

6 pages

BASIC

OIL and GAS DIVISION

18 JUN 1982

GEOCHEMICAL STUDY.

**PYROLYSIS / T.O.C. PROFILE
PORT CAMPBELL - 2 WELL,
OTWAY BASIN, AUSTRALIA
4490' - 8840'.**

BY

BROWN & RUTH LABORATORIES

22nd DEC. 1981.



GEOCHEMICAL REPORT.

**PORT CAMPBELL - 2
BROWN & RUTH LAB.**

BASIC
BAY A
GEOCHEMICAL REPORTS BOX

OIL and GAS DIVISION

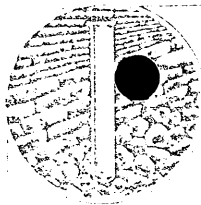
18 JUN 1982

CONTRACT SERVICE REPORT

Pyrolysis/T.O.C. Profile

Port Campbell No. 2 Well
Otway Basin, Australia
(4,490' - 8,840')

~~PLEASE RETURN~~
~~to~~
~~CHEVRON OVERSEAS~~



December 22, 1981

Chevron Overseas Petroleum, Inc.
575 Market Street
San Francisco, California 94105

Attention: Gerard J. Demaison

Gentlemen:

This report presents the results of our geochemical analysis of seventy-five (75) samples from the Port Campbell No. 2 Well, Otway Basin, Australia. The work was authorized by your Service Order S03456 of March 23, 1981

All unused sample material is being returned under separate cover.

We are pleased to have been of service to Chevron. If you have any questions regarding the work, then please contact us.

Very truly yours,

Brown & Ruth Laboratories, Inc.

Gary W. Ruth

GWR/ab
Enclosure

CONTRACT SERVICE REPORT - 229

CLIENT: Chevron Overseas Petroleum, Inc.
575 Market Street
San Francisco, California 94105

WELL: Port Campbell No. 2, Otway Basin, Australia

AUTHORIZATION: G. J. Demaison - Service Order S03456

SAMPLE DESCRIPTION

A total of sixty seven (67) cuttings samples and eight (8) cores were analyzed from the well interval 4490 feet to 8845 feet. The sample quality was generally good, although some were contaminated with metal shavings and lost circulation material, mainly plastic fiber and walnut shell.

SAMPLE PREPARATION

Instructions submitted with the samples directed that Rock-Eval pyrolysis and Total Organic Carbon (T.O.C.) determinations be carried out on each sample.

Prior to analysis, each sample was visually examined using a binocular microscope and lost circulation material was removed. The samples were then ground to a fine powder and analyzed.

ANALYTICAL DETERMINATIONS

A fraction of the ground sample material was used for pyrolysis in a Rock-Eval analyzer. A separate fraction of the same ground sample material was acidified then analyzed for organic carbon content by combustion in a Leco Carbon Analyzer.

TABLE I

Results of Carbon Analysis and Rock-Eval Pyrolysis

Sample Number	Well Depth*	T.O.C. (%)	S1 (mg/g)	S2 (mg/g)	S3 (mg/g)	Tmax (°C)	PI	S2/S3	HI	OI
229-001	4490-4500	12.11	0.93	14.91	8.14	408	0.06	1.83	123	67
229-002	5020-5030	2.71	0.12	1.89	2.17	422	0.06	0.87	70	80
229-003	5070-5080	2.49	<0.10	1.01	3.17	411	--	0.32	41	127
229-004	5120-5130	3.83	0.19	3.40	4.02	401	0.05	0.85	89	105
229-005	5180-5190	1.78; 1.80	<0.10	0.82	1.99	429	--	0.41	46	111
229-006	5290-5300	1.93	<0.10	0.34	2.88	416	--	0.12	18	149
229-007	5340-5350	2.03	<0.10	0.79	2.57	433	--	0.31	39	127
229-008	5400-5410	1.11	<0.10	0.52	3.94	414	--	0.13	47	355
229-009	5460-5470	1.64	<0.10	0.34	3.50	432	--	0.10	21	213
229-010	5520-5530	2.25	<0.10	0.59	1.67	433	--	0.35	26	74
229-011	5580-5590	1.12	<0.10	0.28	1.03	431	--	0.27	25	92
229-012	5640-5650	2.00	<0.10	0.38	3.45	441	--	0.11	19	173
229-013	5710-5720	1.03	<0.10	0.35	4.51	493	--	0.08	34	438
229-014	5830-5840	1.88	<0.10	0.58	2.33	435	--	0.25	31	124
229-015	5890-5900	1.59	<0.10	0.60	2.27	436	--	0.26	38	143
229-016	5911	1.92	<0.10	0.45	0.79	432	--	0.57	23	41
229-017	5950-5960	1.76	<0.10	0.49	1.25	426	--	0.39	28	71
229-018	6000-6010	1.73	0.11	0.55	1.30	429	0.16	0.42	32	75
229-019	6060-6070	1.58	<0.10	0.45	0.94	431	--	0.48	28	59
229-020	6120-6130	1.60	<0.10	0.42	0.84	430	--	0.51	26	53
229-021	6180-6190	1.70	<0.10	0.54	1.08	434	--	0.50	32	64
229-022	6240-6250	1.65	<0.10	0.49	1.11	432	--	0.45	30	67
229-023	6300-6310	1.61	<0.10	0.50	0.87	435	--	0.57	31	54
229-024	6360-6370	1.58	<0.10	0.47	0.88	434	--	0.53	30	56
229-025	6420-6430	1.52; 1.53	<0.10	0.38	1.55	433	--	0.25	25	101
229-026	6480-6490	1.52	<0.10	0.43	0.73	433	--	0.58	28	48
229-027	6540-6550	1.61	<0.10	0.43	0.67	434	--	0.64	27	42
229-028	6600-6610	1.63	<0.10	0.34	0.80	433	--	0.42	21	49
229-029	6660-6670	1.62	<0.10	0.36	0.88	431	--	0.40	22	54
229-030	6720-6730	1.69	<0.10	0.49	0.62	434	--	0.79	29	37
229-031	6780-6790	1.72	<0.10	0.42	0.84	434	--	0.49	24	49
229-032	6840-6850	1.68	<0.10	0.43	0.74	434	--	0.59	26	44
229-033	6900-6910	1.56	<0.10	0.35	0.64	446	--	0.55	22	41
229-034	6960-6970	1.46	<0.10	0.23	1.32	446	--	0.17	16	90
229-035	7020-7030	1.64	<0.10	0.41	0.88	431	--	0.47	25	54

Bot CAMPBELL-2

4/6

TABLE I

Results of Carbon Analysis and Rock-Eval Pyrolysis

Sample Number	Well Depth*	T.O.C. (%)	S1 (mg/g)	S2 (mg/g)	S3 (mg/g)	Tmax (°C)	PI	S2/S3	HI	OI
229-036	7080-7090	1.51;1.47	<0.10	0.49	0.81	436	--	0.60	33	54
229-037c	7095	1.71	<0.10	0.56	0.84	436	--	0.67	33	49
229-038	7140-7150	1.60	<0.10	0.41	0.70	430	--	0.59	26	44
229-039	7200-7210	1.51	<0.10	0.32	1.26	437	--	0.25	21	83
229-040	7260-7270	1.61	<0.10	0.45	0.55	434	--	0.82	28	34
229-041	7320-7330	1.61	<0.10	0.43	0.63	434	--	0.68	27	39
229-042	7380-7390	1.63	<0.10	0.38	0.54	434	--	0.70	23	33
229-043c	7403	1.33	<0.10	0.45	0.31	436	--	1.45	34	23
229-044	7440-7450	1.72	<0.10	0.40	0.50	434	--	0.81	23	29
229-045	7510-7520	1.61	<0.10	0.34	0.68	436	--	0.50	21	42
229-046	7570-7580	1.53	<0.10	0.33	0.74	434	--	0.44	22	48
229-047	7630-7640	1.29;1.30	<0.10	0.24	0.48	435	--	0.50	18	37
229-048c	7685	1.15	<0.10	<0.10	1.25	**	--	--	--	109
229-049	7710-7715	1.52	<0.10	0.32	0.74	442	--	0.43	21	49
229-050	7775-7780	1.50	<0.10	0.28	0.69	434	--	0.40	19	46
229-051	7835-7840	3.78	<0.10	0.38	0.67	435	--	0.57	10	18
229-052c	7886	0.87	<0.10	0.18	0.58	**	--	0.31	21	67
229-053	7890-7895	1.32	<0.10	0.35	1.14	442	--	0.30	27	86
229-054	7950-7955	1.34	<0.10	0.31	0.79	434	--	0.40	23	59
229-055	8015-8020	1.24	<0.10	0.36	0.95	439	--	0.38	29	77
229-056	8075-8080	1.19	<0.10	0.33	0.69	441	--	0.48	28	58
229-057c	8097	0.88	<0.10	0.30	0.23	442	--	1.33	34	26
229-058	8135-8140	1.85	<0.10	0.64	1.10	441	--	0.58	35	59
229-059c	8175	2.87	0.37	1.92	0.31	433	0.16	6.11	67	11
229-060	8185-8190	1.77	0.16	0.61	0.62	440	0.20	0.98	34	35
229-061	8240-8245	1.75	<0.10	0.39	0.62	433	--	0.62	22	35
229-062	8295-8300	1.62	<0.10	0.43	0.51	434	--	0.83	27	31
229-063	8350-8355	1.61	<0.10	0.36	0.55	434	--	0.66	22	34
229-064	8410-8415	1.64	<0.10	0.34	1.20	439	--	0.28	21	73
229-065c	8411	3.56	0.54	7.07	0.15	437	0.07	46.99	199	4
229-066	8455-8460	2.20	0.10	0.55	1.31	432	0.16	0.42	25	60
229-067	8510-8515	1.78	0.12	0.85	0.77	440	0.12	1.11	48	43
229-068	8565-8570	1.55	<0.10	0.38	0.75	436	--	0.51	25	48
229-069	8558	1.38	<0.10	0.36	0.25	444	--	1.44	26	18
229-070	8630-8635	2.00	0.12	0.85	0.56	441	0.13	1.51	43	28

B.P.H.

Wams 24

Robt Campbell - 25

5%

TABLE I

Results of Carbon Analysis and Rock-Eval Pyrolysis

Sample Number	Well Depth*	T.O.C. (%)	S1 (mg/g)	S2 (mg/g)	S3 (mg/g)	Tmax (°C)	PI	S2/S3	HI	OI
229-071	8695-8700	1.52	<0.10	0.56	1.02	438	--	0.55	37	67
229-072	8750-8755	0.91	<0.10	0.49	0.44	439	--	1.12	54	48
229-073	8810-8815	1.28	<0.10	0.46	0.64	438	--	0.72	36	50
229-074c	8832	1.13	<0.10	0.11	<0.10	**	--	1.67	10	--
229-075	8840-8845	1.12	<0.10	0.32	0.80	433	--	0.39	29	71

* Well depth in feet

** Unable to determine due to insufficient S2 yield, multiple peaks, etc.

T.O.C. = Total Organic Carbon; S1 = Free Hydrocarbons; S2 = Hydrocarbon yield from pyrolysis;

S3 = CO₂ produced during pyrolysis stage; Tmax = Temperature at maximum hydrocarbon generation during pyrolysis;

PI = Production Index; HI = Hydrogen Index; OI = Oxygen Index.

c = Core sample

Port Campbell - 2

6/6