

HAT CREEK COAL PROJECT 1977

Sampling Number Code for Trench "A" & "B"

Trench Location

TA = Trench "A"

TB = Trench "B"

Type of Sample

C = channel sample

B = Bradford breaker sample

S1 = stockpile sample, high grade (above shipping grade)

S2 = stockpile sample, shipping grade

S3 = " " low grade

S4 = " " waste

Examples

TAC-5 Trench "A"; channel sample; number 5

TBS2-1 Trench "B"; stockpile sample, shipping grade; sample number 1

TAB-23 Trench "A"; Bradford breaker sample; sample no. 23

J.A. Valentinuzzi

DOLMAGE CAMPBELL & ASSOCIATES LIMITED
VANCOUVER, BRITISH COLUMBIA
CANADA

CLIENT: B.C. Hydro & Power Authority

PROJECT: Hat Creek Coal

R.H. No. 74-1 etc

D.D.H. No. 74-26

Sample No. 26-1
From - 59' to 88.5'
Width - 29.5'
As Rec'd Wt. -

Analysis Report No.

	<u>As Received</u>	<u>Dry Basis</u>	<u>Lab Basis</u>
% Moisture	17.56	xxxxxx	15.16
% Ash	28.00	33.96	28.81
% Volatile	28.05	34.03	28.87
% Fixed Carbon	26.39	32.01	27.16
	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>
Calorific Value, BTU/lb.	6315	7660	6499
% Sulfur	0.59	0.71	0.60
% Chlorine	0.01	0.01	0.01
Equilibrium Moisture, % -----	25.13		
<u>Ignited basis</u>			
% Sodium oxide, Na ₂ O -----	0.37		
% Potassium oxide, K ₂ O -----	0.42		
Specific Gravity -----	1.443		
at 19.34% Moisture			

DOLMAGE CAMPBELL & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CLIENT: B.C. Hydro & Power Authority PROJECT: Hat Creek Coal DATE: 27 August 1974 D.D.H. or R.H. No. 74-26

Sample No.	From	To	Width Feet	MOISTURE BASIS				DRY BASIS						
				% Moist	% Ash	% Vol	% F.C.	Cal Value	% Sul.	% Ash	% Vol	% F.C.	Cal Value	% Sul.
* 26-1	59	88.5	29.5	17.56	28.00	28.05	26.39	6315	0.59	33.96	34.03	32.01	7660	0.71
** 26-1				25.13	25.43	25.48	23.96	5735	0.53					
26-1 : SG is 1.443 at 19.34 % moisture : Chlorine - .01 % (Dry Coal Basis) : K ₂ O - .42 % (Ignited Basis)														
26-1 : Na ₂ O - .37 % (Ignited Basis)														
* 26-2	88.5	103	14.5	17.93	42.19	21.17	18.71	4314	0.44	51.41	25.80	22.79	5256	0.54
* 26-3	107	134	27.0	16.49	52.39	18.50	12.62	3100	0.20	62.74	22.15	15.11	3712	0.24
** 26-3				22.16	48.84	17.24	11.76	2889	0.19					
26-3 : Chlorine - .04 % (Dry Coal Basis) : K ₂ O - .46 % (Ignited Basis) : Na ₂ O - .35 % (Ignited Basis)														
* 26-4	134	149	15.0	14.24	39.94	26.38	19.44	4787	0.19	46.57	30.76	22.67	5582	0.22
* 26-5	149	171	22.0	16.35	45.85	21.05	16.75	3917	0.13	54.81	25.17	20.02	4683	0.16
* 26-6	171	200	29.0	18.78	38.46	24.71	18.05	4566	0.16	47.35	30.42	22.23	5622	0.20
** 26-6				23.08	36.42	23.40	17.10	4324	0.15					
26-6 : SG is 1.590 at 19.57 % moisture : Chlorine - .04 % (Dry Coal Basis) : K ₂ O - .38 % (Ignited Basis)														
26-6 : Na ₂ O - .59 % (Ignited Basis)														
* 26-7	200	220	20.0	18.29	37.91	23.47	20.33	4832	0.16	46.40	28.72	24.88	5913	0.20

* As Received basis

** Equilibrium moisture basis

COMMERCIAL TESTING & ENGINEERING CO.



R. A. Houser,
District Manager

DOLWAGE CAMPELL & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CLIENT: B.C. Hydro & Power Authority PROJECT: Hat Creek Coal DATE: 27 August 1974 D.D.R. or R.E. No. 74-26

Sample No.	From	To	Width Feet	MOISTURE BASIS				Cal Value	DRY BASIS					
				% Moist	% Ash	% Vol	% F.C.		% Sul.	% Ash	% Vol	% F.C.	Cal Value	% Sul.
* 26-8	220	241	21.0	16.97	41.31	24.18	17.54	4406	0.17	49.75	29.12	21.13	5307	0.20
* 26-9	241	264	23.0	24.99	23.23	26.68	25.10	6097	0.24	30.97	35.57	33.46	8128	0.32
* 26-10	264	292	28.0	21.67	22.10	29.11	27.12	6654	0.23	28.22	37.16	34.62	8495	0.36
** 26-10				24.72	21.24	27.98	26.06	6395	0.27					
26-10 : SG is 1.418 at 21.94 % moisture : Chlorine - .01 % (Dry Coal Basis) : K ₂ O - .35 % (Ignited Basis)														
26-10 : Na ₂ O - .72 % (Ignited Basis)														
* 26-11	292	317	25.0	17.73	34.00	27.51	20.76	5325	0.22	41.33	33.44	25.23	6472	0.27
* 26-12	317	343	26.0	20.13	32.97	23.31	23.59	4964	0.22	41.28	29.18	29.54	6215	0.28
* 26-13	343	369	26.0	16.66	44.24	20.46	18.64	4059	0.25	53.08	24.55	22.37	4870	0.30
** 26-13				23.06	40.84	18.89	17.21	3747	0.23					
26-13 : SG is 1.590 at 16.75 % moisture : Chlorine - .01 % (Dry Coal Basis) : K ₂ O - .38 % (Ignited Basis)														
26-13 : Na ₂ O - .49 % (Ignited Basis)														
* 26-14	369	395	26.0	15.20	44.98	20.61	19.21	4226	0.44	53.04	24.30	22.66	4983	0.52

* As Received basis

** Equilibrium moisture basis



COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

DOLMAZE CAMPELL & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CLIENT: P.C. Hydro & Power Authority PROJECT: Bat Creek Coal DATE: 27 August 1974 D.D.E. or R.E. No. 74-26

Sample No.	From	To	Width Feet	MOISTURE BASIS				DRY BASIS						
				% Moist	% Ash	% Vol	% F.C.	Cal Value	% Sul.	% Ash	% Vol	% F.C.	Cal Value	% Sul.
* 26-15	395	423.5	28.5	17.05	30.43	13.15	14.32	3194	0.43	60.85	21.88	17.27	3850	0.52
** 26-15				15.91	27.75	17.52	13.83	3083	0.42					
26-15 : SG is 1.674 at 17.39 % moisture : Chlorine - .01 % (Dry Coal Basis) : K ₂ O - .30 % (Ignited Basis)														
26-15 : Na ₂ O - .37 % (Ignited Basis)														
* 26-16	423.5	441	17.5	15.63	40.73	21.88	21.76	4736	0.59	48.28	25.93	25.79	5613	0.70
* 26-17	441	455.5	14.5	14.55	54.96	17.79	12.70	2845	0.51	64.32	20.82	14.86	3330	0.60
* 26-18	455.5	468	12.5	13.81	67.09	13.65	5.45	1272	0.52	77.84	15.84	6.32	1476	0.60
* 26-19	468	485.5	17.5	12.81	57.71	21.18	8.30	2373	0.72	66.19	24.29	9.52	2722	0.83
* 26-20	485.5	513	27.5	18.55	28.97	28.62	23.86	5994	1.17	35.57	35.14	29.29	7359	1.44
** 26-20				21.19	28.03	27.70	23.08	5800	1.13					
26-20 : SG is 1.477 at 20.21 % moisture : Chlorine - .03 % (Dry Coal Basis) : K ₂ O - .30 % (Ignited Basis)														
26-20 : Na ₂ O - .64 % (Ignited Basis)														
* 26-21	513	528	15.0	19.75	23.69	28.94	27.62	6729	0.88	29.52	36.06	34.42	8385	1.10
* 26-22	547	573	26.0	19.01	31.26	26.70	23.03	5766	1.80	38.59	32.97	28.44	7120	2.22

* As Received basis

** Equilibrium moisture basis

COMMERCIAL TESTING & ENGINEERING CO.



R. A. Houser,
District Manager

DOLMAGE CAMPELL & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CLIENT: B.C. Hydro & Power Authority PROJECT: Hat Creek Coal DATE: 27 August 1974 D.D.H. or R.H. No. 74-26

Sample No.	From	To	Width Feet	MOISTURE BASIS				DRY BASIS						
				% Moist	% Ash	% Vol	% F.C.	Cal Value	% Sul.	% Ash	% Vol	% F.C.	Cal Value	% Sul.
* 26-23	573	598	25.0	18.49	26.66	27.98	26.87	6398	1.05	32.71	34.33	32.96	7849	1.29
* 26-24	598	624	26.0	19.37	24.45	29.22	26.96	6649	0.89	30.32	36.24	33.44	8246	1.11
** 26-24				22.65	23.45	28.03	25.87	6378	0.86					
26-24 : SG is 1.455 at 20.67 % moisture : Chlorine - .01 % (Dry Coal Basis) : K ₂ O - .30 % (Ignited Basis)														
26-24 : Na ₂ O - .74 % (Ignited Basis)														
* 26-25	624	648	24.0	19.86	33.02	26.49	20.63	5334	1.17	41.20	33.05	25.75	6656	1.46
* 26-26	648	665	17.0	21.03	15.03	31.67	32.27	7849	0.92	19.03	40.10	40.87	9939	1.16
* 26-27	665	693	28.0	21.46	11.46	32.96	34.12	8328	0.68	14.59	41.96	43.45	10603	0.86
* 26-28	693	706	13.0	20.45	9.70	35.13	34.72	8708	0.80	12.19	44.17	43.64	10046	1.01
* 26-29	706	722.5	16.5	21.06	21.07	29.56	28.31	6953	0.69	26.69	37.45	35.86	8000	0.89
** 26-29				22.83	20.60	28.90	27.67	6797	0.68					
26-29 : SG is 1.493 at 21.93 % moisture : Chlorine - .01 % (Dry Coal Basis) : K ₂ O - .39 % (Ignited Basis)														
26-29 : Na ₂ O - .76 % (Ignited Basis)														

* As Received basis
** Equilibrium moisture basis



COMMERCIAL TESTING & ENGINEERING

R. A. Houser,
District Manager

DOLMAGE CAMPELL & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CLIENT: P.C. Hydro & Power Authority PROJECT: Hat Creek Coal DATE: 27 August 1974 D.D.H. or R.H. No. 74-26

Sample No.	From	To	Width Feet	MOISTURE BASIS				DRY BASIS						
				% Moist	% Ash	% Vol	% F.C.	Cal Value	% Sul.	% Ash	% Vol	% F.C.	Cal Value	% Sul.
* 26-30	722.5	740	17.5	19.22	27.08	29.68	24.02	6391	0.77	33.52	36.74	29.74	7911	0.95
* 26-31	740	744	4.0	13.23	71.30	10.71	4.76	1183	0.88	82.17	12.34	5.49	1363	1.01
* 26-32	1412	1432	20.0	17.63	17.40	33.19	31.78	8296	1.05	21.12	40.29	38.59	10072	1.28
* 26-33	1432	1452	20.0	15.27	22.15	33.65	28.93	7970	2.03	26.14	39.71	34.15	9406	2.39
* 26-34	1452	1482	30.0	16.04	31.89	27.43	24.64	6244	0.78	37.98	32.67	29.35	7437	0.93
* 26-35	1482	1512	30.0	18.11	43.09	21.90	16.90	4201	0.43	52.62	26.74	20.64	5130	0.52

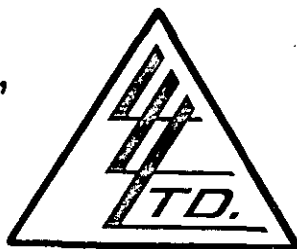
* As Received basis
** Equilibrium moisture basis



COMMERCIAL TESTING & ENGINEERING CO.

R. A. Houser,
District Manager

To: DOLMAGE CAMPBELL & ASSOCIATES LTD.,
1000-1055 West Hastings Street,
Vancouver, B.C.



File No. 10327
Date August 29, 1975
Samples Coal Core

ATTN: Dr. L.T. Jory

Certificate of
ASSAY of
LORING LABORATORIES LTD.

PAGE # 1

SAMPLE No.	Depth	% H2O As Rec'd.	% ASH As Rec'd.	S.G. At Equilibrium	Equilibrium H2O %	Field S.G.
75-80-751	1190'	18.47	4.53	1.31	24.4	1.24
75-80-752	1210'	14.68	41.65	1.56	24.0	1.38
75-80-753	1230'	17.21	22.65	1.35	23.5	1.40
75-80-754	1250'	15.42	28.85	1.36	33.2	1.45
75-80-755	1270'	15.93	24.04	1.42	27.6	1.42
75-80-756	1290'	15.64	20.14	1.42	22.0	1.32
75-80-757	1310'	16.89	13.90	1.37	23.7	1.31
75-80-758	1330'	19.15	14.11	1.31	35.0	1.33
75-80-759	1350'	16.28	23.61	1.41	27.8	1.57
75-80-760	1370'	16.37	17.77	1.38	24.9	1.37
75-80-761	1390'	14.27	10.86	1.36	21.5	1.35
75-80-762	1410'	16.75	10.07	1.30	21.9	1.30
75-80-763	1427'	2.40	79.09	2.32	6.01	2.07
75-80-764	1451'	5.11	76.62	2.17	8.95	2.08
75-80-765	1470'	13.14	29.00	1.44	24.2	1.35
75-80-766	1490'	11.50	30.41	1.46	21.9	1.21
75-80-767	1510'	15.80	14.65	1.32	28.5	1.35
75-80-768	1530'	16.00	11.86	1.33	22.8	1.34
75-80-769	1550'	16.00	18.04	1.38	25.0	1.33
75-80-770	1570'	14.45	19.58	1.40	20.6	1.28
75-80-771	1590'	14.79	17.31	1.33	28.5	1.39

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
Pulps Retained one month
unless specific arrangements
made in advance.

edmc

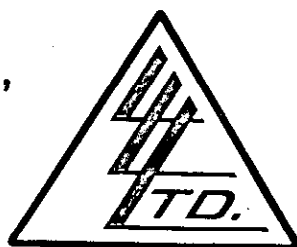
Licensed Assayer of British Columbia

To: DOLMAGE CAMPBELL & ASSOCIATES LTD.,

1000-1055 West Hastings Street,

Vancouver, B.C.

ATTN: Dr. L.T. Jory



File No. 10327

Date August 27, 1975

Samples Coal Core

Certificate of
ASSAY
LORING LABORATORIES LTD.

PAGE # 2

SAMPLE No.	Depth	% H2O As Rec'd.	% ASH As Rec'd.	S.G. At Equilibrium	Equilibrium H2O %	Field S.G.
75-80-772	1610'	14.81	27.25	1.47	22.3	1.74
75-80-773	1630'	14.57	30.41	1.44	25.6	1.44
75-80-774	1650'	14.08	33.19	1.48	22.0	1.35
75-80-775	1670'	15.47	26.63	1.39	26.7	1.42
75-80-776	1690'	18.25	13.21	1.38	20.3	1.43
75-80-777	1710'	19.87	3.48	1.30	21.9	1.27
75-80-778	1730'	17.88	14.99	1.49	18.9	1.24
75-80-779	1750'	14.98	35.88	1.38	32.4	1.42

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

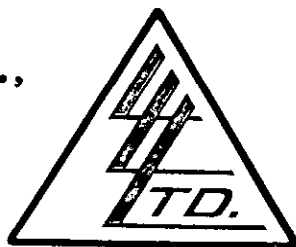
Rejects Retained one month.

Pulps Retained one month
unless specific arrangements
made in advance.

E. L. M. Isaac

Licensed Assayer of British Columbia

To: DOLMAGE CAMPBELL & ASSOCIATES LTD.,
1000-1055 West Hastings St.,
VANCOUVER, B.C.



File No. 10458
Date September 17, 1975
Samples Coal Chips

ATTN: Dr. L.T. Jory

Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 1

SAMPLE No.	Depth	% H2O As Rec'd	% Ash As Rec'd	Field Sp. Gr.
75-82-751	465'	5.63	83.83	1.78
75-82-752	485'	14.18	11.73	1.25
75-82-753	505'	15.11	6.31	1.25
75-82-754	525'	13.74	26.29	1.39
75-82-755	545'	13.45	9.14	1.20
75-82-756	565'	17.82	2.99	1.19
75-82-757	585'	16.61	14.99	1.27
75-82-758	605'	17.12	22.36	1.37
75-82-759	625'	15.07	31.50	1.44
75-82-760	645'	16.06	18.31	1.29
75-82-761	665'	14.34	19.06	1.30
75-82-762	685'	14.85	22.03	1.43
75-82-763	705'	15.61	12.94	1.23
75-82-764	725'	13.24	37.33	1.47
75-82-765	745'	18.27	14.38	1.29
75-82-766	765'	13.90	24.78	1.37
75-82-767	785'	15.20	23.79	1.35
75-82-768	805'	10.86	47.14	1.59
75-82-769	825'	17.34	3.52	1.21
75-82-770	845'	16.09	16.99	1.30
75-82-771	925'	9.93	27.46	1.37

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
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Rejects Retained one month.

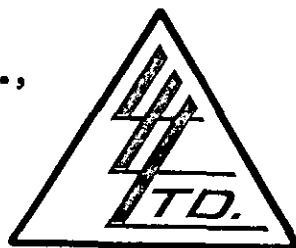
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A. J. M. A. A. A.
Licensed Assayer of British Columbia

To: DOLMAGE CAMPBELL & ASSOCIATES LTD.,

1000-1055 West Hastings St.,

VANCOUVER, B.C.



File No. 10458

Date September 17, 1975

Samples Coal Chips

ATTN: Dr. L.T. Jory

Certificate of
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Page # 2

SAMPLE No.	Depth	% H2O As Rec'd	% Ash As Rec'd	Field Sp. Gr.
75-82-772	945'	9.97	21.80	1.33
75-82-773	965'	1.96	79.09	1.97
75-82-774	985'	8.42	32.12	1.40
75-82-775	1025'	0.76	90.01	2.09
75-82-776	1045'	9.54	29.63	1.41
75-82-777	1065'	4.72	60.67	1.69
75-82-778	1105'	5.98	50.39	1.61
75-82-779	1125'	13.46	3.44	1.20
75-82-780	1145'	2.22	72.27	1.77
75-82-781	1165'	8.36	40.29	1.49
75-82-782	1184'	1.14	88.49	2.17
75-82-783	1245'	11.44	27.06	1.35
75-82-784	1265'	6.62	52.39	1.60
75-82-785	1285'	1.35	85.99	2.40
75-82-786	1305'	5.48	63.77	1.77

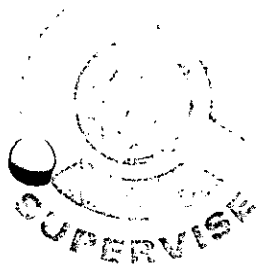
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Rejects Retained one month.

Pulps Retained one month
unless specific arrangements
made in advance.

L. T. Jory

Licensed Assayer of British Columbia



GENERAL TESTING LABORATORIES

DIVISION: SUPERINTENDENCE COMPANY (CANADA) LTD.

1001 EAST PENDER STREET, VANCOUVER, B.C., CANADA

V6A 1W2

PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE

TO:

DOLMAGE CAMPBELL & ASSOCIATES LTD;
VANCOUVER, BRITISH COLUMBIA,
CANADA.

CERTIFICATE OF ANALYSIS

No.:

DATE:

FILE: 7508-1301

Sept. 16, 1975.

CLIENT: B. C. Hydro & Power Authority
PROJECT: Hat Creek Coal

D. D. H. No. 75 - 79
SAMPLE NO. 751 -763
FOOTAGE 670 -1870'

SPECIAL SPECIFIC GRAVITY TESTS

Sample No.	Depth Feet	as received		Specific Gravity at E.M.	Equilibrium Moisture %	field Specific Gravity
		Moisture %	Ash %			
79-751	670	24.62	14.98	1.31	35.63	1.34
79-752	770	22.73	17.20	1.30	40.43	1.33
79-753	870	17.56	35.19	1.46	28.01	1.47
79-754	970	21.65	15.72	1.34	29.91	1.35
79-755	1070	17.82	16.74	1.34	29.17	1.30
79-756	1170	7.67	62.64	1.67	25.61	1.74
79-757	1270	11.49	54.44	1.50	35.63	2.68
79-758	1370	17.20	19.13	1.37	21.81	1.66
79-759	1470	13.69	53.91	1.52	31.33	1.97
79-760	1570	16.89	17.03	1.32	28.20	1.30
79-761	1670	16.46	27.57	1.42	25.42	1.40
79-762	1770	7.93	62.50	1.68	21.69	2.12
79-763	1870	6.71	77.24	1.80	26.90	1.86

LL/dk

THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.

L. Lakosil - Industrial Chemist

SIGNATURE AND TITLE

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CONSULTING GEOLOGICAL & MINING ENGINEERS
1000 GUINNESS TOWER
VANCOUVER 1, B.C.

British Columbia Hydro and Power Authority

HAT CREEK COAL DEPOSITS
PROPOSED NO. 1 OPENPIT

STATISTICAL TABLES OF PROXIMATE ANALYSIS DATA

July 15, 1975

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INTRODUCTION

This memorandum accompanies and provides interpretation of computer-generated statistical tables of coal quality in the No. 1 Openpit area of the Hat Creek coal deposits. The data presented are proximate analyses (moisture, ash, volatile matter and fixed carbon), calorific value, sulphur, Na_2O and K_2O for all samples collected from drill cores during drilling programs in 1957-59 and 1974-75. Excluded are samples from Hole No's 42, 45, 48 and 52 which lie south of the Finney fault. That fault is the presently accepted southern geological boundary of the No. 1 Openpit.

Quantities represented by the analyses are as follows:

	<u>No. of Drill Holes</u>	<u>Footage Sampled</u>	<u>No. of Samples</u>
1957-59	15	8184.5	195 *
1974-75	<u>14</u>	<u>9062.0</u>	<u>409</u>
Totals	29	17,146.5	604

* Includes 61, 200 series samples. See "Labelling of Samples" below.

The computer statistical tables are presented in the following sequence:

1. Overall summaries at various arbitrary ash cutoffs for all samples, for 1957-59 samples, and for 1974-75 samples.
2. Summary for each drill hole, 1957-59 and 1974-75.
3. Listing of each sample by drill hole, 1957-59 holes.
4. Listing of each sample by drill hole, 1974-75 holes.

A few insignificant corrections to the data are still required. For example, a zero sulphur value shown for one sample is an incorrect entry. Also, additional drilling and sampling will be required before the commencement of plant construction. New analytical data would be integrated with the existing data.

GENERAL INFORMATION

Labelling of Samples

<u>Sample No.</u>	<u>Significance</u>
1 to 199	Field proximate analysis sample.
201 to 299	2nd, 3rd, etc. portion of a field proximate sample in which the portions, analysed as a single sample, are separated by unanalysed, high-ash sections. The first portion of such a sample is given a 1 to 199 number.
301	Unanalysed section of unconsolidated overburden.
302 to 399	Unanalyzed section of waste or weakly carbonaceous rock, above, within or below the coal beds. For the most part, waste bands less than 10 feet in thickness are included in analysed samples.

By the above sample numbers, every foot of each drill hole is accounted for on the statistical tables.

Weighting

Values are weighted by length of drill core but not by true width of coal intersection or by volume. A slight increase in mean ash content may result from weighting by true width and volume.

Explanation of Summary Tables

The summary tables show the maximum, minimum, range and weighted mean for each component both on a dry basis and at an estimated mean in situ moisture content of 20 %. The arithmetic mean is also derived so that the standard deviation and coefficient of variation (ratio of standard deviation to arithmetic mean) can be calculated. Although related to the arithmetic mean, the standard deviation can be applied to the weighted mean with only a small error.

The linear regression equation is derived for ash versus calorific value on the dry basis. The Y axis intercept shows the ash content at zero calorific value and the X axis intercept shows the calorific value at zero ash. The second term in the equation for X shows the change in calorific value per pound for a 1 % change in ash content. For a small number of samples, as is the case for some drill holes,

a single erroneous analysis or geologically erratic sample can strongly influence the slope of the regression line. For the combined total of several hundred samples, the influence of a few erratic ones is not great.

The linear regression calculation includes only those samples containing less than 55 % ash on a dry basis. The higher ash samples are excluded first because they are more likely to be geologically erratic and second, because they are well removed from the mean ash content of the bulk of the material which will be mined and processed.

The linear correlation coefficient, shown on the summary tables, is a measure of how well the points fit a straight line. A coefficient of 1.0 indicates a perfect fit.

Significant Figures

On the statistical tables, the concentrations of coal components are shown to two decimal points and the calorific value to the nearest Btu. This is done for convenience and to avoid round-off discrepancies on chain calculations. However, it suggests a greater accuracy than actually exists. For example, the ash content is probably reliable to only ± 0.3 to 0.5 % ash and the calorific value to ± 50 to 75 Btu for the 1974-75 data. When the 1957-59 and 1974-75 data are considered as a group, the accuracy is less.

ASH AND CALORIFIC VALUE

Table 1, attached, summarizes the proximate analysis data.

The mean ash and gross calorific value for all samples (total resource) are 28.66 % and 5814 Btu per pound, respectively. The slope of the regression line is approximately 160 Btu per pound per percent change in ash content (or 130 Btu per pound per percent change in moisture content at a fixed ash content). There are small differences in both the relative values and line slopes between the 1957-59 and 1974-75 data. These differences are attributed to analytical procedures. The more recent data is considered to be more reliable. The mean ash content for all samples in 1974-75 is 30.11 % and in 1957-59 is 27.04 %. The higher mean in 1974-75 reflects the fact that higher ash material was included in the samples to permit a better assessment of the total resource.

To give further insight into the nature of the coal deposit, summary tables were prepared at three arbitrarily chosen ash cutoffs. These were 44, 40, and 36 % ash at 20 % moisture (55, 50 and 45 %, dry basis). The results are shown on

the statistical summary sheets and, for ash and calorific value, are summarized in Table 2, attached.

Table 2 shows, for example, that if all material grading more than 44 % ash were to be rejected by selective mining, the reject would constitute about 12 % of the resource tonnage and contain 20 % of the ash and 5 % of the heat content. As a result, the product would decrease from 28.7 to 25.9 % in ash content and increase from 5814 to 6231 in Btu's per pound. (Note: To a first approximation, the feet of core can be equated to volume or tonnage of resource.)

Additional comments concerning the data in Table 2 follow:

1. The data give trends related to the elimination of high ash material by selective mining; they cannot be equated to the results which could be expected from washing the coal.

2. Eliminating the + 44 % material by selective mining is probably practical. There is no guarantee that it would be practical to operate at lower ash cutoffs.

3. The data suggest that eliminating higher ash material by selective mining becomes increasingly less attractive for the project as a whole as the ash cutoff is lowered. For example, by lowering the cutoff from 40 to 36 %, the product is improved by only 1.6 % in ash and 250 Btu per pound but an additional 7 % of the heat content is wasted and, overall, 16 % of the heat content is wasted.

MOISTURE

Early in the present investigation of the Hat Creek coal deposits, an overall mean in situ moisture content of 20 % was assumed in order to permit presentation of the data on a standard basis. It is recognized that the bed moisture will not be uniform but the probable range of values is difficult to estimate. More highly fractured areas should contain more surface moisture and consequently have a higher average moisture content.

The as-received moisture contents are summarized below:

	<u>Mean</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Std. Dev.</u>
1957-59	19.06 %	7.45 %	41.50 %	4.60
1974-75	20.41 %	1.49 %	30.58 %	4.28
Combined	19.78 %	1.49 %	41.50 %	4.38

The fact that the mean moisture content of 19.78 % is almost identical to the assumed moisture content of 20 % is considered to be a coincidence. No matter how carefully the samples are processed and packaged in the field, the moisture content when a sample reaches the laboratory is dependent on, among other things, the current weather, the drilling conditions, and the fact that the cores are split with a diamond saw with water used as a lubricant before shipping. For the 1974-75 samples, the maximum recorded as-received moisture of 30.58 % was for a rotary drill hole sample unavoidably bagged with contamination from drill water. The minimum value, 1.49 %, was recorded for a high ash sample exposed to the elements during the winter and then collected during re-sampling of high ash material in April.

A second approach to estimating the possible in situ moisture content is to measure the equilibrium moisture in the laboratory. The equilibrium moisture is considered to be the condition of the coal when all the pores are filled with water but no surface moisture is present. It may be slightly higher or lower than the bed moisture depending on the degree of saturation and the presence or absence of surface moisture on fractures, etc.

Equilibrium moistures determined for Hat Creek coal samples are as follows:

	<u>No. of Samples</u>	<u>Mean</u>	<u>Minimum</u>	<u>Maximum</u>
1957-59	22	24.4 %	20.9 %	28.0 %
1974-75	49	22.9 %	16.8 %	32.5 %
Combined	71	23.3 %	16.8 %	32.5 %

Thus, the mean equilibrium moisture value of 23.3 % suggests that an in situ moisture value higher than 20 % should be used. One unresolved problem is that recent analytical data on both Hat Creek and other coal samples indicates that there is a discrepancy between the results reported from different laboratories even though a standard A.S.T.M. procedure is used.

An additional complicating factor is that the in situ and plant feed moistures may be different because of draining and drying during mining and stockpiling. For the Hat Creek coal, an average decrease in moisture of 3 to 4 % may occur, particularly during the hot summer months.

The following conclusions are drawn.

1. The maximum mean in situ moisture content is estimated to be 24 % and the minimum mean to be 20 %.

2. The maximum mean plant feed moisture is estimated to be 20 % and the minimum mean to be 16 %, assuming the coal is not washed.

3. Firmer values can be derived only by careful sampling of bulk samples.

4. In the interim, it is reasonable to continue using the 20 % moisture figure as a standard for presentation of data. However, the significance for plant design of a lower mean plant-feed moisture could be investigated.

The following table is compiled to show the effect of applying different moisture levels to the overall mean values for the No. 1 Openpit deposit:

Item	Moisture Level		
	16 %	20 %	24 %
Ash - %	30.1	28.7	27.2
Vol. Mat. - %	28.5	27.1	25.8
F.C. - %	25.4	24.2	23.0
S - %	0.40	0.39	0.37
C.V. - Btu/lb	6105	5814	5523

VOLATILE MATTER AND FIXED CARBON

Significant differences exist between the volatile matter and fixed carbon as reported for 1957-59 samples and 1974-75 samples. In particular the carbon ratio (fixed carbon to volatile matter) is different as shown in the following table (moisture basis - 20 %):

	Ash	V.M.	F.C.	Ratio F.C./V.M.
1957-59	27.04 %	29.20 %	23.76 %	0.814
1974-75	30.11 %	25.23 %	24.66 %	0.977
Combined	28.66 %	27.10 %	24.24 %	0.894

The 1974-75 data are considered to be more reliable. The first impression from the above data is that because the fixed carbon contents are almost the same, the error in the 1957-59 carbon ratio results from the volatile matter being too high. However, because of the relative ash contents, the 1957-59 fixed carbon should be about $2\frac{1}{2}$ % higher. Since the fixed carbon is determined by difference, this increase must be compensated for by lowering the volatile matter the same amount. Thus, a $2\frac{1}{2}$ % increase to fixed carbon and a $2\frac{1}{2}$ % decrease to volatile matter brings the 1957-59 data almost into line with the 1974-75 data. The

bias in the data could have resulted easily from the burning off of fixed carbon during the determination of volatile matter. (The fact that biased reporting in 1957-59 of moisture and/or ash could also affect the data has not been overlooked. However, an examination of all the data suggests that any such bias is less than 1 % for either component and, therefore, is too small to warrant further consideration.)

The incombustible mineral matter in the coal exceeds the ash in the coal by a considerable amount, principally because of a high content of water of hydration in the associated clay minerals. During incineration of the sample, this water reports with the combustible volatiles giving values which are too high. From the regression equation on page 9 of the statistical summary tables (all samples, 1974-75), the ratio of mineral matter to ash can be determined as follows:

$$\text{Ratio, mineral matter to ash} = \frac{100}{82.11} = 1.2179$$

When this ratio is used in a Parr-type formula and the 1974-75 carbon ratio is applied, the following reconstituted mean analysis can be calculated.

Original Mean		Reconstituted Mean	
Moisture	20.00 %	Moisture	20.00 %
Ash	28.66 %	Ash	28.66 %
V.M.	27.10 %	C.V.M. (1)	19.72 %
F.C.	24.24 %	F.C.	25.38 %
	<u>100.00 %</u>	I.V.M. (2)	<u>6.24 %</u>
			100.00 %

- Notes: (1) Combustible volatile matter.
(2) Incombustible volatile matter.

The reconstituted mean reflects more accurately the true character of the coal in the No. 1 Openpit area at Hat Creek.

SULPHUR, Na₂O AND K₂O

Table 1 shows the mean sulphur content to be only 0.39 % with a standard deviation of 0.28. The summary statistical tables show no significant change in sulphur concentration at various ash cutoffs. However, sulphur values markedly higher than the mean will probably be encountered over significant periods of production.

Table 1 also shows that Na_2O and K_2O have low mean concentrations, 0.26 % and 0.19 % respectively, and markedly narrow ranges of values.



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July 15, 1975

TABLE 1
SUMMARY OF PROXIMATE ANALYSIS DATA

ITEM	1957-59 Samples				1974-75 Samples				All Samples			
	Mean	Range		Std. Dev.	Mean	Range		Std. Dev.	Mean	Range		Std. Dev.
		Min.	Max.			Min.	Max.			Min.	Max.	
Ash - %	27.04	10.96	59.67	10.84	30.11	9.64	65.74	13.04	28.66	9.64	65.74	12.59
V.M. - %	29.20	14.34	39.14	4.86	25.23	9.87	35.33	5.08	27.10	9.87	39.14	5.26
F.C. - %	23.76	2.79	37.62	7.10	24.66	1.66	39.38	8.46	24.24	1.66	39.38	8.14
S - %	0.40	0.01	1.83	0.30	0.37	0.00	1.92	0.27	0.39	0.00	1.92	0.28
Na ₂ O - %	-----	-----	-----	-----	0.26	0.10	0.89	0.14	0.26	0.10	0.89	0.14
K ₂ O - %	-----	-----	-----	-----	0.19	0.01	0.67	0.18	0.19	0.01	0.67	0.18
C.V.-Btu/lb	5984	1479	8672	1685	5693	519	9013	1965	5814	519	9013	1903

- Notes: 1. All values are at 20 % in situ moisture.
2. Na₂O and K₂O are arithmetic means for 49 samples.

TABLE 2

MEAN ASH AND CALORIFIC VALUE VS ARBITRARY ASH CUTOFFS

ITEM	All Samples	<44% Ash				<40% Ash				<36% Ash			
		Product		Reject		Product		Reject		Product		Reject	
		Unit	%	Unit	%	Unit	%	Unit	%	Unit	%	Unit	%
Ft. Core	17,146	15164	88.4	1982	11.6	14054	82.0	3092	18.0	12525	73.0	4621	27.0
Ash - %	28.7	25.9	79.8	50.1	20.2	24.6	70.3	47.2	29.7	23.0	58.5	44.1	41.5
C.V. - Btu/lb	5814	6231	94.8	2623	5.2	6418	90.5	3069	9.5	6664	83.7	3510	16.3

Note: Values are at 20 % in situ moisture.

GENERAL SUMMARIES
ALL DRILL HOLES

GENERAL SUMMARIES

The following 12 general summaries of proximate analysis data are presented in the sequence listed below:

1. All holes: All samples.
2. All holes: Samples with less than 44 % ash, moist basis.
3. All holes: Samples with less than 40 % ash, moist basis.
4. All holes: Samples with less than 36 % ash, moist basis.
5. 1957-59: All samples.
6. 1957-59: Samples with less than 44 % ash, moist basis.
7. 1957-59: Samples with less than 40 % ash, moist basis.
8. 1957-59: Samples with less than 36 % ash, moist basis.
9. 1974-75: All samples.
10. 1974-75: Samples with less than 44 % ash, moist basis.
11. 1974-75: Samples with less than 40 % ash, moist basis.
12. 1974-75: Samples with less than 36 % ash, moist basis.

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
COMBINED DRILL HOLES - GROUP 1* + GROUP 2** + GROUP 3***
ALL SAMPLES

PAGE 1

SAMPLE TYPE		TOTAL LENGTH COUNT	*****																	
			MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%									
			*****				*****				*****									
SERIES 1-199 : 16069.5		543	%	%	%	%	GROSS	%	%	%	%	%	%	%	%	GROSS	%	%	%	%
SERIES 201-299 : 1077.0		61	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	BTU	%	%	%	%
SERIES 301-399 : 16453.0		163	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCCA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS		
SODA & POTASH TESTS:		49	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			41.50	82.17	48.92	49.22	11266	2.40	1.118	0.837	65.74	39.14	39.38	9013	1.92	0.894	0.670			
MINIMUM			1.49	12.04	12.34	2.07	649	0.00	0.124	0.009	9.64	9.87	1.66	519	0.00	0.099	0.007			
RANGE			40.01	70.13	36.58	47.15	10617	2.40	0.994	0.828	56.10	29.27	37.72	8494	1.92	0.795	0.663			
WEIGHTED MEAN		604	19.78	35.83	33.88	30.29	7277	0.48			28.66	27.10	24.24	5814	0.39					
(EXCLUDING SERIES 301-399)																				
ARITHMETIC MEAN		543	19.96	38.35	32.19	29.46	6994	0.50	0.320	0.243	30.68	25.74	23.56	5595	0.39	0.256	0.194			
(SERIES 1-199)																				
STANDARD DEVIATION			4.38	15.74	6.58	10.18	2378	0.35	0.174	0.225	12.59	5.26	8.14	1903	0.28	0.139	0.180			
CCEFF. OF VARIATION %			21.92	41.04	20.43	24.55	34.00	70.91			41.05	20.44	34.56	34.00	71.61					

REGRESSION EQUATIONS (DRY BASIS): $Y = 81.45 - 0.00622X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13080.38 - 160.59Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9761

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 455 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

* GROUP 1 DRILL HOLES: DDH 57-008, 009, 010, 011, 012, 013, 014, 015, DDH 59-016, 017, 018, 019, 020, 021 AND 022.

** GROUP 2 DRILL HOLES: RH 75-004, DDH 74-023, 025, 026, 039, 041 AND DDH 75-050.

*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-051 AND 053.

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
 COMBINED DRILL HOLES - GROUP 1* + GROUP 2** + GROUP 3***
 SAMPLES < 55% DRY ASH

PAGE 1

SAMPLE TYPE	TOTAL LENGTH COUNT	*****															
		MOISTURES				CRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%							
SERIES 1-199 :	14277.0	455	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	887.5	49	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
SERIES 301-399 :	16453.0	163	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SCDA
SODA & POTASH TESTS:		39	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			41.50	54.91	48.92	49.22	11266	2.40	1.118	0.672	43.93	39.14	39.38	9013	1.92	0.894	0.537
MINIMUM			8.60	12.04	20.35	12.59	3294	0.01	0.124	0.009	9.64	16.28	10.07	2635	0.01	0.099	0.007
RANGE			32.90	42.87	28.57	36.63	7972	2.39	0.994	0.663	34.29	22.86	29.31	6378	1.91	0.795	0.530
WEIGHTED MEAN	504		20.14	32.33	35.20	32.47	7795	0.48			25.86	28.16	25.98	6231	0.39		
(EXCLUDING SERIES 301-399)																	
ARITHMETIC MEAN	455		20.47	33.33	34.13	32.54	7728	0.51	0.298	0.181	26.66	27.30	26.02	6182	0.40	0.238	0.145
(SERIES 1-199)																	
STANDARD DEVIATION			4.10	11.46	4.96	7.83	1797	0.36	0.159	0.173	9.17	3.97	6.26	1437	0.29	0.127	0.139
COEFF. OF VARIATION %			20.01	34.39	14.52	24.06	23.25	70.95			34.39	14.52	24.07	23.25	71.75		

REGRESSION EQUATIONS (DRY BASIS): $Y = 81.45 - 0.00622X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13080.38 - 160.59Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9761

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 455 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

* GROUP 1 DRILL HOLES: DDH 57-008, 009, 010, 011, 012, 013, 014, 015, DDH 59-016, 017, 018, 019, 020, 021 AND 022.

** GROUP 2 DRILL HOLES: RH 75-004, DDH 74-023, 025, 026, 039, 041 AND DDH 75-050.

*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-051 AND 053.

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
COMBINED DRILL HOLES - GROUP 1* + GROUP 2** + GROUP 3***
SAMPLES < 50% DRY ASH

PAGE 1

SAMPLE TYPE		TOTAL LENGTH	COUNT	*****										*****									
				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%											
				*****		*****						*****											
SERIES 1-199 :		13230.0	412	%	%	GROSS						GROSS											
SERIES 201-299 :		824.5	43	%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%					
SERIES 301-399 :		16453.0	163	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS				
SODA & PCTASH TESTS:			36	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****				
						41.50	49.87	48.92	49.22	11266	2.40	0.541	C.54C	39.90	39.14	39.38	9013	1.92	0.433	0.432			
						8.60	12.04	20.35	15.30	4070	0.01	0.124	0.009	9.64	16.28	12.24	3256	0.01	0.099	0.007			
				RANGE		32.90	37.83	28.57	33.92	7196	2.39	C.417	C.531	30.26	22.86	27.14	5757	1.91	0.334	0.425			
WEIGHTED MEAN		455				20.35	30.74	35.87	33.39	8030	0.48			24.59	28.69	26.72	6418	C.39					
(EXCLUDING SERIES 301-399)																							
ARITHMETIC MEAN		412				20.69	31.32	34.93	33.75	8027	0.51	0.275	0.156	25.05	27.94	27.00	6422	C.41	0.220	0.125			
(SERIES 1-199)																							
STANDARD DEVIATION						4.07	10.10	4.47	7.19	1613	0.37	0.087	C.145	8.08	3.57	5.75	1290	0.30	0.070	0.116			
COEFF. OF VARIATION %						19.68	32.25	12.79	21.29	20.09	71.98			32.25	12.78	21.30	20.09	72.91					

REGRESSION EQUATIONS (DRY BASIS): $Y = 80.04 - 0.00607X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13185.63 - 164.72Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9696

<<<> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 412 SAMPLES CONTAINING ASH VALUES < 50.00% HAVE BEEN USED.
 (50.00% DRY ASH = 40.00% ASH AT 20.00% MOISTURE)

* GROUP 1 DRILL HOLES: DDH 57-008, 009, 010, 011, 012, 013, 014, 015, DDH 59-016, 017, 018, 019, 020, 021 AND 022.

** GROUP 2 DRILL HOLES: RH 75-004, DDH 74-023, 025, 026, 039, 041 AND DDH 75-050.

*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-051 AND 053.

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*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-051 AND 053.

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
COMBINED DRILL HOLES - GROUP 1*
ALL SAMPLES

PAGE 1

SAMPLE TYPE	TOTAL LENGTH	COUNT	***** MOISTURES *****										***** DRY BASIS *****										***** ESTIMATED IN-SITU MOISTURE OF 20.00% *****									
			%		%		%		%		%		%		%		%		%		%		%		%		%		%		%	
SERIES 1-199 :	7007.5	134																														
SERIES 201-299 :	1077.0	61																														
SERIES 301-399 :	3799.5	72																														
SODA & PCTASH TESTS:		0																														
MAXIMUM																																
MINIMUM																																
RANGE																																
WEIGHTED MEAN		195																														
(EXCLUDING SERIES 301-399)																																
ARITHMETIC MEAN		134																														
(SERIES 1-199)																																
STANDARD DEVIATION																																
COEFF. OF VARIATION %																																

REGRESSION EQUATIONS (DRY BASIS): $Y = 79.67 - 0.0069X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13065.45 - 163.98Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9606

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 122 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

* GROUP 1 DRILL HOLES: DDH 57-C08, 009, 010, 011, 012, C13, C14, 015, CCH 59-016, 017, 018, 019, 020, 021 AND 022

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
COMBINED DRILL HOLES - GROUP 1*
SAMPLES < 55% DRY ASH

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SAMPLE TYPE	TOTAL LENGTH	COUNT	*****															
			MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%							
SERIES 1-199 :	6615.5	122	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	887.5	49	%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%
SERIES 301-399 :	3799.5	72	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	POTAS
SODA & POTASH TESTS:		0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			41.50	54.91	48.92	47.03	10840	2.28				43.93	39.14	37.62	8672	1.83		
MINIMUM			8.71	13.69	24.73	15.30	4070	0.01				10.96	19.78	12.24	3256	0.01		
RANGE			32.79	41.22	24.19	31.73	6770	2.27				32.97	19.36	25.38	5416	1.82		
WEIGHTED MEAN		171	19.47	31.78	37.10	31.12	7790	0.49				25.43	29.68	24.90	6231	0.40		
(EXCLUDING SERIES 301-399)																		
ARITHMETIC MEAN		122	19.58	32.86	36.53	30.61	7676	0.54				26.29	29.22	24.48	6141	0.43		
(SERIES 1-199)																		
STANDARD DEVIATION			4.44	10.94	5.31	7.24	1723	0.39				8.75	4.25	5.79	1378	0.31		
COEFF. OF VARIATION %			22.66	33.28	14.55	23.64	22.44	71.35				33.29	14.56	23.64	22.44	72.20		

REGRESSION EQUATIONS (DRY BASIS):
 $Y = 79.67 - 0.00609X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13065.45 - 163.98Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9606

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 122 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

* GROUP 1 DRILL HOLES: DDH 57-008, 009, 010, 011, 012, 013, 014, 015, DDH 59-016, 017, 018, 019, 020, 021 AND 022

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
COMBINED DRILL HOLES - GROUP 1*
SAMPLES < 50% DRY ASH

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SAMPLE TYPE	TOTAL LENGTH	COUNT	*****										*****									
			MOISTURES					CRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%									
SERIES 1-199 :	6303.5	115	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	824.5	43	%	AS	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
SERIES 301-399 :	3759.5	72	EQUIL	RECVD	ASH	V.M.	F.C.	7LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	7LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	7LB.
SODA & POTASH TESTS:		0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			41.50	49.70	48.92	47.03	10840	2.28				39.76	39.14	37.62	8672	1.83						
MINIMUM			8.71	13.69	27.12	15.30	4070	0.01				10.96	21.70	12.24	3256	0.01						
RANGE			32.79	36.01	21.80	31.73	6770	2.27				28.80	17.44	25.38	5416	1.82						
WEIGHTED MEAN		158	19.75	30.72	37.57	31.71	7543	0.49				24.57	30.06	25.37	6353	0.39						
(EXCLUDING SERIES 301-399)																						
ARITHMETIC MEAN		115	19.85	31.65	37.09	31.26	7847	0.55				25.32	29.67	25.00	6277	0.43						
(SERIES 1-199)																						
STANDARD DEVIATION			4.37	10.05	4.93	6.94	1624	0.39				8.04	3.94	5.55	1299	0.31						
COEFF. OF VARIATION %			22.03	31.74	13.28	22.19	20.70	71.90				31.75	13.28	22.20	20.70	72.35						

REGRESSION EQUATIONS (DRY BASIS): $Y = 77.96 - 0.00590X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13208.91 - 169.41Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9542

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 115 SAMPLES CONTAINING ASH VALUES < 50.00% HAVE BEEN USED.
 (50.00% DRY ASH = 40.00% ASH AT 20.00% MOISTURE)

* GROUP 1 DRILL HOLES: DDH 57-008, 009, 010, 011, 012, 013, 014, 015, DDH 59-016, 017, 018, 019, 020, 021 AND 022

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DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
COMBINED DRILL HOLES - GROUP 2** + GROUP 3***
ALL SAMPLES

PAGE 1

TOTAL		*****																				
SAMPLE TYPE	LENGTH	COUNT	MOISTURES			DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%										
*****			*****																			
SERIES 1-199 :	9062.0	409	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		
SERIES 201-299 :	0.0	0	%	AS	%	%	%	%	BTU	%	%	%	%	%	%	%	%	%	%	%		
SERIES 301-399 :	12653.5	91	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS				
SODA & POTASH TESTS:			49	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		

MAXIMUM				30.58	82.17	44.16	49.22	11266	2.40	1.118	0.837	65.74	35.33	39.38	9013	1.92	0.894	0.670				
MINIMUM				1.49	12.04	12.34	2.07	649	0.00	0.124	0.009	9.64	9.87	1.66	519	0.00	0.099	0.007				
RANGE				29.09	70.13	31.82	47.15	10617	2.40	0.994	0.828	56.10	25.46	37.72	8494	1.92	0.795	0.663				
WEIGHTED MEAN			409	20.41	37.64	31.54	30.82	7122	0.47			30.11	25.23	24.66	5693	0.37						
(EXCLUDING SERIES 301-399)				*****																		
ARITHMETIC MEAN			409	20.20	39.28	31.07	29.64	6902	0.48	0.320	0.243	31.42	24.85	23.71	5521	0.38	0.256	0.194				
(SERIES 1-199)				*****																		
STANDARD DEVIATION				4.28	16.30	6.35	10.58	2456	0.34	0.174	0.225	13.04	5.08	8.46	1965	0.27	0.139	0.180				
COEFF. OF VARIATION %				21.17	41.50	20.45	35.68	35.59	70.39			41.50	20.45	35.69	35.59	71.39						

REGRESSION EQUATIONS (DRY BASIS): $Y = 82.11 - 0.00627X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13085.57 - 159.36Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9823

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 333 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

** GROUP 2 DRILL HOLES: RH 75-004, DDH 74-023, 025, 026, 039, 041 AND DDH 75-050.

*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-051 AND 053.

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*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-C51 AND 053.

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
 COMBINED DRILL HOLES - GROUP 2** + GRCLP 3***
 SAMPLES < 50% DRY ASH

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TOTAL		*****																		
SAMPLE TYPE	LENGTH	COUNT	MOISTURES			CRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%								

SERIES 1-199 :	6926.5	297	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
SERIES 201-299 :	0.0	0	AS																	
SERIES 301-399 :	12653.5	91	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SGDA	PCTAS		
SODA & POTASH TESTS:		36	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
MAXIMUM			30.58	49.87	44.16	49.22	11266	2.40	0.541	0.540	39.90	35.33	39.38	9013	1.92	0.433	0.432			
MINIMUM			8.60	12.04	20.35	18.55	4233	0.11	0.124	0.009	9.64	16.28	14.84	3387	0.09	0.099	0.007			
RANGE			21.98	37.83	23.81	30.67	7033	2.29	0.417	0.531	30.26	19.05	24.54	5626	1.83	0.334	0.425			
WEIGHTED MEAN			20.98	30.76	34.11	35.13	8141	0.48			24.61	27.29	28.10	6510	0.38					
(EXCLUDING SERIES 301-399)																				
ARITHMETIC MEAN			21.02	31.19	34.09	34.72	8097	0.50	0.275	0.156	24.94	27.27	27.77	6478	0.40	0.220	0.125			
(SERIES 1-199)																				
STANDARD DEVIATION			3.91	10.13	3.98	7.06	1606	0.36	0.087	0.145	8.11	3.18	5.65	1285	0.29	0.070	0.116			
COEFF. OF VARIATION %			18.60	32.49	11.67	20.33	19.83	72.20			32.50	11.67	20.34	19.83	73.16					

REGRESSION EQUATIONS (DRY BASIS): $Y = 81.11 - 0.00616X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13155.03 - 162.18Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9772

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 297 SAMPLES CONTAINING ASH VALUES < 50.00% HAVE BEEN USED.
 (50.00% DRY ASH = 40.00% ASH AT 20.00% MOISTURE)

** GROUP 2 DRILL HOLES: RH 75-004, DDH 74-023, 025, 026, 039, 041 AND DDH 75-05C.

*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-051 AND 053.

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
 COMBINED DRILL HOLES - GROUP 2** + GROUP 3***
 SAMPLES < 45% DRY ASH

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SAMPLE TYPE	TOTAL LENGTH	COUNT	*****										*****									
			MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%									
SERIES 1-199 :	6169.0	262	*****	%	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	0.0	0	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	BTU	%	%	%	*****	*****	*****
SERIES 301-399 :	12653.5	91	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	*****	*****	*****	*****
SODA & POTASH TESTS:		29	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			30.58	44.90	44.16	49.22	11266	2.40	0.541	0.468		35.92	35.33	39.38	9013	1.92	0.433	0.374				
MINIMUM			8.60	12.04	22.84	18.55	4233	0.11	0.124	0.009		9.64	18.28	14.84	3387	0.09	0.099	0.007				
RANGE			21.98	32.86	21.32	30.67	7033	2.29	0.417	0.459		26.28	17.05	24.54	5626	1.83	0.334	0.367				
WEIGHTED MEAN		262	21.13	28.73	34.81	36.45	8446	0.47				22.99	27.85	29.16	6754	C.37						
(EXCLUDING SERIES 301-399)																						
ARITHMETIC MEAN		262	21.21	29.03	34.86	36.11	8421	0.50	0.277	0.118		23.22	27.88	28.89	6737	C.39	0.222	0.094				
(SERIES 1-199)																						
STANDARD DEVIATION			3.87	8.74	3.50	6.24	1411	0.37	0.092	0.113		6.99	2.80	5.00	1129	C.30	0.074	0.091				
COEFF. OF VARIATION %			18.25	30.12	10.05	17.29	16.76	74.80				30.12	10.04	17.29	16.76	75.77						

REGRESSION EQUATIONS (DRY BASIS):
 $Y = 79.83 - 0.00602X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13232.44 - 165.74Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9740

<<<> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 262 SAMPLES CONTAINING ASH VALUES < 45.00% HAVE BEEN USED.
 (45.00% DRY ASH = 36.00% ASH AT 20.00% MOISTURE)

** GROUP 2 DRILL HOLES: RH 75-004, DDH 74-023, 025, 026, 039, 041 AND DDH 75-050.

*** GROUP 3 DRILL HOLES: DDH 74-037, 038, 043, 044, 046, DDH 75-C51 AND 053.

SUMMARIES BY
DRILL HOLE

DRILL HOLE SUMMARIES

Summary tables for drill holes are presented in the following sequence:

1957:	DDH 8 to 15, incl.
1959:	DDH 16 to 22, incl.
1975:	RH 4.
1974:	DDH 23, 25, 26, 37, 38, 39, 41, 43, 44, and 46.
1975:	DDH 50, 51, and 53.

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<><> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 11 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

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<> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 9 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

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<> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 7 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

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<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 4 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-012

PAGE 1

SAMPLE TYPE	TOTAL LENGTH COUNT	***** MOISTURES *****										***** DRY BASIS *****										***** ESTIMATED IN-SITU MOISTURE OF 20.00% *****									
		*****										*****										*****									
SERIES 1-199 :	417.0	7	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
SERIES 201-299 :	20.0	1	%	AS	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
SERIES 301-399 :	240.0	5	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS													
SODA & PCTASH TESTS:		0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM					27.10	54.69	36.25	35.80	8752	0.92																					
MINIMUM					12.50	28.81	24.73	19.77	4811	0.54																					
RANGE					14.60	25.88	11.52	16.03	3941	0.38																					
WEIGHTED MEAN (EXCLUDING SERIES 301-399)		8			17.96	41.48	31.64	26.88	6606	0.67																					
ARITHMETIC MEAN (SERIES 1-199)		7			18.73	40.14	31.79	28.07	6861	0.69																					
STANDARD DEVIATION					4.60	9.90	3.85	6.30	1539	0.15																					
COEFF. OF VARIATION %					24.54	24.66	12.12	22.44	22.43	21.97																					
					*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

REGRESSION EQUATIONS (DRY BASIS): $Y = 84.00 - 0.00629X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13138.87 - 156.41Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9939

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 7 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

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<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 9 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MCISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-014

PAGE 1

--SAMPLE TYPE--		TOTAL LENGTH	COUNT	*****															
				MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE CF 20.00%							

SERIES 1-199 :		404.0	10	*****				*****				*****							
SERIES 201-299 :		170.0	9	*****				*****				*****							
SERIES 301-399 :		80.0	2	*****				*****				*****							
SODA & POTASH TESTS:			0	*****				*****				*****							

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-C15

PAGE 1

[illegible]

REGRESSION EQUATIONS (DRY BASIS): $Y = 90.86 - 0.00733X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 12396.43 - 136.42Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9999

<> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 4 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
ONLY THE 9 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND CRILL HOLE 59-017

PAGE 1

TOTAL		*****																														
SAMPLE TYPE	LENGTH COUNT	MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%																				
		*****					*****					*****																				
SERIES 1-199 :	784.0	11	%	AS	%	%	%	GROSS	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
SERIES 201-299 :	68.0	4	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
SERIES 301-399 :	337.5	5	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS
SODA & POTASH TESTS:		0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

REGRESSION EQUATIONS (DRY BASIS): $Y = 84.28 - 0.00724X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 11468.23 - 136.06Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9898

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 10 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 59-018

PAGE 1

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REGRESSION EQUATIONS (DRY BASIS): $Y = 82.78 - 0.00646X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 12798.76 - 154.60Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9823

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 13 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 12 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED. (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 59-021

TOTAL		*****																
SAMPLE TYPE	LENGTH	QUNTI	MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%							
*****			*****															
SERIES	1-199 :	165.0	5	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
SERIES	201-299 :	9.0	2	%	AS	%	%	%	%	%	%	%	%	%	%	%	%	%
SERIES	301-399 :	249.0	4	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCCA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA
SODA & POTASH TESTS:			0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	MAXIMUM			23.76	54.91	47.34	38.68	10046	0.36				43.93	37.87	30.94	8037	0.29	
	MINIMUM			8.71	17.76	26.23	18.86	4791	0.20				14.21	20.99	15.08	3833	0.16	
	RANGE			15.05	37.15	21.11	19.82	5255	0.16				29.72	16.88	15.86	4204	0.13	
	WEIGHTED MEAN		7	19.57	27.20	39.25	33.55	8734	0.26				21.76	31.40	26.84	6987	0.21	
	(EXCLUDING SERIES 301-399)																	
	ARITHMETIC MEAN		5	18.07	31.97	36.86	31.18	8092	0.27				25.57	29.48	24.94	6474	0.21	
	(SERIES 1-199)																	
	STANDARD DEVIATION			5.94	15.93	8.66	8.51	2339	0.07				12.74	6.93	6.81	1871	0.06	
	COEFF. OF VARIATION %			32.88	49.84	23.45	27.30	28.90	25.37				49.84	23.50	27.30	28.90	27.63	

LINEAR CORRELATION COEFFICIENT = -0.9950

<> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 5 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MCISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 6 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DOLMAGE CAMPBELL & ASSOCIATES LTD.

1974 - 75 DRILL HOLE SUMMARIES

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<><> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 11 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED. (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND CRILL HOLE 74-C23

PAGE 1

SAMPLE TYPE		TOTAL LENGTH	COUNT	*****																	
				MOISTURES		CRY BASIS								ESTIMATED IN-SITU MCISTURE OF 20.00%							

				%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
				AS	BTU	GROSS	SULFR	SODA	POTAS	ASH	V.M.	F.C.	BTU	GROSS	SULFR	SCCA	POTAS				
				*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****			
SERIES 1-199 :				443.0	23																
SERIES 201-299 :				0.0	0																
SERIES 301-399 :				910.0	5																
SODA & POTASH TESTS:				2																	
MAXIMUM						23.96	76.76	40.90	45.74	10698	0.44	0.467	0.607	61.40	32.72	36.59	8558	0.36	0.373	0.485	
MINIMUM						17.47	13.36	14.92	7.80	1975	0.08	0.270	0.087	10.69	11.94	6.24	1580	0.07	0.216	0.070	
RANGE						6.49	63.40	25.98	37.94	8723	0.36	0.197	0.520	50.71	20.78	30.35	6978	0.29	0.157	0.415	
WEIGHTED MEAN (EXCLUDING SERIES 301-399)				23		20.86	39.14	31.63	29.22	7170	0.27			31.31	25.31	23.38	5736	0.21			
ARITHMETIC MEAN (SERIES 1-199)				23		20.80	39.82	31.30	28.88	7077	0.27	0.369	0.347	31.85	25.03	23.10	5662	0.21	0.295	0.278	
STANDARD DEVIATION						1.76	19.03	7.46	11.78	2616	0.11	0.139	0.268	15.22	5.97	9.42	2093	0.08	0.111	0.293	
COEFF. OF VARIATION %						8.48	47.79	23.83	40.78	36.97	39.62			47.79	23.84	40.79	36.97	40.29			

REGRESSION EQUATIONS (DRY BASIS): $Y = 87.12 - 0.00679X$ WHERE Y = PERCENTAGE CF ASH,
 $X = 12825.77 - 147.21Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9910

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 18 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MCISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-C25

PAGE 1

SAMPLE TYPE	TOTAL LENGTH	COUNT	*****															
			MOISTURES				DRY BASIS				ESTIMATED IN-SITU MCISTURE OF 20.00%							
SERIES 1-199 :	1224.0	64	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	0.0	0	%	AS	%	%	%	GROSS	%	%	%	%	%	%	GROSS	%	%	%
SERIES 301-399 :	847.0	11	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
SODA & PCTASH TESTS:		8	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			29.47	174.82	43.62	47.06	10889	1.87	0.679	0.819	59.86	34.90	37.65	8711	1.49	0.543	0.655	
MINIMUM			13.82	13.70	15.09	9.92	2172	0.23	0.213	0.025	10.96	12.07	7.93	1737	0.18	0.171	0.020	
RANGE			15.65	161.12	28.53	37.14	8717	1.64	0.466	0.794	48.90	22.83	29.72	6974	1.31	0.372	0.635	
WEIGHTED MEAN (EXCLUDING SERIES 301-399)		64	20.47	38.34	32.75	28.91	7115	0.55			30.67	26.20	23.13	5691	0.44			
ARITHMETIC MEAN (SERIES 1-199)		64	20.49	38.85	32.47	28.68	7050	0.55	0.324	0.322	31.08	25.97	22.94	5640	0.44	0.259	0.258	
STANDARD DEVIATION			3.19	16.03	6.93	9.55	2328	0.31	0.147	0.266	12.83	5.54	7.64	1863	0.25	0.118	0.213	
COEFF. OF VARIATION %			15.59	41.27	21.33	33.31	33.03	55.23			41.27	21.34	33.32	33.03	56.29			

REGRESSION EQUATIONS (DRY BASIS): $Y = 84.92 - 0.00658X$ WHERE Y = PERCENTAGE OF ASH.
 $X = 12887.54 - 151.75Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9900

<><> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 52 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MCISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 29 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-027

PAGE 1

SAMPLE TYPE	TOTAL LENGTH	COUNT	*****													
			MOISTURES			DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%				
SERIES 1-199 :	1262.0	67	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	0.0	0	%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%
SERIES 301-399 :	924.0	16	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCOA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR
SODA & POTASH TESTS:		9	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			25.38	181.41	39.04	46.73	10895	2.00	1.118	0.837		65.13	31.24	37.38	8716	1.60
MINIMUM			5.97	115.53	16.52	2.07	649	0.16	0.256	0.099		12.42	13.21	1.66	519	0.13
RANGE			20.41	165.88	22.52	44.66	10246	1.84	0.862	0.738		52.71	18.03	35.72	8197	1.47
WEIGHTED MEAN (EXCLUDING SERIES 301-399)		67	17.67	138.34	31.34	30.32	7023	0.58				30.67	25.07	24.26	5618	0.47
ARITHMETIC MEAN (SERIES 1-199)		67	17.63	141.29	30.26	28.45	6597	0.58	0.468	0.479		33.02	24.21	22.76	5277	0.46
STANDARD DEVIATION			3.30	114.95	5.51	9.76	2199	0.30	0.291	0.260		11.96	4.41	7.81	1759	0.24
COEFF. OF VARIATION %			18.72	136.20	18.21	34.22	33.34	51.12				36.20	18.22	34.33	33.34	51.74

REGRESSION EQUATIONS (DRY BASIS): $Y = 82.09 - 0.00628X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 13072.32 - 159.22Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9843

<><> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 55 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<><> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 48 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 19 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MCISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 8 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 10 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<><> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 27 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-046

PAGE 1

SAMPLE TYPE		TOTAL LENGTH	COUNT	*****															
				MOISTURES				CRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%							
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DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAPYNO CRILL HOLE 75-05C

PAGE 1

SAMPLE TYPE		TOTAL LENGTH	COUNT	*****										*****									
				MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%									
				*****					*****					*****									
SERIES 1-199 :				441.0	14	%	%	%	%	%	GROSS	%	%	%	%	%	%	GROSS	%	%	%	%	
SERIES 201-299 :				0.0	0	AS					BTU							BTU					
SERIES 301-399 :				559.0	3	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	PCTAS		
SODA & POTASH TESTS:					0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		
MAXIMUM						28.37	73.24	36.98	46.50	9949	0.50						58.59	29.58	37.20	7960	0.40		
MINIMUM						20.45	17.91	16.90	9.86	1810	0.14						14.33	13.52	7.89	1448	0.11		
RANGE						7.92	55.33	20.08	36.64	8139	0.36						44.26	16.06	29.31	6512	0.29		
WEIGHTED MEAN				14		24.81	39.07	29.30	31.63	6750	0.24						31.26	23.44	25.30	5400	0.19		
(EXCLUDING SERIES 301-399)																							
ARITHMETIC MEAN				14		24.90	38.59	29.51	31.91	6814	0.23						30.86	23.60	25.52	5451	0.18		
(SERIES 1-199)																							
STANDARD DEVIATION						2.42	18.67	6.92	12.25	2792	0.10						14.94	5.23	9.80	2233	0.08		
COEFF. OF VARIATION %						9.72	48.39	22.14	38.39	40.97	42.06						48.40	22.15	38.40	40.97	43.17		
						*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		

REGRESSION EQUATIONS (DRY BASIS): $Y = 84.30 - 0.00670X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 12571.42 - 145.11Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9991

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 11 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

PAGE 1

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES, ONLY THE 11 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
(55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

DATE: 3 JUL 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 75-053

PAGE 1

SAMPLE TYPE	TOTAL LENGTH	COUNT	*****										*****									
			MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%									
SERIES 1-199 :	324.0	12	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
SERIES 201-299 :	0.0	0	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	%	BTU	%	%	%	%	%
SERIES 301-399 :	668.0	6	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	PCTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS				
SCDA & POTASH TESTS:		0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MAXIMUM			27.00	68.41	37.47	44.11	9989	0.52				54.73	29.97	35.29	7991	0.42						
MINIMUM			18.40	18.42	18.78	12.12	2301	0.19				14.74	15.03	9.70	1841	0.15						
RANGE			8.60	49.99	18.69	31.99	7688	0.33				39.99	14.94	25.59	6150	0.27						
WEIGHTED MEAN (EXCLUDING SERIES 301-399)		12	23.36	42.78	28.37	28.85	6332	0.31				34.22	22.70	23.08	5066	0.25						
ARITHMETIC MEAN (SERIES 1-199)		12	22.88	46.19	27.12	26.69	5826	0.32				36.95	21.70	21.35	4660	0.25						
STANDARD DEVIATION			2.48	18.58	7.10	11.56	2757	0.12				14.87	5.68	9.25	2206	0.09						
COEFF. OF VARIATION %			10.86	40.23	26.17	43.32	47.33	36.51				40.24	26.16	43.32	47.33	37.65						

REGRESSION EQUATIONS (DRY BASIS): $Y = 84.17 - 0.00658X$ WHERE Y = PERCENTAGE OF ASH,
 $X = 12780.78 - 151.83Y$ X = GROSS BTU PER POUND.

LINEAR CORRELATION COEFFICIENT = -0.9980

<>> NOTE: IN DERIVING THE ABOVE REGRESSION EQUATIONS FROM THE 1-199 SERIES SAMPLES,
 ONLY THE 7 SAMPLES CONTAINING ASH VALUES < 55.00% HAVE BEEN USED.
 (55.00% DRY ASH = 44.00% ASH AT 20.00% MOISTURE)

1957-59 DRILL HOLES

1957 - 59 DRILL HOLES

Following are listings of individual analyses by drill hole for
hole No's 8 to 22, inclusive.

DATE: 6 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-008

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[illegible]

LAB		SAMPLE DATA				MOISTURES		DRY BASIS							ESTIMATED IN-SITU MOISTURE OF 20.00%							
		*****				*****		*****							*****							
		FOOTAGE						GROSS							GROSS							
I/D	HOL	I/D	*****	*****	*****	%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%	
#	#	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULF	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULF	SODA	POTAS		
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
	9-301		0.0	85.0	89.0		10.00	59.99														
	9-302		89.0	182.5	93.5		10.00	59.99														
CL	9-001		182.5	300.0	117.5		19.20	35.15	32.92	31.93	7587	1.05			28.12	26.34	25.54	6069	0.84			
CL	9-002		300.0	400.0	100.0		22.20	38.30	33.55	28.15	7236	0.64			30.64	26.84	22.52	5789	0.51			
CL	9-003		400.0	423.5	23.5		21.90	34.19	32.78	33.03	7759	0.61			27.35	26.22	26.43	6207	0.49			
	9-303		423.5	431.5	8.0		10.00	59.99														
CL	9-005		431.5	437.5	6.0		22.70	23.03	36.61	40.36	9470	0.70			18.42	29.29	32.29	7576	0.56			
	9-304		437.5	443.0	5.5		10.00	59.99														
CL	9-202		443.0	455.0	12.0		21.90	34.19	32.78	33.03	7759	0.61			27.35	26.22	26.43	6207	0.49			
	9-305		455.0	455.0	4.0		10.00	59.99														
CL	9-204		459.0	480.0	21.0		21.90	34.19	32.78	33.03	7759	0.61			27.35	26.22	26.43	6207	0.49			
CL	9-205		480.0	486.0	6.0		22.70	23.03	36.61	40.36	9470	0.70			18.42	29.29	32.29	7576	0.56			
CL	9-014		486.0	496.0	10.0		20.40	66.08	21.73	12.19	2952	0.26			52.86	17.39	9.75	2362	0.21			
	9-306		496.0	505.0	9.0		10.00	59.99														
CL	9-006		505.0	600.0	95.0		20.00	56.75	30.59	12.66	3799	0.46			45.40	24.47	10.13	3039	0.37			
CL	9-007		600.0	700.0	100.0		20.00	45.25	29.39	25.36	5714	0.71			36.20	23.51	20.29	4571	0.57			
CL	9-008		700.0	706.0	6.0	23.82	19.00	59.63	24.20	16.17	3649	0.70			47.70	19.36	12.94	2920	0.56			
	9-307		706.0	716.0	10.0		10.00	59.99														
CL	9-206		716.0	744.5	28.5	23.82	19.00	59.63	24.20	16.17	3649	0.70			47.70	19.36	12.94	2920	0.56			
	9-308		744.5	769.5	25.0		10.00	59.99														
CL	9-009		769.5	800.0	30.5		22.20	25.06	38.82	36.12	9023	1.22			20.05	31.05	28.89	7219	0.98			
CL	9-010		800.0	500.0	100.0	22.17	21.50	23.63	33.25	33.12	7911	1.03			26.90	26.60	26.50	6329	0.83			
CL	9-011		900.0	981.0	81.0	20.88	18.80	40.52	31.77	27.71	6749	0.87			32.41	25.42	22.17	5359	0.70			
	9-309		981.0	1045.5	64.5		10.00	59.99														

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-009

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SAMPLE DATA				MOISTURES		DRY BASIS								ESTIMATED IN-SITU MOISTURE OF 20.00%							
LAB	DRL	FOOTAGE				%	%	%	%	%	%	%	%	%	%	%	%	%	%		
I/D	HOL	I/D	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
ICL	9-013	1045.5	1074.5	29.0		14.50	49.59	31.93	18.48	5146	0.61				39.67	25.54	14.78	4117	0.49		

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HAY CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-010

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SAMPLE DATA					MOISTURES		DRY BASIS							ESTIMATED IN-SITU MOISTURE OF 20.00%											
LAB	DR	*****					*****													*****					
I/D	HOL	I/D	*****			*****		*****		*****			*****		*****		*****		*****						
#	#	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	BTU	%	%	%	%	%	%	BTU	%	%						
***	***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****						
10-301		0.0	65.0	65.0		10.00	59.99																		
10-302		65.0	131.0	66.0		10.00	59.99																		
CL	10-001	131.0	151.0	20.0		9.30	40.68	27.12	32.19	7288	0.88						32.55	21.70	25.76						
10-303		151.0	198.0	47.0		10.00	59.99																		
CL	10-003	198.0	210.0	12.0	26.56	21.60	27.93	36.73	35.33	8571	1.79						22.35	29.39	28.27						
CL	10-004	210.0	220.0	10.0	25.97	19.00	36.54	33.33	30.12	7321	2.28						29.23	26.67	24.10						
CL	10-201	220.0	230.0	10.0	26.56	21.60	27.93	36.73	35.33	8571	1.79						22.35	29.39	28.27						
CL	10-005	230.0	240.0	10.0		21.70	30.01	38.95	31.03	8174	1.02						24.01	31.16	24.83						
CL	10-202	240.0	260.0	20.0	26.56	21.60	27.93	36.73	35.33	8571	1.79						22.35	29.39	28.27						
CL	10-203	260.0	270.0	10.0	25.97	19.00	36.54	33.33	30.12	7321	2.28						29.23	26.67	24.10						
CL	10-204	270.0	280.0	10.0		21.70	30.01	38.95	31.03	8174	1.02						24.01	31.16	24.83						
CL	10-205	280.0	290.0	10.0	25.97	19.00	36.54	33.33	30.12	7321	2.28						29.23	26.67	24.10						
CL	10-206	290.0	300.0	10.0	26.56	21.60	27.93	36.73	35.33	8571	1.79						22.35	29.39	28.27						
CL	10-006	300.0	320.0	20.0		18.00	46.46	29.02	24.51	5951	0.52						37.17	23.22	19.61						
CL	10-007	320.0	340.0	20.0	25.49	20.80	29.55	35.48	34.97	8308	0.98						23.64	28.38	27.98						
CL	10-207	340.0	360.0	20.0		18.00	46.46	29.02	24.51	5951	0.52						37.17	23.22	19.61						
CL	10-208	360.0	370.0	10.0	25.49	20.80	29.55	35.48	34.97	8308	0.98						23.64	28.38	27.98						
CL	10-209	370.0	400.0	30.0		18.00	46.46	29.02	24.51	5951	0.52						37.17	23.22	19.61						
CL	10-008	400.0	460.0	60.0	24.15	17.30	42.32	33.13	24.55	6517	0.60						33.86	26.51	19.64						
10-304		460.0	542.0	82.0		10.00	59.99																		

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SAMPLE DATA										MOISTURES				DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%									
LAB	DRL	*****										*****				*****						*****							
FOOTAGE														GROSS						GROSS									
I/D	HOL	I/D	*****								%	AS	%	%	%	BTU	%	%	%	%	%	%	RTU	%	%	%			
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS		
***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***		
11-301		0.0	147.0	147.0		10.00	99.99																						
CL	11-001	147.0	180.0	33.0		20.90	39.95	34.77	25.28	6536	0.38			31.96	27.81	20.23	5229	0.30											
CL	11-002	180.0	200.0	20.0		24.70	29.08	39.71	31.21	8433	0.49			23.27	31.77	24.97	6746	0.39											
CL	11-201	200.0	210.0	10.0		20.90	39.95	34.77	25.28	6536	0.38			31.96	27.81	20.23	5229	0.30											
CL	11-202	210.0	240.0	30.0		24.70	29.08	39.71	31.21	8433	0.49			23.27	31.77	24.97	6746	0.39											
CL	11-203	240.0	250.0	10.0		20.90	39.95	34.77	25.28	6536	0.38			31.96	27.81	20.23	5229	0.30											
CL	11-003	250.0	320.0	70.0	24.75	23.80	24.15	41.47	34.38	9016	0.55			19.32	33.18	27.51	7213	0.44											
CL	11-004	320.0	330.0	10.0		18.90	40.32	37.85	21.82	6362	1.27			32.26	30.28	17.46	5090	1.02											
CL	11-204	330.0	350.0	20.0	24.75	23.80	24.15	41.47	34.38	9016	0.55			19.32	33.18	27.51	7213	0.44											
CL	11-205	350.0	387.0	37.0		18.90	40.32	37.85	21.82	6362	1.27			32.26	30.28	17.46	5090	1.02											
11-302		387.0	421.0	34.0		10.00	99.99																						

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SAMPLE DATA										MOISTURES			DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%				
*****										*****			*****					*****				
FOCTAGE													GROSS					GROSS				
I/D	HOL	I/D	*****		*****		%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%
#	#	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS		
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
12-301		0.0	10.0	10.0		10.00	59.99															
12-302		10.0	110.0	100.0		10.00	59.99															
CL	12-002	110.0	200.0	50.0	24.78	18.60	42.38	31.70	25.92	6204	0.63			33.91	25.36	20.74	4963	0.50				
CL	12-003	200.0	246.0	46.0	23.65	17.90	54.69	24.73	20.58	4811	0.54			43.75	19.78	16.47	3849	0.43				
12-303		246.0	337.0	91.0		10.00	59.99															
CL	12-005	337.0	400.0	63.0		20.00	29.25	36.25	34.50	8488	0.88			23.40	29.00	27.60	6790	0.70				
CL	12-006	400.0	440.0	40.0		20.00	36.75	33.00	30.25	7450	0.64			29.40	26.40	24.20	5960	0.51				
CL	12-007	440.0	480.0	40.0	26.08	27.10	28.81	35.39	35.80	8752	0.92			23.05	28.31	28.64	7001	0.74				
CL	12-201	480.0	500.0	20.0		20.00	36.75	33.00	30.25	7450	0.64			29.40	26.40	24.20	5960	0.51				
CL	12-008	500.0	532.0	32.0	21.80	15.00	38.47	31.88	29.65	7165	0.68			30.78	25.51	23.72	5732	0.55				
12-304		532.0	568.0	36.0		10.00	59.99															
CL	12-009	568.0	674.0	106.0	21.26	12.50	50.63	29.60	19.77	5154	0.56			40.50	23.68	15.82	4123	0.45				
12-305		674.0	677.0	3.0		10.00	59.99															

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-013

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LABOR		SAMPLE DATA				MOISTURES		DRY BASIS							ESTIMATED IN-SITU MOISTURE OF 20.00%									
I/D	HOL	I/D	FOOTAGE			%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
#	#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	E.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS			
13-301			0.0	86.0	86.0		10.00	59.99																
13-302			86.0	177.0	91.0		10.00	59.99																
CL	13-001		177.0	190.0	13.0		20.80	28.16	37.12	34.72	8472	0.95			22.53	29.70	27.78	6778	0.76					
CL	13-002		190.0	200.0	10.0		41.50	29.23	34.36	36.41	8376	1.11			23.38	27.49	29.13	6701	0.89					
CL	13-201		200.0	220.0	20.0		20.80	28.16	37.12	34.72	8472	0.95			22.53	29.70	27.78	6778	0.76					
CL	13-202		220.0	230.5	10.5		41.50	29.23	34.36	36.41	8376	1.11			23.38	27.49	29.13	6701	0.89					
13-303			230.5	279.0	48.5		10.00	59.99																
CL	13-003		279.0	295.0	16.0		23.30	35.33	32.59	32.07	7497	0.98			28.27	26.08	25.66	5997	0.78					
13-304			295.0	324.5	29.5		10.00	59.99																
CL	13-004		324.5	345.0	20.5	25.02	23.80	37.80	30.84	31.36	7126	0.83			30.24	24.67	25.09	5701	0.66					
CL	13-005		345.0	365.0	20.0	25.80	20.20	28.32	35.96	35.71	8446	1.09			22.66	28.77	28.57	6757	0.87					
CL	13-203		365.0	380.0	15.0	25.02	23.80	37.80	30.84	31.36	7126	0.83			30.24	24.67	25.09	5701	0.66					
CL	13-204		380.0	420.0	40.0	25.80	20.20	28.32	35.96	35.71	8446	1.09			22.66	28.77	28.57	6757	0.87					
13-305			420.0	442.0	22.0		10.00	59.99																
CL	13-006		442.0	459.0	17.0	24.81	22.80	48.06	27.33	24.61	5816	1.09			38.45	21.87	19.69	4653	0.87					
13-306			459.0	483.0	24.0		10.00	59.99																
CL	13-007		483.0	513.0	30.0		14.40	40.30	29.91	29.79	6787	1.17			32.24	23.93	23.83	5430	0.93					
13-308			513.0	533.0	20.0		10.00	59.99																
CL	13-009		533.0	566.0	33.0		17.00	40.48	30.36	29.16	5675	0.87			32.39	24.29	23.33	5340	0.69					
13-307			566.0	641.0	75.0		10.00	59.99																
CL	13-010		641.0	652.0	11.0		22.70	26.52	38.03	35.45	8499	0.74			21.22	30.43	28.36	6799	0.59					

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LAB ID		SAMPLE DATA					MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%					
*****		*****					*****		*****						*****					
I/D		FCOTAGE					%		GROSS						GROSS					
#	#	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	14-301	0.0	75.0	75.0		10.00	99.99													
	14-302	75.0	80.0	5.0		10.00	99.99													
CL	14-001	80.0	100.0	20.0		17.10	31.00	34.38	34.62	8022	0.76			24.80	27.50	27.70	6417	0.61		
CL	14-002	100.0	120.0	20.0	21.01	13.70	52.49	27.58	19.93	4925	0.57			41.99	22.06	15.94	3940	0.45		
CL	14-003	120.0	130.0	10.0		16.90	27.20	37.30	35.50	8556	1.26			21.76	29.84	28.40	6845	1.01		
CL	14-201	130.0	160.0	30.0	21.01	13.70	52.49	27.58	19.93	4925	0.57			41.99	22.06	15.94	3940	0.45		
CL	14-202	160.0	170.0	10.0		16.90	27.20	37.30	35.50	8556	1.26			21.76	29.84	28.40	6845	1.01		
CL	14-203	170.0	180.0	10.0	21.01	13.70	52.49	27.58	19.93	4925	0.57			41.99	22.06	15.94	3940	0.45		
CL	14-204	180.0	190.0	10.0		16.90	27.20	37.30	35.50	8556	1.26			21.76	29.84	28.40	6845	1.01		
CL	14-205	190.0	200.0	10.0	21.05	13.70	52.49	27.58	19.93	4925	0.57			41.99	22.06	15.94	3940	0.45		
CL	14-004	200.0	220.0	20.0		14.00	43.95	31.40	24.65	5965	0.57			35.16	25.12	19.72	4772	0.46		
CL	14-005	220.0	240.0	20.0	25.06	17.70	22.24	37.55	40.22	9295	0.75			17.79	30.04	32.17	7436	0.60		
CL	14-206	240.0	250.0	10.0		14.00	43.95	31.40	24.65	5965	0.57			35.16	25.12	19.72	4772	0.46		
CL	14-207	250.0	300.0	50.0	25.06	17.70	22.24	37.55	40.22	9295	0.75			17.79	30.04	32.17	7436	0.60		
CL	14-006	300.0	400.0	100.0	25.53	16.60	24.70	36.57	38.73	8969	0.73			19.76	29.26	30.98	7175	0.59		
CL	14-007	400.0	450.0	50.0		21.00	28.99	38.35	32.66	8519	1.13			23.19	30.68	26.13	6815	0.90		
CL	14-008	450.0	460.0	10.0		13.30	45.44	30.45	24.11	5998	0.67			36.36	24.36	19.28	4798	0.54		
CL	14-208	460.0	480.0	20.0		21.00	28.99	38.35	32.66	8519	1.13			23.19	30.68	26.13	6815	0.90		
CL	14-209	480.0	500.0	20.0		13.30	45.44	30.45	24.11	5998	0.67			36.36	24.36	19.28	4798	0.54		
CL	14-009	500.0	600.0	100.0		16.70	49.70	28.45	21.85	5618	0.64			39.76	22.76	17.48	4495	0.51		
CL	14-010	600.0	654.0	54.0		19.20	42.57	30.94	26.49	6597	0.46			34.06	24.75	21.19	5277	0.37		

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 57-015

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LAB		SAMPLE DATA				MOISTURES		DRY BASIS							ESTIMATED IN-SITU MOISTURE OF 20.00%						
I/D	HOL	I/D	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
15-301		0.0	93.0	93.0		10.00	99.99														
15-302		93.0	390.5	297.5		10.00	99.99														
CL 15-001		390.5	439.0	48.5		23.70	22.41	38.79	38.79	9345	1.21				17.93	31.04	31.04	7476	0.96		
15-303		439.0	444.0	5.0		10.00	99.99														
CL 15-002		444.0	451.0	7.0	28.05	20.30	28.36	37.14	34.50	8513	1.48				22.69	29.71	27.60	6811	1.18		
15-304		451.0	454.0	3.0		10.00	99.99														
CL 15-201		454.0	455.0	1.0	28.05	20.30	28.36	37.14	34.50	8513	1.48				22.69	29.71	27.60	6811	1.18		
15-305		455.0	459.0	4.0		10.00	99.99														
CL 15-202		459.0	459.5	0.5	28.05	20.30	28.36	37.14	34.50	8513	1.48				22.69	29.71	27.60	6811	1.18		
15-306		459.5	460.5	1.0		10.00	99.99														
CL 15-203		460.5	461.5	1.0	28.05	20.30	28.36	37.14	34.50	8513	1.48				22.69	29.71	27.60	6811	1.18		
15-307		461.5	466.0	4.5		10.00	99.99														
CL 15-003		466.0	478.5	12.5		20.80	31.69	35.48	32.83	8081	1.22				25.35	28.36	26.26	6465	0.98		
15-308		478.5	481.5	3.0		10.00	99.99														
CL 15-204		481.5	499.0	17.5		20.80	31.69	35.48	32.83	8081	1.22				25.35	28.36	26.26	6465	0.98		
15-309		499.0	505.5	6.5		10.00	99.99														
CL 15-004		505.5	545.0	39.5		19.60	38.18	32.96	28.86	7189	0.77				30.55	26.37	23.08	5751	0.62		

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LABOR		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%									
I/D	HOL	FOOTAGE				EQUIL		RECD		GROSS		SODA		POTAS		GROSS		SODA		POTAS			
#	#	FROM	TC	LENGTH	%	AS	%	ASH	V.M.	F.C.	/LB.	SULFR	%	%	%	ASH	V.M.	F.C.	/LB.	SULFR	%	%	%
16-301		0.0	27.0	27.0		10.00	99.99																
16-302		27.0	39.0	12.0		10.00	99.99																
CL 16-001		39.0	63.0	24.0		15.00	42.69	33.91	23.40	6520	0.75					34.16	27.12	18.72	5216	0.60			
16-303		63.0	93.0	30.0		10.00	99.99																
CL 16-201		93.0	169.0	76.0		15.00	42.69	33.91	23.40	6520	0.75					34.16	27.12	18.72	5216	0.60			
CL 16-002		169.0	192.0	23.0		12.20	56.39	29.11	14.50	4030	1.05					45.11	23.29	11.60	3224	0.84			
16-304		192.0	209.0	17.0		10.00	99.99																
CL 16-202		209.0	278.0	69.0		12.20	56.39	29.11	14.50	4030	1.05					45.11	23.29	11.60	3224	0.84			
CL 16-003		278.0	378.0	100.0		13.85	48.39	30.82	20.79	5339	0.68					38.71	24.65	16.63	4272	0.55			
CL 16-004		378.0	478.0	100.0		10.30	61.09	35.42	3.49	2839	0.64					48.87	28.33	2.79	2272	0.51			
16-305		478.0	570.0	92.0		10.00	99.99																
CL 16-005		570.0	657.0	87.0		12.50	50.89	29.42	19.69	4699	0.72					40.71	23.53	15.75	3760	0.58			
16-306		657.0	676.0	19.0		10.00	99.99																
CL 16-006		676.0	701.0	25.0		12.65	42.29	32.11	25.60	4070	0.78					33.83	25.69	20.48	3256	0.62			
16-307		701.0	717.0	16.0		10.00	99.99																
CL 16-203		717.0	785.0	68.0		12.65	42.29	32.11	25.60	4070	0.78					33.83	25.69	20.48	3256	0.62			
CL 16-007		785.0	875.0	90.0		12.50	35.29	37.21	27.50	6720	0.73					28.23	29.77	22.00	5376	0.59			
CL 16-008		875.0	965.0	90.0		10.60	42.59	28.91	28.49	4369	0.56					34.08	23.13	22.79	3455	0.45			
CL 16-009		965.0	1060.0	95.0		7.45	55.00	29.30	15.70	5209	0.59					44.00	23.44	12.56	4167	0.48			
CL 16-010		1060.0	1150.0	90.0		9.50	44.40	33.81	21.79	5509	0.48					35.52	27.05	17.43	4408	0.38			
CL 16-011		1150.0	1224.0	74.0		13.25	31.79	35.22	32.99	7200	0.54					25.43	28.17	26.39	5760	0.43			
CL 16-012		1224.0	1301.0	77.0		13.90	24.30	36.91	38.79	8499	0.44					19.44	22.53	31.03	6800	0.35			

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LAB		SAMPLE DATA					MOISTURES			DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%								
I/D	HOL	I/D	FCCTAGE	TC	LENGTH	EQUIL	AS	ASH	V.M.	F.C.	GROSS	BTU	SULF	SODA	POTAS	ASH	V.M.	F.C.	GROSS	BTU	SULF	SODA	POTAS
17-301			0.0	32.0	32.0		10.00	59.99															
17-302			32.0	49.0	17.0		10.00	59.99															
CL	17-001		49.0	115.0	66.0		16.10	44.40	36.91	18.69	5599	0.37				35.52	29.53	14.95	4480	0.30			
17-303			115.0	122.0	7.0		10.00	59.99															
CL	17-201		122.0	147.0	25.0		16.10	44.40	36.91	18.69	5599	0.37				35.52	29.53	14.95	4480	0.30			
CL	17-202		147.0	156.0	9.0		9.10	61.94	21.89	16.17	1848	0.20				49.55	17.51	12.94	1479	0.16			
CL	17-002		156.0	204.0	48.0		14.95	46.20	35.21	18.59	5210	0.39				36.96	28.17	14.87	4168	0.31			
CL	17-011		204.0	214.0	10.0		9.10	61.94	21.89	16.17	1848	0.20				49.55	17.51	12.94	1479	0.16			
CL	17-203		214.0	228.0	14.0		14.95	46.20	35.21	18.59	5210	0.39				36.96	28.17	14.87	4168	0.31			
17-304			228.0	238.0	10.0		10.00	59.99															
CL	17-204		238.0	258.0	20.0		14.95	46.20	35.21	18.59	5210	0.39				36.96	28.17	14.87	4168	0.31			
CL	17-003		258.0	353.0	95.0		17.00	29.40	43.20	27.40	7259	0.40				23.52	34.56	21.92	5807	0.32			
CL	17-004		353.0	444.0	91.0		19.20	35.49	40.11	24.39	6719	0.36				28.40	32.09	19.51	5375	0.29			
CL	17-005		444.0	527.0	83.0		17.50	47.20	37.50	15.30	5099	0.80				37.76	30.00	12.24	4080	0.64			
CL	17-006		527.0	555.0	32.0		16.40	46.09	38.22	15.69	5189	0.33				36.87	30.57	12.56	4151	0.27			
CL	17-007		555.0	650.0	91.0		14.80	26.64	41.78	31.57	7465	0.21				21.31	33.43	25.26	5972	0.17			
CL	17-008		650.0	740.0	90.0		15.60	20.85	43.60	35.54	8353	0.23				16.68	34.88	28.44	6692	0.18			
CL	17-009		740.0	830.0	90.0		17.60	14.93	44.17	40.90	9587	0.24				11.94	35.34	32.72	7670	0.19			
CL	17-010		830.0	518.0	88.0		16.20	24.10	42.12	33.77	8580	0.20				19.28	33.70	27.02	6864	0.16			
17-305			918.0	1185.5	271.5		10.00	59.99															

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 59-018

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LAB DPL		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%								
		FOOTAGE																				
I/D	HOL	I/D				%	AS	%	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%
#	#	#	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
	18-301		0.0	20.0	20.0		10.00	59.99														
	18-302		20.0	53.0	33.0		10.00	59.99														
CL	18-001		53.0	132.0	79.0		17.90	38.12	41.29	20.58	6699	0.40			30.50	33.03	16.47	5359	0.32			
CL	18-002		132.0	195.0	63.0		17.70	32.08	37.18	30.74	6683	0.34			25.66	29.74	24.59	5346	0.27			
	18-303		195.0	202.0	7.0		10.00	59.99														
CL	18-201		202.0	211.0	9.0		16.20	64.20	26.97	8.83	2757	0.86			51.36	21.58	7.06	2205	0.69			
CL	18-003		211.0	235.0	24.0		18.70	48.46	30.50	21.03	5338	0.39			38.77	24.40	16.83	4271	0.31			
	18-304		235.0	245.0	10.0		10.00	59.99														
CL	18-004		245.0	262.0	17.0		16.20	64.20	26.97	8.83	2757	0.86			51.36	21.58	7.06	2205	0.69			
	18-305		262.0	277.0	15.0		10.00	59.99														
CL	18-202		277.0	283.0	6.0		16.20	64.20	26.97	8.83	2757	0.86			51.36	21.58	7.06	2205	0.69			
	18-306		283.0	300.0	17.0		10.00	59.99														
CL	18-203		300.0	307.0	7.0		16.20	64.20	26.97	8.83	2757	0.86			51.36	21.58	7.06	2205	0.69			
	18-307		307.0	319.0	12.0		10.00	59.99														
CL	18-204		319.0	331.0	12.0		16.20	64.20	26.97	8.83	2757	0.86			51.36	21.58	7.06	2205	0.69			
CL	18-205		331.0	353.0	22.0		18.70	48.46	30.50	21.03	5338	0.39			38.77	24.40	16.83	4271	0.31			
CL	18-005		353.0	379.0	26.0		19.20	49.26	31.93	18.81	5421	0.25			39.41	25.54	15.05	4337	0.20			
CL	18-206		379.0	398.0	19.0		14.20	66.78	23.78	9.44	2133	0.12			53.43	19.02	7.55	1706	0.09			
CL	18-006		398.0	435.0	37.0		19.00	46.30	32.84	20.86	5667	0.33			37.04	26.27	16.69	4533	0.27			
CL	18-007		435.0	440.0	5.0		14.20	66.78	23.78	9.44	2133	0.12			53.43	19.02	7.55	1706	0.09			
	18-308		440.0	448.0	8.0		10.00	59.99														
CL	18-207		448.0	464.0	16.0		14.20	66.78	23.78	9.44	2133	0.12			53.43	19.02	7.55	1706	0.09			
CL	18-008		464.0	497.0	33.0		19.80	53.12	26.43	20.45	4676	0.14			42.49	21.15	16.36	3741	0.11			
CL	18-009		497.0	575.0	78.0		21.80	32.99	37.08	29.92	7941	0.32			26.39	29.67	23.94	6353	0.26			

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SAMPLE DATA																MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%							
LAB	DR	FOOTAGE					%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%									
I/D	HOL	I/D	*****	*****	*****	*****	%	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS									
#	#	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS											
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****										
CL	18-010	575.0	650.0	75.0		21.70	26.82	41.00	32.18	8761	0.11			21.46	32.80	25.75	7009	0.09													
CL	18-011	650.0	726.0	76.0		21.30	21.73	48.92	29.35	9225	0.10			17.38	39.14	23.48	7380	0.08													
CL	18-012	726.0	737.0	11.0		12.90	52.81	26.98	20.21	5086	0.13			42.25	21.58	16.17	4069	0.10													
CL	18-013	737.0	800.0	63.0		21.40	19.72	43.00	37.28	9873	0.14			15.78	34.40	29.82	7898	0.11													
CL	18-014	800.0	874.0	74.0		19.30	19.33	41.02	39.65	10099	0.17			15.46	32.81	31.72	8079	0.14													
CL	18-208	874.0	878.0	4.0		12.90	52.81	26.98	20.21	5086	0.13			42.25	21.58	16.17	4069	0.10													
CL	18-015	878.0	935.0	57.0		20.80	16.79	42.68	40.53	10177	0.13			13.43	34.14	32.42	8141	0.10													

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SAMPLE DATA										MOISTURES				DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%							
LABOR		FOOTAGE					%		%		GROSS		%		GROSS												
I/D	HOL	I/D	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS						
19-301			0.0	20.0	20.0	10.00	59.99																				
19-302			20.0	23.0	3.0	10.00	59.99																				
CL	19-001		23.0	43.0	20.0	16.17	46.96	32.77	20.27	4724	0.10				37.57	26.21	16.21	3779	0.08								
CL	19-002		43.0	113.0	70.0	23.10	26.92	40.60	32.48	8322	0.12				21.53	32.48	25.99	6658	0.09								
CL	19-003		113.0	180.0	67.0	23.29	23.86	40.46	35.68	9073	0.13				19.08	32.37	28.54	7259	0.10								
CL	19-004		180.0	250.0	70.0	23.10	17.57	44.28	38.15	9844	0.01				14.05	35.42	30.52	7875	0.01								
CL	19-005		250.0	320.0	70.0	23.55	21.66	41.62	36.72	9143	0.20				17.33	33.30	29.37	7315	0.16								
CL	19-006		320.0	387.0	67.0	24.09	21.49	39.70	38.81	9300	0.22				17.19	31.76	31.05	7440	0.18								
CL	19-007		387.0	398.0	11.0	20.32	74.59	17.92	7.49	2497	0.16				59.67	14.34	5.99	1998	0.13								
19-303			398.0	835.0	437.0	10.00	59.99																				

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LAB ID		SAMPLE DATA					MOISTURES		DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%							
		FOCTAGE							GROSS					GROSS							
I/D	HOL	I/D	FROM	TC	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
20-301		0.0	66.0	66.0		10.00	59.99														
CL	20-001	66.0	89.0	23.0		18.30	38.31	40.91	20.78	6291	0.44				30.65	32.72	16.63	5033	0.35		
CL	20-201	89.0	96.0	7.0		18.34	56.33	28.50	15.17	4580	0.26				45.06	22.80	12.14	3664	0.21		
CL	20-002	96.0	150.0	54.0		20.87	19.31	44.95	35.74	9187	0.38				15.45	35.96	28.59	7350	0.30		
CL	20-003	150.0	157.0	7.0		18.34	56.33	28.50	15.17	4580	0.26				45.06	22.80	12.14	3664	0.21		
CL	20-004	157.0	207.0	50.0		22.00	17.45	43.15	39.40	9538	0.24				13.96	34.52	31.52	7631	0.19		
CL	20-005	207.0	235.0	28.0		22.05	36.36	37.09	26.56	6876	0.22				29.09	29.67	21.24	5501	0.17		
CL	20-006	235.0	326.0	91.0		23.75	35.67	34.89	29.44	8984	0.39				28.54	27.91	23.55	7187	0.31		
CL	20-007	326.0	362.0	36.0		18.74	35.40	42.46	22.14	6596	0.32				28.32	33.97	17.71	5277	0.26		
CL	20-008	362.0	388.0	26.0		20.00	31.38	40.50	28.13	8450	0.34				25.10	32.40	22.50	6760	0.27		
CL	20-009	388.0	410.0	22.0		18.22	44.22	37.60	18.18	5668	0.24				35.37	30.08	14.55	4534	0.20		
CL	20-010	410.0	428.0	18.0		20.00	28.38	37.70	33.93	7950	0.26				22.70	30.16	27.14	6360	0.21		
CL	20-202	428.0	443.0	15.0		18.22	44.22	37.60	18.18	5668	0.24				35.37	30.08	14.55	4534	0.20		
CL	20-203	443.0	465.0	22.0		20.00	28.38	37.70	33.93	7950	0.26				22.70	30.16	27.14	6360	0.21		
CL	20-204	465.0	482.0	17.0		18.22	44.22	37.60	18.18	5668	0.24				35.37	30.08	14.55	4534	0.20		
CL	20-205	482.0	494.0	12.0		20.00	28.38	37.70	33.93	7950	0.26				22.70	30.16	27.14	6360	0.21		
CL	20-206	494.0	506.0	12.0		18.22	44.22	37.60	18.18	5668	0.24				35.37	30.08	14.55	4534	0.20		
CL	20-011	506.0	571.0	65.0		20.43	35.82	38.34	25.84	7541	0.11				28.65	30.67	20.67	6032	0.09		
CL	20-012	571.0	655.0	84.0		20.64	21.74	42.36	35.90	9249	0.24				17.39	33.89	28.72	7399	0.19		
CL	20-013	655.0	674.0	19.0		20.43	33.89	39.99	26.12	7779	0.06				27.12	31.99	20.89	6223	0.05		
	20-302	674.0	732.0	58.0		10.00	59.99														

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 59-022

PAGE 1

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1974 - 75 DRILL HOLES

1974 - 75 DRILL HOLES

Following are listings of individual analyses by drill hole for these holes:

RH 4, DDH 23, 25, 26, 37-39, 41, 43, 44, 46, 50,
51 and 53.

DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
ROTARY DRILL HOLE 75-004

PAGE 1

SAMPLE DATA					MOISTURES			DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%												
LAB	ORL	*****				*****				*****				*****				*****				*****			
I/D	HOL	I/D	*****				%	%	%	%	%	GROSS	%	%	%	%	%	%	GROSS	%	%	%			
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS					
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****				
	4-301		0.0	45.0	45.0		10.00	99.99																	
	4-302		45.0	125.0	80.0		10.00	99.99																	
LL	4-001		125.0	145.0	20.0		27.01	22.99	37.28	39.73	9309	0.22			18.39	29.82	31.79	7448	0.18						
LL	4-002		145.0	165.0	20.0		28.40	42.35	28.92	28.73	6603	0.22			33.88	23.14	22.98	5283	0.18						
LL	4-003		165.0	205.0	40.0		26.64	24.75	36.27	38.97	9102	0.22			19.80	29.02	31.18	7281	0.17						
LL	4-004		205.0	245.0	40.0		22.72	16.36	41.32	42.33	10269	0.21			13.08	33.05	33.86	8215	0.17						
LL	4-005		245.0	285.0	40.0		30.38	14.21	41.75	44.04	10576	0.23			11.36	33.40	35.23	8461	0.18						
LL	4-006		285.0	325.0	40.0		26.67	13.99	41.31	44.70	10792	0.26			11.19	33.05	35.76	8634	0.21						
LL	4-007		325.0	350.0	25.0		29.69	15.18	40.69	44.13	10694	0.27			12.14	32.55	35.31	8555	0.22						
LL	4-008		350.0	360.0	10.0		29.16	18.90	38.47	42.63	10215	0.28			15.12	30.77	34.11	8172	0.23						
LL	4-009		360.0	400.0	40.0		30.58	19.26	38.49	42.25	10141	0.33			15.41	30.79	33.80	8113	0.27						
LL	4-010		400.0	430.0	30.0		29.46	20.41	36.86	42.73	9950	0.44			16.33	29.49	34.18	7960	0.35						
LL	4-011		430.0	450.0	20.0		29.25	46.04	20.35	33.61	7722	0.49			36.83	16.28	26.89	6177	0.40						
	4-303		450.0	1460.0	1010.0		10.00	99.99																	

MINING PATENT REPORT ANALYSIS FORM

DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-023

PAGE 1

LAB		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%							
I/D	HOL	I/D	FOOTAGE			%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
#	#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	23-301		2.0	231.0	229.0		10.00	99.99													
	23-302		231.0	291.0	60.0		10.00	99.99													
ICT	23-001		291.0	311.0	20.0		22.11	58.69	24.46	16.86	4319	0.44			46.95	19.57	13.49	3455	0.35		
ICT	23-002		311.0	332.0	21.0	20.06	19.94	66.67	23.34	9.98	4002	0.30	.467	.607	53.34	18.68	7.98	3202	0.24	.373	.485
	23-303		332.0	380.0	48.0		10.00	99.99													
ICT	23-003		380.0	400.0	20.0		21.31	53.67	25.14	21.20	5121	0.36			42.93	20.11	16.96	4097	0.28		
ICT	23-004		400.0	418.0	18.0		23.49	54.21	24.69	21.10	4931	0.21			43.37	19.75	16.88	3945	0.17		
	23-304		418.0	428.0	10.0		10.00	99.99													
ICT	23-005		428.0	443.0	15.0		17.70	76.76	14.92	8.32	2004	0.10			61.40	11.94	6.66	1603	0.08		
ICT	23-006		443.0	458.0	15.0		17.47	76.66	15.53	7.80	1975	0.08			61.33	12.43	6.24	1580	0.07		
ICT	23-007		458.0	478.0	20.0		21.68	64.16	23.60	12.24	3952	0.20			51.33	18.88	9.80	3161	0.16		
ICT	23-008		478.0	498.0	20.0		21.78	50.69	28.73	20.58	5348	0.36			40.55	22.98	16.47	4278	0.29		
ICT	23-009		498.0	518.0	20.0		23.96	40.77	30.97	28.26	6812	0.29			32.61	24.78	22.61	5450	0.23		
ICT	23-010		518.0	538.0	20.0	23.84	20.84	39.75	30.58	29.66	7004	0.19			31.80	24.47	23.73	5603	0.15		
ICT	23-011		538.0	558.0	20.0		22.84	26.87	35.39	37.74	8835	0.17			21.49	28.32	30.19	7068	0.13		
ICT	23-012		558.0	578.0	20.0		19.92	38.95	32.46	28.60	7050	0.30			31.16	25.96	22.88	5640	0.24		
ICT	23-013		578.0	598.0	20.0		21.29	28.00	34.18	37.82	8672	0.44			22.40	27.34	30.26	6938	0.36		
ICT	23-014		598.0	618.0	20.0		22.39	31.39	36.66	31.95	8058	0.43			25.11	29.33	25.56	6447	0.34		
ICT	23-015		618.0	638.0	20.0	25.71	22.22	22.90	37.08	40.02	10276	0.15	.270	.087	18.32	29.66	32.02	8221	0.12	.216	.070
ICT	23-016		638.0	658.0	20.0		19.97	27.81	37.41	34.77	8558	0.20			22.25	29.93	27.82	6846	0.16		
ICT	23-017		658.0	678.0	20.0		20.70	21.66	39.22	39.12	9503	0.25			17.33	31.37	31.29	7603	0.20		
ICT	23-018		678.0	698.0	20.0		19.75	22.79	38.39	38.82	9239	0.17			18.23	30.71	31.05	7391	0.14		
ICT	23-019		698.0	718.0	20.0		22.03	13.36	40.90	45.74	10698	0.23			10.69	32.72	36.59	8558	0.18		
ICT	23-020		718.0	738.0	20.0		19.57	22.63	37.39	39.98	9455	0.26			18.10	29.91	31.99	7564	0.21		

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DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE T4-025

PAGE 1

SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%					
LAB	DRILL	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

I/D	HOLE	I/D	FOOTAGE			MOISTURES			DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%					
			FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	GROSS /LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	GROSS /LB.	SULFR	SODA

25-301		1.0	98.0	97.0		10.00	99.99														
25-302		98.0	123.0	25.0		10.00	99.99														
ICT	25-001	123.0	143.0	20.0		29.47	15.81	41.83	42.36	10342	0.60					12.65	33.46	33.89	8273	0.48	
ICT	25-002	143.0	163.0	20.0		26.50	25.89	38.58	35.52	8743	0.71					20.71	30.87	28.42	6994	0.57	
ICT	25-003	163.0	183.0	20.0		23.62	49.19	27.55	23.27	5549	0.60					39.35	22.04	18.61	4439	0.48	
ICT	25-004	183.0	187.5	4.5		19.37	74.82	15.09	10.08	2172	0.43					59.86	12.07	8.07	1737	0.35	
25-303		187.5	214.0	26.5		10.00	99.99														
ICT	25-005	214.0	234.0	20.0		17.73	58.40	22.83	18.77	4517	0.55					46.72	18.26	15.01	3613	0.44	
25-304		234.0	251.0	17.0		10.00	99.99														
ICT	25-006	251.0	271.0	20.0		26.20	36.80	34.16	29.04	7244	0.89					29.44	27.33	23.23	5795	0.72	
ICT	25-007	271.0	291.0	20.0		24.13	34.91	33.66	31.42	7517	0.74					27.93	26.93	25.14	6013	0.59	
ICT	25-008	291.0	311.0	20.0		25.30	27.74	38.41	33.86	8452	0.63					22.19	30.73	27.08	6762	0.50	
ICT	25-009	311.0	331.0	20.0	20.66	23.48	41.01	31.36	27.63	7091	0.60	.213	.468			32.81	25.09	22.10	5673	0.48	.171 .374
ICT	25-010	331.0	351.0	20.0		24.10	43.57	32.12	24.31	6364	0.99					34.86	25.70	19.45	5091	0.79	
ICT	25-011	351.0	371.0	20.0		24.38	50.30	26.96	22.73	5510	0.85					40.24	21.57	18.19	4408	0.68	
ICT	25-012	371.0	382.5	11.5		25.45	39.85	31.25	28.89	6871	0.74					31.88	25.00	23.11	5496	0.59	
25-305		382.5	398.5	16.0		10.00	99.99														
ICT	25-013	398.5	418.5	20.0		20.86	52.99	23.68	23.33	5172	0.52					42.40	18.94	18.66	4137	0.41	
ICT	25-014	418.5	438.5	20.0		21.53	39.61	33.16	27.23	6862	0.60					31.69	26.53	21.79	5490	0.48	
ICT	25-015	438.5	458.5	20.0	20.05	14.78	70.00	18.25	11.76	2778	0.39	.679	.819			56.00	14.60	9.41	2222	0.31	.543 .655
ICT	25-016	458.5	478.5	20.0		17.32	71.87	18.21	9.92	2475	1.64					57.49	14.57	7.93	1980	1.32	
25-306		478.5	490.0	11.5		10.00	99.99														
ICT	25-017	490.0	510.0	20.0		21.13	27.53	39.50	32.08	8781	0.76					22.02	31.60	26.38	7025	0.61	
ICT	25-018	510.0	521.5	11.5		15.09	52.04	29.63	18.33	5094	0.45					41.63	23.71	14.66	4075	0.36	

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-025

PAGE 2

SAMPLE DATA						MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%							
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DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-025

PAGE 3

| | | SAMPLE DATA | MOISTURES | DRY BASIS | ESTIMATED IN-SITU MOISTURE OF 20.00% |
| LAB | DRL | ***** | ***** | ***** | ***** |

I/D	HOL	I/D	FOOTAGE			%			GROSS			GROSS			GROSS						
			FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ICT	25-039		950.0	970.0	20.0		15.69	61.21	25.89	12.89	3621	0.49			48.97	20.71	10.31	2897	0.39		
ICT	25-040		970.0	990.0	20.0		19.53	39.59	32.38	28.02	7159	0.66			31.67	25.91	22.42	5727	0.53		
ICT	25-041		990.0	1010.0	20.0	20.79	18.78	45.60	30.21	24.18	6104	0.52	.292	.406	36.48	24.17	19.34	4884	0.41	.233	.325
ICT	25-042		1010.0	1030.0	20.0		18.24	57.25	22.32	20.43	4677	0.32			45.80	17.86	16.34	3742	0.25		
ICT	25-043		1030.0	1050.0	20.0		20.54	36.47	31.51	32.02	7508	0.40			29.18	25.21	25.61	6007	0.32		
ICT	25-044		1050.0	1070.0	20.0		18.34	51.29	25.56	23.16	5467	0.29			41.03	20.45	18.53	4373	0.24		
ICT	25-045		1070.0	1090.0	20.0		21.42	29.75	37.69	32.55	8136	0.31			23.80	30.16	26.04	6509	0.24		
ICT	25-046		1090.0	1110.0	20.0		17.30	41.98	36.31	21.70	6230	0.25			33.59	29.05	17.36	4984	0.20		
ICT	25-047		1110.0	1130.0	20.0		18.53	50.18	29.03	20.79	5079	0.27			40.14	23.22	16.63	4063	0.22		
ICT	25-048		1130.0	1150.0	20.0		21.82	25.62	38.16	36.22	9019	0.24			20.50	30.52	28.98	7215	0.19		
ICT	25-049		1150.0	1170.0	20.0		21.32	25.11	36.46	38.42	9033	0.23			20.09	29.17	30.74	7226	0.18		
ICT	25-050		1170.0	1190.0	20.0		20.47	20.06	39.10	40.84	9681	0.26			16.04	31.28	32.67	7744	0.21		
ICT	25-051		1190.0	1210.0	20.0	20.14	19.33	26.81	38.14	35.04	8778	0.24	.290	.126	21.45	30.51	28.04	7022	0.19	.232	.101
ICT	25-052		1210.0	1230.0	20.0		20.86	24.21	39.34	36.45	9211	0.51			19.37	31.47	29.16	7369	0.40		
ICT	25-053		1230.0	1250.0	20.0		19.19	20.36	40.85	38.79	9874	1.87			16.29	32.68	31.04	7899	1.49		
ICT	25-054		1250.0	1270.0	20.0		18.94	23.75	37.38	38.87	9045	0.27			19.00	29.90	31.10	7236	0.22		
ICT	25-055		1270.0	1290.0	20.0		20.20	22.23	38.88	38.88	9482	0.26			17.78	31.11	31.11	7586	0.21		
ICT	25-056		1290.0	1310.0	20.0		20.93	18.14	43.23	38.64	10129	0.27			14.51	34.58	30.91	8103	0.21		
ICT	25-057		1310.0	1330.0	20.0		21.49	16.79	42.85	40.36	10349	0.25			13.43	34.28	32.29	8279	0.20		
ICT	25-058		1330.0	1350.0	20.0		22.49	14.62	43.62	41.76	10597	0.28			11.69	34.90	33.41	8478	0.23		
ICT	25-059		1350.0	1370.0	20.0	24.85	22.83	13.70	39.24	47.06	10889	0.26	.326	.025	10.96	31.39	37.65	8711	0.21	.261	.020
ICT	25-060		1370.0	1390.0	20.0		21.44	21.96	35.63	42.41	5521	0.32			17.57	28.50	33.93	7617	0.25		
ICT	25-061		1390.0	1410.0	20.0		21.05	19.73	38.97	41.29	9921	0.38			15.79	31.18	33.03	7937	0.30		
ICT	25-062		1410.0	1430.0	20.0	25.35	21.62	20.45	37.24	42.31	10003	0.45	.260	.037	16.36	29.79	33.85	8002	0.36	.208	.029

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-025

SAMPLE DATA										MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%					
LAB	DRL	*****					*****			*****			*****			*****							
FOOTAGE										%			GROSS			GROSS							
I/D	HOL	I/D	*****		*****		%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%	
	#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LR	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB	SULFR	SODA	POTAS		
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		
ICT	25-063	1430.0	1450.0	20.0			21.59	25.85	38.69	35.45	9012	0.43			20.68	30.96	28.36	7209	0.35				
ICT	25-064	1450.0	1455.0	5.0			24.38	25.75	34.24	40.02	9041	0.44			20.60	27.39	32.01	7233	0.35				
	25-311	1455.0	2072.0	617.0			10.00	99.99															

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-026

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LAB ORL		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%								
		*****				*****		*****						*****								
I/D	HOL	I/D	FOOTAGE			%	%	GROSS						%	%	%	GROSS			%	%	%
#	#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
	26-301		3.0	59.0	56.0		10.00	99.99														
ICT	26-001		59.0	88.5	29.5	25.13	17.56	33.96	34.02	32.01	7660	0.72	.126	.143	27.17	27.22	25.61	6128	0.57	.100	.114	
ICT	26-002		88.5	103.0	14.5		17.93	51.41	25.80	22.80	5256	0.54			41.13	20.64	18.24	4205	0.43			
	26-302		103.0	107.0	4.0		10.00	99.99														
ICT	26-003		107.0	134.0	27.0	22.16	16.49	62.73	22.15	15.11	3712	0.24	.220	.289	50.19	17.72	12.09	2970	0.19	.176	.231	
ICT	26-004		134.0	149.0	15.0		14.24	46.63	30.76	22.61	5582	0.22			37.30	24.61	18.09	4465	0.18			
ICT	26-005		149.0	171.0	22.0		16.35	54.81	25.16	20.02	4683	0.16			43.85	20.13	16.02	3746	0.12			
ICT	26-006		171.0	200.0	29.0	23.08	18.78	47.35	30.42	22.22	5622	0.20	.279	.180	37.88	24.34	17.78	4497	0.16	.223	.144	
ICT	26-007		200.0	220.0	20.0		18.29	46.40	28.72	24.88	5914	0.20			37.12	22.98	19.90	4731	0.16			
ICT	26-008		220.0	241.0	21.0		16.97	49.75	29.12	21.12	5306	0.20			39.80	23.30	16.90	4245	0.16			
ICT	26-009		241.0	264.0	23.0		24.99	30.97	35.57	33.46	8128	0.32			24.78	28.45	26.77	6503	0.26			
ICT	26-010		264.0	292.0	28.0	24.72	21.57	28.21	37.16	34.52	8495	0.36	.203	.099	22.57	29.73	27.70	6796	0.29	.162	.079	
ICT	26-011		292.0	317.0	25.0		17.73	41.33	33.44	25.23	6473	0.27			33.06	26.75	20.19	5178	0.21			
ICT	26-012		317.0	343.0	26.0		20.13	41.28	29.18	29.54	6215	0.28			33.02	23.35	23.63	4972	0.22			
ICT	26-013		343.0	369.0	26.0	23.06	16.66	53.08	24.55	22.37	4870	0.30	.260	.202	42.47	19.64	17.89	3896	0.24	.208	.161	
ICT	26-014		369.0	395.0	26.0		15.20	53.04	24.30	22.65	4983	0.52			42.43	19.44	18.12	3987	0.42			
ICT	26-015		395.0	423.5	28.5	19.91	17.05	60.86	21.88	17.26	3850	0.52	.225	.183	48.68	17.50	13.81	3080	0.41	.180	.146	
ICT	26-016		423.5	441.0	17.5		15.63	48.28	25.93	25.79	5613	0.70			38.62	20.75	20.63	4491	0.56			
ICT	26-017		441.0	455.5	14.5		14.55	64.32	20.82	14.86	3329	0.60			51.45	16.66	11.89	2664	0.48			
ICT	26-018		455.5	468.0	12.5		13.81	77.84	15.84	6.32	1476	0.60			62.27	12.67	5.06	1181	0.48			
ICT	26-019		468.0	485.5	17.5		12.81	66.19	24.29	9.52	2722	0.83			52.95	19.43	7.62	2177	0.66			
ICT	26-020		485.5	513.0	27.5	21.19	18.55	35.57	35.14	29.29	7359	1.44	.228	.107	28.45	28.11	23.44	5887	1.15	.182	.085	
ICT	26-021		513.0	528.0	15.0		19.75	29.52	36.06	34.42	8385	1.10			23.62	28.85	27.53	6708	0.88			
	26-303		528.0	547.0	19.0		10.00	99.99														

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND CRILL HOLE 74-037

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LAB/DRL		SAMPLE DATA			MOISTURES		DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%									
		FOOTAGE					GROSS					GROSS									
I/D	HCL	I/D	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
37-301		0.0	166.0	166.0		10.00	99.99														
37-302		166.0	726.0	560.0		10.00	99.99														
ICT	37-001	726.0	746.0	20.0		26.38	16.46	38.60	44.93	10356	2.00				13.17	30.88	35.95	8285	1.60		
ICT	37-002	746.0	766.0	20.0		23.06	26.55	34.51	38.94	8835	0.52				21.24	27.61	31.15	7068	0.42		
ICT	37-003	766.0	786.0	20.0		22.72	25.16	36.26	38.59	8927	0.56				20.12	29.01	30.87	7142	0.45		
ICT	37-004	786.0	806.0	20.0		16.88	58.24	22.50	19.26	4166	0.40				46.59	18.00	15.41	3333	0.32		
ICT	37-005	806.0	826.0	20.0		19.04	45.55	28.17	26.27	6056	0.46				36.44	22.54	21.02	4845	0.37		
ICT	37-006	826.0	836.0	10.0		19.90	19.33	60.98	24.93	14.09	3258	0.38	.421	.720	48.78	19.94	11.28	2606	0.31	.337	.576
	37-303	836.0	858.0	22.0		10.00	99.99														
ICT	37-007	858.0	878.0	20.0		23.27	19.21	47.37	27.09	25.54	5456	0.83	.341	.474	37.90	21.68	20.43	4365	0.66	.273	.379
ICT	37-008	878.0	898.0	20.0		21.45	33.24	32.17	34.58	7793	0.83				26.60	25.74	27.66	6235	0.66		
ICT	37-009	898.0	918.0	20.0		21.67	28.42	35.35	36.23	8320	0.56				22.73	28.28	28.99	6656	0.45		
ICT	37-010	918.0	938.0	20.0		22.85	23.69	36.32	39.09	9020	0.67				18.96	29.06	31.99	7216	0.54		
ICT	37-011	938.0	958.0	20.0		20.89	35.56	31.35	33.09	7373	0.64				28.45	25.08	26.47	5899	0.52		
ICT	37-012	958.0	978.0	20.0		17.71	48.74	27.96	23.30	5465	0.52				38.99	22.37	18.64	4372	0.42		
ICT	37-013	978.0	983.0	5.0		18.50	72.44	17.86	9.69	2697	0.31				57.96	14.29	7.75	2157	0.25		
	37-304	983.0	989.0	6.0		10.00	99.99														
ICT	37-075	989.0	994.0	5.0		22.84	55.68	23.37	20.96	4565	0.49				44.54	18.69	16.77	3652	0.39		
	37-316	994.0	1003.0	9.0		10.00	99.99														
ICT	37-014	1003.0	1016.0	13.0		15.37	72.92	16.83	10.26	2744	0.30				58.33	13.46	8.21	2195	0.24		
ICT	37-077	1016.0	1023.0	7.0		19.52	64.91	22.79	12.30	3342	0.41	.785	.837	51.93	18.23	9.84	2674	0.33	.628	.670	
	37-305	1023.0	1044.0	21.0		10.00	99.99														
ICT	37-015	1044.0	1064.0	20.0		21.03	42.09	30.54	27.36	6714	1.53				33.67	24.43	21.89	5371	1.23		
ICT	37-016	1064.0	1084.0	20.0		20.10	42.55	28.41	29.04	5984	0.63				34.04	22.73	23.23	4787	0.50		

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-037

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SAMPLE DATA										MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%											
LAB	DRILL	*****										*****										*****									
FOOTAGE										*****										*****											
I/D	HOLE	I/D	*****										%	AS	%	%	%	GROSS	%	%	%	%	%	%	GROSS	%	%	%	%		
#	#	FROM	TO	LENGTH	EQUIL	PECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS				
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****				
ICT	37-017	1084.0	1092.0	8.0		22.07	32.72	32.02	35.76	7738	0.67			26.18	25.61	28.21	6190	0.53													
	37-306	1092.0	1099.0	7.0		10.00	99.99																								
ICT	37-018	1099.0	1119.0	20.0		19.37	32.98	31.90	35.12	7946	0.66			26.38	25.52	28.10	6357	0.53													
ICT	37-019	1119.0	1139.0	20.0		19.03	45.51	28.47	26.02	5943	0.63			36.41	22.77	20.82	4754	0.50													
ICT	37-020	1139.0	1159.0	20.0		20.00	34.06	32.93	33.01	7681	0.88			27.25	25.34	26.41	6145	0.70													
ICT	37-021	1159.0	1176.0	17.0		19.17	38.18	31.34	30.48	7051	0.79			30.54	25.07	24.39	5640	0.63													
	37-307	1176.0	1192.0	16.0		10.00	99.99																								
ICT	37-022	1192.0	1212.0	20.0		19.08	31.73	36.59	31.67	7713	0.69			25.39	29.27	25.34	6170	0.55													
ICT	37-023	1212.0	1230.0	18.0		21.29	25.44	36.97	37.59	7596	0.66			20.35	29.58	30.07	6077	0.53													
	37-308	1230.0	1234.0	4.0		10.00	99.99																								
ICT	37-024	1234.0	1254.0	20.0		18.33	38.62	33.16	28.22	6845	0.77			30.90	26.53	22.58	5476	0.62													
ICT	37-025	1254.0	1274.0	20.0		17.19	51.71	26.90	21.39	5114	0.54			41.37	21.52	17.11	4091	0.43													
ICT	37-026	1274.0	1294.0	20.0	18.00	16.11	31.28	33.58	35.14	8157	0.92	.256	.116	25.02	26.86	28.11	6526	0.73	.205	.093											
ICT	37-027	1294.0	1305.0	11.0		18.82	32.93	32.66	34.42	8057	0.78			26.34	26.12	27.53	6446	0.62													
	37-309	1305.0	1314.0	9.0		10.00	99.99																								
ICT	37-028	1314.0	1334.0	20.0		16.64	37.08	33.52	29.40	7240	0.67			29.66	26.81	23.52	5792	0.54													
ICT	37-029	1334.0	1354.0	20.0	16.76	15.95	53.46	24.18	22.37	5028	0.71	.353	.551	42.77	19.34	17.89	4022	0.57	.282	.440											
ICT	37-030	1354.0	1374.0	20.0		15.59	55.59	25.94	18.47	4806	0.54			44.47	20.76	14.78	3845	0.44													
ICT	37-031	1374.0	1394.0	20.0		16.55	41.07	32.29	26.65	6581	0.66			32.85	25.83	21.32	5265	0.53													
ICT	37-032	1394.0	1414.0	20.0		16.76	38.74	31.63	29.63	6968	0.73			30.99	25.31	23.70	5574	0.59													
ICT	37-033	1414.0	1434.0	20.0		16.15	41.50	31.23	27.26	6478	0.78			33.20	24.99	21.81	5183	0.62													
ICT	37-034	1434.0	1440.0	6.0		14.54	63.48	20.37	16.15	3713	0.44			50.78	16.30	12.92	2970	0.36													
	37-310	1440.0	1461.0	21.0		10.00	99.99																								
ICT	37-035	1461.0	1469.0	8.0		14.48	57.97	26.46	15.56	4107	0.53			46.38	21.17	12.45	3285	0.42													

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-037

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 | | | SAMPLE DATA | MOISTURES | DRY BASIS | ESTIMATED IN-SITU MOISTURE OF 20.00%
 | LAB | DRL | ***** | ***** | ***** | ***** |

FOOTAGE					%		%		%		GROSS		%		GROSS		%	
I/D	HOL	I/D	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	37-311	1469.0	1471.0	2.0		10.00	99.99											
ICT	37-036	1471.0	1481.0	10.0		15.29	52.56	24.68	22.76	5069	0.42			42.04	19.75	18.21	4055	0.34
	37-312	1481.0	1493.0	12.0		10.00	99.99											
ICT	37-038	1493.0	1497.0	4.0		5.97	81.41	16.52	2.07	649	0.16			65.13	13.21	1.66	519	0.13
	37-313	1497.0	1506.0	9.0		10.00	99.99											
ICT	37-039	1506.0	1526.0	20.0		14.91	38.36	34.87	26.77	6486	0.49			30.69	27.90	21.42	5189	0.39
ICT	37-040	1526.0	1546.0	20.0		18.87	25.19	35.07	39.74	8947	0.55			20.16	28.05	31.79	7158	0.44
ICT	37-041	1546.0	1566.0	20.0		18.63	32.49	32.76	34.74	7774	0.66			25.99	26.21	27.79	6219	0.53
ICT	37-042	1566.0	1586.0	20.0	19.74	20.16	52.49	29.87	17.64	4964	0.48	1.118	.672	41.99	23.90	14.11	3971	0.38 .894 .537
ICT	37-043	1586.0	1606.0	20.0		17.86	30.16	35.63	34.21	8009	0.75			24.12	28.51	27.37	6408	0.60
ICT	37-044	1606.0	1626.0	20.0		17.92	38.84	30.17	30.99	7098	0.58			31.07	24.13	24.83	5678	0.47
ICT	37-045	1626.0	1646.0	20.0		16.27	41.30	32.22	26.48	6399	0.44			33.04	25.78	21.18	5119	0.35
ICT	37-046	1646.0	1666.0	20.0		16.46	42.34	28.35	29.32	6423	0.55			33.87	22.68	23.45	5139	0.44
ICT	37-047	1666.0	1686.0	20.0		17.61	26.44	34.74	38.83	8876	0.76			21.15	27.79	31.06	7101	0.61
ICT	37-048	1686.0	1706.0	20.0		17.33	34.37	31.66	33.98	7590	0.74			27.49	25.32	27.18	6072	0.59
ICT	37-049	1706.0	1726.0	20.0	16.85	14.88	46.15	28.09	25.76	5873	0.88	.342	.540	36.92	22.47	20.61	4698	0.70 .273 .432
ICT	37-050	1726.0	1746.0	20.0		13.97	48.70	30.52	20.77	5356	0.98			38.96	24.42	16.62	4285	0.78
ICT	37-051	1746.0	1766.0	20.0		19.04	37.03	34.79	28.17	7141	0.77			29.62	27.84	22.54	5712	0.61
ICT	37-052	1766.0	1786.0	20.0		9.61	66.95	21.13	11.92	2749	0.35			53.56	16.90	9.53	2199	0.28
	37-314	1786.0	1826.0	40.0		10.00	99.99											
ICT	37-055	1826.0	1846.0	20.0		12.84	52.56	26.71	20.73	4362	0.75			42.05	21.37	16.59	3490	0.60
ICT	37-056	1846.0	1866.0	20.0		12.63	49.23	30.46	20.32	5051	0.31			39.38	24.37	16.25	4041	0.25
ICT	37-057	1866.0	1886.0	20.0		14.10	54.13	24.89	20.98	4360	0.29			43.31	19.91	16.78	3488	0.23
ICT	37-058	1886.0	1906.0	20.0		12.80	65.88	19.95	14.16	3025	0.17			52.71	15.96	11.33	2420	0.14

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LAB DRL		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%							

		FOOTAGE																			
I/O	HOL	I/O	*****	*****	*****	%	%	AS	%	%	%	%	%	%	%	%	%	%	%	%	
#	#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	BTU	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	BTU	/LB.	
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
ICT	37-059		1906.0	1926.0	20.0		15.26	52.11	25.30	22.59	4795	0.28				41.69	20.24	18.07	3836	0.23	
ICT	37-060		1926.0	1946.0	20.0	17.89	17.35	35.85	31.02	33.13	7529	0.33	.323	.301		28.68	24.82	26.50	6023	0.26 .258 .241	
ICT	37-061		1946.0	1966.0	20.0		18.46	26.22	35.25	38.53	9205	0.26				20.98	28.20	30.83	7364	0.21	
ICT	37-062		1966.0	1996.0	30.0		17.40	24.18	36.03	39.79	8769	0.19				19.34	28.82	31.84	7015	0.15	
ICT	37-063		1996.0	2026.0	30.0		16.72	23.13	37.49	39.38	9487	0.20				18.50	29.99	31.51	7590	0.16	
ICT	37-064		2026.0	2056.0	30.0		17.59	18.19	36.48	45.33	10421	0.24				14.55	29.18	36.27	8337	0.19	
ICT	37-065		2056.0	2086.0	30.0		14.33	20.95	39.04	40.00	9535	0.21				16.76	31.24	32.00	7628	0.17	
ICT	37-066		2086.0	2116.0	30.0	17.96	18.91	15.53	37.75	46.73	10895	0.32	.270	.099		12.42	30.20	37.38	8716	0.26 .216 .079	
ICT	37-067		2116.0	2146.0	30.0		16.74	19.14	36.88	43.97	10466	0.34				15.32	29.51	35.18	8373	0.27	
ICT	37-068		2146.0	2166.0	20.0		16.23	29.59	32.16	38.15	8850	0.44				23.75	25.73	30.52	7080	0.35	
	37-315		2166.0	2186.0	20.0		10.00	99.99													

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-038

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 SAMPLE DATA MOISTURES DRY BASIS ESTIMATED IN-SITU MOISTURE OF 20.00%
 LAB DRL *****

LAB	DRL	FOOTAGE				MOISTURES				GROSS				GROSS			
		FROM	TO	LENGTH		%	%	%	%	%	%	%	%	%	%	%	%
CT						EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.
CT																	
CT	38-015	489.0	509.0	20.0		21.44	49.26	29.01	21.73	5664	0.69				39.41	23.21	17.38
CT	38-016	509.0	520.0	11.0		21.45	58.64	24.15	17.21	4404	0.70				46.91	19.32	13.77
	38-309	520.0	542.0	22.0		10.00	99.99										
CT	38-017	542.0	556.0	14.0		22.15	45.07	27.04	27.89	6105	0.66				36.06	21.63	22.31
	38-310	556.0	579.0	23.0		10.00	99.99										
CT	38-018	579.0	599.0	20.0	24.54	22.93	28.10	34.70	37.20	8292	0.67	.188	.059		22.48	27.76	29.76
CT	38-019	599.0	619.0	20.0		24.96	27.84	34.58	37.58	8615	0.63				22.27	27.67	30.06
CT	38-020	619.0	639.0	20.0		22.04	35.43	33.25	31.32	7032	0.56				28.34	25.60	25.06
CT	38-021	639.0	659.0	20.0		20.96	31.90	32.41	35.69	7816	0.70				25.52	25.93	28.55
CT	38-022	659.0	679.0	20.0		23.12	32.00	33.77	34.23	8032	0.27				25.60	27.01	27.39
CT	38-023	679.0	699.0	20.0		23.81	32.56	33.44	33.99	7888	0.38				26.05	26.75	27.20
CT	38-024	699.0	719.0	20.0		21.28	32.02	35.59	32.38	7853	0.56				25.62	28.48	25.90
CT	38-025	719.0	739.0	20.0		25.11	28.25	40.83	30.91	8127	0.68				22.60	32.67	24.73
CT	38-026	739.0	759.0	20.0		23.01	38.08	29.65	32.26	6992	0.58				30.47	23.72	25.81
CT	38-027	759.0	779.0	20.0		20.51	34.26	34.66	31.09	7486	0.60				27.40	27.73	24.87
CT	38-028	779.0	799.0	20.0		18.62	52.54	25.99	21.47	5115	0.50				42.03	20.79	17.17
CT	38-029	799.0	819.0	20.0	18.51	14.09	59.84	23.63	16.53	3593	0.56	.209	.305		47.87	18.90	13.22
CT	38-030	819.0	839.0	20.0		17.97	57.91	24.75	17.35	4265	0.52				46.32	19.80	13.88
CT	38-031	839.0	859.0	20.0	21.19	18.30	46.13	31.88	21.98	4483	0.60	.208	.148		36.91	25.51	17.59
CT	38-032	859.0	879.0	20.0		19.98	44.26	29.90	25.83	6243	0.32				35.41	23.92	20.66
CT	38-033	879.0	886.0	7.0		16.27	56.54	27.61	15.85	4139	0.35				45.23	22.09	12.69
CT	38-063	886.0	896.0	10.0		12.84	67.27	27.28	5.45	1883	0.25	.242	.283		53.81	21.83	4.36
CT	38-034	896.0	916.0	20.0		21.93	37.71	29.29	33.00	7245	0.29				30.17	23.44	26.40
CT	38-035	916.0	936.0	20.0		20.35	53.22	25.81	20.97	4832	0.20				42.58	20.65	16.77

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SAMPLE DATA										MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%												
FOOTAGE																														
I/D	HCL	I/D	*****	*****	*****	*****	*****	*****	*****	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.
ICT	38-036	936.0	956.0	20.0		19.41	47.92	27.09	24.99	5228	0.26										38.34	21.67	19.99	4182	0.21					
ICT	38-037	956.0	976.0	20.0		17.56	42.42	32.47	25.11	6293	0.69										33.93	25.98	20.09	5034	0.55					
ICT	38-038	976.0	996.0	20.0		21.93	27.33	33.07	39.59	8833	0.42										21.87	26.46	31.67	7066	0.34					
ICT	38-039	996.0	1016.0	20.0	23.53	21.09	26.84	34.84	38.32	8461	0.27	.228	.043	21.47	27.87	30.66	6769	0.21	.182	.034										
ICT	38-040	1016.0	1036.0	20.0		21.33	24.00	35.39	40.61	9247	0.19			19.20	28.31	32.49	7398	0.15												
ICT	38-041	1036.0	1056.0	20.0		20.79	26.20	34.96	38.85	8962	0.20			20.96	27.97	31.08	7170	0.16												
ICT	38-042	1056.0	1076.0	20.0		21.30	21.86	37.95	40.19	9515	0.18			17.48	30.36	32.15	7612	0.14												
ICT	38-043	1076.0	1096.0	20.0		22.65	19.48	37.27	43.24	10019	0.18			15.59	29.82	34.60	8016	0.14												
ICT	38-044	1096.0	1116.0	20.0		23.55	14.02	39.84	46.13	10780	0.20			11.22	31.87	36.91	8624	0.16												
ICT	38-045	1116.0	1136.0	20.0		21.20	19.00	37.97	43.03	10077	0.20			15.20	30.38	34.43	8062	0.16												
ICT	38-046	1136.0	1156.0	20.0	26.14	24.47	15.03	38.36	46.62	10768	0.25	.274	.027	12.02	30.68	37.29	8614	0.20	.219	.022										
ICT	38-047	1156.0	1176.0	20.0		24.83	12.78	41.08	46.14	11266	0.21			10.23	32.86	36.91	9013	0.17												
ICT	38-048	1176.0	1196.0	20.0	28.74	25.28	12.04	38.73	49.22	11255	0.28	.317	.014	9.64	30.99	39.38	9004	0.22	.253	.012										
ICT	38-049	1196.0	1216.0	20.0		24.55	16.58	38.71	44.71	10488	0.25			13.26	30.97	35.76	8390	0.20												
ICT	38-050	1216.0	1236.0	20.0		23.89	18.45	38.71	42.85	10106	0.28			14.76	30.97	34.28	8085	0.22												
ICT	38-051	1236.0	1256.0	20.0		25.35	19.17	36.91	43.92	10218	0.47			15.34	29.52	35.14	8175	0.38												
ICT	38-052	1256.0	1263.0	7.0		22.67	36.74	28.71	34.55	7583	0.47			29.39	22.97	27.64	6066	0.37												
	38-312	1263.0	2084.0	821.0		10.00	99.99																							

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LAB ID		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%									

		FOOTAGE										GROSS								GROSS			
I/D	HOL	I/D	*****	*****	*****	%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%		
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SCDA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS			
***	***	***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		
	39-301		2.0	33.0	31.0		10.00	99.99															
ICT	39-001		33.0	53.0	20.0		26.75	61.71	23.36	14.94	2800	0.31					49.37	18.69	11.95	2240	0.25		
ICT	39-002		53.0	73.0	20.0		21.53	52.87	26.49	20.63	4342	0.37					42.30	21.20	16.51	3473	0.30		
ICT	39-003		73.0	93.0	20.0		17.64	54.61	26.71	18.67	4305	1.03					43.69	21.37	14.94	3444	0.83		
	39-302		93.0	98.0	5.0		10.00	99.99															
ICT	39-004		98.0	118.0	20.0		11.85	41.41	34.88	23.71	6213	2.09					33.13	27.91	18.97	4971	1.67		
ICT	39-005		118.0	138.0	20.0	18.38	16.71	30.28	34.09	35.63	8538	0.62	.124	.148			24.22	27.27	28.51	6830	0.50 .099 .119		
ICT	39-006		138.0	158.0	20.0		18.41	24.68	36.87	38.45	9360	0.54					19.75	29.49	30.76	7488	0.43		
ICT	39-007		158.0	178.0	20.0	20.94	20.40	34.31	32.09	33.61	7740	0.23	.161	.099			27.45	25.67	26.88	6192	0.18 .129 .080		
ICT	39-008		178.0	198.0	20.0		22.84	20.55	36.31	43.13	9721	0.16					16.44	29.05	34.50	7777	0.12		
ICT	39-009		198.0	218.0	20.0		21.47	23.80	34.53	41.67	9112	0.19					19.04	27.63	33.33	7290	0.15		
ICT	39-010		218.0	238.0	20.0		23.11	26.78	34.91	38.31	8764	0.22					21.42	27.93	30.65	7012	0.18		
ICT	39-011		238.0	258.0	20.0		20.47	23.61	37.68	38.70	9047	0.23					18.89	30.15	30.96	7238	0.18		
ICT	39-012		258.0	278.0	20.0		22.24	16.08	37.76	46.17	10231	0.30					12.86	30.21	36.93	8185	0.24		
ICT	39-013		278.0	298.0	20.0		22.25	15.32	38.01	45.67	10529	0.32					13.06	30.41	36.54	8423	0.26		
ICT	39-014		298.0	318.0	20.0		23.73	20.61	36.16	43.23	9885	0.28					16.49	28.93	34.58	7908	0.22		
ICT	39-015		318.0	338.0	20.0		21.66	14.02	36.92	49.07	10739	0.40					11.21	29.53	39.25	8591	0.32		
ICT	39-016		338.0	358.0	20.0		23.58	15.26	36.59	48.15	10760	0.27					12.21	29.27	38.52	8608	0.22		
ICT	39-017		358.0	378.0	20.0	24.81	22.49	18.17	36.91	44.92	10061	0.28	.289	.049			14.53	29.53	35.94	8049	0.23 .231 .039		
ICT	39-018		378.0	398.0	20.0	24.58	22.33	21.20	34.54	44.25	9766	0.30	.316	.036			16.96	27.63	35.40	7813	0.24 .253 .029		
ICT	39-019		398.0	418.0	20.0		23.10	16.94	37.19	45.86	10562	0.29					13.56	29.75	36.69	8449	0.23		
ICT	39-020		418.0	438.0	20.0		19.56	17.49	33.42	39.10	8897	0.39					21.99	26.73	31.28	7118	0.31		
	39-303		438.0	1441.0	1003.0		10.00	99.99															

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LAB DRL		SAMPLE DATA				MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%				
I/D	HOL	I/D	FOOTAGE			%	%	%	%	%	%	%	%	%	%	%	%	%
#	#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	41-301		1.5	170.0	168.5		10.00	99.99										
ICT	41-001		170.0	190.0	20.0		21.07	56.64	23.64	19.71	4585	0.22			45.32	18.91	15.77	3668
ICT	41-002		190.0	210.0	20.0		26.03	47.15	27.02	25.82	5946	0.27			37.72	21.62	20.66	4757
ICT	41-003		210.0	230.0	20.0		23.44	46.39	31.43	22.18	5472	0.25			37.12	25.14	17.74	4377
ICT	41-004		230.0	250.0	20.0		26.27	29.05	35.22	35.72	8429	0.24			23.24	28.18	28.58	6744
ICT	41-005		250.0	270.0	20.0	22.50	24.36	29.31	35.33	35.36	8250	0.28			23.45	28.26	28.29	5600
ICT	41-006		270.0	290.0	20.0		26.10	22.02	37.73	40.26	9445	0.30			17.61	30.18	32.21	7556
ICT	41-007		290.0	310.0	20.0		26.66	20.02	38.06	41.93	9742	0.33			16.01	30.44	33.54	7794
ICT	41-008		310.0	330.0	20.0		22.89	24.47	37.14	38.39	9056	0.31			19.58	29.71	30.71	7245
ICT	41-009		330.0	357.0	27.0		21.60	30.22	34.81	34.97	8307	0.31			24.17	27.85	27.98	6646

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-043

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SAMPLE DATA					MOISTURES		DRY BASIS								ESTIMATED IN-SITU MOISTURE OF 20.00%							
LAB	IDRL	FOOTAGE				%		%								%						
I/D	HOL	I/D	*****				%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS		
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
	43-301		0.0	91.0	91.0		10.00	99.99														
CT	43-002		91.0	110.5	19.5		22.83	61.97	24.63	13.40	3258	0.36			49.57	19.71	10.72	2606	0.29			
	43-302		110.5	156.5	46.0		10.00	99.99														
CT	43-005		156.5	176.5	20.0		22.29	64.61	23.39	11.99	2800	0.18	.549	.304	51.69	18.72	9.59	2240	0.14	.439	.243	
CT	43-007		176.5	216.5	40.0		27.67	57.07	24.62	18.30	4261	0.44			45.66	19.70	14.64	3409	0.35			
CT	43-008		216.5	226.5	10.0		24.83	50.53	25.81	23.67	5030	0.23			40.42	20.65	18.93	4024	0.18			
CT	43-009		226.5	256.5	30.0		24.89	40.66	29.92	29.42	6605	0.17			32.53	23.93	23.54	5284	0.14			
CT	43-010		256.5	286.5	30.0		25.33	37.77	31.77	30.47	7016	0.35			30.21	25.41	24.37	5613	0.28			
CT	43-011		286.5	316.5	30.0		26.01	33.23	35.15	31.61	7859	0.32			26.59	28.12	25.29	6287	0.26			
CT	43-012		316.5	346.5	30.0		25.99	27.73	35.44	36.83	8676	0.16			22.18	28.35	29.47	6941	0.13			
CT	43-013		346.5	376.5	30.0	22.24	26.25	27.65	34.73	37.63	8654	0.11	.263	.086	22.12	27.78	30.10	6923	0.09	.210	.069	
CT	43-014		376.5	407.0	30.5		27.87	24.75	36.12	39.14	9050	0.18			19.80	28.89	31.31	7240	0.14			
CT	43-015		407.0	437.0	30.0		26.25	20.53	38.16	41.32	9403	0.22			16.42	30.52	33.05	7523	0.17			
CT	43-016		437.0	467.0	30.0		27.47	17.92	37.78	44.30	10182	0.23			14.34	30.22	35.44	8146	0.19			
CT	43-017		467.0	492.0	25.0		26.54	25.59	33.47	40.93	9133	0.27			20.47	26.78	32.75	7306	0.22			
	43-303		492.0	1525.0	1033.0		10.00	99.99														

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HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-044

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 LAB INRL SAMPLE DATA MOISTURES DRY BASIS ESTIMATED IN-SITU MOISTURE OF 20.00%

LAB	FILE	FOOTAGE				MOISTURES				DRY BASIS				ESTIMATED IN-SITU MOISTURE OF 20.00%													
I/D	HOL	I/D	*****	*****	*****	%	AS	%	%	%	BTU	%	%	%	%	%	%	BTU	%	%	%	%	%	%	%	%	%
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
	44-301		1.5	165.0	163.5		10.00	19.99																			
	44-302		165.0	606.0	441.0		10.00	19.99																			
CT	44-002		606.0	636.0	30.0		26.52	20.62	38.21	41.17	9578	1.42			16.49	30.57	32.93	7662	1.13								
CT	44-003		636.0	666.0	30.0		22.55	40.68	31.35	27.97	6522	0.43			32.55	25.08	22.37	5217	0.34								
CT	44-004		666.0	676.0	10.0		23.47	34.93	32.68	32.39	7567	0.55			27.94	26.14	25.91	6054	0.44								
	44-303		676.0	698.5	22.5		10.00	19.99																			
CT	44-006		698.5	728.5	30.0		20.89	45.11	28.57	26.32	6218	0.90			36.09	22.85	21.05	4974	0.72								
CT	44-007		728.5	758.5	30.0		20.94	43.79	28.65	27.56	6217	0.63			35.03	22.92	22.05	4973	0.51								
CT	44-008		758.5	788.5	30.0		20.88	38.61	30.59	30.80	7022	0.59			30.89	24.47	24.64	5618	0.48								
CT	44-009		788.5	818.5	30.0		19.09	52.87	27.70	19.43	4679	0.49			42.30	22.16	15.54	3743	0.40								
CT	44-010		818.5	848.5	30.0	21.65	20.04	44.90	29.88	25.23	5915	0.44	.395	.121	35.92	23.90	20.18	4732	0.35	.316	.097						
CT	44-011		848.5	878.5	30.0		22.17	39.33	31.54	29.13	6744	0.41			31.46	25.23	23.30	5395	0.33								
CT	44-012		878.5	908.5	30.0		19.26	48.60	28.04	23.36	5583	0.59			38.88	22.43	18.69	4467	0.48								
CT	44-013		908.5	928.5	20.0		21.55	29.65	36.95	33.40	8317	0.48			23.72	29.56	26.72	6654	0.39								
	44-304		928.5	939.0	10.5		10.00	19.99																			
CT	44-015		939.0	969.0	30.0		20.95	34.80	36.15	29.04	6853	0.40			27.84	28.92	23.24	5482	0.32								
CT	44-016		969.0	999.0	30.0		17.16	46.96	33.49	19.56	5273	0.42			37.57	26.79	15.64	4218	0.34								
	44-305		999.0	1006.0	7.0		10.00	19.99																			
CT	44-017		1006.0	1021.0	15.0		18.83	57.82	23.93	18.26	4151	0.38			46.25	19.14	14.61	3320	0.31								
	44-306		1021.0	1031.0	10.0		10.00	19.99																			
CT	44-019		1031.0	1061.0	30.0		21.24	36.69	32.62	30.69	7158	0.90			29.35	26.09	24.55	5727	0.72								
CT	44-020		1061.0	1091.0	30.0		18.42	56.57	25.07	18.36	4269	0.69			45.26	20.05	14.69	3416	0.55								
CT	44-047		1091.0	1099.0	8.0		16.72	67.93	25.42	6.65	2597	0.31			54.34	20.34	5.32	2078	0.25								
CT	44-021		1099.0	1128.0	29.0		19.53	44.48	28.78	26.74	5909	0.87			35.58	23.02	21.39	4727	0.70								

DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-044

PAGE 2

LAB DRILL		SAMPLE DATA				MOISTURES		DRY BASIS							ESTIMATED IN-SITU MOISTURE OF 20.00%												
		*****				*****		*****							*****												
		FOOTAGE				%		GROSS							%		GROSS										
I/D	HOL	I/D	*****		*****	%	AS	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	44-307	1128.0	1130.0	2.0		10.00	99.99																				
ICT	44-022	1130.0	1146.0	16.0		22.70	38.09	30.28	31.63	6884	0.79			30.47	24.23	25.30	5507	0.63									
	44-308	1146.0	1286.0	140.0		10.00	99.99																				
ICT	44-029	1286.0	1316.0	30.0		19.60	41.41	31.46	27.14	6685	0.56			33.12	25.16	21.71	5348	0.45									
ICT	44-030	1316.0	1346.0	30.0	20.65	20.46	38.17	30.46	31.37	7253	0.70	.393	.061	30.54	24.37	25.09	5802	0.56	.314	.049							
ICT	44-031	1346.0	1376.0	30.0		17.43	52.92	25.64	21.44	5008	0.53			42.34	20.51	17.15	4006	0.43									
ICT	44-032	1376.0	1406.0	30.0		18.17	46.88	27.19	25.93	6151	0.68			37.50	21.75	20.75	4920	0.55									
ICT	44-033	1406.0	1436.0	30.0		14.59	66.29	20.45	13.25	2835	0.55			53.03	16.36	10.60	2268	0.44									
	44-309	1436.0	1645.0	209.0		10.00	99.99																				
ILL	44-062	1645.0	1670.0	25.0		11.94	63.27	33.23	3.50	3334	0.50	.285	.506	50.62	26.58	2.80	2667	0.40	.228	.405							
	44-310	1670.0	1722.0	52.0		10.00	99.99																				
ILL	44-066	1722.0	1750.0	28.0		9.80	60.61	23.78	15.61	3952	0.34			48.49	19.02	12.49	3162	0.27									
	44-311	1750.0	1806.0	56.0		10.00	99.99																				
ILL	44-036	1806.0	1836.0	30.0		13.60	62.81	20.51	16.68	3418	0.22			50.25	16.41	13.34	2734	0.18									
ILL	44-037	1836.0	1866.0	30.0		14.02	43.11	27.75	29.13	6433	0.34			34.49	22.20	23.31	5146	0.27									
ILL	44-038	1866.0	1896.0	30.0		15.85	32.82	32.86	34.32	7863	0.20			26.26	26.29	27.46	6291	0.16									
ILL	44-039	1896.0	1926.0	30.0		15.45	34.43	33.03	32.54	7709	0.18			27.54	26.43	26.03	6167	0.14									
ILL	44-040	1926.0	1956.0	30.0		16.73	26.11	33.76	40.13	9200	0.20			20.89	27.01	32.11	7360	0.16									
ILL	44-041	1956.0	1986.0	30.0	30.40	16.10	18.41	35.63	45.96	10184	0.26	.449	.009	14.73	28.50	36.77	8147	0.21	.359	.007							
ILL	44-042	1986.0	2016.0	30.0		17.40	19.58	34.84	45.58	10231	0.31			15.66	27.87	36.46	8185	0.25									
ILL	44-043	2016.0	2041.0	25.0		18.08	25.60	31.46	42.94	9421	0.34			20.48	25.17	34.36	7537	0.27									
	44-312	2041.0	2308.0	267.0		10.00	99.99																				

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA

PAGE 1

SAMPLE DATA										MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%										
LAB/DRL																														
FOOTAGE															GROSS					GROSS										
I/D	HQ	I/D	*****	*****	*****	*****	*****	*****	*****	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	*****	*****	*****
46-301		1.0	38.0	37.0			10.00	99.99																						
LL	46-040	38.0	58.0	20.0			27.61	55.42	22.82	21.76	4545	0.82									44.34	18.26	17.41	3636	0.65					
LL	46-041	58.0	100.0	42.0			29.89	45.54	25.99	28.47	5955	1.18	.182	.319							36.43	20.79	22.78	4764	0.95	.146	.255			
	46-302	100.0	332.0	232.0			10.00	99.99																						
LL	46-043	332.0	337.0	5.0			10.39	72.65	14.78	12.58	2345	0.54									58.12	11.82	10.06	1876	0.43					
	46-303	337.0	482.0	145.0			10.00	99.99																						
LL	46-001	482.0	502.0	20.0			22.85	46.91	30.08	23.01	5095	0.53									37.53	24.07	18.41	4076	0.43					
LL	46-002	502.0	522.0	20.0			22.78	52.21	27.18	20.60	4621	0.71									41.77	21.75	16.48	3696	0.57					
LL	46-003	522.0	542.0	20.0			24.49	44.70	29.41	25.89	5926	0.42									35.76	23.53	20.71	4741	0.34					
LL	46-004	542.0	562.0	20.0			24.94	57.93	22.21	19.86	4287	0.60									46.34	17.77	15.89	3430	0.48					
LL	46-005	562.0	582.0	20.0			25.55	64.04	19.19	16.76	3265	0.00									51.23	15.36	13.41	2612	0.00					
LL	46-006	582.0	602.0	20.0			23.86	52.71	27.76	19.53	4563	0.35									42.16	22.21	15.62	3650	0.28					
LL	46-007	602.0	620.5	18.5			24.12	64.29	19.90	15.81	3301	0.21									51.43	15.92	12.65	2641	0.17					
	46-304	620.5	670.0	49.5			10.00	99.99																						
LL	46-008	670.0	690.0	20.0			20.71	59.15	22.49	18.36	3956	0.44									47.32	17.99	14.69	3165	0.35					
LL	46-009	690.0	710.0	20.0			19.96	48.44	25.11	26.45	5743	0.30									38.75	20.09	21.16	4595	0.24					
LL	46-010	710.0	737.0	27.0			20.16	40.36	27.10	32.54	6797	0.33									32.28	21.68	26.03	5438	0.26					
	46-305	737.0	749.0	12.0			10.00	99.99																						
LL	46-051	749.0	754.0	5.0			1.49	59.04	33.48	7.48	688	0.14									47.23	26.78	5.99	551	0.11					
LL	46-011	754.0	774.0	20.0			14.81	67.28	24.58	8.13	1717	0.21									53.83	19.66	6.51	1374	0.17					
LL	46-012	774.0	802.0	28.0			21.24	77.22	13.90	8.88	1626	0.14									61.78	11.12	7.10	1301	0.11					
LL	46-013	802.0	811.0	9.0			20.02	49.87	27.99	22.13	4722	0.30									39.90	22.40	17.70	3778	0.24					
LL	46-014	811.0	831.0	20.0			22.06	54.35	26.66	18.99	4211	0.24									43.48	21.33	15.19	3369	0.20					
LL	46-015	831.0	851.0	20.0			22.16	63.85	19.75	16.41	3168	0.23									51.08	15.80	13.12	2534	0.18					

DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 74-046

PAGE 2

SAMPLE DATA					MOISTURES					DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%					*****				
LABOR	*****				*****				*****				*****				*****				*****			
I/D	HOL	I/D	*****				*****				*****				*****				*****					
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS				
***	***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****				
ILL	46-016	851.0	866.0	15.0		19.78	66.75	18.55	14.70	2837	0.24			53.40	14.84	11.76	2270	0.19						
ILL	46-017	866.0	896.0	30.0		23.38	35.17	31.18	32.65	7347	0.31			28.93	24.94	26.12	5877	0.25						
ILL	46-018	896.0	926.0	30.0		21.97	55.23	23.08	21.68	4444	1.86			44.19	18.46	17.35	3556	1.49						
ILL	46-019	926.0	956.0	30.0		24.56	38.16	30.33	31.51	6996	0.49			30.53	24.26	25.21	5597	0.39						
ILL	46-020	956.0	986.0	30.0		20.52	41.24	32.16	26.60	6161	0.21			32.99	25.73	21.28	4929	0.17						
ILL	46-021	986.0	1026.0	40.0		24.87	29.96	31.97	38.07	8232	0.21			23.97	25.58	30.45	6586	0.17						
ILL	46-022	1026.0	1066.0	40.0	31.90	23.59	34.85	30.21	34.94	7468	0.20	.380	.160	27.88	24.16	27.95	5974	0.16	.304	.128				
ILL	46-023	1066.0	1106.0	40.0		20.45	24.01	36.79	39.20	9250	0.24			19.21	29.44	31.36	7400	0.19						
ILL	46-024	1106.0	1146.0	40.0		15.51	42.35	30.19	27.46	6488	0.25			33.88	24.15	21.97	5191	0.20						
ILL	46-025	1146.0	1186.0	40.0		17.86	26.81	34.88	38.31	8801	0.19			21.45	27.90	30.65	7041	0.16						
ILL	46-026	1186.0	1226.0	40.0		18.72	17.57	35.01	47.42	8634	0.25			14.06	28.01	37.93	6907	0.20						
ILL	46-027	1226.0	1266.0	40.0		17.95	21.01	35.40	43.58	9782	0.24			16.81	28.32	34.87	7825	0.20						
ILL	46-028	1266.0	1306.0	40.0		16.41	18.24	37.35	44.41	10200	0.25			14.60	29.88	35.53	8160	0.20						
ILL	46-029	1306.0	1346.0	40.0		21.53	20.86	34.93	44.21	9636	0.25			16.69	27.94	35.37	7708	0.20						
ILL	46-030	1346.0	1386.0	40.0		12.62	19.09	37.80	43.11	10002	0.41			15.27	30.24	34.49	8002	0.33						
ILL	46-031	1386.0	1397.0	11.0		15.44	19.69	37.90	42.41	10214	0.54			15.75	30.32	33.93	8171	0.44						
ILL	46-032	1397.0	1437.0	40.0		14.48	15.35	37.94	46.70	10614	0.44			12.28	30.36	37.36	8491	0.36						
ILL	46-033	1437.0	1477.0	40.0	28.50	14.50	14.75	36.85	48.40	10874	0.43	.541	.010	11.80	29.48	38.72	8699	0.35	.433	.008				
ILL	46-034	1477.0	1517.0	40.0		16.84	22.16	35.44	42.40	9652	0.37			17.73	28.35	33.92	7722	0.30						
ILL	46-035	1517.0	1528.0	11.0		16.14	36.80	28.50	34.70	7554	0.51			29.44	22.80	27.76	6043	0.41						
ILL	46-036	1528.0	1540.5	12.5		14.06	17.33	14.32	8.34	1429	0.37			61.87	11.46	6.67	1143	0.30						
	46-036	1540.5	1813.0	272.5		10.00	99.99																	

PAGE 1

SAMPLE DATA					MOISTURES		DRY BASIS					ESTIMATED IN-SITU MOISTURE OF 20.00%					
LAB	DRL	*****			*****		*****					*****					
FOOTAGE																	
T/D	HOL	I/D	*****		%	AS	%	%	%	%	GROSS	%	%	%	GROSS	%	%
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
51-301		2.0	169.0	166.0		10.00	99.99										
51-302		168.0	851.0	683.0		10.00	99.99										
LL 51-025		851.0	868.0	17.0		13.00	66.36	18.37	15.28	2703	0.33			53.09	14.69	12.22	2163
51-305		868.0	1047.0	179.0		10.00	99.99										
LL 51-001		1047.0	1072.0	25.0		10.21	70.70	17.72	11.58	2025	0.13			56.55	14.18	9.27	1620
51-303		1072.0	1083.0	11.0		10.00	99.99										
LL 51-002		1083.0	1107.0	24.0		11.75	35.93	22.84	41.22	4233	0.50			28.75	18.28	32.98	3387
LL 51-003		1107.0	1126.0	19.0		16.70	53.81	23.06	23.13	4702	0.20			43.04	18.45	18.51	3762
LL 51-004		1126.0	1156.0	30.0		12.36	49.40	25.35	25.25	5575	0.18			39.52	20.28	20.20	4460
LL 51-005		1156.0	1188.0	32.0		17.10	40.16	25.11	34.73	5694	0.23			32.13	20.09	27.78	4555
LL 51-006		1188.0	1218.0	30.0		15.00	39.95	28.76	31.28	7019	0.25			31.96	23.01	25.03	5615
LL 51-007		1218.0	1248.0	30.0		13.72	37.60	30.83	31.57	7426	0.19			30.08	24.66	25.26	5941
LL 51-008		1248.0	1278.0	30.0		13.34	30.16	34.74	35.09	8330	0.17			24.13	27.80	28.37	6664
LL 51-009		1278.0	1318.0	40.0		14.31	29.99	33.85	36.15	8423	0.19			23.99	27.08	28.92	6739
LL 51-010		1318.0	1348.0	30.0		11.33	15.75	36.38	46.87	10319	0.23			13.40	29.11	37.50	8255
LL 51-011		1348.0	1378.0	30.0	29.60	8.62	22.97	35.02	42.01	9444	0.33			18.38	28.01	33.61	7555
LL 51-012		1378.0	1407.0	29.0		8.60	22.90	33.65	43.45	9454	0.36			18.32	26.92	34.76	7563
51-304		1407.0	1616.0	209.0		10.00	99.99										

DATE: 27 JUN 75

HAT CREEK COAL PROJECT - STATISTICAL ANALYSIS OF PROXIMATE TEST DATA
DIAMOND DRILL HOLE 75-053

PAGE 1

SAMPLE DATA					MOISTURES		DRY BASIS						ESTIMATED IN-SITU MOISTURE OF 20.00%														
LAB	DPL	FOOTAGE				%		%		%		GROSS		%		%		%		GROSS		%		%		%	
I/D	HOL	I/D	*****	*****	*****	%	AS	%	%	%	BTU	%	%	%	%	%	%	%	%	BTU	%	%	%	%	%	%	%
#	#	FROM	TO	LENGTH	EQUIL	RECVD	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS	ASH	V.M.	F.C.	/LB.	SULFR	SODA	POTAS
***	***	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	53-301		0.0	74.0	74.0		10.00	99.99																			
	53-302		74.0	190.0	116.0		10.00	99.99																			
LL	53-011		190.0	214.0	24.0		21.42	67.88	19.10	13.02	2746	0.52															
	53-303		214.0	288.0	74.0		10.00	99.99																			
LL	53-014		288.0	313.0	25.0		18.40	62.78	20.56	16.65	3478	0.42															
	53-304		313.0	320.0	7.0		10.00	99.99																			
LL	53-016		320.0	335.0	15.0		20.45	67.45	18.92	13.63	2665	0.39															
	53-305		335.0	420.0	85.0		10.00	99.99																			
LL	53-001		420.0	439.0	19.0		21.64	68.41	19.46	12.12	2301	0.19															
LL	53-002		446.0	474.5	28.5		23.17	64.43	18.78	16.79	3156	0.20															
LL	53-003		474.5	509.0	34.5		25.38	32.27	31.73	36.00	7769	0.38															
LL	53-004		509.0	530.0	21.0		24.85	32.27	31.50	36.23	7907	0.20															
LL	53-005		530.0	554.5	24.5		22.20	43.06	30.01	26.93	6206	0.32															
LL	53-006		554.5	576.0	21.5		20.79	37.31	31.16	31.54	7244	0.35															
LL	53-007		576.0	611.0	35.0		24.42	30.07	33.21	36.72	8218	0.19															
LL	53-008		611.0	647.0	36.0		24.83	29.89	33.59	36.52	8229	0.21															
LL	53-009		647.0	687.0	40.0		27.00	18.42	37.47	44.11	9989	0.42															
	53-306		687.0	999.0	312.0		10.00	99.99																			

PREPARED BY: J. H. HARRIS, JR. 6/28/75

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

REVISED NOVEMBER 4, 1976

DDH No. 76 - 136

(See notes, page 7)

SHEET No. 1 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length	Full Anal.	Full Analyses				
					1.30	1.50			
A	1 } 2 }	1	10	X	X	X			X
	3 } 4 }	3	10	X					
	5 } 6 }	5	10	X					
	7 } 8 }	7	10	X	X				
	9 } 10 }	9	10	X					
	11 12	11 12	5 5	X X	X				
	13 } 14 }	13	10	X					
	15 } 16 }	15	10	X					
	17 } 18 }	17	10	X	X	X	X		
	19 } 20 }	19	10	X					
	21 } 22 }	21	10	X					
	23 24	23 24	5 5	X X	X				
	25 } 26 }	25	10	X					
	27 } 28 }	27	10	X	X				
	29 } 30 }	29	10	X					
	31 } 32 }	31	10	X	S	S			
	33 } 34 }	33	10	X	X-	X-			X
	35 36	35 36	5 5	X X					
	37 } 38 }	37	10	X	X				
	39 } 40 }	39	10	X					

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 136

SHEET No. 2 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample	
		No.	Length	Full Anal.	Full Analyses					
					1.30	1.50				
A	41 } 42 } 43 } 44 } 45 } 46 }	41	10	X						
	47 } 48 }	47 48	5 5	X X	S X-	S X-				
	49 } 50 } 51 } 52 } 53 } 54 } 55 } 56 } 57 } 58 }	49 51 53 55 57	10 10 10 10 10	X X X X X			X			
	59 } 60 }	59 60	5 5	X X	X- S					
	61 } 62 } 63 } 64 } 65 } 66 } 67 } 68 } 69 } 70 }	61 63 65 67 69	10 10 10 10 10	X X X X X	X X X- X-	X X			X	
	71 } 72 }	71 72	5 5	X X	S S					
	73 } 74 } 75 } 76 } 77 } 78 } 79 } 80 }	73 75 77 79	10 10 10 10	X X X X	X- S X X				X	

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 136

SHEET No. 3 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length	Full Anal.	Full Analyses				
					1.30	1.50			
A	81 } 82 }	81	10	X					
	83	83	5	X					
	84 } 85 }	84	10	X	X				
	86	86	5	X					
	87 } 88 }	87	10	X			X		
	89 } 90 }	89	10	X	X-				
	91 } 92 }	91	10	X	S				
	93 } 94 }	93	10	X					
	95	95	5	X	X	X			
	96	96	5	X					
	97 } 98 }	97	10	X	S				
	99 } 100 }	99	10	X	X-				
	101 } 102 }	101	10	X					
	103 } 104 }	103	10	X					
Predom.	105	105	5	(A+M)				X	
	106	106	5	(A+M)					
Waste	107 } 108 }	107	10	X					
	109 } 110 }	109	10	X					
A	111 } 112 }	111	10	X					
	113	113	5	(A+M)					
B	114	114	5	(A+M)					
	115 } 116 }	115	10	X	X	X			X
B	117 } 118 }	117	10	X					
	119	119	5	X					
	120	120	5	X	X				

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 136

SHEET No. 4 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length	Full Anal.	Full Analyses				
					1.30	1.50			
B	121}	121	10	X					
	122}								
	123}	123	10	X			X		
	124}								
	125}	125	5	X	X				
	126}	126	5	X					
	127}	127	10	X					
	128}								
	129}	129	10	X	X	X			X
	130}								
	131}	131	5	X					
	132}	132	5	X					
	133}	133	10	X	X				
	134}								
	135}	135	10	X					
	136}								
	137}	137	5	X					
	138}	138	5	X	X				
	139}	139	10	X			X		
	140}								
141}	141	10	X						
142}									
143}	143	5	X	X	X				
144}	144	5	X						
145}	145	10	X						
146}									
147}	147	10	X	X					
148}									
149}	149	5	X						
150}	150	5	X						
151}	151	10	X	X					
152}									
153}	153	10	X			X			
154}									
155}	155	5	X	S	S				
156}	156	5	X	X	X				
157}	157	10	X						
158}									
159}	159	10	X						
160}									
B									

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 136

SHEET No. 5 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length	Full Anal.	Full Analyses				
					1.30	1.50			
B	161	161	5	X	X				
	162	162	5	X					
	163	163	5	X					
C	164	164	5	(A+M)				X	
	165	165	5	(A+M)					
	166	166	10	X					
Predom.	167								
	168	168	5	(A+M)				X	
	169	169	5	(A+M)					
	170	170	5	(A+M)					
	171	171	10	X					
	172								
	173	173	5	(A+M)					
	C	174	174	10	X	X	X		
175									
176		176	10	X	X-				
177									
178		178	10	X					
179									
180		180	10	X	X	X			X
181									
182		182	10	X	X-		X		
183									
184		184	10	X					
185									
186		186	10	X	X	X			
187									
188		188	10	X	X	S			
189									
190		190	10	X	S	S			
191									
192		192	10	X	X-	X-			X
193									
194		194	10	X	X-				
195									
196		196	10	X			X		
197									
198		198	10	X	X-	X-			X
199									
200		200	10	X	X-				
201									

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 136

SHEET No. 6 of 7

[illegible]

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 136

SHEET No. 7 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample	
		No.	Length Ft.	Full Anal.	Full Analyses					
					1.30	1.50				
D	241 } 242 } 243 } 244 }	241	10	X	X					
	245 } 246 }	245 246	5 5	X X	X	X				
	247 } 248 } 249 } 250 }	247 249	10 10	X X						
	251 } 252 }	251 252	5 5	X X	X					
	253 } 254 } 255 } 256 }	253 255	10 10	X X	X		X			
	257 } 258 }	257 258	5 5	X X						
	259 } 260 }	259	10	X	X	X		X		
	261 } 262 }	261	10	X	S					
	D	263	5	X						
	Predom. Waste	264	264	5	X	-X-				
		265	265	5	(A+M)			X		
		266	266	5	(A+M)					
		267	267	5	(A+M)					
		Notes:	1) Analyses to be carried out on 1.3 float and 1.3 sink - 1.5 float material; not on 1.3 float and 1.5 float material. 2) "-X-" designates sample for which analyses requested but for which insufficient material available. 3) "S" designates a substituted sample. For a number of C zone samples, no nearby samples are large enough to substitute.							
			L.T. Jory Nov. 4, 1976.							

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

REVISED NOVEMBER 4, 1976

DDH No. 76 - 135

(See notes, page 7)

SHEET No. 1 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length Ft.	Full Anal.	Full Analyses				
					1.30	1.50			
A	1]	1	10	X	X	X			X
	2]								
	3]	3	10	X					
	4]								
	5]	5	10	X					
	6]								
	7]	7	10	X	X				
	8]								
	9]	9	10	X					
	10]								
	11]	11	5	X					
	12]	12	5	X	X				
	13]	13	10	X					
	14]								
	15]	15	10	X					
	16]								
	17]	17	10	X	X	X	X		
	18]								
	19]	19	10	X					
	20]								
	21]	21	10	X	S				
	22]								
	23]	23	5	X	X				
	24]	24	5	X					
	25]	25	10	X					
	26]								
	27]	27	10	X	X				
	28]								
	29]	29	10	X					
	30]								
	31]	31	10	X					
	32]								
	33]	33	10	X	X	X			X
	34]								
	35]	35	5	X					
	36]	36	5	X					
	37]	37	10	X	X				
	38]								
	39]	39	10	X	S				
	40]								

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 135

SHEET No. 2 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length Ft.	Full Anal.	Full Analyses				
					1.30	1.50			
A	41]	41	10	X					
	42]								
	43]	43	10	X	X				
	44]								
	45]	45	10	X					
	46]								
	47	47	5	X					
	48	48	5	X	X	X			
	49]	49	10	X	S	S			
	50]								
	51]	51	10	X					
	52]								
	53]	53	10	X	X		X		
	54]								
	55]	55	10	X	S				
	56]								
	57]	57	10	X					
	58]								
	59	59	5	X	X				
	60	60	5	X					
61]	61	10	X						
62]									
63]	63	10	X	X	X			X	
64]									
65]	65	10	X						
66]									
67]	67	10	X						
68]									
69]	69	10	X	X					
70]									
71	71	5	X						
72	72	5	X						
73]	73	10	X	X					
74]									
75]	75	10	X						
76]									
77]	77	10	X						
78]									
79]	79	10	X	X	X			X	
80]									
A									

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 135

SHEET No. 3 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length Ft.	Full Anal.	Full Analyses				
					1.30	1.50			
A	81]	81	10	X					
	82]								
	83	83	5	X					
	84	84	5	X	X				
	85]	85	10	X					
	86]								
	87]	87	10	X					
	88]								
	89]	89	10	X	X	X			
	90]								
	91]	91	10	X					
	92]								
	93]	93	10	X					
	94]								
	95	95	5	X	X	X			
	96	96	5	X					
	97]	97	10	X					
	98]								
	99]	99	10	X	X				
	100]								
101]	101	10	X						
102]									
103]	103	10	X						
104]									
105]	105	10	X	X					
106]									
107	107	5	X						
Predom.	108	108	5	(A.+M.)					
	109]	109	10	X					
	110]	111	10	X					
	111]								
Waste	113	113	5	(A.+M.)					
	114	114	5	(A.+M.)				X	
A	115	115	5	X					
	116	116	5	(A.+M.)					
B	117]	117	10	X	X	X			X
	118]								
B	119]	119	10	X					
	120]								

HAT CREEK DEVELOPMENT

SPECIAL SAMPLE HOLES - SAMPLES AND DESIGNATED ANALYSES

DDH No. 76 - 135

SHEET No. 5 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample
		No.	Length Ft.	Full Anal.	Full Analyses				
					1.30	1.50			
B	161 } 162 }	161	10	X					
	163 164	163 164	5 5	X X	X				
	165	165	5	X					
C	166 } 167 }	166	10	X					
	168 169 170 171 172 173 174 175	168 169 170 171 172 173 174 175	5 5 5 5 5 5 5 5	(A.+M.) (A.+M.) X (A.+M.) (A.+M.) (A.+M.) (A.+M.) (A.+M.)				X	
	176 } 177 }	176	10	X					
	178 } 179 }	178	10	X					
	180 181 182	180 181 182	5 5 5	(A.+M.) (A.+M.) (A.+M.)				X	
	183 } 184 }	183	10	X	X	X			
	185 } 186 }	185	10	X	X				
	187 } 188 }	187	10	X					
	189 } 190 }	189	10	X	X	X			X
	191 } 192 }	191	10	X	X				
	193 } 194 }	193	10	X			X		
	195 } 196 }	195	10	X	X	X			
	197 } 198 }	197	10	X	X				
	199 } 200 }	199	10	X					

HAT CREEK DEVELOPMENT

DDH No. 76 - 135

SHEET No. 6 of 7

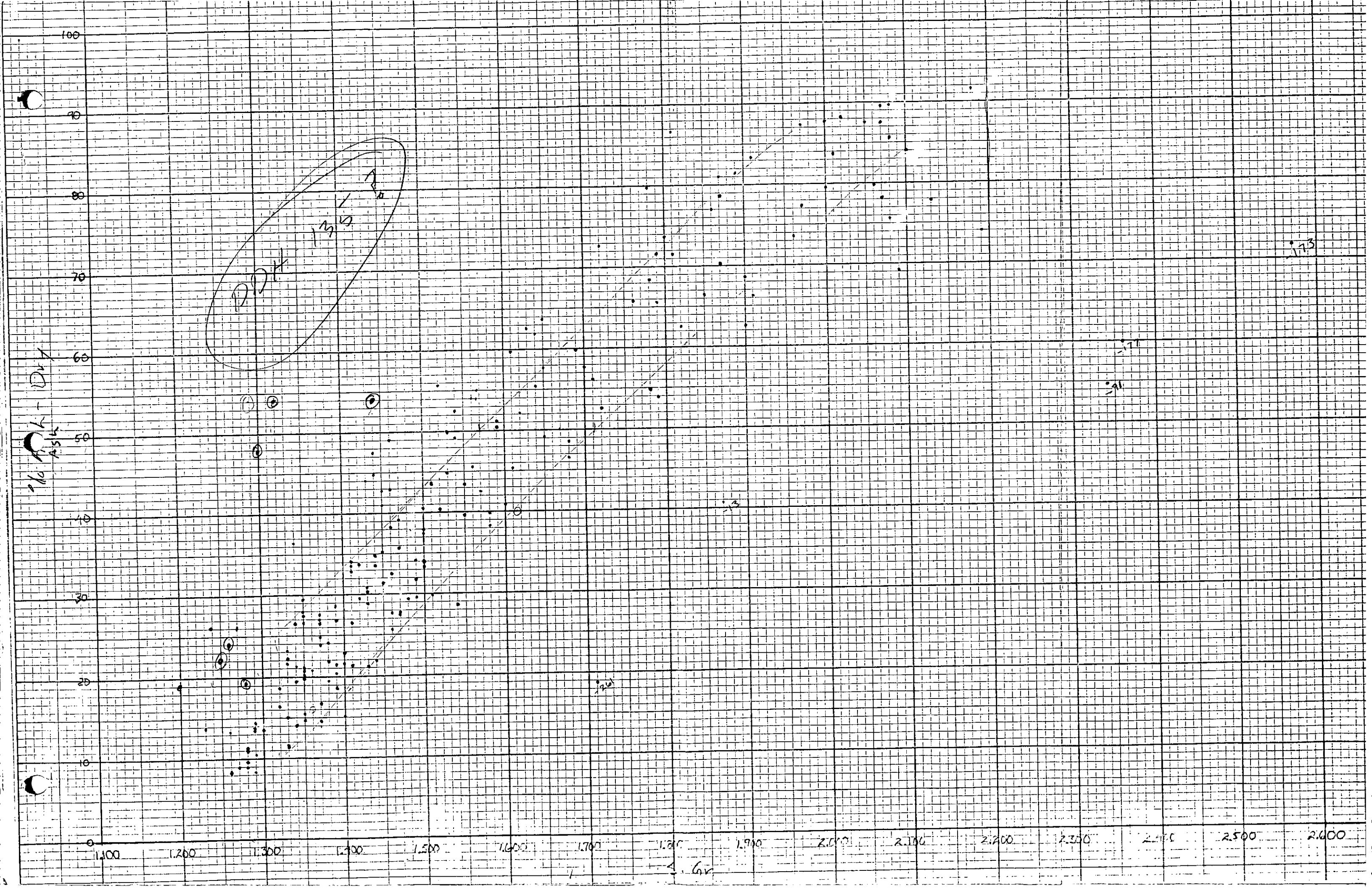
Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample	
		No.	Length Ft.	Full Anal.	Full Analyses					
					1.30	1.50				
C	201 202	201	10	X	✖	✖			X	
	203 204	203	10	X	X	S				
	205 206	205	10	X						
	207 208	207	10	X	✖	✖				
	209 210	209	10	X	-✖					
	211 212	211	10	X						
	213 214	213	10	X	✖	-✖-	X			
	215 216	215	10	X	-✖-					
	217 218	217	10	X						
	219 220	219	10	X	-✖-	-✖-			X	
	221 222	221	10	X	X	S				
	D	223 224	223	10	X	X	X			X
		225 226	225	10	X					
		227 228	227	5	X					
228 229		228	5	X	X					
229 230		229	10	X						
231 232		231	10	X			X			
233 234		233	5	X	X					
234 235		234	5	X						
235 236		235	10	X	S	S				
237 238		237	10	X	-✖-	-✖-			X	
239 240		239	5	X						
		240	5	X						

HAT CREEK DEVELOPMENT

DDH No. 76 - 135

SHEET No. 7 of 7

Zone	Field Sample No.	Raw Analytical Sample			Float Sample		Water Sol. Alk. & H.G.I.	Ash Analyses & CO ₂	Check Sample		
		No.	Length Ft.	Full Anal.	Full Analyses						
					1.30	1.50					
D	241}	241	10	X	X						
	242}										
	243}										
	244}										
	245	245	246	5	X	X					
	246										
	247}	247	249	10	X		X				
	248}										
	249}										
	250}										
	251	251	252	5	X	X	X				
	252										
	253}	253	255	10	X	X					
	254}										
	255}										
	256}										
	257	257	258	5	X						
	258										
	259}	259	261	10	X	X		X			
	260}										
261}											
262}											
263	263	264	5	X	X	X					
264											
265}	265	267	10	X							
266}											
267}											
268}											
269	269	270	5	X	X						
270											
271}	271	273	5	X	X						
272}											
D	273	273	5	X	X						
	Notes:	1) Analyses to be carried out on 1.3 float and 1.3 sink - 1.5 float material; not on 1.3 float and 1.5 float material. 2) "-X-" designates sample for which analyses requested but for which insufficient material available. 3) "S" designates a substituted sample. For a number of C zone samples, no nearby samples are large enough to substitute.									
										L. T. Jory Nov. 4, 1976.	





DOLMAGE CAMPBELL & ASSOCIATES (1975) LTD.
CONSULTING ENGINEERS

SUITE 1000 - 1055 W. HASTINGS STREET
VANCOUVER, CANADA V6E 2E9
TELEPHONE (604) 681-2345

May 3, 1977.

Mr. J.J. Fitzpatrick,
B.C. Hydro & Power Authority,
744 West Hastings Street, 5th Floor,
Vancouver, B.C.
V6C 1A5

Dear Mr. Fitzpatrick:

HAT CREEK DEVELOPMENT
ASSAY RESULTS - CORE SAMPLES FROM TRENCH AREAS

We received yesterday the final proximate, carbon dioxide and sulphur assay results from diamond drill holes 77-209 and 210 in the "B" trench area and 77-212 to 216 in the "A" trench area. The results are being forwarded under separate cover.

The calorific values have been adjusted slightly to include the standard sulphur correction which was not available when we received the initial results by telephone and reported them to you. Equilibrium moisture values were requested but require several weeks to complete on a large number of samples and will be reported later. No other analyses have been requested. Should B.C. Hydro thermal design personnel desire ultimate, ash analysis, grindability or other data on the trench materials at an early date, the analyses should be requested as soon as possible. Additional analyses could be carried out on either selected individual samples or on composite samples.

We prepared a preliminary graph of ash versus calorific value. Since it shows an unusual trend, a copy of the graph is enclosed. The majority of the samples plot close to what may be considered the normal regression line for Hat Creek samples. However, several of the samples appear to represent a markedly different trend of lower quality coal. The principle samples in this group, all from the "A" trench area, are as follows:

DDH 77-212: Nos. 2, 3, 4, 5, 6 and 7
DDH 77-213: No. 8
DDH 77-214: Nos. 1, 2, 5, 7, 8 and 9
DDH 77-215: Nos. 5 and 6 (Marginally divergent)

If a portion of the coal slated for excavation is, in fact, not typical of the Hat Creek deposit, there could be significant implications in regard to the burn test results. The divergent samples are a few hundred Btu lower than expected in the higher ash end and about 2000 Btu lower than expected in the lower ash end.

There are several possible explanations for the divergent coal quality. These include the following:

1. The analyses are incorrect. Assuming that the calorific values are correct, the suspect samples tend to be low in ash, high in volatile matter and normal in fixed carbon. This is the expected result for improperly analysed high-sparking coals to which category the Hat Creek coal belongs. However, I have been advised by the laboratory that the modified ASTM procedure for sparking coals was used. I have asked that the most extreme sample, No. 212-2, be re-analysed.

It is difficult to understand how laboratory errors of the type suggested above could produce an apparent linear trend.

2. Coals of different ranks are present. While Ebasco have suggested this to be the case, we do not know at present of any other such extreme examples of possibly different rank coals. Also, it is not apparent that the suspect samples belong to a single bed and besides it is probably geologically impossible to produce such divergent rank coals adjacent to each other.

3. Portions of the coal are highly oxidized and degraded in calorific value. Such an explanation would be easier to accept if the suspect samples were uniformly distributed below the present coal surface. However, oxidation could have been influenced by groundwater movement along particular channels.

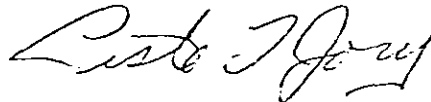
The linear trend is again difficult to explain through oxidation.

4. Portions of the coal have been degraded directly or indirectly by the overlying volcanics with or without possible accompanying burning of coal. This may be, in fact, the same as explanation 3, above, with heat and hot solutions providing the mechanism for coal oxidation. This explanation is subject to the same qualifications as explanation 3 on spacial distribution of suspect samples and on the apparent linear trend.

In summary, the samples from the "A" trench area when plotted on an ash-calorific value graph show a broader scatter and an apparent subsidiary trend not seen before for Hat Creek coal samples, excluding samples high in carbon dioxide. No single explanation for these differences is obvious although near surface oxidation may be the cause. The linear trend of the suspect samples is particularly difficult to explain. The matter requires further investigation. The results of that investigation could influence the amount of sampling required prior to or during trenching and could be a factor in the selection of coal for the burn test.

Yours truly,

DOLMAGE CAMPBELL & ASSOCIATES LTD.



Lisle T. Jory, Ph.D., P.Eng.

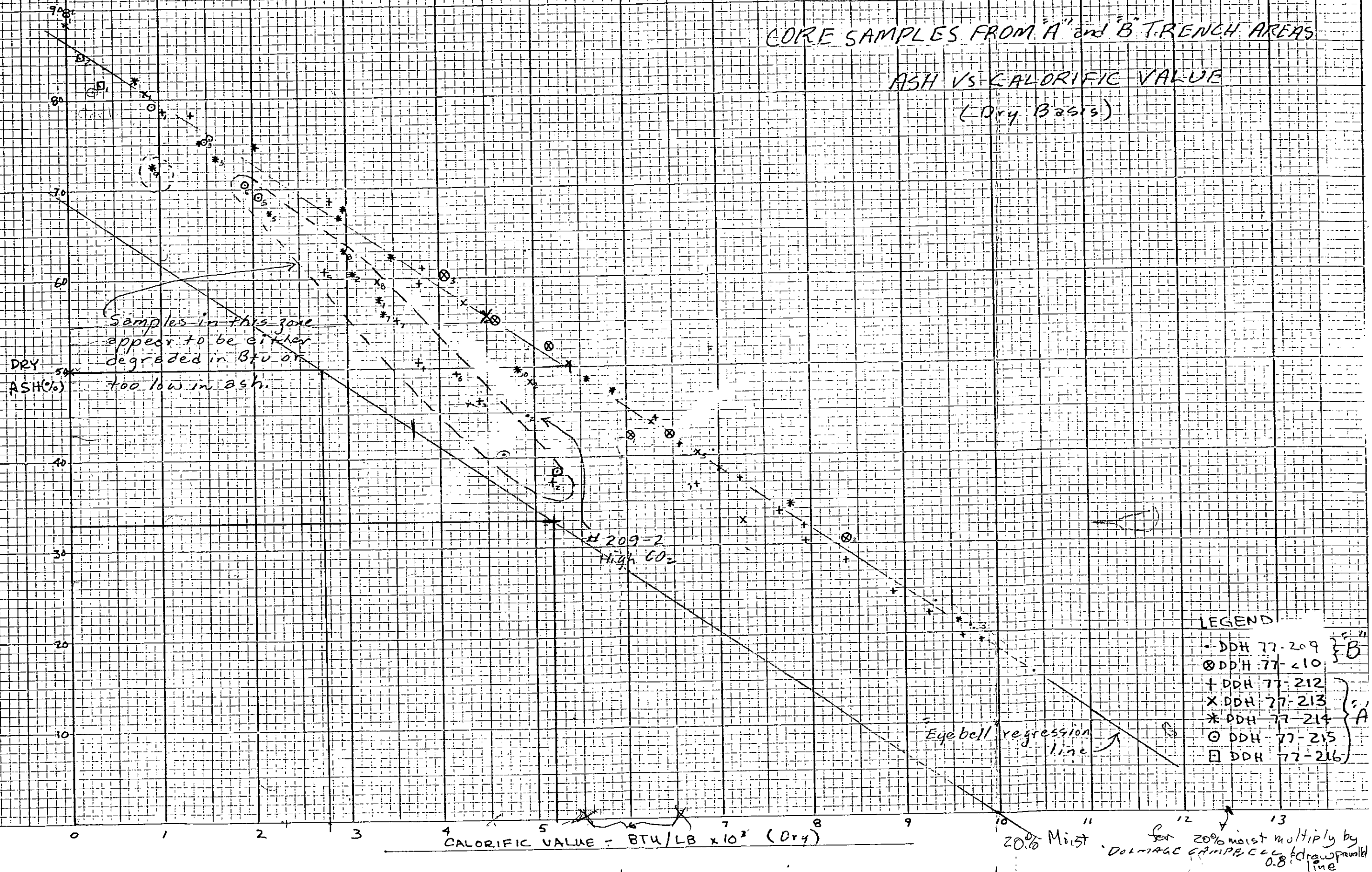
LTJ/jd

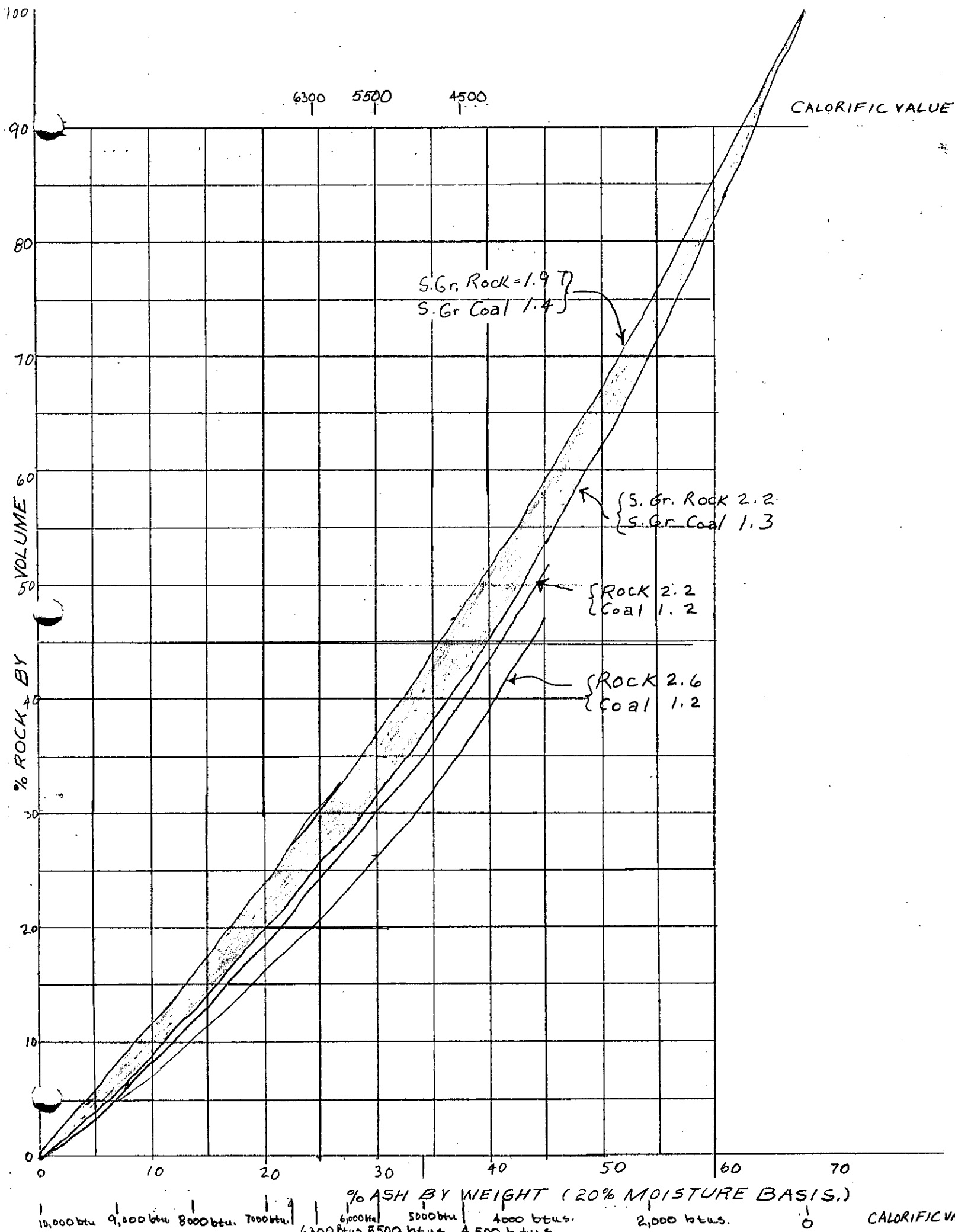
Enclosure

cc: Mr. R.M. Woodley

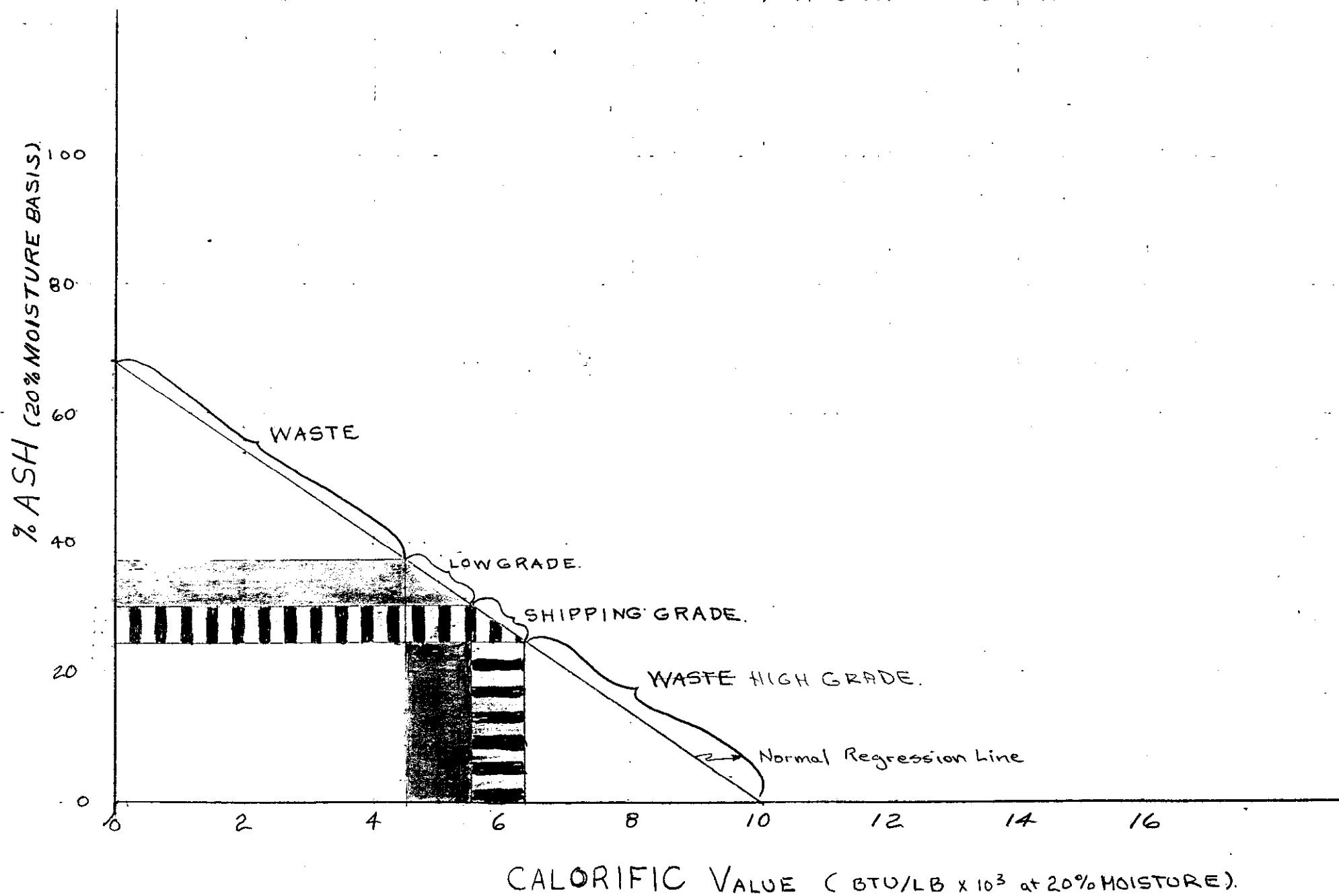
HAT CREEK DEVELOPMENT CORE SAMPLES FROM "A" and "B" TRENCH AREAS

ASH VS CALORIFIC VALUE (Dry Basis)



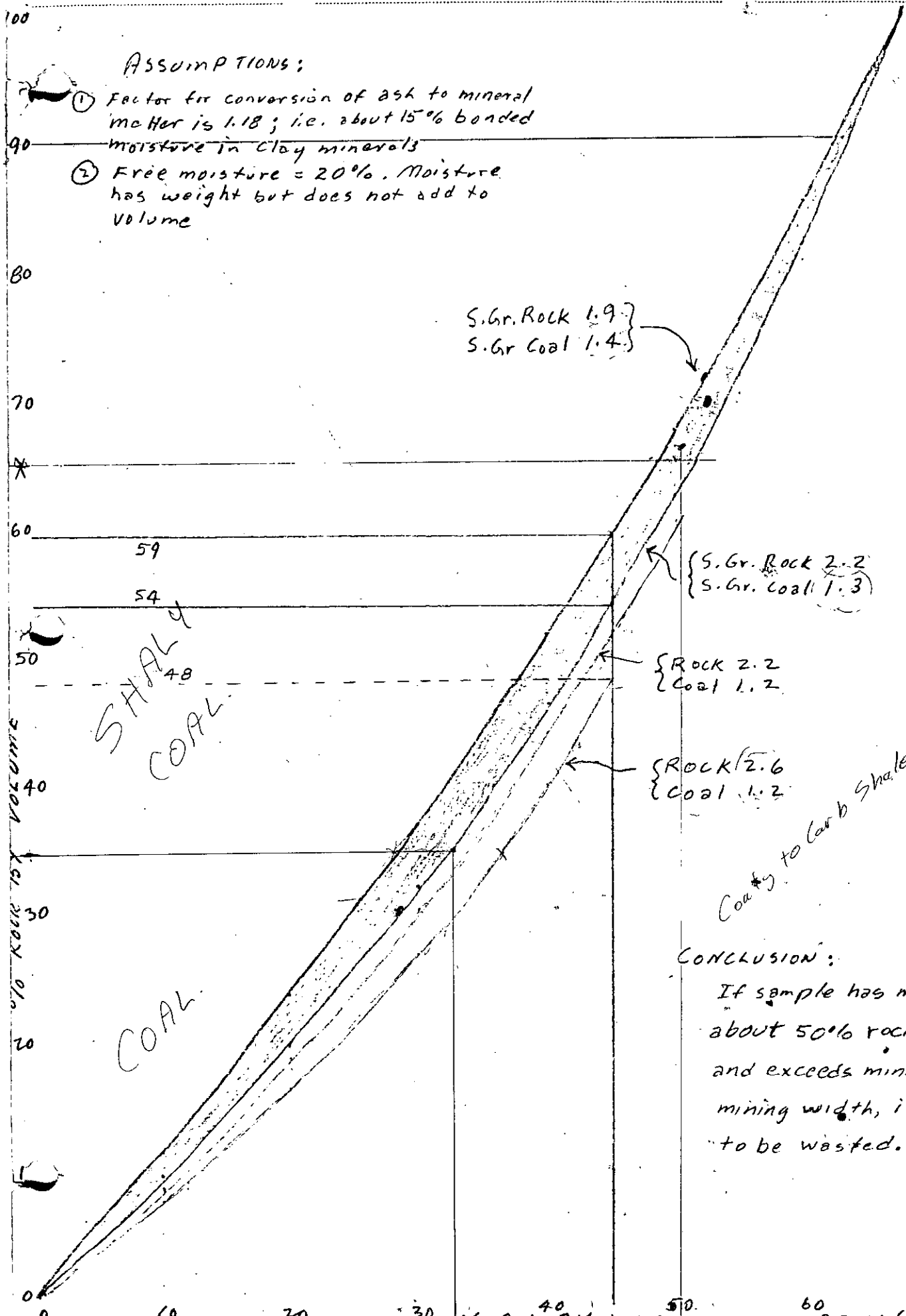


ASH VS. CALORIFIC VALUE.
AT 20% MOISTURE.
FOR UNALTERED COAL.



ASSUMPTIONS:

- ① Factor for conversion of ash to mineral matter is 1.18; i.e. about 15% bonded moisture in clay minerals
- ② Free moisture = 20%. Moisture has weight but does not add to volume



CONCLUSION:

If sample has more than about 50% rock by volume and exceeds minimum selective mining width, it is likely to be wasted.

$$\% \text{ Rock by vol} = \frac{\text{Vol. Rock}}{\text{Vol. Coal} + \text{Vol. Rock}} \times 100$$

$$= \frac{\frac{\text{Wt Rock}}{\text{S.G. Rock}}}{\frac{\text{Wt. Coal}}{\text{S.G. Coal}} + \frac{\text{Wt. Rock}}{\text{S.G. Rock}}} \times 100$$

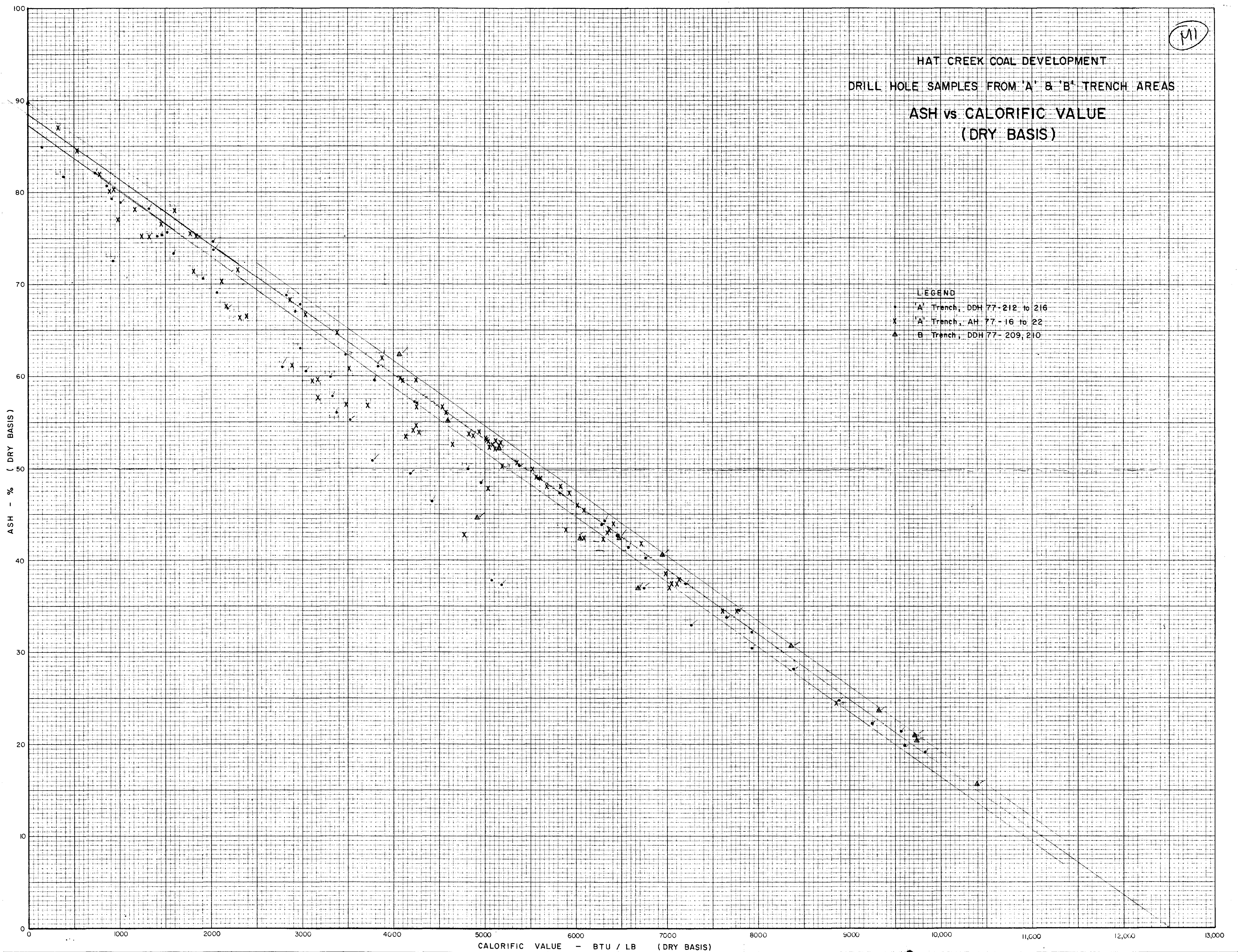
$$= \frac{\left[\frac{\% \text{ Ash by wt} \times \text{Ash to mineral matter factor}}{\text{S.G. Rock}} \right]^{(1)}}{\frac{100 - \frac{80 - (1)}{\text{S.G. Coal}} - (1)}{\text{S.G. Coal}} + \frac{(1)}{\text{S.G. Rock}}} \times 100$$

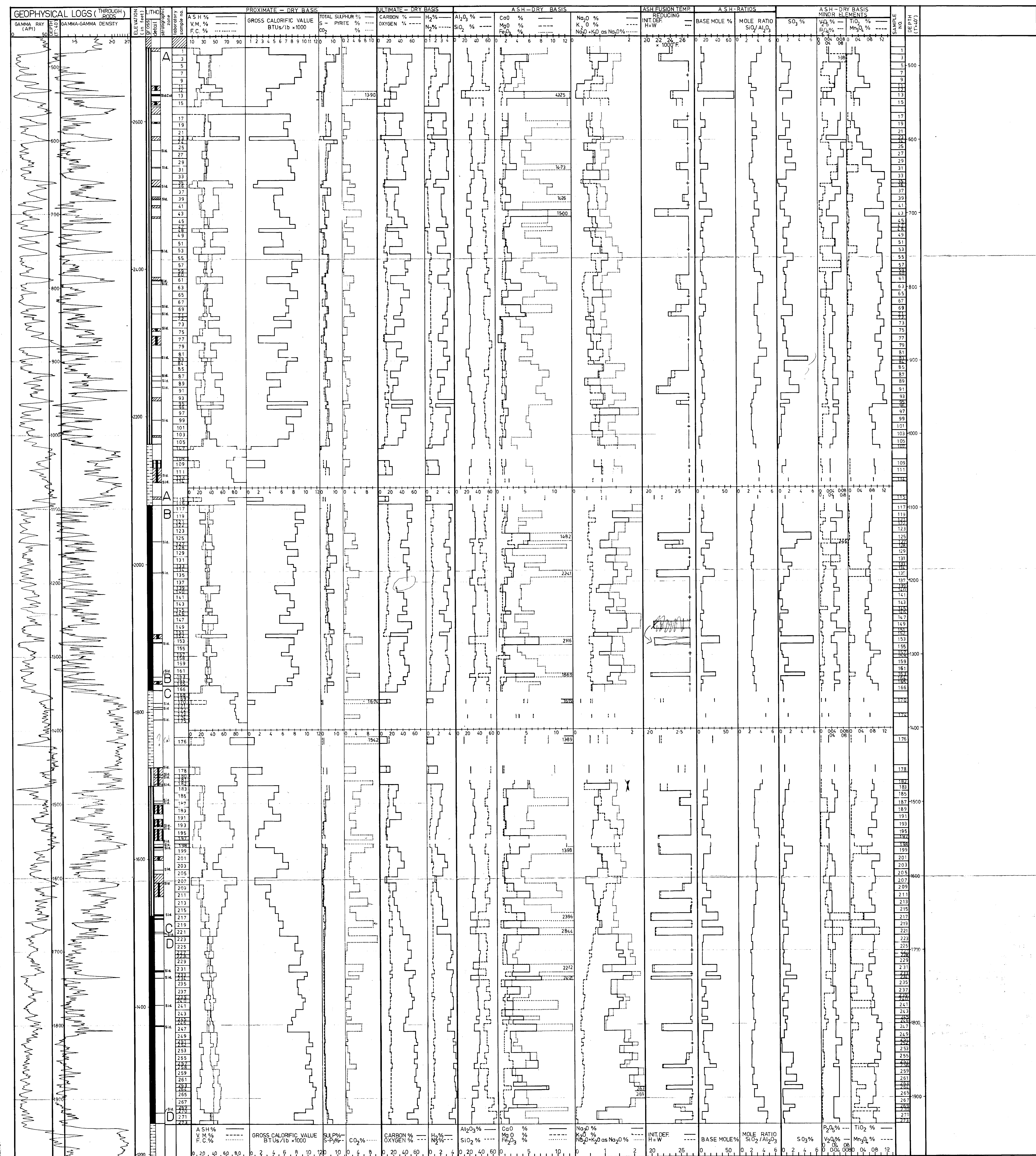
$$\frac{(1)}{\frac{80 - (1)}{\text{S.G. Coal}} + \frac{(1)}{\text{S.G. Rock}}}$$

68 vi. 18
 68
 884
 708
 78.94.
 79.

M1

HAT CREEK COAL DEVELOPMENT
DRILL HOLE SAMPLES FROM 'A' & 'B' TRENCH AREAS
ASH vs CALORIFIC VALUE
(DRY BASIS)





HAT CREEK COAL DEVELOPMENT
DDH 76-136 : ANALYSES

