



W468

OTWAY BASIN
 SOURCE ROCK

DEPT. PRIMARY INDUSTRIES
 PETROLEUM DEVELOPMENT
 THIS DOCUMENT HAS BEEN
 SCANNED
 ON OR BEFORE MARCH 2003

PETROLEUM DIVISION

22 AUG 1991

TABLE 1

ROCK-EVAL PYROLYSIS DATA (one run)

WELLNAME = ANGLESEA 1

DATE OF JOB = JULY 1989

DEPTH(m)	TMAX	S1	S2	S3	S1+S2	S2/S3	PI	PC	TOC	HI	OI
490.0-510.0	422	3.30	96.50	26.40	99.80	3.66	0.03	8.28	50.00	193	52
1778.0-1798.0	421	0.18	2.60	0.62	2.78	4.19	0.06	0.23	1.05	247	59
1931.0-1951.0	434	0.28	13.55	0.58	13.83	23.36	0.02	1.15	5.05	268	11
2557.0-2567.0	433	0.07	0.54	0.55	0.61	0.98	0.11	0.05	0.89	61	62
4011.0-4021.0	447	0.08	0.33	0.28	0.41	1.18	0.20	0.03	0.97	34	28
4819.0-4829.0	nd	nd	nd	nd	nd	nd	nd	nd	0.43	nd	nd
5766.0-5776.0	476	0.09	0.48	1.78	0.57	0.27	0.16	0.05	1.40	34	127
6237.0-6247.0	481	0.05	0.23	1.53	0.28	0.15	0.18	0.02	0.84	27	182
6723.0-6727.0	490	0.15	0.47	1.18	0.62	0.40	0.24	0.05	1.72	27	68
7544.0-7550.0	366	0.03	0.07	0.19	0.10	0.37	0.30	0.01	0.93	7	20
7857.0-7867.0	334	0.03	0.09	0.67	0.12	0.13	0.25	0.01	0.62	14	108
8690.0-8707.0	nd	nd	nd	nd	nd	nd	nd	nd	0.44	nd	nd
9156.0-9176.0	532	0.04	0.29	0.19	0.33	1.53	0.12	0.03	4.20	6	4
9641.0-9656.0	468	0.01	0.06	0.04	0.07	1.50	0.14	0.01	1.42	4	2
10045.-10065.	273	0.04	0.11	0.08	0.15	1.38	0.27	0.01	0.85	12	9

ANGLESEA-1A

TMAX = Max. temperature	S2 = Volatile hydrocarbons (HC)	S2 = HC generating potential
S1+S2 = Potential yield	S3 = Organic carbon dioxide	PI = Production index
PC = Pyrolysable carbon	TOC = Total organic carbon	HI = Hydrogen index
OI = Oxygen Index	nd = no data	

ANGLESEA NO. 1

A1/1

K.K. No.	Depth (ft)	\bar{R}_V max	Range	N	Description Including Liptinite (Exinite) Fluorescence
v1025	490-510 Core 1	0.34	0.26-0.41	27	Abundant sporinite, greenish yellow to orange, abundant resinite, greenish yellow to dull yellow, common suberinite, dull orange to weak brown. (Coal, V>E>I. Clarite>vitrite>duroclarite. Approximate composition; Vitrinite - 80.0% Exinite - 6.0% Inertinite - 4.0% Mineral matter - 10.0% Total 100.0% Micrinite abundant in most coals. Sclerotinite common. Iron oxide rare. Pyrite sparse.)
v1026	789-809 Core 2	0.34	0.28-0.46	26	Abundant cutinite, greenish yellow to dull yellow, sparse sporinite, greenish yellow to yellow, sparse resinite, greenish yellow, rare <u>Botryococcus</u> related ?telalginite, bright yellow. (Sandstone>siltstone>shaly coal>coal. Coal sparse, V. Vitrite. Shaly coal major, V>I>E. Clarite>duroclarite. Dom major, V>E>I. Vitrite major, exinite abundant, inertinite common. Micrinite abundant in some vitrinite. Coalified leaf tissues present. Iron oxide sparse to common. Pyrite rare.)
v1027	1090-1110 Core 3	0.42	0.36-0.51	26	Abundant sporinite, greenish yellow to yellow, common cutinite, greenish yellow to orange, sparse resinite, greenish yellow. (Shaly coal>coal. Coal abundant, V>E. Vitrite>clarite. Shaly coal dominant, V>E>I. Clarite>vitrite>duroclarite. Micrinite abundant in some vitrinite. Coalified leaf tissue present. Iron oxide rare. Pyrite sparse.)
v1028	1778-1798 Core 6	0.42	0.33-0.51	28	Common sporinite and liptodetrinite, yellow to orange, sparse cutinite, orange, rare suberinite, weak brown. (Claystone>siltstone>sandstone>coal. Coal common to abundant, V>>E. Vitrite>clarite. Dom abundant, V>E>I. Vitrinite and exinite common, inertinite sparse. Iron oxide sparse. Pyrite major.)
v1029	1931-1951 Core 7	0.76	0.60-0.88	28	Common sporinite orange to dull orange, sparse cutinite, dull orange. (Calcareous claystone>coal. Coal sparse, V>>I. Vitrite. Dom abundant, V>I>E. Vitrinite and exinite common, inertinite sparse. Inertinite mainly consists on inertodetrinite. Vitrinite mainly occurs as thin bands. Micrinite abundant in some vitrinite. Vitrinite bireflectance is low to moderate and ranges from 0.03% to 0.09%. Iron oxide rare. Pyrite sparse.)

ANGLESEA NO. 1

A1/2

K.K. No.	Depth (ft)	\bar{R}_V max	Range	N	Description Including Liptinite (Exinite) Fluorescence
v1030	2557- 2567 Core 10	0.80	0.70-0.98	26	Sparse sporinite orange to dull orange, rare cutinite dull orange. (Claystone>siltstone. Dom abundant, I>V>E. Inertinite common, vitrinite and exinite sparse. Diffuse humic organic matter common. Iron oxide sparse to common. Pyrite sparse.)
v1031	3158- 3168 Core 12	0.81	0.71-0.96	26	Sparse sporinite, dull orange to weak brown. (Calcareous siltstone>coal>carbonate. Coal major, V>>I. Vitrinite. Dom common, V>I>E. Vitrinite common, inertinite and exinite sparse. Weak brown fluorescence from some vitrinite. Micrinite abundant in some vitrinite. Iron oxide rare. Pyrite sparse.)
v1032	4011- 4021 Core 16	0.96	0.84-1.15	6	Exinite absent/non fluorescing. (Claystone>siltstone>coal. Coal rare, V. Vitrinite. Dom abundant, I>V. Inertinite abundant, vitrinite rare, exinite absent.
	\bar{R}_I	1.70	1.30-2.40	25	Diffuse humic organic matter common. Iron oxide rare. Pyrite sparse.)
v1033	4819- 4829 Core 19	1.12	0.98-1.28	12	Exinite absent absent/non fluorescing. (Calcareous siltstone. Dom abundant, I>V. Inertinite abundant, vitrinite sparse, exinite absent. Diffuse humic organic matter common. Iron oxide rare. Pyrite sparse.)
v1034	5766- 5776 Core 22	1.35	1.14-1.48	8	Exinite absent/non fluorescing. (Calcareous siltstone. Dom abundant, I>V. Inertinite abundant, vitrinite rare, exinite absent. Diffuse humic organic matter abundant. Mineral matter fluorescence low. Iron oxide rare. Pyrite sparse.)
v1035	6237- 6247 Core 23	-	-	-	Exinite absent/non fluorescing. (Siltstone. Dom abundant, I. Inertinite abundant, vitrinite and exinite absent. Diffuse humic organic matter abundant.
	\bar{R}_I	2.14	1.60-2.60	25	Inertinite mainly consists of inertodetrinite. Mineral matter fluorescence low. Iron oxide rare. Pyrite sparse. Marcasite rare.)
v1036	6723- 6727 Core 24	1.81	1.68-1.91	5	Exinite absent/non fluorescing. (Calcareous claystone>carbonate. Dom common, I>V. Inertinite common, vitrinite rare, exinite absent. Diffuse humic organic matter common. Dom mainly consists of inertodetrinite. Mineral matter fluorescence low. Iron oxide rare. Pyrite sparse.)
	\bar{R}_I	2.22	1.84-2.94	20	

K.K. No.	Depth (ft)	\bar{R}_V max	Range	N	Description Including Liptinite (Exinite) Fluorescence
v1037	7544-7550 Core 27	2.41	2.26-2.63	7	Exinite absent/non fluorescing. (Siltstone. Dom abundant, I>V. Inertinite abundant, vitrinite rare, exinite absent. Diffuse humic organic matter common.
	\bar{R}_I	2.45	2.04-3.10	25	Vitrinite bireflectance moderate. Dom consists mainly of fine inertodetrinite. Iron oxide rare. Pyrite sparse.)
v1038	7857-7867 Core 28	2.45	2.40-2.52	3	Exinite absent/non fluorescing. (Siltstone. Dom abundant, I>V. Inertinite abundant, vitrinite rare, exinite absent. Diffuse humic organic matter common.
	\bar{R}_I	2.74	2.14-4.52	25	Dom mainly consists of inertodetrinite. Bireflectance about 0.45% for vitrinite. Mineral matter fluorescence low. Iron oxide rare. Pyrite sparse.)
v1039	8690-8707 Core 30	2.48 ¹	2.26-2.73	22	Exinite absent/non fluorescing. (Carbonate. Dom common, V>I. Vitrinite and inertinite common, exinite absent. Diffuse humic organic matter sparse to common.
	1 FGV	7.25 ²	-	1	Vitrinite bireflectance moderate to strong and ranges from 0.18% to 0.70%. Rare ?reworked meta anthracite with \bar{R}_V max = 7.25% and bireflectance = 5.59%. Mineral matter fluorescence weak. Iron oxide rare. Pyrite sparse.)
	2 ? Reworked meta-anthracite				
v1040	9640-9656 Core 32	3.23	2.90-3.57	27	Exinite absent/non fluorescing. (Silty claystone. Dom major, V>I. Vitrinite major, inertinite common, exinite absent. Diffuse humic organic matter abundant. Vitrinite mainly occurs as thin bands. Vitrinite bireflectance moderate to strong and ranges from 0.51% to 1.54%. Mineral matter fluorescence very weak to absent. Iron oxide rare. Pyrite sparse.)
v1041	10045-10065 Core 33	3.37	2.99-3.77	26	Exinite absent/non fluorescing. (Silty claystone. Dom common, v>I. Vitrinite and inertinite common, exinite absent. Diffuse humic organic matter abundant. Vitrinite bireflectance moderate to strong and ranges from 0.45% to 1.32%. Mineral matter fluorescence very weak to absent. Iron oxide rare. Pyrite sparse. Marcasite rare.)

FIGURE : 1e
VITRINITE REFLECTANCE AND COAL MACERAL IDENTIFICATION

CLIENT NAME : SHELL

DATE : AUGUST 1988

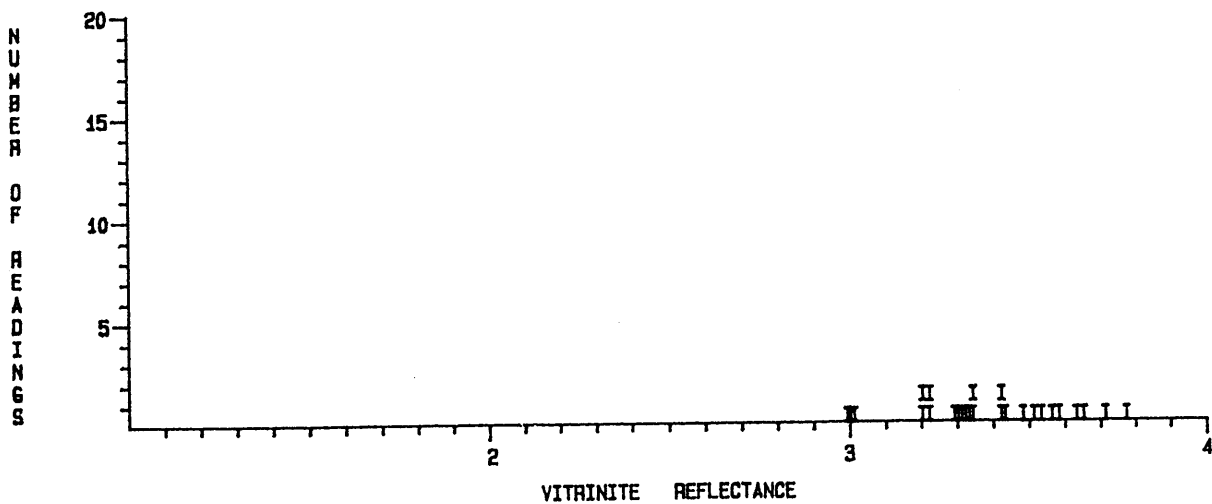
WELL NAME : ANGLESEA 1

DEPTH OR SAMPLE No : 10045-10085 Feet

SAMPLE TYPE : Core

(Total No. of Readings = 26) 2.98 3.00 3.01 3.20 3.20 3.22 3.22 3.29 3.30 3.31 3.32 3.33 3.34 3.34 3.42 3.42 3.43
3.48 3.51 3.53 3.56 3.58 3.63 3.65 3.71 3.77

VITRINITE REFLECTANCE							MACERAL IDENTIFICATION				
POPULATION		No. of Readings	Mean Ro (%)	Min. Ro (%)	Max. Ro (%)	STD. Dev. (%)	Comments	% Alginite	% Exinite	% Vitrinite	% Inertinite
Number	%										
1	100	26	3.38	2.99	3.77	0.21	INDIGENOUS (I)	0.00	0.00	61.50	38.50



PE905689

This is an enclosure indicator page.

The enclosure PE905689 is enclosed within the container PE907748 at this location in this document.

The enclosure PE905689 has the following characteristics:

ITEM_BARCODE = PE905689
CONTAINER_BARCODE = PE907748
 NAME = Vitrinite Reflectance & Coal Maceral
 Identification
 BASIN =
 PERMIT =
 TYPE = WELL
 SUBTYPE = DIAGRAM
DESCRIPTION = Vitrinite Reflectance & Coal Maceral
 Identification, (Figure 1a from
 Palynological Analysis of Samples from
 Hindhaugh Creek-1-Torquay Sub-Basin),
 for Anglesea-1.
REMARKS = 31/08/89
DATE_CREATED =
DATE_RECEIVED =
 WELL_NO = W468
 WELL_NAME = Anglesea-1
CONTRACTOR =
CLIENT_OP_CO = Shell

(Inserted by DNRE - Vic Govt Mines Dept)

PE905686

This is an enclosure indicator page.
The enclosure PE905686 is enclosed within the container
PE907748 at this location in this document.

The enclosure PE905686 has the following characteristics:

ITEM_BARCODE = PE905686
CONTAINER_BARCODE = PE907748
 NAME = Vitrinite Reflectance & Coal Maceral
 Identification
 BASIN =
 PERMIT =
 TYPE = WELL
 SUBTYPE = DIAGRAM
DESCRIPTION = Vitrinite Reflectance & Coal Maceral
 Identification, (Figure 1b from
 Palynological Analysis of Samples from
 Hindhaugh Creek-1-Torquay Sub-Basin),
 for Anglesea-1.
REMARKS = 31/08/89
DATE_CREATED =
DATE_RECEIVED =
 WELL_NO = W468
 WELL_NAME = Anglesea-1
CONTRACTOR =
CLIENT_OP_CO = Shell

(Inserted by DNRE - Vic Govt Mines Dept)

PE905687

This is an enclosure indicator page.

The enclosure PE905687 is enclosed within the container PE907748 at this location in this document.

The enclosure PE905687 has the following characteristics:

ITEM_BARCODE = PE905687
CONTAINER_BARCODE = PE907748
NAME = Vitrinite Reflectance & Coal Maceral
Identification
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = DIAGRAM
DESCRIPTION = Vitrinite Reflectance & Coal Maceral
Identification, (Figure 1c from
Palynological Analysis of Samples from
Hindhaugh Creek-1-Torquay Sub-Basin),
for Anglesea-1.
REMARKS = 31/08/89
DATE_CREATED =
DATE_RECEIVED =
WELL_NO = W468
WELL_NAME = Anglesea-1
CONTRACTOR =
CLIENT_OP_CO = Shell

(Inserted by DNRE - Vic Govt Mines Dept)

PE905688

This is an enclosure indicator page.
The enclosure PE905688 is enclosed within the container
PE907748 at this location in this document.

The enclosure PE905688 has the following characteristics:

ITEM_BARCODE = PE905688
CONTAINER_BARCODE = PE907748
 NAME = Vitrinite Reflectance & Coal Maceral
 Identification
 BASIN =
 PERMIT =
 TYPE = WELL
 SUBTYPE = DIAGRAM
DESCRIPTION = Vitrinite Reflectance & Coal Maceral
 Identification, (Figure 1d from
 Palynological Analysis of Samples from
 Hindhaugh Creek-1-Torquay Sub-Basin),
 for Anglesea-1.
REMARKS = 31/08/89
DATE_CREATED =
DATE_RECEIVED =
 WELL_NO = W468
 WELL_NAME = Anglesea-1
CONTRACTOR =
CLIENT_OP_CO = Shell

(Inserted by DNRE - Vic Govt Mines Dept)

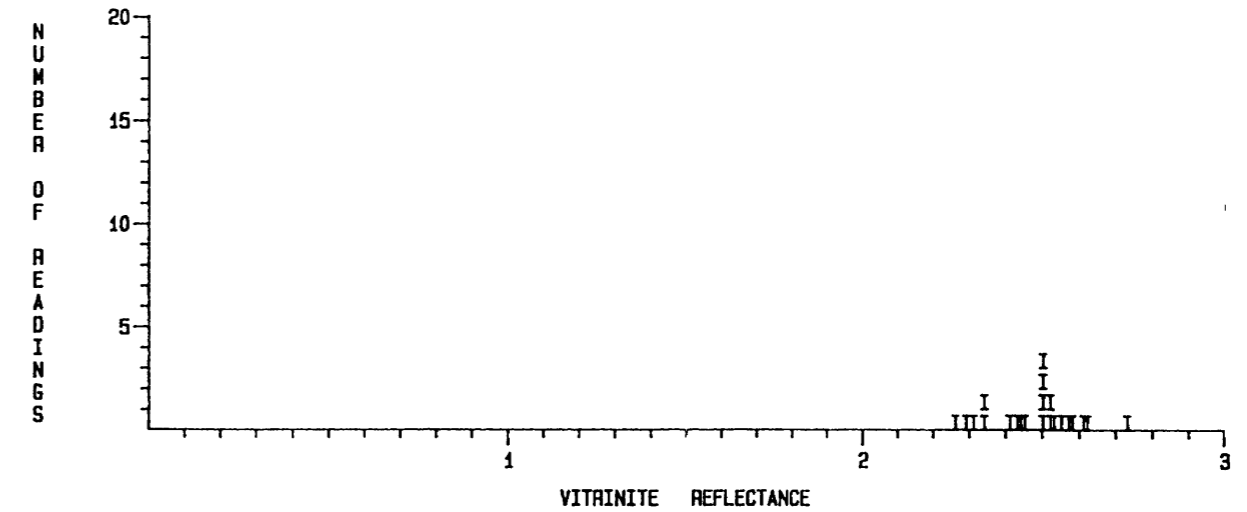
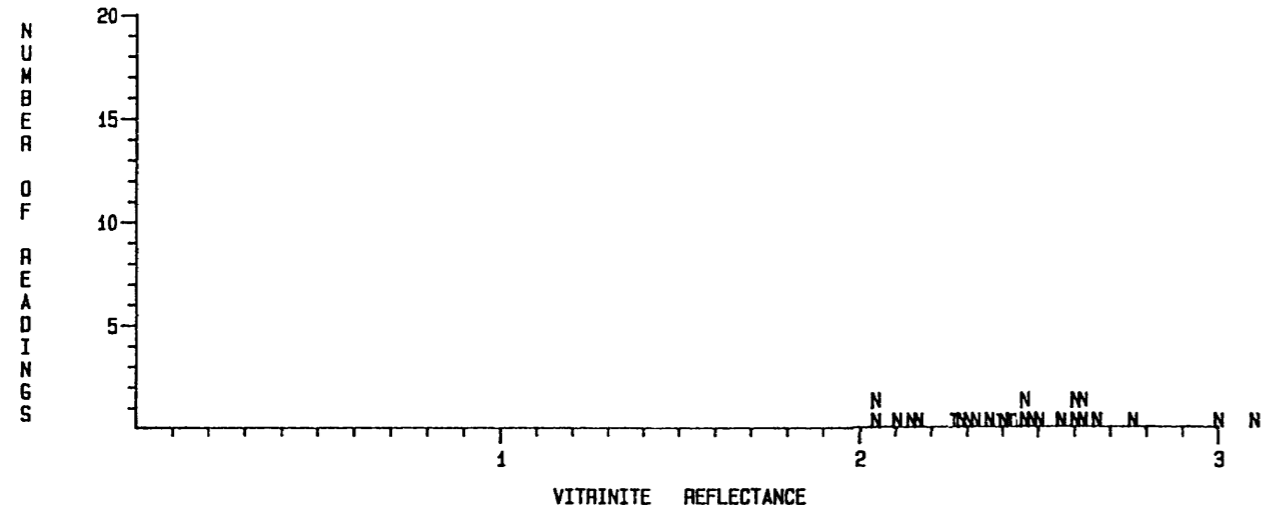
FIGURE 1d
 VITRINITE REFLECTANCE AND COAL MACERAL IDENTIFICATION

CLIENT NAME : SHELL DATE : AUGUST 1989 WELL NAME : ANGLESEA 1
 DEPTH OR SAMPLE No : 7544-7550 Feet SAMPLE TYPE : Core
 (Total No. of Readings = 32) 2.04 2.04 2.10 2.14 2.16 2.26 2.26 2.27 2.28 2.30 2.32 2.36 2.39 2.40 2.42 2.42 2.44
 2.45 2.46 2.46 2.48 2.50 2.56 2.60 2.60 2.62 2.62 2.63 2.66 2.76 3.00 3.10

CLIENT NAME : SHELL DATE : AUGUST 1989 WELL NAME : ANGLESEA 1
 DEPTH OR SAMPLE No : 8690-8707 Feet SAMPLE TYPE : Core
 (Total No. of Readings = 23) 2.26 2.29 2.31 2.34 2.34 2.41 2.43 2.44 2.45 2.50 2.50 2.50 2.50 2.52 2.52 2.53 2.55
 2.57 2.58 2.61 2.62 2.73 7.25

VITRINITE REFLECTANCE							MACERAL IDENTIFICATION				
POPULATION		No. of Readings	Mean Ro (%)	Min. Ro (%)	Max. Ro (%)	STD. Dev. (%)	Comments	% Alginite	% Exinite	% Vitrinite	% Inertinite
Number	%										
1	21.9	7	2.41	2.26	2.63	0.12	INDIGENOUS (I)	0.00	0.00	3.80	96.20
2	78.1	25	2.45	2.04	3.10	0.27	INERTINITE (N)	No data	No data	No data	No data

VITRINITE REFLECTANCE							MACERAL IDENTIFICATION				
POPULATION		No. of Readings	Mean Ro (%)	Min. Ro (%)	Max. Ro (%)	STD. Dev. (%)	Comments	% Alginite	% Exinite	% Vitrinite	% Inertinite
Number	%										
1	95.7	22	2.48	2.26	2.73	0.12	INDIGENOUS (I)	0.00	0.00	57.10	42.90
2	4.3	1	7.25	7.25	7.25	—	REWORKED (R)	No data	No data	No data	No data



CLIENT NAME : SHELL DATE : AUGUST 1989 WELL NAME : ANGLESEA 1
 DEPTH OR SAMPLE No : 7857-7867 Feet SAMPLE TYPE : Core
 (Total No. of Readings = 28) 2.14 2.30 2.36 2.38 2.40 2.40 2.42 2.44 2.50 2.50 2.52 2.52 2.60 2.60 2.64 2.64 2.70
 2.70 2.72 2.76 2.76 2.80 2.86 2.86 3.20 3.22 3.34 4.52

CLIENT NAME : SHELL DATE : AUGUST 1989 WELL NAME : ANGLESEA 1
 DEPTH OR SAMPLE No : 9640-9656 Feet SAMPLE TYPE : Core
 (Total No. of Readings = 27) 2.90 2.98 3.02 3.02 3.06 3.15 3.16 3.19 3.20 3.21 3.21 3.21 3.22 3.23 3.24 3.24 3.31
 3.32 3.33 3.37 3.39 3.41 3.42 3.42 3.42 3.11 3.57

VITRINITE REFLECTANCE							MACERAL IDENTIFICATION				
POPULATION		No. of Readings	Mean Ro (%)	Min. Ro (%)	Max. Ro (%)	STD. Dev. (%)	Comments	% Alginite	% Exinite	% Vitrinite	% Inertinite
Number	%										
1	10.7	3	2.45	2.40	2.52	0.06	INDIGENOUS (I)	0.00	0.00	3.80	96.20
2	89.3	25	2.74	2.14	4.52	0.47	INERTINITE (N)	No data	No data	No data	No data

VITRINITE REFLECTANCE							MACERAL IDENTIFICATION				
POPULATION		No. of Readings	Mean Ro (%)	Min. Ro (%)	Max. Ro (%)	STD. Dev. (%)	Comments	% Alginite	% Exinite	% Vitrinite	% Inertinite
Number	%										
1	100	27	3.23	2.90	3.57	0.16	INDIGENOUS (I)	0.00	0.00	94.30	5.70

