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1593					" " Shale Light greenish gray Horizontal Bedding Very Fine to Massive Bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1594			16.0	12 / 15.6	" " Shale Medium greenish gray, lighter with depth 1/16" to 1/8" banding Horizontal bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1595					" " Shale Medium greenish gray, lighter with depth 1/16" to 1/8" banding Horizontal bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1596					" " Shale Medium greenish gray, lighter with depth 1/16" to 1/8" banding Horizontal bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1597					" " Shale Medium greenish gray, lighter with depth 1/16" to 1/8" banding Horizontal bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1598					" " Shale Medium greenish gray, lighter with depth 1/16" to 1/8" banding Horizontal bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "
	1599					" " Shale Medium greenish gray, lighter with depth 1/16" to 1/8" banding Horizontal bedding Disseminated Shortite Crystals Reacts to HCl Fair Competence " " " "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1600					same as Above (Trona / Shale)
						Trona
	1601		Run 9	X	X	Golden Brown
						Trona
						Golden Brown
						Strong reaction to HCl
						Competent
						Horizontal Bedding
	1602					"
						"
						"
						"
						"
	1603					"
						Oil Shale
						Yellowish Brown + Grayish Brown
						lighter with depth
						1/8" to 1" banding
						Horizontal Bedding
						Reacts to HCl
						Competent
	1604					"
						"
						"
						"
						"
	1605					"
						"
						"
						"
						"
	1606					"
						"
						"
						"
						"
	1607					Shale
						Grayish green with light
						gray banding
						1/8" to 1/2" bands
						Horizontal bedding
						Reacts to HCl
						Competent
	1608					"
						"
						"
						"
						"
	1609					"
						"
						"
						"
						"
						"

15.3 9 / 15.3

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1610					Same as Above (Shale)
	1611					"
	1612					"
	1613					"
	1614					"
	1615					"
	1616					"
	1617					"
	1618					"
	1619					"

↓ Bed # 15  
Kern

Run 10

Same as Above (Shale)

Trona  
Golden Brown  
Violent reaction to HCl  
Horizontal Bedding  
Competent  
Shale zones thru-out ← .5' shale

← .4 Trona/shale

← .15 shale

Same as Above (Trona)

Oil Shale  
grayish brown  
Horizontal bedding  
Disseminated shortite  
Reacts to HCl  
bands of grayish green  
Competent

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1620					Same as Akers (Oil shale)
						"
						"
						"
						"
	1621					"
						"
						"
						"
						"
	1622					"
						"
						"
						"
						"
	1623					"
						"
						"
						"
						"
	1624					"
						"
						"
						"
						"
				15.8	9 15.5	"
	1625					"
						"
						"
						"
						"
	1626					"
						"
						"
						"
						"
	1627					Shale
						Grayish green
						1/4" to 1/2" banding
						Horizontal bedding
						Disseminated Siderite
	1628					Reacts to HCl
						Competent
						"
						"
						"
						"
	1629					"
						"
						"
						"
						"

FRAC	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1630					Same as Above (Shale)
	1631					"
	1632	Run 11		X	X	Oil Shale Olive brown to brown Horizontal bedding Disseminated Sph. Fe Reacts to HCl Competent
	1633					"
	1634					Shale Grayish green 1/2" to 2" banding Horizontal bedding Reacts to HCl Competent
	1635					"
	1636					"
	1637					"
	1638					"
	1639					"

FRAC.	DEPTH	CORE	TEST	REC.	MGR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1640					Same as Above (Shale) " ← .05 Trona " " " "
	1641					" " " " " "
	1642					" " " "
	1643	ASH				Ash Light Gray / White Broken up - Incompetent
		ASH				
	1644					Oil Shale Brown, Horizontal Bedding Competent, Reacts to HCl Shale grayish green Horizontal bedding Competent Reacts to HCl Disseminated Siderite " " " " "
	1645					
	1646					" " " " " "
	1647					" " "
		Run 12		X	X	Same as Above (Shale) " " " "
	1648	↑ Middle Wilkins Peak Member of Eocene Green River Formation				" " "
		↓ Bed 14				
	1649	↓ Duval I Lower Wilkins Peak Member of Green River Formation				Trona Golden Brown Horizontal Bedding Competent Violent reaction to HCl Shale stringers

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1650					Same as Above (Trona)
	1651					"
	1652					"
	1653					"
	1654					"
	1655					"
	1656					"
	1657					"
	1658					"
	1659					"



FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1670			15.9	13 / 15.8	Grayish Brown Oil Shale Disseminated Sphertite Reacts to HCl Fair Competence Horizontal Bedding
	1671					Shale Dark grayish green grading to lighter with depth Horizontal Bedding Reacts to HCl Fair to poor competence
	1672					" "
	1673					Shale Banded - light to dark grayish green 1" to 2" banding Horizontal Bedding Fair Competence Reacts to HCl
	1674					" "
	1675					" " " " "
	1676					" " " " "
	1677					" " " "
	1678					" " " "
	1679	Run 14		X	X	Oil Shale Brown Disseminated Sphertite Competent Horizontal Bedding Reacts to HCl

FRAC	DEPT	CORE	TEST	REC.	MCR.	LITHOLOGIC DESCRIPTION/NOTES
	1680					Trona Golden Brown Violent reaction to HCl Horizontal Bedding Shale stringers thru-out Competent
	1681					" " "
	1682					" " " "
	1683					" " " "
	1684			15.7	8 15.1	" " " " "
	1685					" " " " "
	1686					" " " " "
	1687					" " ← 20 ft " "
	1688					" Oil Shale ← Brown Disseminated Shertite Reacts to HCl
	1689					Horizontal Bedding Competent " " "
	1690					

## LITHOLOGIC DESCRIPTION/NOTES

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1690					Same as Above (Oil Shale)
	1691					Trona, Golden Brown Oil Shale
	1692					Disseminated Sphertite Horizontal Bedding Competent Reacts to HCl
	1693					
	1694					Shale grayish green Reacts to HCl, Competent Horizontal Bedding
	1695	Run 15				Shale Tan to gray Disseminated sphertite Reacts to HCl Fair Competence Horizontal Bedding
	1696					
	1697					Trona Golden Brown Reacts violently to HCl Fair Competence Horizontal Bedding Shale stringers
	1698					
	1699					

FRAC	DEPT	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1700					Same as Above (Trona) " " " "
	1701					" " Shale Greenish-Gray Disseminated / Shortite
	1702					Reacts to HCl Horizontal Bedding Fair to Poor Competence Lighter <sup>color</sup> at bottom feet of thorn
	1703					" " " "
	1704			15.9	17 15.5	" " " "
	1705					" " " "
	1706					" " " "
	1707					" " " "
	1708					" " " "
	1709					" " " "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1710					Same as Above (Shale) " " "
1711		Run 16		V	V	Shale Light grayish green, Fair Competence Reacts to HCl, Horizontal Bedding
1712						Shale Medium grayish green Disseminated Sphertite Reacts to HCl Fair Competence Horizontal Bedding
1713						" " " " "
1714						" " " " "
1715						" " " " "
1716						" " " " "
1717						" " " " "
1718						" " " " "
				16.0	15 15.45	" " "
1719						Trona Reacts violently to HCl Horizontal Bedding Fair Competence

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1720					Horizontal Bedding " " " "
	1721					" " " " <i>well bedded</i>
	1722					Shale Gray Green grading to light grayish green Disseminated Siderite Reacts to HCl Horizontal Bedding Fair Competence " " " "
	1723					" " " "
	1724					" " " "
	1725					" " " "
	1726					" " " "
	1727	Run 17				Same as Above (Shale) " " " "
	1728					" " " " " " "
	1729	Box 27				" " " Trona Reacts violently to HCl

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1730					Horizontal Bedding Fair Competence "
	1731					" "
	1732					Shale grayish green Disseminated Sphertite Horizontal Bedding Fair Competence Reacts to HCl "
	1733					" "
	1734			16.0	17 13.5	" "
	1735					Same as Above (Shale) "
	1736					" "
	1737					" "
	1738					" "
	1739					" "

Box 28

FRAG.	DEPTH	CORE	TEST	REC.	MCR.	LITHOLOGIC DESCRIPTION / NOTES
	1740					Same as Above (Shale)
	1741					"
	1742					"
	1743	Run. 18				"
	1744					Shale Grayish Green to Greenish gray Horizontal Bedding Competent Reacts to HCl
	1745					"
	1746					Shale Grayish green Disseminated Sphalerite Reacts to HCl Competent Horizontal Bedding
	1747					"
	1748	Box 29				Shale Grayish green Reacts to HCl Competent Horizontal Bedding
	1749					"

FRAC	DEPTH	CORE	TEST	REC.	MGR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1750				9 15.6 15.3	" Trona Reacts strongly to HCl Competent Horizontal Bedding
	1751					" Oil Shale Brown Horizontal Bedding Competent
	1752					Reacts to HCl " " "
	1753					" Shale Light grayish green, reacts to HCl Competent, Horizontal Bedding
	1754					Shale Medium grayish green Disseminated Shortite Reacts to HCl Horizontal Bedding Competent
	1755					" " " "
	1756					" " " "
	1757					Trona Reacts violently to HCl Horizontal Bedding Competent " "
	1758					" "
		Box 30 Run 19				Grayish Green Shale w/ Dissem Shortite
	1759					Trona Strong reaction to HCl Fair Competence Horizontal Bedding
						Oil Shale, Brown Fair Competence, Horizontal Bedding

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1760					Medium Greenish Gray Shale 1/16" to 1/4" banding Disseminated Siderite toward bottom of bed.
1761						Horizontal Bedding Fair Competence Reacts to HCl
1762						" " " " " "
1763						" " "
1764				16.0	15.0 14.0	Trona Poor Competence - broken up Reacts strongly to HCl Horizontal Bedding
1765						" " " " "
1766						" " " " "
1767						" " "
1768						Oil Shale Dark Grayish Brown 1/8" to 1/2" banding Horizontal Bedding Fair Competence Reacts to HCl
1769						Shale Medium greenish gray 1/16" to 1" banding " " " " " "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1770					Reacts to HCl Fair Competence "
	1771					" Shale Dark Grayish green with light bands 1/4" to 1/2" banding Disseminated Siderite Reacts to HCl, Horizontal Bedding
	1772					Trona + Shale interbedded Grayish Green, Dissem. Siderite 2.0' Trona with shale stringers Strong reaction to HCl Fair Competence Horizontal Bedding "
	1773					" "
	1774					" 2.6' Trona - as Above "
	1775					" "
	1776					" ".025 shale ".05 shale ".1 shale "
	1777					Oil shale Brown to olive with depth 1/8" to 1/4" banding Horizontal bedding Reacts to HCl Competent "
	1778					" "
	1779					" "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1780					same as above (oil shale) " " Shale Light brownish green 1/16" to 1/8" lamination Horizontal bedding Reacts to HCl, Competent Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1781					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1782					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1783					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1784					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1785					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1786					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1787					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1788					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "
	1789					Shale Light to medium grayish green 1/4" to 1/2" banding Horizontal bedding Reacts to HCl Competent " " " "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION / NOTES
	1790					Oil Shale Yellowish brown 1/8" laminations Horizontal bedding Competent Reacts to HCl
	1791					" " Shale Light with dark greenish gray bands 1/4" to 1/2" banding Horizontal bedding Competent Reacts to HCl
	1792					Shale Dark with light greenish gray bands 1/16" to 1/8" laminations Reacts to HCl Competent Horizontal bedding
	1793					" " " " " " " "
	1794				8 15.6/155	" " " " " " "
	1795					" " " " " " "
	1796	Box 34				Shale Medium to light grayish green 1/8" to 1/4" banding Horizontal bedding Competent Reacts to HCl
	1797					Shale Light greenish gray 1/16" to 1/8" horizontal laminations
	1798					Shale Medium with light gray bands 1/16" to 1/8" laminations Competent Reacts to HCl Horizontal Bedding
	1799					" " " " " " "

FRAC.	DEPTH	CORE	TEST	REC.	MCR.	CORE LITHOLOGIC DESCRIPTION/NOTES
	1800					Shale Dark grayish green with light 1/8" to 1/4" banding Horizontal bedding Reacts to HCl Competent
	1801					Disseminated Sphurite " " " " "
	1802					" " " " "
	1803					Oil Shale Yellowish brown with lighter banding 1/16" to 2" Reacts to HCl Competent
	1804					Horizontal bedding " " "
	1805			✓	✓	End of Core + Total Depth of Hole
	1806					
	1807					
	1808					
	1809					



P.O. Box 1167  
Green River, Wyoming 82935

March 11, 1981

Dr. Dan Miller  
State Geologist  
P. O. Box 3008, University Station  
Wyoming Geological Survey Building  
Laramie, Wyoming 82071

Dear Sir:

In accordance with W.S. 36-74.1, attached, please find copies of all applicable subsurface logs associated with drill hole no. T-36-5. The hole was drilled on state section 36, T18N, R110W, 6th PM, Sweetwater County, Wyoming in 1978 for Tenneco Minerals Company in conjunction with the development of their Soda Ash Project.

A summary of pertinent information is provided in the drill hole log. Also, approximate location of T-36-5 is shown on drawing SL-001.

If additional information is required, feel free to contact us at any time.

Very truly yours,

*L. V. Waller*  
L. V. Waller  
Senior Mine Engineer

LVW:tas

Attachment

cc: D. R. Delling (w/o attachment)  
L. H. E. Weyher (w/o attachment)