

Mercury injection capillary pressure data from selected wells in the NPRA, Alaska as follows:

U. S. Navy Ikpikpak No. 1 core (7,369'-7,370'), cuttings (7,430'-7,480') and sidewall core (7,474');

Husky Oil NPR Operations (U. S. G. S.) South Meade No. 1 cuttings (6,700'-6,710');

ARCO Alaska Inc. Brontosaurus No. 1 cuttings (4,340'-4,370') and core (4,397'-4,404');

Husky Oil NPR Operations (U. S. G. S.) Walakpa No. 1 core (2,035'-2,078.2'); and

Husky Oil NPR Operations (U. S. G. S.) Walakpa No. 2 cuttings (2,580'-2,610') and core (2,611'-2,635').



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Total of 55 pages in report

Alaska Geologic Materials Center Data Report No. 350

1

Ikpikpuk-1

2

South Meade-1

3

Brontosaurus-1

4

Walakpa-1

5

Walakpa-2

Sample No.	Well	Depth	Material
1	Ikpikpuk-1	7369 Ft	Core
2	Ikpikpuk-1	7370 Ft	Core
3	Ikpikpuk-1	7430-80 Ft	combined cuttings
4	Ikpikpuk-1	7430-80 Ft	combined cuttings
5	Ikpikpuk-1	7474 Ft	SWC
6	South Meade-1	6700-10 Ft	cuttings
7	Brontosaurus-1	4340-70 Ft	combined cuttings
8	Brontosaurus-1	4397 Ft	core
9	Brontosaurus-1	4400 Ft	core
10	Brontosaurus-1	4403 Ft	core
11	Brontosaurus-1	4404 Ft	core
12	Walakpa-1	2038 Ft	core
13	Walakpa-1	2035 Ft	core
14	Walakpa-1	2037 Ft	core
15	Walakpa-1	2069.8 Ft	core
16	Walakpa-1	2074 Ft	core
17	Walakpa-1	2075 Ft	core
18	Walakpa-1	2078.2 Ft	core
19	Walakpa-2	2580-90 Ft	cuttings
19B	Walakpa-2	2600-10 Ft	cuttings
20	Walakpa-2	2611-15 Ft	core
21	Walakpa-2	2615-20 Ft	core
22	Walakpa-2	2620-25 Ft	core
23	Walakpa-2	2630-35 Ft	core



**TABLE 1
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Ikpikuk-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 7369 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	7.607
Corrected sample porosity (fraction):	0.034
Grain Density (g/cc):	2.65
Conformance Correction Vol. (cc):	0.132
Total Pore Surface Area (m ²):	72.81
Median Pore Diameter (micron):	0.007
Conformance Correction (percent of P.V.):	55.3%
* Threshold Pressure (kPa):	33361.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 2
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Ikpikuk-1

Air Permeability : n/a mD

Core Depth: 7369 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
33.361	7.705	1.0000	0.0	0.00
38.421	8.873	0.9857	0.0	119.11
47.337	10.932	0.9643	0.0	329.01
59.111	13.651	0.9357	0.0	606.19
73.027	16.865	0.9000	0.0	933.81
90.633	20.931	0.8571	0.0	1348.29
112.838	26.060	0.8000	0.0	1871.04
137.218	31.690	0.7357	0.0	2444.98
171.571	39.624	0.6214	0.01	3253.72
206.020	47.580	0.5000	0.01	4064.72
240.36	55.510	0.4071	0.01	4873.11
274.72	63.445	0.3000	0.00	5681.97
309.47	71.470	0.2071	0.00	6500.03
343.83	79.407	0.1286	0.00	7309.1
378.10	87.322	0.0571	0.00	8115.9
404.05	93.314	0.0000	0.003	8726.7



**TABLE 3
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Ikpikpuk-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 7370 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	6.374
Corrected sample porosity (fraction):	0.025
Grain Density (g/cc):	2.67
Conformance Correction Vol. (cc):	0.200
Total Pore Surface Area (m ²):	44.28
Median Pore Diameter (micron):	0.007
Conformance Correction (percent of P.V.):	74.7%
* Threshold Pressure (kPa):	24826.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 4
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Ikpikpuk-1

Air Permeability : n/a mD

Core Depth: 7370 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
24.826	5.734	1.0000	0.056	0.00
33.475	7.731	0.9906	0.044	203.61
38.517	8.895	0.9717	0.035	322.3
47.377	10.941	0.9528	0.029	530.9
59.151	13.661	0.9151	0.024	808.1
72.759	16.804	0.8774	0.019	1128.4
90.576	20.918	0.8208	0.016	1547.9
112.700	26.028	0.7642	0.012	2069
137.390	31.730	0.6887	0.010	2650
171.587	39.628	0.5755	0.008	3455
206.41	47.670	0.4717	0.007	4275
240.36	55.510	0.3868	0.006	5074
275.17	63.550	0.2925	0.005	5894
309.49	71.476	0.2075	0.004	6702
343.90	79.423	0.1321	0.004	7512
377.66	87.219	0.0566	0.004	8306
403.56	93.201	0.0000	0.003	8916



**TABLE 5
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Ikpikuk-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 7430-80 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	1.205
Corrected sample porosity (fraction):	0.034
Grain Density (g/cc):	2.64
Conformance Correction Vol. (cc):	0.086
Total Pore Surface Area (m ²):	11.11
Median Pore Diameter (micron):	0.009
Conformance Correction (percent of P.V.):	81.8%
* Threshold Pressure (kPa):	24869.9
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 6
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Ikpikpuk-1

Core Depth: 7430-80 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
24.87	5.744	1.0000	0.056	0.00
33.26	7.681	0.9811	0.044	197.5
38.48	8.886	0.9623	0.035	320.3
47.39	10.945	0.9182	0.029	530.2
59.32	13.699	0.8742	0.024	810.9
72.76	16.804	0.8239	0.019	1127.5
90.80	20.971	0.7484	0.015	1552.2
112.9	26.065	0.6730	0.012	2071.5
137.3	31.720	0.5786	0.010	2647.9
171.7	39.653	0.4654	0.008	3456.6
206.3	47.643	0.3774	0.007	4271.1
240.8	55.611	0.2893	0.006	5083.3
275.2	63.548	0.2201	0.005	5892.4
309.7	71.533	0.1572	0.004	6706.4
343.5	79.326	0.1006	0.004	7500.7
377.5	87.194	0.0440	0.004	8302.8
403.9	93.276	0.0000	0.003	8922.7

**TABLE 7
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Ikpikpuk-1

Core Depth: 7430-80 ft

Routine Core Analysis Air Permeability : n/a mD

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	1.105
Corrected sample porosity (fraction):	0.076
Grain Density (g/cc):	2.57
Conformance Correction Vol. (cc):	0.081
Total Pore Surface Area (m ²):	4.58
Median Pore Diameter (micron):	0.687
Conformance Correction (percent of P.V.):	66.0%
* Threshold Pressure (kPa):	433.6
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	6.9%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	36.5%
Micropores (pore throat dia. < 1.0 microns):	56.7%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 8
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Ikpikpuk-1

Core Depth: 7430-80 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.434	0.100	1.0000	4.671	0.000
0.540	0.125	0.8942	2.593	2.498
0.644	0.149	0.8201	2.123	4.963
0.794	0.183	0.7381	1.753	8.473
0.981	0.227	0.6720	1.421	12.89
1.24	0.285	0.6085	1.140	18.88
1.54	0.356	0.5582	0.909	26.06
1.90	0.440	0.5159	0.732	34.60
2.32	0.535	0.4815	0.597	44.33
2.94	0.679	0.4444	0.481	59.01
3.66	0.845	0.4127	0.383	75.90
4.47	1.033	0.3862	0.310	95.14
5.57	1.285	0.3624	0.251	120.8
6.83	1.577	0.3386	0.203	150.6
8.43	1.946	0.3175	0.165	188.2
10.45	2.413	0.2937	0.134	235.8
13.07	3.020	0.2725	0.107	297.6
16.43	3.79	0.2487	0.0856	376.6
20.04	4.63	0.2302	0.0691	461.5
24.79	5.73	0.2090	0.0563	573.5
33.35	7.70	0.1984	0.0438	774.8
38.45	8.88	0.1852	0.0349	894.9
47.34	10.93	0.1667	0.0294	1104.4
59.60	13.76	0.1481	0.0236	1393
72.98	16.86	0.1323	0.0190	1708
90.66	20.94	0.1164	0.0154	2124
112.9	26.08	0.1032	0.0124	2649
137.5	31.76	0.0899	0.0101	3227
171.5	39.61	0.0741	0.0082	4028
206.1	47.59	0.0608	0.0067	4841
240.4	55.51	0.0503	0.0056	5648
275.0	63.51	0.0397	0.0049	6464
310.0	71.60	0.0291	0.0043	7288
343.6	79.35	0.0185	0.0038	8079
378.2	87.35	0.0079	0.0035	8894
403.6	93.21	0.0000	0.0032	9491

**TABLE 9
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Ikpikpuk-1

Core Depth: 7474 ft

Routine Core Analysis Air Permeability : n/a mD
 Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	0.436
Corrected sample porosity (fraction):	0.215
Grain Density (g/cc):	2.77
Conformance Correction Vol. (cc):	0.008
Total Pore Surface Area (m ²):	4.34
Median Pore Diameter (micron):	0.971
Conformance Correction (percent of P.V.):	15.5%
* Threshold Pressure (kPa):	192.9
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	14.6%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	30.9%
Micropores (pore throat dia. < 1.0 microns):	54.4%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 10
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Ikpikpuk-1

Core Depth: 7474 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.193	0.045	1.0000	6.853	0.00
0.297	0.069	0.9702	5.335	2.44
0.371	0.086	0.9192	3.782	4.20
0.446	0.103	0.8596	3.078	5.95
0.550	0.127	0.7894	2.533	8.40
0.649	0.150	0.7346	2.096	10.7
0.815	0.188	0.6606	1.726	14.7
0.969	0.224	0.6087	1.408	18.3
1.231	0.284	0.5481	1.150	24.4
1.532	0.354	0.4990	0.914	31.5
1.918	0.443	0.4548	0.732	40.6
2.33	0.538	0.4212	0.593	50.3
2.97	0.687	0.3837	0.478	65.5
3.66	0.845	0.3548	0.380	81.6
4.46	1.031	0.3317	0.310	101
5.53	1.276	0.3077	0.253	126
6.80	1.571	0.2856	0.205	156
8.46	1.953	0.2635	0.165	195
10.46	2.417	0.2452	0.133	242
13.07	3.018	0.2250	0.107	303
16.42	3.791	0.2058	0.086	382
20.04	4.629	0.1904	0.069	467
24.93	5.758	0.1740	0.0561	582
33.46	7.728	0.1644	0.0436	783
38.46	8.883	0.1558	0.0348	901
47.38	10.94	0.1413	0.0294	1111
59.21	13.68	0.1269	0.0237	1389
72.96	16.85	0.1135	0.0191	1713
90.59	20.92	0.1038	0.0154	2128
112.8	26.05	0.0913	0.0124	2651
137.6	31.79	0.0788	0.0101	3236
171.6	39.63	0.0663	0.0082	4035
206.2	47.63	0.0558	0.0067	4850
240.5	55.54	0.0452	0.0056	5657
275.5	63.62	0.0356	0.0049	6480
309.1	71.39	0.0269	0.0043	7272
343.9	79.43	0.0163	0.0038	8092
378.6	87.44	0.0077	0.0035	8908
404.7	93.45	0.0000	0.0032	9522

TABLE 11
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY

Well Location: South Meade-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 6700-10 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	2.980
Corrected sample porosity (fraction):	0.041
Grain Density (g/cc):	2.70
Conformance Correction Vol. (cc):	0.131
Total Pore Surface Area (m ²):	20.31
Median Pore Diameter (micron):	0.015
Conformance Correction (percent of P.V.):	71.0%
* Threshold Pressure (kPa):	358.1
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	1.7%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	6.1%
Micropores (pore throat dia. < 1.0 microns):	92.2%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



TABLE 12
MERCURY INJECTION CAPILLARY PRESSURE DATA

Well Location: South Meade-1

Air Permeability : n/a mD

Core Depth: 6700-10 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.358	0.083	1.0000	4.975	0.00
0.444	0.103	0.9888	3.146	2.02
0.542	0.125	0.9777	2.555	4.33
0.637	0.147	0.9665	2.129	6.57
0.799	0.184	0.9553	1.760	10.4
0.976	0.225	0.9441	1.420	14.5
1.22	0.283	0.9274	1.148	20.4
1.54	0.355	0.9106	0.915	27.8
1.88	0.435	0.8939	0.737	35.9
2.32	0.536	0.8827	0.600	46.2
2.94	0.678	0.8659	0.481	60.7
3.64	0.840	0.8492	0.384	77.2
4.45	1.03	0.8324	0.312	96.2
5.55	1.28	0.8212	0.253	122
6.85	1.58	0.8045	0.203	153
8.50	1.96	0.7877	0.164	192
10.5	2.42	0.7709	0.133	238
13.1	3.03	0.7542	0.107	300
16.5	3.80	0.7374	0.086	379
20.0	4.62	0.7207	0.069	463
24.9	5.76	0.6983	0.056	578
33.4	7.72	0.6816	0.044	778
38.5	8.88	0.6648	0.0349	897
47.4	10.94	0.6425	0.0294	1107
59.1	13.65	0.6089	0.0237	1383
72.8	16.82	0.5698	0.0191	1706
90.6	20.92	0.5140	0.0154	2124
112.7	26.04	0.4469	0.0124	2646
137.4	31.72	0.3687	0.0101	3225
171.7	39.65	0.2849	0.0082	4034
206.0	47.58	0.2123	0.0067	4842
240.4	55.53	0.1676	0.0056	5652
275.6	63.66	0.1173	0.0049	6481
309.7	71.52	0.0838	0.0043	7282
343.5	79.34	0.0503	0.0038	8079
378.1	87.32	0.0168	0.0035	8893
403.6	93.20	0.0000	0.0032	9492

**TABLE 13
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Brontosaurus-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 4340-70 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	2.490
Corrected sample porosity (fraction):	0.032
Grain Density (g/cc):	2.64
Conformance Correction Vol. (cc):	0.133
Total Pore Surface Area (m ²):	20.91
Median Pore Diameter (micron):	0.008
Conformance Correction (percent of P.V.):	79.1%
* Threshold Pressure (kPa):	24915.8
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 14
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Brontosaurus-1

Core Depth: 4340-70 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
24.92	5.754	1.0000	0.056	0.00
33.60	7.760	0.9716	0.044	204.5
38.52	8.895	0.9504	0.035	320.2
47.39	10.94	0.9078	0.029	529.0
59.16	13.66	0.8652	0.024	806.1
72.97	16.85	0.8156	0.019	1131.2
90.69	20.94	0.7589	0.015	1548
112.58	26.00	0.6950	0.012	2064
137.61	31.78	0.6170	0.010	2653
171.93	39.71	0.4965	0.008	3461
206.4	47.66	0.3901	0.007	4271
241.1	55.68	0.2908	0.006	5089
275.2	63.55	0.2199	0.005	5891
310.9	71.80	0.1418	0.004	6732
343.6	79.36	0.0851	0.004	7503
378.0	87.29	0.0284	0.004	8311
404.6	93.45	0.0000	0.003	8939

**TABLE 15
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Brontosaurus-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 4397 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	5.684
Corrected sample porosity (fraction):	0.095
Grain Density (g/cc):	2.72
Conformance Correction Vol. (cc):	0.023
Total Pore Surface Area (m ²):	31.43
Median Pore Diameter (micron):	0.251
Conformance Correction (percent of P.V.):	9.3%
* Threshold Pressure (kPa):	1231.1
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.3%
Micropores (pore throat dia. < 1.0 microns):	99.7%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 16
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Brontosaurus-1

Core Depth: 4397 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
1.23	0.284	1.0000	1.137	0.00
1.56	0.359	0.9770	0.907	7.63
1.91	0.441	0.9386	0.727	16.0
2.31	0.535	0.8798	0.596	25.5
2.92	0.674	0.7877	0.483	39.7
3.62	0.837	0.6931	0.386	56.3
4.41	1.018	0.5934	0.314	74.8
5.50	1.271	0.5038	0.255	100.6
6.84	1.580	0.4629	0.204	132.0
8.42	1.945	0.4297	0.165	169.3
10.49	2.423	0.3964	0.134	218.0
13.12	3.031	0.3657	0.107	280.0
16.45	3.800	0.3350	0.085	358.4
20.09	4.640	0.3095	0.069	444
24.92	5.756	0.2839	0.056	558
33.61	7.762	0.2685	0.044	762
38.52	8.897	0.2506	0.035	878
47.39	10.95	0.2251	0.029	1087
59.16	13.66	0.2020	0.024	1364
72.97	16.85	0.1816	0.019	1689
90.70	20.95	0.1611	0.015	2106
112.6	26.00	0.1432	0.012	2621
137.6	31.78	0.1253	0.010	3211
171.9	39.71	0.0972	0.0082	4019
206.4	47.66	0.0716	0.0066	4829
241.1	55.68	0.0537	0.0056	5647
275.2	63.55	0.0409	0.0049	6449
310.9	71.80	0.0256	0.0043	7290
343.6	79.36	0.0179	0.0038	8061
378.0	87.29	0.0077	0.0035	8869
404.6	93.45	0.0000	0.0032	9497

**TABLE 17
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Brontosaurus-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 4400 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	14.030
Corrected sample porosity (fraction):	0.085
Grain Density (g/cc):	2.66
Conformance Correction Vol. (cc):	0.032
Total Pore Surface Area (m ²):	38.68
Median Pore Diameter (micron):	0.297
Conformance Correction (percent of P.V.):	6.1%
* Threshold Pressure (kPa):	1533.0
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 18
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Brontosaurus-1

Core Depth: 4400 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
1.533	0.354	1.0000	0.919	0.00
1.884	0.435	0.9830	0.738	8.26
2.282	0.527	0.9405	0.604	17.6
2.962	0.684	0.6884	0.484	33.6
3.635	0.840	0.5807	0.382	49.5
4.424	1.022	0.5156	0.313	68.1
5.495	1.269	0.4589	0.254	93.3
6.843	1.580	0.4108	0.205	125
8.308	1.919	0.3739	0.166	160
10.41	2.403	0.3343	0.135	209
13.08	3.022	0.2975	0.108	272
16.36	3.779	0.2635	0.086	349
20.08	4.639	0.2323	0.069	437
24.84	5.737	0.2040	0.056	549
33.37	7.706	0.1756	0.044	749
38.48	8.888	0.1615	0.035	870
47.46	10.96	0.1388	0.029	1081
59.10	13.65	0.1133	0.024	1355
72.89	16.83	0.0935	0.019	1680
90.71	20.95	0.0737	0.015	2099
112.5	25.99	0.0567	0.012	2613
137.7	31.80	0.0453	0.010	3206
171.6	39.64	0.0312	0.0082	4005
206.2	47.62	0.0227	0.0067	4818
240.7	55.60	0.0142	0.0056	5632
276.2	63.79	0.0113	0.0048	6466
310.1	71.62	0.0057	0.0043	7265
344.3	79.52	0.0028	0.0038	8070
378.2	87.34	0.0028	0.0035	8867
403.7	93.24	0.0000	0.0032	9468

**TABLE 19
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Brontosaurus-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 4403 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	16.138
Corrected sample porosity (fraction):	0.074
Grain Density (g/cc):	2.67
Conformance Correction Vol. (cc):	0.013
Total Pore Surface Area (m ²):	56.14
Median Pore Diameter (micron):	0.144
Conformance Correction (percent of P.V.):	2.6%
* Threshold Pressure (kPa):	2283.5
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 20
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Brontosaurus-1

Air Permeability : n/a mD

Core Depth: 4403 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
2.28	0.527	1.0000	0.604	0.00
2.97	0.685	0.9866	0.483	16.1
3.64	0.841	0.9463	0.381	32.0
4.43	1.023	0.8792	0.312	50.5
5.50	1.270	0.7785	0.254	75.7
6.85	1.581	0.6409	0.204	107
8.31	1.920	0.5537	0.166	142
10.41	2.404	0.4631	0.135	191
13.09	3.022	0.3993	0.108	254
16.36	3.779	0.3557	0.086	332
20.09	4.639	0.3188	0.069	419
24.84	5.737	0.2886	0.056	531
33.37	7.706	0.2550	0.044	732
38.49	8.888	0.2349	0.035	852
47.46	10.961	0.2047	0.029	1064
59.10	13.649	0.1711	0.024	1338
72.89	16.83	0.1443	0.019	1662
90.71	20.95	0.1141	0.015	2082
112.55	25.99	0.0906	0.012	2596
137.70	31.80	0.0705	0.010	3188
171.6	39.64	0.0503	0.008	3987
206.2	47.62	0.0369	0.007	4801
240.7	55.60	0.0268	0.0056	5614
276.2	63.79	0.0168	0.0048	6449
310.1	71.62	0.0101	0.0043	7247
344.3	79.52	0.0067	0.0038	8053
378.2	87.34	0.0034	0.0035	8850
403.7	93.24	0.0000	0.0032	9451



**TABLE 21
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Brontosaurus-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 4404 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	8.257
Corrected sample porosity (fraction):	0.100
Grain Density (g/cc):	2.68
Conformance Correction Vol. (cc):	0.031
Total Pore Surface Area (m ²):	35.81
Median Pore Diameter (micron):	0.312
Conformance Correction (percent of P.V.):	8.3%
* Threshold Pressure (kPa):	1233.0
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.7%
Micropores (pore throat dia. < 1.0 microns):	99.3%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.

**TABLE 22
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Brontosaurus-1

Air Permeability : n/a mD

Core Depth: 4404 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
1.23	0.285	1.0000	1.135	0.00
1.54	0.355	0.9809	0.911	7.19
1.88	0.434	0.9306	0.737	15.2
2.29	0.529	0.8278	0.604	24.9
2.90	0.669	0.6651	0.487	39.2
3.62	0.836	0.5742	0.388	56.2
4.46	1.029	0.5000	0.312	75.9
5.57	1.286	0.4522	0.252	102
6.82	1.576	0.4163	0.203	132
8.49	1.962	0.3804	0.165	171
10.59	2.446	0.3469	0.132	220
13.29	3.069	0.3158	0.106	284
16.46	3.800	0.2895	0.085	358
20.17	4.658	0.2632	0.069	446
24.94	5.760	0.2392	0.056	558
33.28	7.686	0.2153	0.044	754
38.53	8.898	0.2010	0.035	878
47.34	10.93	0.1818	0.029	1086
59.18	13.67	0.1579	0.024	1364
72.87	16.83	0.1364	0.019	1686
90.7	20.94	0.1124	0.015	2105
112.8	26.05	0.0933	0.012	2626
137.3	31.72	0.0742	0.0101	3204
171.8	39.68	0.0574	0.0082	4015
206.9	47.77	0.0431	0.0066	4841
241.2	55.71	0.0311	0.0056	5649
274.6	63.41	0.0215	0.0049	6435
308.9	71.34	0.0144	0.0043	7243
343.1	79.23	0.0072	0.0038	8047
377.4	87.15	0.0024	0.0035	8855
405.1	93.55	0.0000	0.0032	9507



**TABLE 23
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2038 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	9.162
Corrected sample porosity (fraction):	0.090
Grain Density (g/cc):	2.62
Conformance Correction Vol. (cc):	0.052
Total Pore Surface Area (m ²):	188.61
Median Pore Diameter (micron):	0.009
Conformance Correction (percent of P.V.):	13.0%
* Threshold Pressure (kPa):	33363.6
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 24
MERCURY INJECTION CAPILLARY PRESSURE DRAINAGE CYCLE DATA**

Well Location: Walakpa-1

Air Permeability : n/a mD

Core Depth: 2038 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
33.364	7.705	1.0000	0.044	0.00
38.423	8.874	0.9922	0.035	119.1
47.339	10.933	0.9765	0.029	329.0
59.113	13.652	0.9556	0.024	606.2
73.029	16.866	0.9269	0.019	933.8
90.634	20.932	0.8721	0.015	1348.3
112.839	26.060	0.7520	0.012	1871
137.217	31.690	0.5875	0.010	2445
171.568	39.623	0.3812	0.008	3254
206.02	47.579	0.2480	0.007	4065
240.35	55.509	0.1723	0.006	4873
274.71	63.444	0.1175	0.005	5682
309.46	71.469	0.0757	0.004	6500
343.83	79.405	0.0444	0.004	7309
378.10	87.320	0.0183	0.004	8116
404.04	93.313	0.0000	0.003	8727



**TABLE 25
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2035 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	8.609
Corrected sample porosity (fraction):	0.083
Grain Density (g/cc):	2.59
Conformance Correction Vol. (cc):	0.048
Total Pore Surface Area (m ²):	177.16
Median Pore Diameter (micron):	0.009
Conformance Correction (percent of P.V.):	13.6%
* Threshold Pressure (kPa):	33337.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 26
MERCURY INJECTION CAPILLARY PRESSURE DRAINAGE CYCLE DATA**

Well Location: Walakpa-1

Core Depth: 2035 ft

Air Permeability : n/a mD

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
33.337	7.699	1.0000	0.044	0.00
38.444	8.878	0.9888	0.035	120.2
47.406	10.948	0.9692	0.029	331.2
59.229	13.679	0.9440	0.024	609.5
72.786	16.810	0.9104	0.019	928.7
90.712	20.950	0.8515	0.015	1350.7
112.525	25.987	0.7619	0.012	1864
137.400	31.732	0.6246	0.010	2450
171.558	39.621	0.4510	0.008	3254
205.86	47.544	0.3277	0.007	4062
240.32	55.502	0.2437	0.006	4873
274.66	63.433	0.1681	0.005	5681
309.32	71.437	0.1092	0.004	6497
343.35	79.295	0.0644	0.004	7298
377.86	87.265	0.0252	0.004	8111
403.20	93.118	0.0000	0.003	8707



**TABLE 27
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2037 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	11.327
Corrected sample porosity (fraction):	0.086
Grain Density (g/cc):	2.60
Conformance Correction Vol. (cc):	0.066
Total Pore Surface Area (m ²):	217.33
Median Pore Diameter (micron):	0.010
Conformance Correction (percent of P.V.):	13.6%
* Threshold Pressure (kPa):	16416.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 28
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-1

Air Permeability : n/a mD

Core Depth: 2037 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
16.416	3.791	1.0000	0.085	0.00
20.145	4.652	0.9918	0.069	87.8
24.843	5.737	0.9837	0.056	198.4
33.337	7.699	0.9755	0.044	398.3
38.443	8.878	0.9646	0.035	518.5
47.405	10.948	0.9482	0.029	729.5
59.228	13.679	0.9237	0.024	1008
72.785	16.810	0.8937	0.019	1327
90.710	20.949	0.8311	0.015	1749
112.52	25.987	0.7193	0.012	2263
137.40	31.732	0.5450	0.010	2848
171.55	39.620	0.3542	0.008	3652
205.86	47.543	0.2480	0.007	4460
240.32	55.501	0.1798	0.006	5271
274.66	63.432	0.1253	0.005	6080
309.32	71.436	0.0845	0.004	6896
343.34	79.29	0.0490	0.004	7696
377.85	87.26	0.0191	0.004	8509
403.20	93.12	0.0000	0.003	9106

**TABLE 29
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2069.8 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	17.579
Corrected sample porosity (fraction):	0.184
Grain Density (g/cc):	2.60
Conformance Correction Vol. (cc):	0.076
Total Pore Surface Area (m ²):	52.21
Median Pore Diameter (micron):	5.119
Conformance Correction (percent of P.V.):	4.7%
* Threshold Pressure (kPa):	110.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	54.8%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	11.1%
Micropores (pore throat dia. < 1.0 microns):	34.1%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.

**TABLE 30
MERCURY INJECTION CAPILLARY PRESSURE DATA**

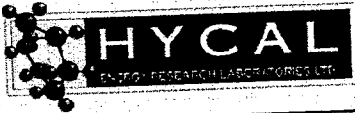
Well Location: Walakpa-1

Air Permeability : n/a mD

Core Depth: 2069.8 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure	Derived Air / Water Capillary Pressure	Wetting Phase Saturation	Pore Throat Diameter	Height of Transition
(MPa)	(MPa)	(fraction)	(Microns)	(m)
0.110	0.025	1.0000	12.60	0.00
0.138	0.032	0.9829	10.17	0.65
0.172	0.040	0.7451	8.146	1.45
0.193	0.045	0.6251	6.854	1.94
0.290	0.067	0.5120	5.384	4.23
0.365	0.084	0.4731	3.860	5.99
0.425	0.098	0.4526	3.176	7.41
0.529	0.122	0.4263	2.646	9.85
0.626	0.145	0.4080	2.175	12.1
0.802	0.185	0.3829	1.773	16.3
0.971	0.224	0.3646	1.420	20.3
1.222	0.282	0.3417	1.153	26.2
1.524	0.352	0.3211	0.919	33.3
1.876	0.433	0.3017	0.742	41.6
2.284	0.527	0.2834	0.605	51.2
2.890	0.667	0.2583	0.489	65.4
3.623	0.837	0.2354	0.388	82.7
4.411	1.019	0.2171	0.313	101
5.50	1.270	0.1977	0.255	127
6.84	1.581	0.1783	0.205	159
8.43	1.948	0.1634	0.165	196
10.5	2.424	0.1463	0.133	244
13.2	3.055	0.1291	0.1065	309
16.4	3.786	0.1154	0.0852	383
20.0	4.617	0.1017	0.0692	468
24.8	5.738	0.0869	0.0563	582
33.4	7.721	0.0789	0.0437	784
38.6	8.918	0.0709	0.0348	906
47.4	10.94	0.0606	0.0293	1113
59.3	13.70	0.0491	0.0237	1394
73.0	16.87	0.0400	0.0190	1717
90.7	20.96	0.0320	0.0154	2134
113.3	26.17	0.0240	0.0124	2665
137.4	31.74	0.0194	0.0100	3233
171.9	39.71	0.0137	0.0082	4045
206.1	47.59	0.0091	0.0067	4849
241.0	55.65	0.0080	0.0056	5671
274.5	63.39	0.0034	0.0049	6459
311.1	71.85	0.0034	0.0043	7321
343.6	79.34	0.0023	0.0038	8085
377.5	87.18	0.0000	0.0035	8884
405.1	93.56	0.0000	0.0032	9535



**TABLE 31
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD
 Routine Core Analysis Porosity (fraction): n/a

Core Depth: 2074 ft

Mercury Injection Test Sample Data	
Sample Weight (g):	17.978
Corrected sample porosity (fraction):	0.163
Grain Density (g/cc):	2.56
Conformance Correction Vol. (cc):	0.076
Total Pore Surface Area (m ²):	40.99
Median Pore Diameter (micron):	4.733
Conformance Correction (percent of P.V.):	5.2%
* Threshold Pressure (kPa):	110.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	53.9%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	11.5%
Micropores (pore throat dia. < 1.0 microns):	34.6%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 32
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-1

Air Permeability : n/a mD

Core Depth: 2074 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.110	0.025	1.0000	12.595	0.00
0.138	0.032	0.9675	10.175	0.65
0.172	0.040	0.8273	8.146	1.45
0.193	0.045	0.6753	6.854	1.94
0.291	0.067	0.5312	5.376	4.25
0.366	0.085	0.4870	3.847	6.01
0.426	0.098	0.4623	3.168	7.43
0.530	0.122	0.4338	2.640	9.87
0.627	0.145	0.4143	2.171	12.2
0.803	0.185	0.3883	1.771	16.3
0.972	0.224	0.3688	1.418	20.3
1.223	0.282	0.3468	1.151	26.2
1.525	0.352	0.3260	0.919	33.3
1.877	0.433	0.3065	0.741	41.6
2.285	0.528	0.2896	0.605	51.2
2.891	0.668	0.2662	0.489	65.5
3.624	0.837	0.2442	0.388	82.7
4.412	1.019	0.2247	0.313	101
5.502	1.271	0.2039	0.255	127
6.845	1.581	0.1844	0.204	159
8.434	1.948	0.1688	0.165	196
10.50	2.424	0.1519	0.133	245
13.23	3.055	0.1338	0.1065	309
16.39	3.786	0.1195	0.0852	383
19.99	4.617	0.1052	0.0692	468
24.85	5.738	0.0883	0.0563	582
33.43	7.721	0.0792	0.0437	784
38.62	8.918	0.0714	0.0348	907
47.38	10.94	0.0597	0.0293	1113
59.32	13.70	0.0468	0.0237	1394
73.05	16.87	0.0351	0.0190	1717
90.74	20.96	0.0260	0.0154	2134
113.3	26.17	0.0182	0.0124	2665
137.4	31.74	0.0143	0.0100	3233
171.9	39.71	0.0078	0.0082	4045
206.1	47.59	0.0045	0.0067	4849
241.0	55.65	0.0032	0.0056	5671
274.5	63.39	0.0026	0.0049	6459
311.1	71.85	0.0019	0.0043	7321
343.6	79.34	0.0013	0.0038	8086
377.5	87.18	0.0006	0.0035	8884
405.1	93.56	0.0000	0.0032	9535

**TABLE 33
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD

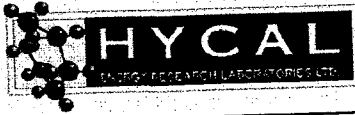
Core Depth: 2075 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	9.295
Corrected sample porosity (fraction):	0.159
Grain Density (g/cc):	2.57
Conformance Correction Vol. (cc):	0.040
Total Pore Surface Area (m ²):	25.92
Median Pore Diameter (micron):	3.450
Conformance Correction (percent of P.V.):	5.5%
* Threshold Pressure (kPa):	110.3
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	50.9%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	12.6%
Micropores (pore throat dia. < 1.0 microns):	36.5%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 34
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-1

Air Permeability : n/a mD

Core Depth: 2075 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.110	0.025	1.0000	12.604	0.00
0.138	0.032	0.9730	10.177	0.65
0.172	0.040	0.8167	8.146	1.46
0.193	0.045	0.6981	6.854	1.94
0.300	0.069	0.5633	5.310	4.47
0.362	0.084	0.5229	3.798	5.93
0.429	0.099	0.4946	3.174	7.50
0.538	0.124	0.4623	2.613	10.1
0.637	0.147	0.4407	2.137	12.4
0.801	0.185	0.4137	1.757	16.3
0.976	0.225	0.3922	1.418	20.4
1.223	0.282	0.3679	1.149	26.2
1.549	0.358	0.3423	0.913	33.9
1.888	0.436	0.3208	0.733	41.9
2.304	0.532	0.2978	0.601	51.7
2.961	0.684	0.2695	0.481	67.1
3.643	0.841	0.2466	0.382	83.2
4.481	1.035	0.2251	0.310	103
5.561	1.284	0.2049	0.251	128
6.815	1.574	0.1873	0.204	158
8.568	1.979	0.1698	0.164	199
10.54	2.435	0.1550	0.132	246
13.26	3.063	0.1388	0.106	310
16.52	3.815	0.1240	0.0848	386
20.21	4.667	0.1105	0.0686	473
25.05	5.785	0.1011	0.0557	587
33.46	7.728	0.0876	0.0435	785
38.45	8.880	0.0809	0.0348	903
47.43	10.95	0.0687	0.0294	1114
59.36	13.71	0.0566	0.0237	1395
73.16	16.90	0.0472	0.0190	1720
90.60	20.92	0.0350	0.0154	2130
112.7	26.03	0.0283	0.0124	2650
137.6	31.78	0.0229	0.0101	3237
171.8	39.67	0.0148	0.0082	4041
206.7	47.74	0.0108	0.0066	4864
241.4	55.75	0.0081	0.0056	5681
275.2	63.56	0.0067	0.0048	6476
308.9	71.35	0.0040	0.0043	7271
345.7	79.84	0.0027	0.0038	8136
378.1	87.32	0.0013	0.0035	8898
403.9	93.28	0.0000	0.0032	9506



**TABLE 35
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-1

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2078.2 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	15.468
Corrected sample porosity (fraction):	0.199
Grain Density (g/cc):	2.61
Conformance Correction Vol. (cc):	0.087
Total Pore Surface Area (m ²):	38.87
Median Pore Diameter (micron):	7.831
Conformance Correction (percent of P.V.):	5.5%
* Threshold Pressure (kPa):	89.7
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	64.5%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	8.6%
Micropores (pore throat dia. < 1.0 microns):	26.9%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.

**TABLE 36
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-1

Air Permeability : n/a mD

Core Depth: 2078.2 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.090	0.021	1.0000	15.550	0.00
0.110	0.025	0.9752	12.604	0.48
0.138	0.032	0.7107	10.177	1.13
0.172	0.040	0.5103	8.146	1.94
0.193	0.045	0.4690	6.854	2.43
0.289	0.067	0.4019	5.392	4.68
0.355	0.082	0.3760	3.915	6.25
0.421	0.097	0.3574	3.235	7.80
0.541	0.125	0.3337	2.633	10.6
0.627	0.145	0.3213	2.147	12.6
0.806	0.186	0.3006	1.768	16.9
0.980	0.226	0.2862	1.410	21.0
1.210	0.280	0.2707	1.151	26.4
1.518	0.350	0.2552	0.926	33.6
1.870	0.432	0.2417	0.744	41.9
2.281	0.527	0.2283	0.607	51.6
2.914	0.673	0.2107	0.487	66.5
3.635	0.839	0.1932	0.386	83.5
4.446	1.027	0.1777	0.312	103
5.526	1.276	0.1622	0.253	128
6.824	1.576	0.1477	0.204	159
8.381	1.936	0.1353	0.166	195
10.54	2.435	0.1219	0.1335	246
13.13	3.033	0.1095	0.1066	307
16.33	3.772	0.0971	0.0857	382
20.04	4.628	0.0847	0.0693	470
24.82	5.731	0.0733	0.0562	582
33.22	7.672	0.0661	0.0439	780
38.45	8.879	0.0589	0.0350	903
47.39	10.94	0.0486	0.0294	1114
59.30	13.70	0.0393	0.0237	1394
72.86	16.83	0.0320	0.0191	1713
90.95	21.00	0.0238	0.0154	2139
113.1	26.12	0.0176	0.0124	2661
137.6	31.79	0.0134	0.0100	3238
172.1	39.74	0.0072	0.0082	4048
206.1	47.60	0.0041	0.0066	4851
240.4	55.51	0.0031	0.0056	5657
275.4	63.60	0.0021	0.0049	6481
310.0	71.60	0.0000	0.0043	7297
344.1	79.47	0.0000	0.0038	8099
378.6	87.44	0.0000	0.0035	8911
404.0	93.30	0.0000	0.0032	9509



**TABLE 37
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-2

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2580-90 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	2.071
Corrected sample porosity (fraction):	0.047
Grain Density (g/cc):	2.66
Conformance Correction Vol. (cc):	0.146
Total Pore Surface Area (m ²):	25.75
Median Pore Diameter (micron):	0.009
Conformance Correction (percent of P.V.):	76.1%
* Threshold Pressure (kPa):	33274.8
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 38
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-2

Air Permeability : n/a mD

Core Depth: 2580-90 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
33.27	7.685	1.0000	0.044	0.00
38.53	8.897	0.9819	0.035	124
47.34	10.933	0.9502	0.029	331
59.17	13.67	0.9050	0.024	610
72.86	16.83	0.8507	0.019	932
90.65	20.93	0.7647	0.015	1351
112.77	26.04	0.6652	0.012	1872
137.33	31.72	0.5656	0.010	2450
171.79	39.68	0.4480	0.008	3261
206.9	47.77	0.3394	0.007	4086
241.2	55.70	0.2579	0.006	4895
274.6	63.41	0.1810	0.005	5680
308.9	71.34	0.1222	0.004	6489
343.1	79.23	0.0679	0.004	7293
377.4	87.15	0.0226	0.004	8100
405.1	93.55	0.0000	0.003	8753

**TABLE 39
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-2

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2600-10 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	2.406
Corrected sample porosity (fraction):	0.048
Grain Density (g/cc):	2.65
Conformance Correction Vol. (cc):	0.187
Total Pore Surface Area (m ²):	31.71
Median Pore Diameter (micron):	0.009
Conformance Correction (percent of P.V.):	77.3%
* Threshold Pressure (kPa):	33459.4
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	0.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	0.0%
Micropores (pore throat dia. < 1.0 microns):	100.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.

TABLE 40
MERCURY INJECTION CAPILLARY PRESSURE DATA

Well Location: Walakpa-2

Air Permeability : n/a mD

Core Depth: 2600-10 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure	Derived Air / Water Capillary Pressure	Wetting Phase Saturation	Pore Throat Diameter	Height of Transition
(MPa)	(MPa)	(fraction)	(Microns)	(m)
33.46	7.727	1.0000	0.044	0.0
38.45	8.879	0.9825	0.035	117
47.42	10.95	0.9561	0.029	329
59.35	13.71	0.9167	0.024	610
73.16	16.90	0.8640	0.019	935
90.60	20.92	0.7807	0.015	1345
112.7	26.03	0.6842	0.012	1865
137.6	31.78	0.5789	0.010	2452
171.8	39.67	0.4518	0.008	3256
206.7	47.74	0.3465	0.007	4078
241.4	55.75	0.2632	0.006	4895
275.2	63.56	0.1974	0.005	5691
308.9	71.35	0.1404	0.004	6485
345.7	79.84	0.0746	0.004	7351
378.1	87.31	0.0351	0.004	8113
403.9	93.28	0.0000	0.003	8721



**TABLE 41
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-2

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2611-15 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	3.656
Corrected sample porosity (fraction):	0.180
Grain Density (g/cc):	2.65
Conformance Correction Vol. (cc):	0.026
Total Pore Surface Area (m ²):	27.08
Median Pore Diameter (micron):	5.365
Conformance Correction (percent of P.V.):	8.0%
* Threshold Pressure (kPa):	110.3
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	54.1%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	10.2%
Micropores (pore throat dia. < 1.0 microns):	35.7%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 42
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-2

Air Permeability : n/a mD

Core Depth: 2611-15 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure	Derived Air / Water Capillary Pressure	Wetting Phase Saturation	Pore Throat Diameter	Height of Transition
(MPa)	(MPa)	(fraction)	(Microns)	(m)
0.110	0.025	1.0000	12.60	0.00
0.138	0.032	0.9756	10.18	0.65
0.172	0.040	0.6773	8.145	1.45
0.193	0.045	0.5587	6.856	1.94
0.307	0.071	0.4939	5.264	4.64
0.392	0.090	0.4633	3.622	6.62
0.443	0.102	0.4535	3.000	7.83
0.542	0.125	0.4352	2.558	10.2
0.642	0.148	0.4205	2.122	12.5
0.800	0.185	0.3998	1.751	16.2
0.982	0.227	0.3826	1.415	20.5
1.234	0.285	0.3606	1.140	26.5
1.532	0.354	0.3399	0.912	33.5
1.896	0.438	0.3178	0.736	42.0
2.313	0.534	0.2983	0.598	51.9
2.940	0.679	0.2738	0.482	66.6
3.663	0.846	0.2518	0.382	83.6
4.578	1.057	0.2335	0.306	105
5.564	1.285	0.2164	0.248	128
6.927	1.600	0.2005	0.202	160
8.559	1.977	0.1846	0.163	199
10.570	2.441	0.1711	0.132	246
13.336	3.080	0.1553	0.1057	311
16.400	3.788	0.1430	0.0848	384
20.128	4.649	0.1320	0.0690	471
24.845	5.738	0.1210	0.0561	582
33.217	7.671	0.1137	0.0439	779
38.547	8.902	0.1064	0.0349	905
47.527	10.98	0.0954	0.0293	1116
59.097	13.65	0.0856	0.0237	1389
72.741	16.80	0.0758	0.0191	1710
90.856	20.98	0.0648	0.0154	2136
112.7	26.02	0.0562	0.0124	2650
137.8	31.82	0.0452	0.0101	3241
171.9	39.71	0.0367	0.0082	4045
206.1	47.59	0.0306	0.0067	4848
240.9	55.64	0.0244	0.0056	5669
275.2	63.55	0.0171	0.0049	6476
309.5	71.47	0.0110	0.0043	7283
345.7	79.83	0.0061	0.0038	8135
379.1	87.55	0.0024	0.0034	8922
405.6	93.67	0.0000	0.0032	9545

**TABLE 43
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-2

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2615-20 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	9.235
Corrected sample porosity (fraction):	0.159
Grain Density (g/cc):	2.57
Conformance Correction Vol. (cc):	0.038
Total Pore Surface Area (m ²):	13.15
Median Pore Diameter (micron):	5.091
Conformance Correction (percent of P.V.):	5.2%
* Threshold Pressure (kPa):	110.3
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	57.1%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	11.3%
Micropores (pore throat dia. < 1.0 microns):	31.5%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 44
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-2

Air Permeability : n/a mD

Core Depth: 2615-20 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.110	0.025	1.0000	12.601	0.00
0.138	0.032	0.9825	10.177	0.65
0.172	0.040	0.7312	8.145	1.45
0.193	0.045	0.5820	6.856	1.94
0.300	0.069	0.4866	5.316	4.45
0.360	0.083	0.4556	3.816	5.87
0.431	0.100	0.4315	3.180	7.55
0.534	0.123	0.4046	2.614	9.98
0.636	0.147	0.3858	2.148	12.4
0.795	0.184	0.3629	1.764	16.1
0.968	0.223	0.3414	1.429	20.2
1.218	0.281	0.3172	1.156	26.1
1.528	0.353	0.2917	0.920	33.4
1.887	0.436	0.2675	0.739	41.8
2.306	0.533	0.2433	0.601	51.7
2.913	0.673	0.2164	0.484	66.0
3.638	0.840	0.1935	0.386	83.1
4.498	1.039	0.1747	0.310	103
5.534	1.278	0.1573	0.251	128
6.828	1.577	0.1398	0.204	158
8.440	1.949	0.1237	0.165	196
10.59	2.446	0.1075	0.133	247
13.30	3.072	0.0914	0.1057	311
16.42	3.792	0.0793	0.0848	384
20.12	4.648	0.0672	0.0690	471
24.82	5.732	0.0565	0.0561	582
33.34	7.699	0.0497	0.0438	782
38.49	8.888	0.0430	0.0349	903
47.47	10.96	0.0349	0.0293	1115
59.11	13.65	0.0269	0.0237	1389
72.73	16.80	0.0202	0.0191	1710
90.73	20.95	0.0148	0.0154	2133
112.8	26.06	0.0094	0.0124	2653
137.4	31.73	0.0067	0.0101	3232
171.6	39.64	0.0027	0.0082	4038
206.3	47.64	0.0013	0.0067	4854
240.7	55.60	0.0013	0.0056	5665
276.1	63.76	0.0013	0.0048	6497
310.2	71.65	0.0000	0.0043	7301
344.9	79.66	0.0000	0.0038	8117
378.5	87.42	0.0000	0.0035	8909
404.4	93.40	0.0000	0.0032	9518

**TABLE 45
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-2

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2620-25 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	8.703
Corrected sample porosity (fraction):	0.040
Grain Density (g/cc):	g/mL
Conformance Correction Vol. (cc):	0.007
Total Pore Surface Area (m ²):	0.17
Median Pore Diameter (micron):	3.652
Conformance Correction (percent of P.V.):	4.0%
* Threshold Pressure (kPa):	89.7
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	51.0%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	12.0%
Micropores (pore throat dia. < 1.0 microns):	37.0%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 46
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-2

Air Permeability : n/a mD

Core Depth: 2620-25 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.090	0.021	1.0000	15.541	0.00
0.110	0.025	0.9581	12.601	0.48
0.138	0.032	0.7382	10.177	1.13
0.172	0.040	0.6178	8.145	1.94
0.193	0.045	0.5864	6.856	2.43
0.303	0.070	0.5236	5.295	5.01
0.363	0.084	0.5079	3.779	6.43
0.435	0.100	0.4921	3.153	8.12
0.538	0.124	0.4660	2.594	10.5
0.640	0.148	0.4450	2.134	13.0
0.799	0.185	0.4241	1.755	16.7
0.972	0.224	0.3979	1.422	20.8
1.222	0.282	0.3717	1.152	26.7
1.532	0.354	0.3455	0.917	33.9
1.891	0.437	0.3194	0.737	42.4
2.311	0.534	0.2984	0.600	52.3
2.917	0.674	0.2670	0.484	66.6
3.643	0.841	0.2408	0.385	83.7
4.503	1.040	0.2147	0.310	104
5.539	1.279	0.1937	0.251	128
6.833	1.578	0.1728	0.204	159
8.445	1.950	0.1571	0.165	197
10.60	2.447	0.1361	0.133	247
13.31	3.073	0.1204	0.106	311
16.42	3.793	0.1079	0.0848	385
20.13	4.649	0.0995	0.0689	472
24.82	5.733	0.0890	0.0561	582
33.34	7.701	0.0770	0.0438	783
38.49	8.89	0.0717	0.0349	904
47.48	10.96	0.0628	0.0293	1116
59.12	13.65	0.0576	0.0237	1390
72.74	16.80	0.0524	0.0191	1710
90.73	20.95	0.0419	0.0154	2134
112.8	26.06	0.0366	0.0124	2654
137.4	31.73	0.0325	0.0101	3232
171.6	39.64	0.0262	0.0082	4039
206.3	47.64	0.0209	0.0067	4855
240.8	55.60	0.0157	0.0056	5666
276.1	63.76	0.0105	0.0048	6498
310.2	71.65	0.0052	0.0043	7301
344.9	79.66	0.0026	0.0038	8118
378.6	87.43	0.0000	0.0035	8910
404.4	93.40	0.0000	0.0032	9519



**TABLE 47
MERCURY INJECTION CAPILLARY PRESSURE TEST SUMMARY**

Well Location: Walakpa-2

Routine Core Analysis Air Permeability : n/a mD

Core Depth: 2630-35 ft

Routine Core Analysis Porosity (fraction): n/a

Mercury Injection Test Sample Data	
Sample Weight (g):	6.227
Corrected sample porosity (fraction):	0.221
Grain Density (g/cc):	2.65
Conformance Correction Vol. (cc):	0.037
Total Pore Surface Area (m ²):	23.63
Median Pore Diameter (micron):	10.020
Conformance Correction (percent of P.V.):	5.3%
* Threshold Pressure (kPa):	72.6
Pore throat size distribution:	
Macropores (pore throat dia. > 3.0 microns):	68.1%
Mesopores (pore throat dia. 1.0 - 3.0 microns):	9.4%
Micropores (pore throat dia. < 1.0 microns):	22.5%

Conversion Factors for Data Calculation	
Mercury Density (g/cc):	13.5335
Air / Mercury Interfacial Tension (dynes/cm):	485
Air / Mercury Contact Angle (degree):	130
Air / Water Interfacial Tension (dynes/cm):	72
Air / Water Contact Angle (degree):	0.0
Water Density for transitional height calculation (kg/m ³):	1000
Air Density for transitional height calculation (kg/m ³):	0.001

* Threshold pressure - pressure at which mercury first enters the pore system.



**TABLE 48
MERCURY INJECTION CAPILLARY PRESSURE DATA**

Well Location: Walakpa-2

Air Permeability : n/a mD

Core Depth: 2630-35 ft

Porosity (fraction): n/a

Air/Mercury Capillary Pressure (MPa)	Derived Air / Water Capillary Pressure (MPa)	Wetting Phase Saturation (fraction)	Pore Throat Diameter (Microns)	Height of Transition (m)
0.073	0.017	1.0000	19.197	0.00
0.090	0.021	0.9796	15.541	0.40
0.110	0.025	0.6908	12.601	0.89
0.138	0.032	0.5042	10.177	1.53
0.172	0.040	0.4271	8.145	2.34
0.193	0.045	0.4011	6.856	2.83
0.299	0.069	0.3584	5.320	5.33
0.383	0.088	0.3324	3.714	7.31
0.434	0.100	0.3213	3.063	8.51
0.533	0.123	0.3027	2.605	10.8
0.633	0.146	0.2869	2.155	13.2
0.790	0.182	0.2646	1.774	16.9
0.973	0.225	0.2479	1.430	21.2
1.225	0.283	0.2266	1.150	27.1
1.522	0.351	0.2089	0.919	34.1
1.886	0.436	0.1913	0.740	42.7
2.303	0.532	0.1755	0.601	52.5
2.930	0.677	0.1569	0.484	67.3
3.653	0.844	0.1421	0.384	84.3
4.568	1.055	0.1272	0.307	106
5.553	1.282	0.1151	0.249	129
6.916	1.597	0.1031	0.202	161
8.549	1.974	0.0929	0.1631	200
10.56	2.439	0.0845	0.1320	247
13.33	3.077	0.0752	0.1058	312
16.39	3.785	0.0678	0.0848	384
20.12	4.646	0.0613	0.0690	472
24.83	5.735	0.0548	0.0561	583
33.21	7.669	0.0511	0.0439	780
38.54	8.900	0.0464	0.0350	906
47.52	10.97	0.0399	0.0293	1117
59.09	13.65	0.0353	0.0237	1389
72.73	16.80	0.0306	0.0191	1710
90.8	20.98	0.0260	0.0154	2137
112.6	26.01	0.0223	0.0124	2650
137.8	31.82	0.0176	0.0101	3242
171.9	39.70	0.0121	0.0082	4046
206.0	47.59	0.0093	0.0067	4849
240.9	55.64	0.0074	0.0056	5670
275.2	63.55	0.0056	0.0049	6477
309.5	71.47	0.0037	0.0043	7284
345.7	79.83	0.0019	0.0038	8136
379.1	87.55	0.0009	0.0034	8923
405.6	93.66	0.0000	0.0032	9546