

Sample ID : **W13/007557B**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part B subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:07:32 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

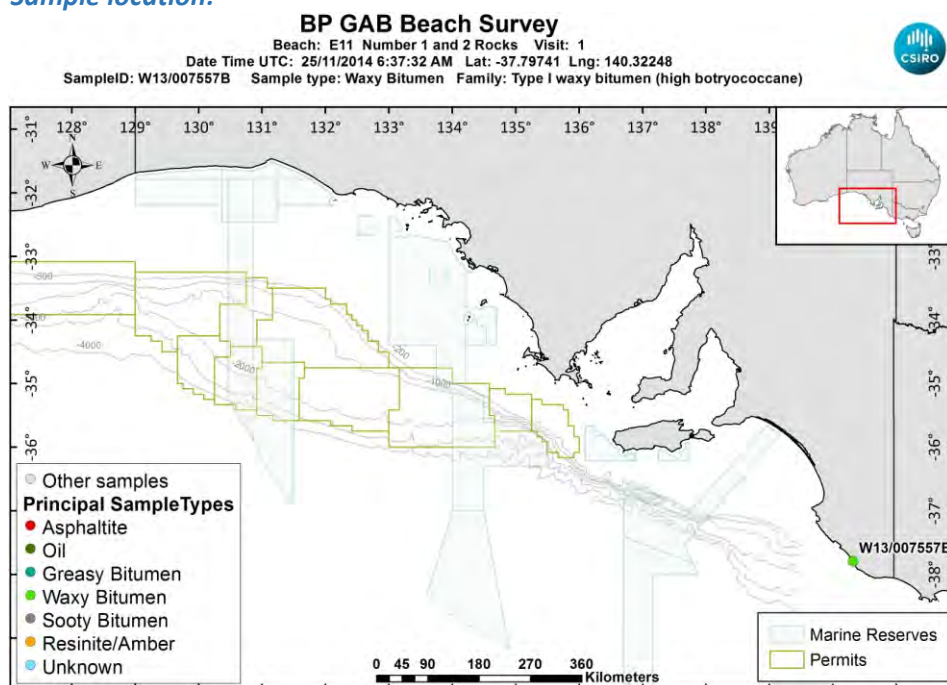
Size (cm):

Latitude (Y): -37.797411

Weight (gm):

Longitude (X): 140.322477

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007557B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007557_Photo01.JPG](#)

Sample ID : W13/007557B**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

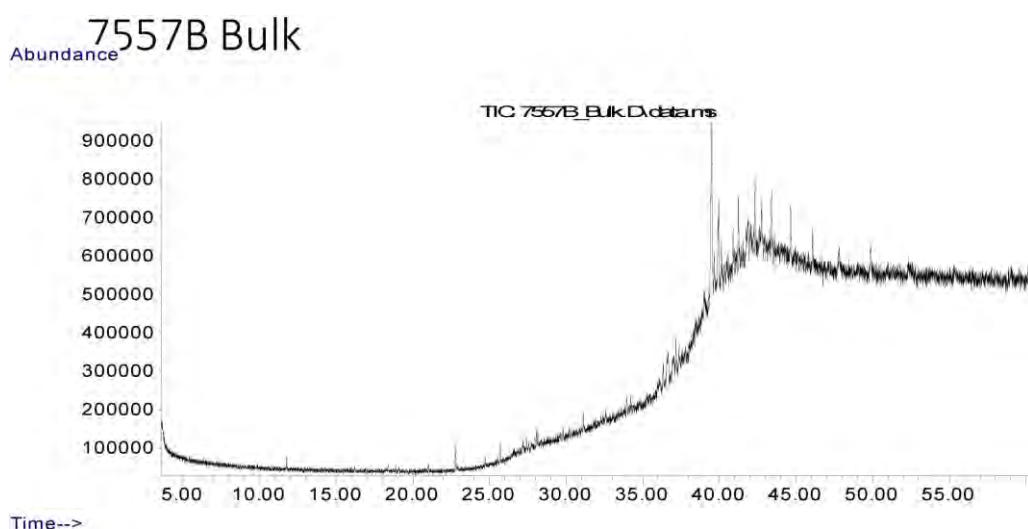
Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007557B_UNK_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.39	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			8.72	percent	Y
Inorg	Nitrogen			0.26	percent	Y
Inorg	Sulphur			1.21	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007557B DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007557B_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	2815067		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680	178564		ug/L	Z
Aliph	nC21	29.6330	86135		ug/L	Z
Aliph	nC22	31.1340	162176		ug/L	Z
Aliph	nC23	32.5720	133124		ug/L	Z
Aliph	nC24	33.9520	267465		ug/L	Z
Aliph	nC25	35.2810	125137		ug/L	Z
Aliph	nC26	36.5600	313897		ug/L	Z
Aliph	nC27	37.7930			ug/L	U
Aliph	nC28	38.9870	283262		ug/L	Z
Aliph	nC29	40.1370	525856		ug/L	Z
Aliph	nC30	41.2480	605041		ug/L	Z
Aliph	nC31	42.3270	782591		ug/L	Z
Aliph	nC32	43.4130	960685		ug/L	Z
Aliph	nC33	44.6430	970314		ug/L	Z
Aliph	nC34	46.0860	854405		ug/L	Z
Aliph	nC35	47.8060	194628		ug/L	Z
Aliph	nC36	49.8090	33011		ug/L	Z
Aliph	nC37	52.2960			ug/L	U
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007557C**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part C subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:07:32 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

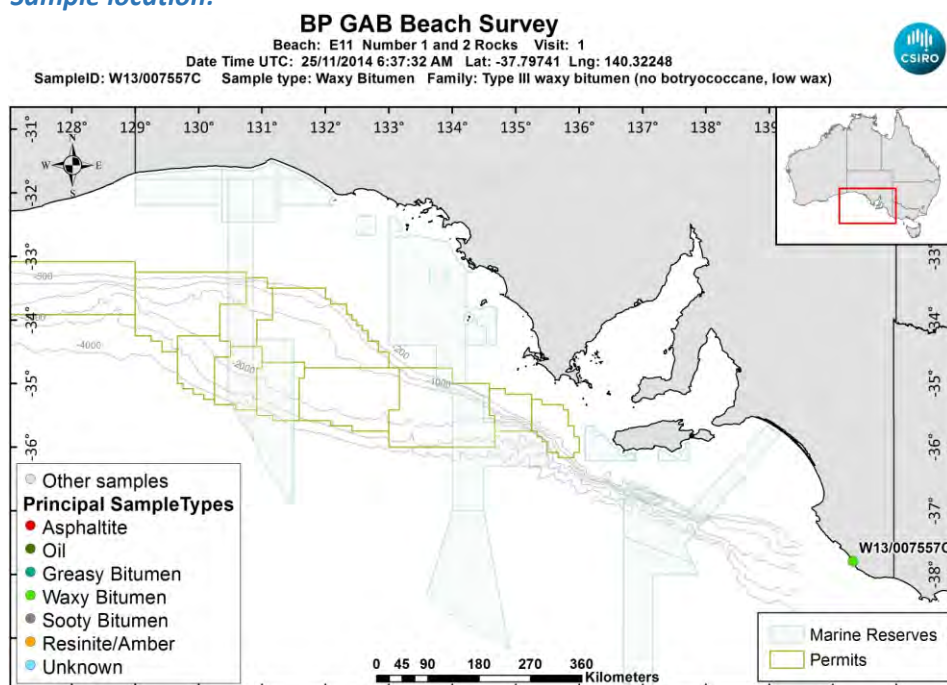
Size (cm):

Latitude (Y): -37.797411

Weight (gm):

Longitude (X): 140.322477

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007557C_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007557_Photo01.JPG](#)

Sample ID : W13/007557C**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

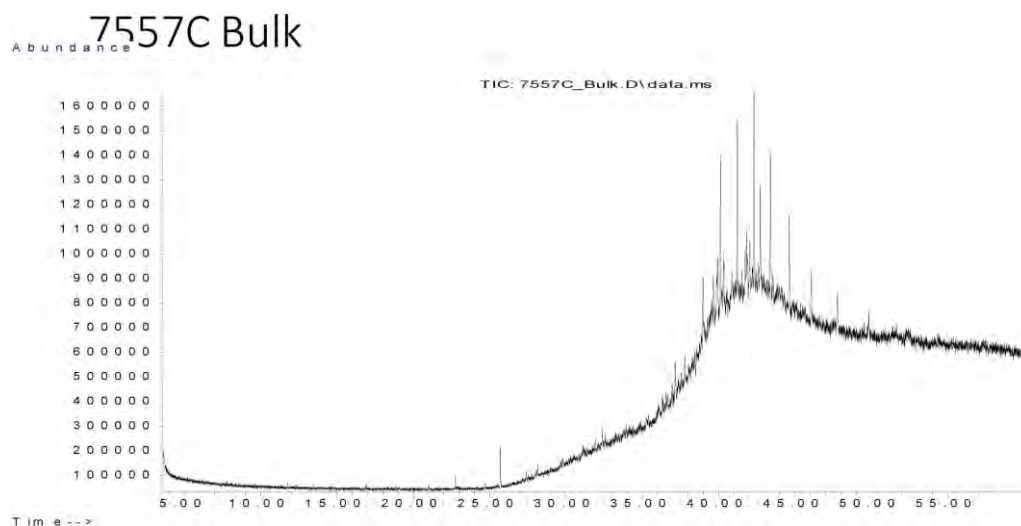
Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007557C_UNK_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.45	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			7.18	percent	Y
Inorg	Nitrogen			0.29	percent	Y
Inorg	Sulphur			0.91	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007557C DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007557C_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600			ug/L	U
Aliph	nC27	37.7930	560239		ug/L	Z
Aliph	nC28	38.9870	1451507		ug/L	Z
Aliph	nC29	40.1370	2618879		ug/L	Z
Aliph	nC30	41.2480	3610757		ug/L	Z
Aliph	nC31	42.3270	3746914		ug/L	Z
Aliph	nC32	43.4130	3225005		ug/L	Z
Aliph	nC33	44.6430	2570993		ug/L	Z
Aliph	nC34	46.0860	1874453		ug/L	Z
Aliph	nC35	47.8060	1082764		ug/L	Z
Aliph	nC36	49.8090	1183588		ug/L	Z
Aliph	nC37	52.2960			ug/L	U
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007558**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:09:08 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

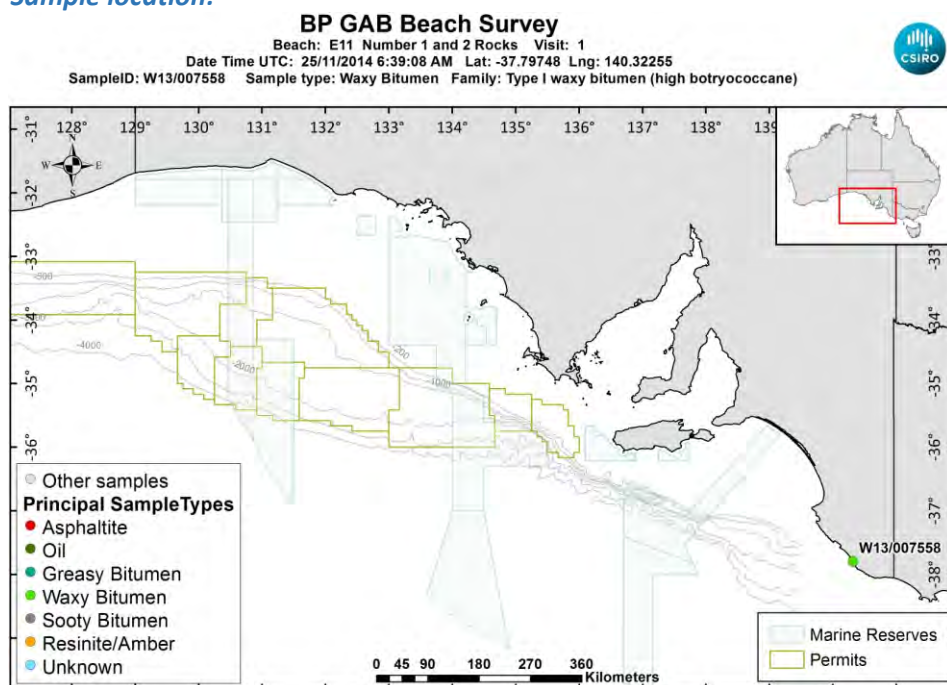
Size (cm): 3

Latitude (Y): -37.797479

Weight (gm): 4.27434

Longitude (X): 140.322552

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007558_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007558_146A0785.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB_BCH1\Samples\W13_007558_Photo01.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007558_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Unknown

Analysis Date:

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

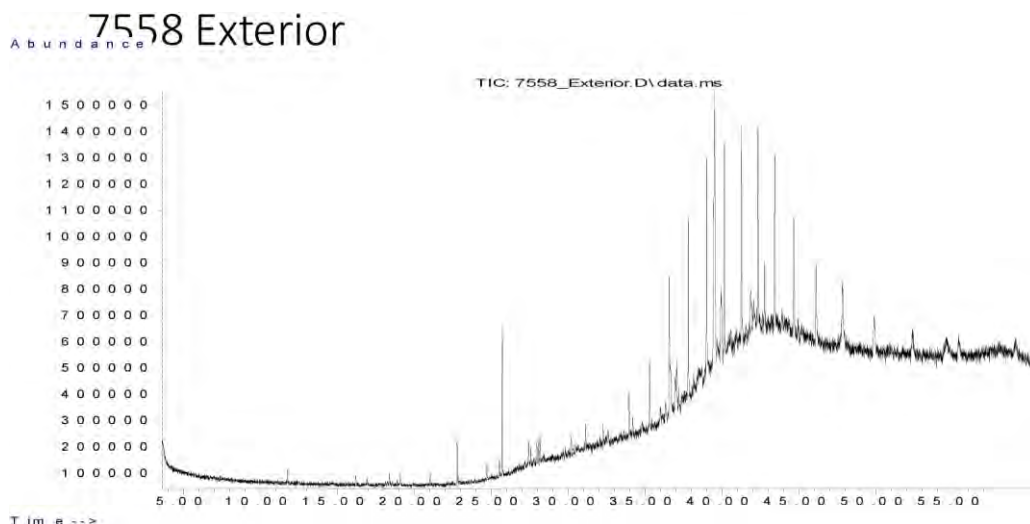
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			74.76	percent	Y
Inorg	delta13 Carbon			-25.9565434292408	per mille	Y
Inorg	delta34 Sulphur			-3.24877569978149	per mille	Y
Inorg	Hydrogen			3.77	percent	Y
Inorg	Nitrogen			0.21	percent	Y
Inorg	Sulphur			0.51	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007558_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007558_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



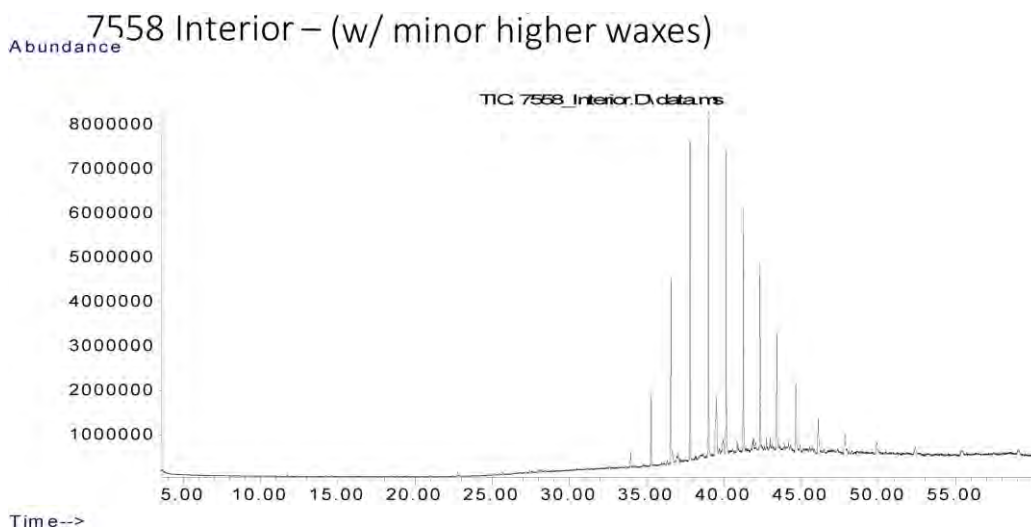
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	7598119		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340	476153		ug/L	Z
Aliph	nC23	32.5720	178295		ug/L	Z
Aliph	nC24	33.9520	823209		ug/L	Z
Aliph	nC25	35.2810	1543845		ug/L	Z
Aliph	nC26	36.5600	4193349		ug/L	Z
Aliph	nC27	37.7930	3695150		ug/L	Z
Aliph	nC28	38.9870	4365041		ug/L	Z
Aliph	nC29	40.1370	4418853		ug/L	Z
Aliph	nC30	41.2480	4410130		ug/L	Z
Aliph	nC31	42.3270	4378757		ug/L	Z
Aliph	nC32	43.4130	3698974		ug/L	Z
Aliph	nC33	44.6430	3301755		ug/L	Z
Aliph	nC34	46.0860	2559989		ug/L	Z
Aliph	nC35	47.8060	1395445		ug/L	Z
Aliph	nC36	49.8090	2078968		ug/L	Z
Aliph	nC37	52.2960	131699		ug/L	Z
Aliph	nC38	55.2370	1254762		ug/L	Z
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007558 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007558_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	9772253		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340	349255		ug/L	Z
Aliph	nC23	32.5720	227395		ug/L	Z
Aliph	nC24	33.9520	1729903		ug/L	Z
Aliph	nC25	35.2810	8429557		ug/L	Z
Aliph	nC26	36.5600	21336758		ug/L	Z
Aliph	nC27	37.7930	36724765		ug/L	Z
Aliph	nC28	38.9870	39446912		ug/L	Z
Aliph	nC29	40.1370	36701143		ug/L	Z
Aliph	nC30	41.2480	29304905		ug/L	Z
Aliph	nC31	42.3270	23405171		ug/L	Z
Aliph	nC32	43.4130	16223330		ug/L	Z
Aliph	nC33	44.6430	11649988		ug/L	Z
Aliph	nC34	46.0860	6858317		ug/L	Z
Aliph	nC35	47.8060	4730924		ug/L	Z
Aliph	nC36	49.8090	3934459		ug/L	Z
Aliph	nC37	52.2960	3427201		ug/L	Z
Aliph	nC38	55.2370	2937407		ug/L	Z
Aliph	nC39	58.8850	3336451		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007559**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:11:11 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

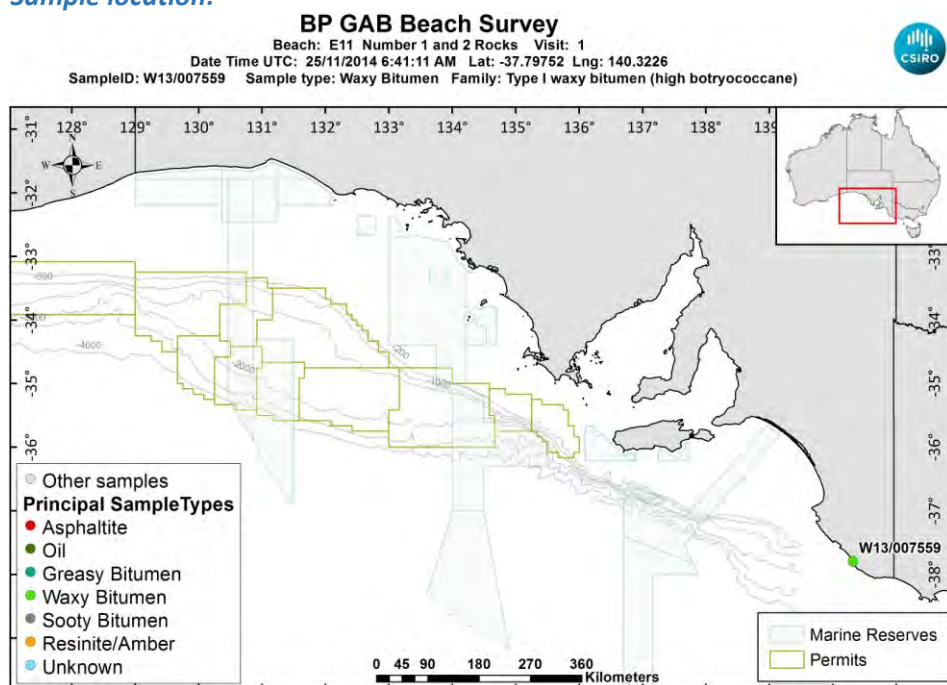
Size (cm): 4

Latitude (Y): -37.797522

Weight (gm): 7.74549

Longitude (X): 140.322600

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007559_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007559_146A0787.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB BCH1\Samples\W13_007559_Photo01.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007559_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Unknown

Analysis Date:

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Huge outlier. Might be worth rerunning? Huge outlier. Might be worth rerunning?

Data Sheet:

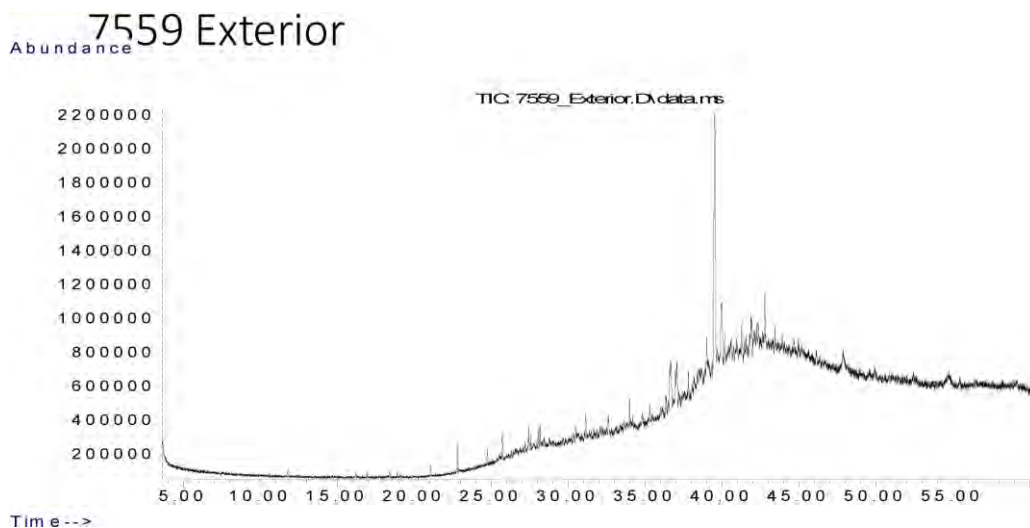
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.51	percent	Y
Inorg	delta13 Carbon			-25.6050423277504	per mille	Y
Inorg	delta34 Sulphur			-11.6221969664392	per mille	Y
Inorg	Hydrogen			5.07	percent	Y
Inorg	Nitrogen			0.23	percent	Y
Inorg	Sulphur			0.69	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007559_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007559_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



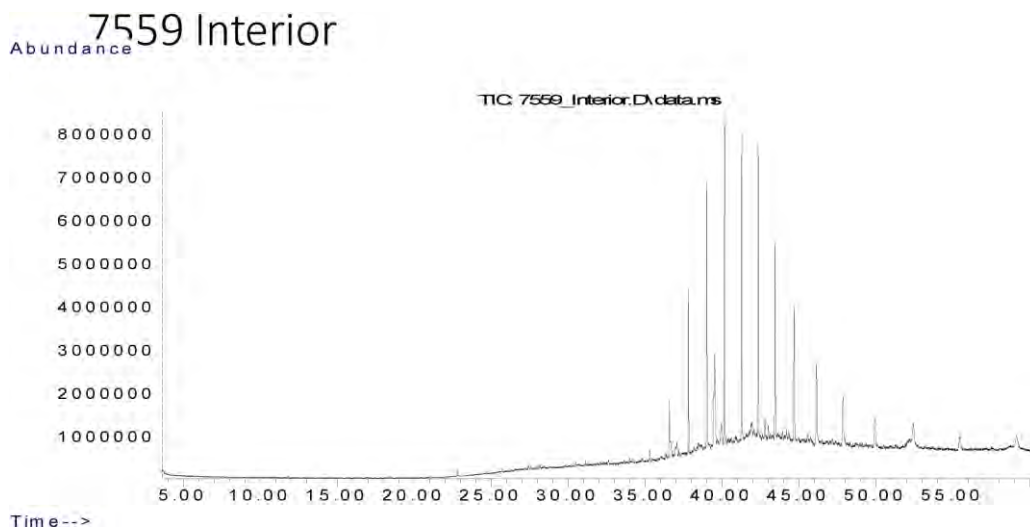
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	14958416		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340	673750		ug/L	Z
Aliph	nC23	32.5720	479444		ug/L	Z
Aliph	nC24	33.9520	840044		ug/L	Z
Aliph	nC25	35.2810	574019		ug/L	Z
Aliph	nC26	36.5600	1317116		ug/L	Z
Aliph	nC27	37.7930	808126		ug/L	Z
Aliph	nC28	38.9870	1219836		ug/L	Z
Aliph	nC29	40.1370	882862		ug/L	Z
Aliph	nC30	41.2480	953795		ug/L	Z
Aliph	nC31	42.3270	593949		ug/L	Z
Aliph	nC32	43.4130	812875		ug/L	Z
Aliph	nC33	44.6430	247561		ug/L	Z
Aliph	nC34	46.0860	172911		ug/L	Z
Aliph	nC35	47.8060	973307		ug/L	Z
Aliph	nC36	49.8090			ug/L	U
Aliph	nC37	52.2960			ug/L	U
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007559 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007559_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	19835038		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810	1326342		ug/L	Z
Aliph	nC26	36.5600	7424789		ug/L	Z
Aliph	nC27	37.7930	20006658		ug/L	Z
Aliph	nC28	38.9870	32479486		ug/L	Z
Aliph	nC29	40.1370	39709743		ug/L	Z
Aliph	nC30	41.2480	37635527		ug/L	Z
Aliph	nC31	42.3270	34582655		ug/L	Z
Aliph	nC32	43.4130	28182180		ug/L	Z
Aliph	nC33	44.6430	22017663		ug/L	Z
Aliph	nC34	46.0860	15219121		ug/L	Z
Aliph	nC35	47.8060	10149775		ug/L	Z
Aliph	nC36	49.8090	9919426		ug/L	Z
Aliph	nC37	52.2960	10610956		ug/L	Z
Aliph	nC38	55.2370	7355618		ug/L	Z
Aliph	nC39	58.8850	10056146		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007560A**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

2 pieces both 1cm. Part A.

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:13:41 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

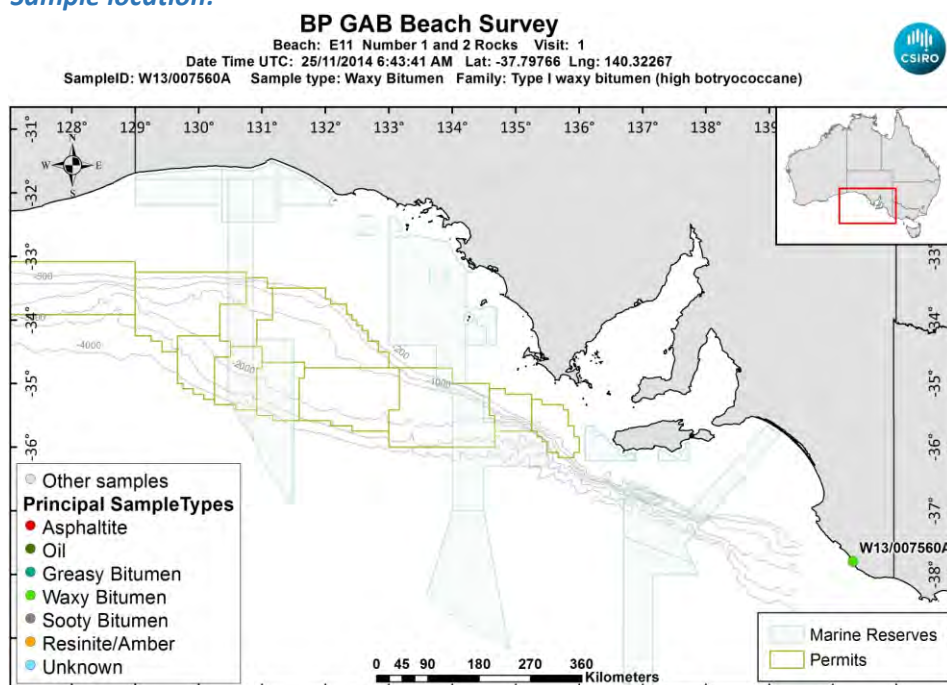
Size (cm): 1

Latitude (Y): -37.797658

Weight (gm): 0.53394

Longitude (X): 140.322671

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007560A_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007560_146A0789.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007560_Photo01.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007560A_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Unknown

Analysis Date:

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

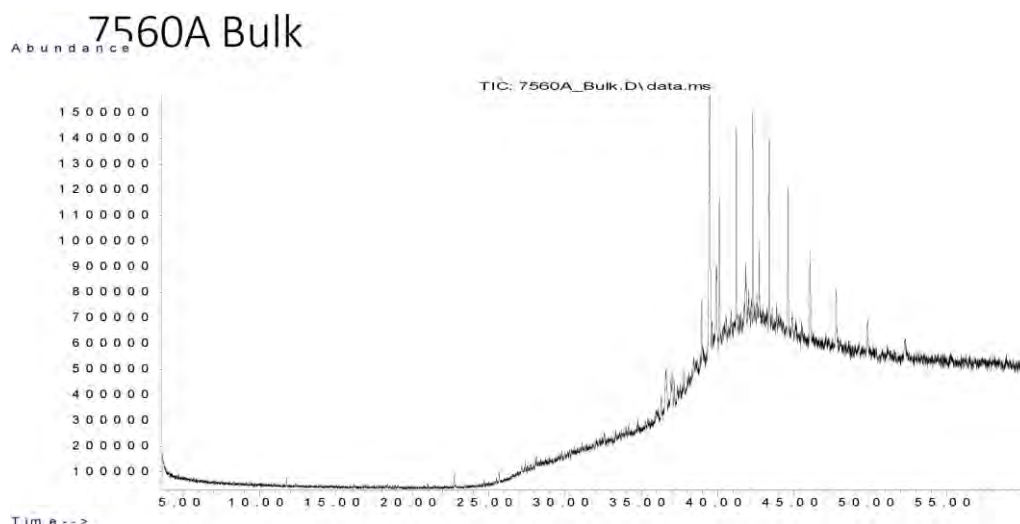
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.06	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			5.49	percent	Y
Inorg	Nitrogen			0.25	percent	Y
Inorg	Sulphur			0.73	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007560A_DISS_GCMS-Scan/03

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007560A_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	8383034		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600			ug/L	U
Aliph	nC27	37.7930	425330		ug/L	Z
Aliph	nC28	38.9870	1422435		ug/L	Z
Aliph	nC29	40.1370	2780445		ug/L	Z
Aliph	nC30	41.2480	3656699		ug/L	Z
Aliph	nC31	42.3270	4378603		ug/L	Z
Aliph	nC32	43.4130	4093587		ug/L	Z
Aliph	nC33	44.6430	3659592		ug/L	Z
Aliph	nC34	46.0860	2972201		ug/L	Z
Aliph	nC35	47.8060	2216904		ug/L	Z
Aliph	nC36	49.8090	246920		ug/L	Z
Aliph	nC37	52.2960	382561		ug/L	Z
Aliph	nC38	55.2370	122923		ug/L	Z
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007560B**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part B subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:13:41 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

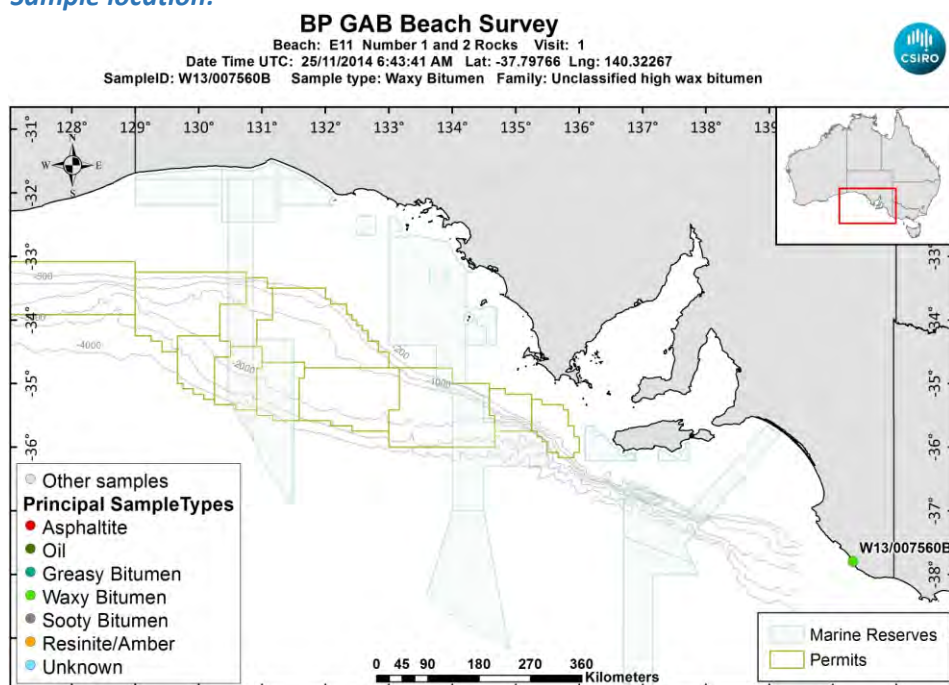
Size (cm):

Latitude (Y): -37.797658

Weight (gm):

Longitude (X): 140.322671

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007560B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007560_Photo01.JPG](#)

Sample ID : W13/007560B**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

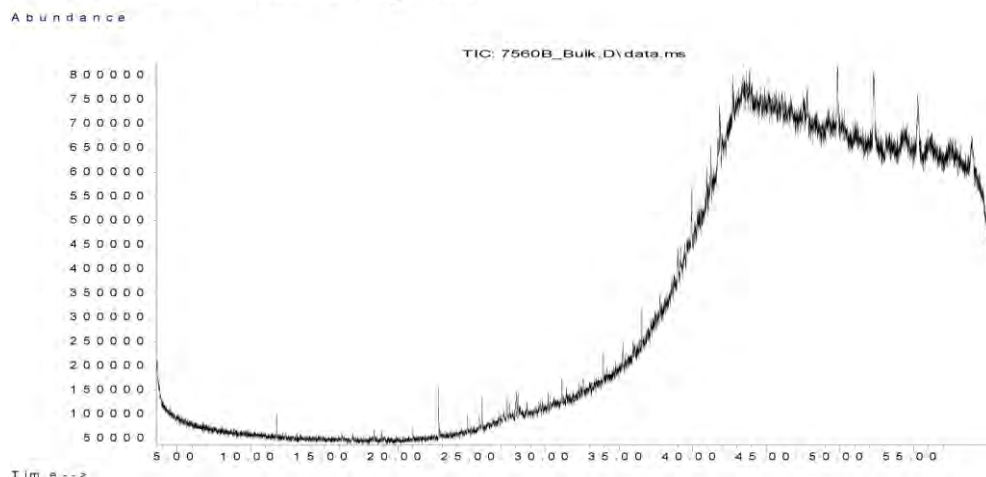
Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007560B_UNK_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			82.59	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			6.88	percent	Y
Inorg	Nitrogen			0.27	percent	Y
Inorg	Sulphur			1.83	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007560B DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007560B_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan

7560B Bulk – Unclassified high wax



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	297519		ug/L	Z
Aliph	nC25	35.2810	192490		ug/L	Z
Aliph	nC26	36.5600	352336		ug/L	Z
Aliph	nC27	37.7930	197070		ug/L	Z
Aliph	nC28	38.9870	249468		ug/L	Z
Aliph	nC29	40.1370			ug/L	U
Aliph	nC30	41.2480	340189		ug/L	Z
Aliph	nC31	42.3270			ug/L	U
Aliph	nC32	43.4130	206613		ug/L	Z
Aliph	nC33	44.6430	164301		ug/L	Z
Aliph	nC34	46.0860			ug/L	U
Aliph	nC35	47.8060	204364		ug/L	Z
Aliph	nC36	49.8090	2265801		ug/L	Z
Aliph	nC37	52.2960	1825870		ug/L	Z
Aliph	nC38	55.2370	1494472		ug/L	Z
Aliph	nC39	58.8850	73705		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007561**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:15:08 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

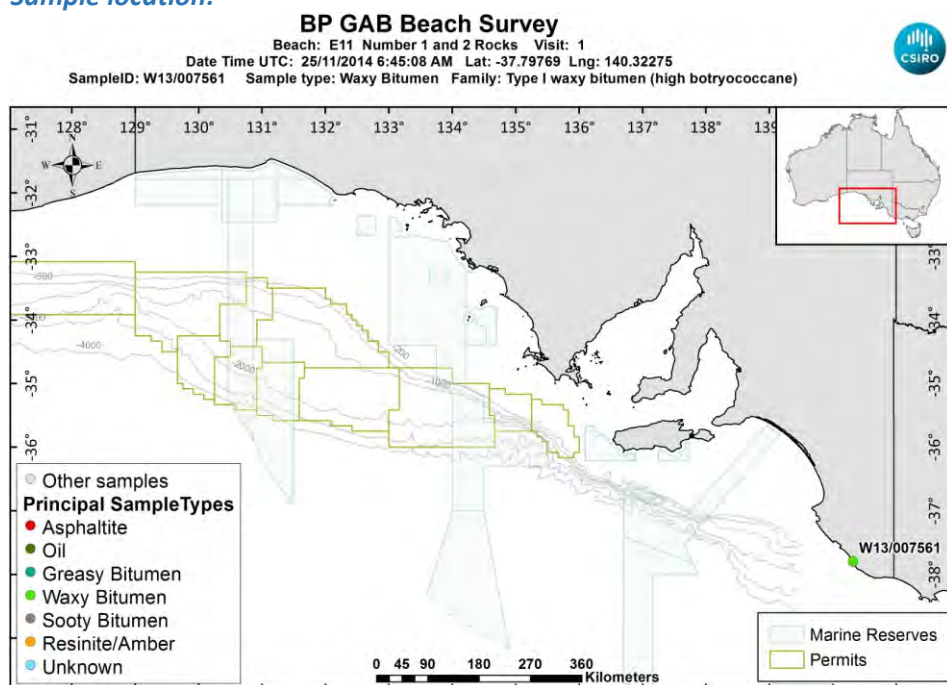
Size (cm): 2

Latitude (Y): -37.797695

Weight (gm): 3.56634

Longitude (X): 140.322747

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007561_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007561_146A0791.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB_BCH1\Samples\W13_007561_Photo01.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007561_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Unknown

Analysis Date:

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

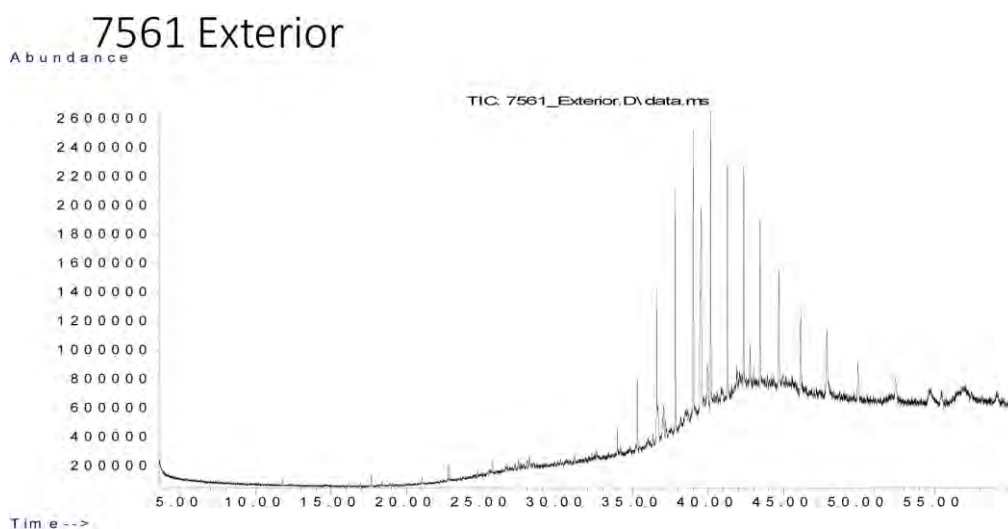
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.87	percent	Y
Inorg	delta13 Carbon			-26.1280239171252	per mille	Y
Inorg	delta34 Sulphur			-3.70760345131148	per mille	Y
Inorg	Hydrogen			6.06	percent	Y
Inorg	Nitrogen			0.24	percent	Y
Inorg	Sulphur			0.83	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007561_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007561_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



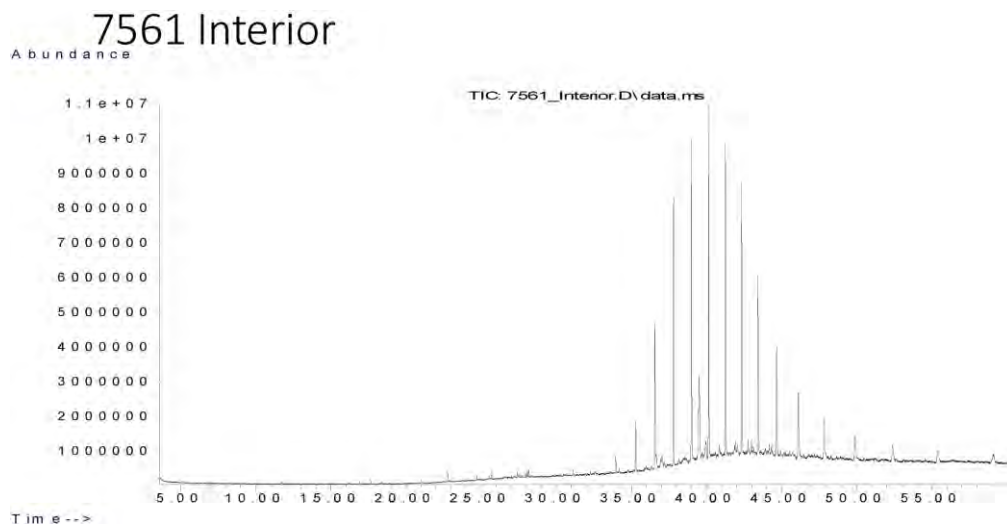
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	10831831		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	941116		ug/L	Z
Aliph	nC25	35.2810	2650474		ug/L	Z
Aliph	nC26	36.5600	4936114		ug/L	Z
Aliph	nC27	37.7930	8884888		ug/L	Z
Aliph	nC28	38.9870	10171831		ug/L	Z
Aliph	nC29	40.1370	10487430		ug/L	Z
Aliph	nC30	41.2480	9013288		ug/L	Z
Aliph	nC31	42.3270	8461395		ug/L	Z
Aliph	nC32	43.4130	7071542		ug/L	Z
Aliph	nC33	44.6430	5951086		ug/L	Z
Aliph	nC34	46.0860	4851006		ug/L	Z
Aliph	nC35	47.8060	3976021		ug/L	Z
Aliph	nC36	49.8090	3373277		ug/L	Z
Aliph	nC37	52.2960	3156899		ug/L	Z
Aliph	nC38	55.2370	2611990		ug/L	Z
Aliph	nC39	58.8850	3391995		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007561 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007561_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	22925066		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	2534578		ug/L	Z
Aliph	nC25	35.2810	7426165		ug/L	Z
Aliph	nC26	36.5600	19540557		ug/L	Z
Aliph	nC27	37.7930	37894089		ug/L	Z
Aliph	nC28	38.9870	46609820		ug/L	Z
Aliph	nC29	40.1370	49846389		ug/L	Z
Aliph	nC30	41.2480	44761134		ug/L	Z
Aliph	nC31	42.3270	38558757		ug/L	Z
Aliph	nC32	43.4130	30106648		ug/L	Z
Aliph	nC33	44.6430	22366475		ug/L	Z
Aliph	nC34	46.0860	16026064		ug/L	Z
Aliph	nC35	47.8060	11444511		ug/L	Z
Aliph	nC36	49.8090	10574572		ug/L	Z
Aliph	nC37	52.2960	8880291		ug/L	Z
Aliph	nC38	55.2370	7401078		ug/L	Z
Aliph	nC39	58.8850	7300632		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007562**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:16:46 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

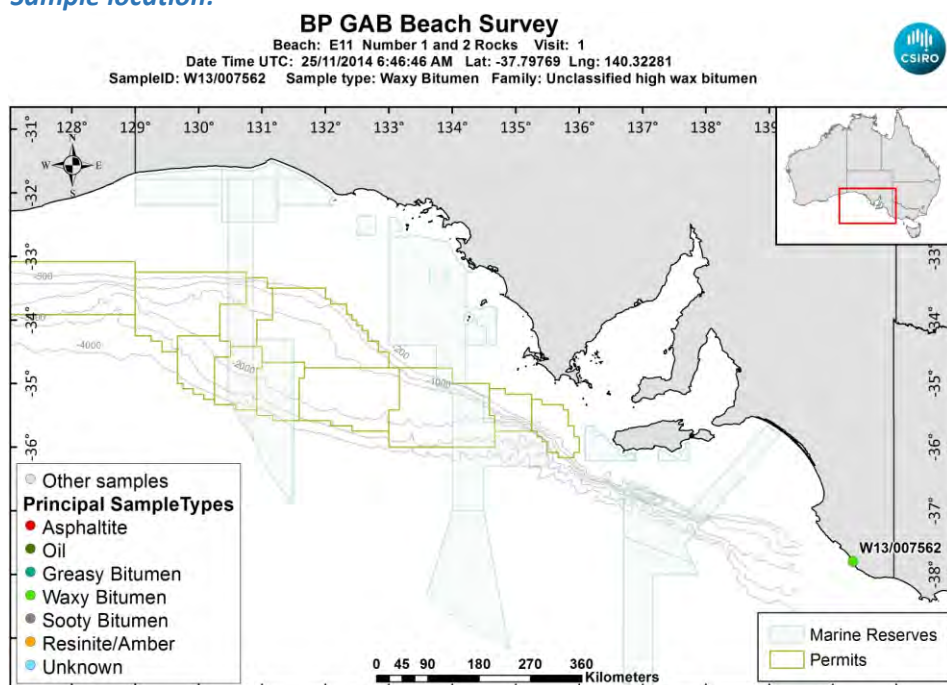
Size (cm): 1.5

Latitude (Y): -37.797692

Weight (gm): 0.99682

Longitude (X): 140.322812

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007562_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007562_146A0794.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB BCH1\Samples\W13_007562_Photo01.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007562_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Unknown

Analysis Date:

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

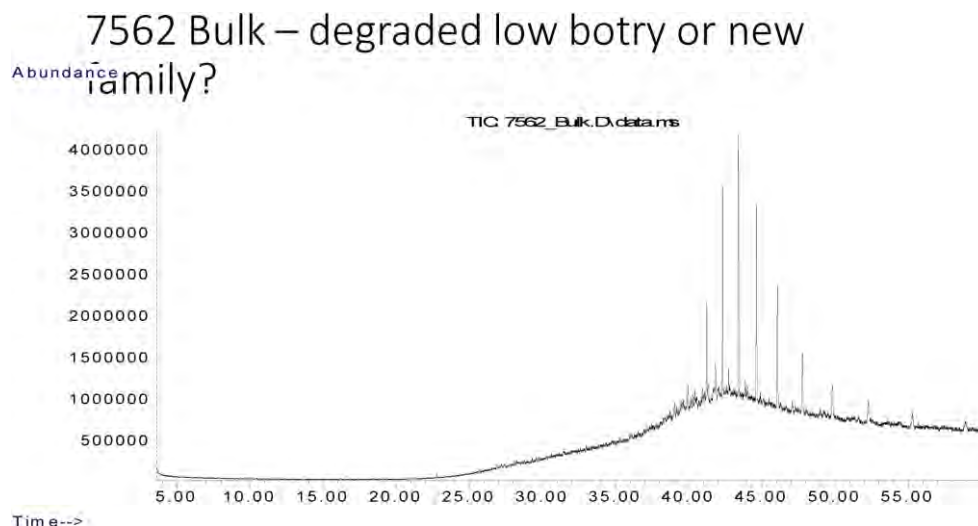
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			83.35	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			5.21	percent	Y
Inorg	Nitrogen			0.28	percent	Y
Inorg	Sulphur			1.51	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007562_DISS_GCMS-Scan/03

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007562_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600			ug/L	U
Aliph	nC27	37.7930			ug/L	U
Aliph	nC28	38.9870			ug/L	U
Aliph	nC29	40.1370			ug/L	U
Aliph	nC30	41.2480	4420027		ug/L	Z
Aliph	nC31	42.3270	12593549		ug/L	Z
Aliph	nC32	43.4130	17204365		ug/L	Z
Aliph	nC33	44.6430	14942434		ug/L	Z
Aliph	nC34	46.0860	11252001		ug/L	Z
Aliph	nC35	47.8060	6791148		ug/L	Z
Aliph	nC36	49.8090	4943092		ug/L	Z
Aliph	nC37	52.2960	4253219		ug/L	Z
Aliph	nC38	55.2370	3033181		ug/L	Z
Aliph	nC39	58.8850	2430743		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007563A**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

2 pieces smaller is 1cm. Part A.

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:23:08 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

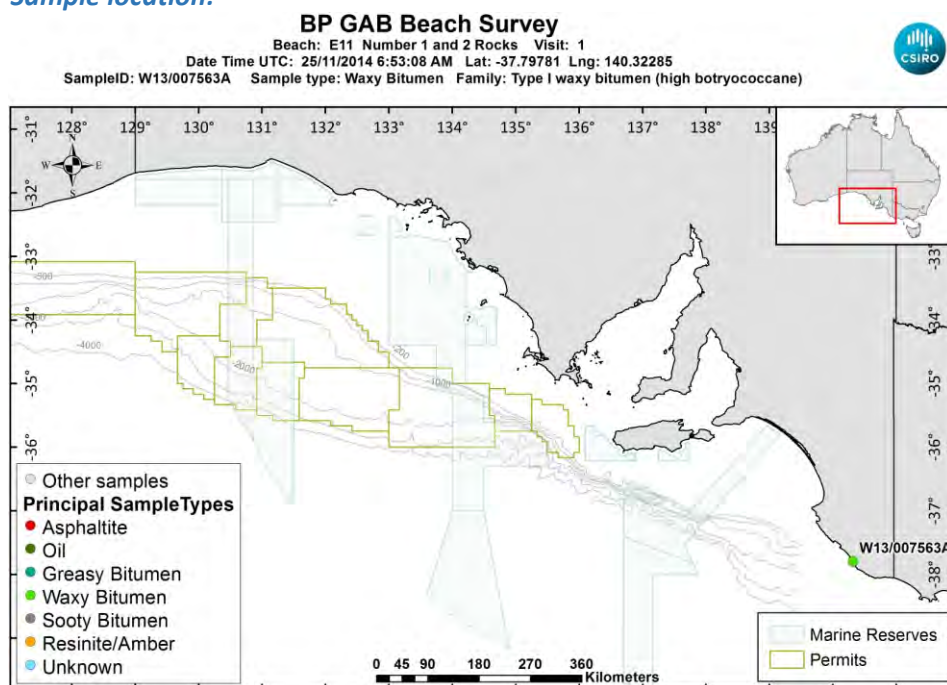
Size (cm): 1.5

Latitude (Y): -37.797812

Weight (gm): 2.56513

Longitude (X): 140.322851

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007563A_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007563_146A0796.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007563_Photo01.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007563A_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date:

Linked Image: [None available](#)

Preparation: Unknown

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			86.26	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			6.75	percent	Y
Inorg	Nitrogen			0.21	percent	Y
Inorg	Sulphur			0.94	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007563A_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Preparation: Dissolved in solvent

Analysis Date: 18/11/2016

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	2653068		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	440639		ug/L	Z
Aliph	nC25	35.2810	729776		ug/L	Z
Aliph	nC26	36.5600	1980724		ug/L	Z
Aliph	nC27	37.7930	1987100		ug/L	Z
Aliph	nC28	38.9870	2676666		ug/L	Z
Aliph	nC29	40.1370	3295836		ug/L	Z
Aliph	nC30	41.2480	3138422		ug/L	Z
Aliph	nC31	42.3270	3248771		ug/L	Z
Aliph	nC32	43.4130	2702571		ug/L	Z
Aliph	nC33	44.6430	2325112		ug/L	Z
Aliph	nC34	46.0860	2034434		ug/L	Z
Aliph	nC35	47.8060	1898435		ug/L	Z
Aliph	nC36	49.8090	1737291		ug/L	Z
Aliph	nC37	52.2960	1698369		ug/L	Z
Aliph	nC38	55.2370	1551060		ug/L	Z
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan

Unique ID: W13/007563A DISS GCMS-Scan/02

Results for: GCMS with Full Scan

Instrument / Type: GCMS with Full Scan Run: 2

for Analysis: Whole Oils

Preparation: Dissolved in solvent

Analysis Date: 18/11/2016

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	10795983		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	1802262		ug/L	Z
Aliph	nC25	35.2810	8349771		ug/L	Z
Aliph	nC26	36.5600	22275870		ug/L	Z
Aliph	nC27	37.7930	39541374		ug/L	Z
Aliph	nC28	38.9870	43241734		ug/L	Z
Aliph	nC29	40.1370	43786161		ug/L	Z
Aliph	nC30	41.2480	37157205		ug/L	Z
Aliph	nC31	42.3270	30818680		ug/L	Z
Aliph	nC32	43.4130	23602085		ug/L	Z
Aliph	nC33	44.6430	17543121		ug/L	Z
Aliph	nC34	46.0860	12325648		ug/L	Z
Aliph	nC35	47.8060	8501013		ug/L	Z
Aliph	nC36	49.8090	7658172		ug/L	Z
Aliph	nC37	52.2960	6580793		ug/L	Z
Aliph	nC38	55.2370	5372922		ug/L	Z
Aliph	nC39	58.8850	6853092		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007563B**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part B subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:23:08 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

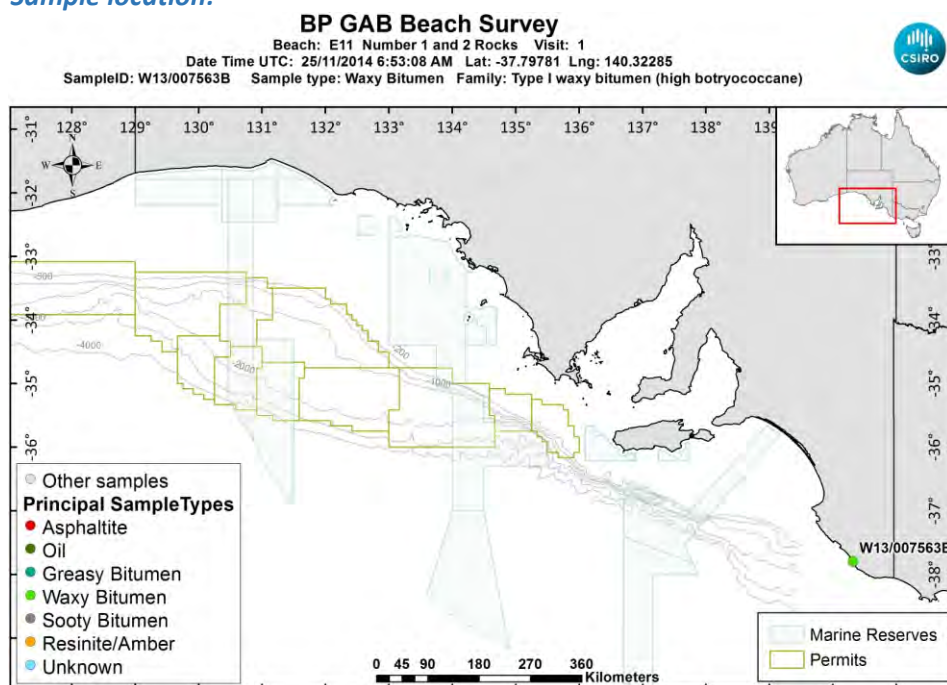
Size (cm):

Latitude (Y): -37.797812

Weight (gm):

Longitude (X): 140.322851

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007563B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007563_Photo01.JPG](#)

Sample ID : W13/007563B**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007563B UNK ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.98	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			6.82	percent	Y
Inorg	Nitrogen			0.24	percent	Y
Inorg	Sulphur			0.89	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007563B DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:**

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	18108379		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600	3220233		ug/L	Z
Aliph	nC27	37.7930	2341888		ug/L	Z
Aliph	nC28	38.9870	5897309		ug/L	Z
Aliph	nC29	40.1370	8518334		ug/L	Z
Aliph	nC30	41.2480	9003039		ug/L	Z
Aliph	nC31	42.3270	8659787		ug/L	Z
Aliph	nC32	43.4130	6590979		ug/L	Z
Aliph	nC33	44.6430	4900146		ug/L	Z
Aliph	nC34	46.0860	3288730		ug/L	Z
Aliph	nC35	47.8060	1967748		ug/L	Z
Aliph	nC36	49.8090	674184		ug/L	Z
Aliph	nC37	52.2960	228129		ug/L	Z
Aliph	nC38	55.2370	565305		ug/L	Z
Aliph	nC39	58.8850	108277		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007564A**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

6 small pieces , 5 x 1cm or smaller. Part A.

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:25:20 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

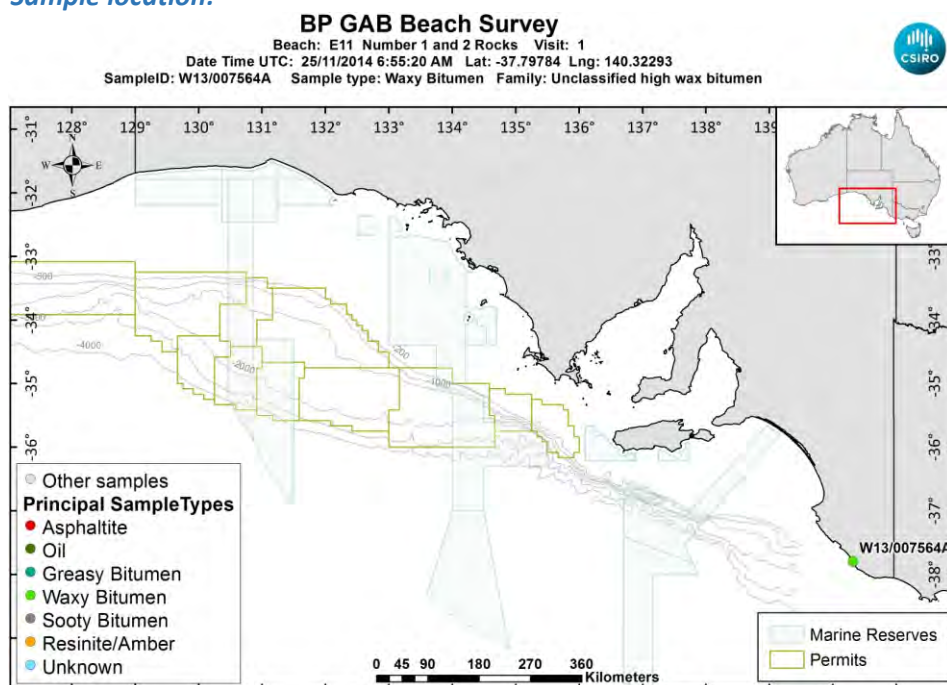
Size (cm): 2

Latitude (Y): -37.797843

Weight (gm): 3.9833

Longitude (X): 140.322928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007564A_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007564_146A0798.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB BCH1\Samples\W13_007564_Photo01.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007564A_DISS_GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			42.2871004627205	ratio	Y
BiomRatio	% C27 abb 20(R+S)			32.9674701817207	ratio	Y
BiomRatio	% C28 aaa 20R			23.7408764974299	ratio	Y
BiomRatio	% C28 abb 20(R+S)			24.8913798720488	ratio	Y
BiomRatio	% C29 aaa 20R			33.9720230398495	ratio	Y
BiomRatio	% C29 abb 20(R+S)			42.1411499462305	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.200039904431412	ratio	Y
BiomRatio	25-Nor/C30H			1.91010477188542E-02	ratio	Y
BiomRatio	C19t/C23t			9.84714378038158E-02	ratio	Y
BiomRatio	C22t/C21t			0.642883118772274	ratio	Y
BiomRatio	C22t/C24t			0.342942500193994	ratio	Y
BiomRatio	C23t/C30H			0.178024666038052	ratio	Y
BiomRatio	C24t/C23t			0.362106268790919	ratio	Y
BiomRatio	C24Tet/C23t			1.01347326421085	ratio	Y
BiomRatio	C24Tet/C26t			3.98524943373294	ratio	Y
BiomRatio	C24Tet/C30H			0.180423239399631	ratio	Y
BiomRatio	C26t/C25t			0.819828796594049	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.244217853607655	ratio	Y
BiomRatio	C27 Dia/Ster			0.183124310640125	ratio	Y
BiomRatio	C28BNH/C30H			0	ratio	U
BiomRatio	C29/C27 abb Sterane Ratio			1.27826459579529	ratio	Y
BiomRatio	C29H/C30H			1.25780036566363	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			7.13681621437963E-02	ratio	Y
BiomRatio	C30DiaH/C30H			9.6668259045923E-03	ratio	Y
BiomRatio	C30Ts/C30H			0.179602872285348	ratio	Y
BiomRatio	C35 Homohopane Index			9.45474957034539E-02	ratio	Y
BiomRatio	C35HS/C34HS			0.966486917555918	ratio	Y
BiomRatio	Gam/C30H			0.111017180188134	ratio	Y
BiomRatio	Gam/C31HR			0.307813399352293	ratio	Y
BiomRatio	Ole/C30H			3.76693570372742E-02	ratio	Y
BiomRatio	Sterane/hopane			0.23688344470864	ratio	Y
BiomRatio	Steranes/Terpanes			0.208997320322834	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.133428143206482	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007564A UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Unknown

Analysis Date:

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			83.86	percent	Y
Inorg	delta13 Carbon			-27.3357622770162	per mille	Y
Inorg	delta34 Sulphur			-6.28074256588488	per mille	Y
Inorg	Hydrogen			5.69	percent	Y
Inorg	Nitrogen			0.18	percent	Y
Inorg	Sulphur			2.62	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007564A_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:**

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600			ug/L	U
Aliph	nC27	37.7930			ug/L	U
Aliph	nC28	38.9870			ug/L	U
Aliph	nC29	40.1370			ug/L	U
Aliph	nC30	41.2480	333216		ug/L	Z
Aliph	nC31	42.3270			ug/L	U
Aliph	nC32	43.4130	809202		ug/L	Z
Aliph	nC33	44.6430	2064643		ug/L	Z
Aliph	nC34	46.0860	5389888		ug/L	Z
Aliph	nC35	47.8060	12013827		ug/L	Z
Aliph	nC36	49.8090	15966744		ug/L	Z
Aliph	nC37	52.2960	17001459		ug/L	Z
Aliph	nC38	55.2370	20992160		ug/L	Z
Aliph	nC39	58.8850	11975304		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan

Unique ID: W13/007564A DISS_GCMS-Scan/02

Instrument / Type: GCMS with Full Scan Run: 2

for Analysis: Whole Oils

Preparation: Dissolved in solvent

Analysis Date: 18/11/2016

Method ID/s:

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007564A_int_WholeOil.jpg](#)

Sample Volume:

Volume Units:

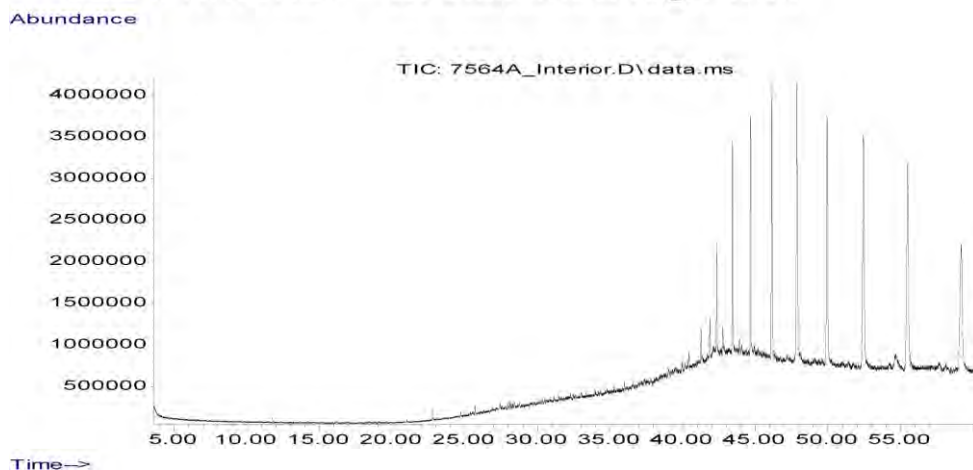
Extract Volume:

Dilution Factor:

Comment: Interior

Results for: GCMS with Full Scan

7564A interior – Unclassified high wax



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600			ug/L	U
Aliph	nC27	37.7930			ug/L	U
Aliph	nC28	38.9870			ug/L	U
Aliph	nC29	40.1370			ug/L	U
Aliph	nC30	41.2480	1892159		ug/L	Z
Aliph	nC31	42.3270	7240298		ug/L	Z
Aliph	nC32	43.4130	15053629		ug/L	Z
Aliph	nC33	44.6430	21011558		ug/L	Z
Aliph	nC34	46.0860	27489628		ug/L	Z
Aliph	nC35	47.8060	33419873		ug/L	Z
Aliph	nC36	49.8090	36867644		ug/L	Z
Aliph	nC37	52.2960	22084220		ug/L	Z
Aliph	nC38	55.2370	42896943		ug/L	Z
Aliph	nC39	58.8850	3888810		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007564B**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part B subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:25:20 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

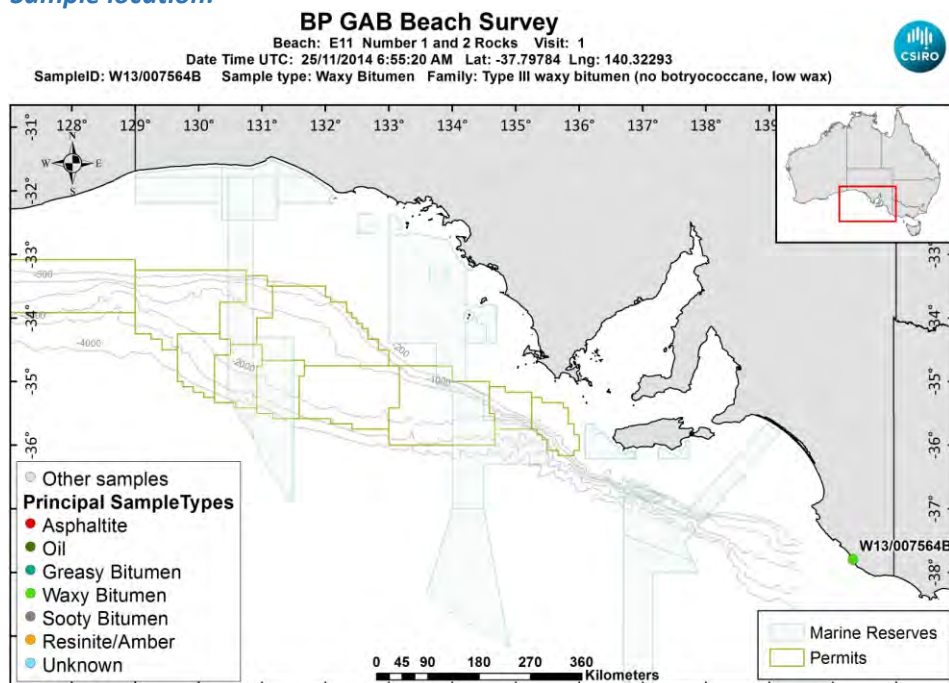
Size (cm):

Latitude (Y): -37.797843

Weight (gm):

Longitude (X): 140.322928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007564B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007564_Photo01.JPG](#)

Sample ID : W13/007564B**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007564B UNK ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

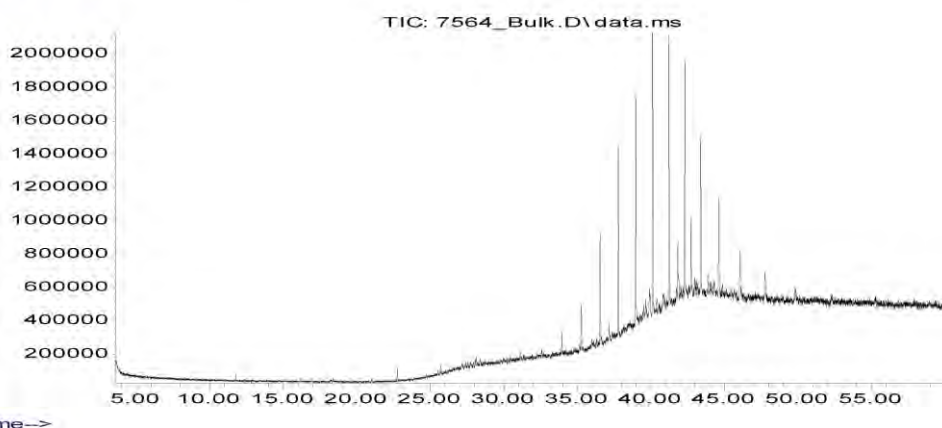
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			83.57	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			8.54	percent	Y
Inorg	Nitrogen			0.21	percent	Y
Inorg	Sulphur			1.18	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007564B DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007564B_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan

7564B - Bulk

Abundance



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	634870		ug/L	Z
Aliph	nC25	35.2810	1395090		ug/L	Z
Aliph	nC26	36.5600	2943531		ug/L	Z
Aliph	nC27	37.7930	5451384		ug/L	Z
Aliph	nC28	38.9870	6932773		ug/L	Z
Aliph	nC29	40.1370	8128440		ug/L	Z
Aliph	nC30	41.2480	7389573		ug/L	Z
Aliph	nC31	42.3270	6681610		ug/L	Z
Aliph	nC32	43.4130	5119148		ug/L	Z
Aliph	nC33	44.6430	3509263		ug/L	Z
Aliph	nC34	46.0860	2377537		ug/L	Z
Aliph	nC35	47.8060	1332479		ug/L	Z
Aliph	nC36	49.8090	1164430		ug/L	Z
Aliph	nC37	52.2960			ug/L	U
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007564C**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part C subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:25:20 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

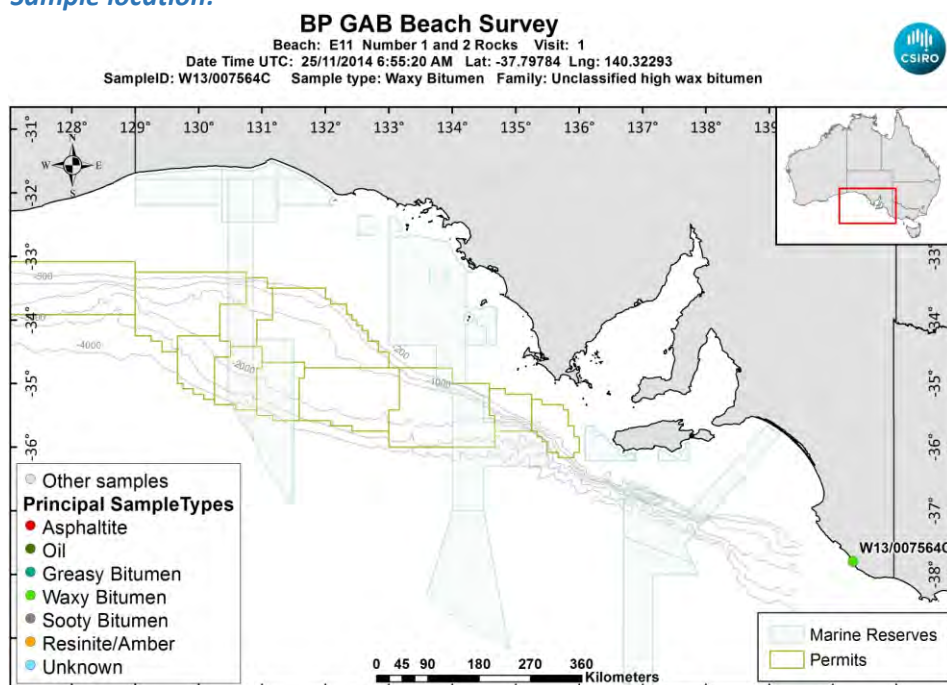
Size (cm):

Latitude (Y): -37.797843

Weight (gm):

Longitude (X): 140.322928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007564C_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007564_Photo01.JPG](#)

Sample ID : **W13/007564C**

Beach E11: Number 1 and 2 Rocks Visit: 1

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007564C_UNK_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:**

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.98	percent	Y
Inorg	delta13 Carbon		-28.1996529210281		per mille	Y
Inorg	delta34 Sulphur		-7.73107925347714		per mille	Y
Inorg	Hydrogen		6.15		percent	Y
Inorg	Nitrogen		0.14		percent	Y
Inorg	Sulphur		1.98		percent	Y

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007564D**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part D subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:25:20 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

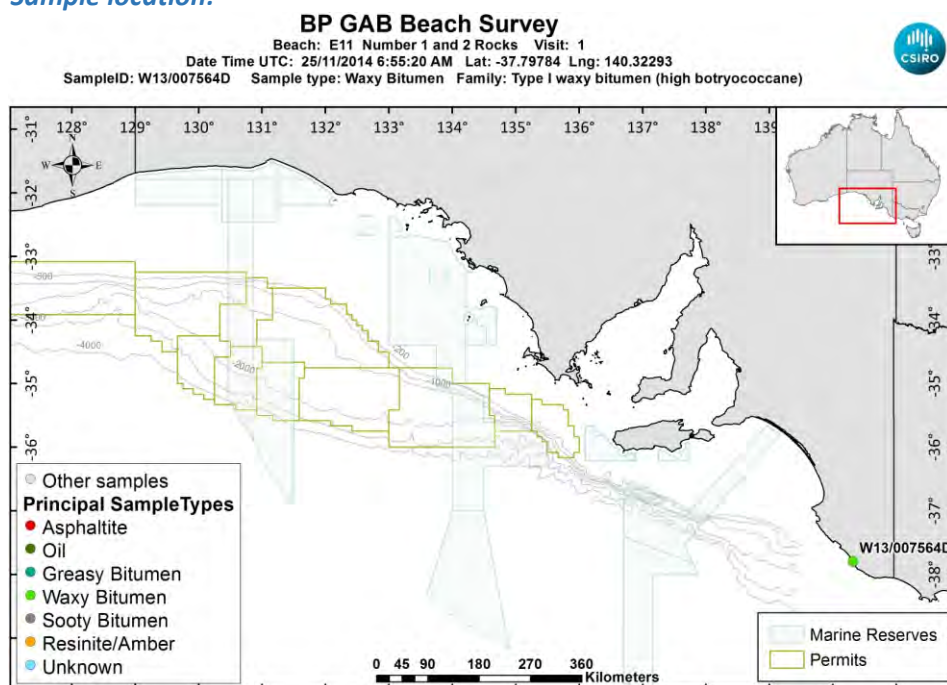
Size (cm):

Latitude (Y): -37.797843

Weight (gm):

Longitude (X): 140.322928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007564D_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007564_Photo01.JPG](#)

Sample ID : W13/007564D**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

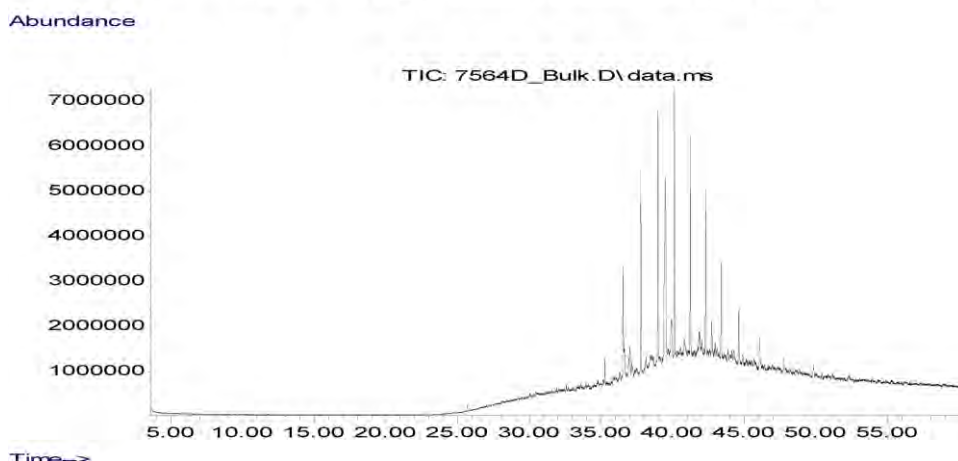
Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007564D_UNK_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.33	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			6.91	percent	Y
Inorg	Nitrogen			0.2	percent	Y
Inorg	Sulphur			0.86	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007564D DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007564D_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan

7564D – Bulk – high botryococcane waxy



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	36976759		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810	3211290		ug/L	Z
Aliph	nC26	36.5600	12477024		ug/L	Z
Aliph	nC27	37.7930	21419515		ug/L	Z
Aliph	nC28	38.9870	26766216		ug/L	Z
Aliph	nC29	40.1370	27470798		ug/L	Z
Aliph	nC30	41.2480	22270845		ug/L	Z
Aliph	nC31	42.3270	17228841		ug/L	Z
Aliph	nC32	43.4130	12229833		ug/L	Z
Aliph	nC33	44.6430	8835437		ug/L	Z
Aliph	nC34	46.0860	7239428		ug/L	Z
Aliph	nC35	47.8060	1418119		ug/L	Z
Aliph	nC36	49.8090	3310260		ug/L	Z
Aliph	nC37	52.2960	2930220		ug/L	Z
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007564E**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part E subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:25:20 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

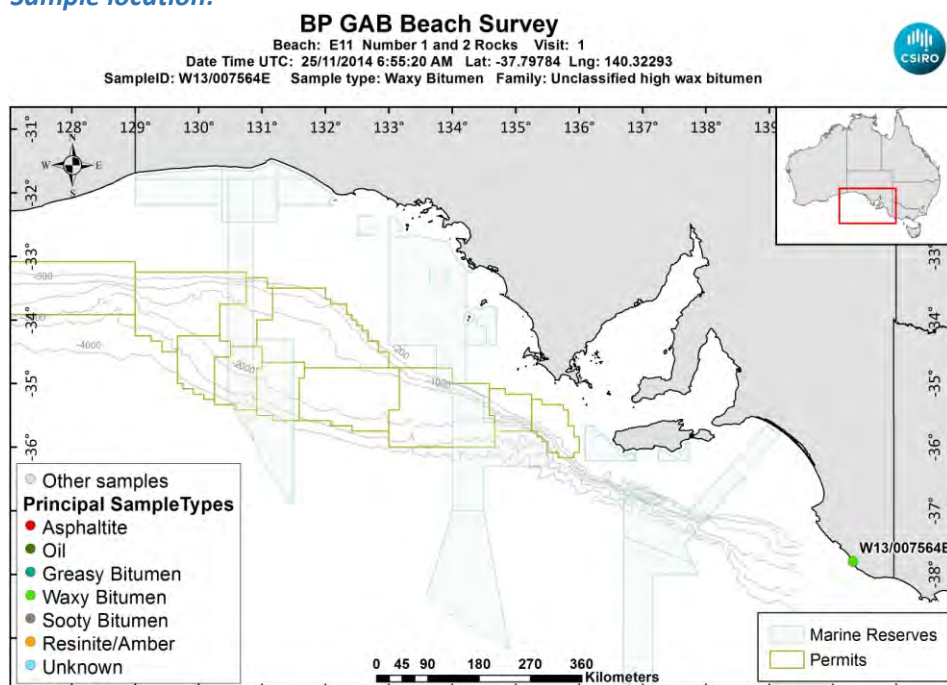
Size (cm):

Latitude (Y): -37.797843

Weight (gm):

Longitude (X): 140.322928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007564E_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007564_Photo01.JPG](#)

Sample ID : W13/007564E**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

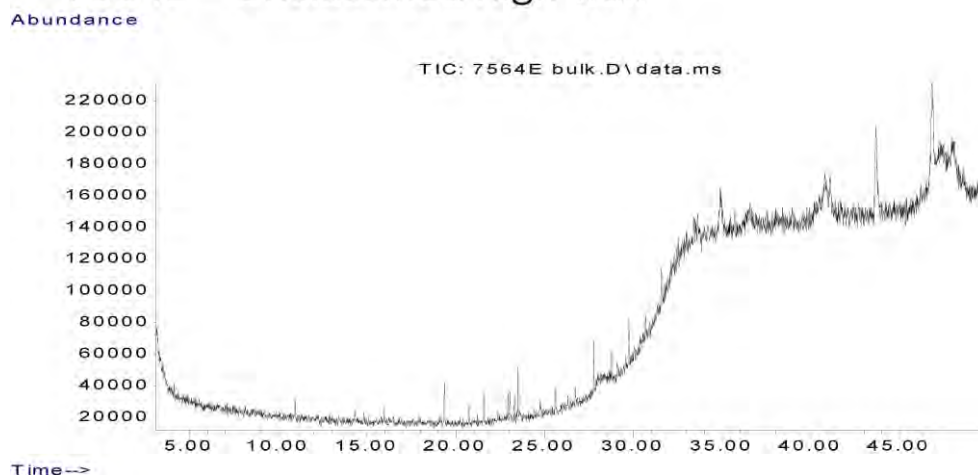
Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007564E_UNK_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			80.03	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			5.81	percent	Y
Inorg	Nitrogen			0.28	percent	Y
Inorg	Sulphur			1.35	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007564E DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007564E_bulk_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan

7564E – Unclassified high wax



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780			ug/L	U
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340	321080		ug/L	Z
Aliph	nC23	32.5720	266547		ug/L	Z
Aliph	nC24	33.9520	477983		ug/L	Z
Aliph	nC25	35.2810	302850		ug/L	Z
Aliph	nC26	36.5600	436725		ug/L	Z
Aliph	nC27	37.7930	304737		ug/L	Z
Aliph	nC28	38.9870	459628		ug/L	Z
Aliph	nC29	40.1370	220082		ug/L	Z
Aliph	nC30	41.2480	316333		ug/L	Z
Aliph	nC31	42.3270			ug/L	U
Aliph	nC32	43.4130			ug/L	U
Aliph	nC33	44.6430			ug/L	U
Aliph	nC34	46.0860			ug/L	U
Aliph	nC35	47.8060	832158		ug/L	Z
Aliph	nC36	49.8090	2461092		ug/L	Z
Aliph	nC37	52.2960	608678		ug/L	Z
Aliph	nC38	55.2370	460412		ug/L	Z
Aliph	nC39	58.8850	173741		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007564F**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Part F subsample

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:25:20 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

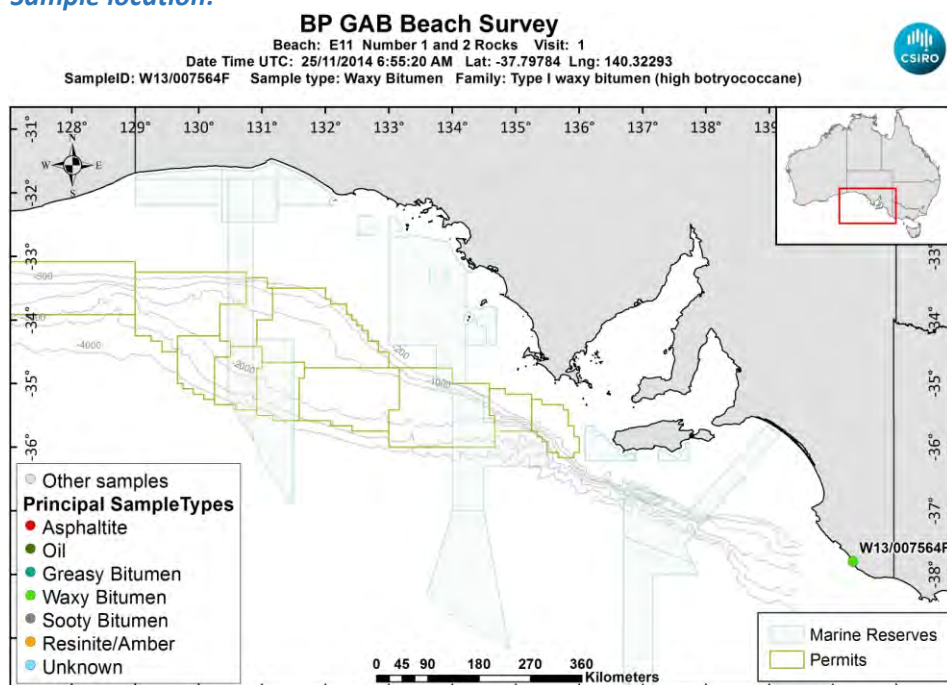
Size (cm):

Latitude (Y): -37.797843

Weight (gm):

Longitude (X): 140.322928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007564F_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007564_Photo01.JPG](#)

Sample ID : W13/007564F**Beach E11: Number 1 and 2 Rocks Visit: 1****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007564F_UNK_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Preparation:** Unknown**Analysis Date:****Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:****Data Sheet:***(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			82.98	percent	Y
Inorg	delta13 Carbon				per mille	U
Inorg	delta34 Sulphur				per mille	U
Inorg	Hydrogen			7.97	percent	Y
Inorg	Nitrogen			0.45	percent	Y
Inorg	Sulphur			1.08	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007564F DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [None available](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:**

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	1141715		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520			ug/L	U
Aliph	nC25	35.2810			ug/L	U
Aliph	nC26	36.5600			ug/L	U
Aliph	nC27	37.7930	464402		ug/L	Z
Aliph	nC28	38.9870	1620189		ug/L	Z
Aliph	nC29	40.1370	2922904		ug/L	Z
Aliph	nC30	41.2480	3323936		ug/L	Z
Aliph	nC31	42.3270	3460882		ug/L	Z
Aliph	nC32	43.4130	2565018		ug/L	Z
Aliph	nC33	44.6430	1917664		ug/L	Z
Aliph	nC34	46.0860	1289086		ug/L	Z
Aliph	nC35	47.8060	821017		ug/L	Z
Aliph	nC36	49.8090			ug/L	U
Aliph	nC37	52.2960			ug/L	U
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007565**

Beach E11: Number 1 and 2 Rocks Visit: 1

Comments:

Location: Upper Intertidal

Local Date Time: 25/11/2014 5:27:04 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

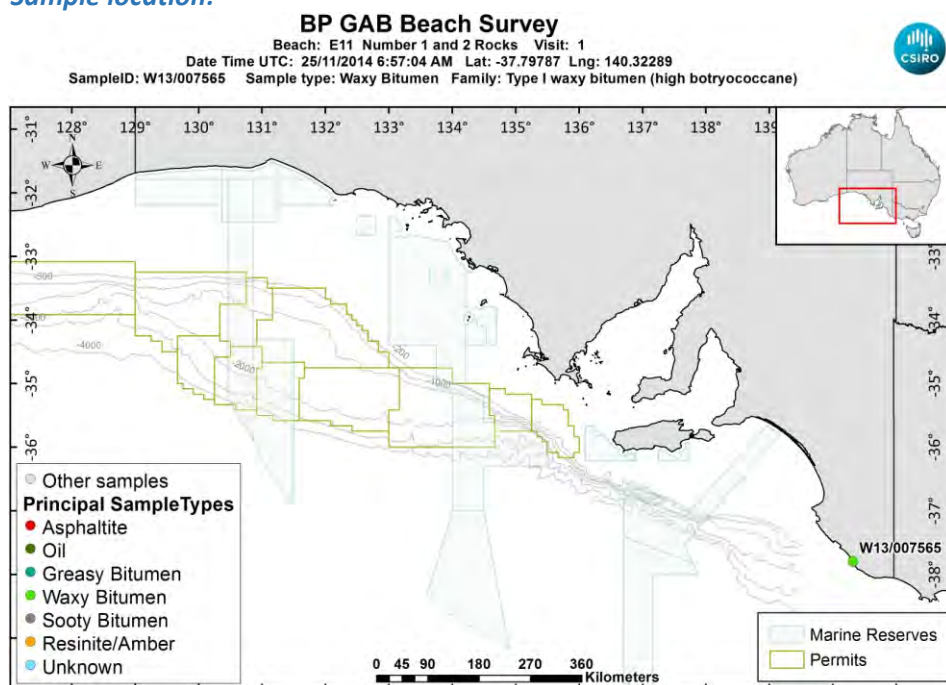
Size (cm): 3

Latitude (Y): -37.797870

Weight (gm): 6.53707

Longitude (X): 140.322892

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007565_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007565_146A0800.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007565_Photo01.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
3	Elemental CHNS	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007565_UNK_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date:

Linked Image: [None available](#)

Preparation: Unknown

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.94	percent	Y
Inorg	delta13 Carbon			-25.8586455033193	per mille	Y
Inorg	delta34 Sulphur			-0.812276276794652	per mille	Y
Inorg	Hydrogen			3.86	percent	Y
Inorg	Nitrogen			0.27	percent	Y
Inorg	Sulphur			0.69	percent	Y

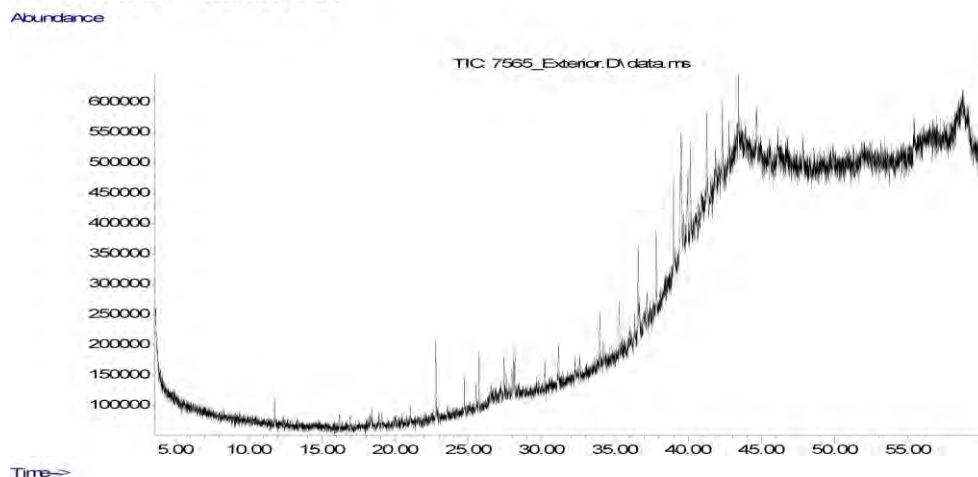
Results for: GCMS with Full Scan

Unique ID: W13/007565_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007565_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7565 - exterior



Data Sheet:

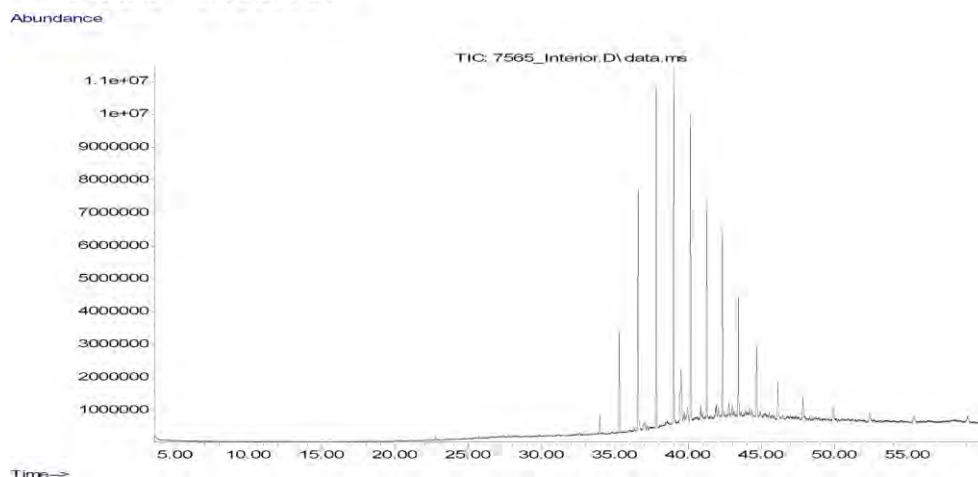
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	1849666		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	469126		ug/L	Z
Aliph	nC25	35.2810	441843		ug/L	Z
Aliph	nC26	36.5600	773956		ug/L	Z
Aliph	nC27	37.7930	782773		ug/L	Z
Aliph	nC28	38.9870	922849		ug/L	Z
Aliph	nC29	40.1370	918887		ug/L	Z
Aliph	nC30	41.2480	827272		ug/L	Z
Aliph	nC31	42.3270	687382		ug/L	Z
Aliph	nC32	43.4130	675622		ug/L	Z
Aliph	nC33	44.6430	217846		ug/L	Z
Aliph	nC34	46.0860	263760		ug/L	Z
Aliph	nC35	47.8060	806569		ug/L	Z
Aliph	nC36	49.8090			ug/L	U
Aliph	nC37	52.2960			ug/L	U
Aliph	nC38	55.2370			ug/L	U
Aliph	nC39	58.8850			ug/L	U
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007565 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007565_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7565 - interior



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4780	14538590		ug/L	Z
Aliph	nC10	7.5100			ug/L	U
Aliph	nC11	9.9450			ug/L	U
Aliph	nC12	12.3690			ug/L	U
Aliph	nC13	14.7030			ug/L	U
Aliph	nC14	16.9230			ug/L	U
Aliph	nC15	19.0270			ug/L	U
Aliph	nC16	21.0200			ug/L	U
Aliph	nC17	22.9150			ug/L	U
Aliph	nC18	24.7150			ug/L	U
Aliph	nC19	26.4300			ug/L	U
Aliph	nC20	28.0680			ug/L	U
Aliph	nC21	29.6330			ug/L	U
Aliph	nC22	31.1340			ug/L	U
Aliph	nC23	32.5720			ug/L	U
Aliph	nC24	33.9520	3041647		ug/L	Z
Aliph	nC25	35.2810	15565203		ug/L	Z
Aliph	nC26	36.5600	36317792		ug/L	Z
Aliph	nC27	37.7930	53374580		ug/L	Z
Aliph	nC28	38.9870	51271823		ug/L	Z
Aliph	nC29	40.1370	47111631		ug/L	Z
Aliph	nC30	41.2480	34576512		ug/L	Z
Aliph	nC31	42.3270	28206125		ug/L	Z
Aliph	nC32	43.4130	20267573		ug/L	Z
Aliph	nC33	44.6430	14808213		ug/L	Z
Aliph	nC34	46.0860	9789636		ug/L	Z
Aliph	nC35	47.8060	6222575		ug/L	Z
Aliph	nC36	49.8090	5682952		ug/L	Z
Aliph	nC37	52.2960	4785320		ug/L	Z
Aliph	nC38	55.2370	4425996		ug/L	Z
Aliph	nC39	58.8850	5124899		ug/L	Z
Aliph	Norpristane	21.9070			ug/L	U
Aliph	Phytane	24.8210			ug/L	U
Aliph	Pristane	22.9640			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007620**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:21:38 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

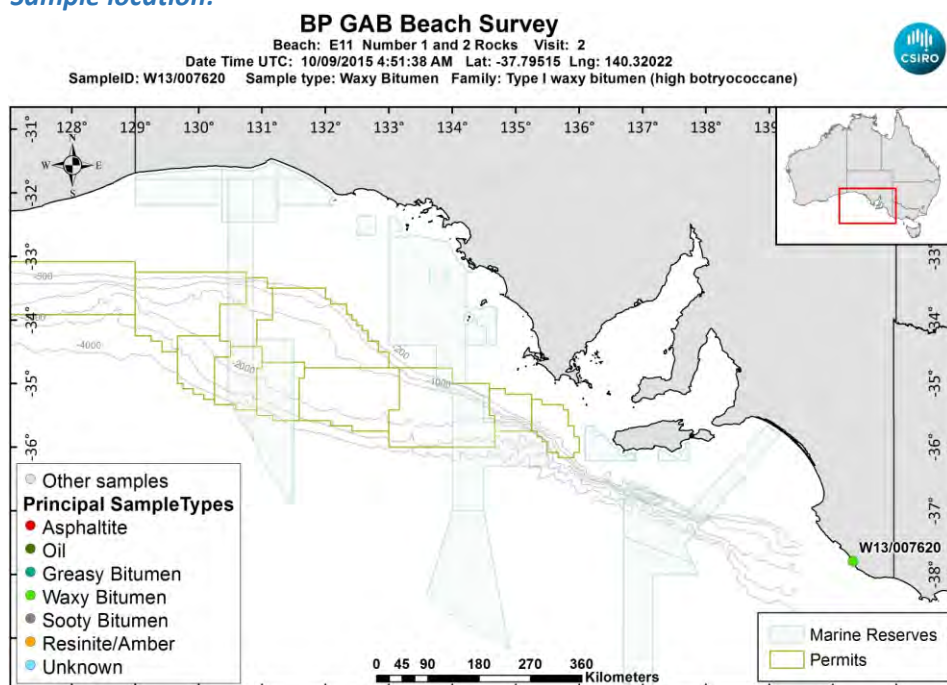
Size (cm): 7

Latitude (Y): -37.795152

Weight (gm): 72.8

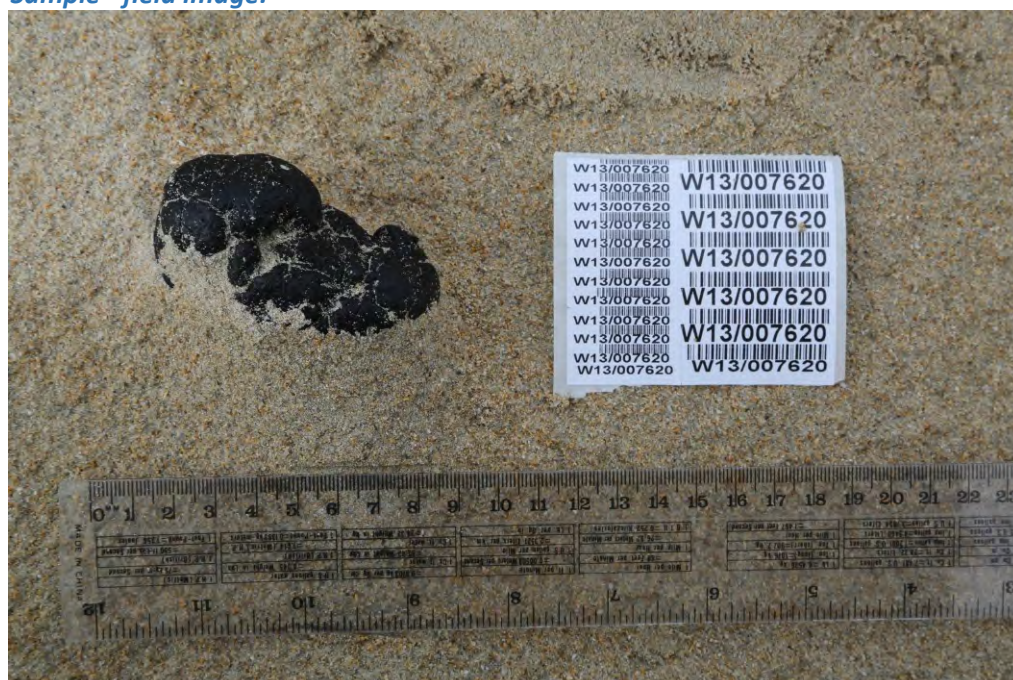
Longitude (X): 140.320217

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007620_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007620_146A1590.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007620_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007620_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.56	percent	Y
Inorg	Hydrogen			10.2285516898608	percent	Y
Inorg	Nitrogen			0.28	percent	Y
Inorg	Sulphur			1.96253300857185	percent	Y

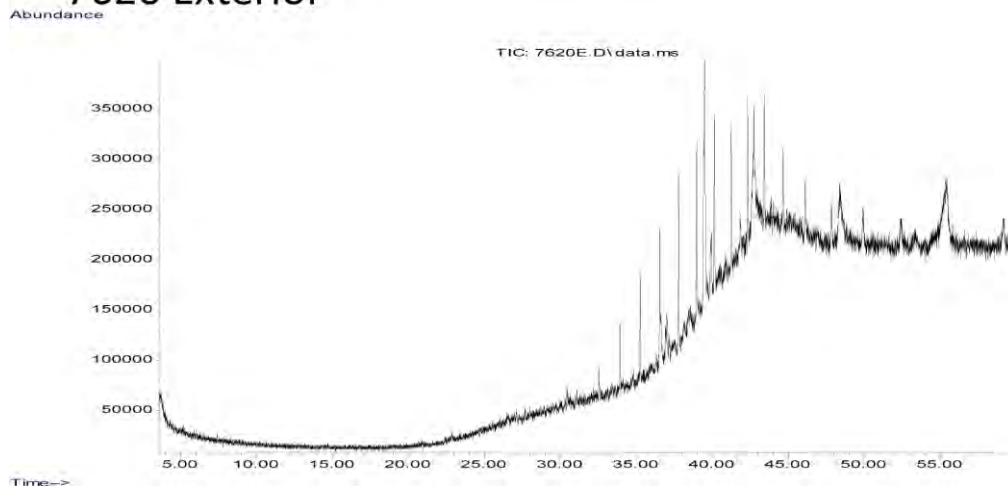
Results for: GCMS with Full Scan

Unique ID: W13/007620_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007620_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7620 Exterior



Data Sheet:

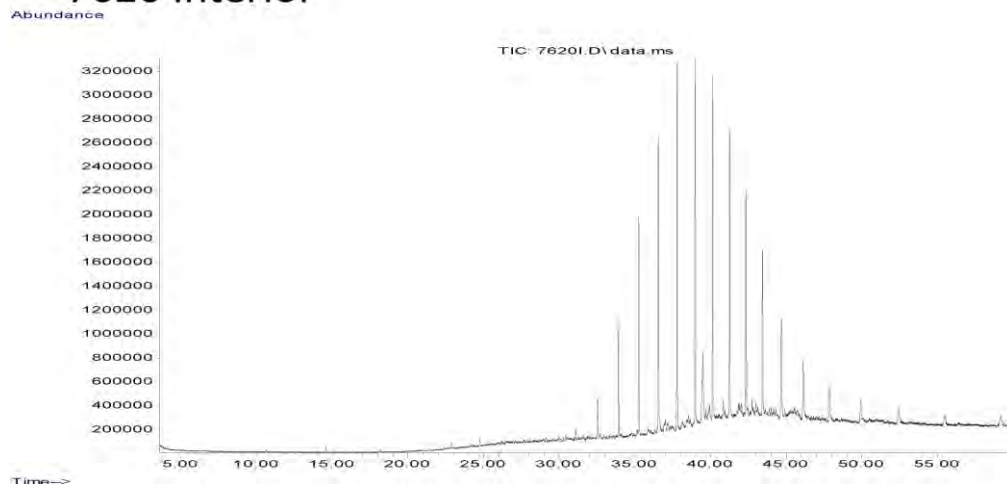
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2361869		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540	68724		ug/L	Z
Aliph	nC23	32.4960	150550		ug/L	Z
Aliph	nC24	33.8800	312573		ug/L	Z
Aliph	nC25	35.2120	487870		ug/L	Z
Aliph	nC26	36.4960	710871		ug/L	Z
Aliph	nC27	37.7300	911528		ug/L	Z
Aliph	nC28	38.9260	888952		ug/L	Z
Aliph	nC29	40.0740	902578		ug/L	Z
Aliph	nC30	41.1930	785447		ug/L	Z
Aliph	nC31	42.2750	674788		ug/L	Z
Aliph	nC32	43.3560	635022		ug/L	Z
Aliph	nC33	44.5840	470210		ug/L	Z
Aliph	nC34	46.0130	443211		ug/L	Z
Aliph	nC35	47.7140	294871		ug/L	Z
Aliph	nC36	49.7870	238705		ug/L	Z
Aliph	nC37	52.2630	369870		ug/L	Z
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110	355081		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007620 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007620_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7620 Interior



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			1.09503032284687	ug/L	Y
Aliph	Botryococcane	39.4290	4165477		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540	382130		ug/L	Z
Aliph	nC23	32.4960	1423990		ug/L	Z
Aliph	nC24	33.8800	3803914		ug/L	Z
Aliph	nC25	35.2120	7207241		ug/L	Z
Aliph	nC26	36.4960	10440514		ug/L	Z
Aliph	nC27	37.7300	12648309		ug/L	Z
Aliph	nC28	38.9260	12178629		ug/L	Z
Aliph	nC29	40.0740	11659768		ug/L	Z
Aliph	nC30	41.1930	9400376		ug/L	Z
Aliph	nC31	42.2750	8021999		ug/L	Z
Aliph	nC32	43.3560	6331980		ug/L	Z
Aliph	nC33	44.5840	4763492		ug/L	Z
Aliph	nC34	46.0130	3346912		ug/L	Z
Aliph	nC35	47.7140	2360299		ug/L	Z
Aliph	nC36	49.7870	1699904		ug/L	Z
Aliph	nC37	52.2630	1446766		ug/L	Z
Aliph	nC38	55.2360	1130862		ug/L	Z
Aliph	nC39	58.9110	1258594		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	266688		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	292032	ug/L	Z
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Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007621**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:24:58 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

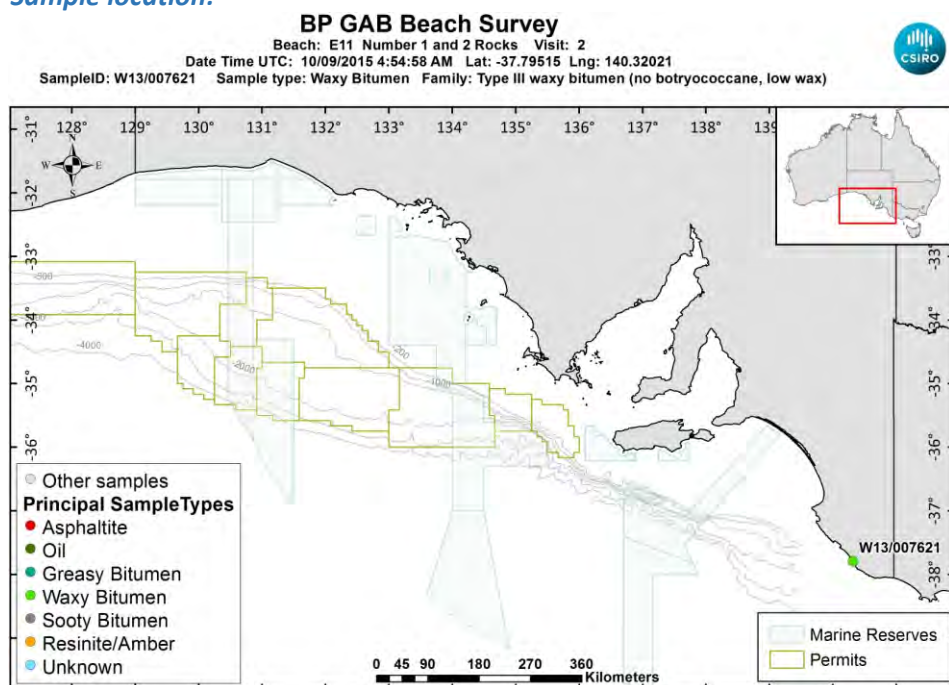
Size (cm): 2.6

Latitude (Y): -37.795150

Weight (gm): 3.3

Longitude (X): 140.320208

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007621_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007621_146A1595.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007621_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007621_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**

Comment:

Data Sheet:

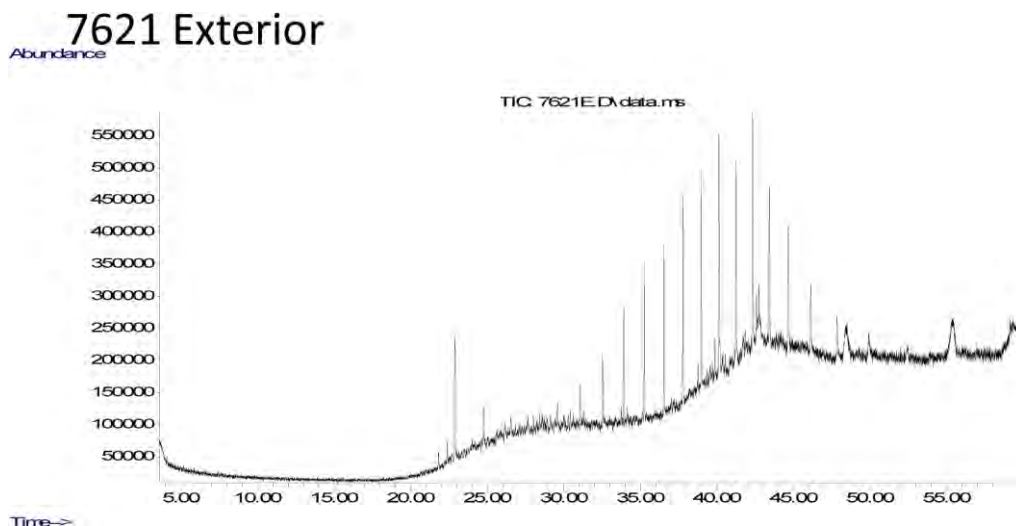
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			81.95	percent	Y
Inorg	Hydrogen			7.78224850894632	percent	Y
Inorg	Nitrogen			0.11	percent	Y
Inorg	Sulphur			1.15734191799077	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007621_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007621_ext WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

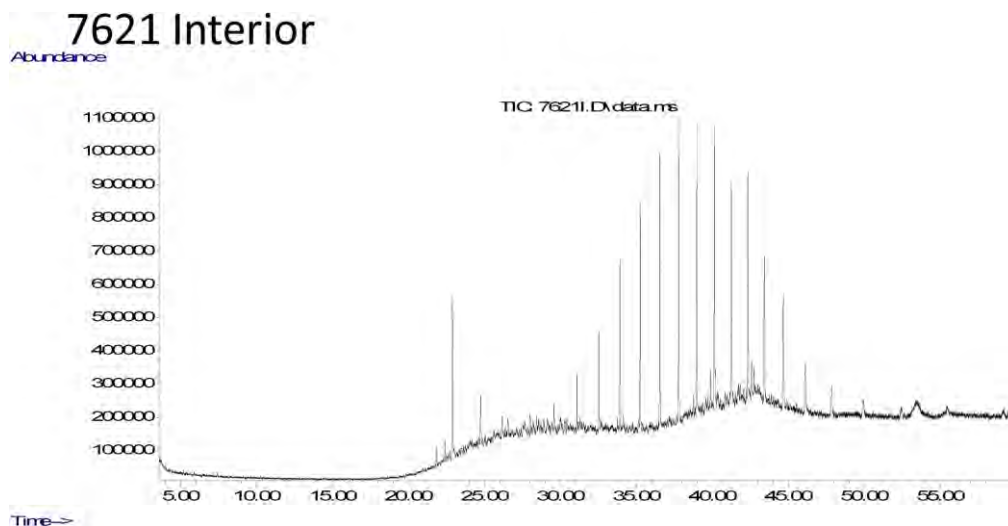
Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Ratio	nC18/Phytane		0.127961386805497		ug/L	Y
Ratio	Pristane/Phytane		3.44033170763229		ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230	52119		ug/L	Z
Aliph	nC19	26.3410	72718		ug/L	Z
Aliph	nC20	27.9810	131806		ug/L	Z
Aliph	nC21	29.5510	195771		ug/L	Z
Aliph	nC22	31.0540	357061		ug/L	Z
Aliph	nC23	32.4960	607456		ug/L	Z
Aliph	nC24	33.8800	884859		ug/L	Z
Aliph	nC25	35.2120	1203335		ug/L	Z
Aliph	nC26	36.4960	1380563		ug/L	Z
Aliph	nC27	37.7300	1709066		ug/L	Z
Aliph	nC28	38.9260	1888218		ug/L	Z
Aliph	nC29	40.0740	2005065		ug/L	Z
Aliph	nC30	41.1930	1750483		ug/L	Z
Aliph	nC31	42.2750	1968679		ug/L	Z
Aliph	nC32	43.3560	1471338		ug/L	Z
Aliph	nC33	44.5840	1499271		ug/L	Z
Aliph	nC34	46.0130	838231		ug/L	Z
Aliph	nC35	47.7140	560740		ug/L	Z
Aliph	nC36	49.7870	433773		ug/L	Z
Aliph	nC37	52.2630	304850		ug/L	Z
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010	182994		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Phytane	24.7190	407303	ug/L	Z
Aliph	Pristane	22.8660	1401258	ug/L	Z

Results for: GCMS with Full Scan**Unique ID:** W13/007621 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007621_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Ratio	nC18/Phytane		6.82941334261498E-02		ug/L	Y
Ratio	Pristane/Phytane		3.11939971349906		ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230	78154		ug/L	Z
Aliph	nC19	26.3410	159431		ug/L	Z
Aliph	nC20	27.9810	261887		ug/L	Z
Aliph	nC21	29.5510	417431		ug/L	Z
Aliph	nC22	31.0540	829215		ug/L	Z
Aliph	nC23	32.4960	1593241		ug/L	Z
Aliph	nC24	33.8800	2458591		ug/L	Z
Aliph	nC25	35.2120	3484831		ug/L	Z
Aliph	nC26	36.4960	3955373		ug/L	Z
Aliph	nC27	37.7300	4605053		ug/L	Z
Aliph	nC28	38.9260	4356222		ug/L	Z
Aliph	nC29	40.0740	4335498		ug/L	Z
Aliph	nC30	41.1930	3644438		ug/L	Z
Aliph	nC31	42.2750	3709423		ug/L	Z
Aliph	nC32	43.3560	2653061		ug/L	Z
Aliph	nC33	44.5840	2408865		ug/L	Z
Aliph	nC34	46.0130	1216776		ug/L	Z
Aliph	nC35	47.7140	888837		ug/L	Z
Aliph	nC36	49.7870	500847		ug/L	Z
Aliph	nC37	52.2630	480470		ug/L	Z
Aliph	nC38	55.2360	541327		ug/L	Z
Aliph	nC39	58.9110	416344		ug/L	Z
Aliph	Norpristane	21.8010	453254		ug/L	Z

Results for: GCMS with Full Scan

<i>Aliph</i>	Phytane	24.7190	1144366	ug/L	Z
<i>Aliph</i>	Pristane	22.8660	3569736	ug/L	Z

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007622**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Upper Intertidal

Local Date Time: 10/09/2015 2:28:13 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

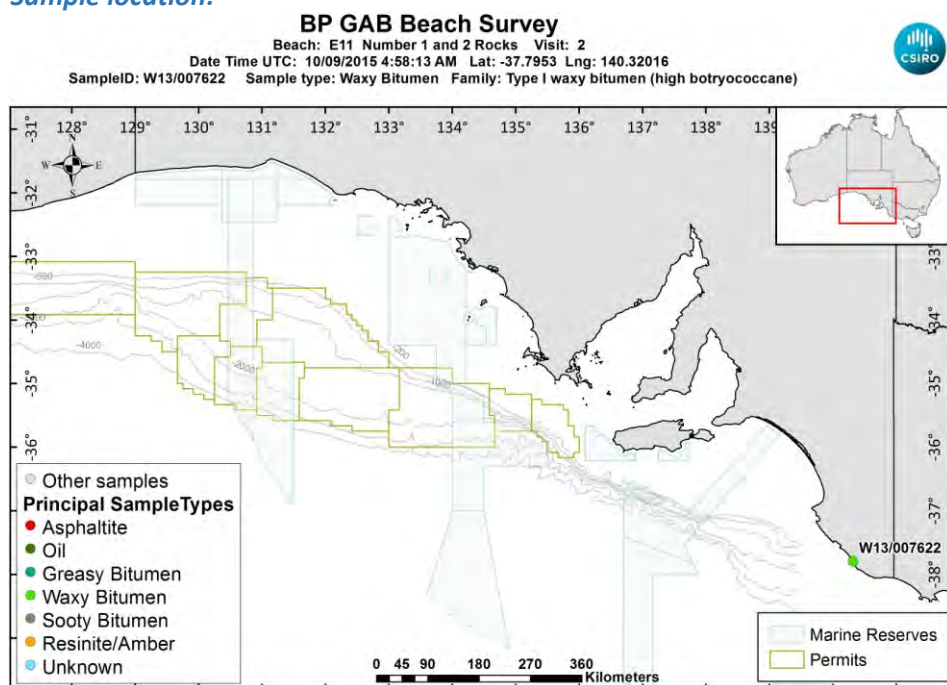
Size (cm): 3.7

Latitude (Y): -37.795295

Weight (gm): 5.4

Longitude (X): 140.320165

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007622_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007622_146A1597.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB BCH1\Samples\W13_007622_Photo02.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007622_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.75	percent	Y
Inorg	Hydrogen			9.69029840954274	percent	Y
Inorg	Nitrogen			0.26	percent	Y
Inorg	Sulphur			1.87074078395207	percent	Y

Results for: GCMS with Full Scan

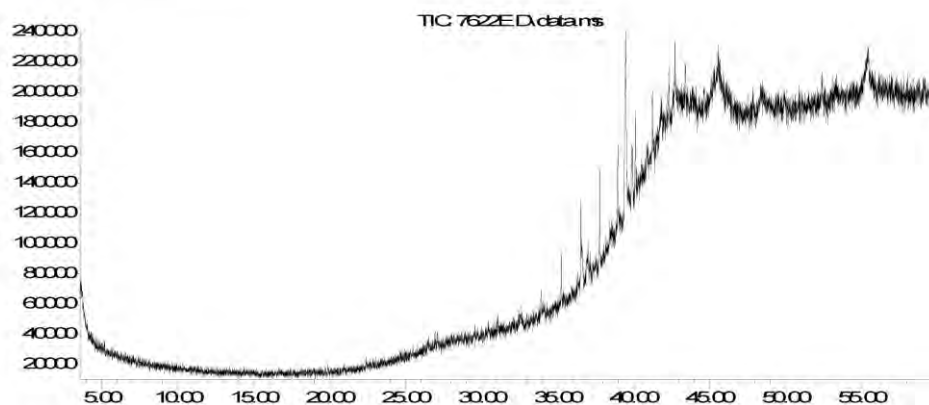
Unique ID: W13/007622_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007622_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7622 Exterior

Abundance



Time-->

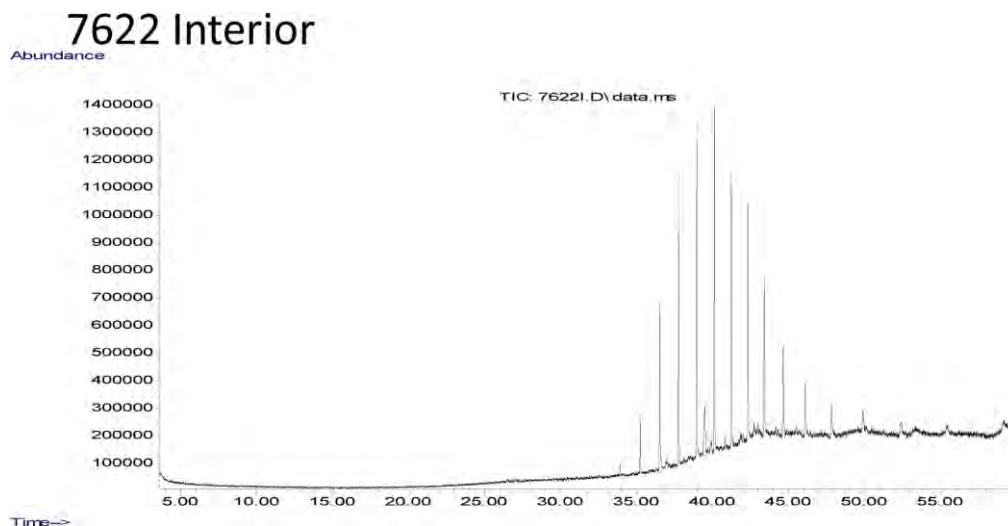
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	1081228		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	56028		ug/L	Z
Aliph	nC25	35.2120	148116		ug/L	Z
Aliph	nC26	36.4960	304984		ug/L	Z
Aliph	nC27	37.7300	354380		ug/L	Z
Aliph	nC28	38.9260	290146		ug/L	Z
Aliph	nC29	40.0740	306369		ug/L	Z
Aliph	nC30	41.1930	217682		ug/L	Z
Aliph	nC31	42.2750	197439		ug/L	Z
Aliph	nC32	43.3560	163310		ug/L	Z
Aliph	nC33	44.5840	98220		ug/L	Z
Aliph	nC34	46.0130			ug/L	U
Aliph	nC35	47.7140			ug/L	U
Aliph	nC36	49.7870			ug/L	U
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007622 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007622_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	1472353		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	198976		ug/L	Z
Aliph	nC25	35.2120	1103465		ug/L	Z
Aliph	nC26	36.4960	3061646		ug/L	Z
Aliph	nC27	37.7300	5323240		ug/L	Z
Aliph	nC28	38.9260	6108092		ug/L	Z
Aliph	nC29	40.0740	6442649		ug/L	Z
Aliph	nC30	41.1930	5265224		ug/L	Z
Aliph	nC31	42.2750	4583067		ug/L	Z
Aliph	nC32	43.3560	3439307		ug/L	Z
Aliph	nC33	44.5840	2349044		ug/L	Z
Aliph	nC34	46.0130	1598423		ug/L	Z
Aliph	nC35	47.7140	1076841		ug/L	Z
Aliph	nC36	49.7870	951231		ug/L	Z
Aliph	nC37	52.2630	649746		ug/L	Z
Aliph	nC38	55.2360	476925		ug/L	Z
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007623**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:34:48 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

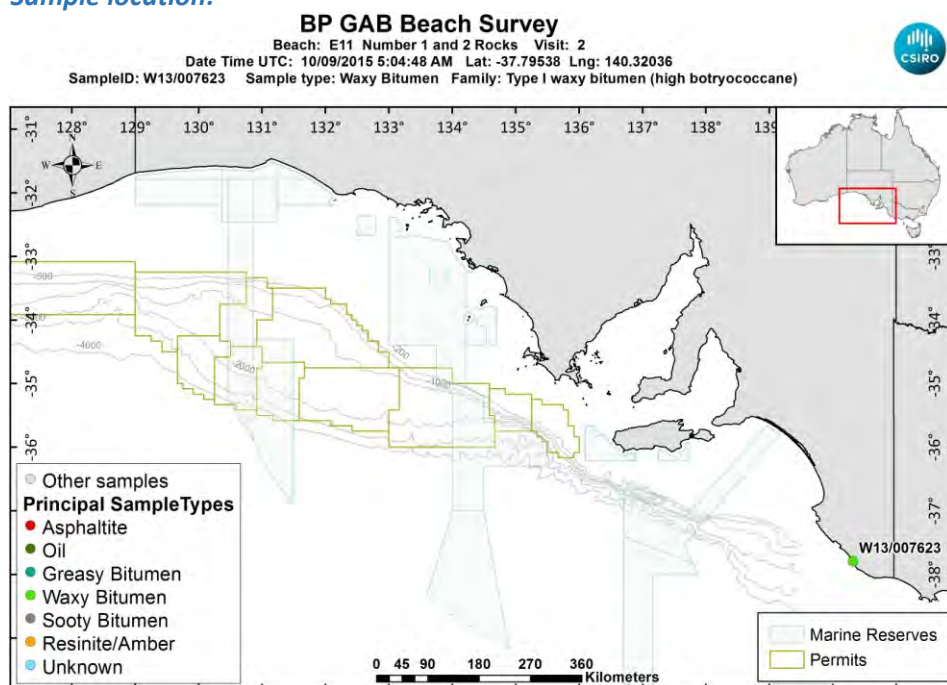
Size (cm): 3

Latitude (Y): -37.795382

Weight (gm): 5.4

Longitude (X): 140.320357

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007623_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007623_146A1601.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13_007623_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007623_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.7	percent	Y
Inorg	Hydrogen			7.58598210735586	percent	Y
Inorg	Nitrogen			0.26	percent	Y
Inorg	Sulphur			2.0426967992019	percent	Y

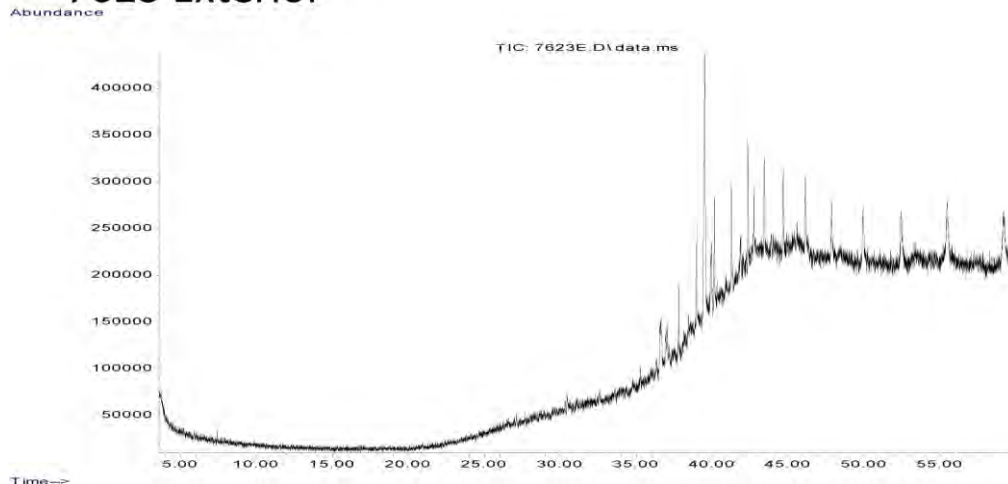
Results for: GCMS with Full Scan

Unique ID: W13/007623_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007623_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7623 Exterior



Data Sheet:

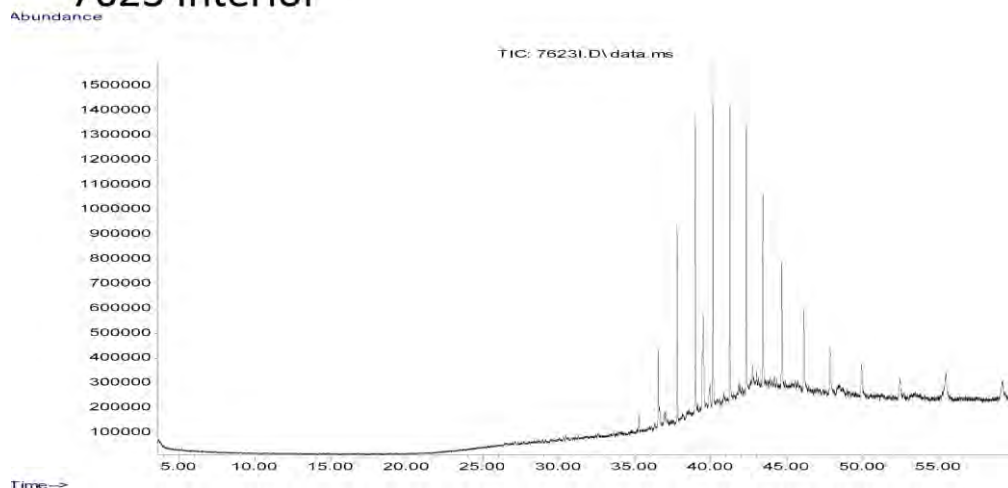
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2507298		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	86458		ug/L	Z
Aliph	nC26	36.4960	248907		ug/L	Z
Aliph	nC27	37.7300	402316		ug/L	Z
Aliph	nC28	38.9260	555104		ug/L	Z
Aliph	nC29	40.0740	596448		ug/L	Z
Aliph	nC30	41.1930	633326		ug/L	Z
Aliph	nC31	42.2750	648680		ug/L	Z
Aliph	nC32	43.3560	671446		ug/L	Z
Aliph	nC33	44.5840	605354		ug/L	Z
Aliph	nC34	46.0130	585104		ug/L	Z
Aliph	nC35	47.7140	588477		ug/L	Z
Aliph	nC36	49.7870	631856		ug/L	Z
Aliph	nC37	52.2630	773390		ug/L	Z
Aliph	nC38	55.2360	832230		ug/L	Z
Aliph	nC39	58.9110	1084706		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007623 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007623_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7623 Interior



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	3624493		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	345087		ug/L	Z
Aliph	nC26	36.4960	1683369		ug/L	Z
Aliph	nC27	37.7300	4127132		ug/L	Z
Aliph	nC28	38.9260	6088599		ug/L	Z
Aliph	nC29	40.0740	7012123		ug/L	Z
Aliph	nC30	41.1930	6387050		ug/L	Z
Aliph	nC31	42.2750	5674765		ug/L	Z
Aliph	nC32	43.3560	4748748		ug/L	Z
Aliph	nC33	44.5840	3662431		ug/L	Z
Aliph	nC34	46.0130	2443319		ug/L	Z
Aliph	nC35	47.7140	1781840		ug/L	Z
Aliph	nC36	49.7870	1451660		ug/L	Z
Aliph	nC37	52.2630	1200309		ug/L	Z
Aliph	nC38	55.2360	1674163		ug/L	Z
Aliph	nC39	58.9110	1343273		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007624**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:38:29 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

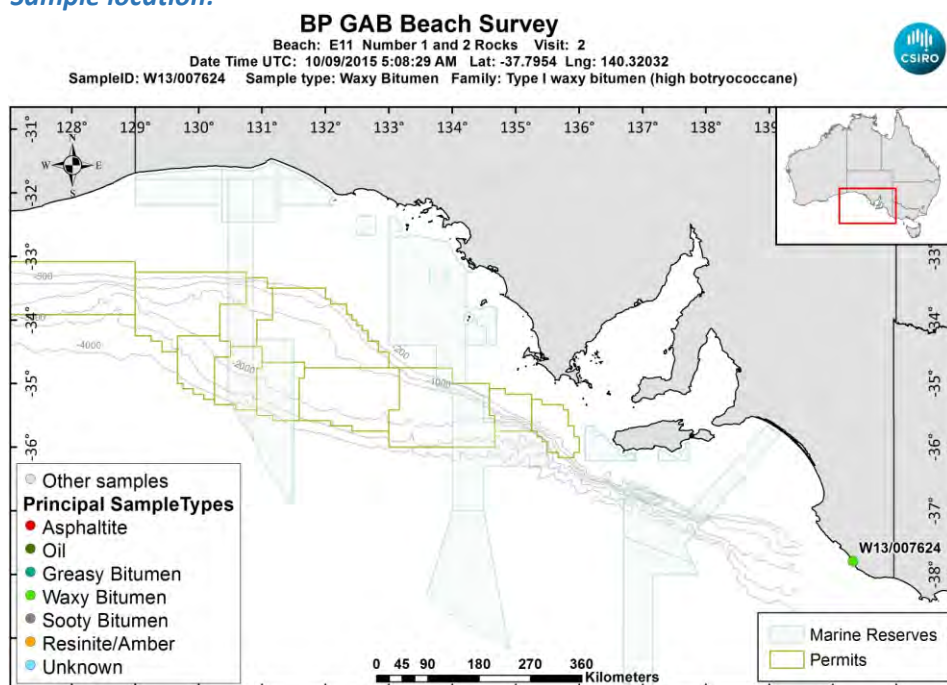
Size (cm): 4.8

Latitude (Y): -37.795403

Weight (gm): 18.9

Longitude (X): 140.320317

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007624_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007624_146A1603.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13_007624_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007624_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

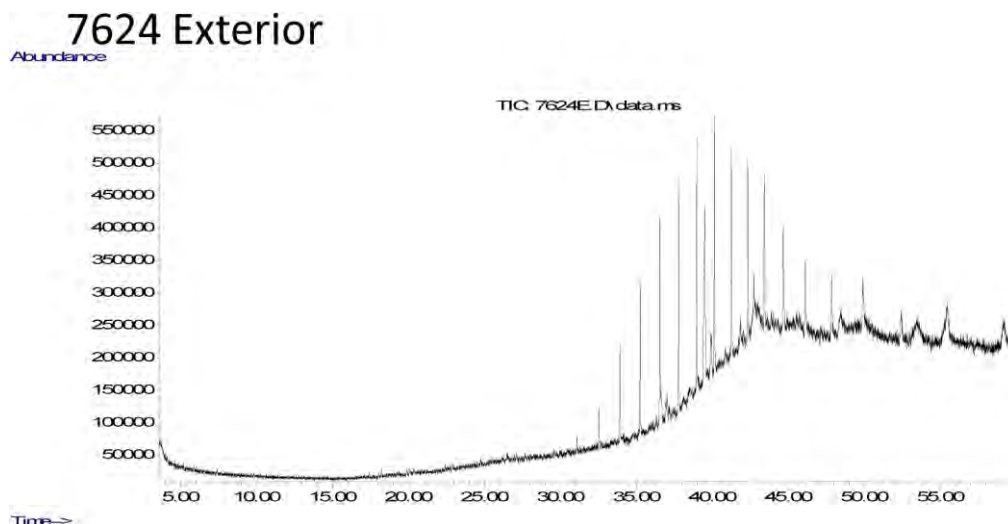
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			82.86	percent	Y
Inorg	Hydrogen			6.30756143141153	percent	Y
Inorg	Nitrogen			0.25	percent	Y
Inorg	Sulphur			1.38562254901856	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007624_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13 007624 ext WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



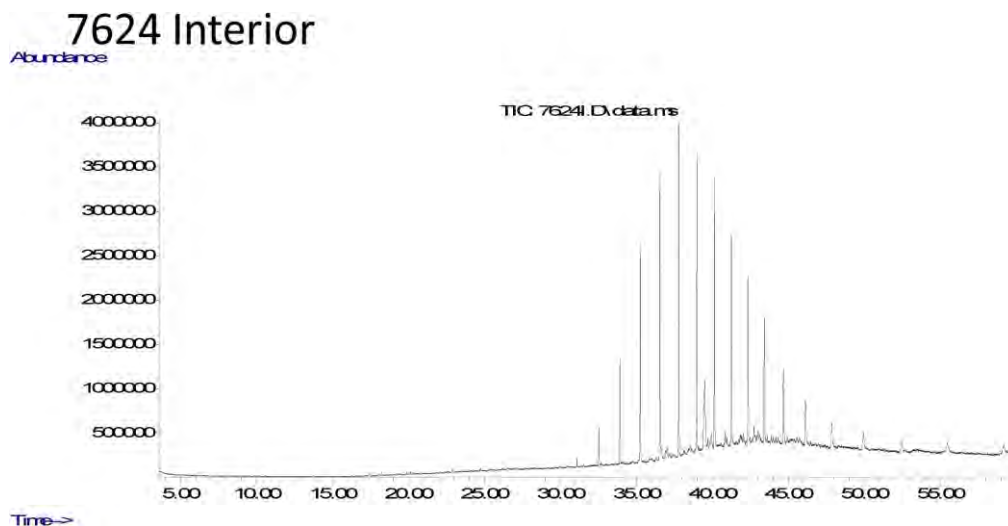
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2332162		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540	107432		ug/L	Z
Aliph	nC23	32.4960	337817		ug/L	Z
Aliph	nC24	33.8800	701258		ug/L	Z
Aliph	nC25	35.2120	1148201		ug/L	Z
Aliph	nC26	36.4960	1549086		ug/L	Z
Aliph	nC27	37.7300	1894602		ug/L	Z
Aliph	nC28	38.9260	1944416		ug/L	Z
Aliph	nC29	40.0740	1985941		ug/L	Z
Aliph	nC30	41.1930	1644331		ug/L	Z
Aliph	nC31	42.2750	1468733		ug/L	Z
Aliph	nC32	43.3560	1384840		ug/L	Z
Aliph	nC33	44.5840	1165429		ug/L	Z
Aliph	nC34	46.0130	912448		ug/L	Z
Aliph	nC35	47.7140	884752		ug/L	Z
Aliph	nC36	49.7870	890954		ug/L	Z
Aliph	nC37	52.2630	751710		ug/L	Z
Aliph	nC38	55.2360	1423826		ug/L	Z
Aliph	nC39	58.9110	959740		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007624 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007624_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			1.25089406521029	ug/L	Y
Aliph	Botryococcane	39.4290	7383464		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540	479558		ug/L	Z
Aliph	nC23	32.4960	2131645		ug/L	Z
Aliph	nC24	33.8800	6011666		ug/L	Z
Aliph	nC25	35.2120	11637354		ug/L	Z
Aliph	nC26	36.4960	15500753		ug/L	Z
Aliph	nC27	37.7300	17880105		ug/L	Z
Aliph	nC28	38.9260	16418234		ug/L	Z
Aliph	nC29	40.0740	14650720		ug/L	Z
Aliph	nC30	41.1930	11785378		ug/L	Z
Aliph	nC31	42.2750	10083917		ug/L	Z
Aliph	nC32	43.3560	8013776		ug/L	Z
Aliph	nC33	44.5840	6119352		ug/L	Z
Aliph	nC34	46.0130	4326795		ug/L	Z
Aliph	nC35	47.7140	3093673		ug/L	Z
Aliph	nC36	49.7870	2525591		ug/L	Z
Aliph	nC37	52.2630	1852800		ug/L	Z
Aliph	nC38	55.2360	1769447		ug/L	Z
Aliph	nC39	58.9110	1900030		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	226698		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	283575	ug/L	Z
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Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007625**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Upper Intertidal

Local Date Time: 10/09/2015 2:40:19 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

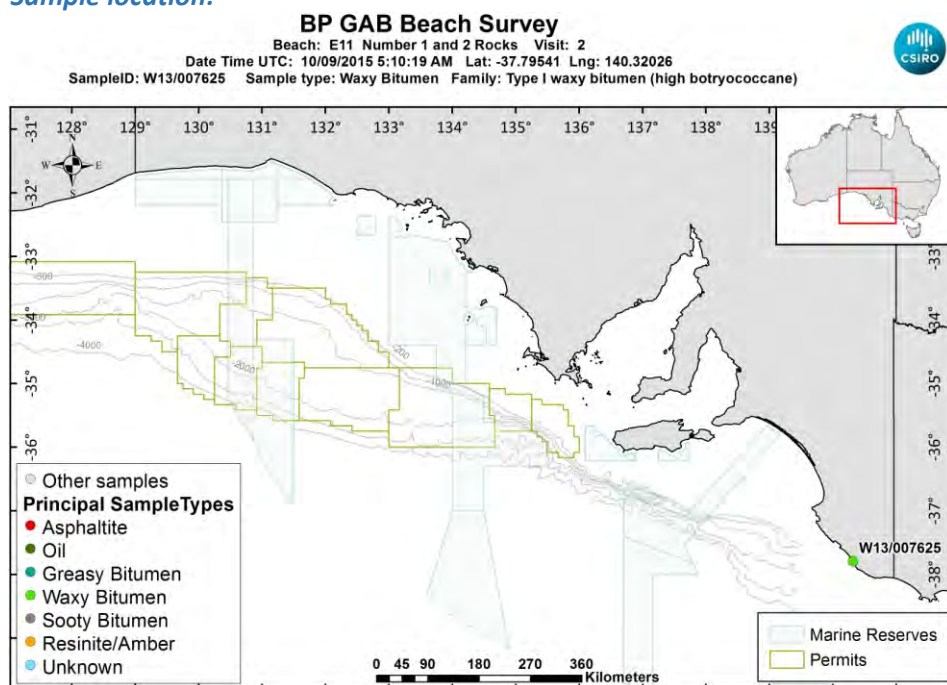
Size (cm): 3.4

Latitude (Y): -37.795408

Weight (gm): 5.7

Longitude (X): 140.320263

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007625_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007625_146A1606.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007625_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007625 DISS GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			48.3156616184435	ratio	Y
BiomRatio	% C27 abb 20(R+S)			47.4959563854524	ratio	Y
BiomRatio	% C28 aaa 20R			12.1409668882721	ratio	Y
BiomRatio	% C28 abb 20(R+S)			18.3535715809121	ratio	Y
BiomRatio	% C29 aaa 20R			39.5433714932844	ratio	Y
BiomRatio	% C29 abb 20(R+S)			34.1504720336355	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			9.31779899204803E-02	ratio	Y
BiomRatio	25-Nor/C30H			6.34611391540873E-02	ratio	Y
BiomRatio	C19t/C23t			0.207500970849005	ratio	Y
BiomRatio	C22t/C21t			0.360507776394042	ratio	Y
BiomRatio	C22t/C24t			0.270253483948604	ratio	Y
BiomRatio	C23t/C30H			8.11747592198838E-02	ratio	Y
BiomRatio	C24t/C23t			0.939344271261593	ratio	Y
BiomRatio	C24Tet/C23t			0.393450005378412	ratio	Y
BiomRatio	C24Tet/C26t			0.329583948049251	ratio	Y
BiomRatio	C24Tet/C30H			3.19382094516546E-02	ratio	Y
BiomRatio	C26t/C25t			1.96018991964938	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.706771803648022	ratio	Y
BiomRatio	C27 Dia/Ster			1.19913575612151	ratio	Y
BiomRatio	C28BNH/C30H			2.96679345574762E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			0.719018515102382	ratio	Y
BiomRatio	C29H/C30H			0.617784421859107	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.294120690879698	ratio	Y
BiomRatio	C30DiaH/C30H			0.16299833754903	ratio	Y
BiomRatio	C30Ts/C30H			1.34221493287371E-02	ratio	Y
BiomRatio	C35 Homohopane Index			4.00126521595421E-02	ratio	Y
BiomRatio	C35HS/C34HS			0.428735121483525	ratio	Y
BiomRatio	Gam/C30H			4.26339569485433E-02	ratio	Y
BiomRatio	Gam/C31HR			0.268374574599007	ratio	Y
BiomRatio	Ole/C30H			0.105076580338502	ratio	Y
BiomRatio	Sterane/hopane			6.96122855514162E-02	ratio	Y
BiomRatio	Steranes/Terpanes			0.059620716243907	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.167585529610781	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007625_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

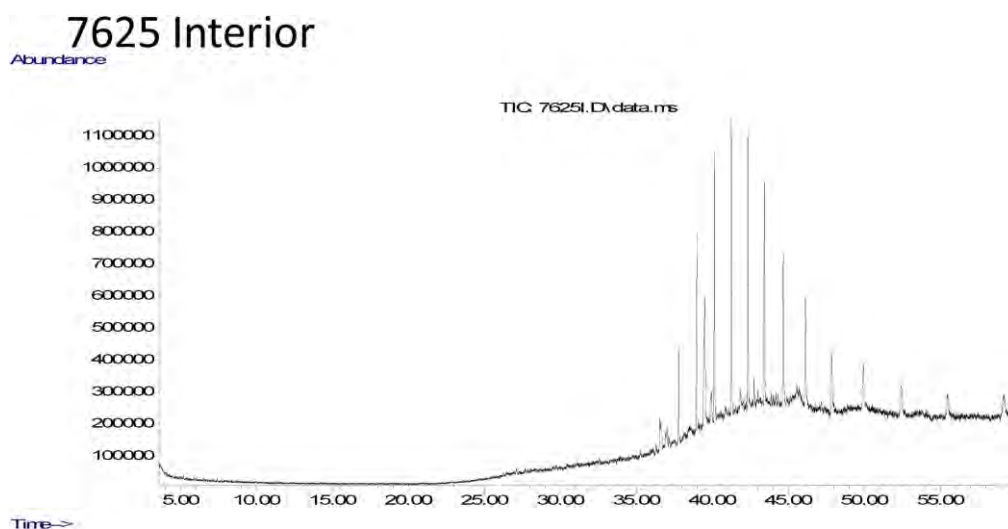
Results for: Elemental Analyser**Data Sheet:**

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			87.28	percent	Y
Inorg	Hydrogen			10.6653795228628	percent	Y
Inorg	Nitrogen			0.39	percent	Y
Inorg	Sulphur			2.6214182850086	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007625_DISS_GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007625_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	3739778		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	104069		ug/L	Z
Aliph	nC26	36.4960	643665		ug/L	Z
Aliph	nC27	37.7300	1609916		ug/L	Z
Aliph	nC28	38.9260	3100039		ug/L	Z
Aliph	nC29	40.0740	4481543		ug/L	Z
Aliph	nC30	41.1930	4621605		ug/L	Z
Aliph	nC31	42.2750	4495876		ug/L	Z
Aliph	nC32	43.3560	4003384		ug/L	Z
Aliph	nC33	44.5840	3330203		ug/L	Z
Aliph	nC34	46.0130	2751229		ug/L	Z
Aliph	nC35	47.7140	1923907		ug/L	Z
Aliph	nC36	49.7870	1622640		ug/L	Z
Aliph	nC37	52.2630	1328093		ug/L	Z
Aliph	nC38	55.2360	1186284		ug/L	Z
Aliph	nC39	58.9110	1440594		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007626**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:48:47 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

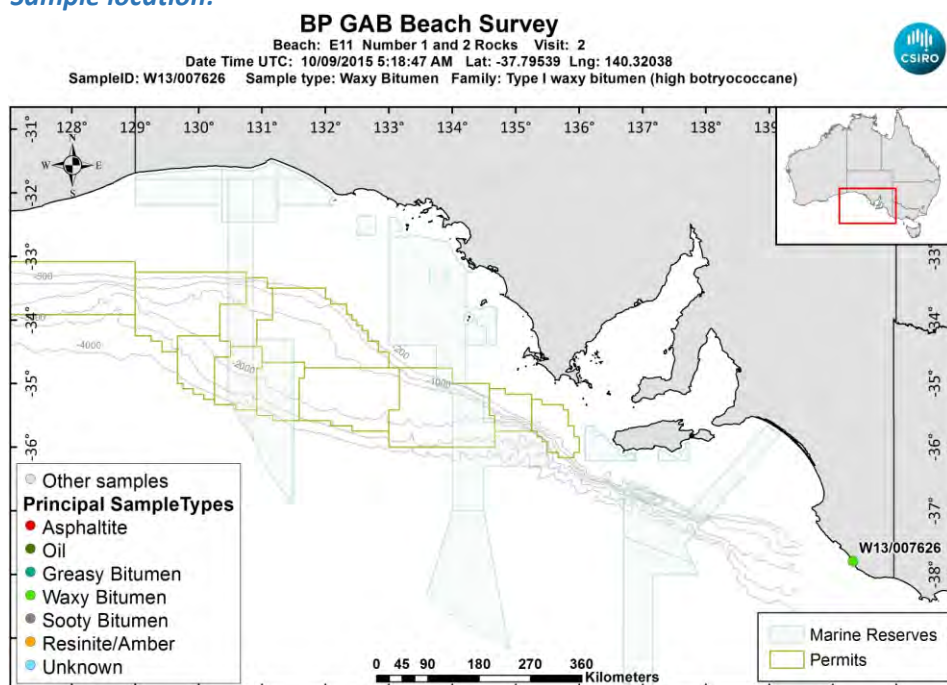
Size (cm): 3

Latitude (Y): -37.795385

Weight (gm): 4.4

Longitude (X): 140.320382

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007626_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007626_146A1612.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007626_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007626_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			89.24	percent	Y
Inorg	Hydrogen			10.0614747514911	percent	Y
Inorg	Nitrogen			0.37	percent	Y
Inorg	Sulphur			2.09986959271014	percent	Y

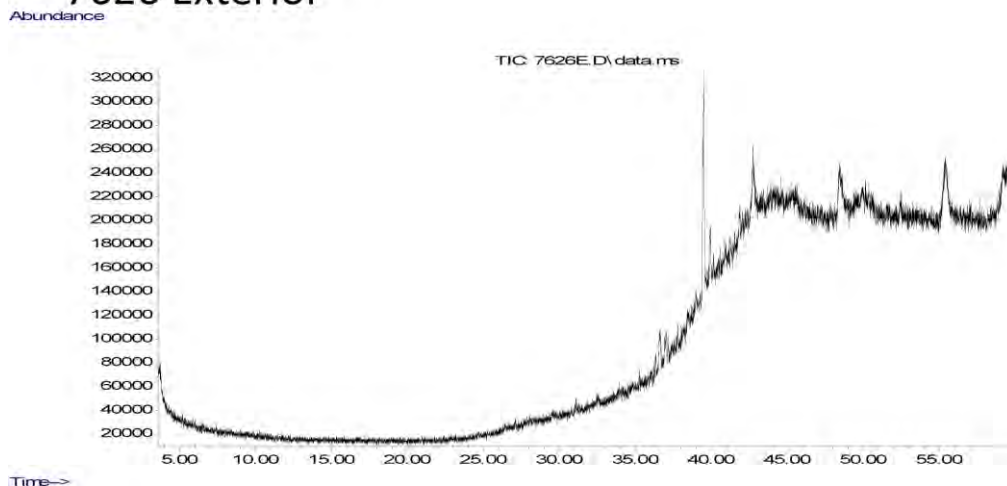
Results for: GCMS with Full Scan

Unique ID: W13/007626_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007626_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7626 Exterior



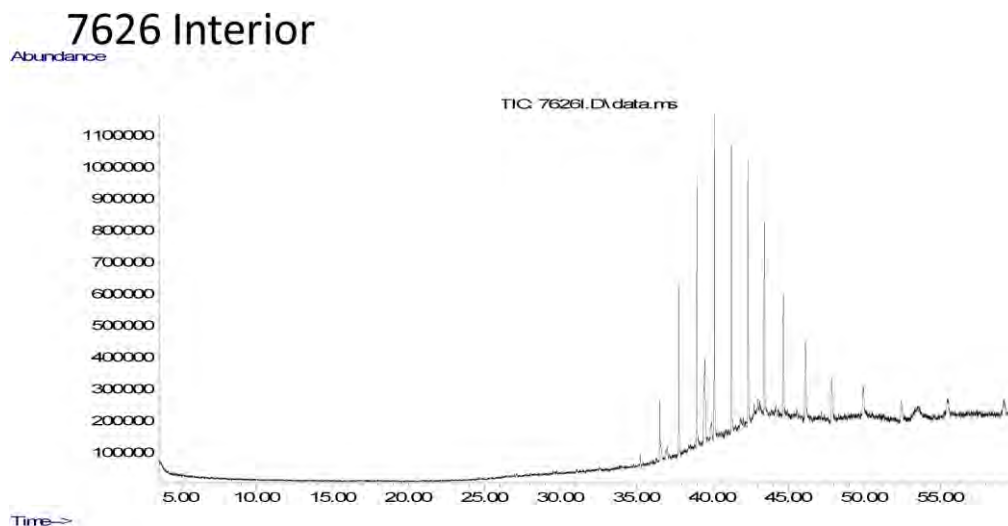
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	1713601		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	50365		ug/L	Z
Aliph	nC26	36.4960	164914		ug/L	Z
Aliph	nC27	37.7300	87541		ug/L	Z
Aliph	nC28	38.9260	79966		ug/L	Z
Aliph	nC29	40.0740	103572		ug/L	Z
Aliph	nC30	41.1930	95004		ug/L	Z
Aliph	nC31	42.2750			ug/L	U
Aliph	nC32	43.3560			ug/L	U
Aliph	nC33	44.5840			ug/L	U
Aliph	nC34	46.0130			ug/L	U
Aliph	nC35	47.7140			ug/L	U
Aliph	nC36	49.7870			ug/L	U
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007626 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007626_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2546947		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	155404		ug/L	Z
Aliph	nC26	36.4960	921362		ug/L	Z
Aliph	nC27	37.7300	2728941		ug/L	Z
Aliph	nC28	38.9260	4262142		ug/L	Z
Aliph	nC29	40.0740	5053895		ug/L	Z
Aliph	nC30	41.1930	4848405		ug/L	Z
Aliph	nC31	42.2750	4322691		ug/L	Z
Aliph	nC32	43.3560	3639486		ug/L	Z
Aliph	nC33	44.5840	2633549		ug/L	Z
Aliph	nC34	46.0130	1911430		ug/L	Z
Aliph	nC35	47.7140	1310554		ug/L	Z
Aliph	nC36	49.7870	1020315		ug/L	Z
Aliph	nC37	52.2630	837601		ug/L	Z
Aliph	nC38	55.2360	769743		ug/L	Z
Aliph	nC39	58.9110	836625		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007627**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:53:08 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

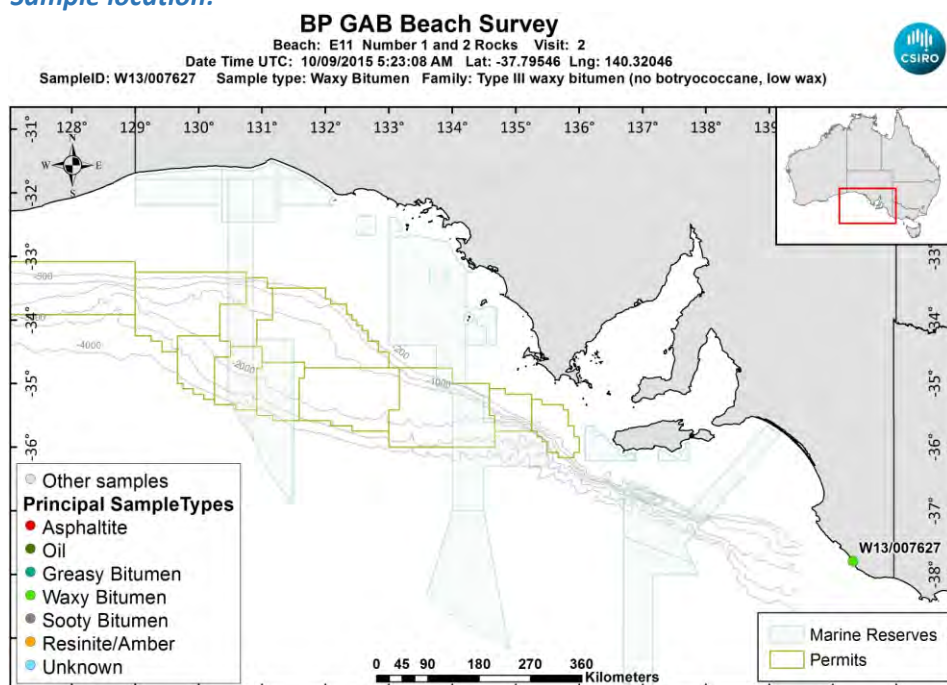
Size (cm): 12

Latitude (Y): -37.795458

Weight (gm): 208.3

Longitude (X): 140.320457

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007627_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007627_146A1615.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007627_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007627_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.69	percent	Y
Inorg	Hydrogen			11.982972166998	percent	Y
Inorg	Nitrogen			0.09	percent	Y
Inorg	Sulphur			2.79181253981203	percent	Y

Results for: GCMS with Full Scan

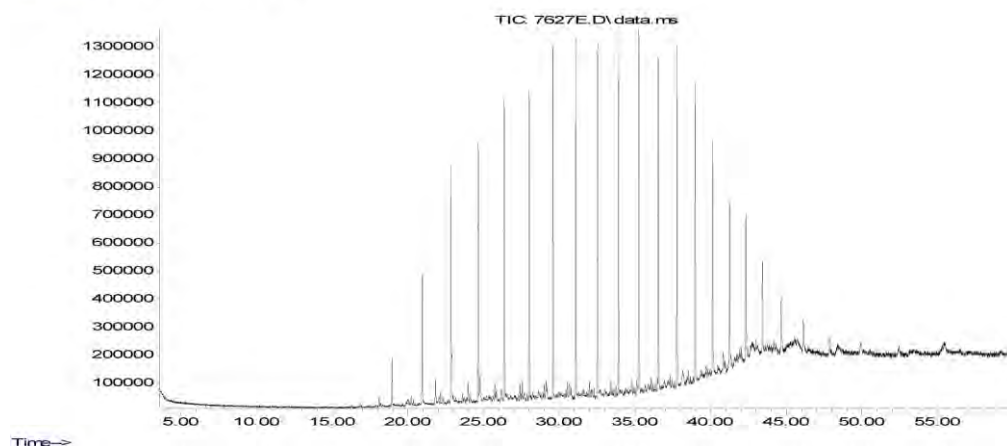
Unique ID: W13/007627_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007627_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7627 Exterior

Abundance



Time→

Data Sheet:

(default units ppb)

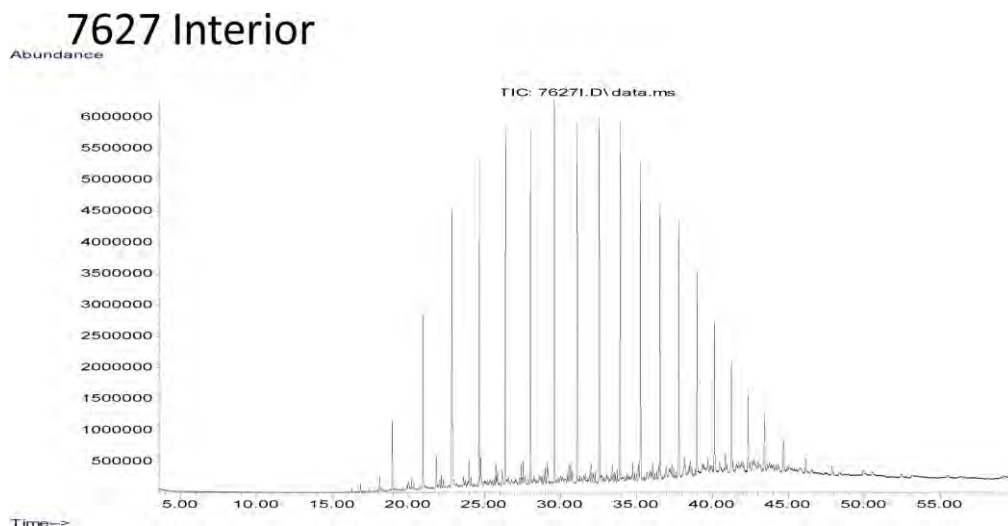
Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Ratio	nC17/nC29			1.13478214036968	ug/L	Y
Ratio	nC17/nC35			7.69792255472387	ug/L	Y
Ratio	nC17/Pristane			6.30862201506101	ug/L	Y
Ratio	nC18/Phytane			8.90767226902634	ug/L	Y
Ratio	Pristane/Phytane			1.44796014998017	ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180	129894		ug/L	Z
Aliph	nC15	18.9260	1011696		ug/L	Z
Aliph	nC16	20.9240	2460717		ug/L	Z
Aliph	nC17	22.8190	4814832		ug/L	Z
Aliph	nC18	24.6230	4695202		ug/L	Z
Aliph	nC19	26.3410	5425274		ug/L	Z
Aliph	nC20	27.9810	5569022		ug/L	Z
Aliph	nC21	29.5510	6106700		ug/L	Z
Aliph	nC22	31.0540	5933889		ug/L	Z
Aliph	nC23	32.4960	6319785		ug/L	Z
Aliph	nC24	33.8800	6092663		ug/L	Z
Aliph	nC25	35.2120	6264915		ug/L	Z
Aliph	nC26	36.4960	5934013		ug/L	Z
Aliph	nC27	37.7300	5927572		ug/L	Z
Aliph	nC28	38.9260	5027924		ug/L	Z
Aliph	nC29	40.0740	4242957		ug/L	Z
Aliph	nC30	41.1930	3090073		ug/L	Z
Aliph	nC31	42.2750	2424002		ug/L	Z
Aliph	nC32	43.3560	1836576		ug/L	Z
Aliph	nC33	44.5840	1323844		ug/L	Z
Aliph	nC34	46.0130	859244		ug/L	Z
Aliph	nC35	47.7140	625472		ug/L	Z
Aliph	nC36	49.7870	476670		ug/L	Z
Aliph	nC37	52.2630	416190		ug/L	Z

Results for: GCMS with Full Scan

Aliph	nC38	55.2360		ug/L	U
Aliph	nC39	58.9110	327974	ug/L	Z
Aliph	Norpristane	21.8010	736324	ug/L	Z
Aliph	Phytane	24.7190	527096	ug/L	Z
Aliph	Pristane	22.8660	763215	ug/L	Z

Results for: GCMS with Full Scan**Unique ID:** W13/007627 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007627_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Ratio	nC17/nC29		1.94529417279197		ug/L	Y
Ratio	nC17/nC35		18.6726916643848		ug/L	Y
Ratio	nC17/Pristane		5.71782409275317		ug/L	Y
Ratio	nC18/Phytane		8.18577636799197		ug/L	Y
Ratio	Pristane/Phytane		1.29694192450234		ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180	847057		ug/L	Z
Aliph	nC15	18.9260	6042061		ug/L	Z
Aliph	nC16	20.9240	14393537		ug/L	Z
Aliph	nC17	22.8190	23965714		ug/L	Z
Aliph	nC18	24.6230	26454462		ug/L	Z
Aliph	nC19	26.3410	28652829		ug/L	Z
Aliph	nC20	27.9810	29161142		ug/L	Z
Aliph	nC21	29.5510	31519472		ug/L	Z
Aliph	nC22	31.0540	29550284		ug/L	Z
Aliph	nC23	32.4960	29629247		ug/L	Z
Aliph	nC24	33.8800	27135502		ug/L	Z
Aliph	nC25	35.2120	25693861		ug/L	Z
Aliph	nC26	36.4960	21853563		ug/L	Z
Aliph	nC27	37.7300	20133418		ug/L	Z
Aliph	nC28	38.9260	15352195		ug/L	Z
Aliph	nC29	40.0740	12319841		ug/L	Z
Aliph	nC30	41.1930	8564884		ug/L	Z
Aliph	nC31	42.2750	6911652		ug/L	Z
Aliph	nC32	43.3560	4457393		ug/L	Z
Aliph	nC33	44.5840	3311314		ug/L	Z
Aliph	nC34	46.0130	2102388		ug/L	Z
Aliph	nC35	47.7140	1283463		ug/L	Z
Aliph	nC36	49.7870	945876		ug/L	Z
Aliph	nC37	52.2630	682557		ug/L	Z

Results for: GCMS with Full Scan

Aliph	nC38	55.2360	609980	ug/L	Z
Aliph	nC39	58.9110	597509	ug/L	Z
Aliph	Norpristane	21.8010	4146426	ug/L	Z
Aliph	Phytane	24.7190	3231760	ug/L	Z
Aliph	Pristane	22.8660	4191405	ug/L	Z

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007628**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 2:54:18 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

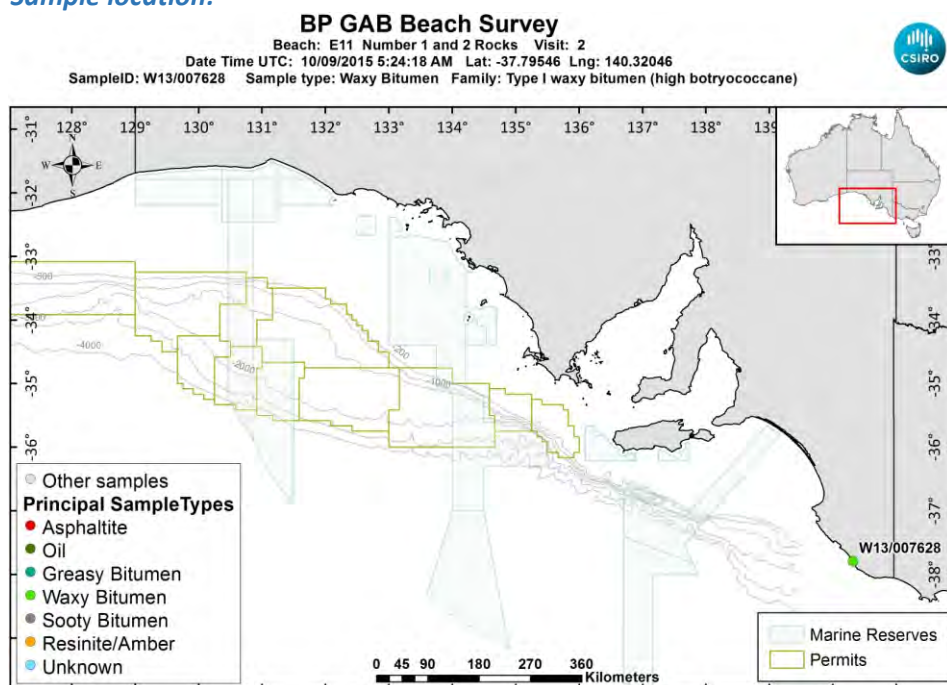
Size (cm): 5.2

Latitude (Y): -37.795465

Weight (gm): 14.6

Longitude (X): 140.320457

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007628_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007628_146A1617.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007628_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007628_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			77.65	percent	Y
Inorg	Hydrogen			7.45729105367793	percent	Y
Inorg	Nitrogen			0.31	percent	Y
Inorg	Sulphur			1.40884965554145	percent	Y

Results for: GCMS with Full Scan

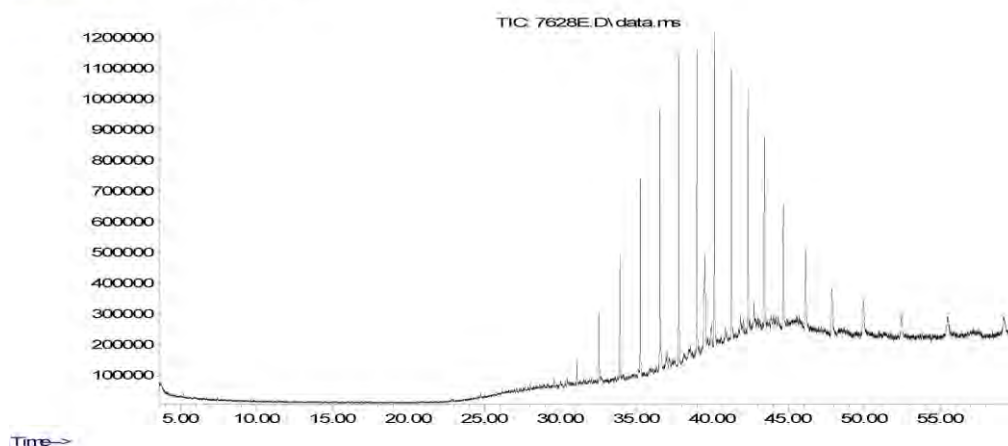
Unique ID: W13/007628_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007628_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7628 Exterior

Abundance



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			0.800453382705713	ug/L	Y
Aliph	Botryococcane	39.4290	2751688		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810	62443		ug/L	Z
Aliph	nC21	29.5510	142757		ug/L	Z
Aliph	nC22	31.0540	436130		ug/L	Z
Aliph	nC23	32.4960	1154470		ug/L	Z
Aliph	nC24	33.8800	1972116		ug/L	Z
Aliph	nC25	35.2120	3150571		ug/L	Z
Aliph	nC26	36.4960	3975887		ug/L	Z
Aliph	nC27	37.7300	5031498		ug/L	Z
Aliph	nC28	38.9260	5025786		ug/L	Z
Aliph	nC29	40.0740	5233815		ug/L	Z
Aliph	nC30	41.1930	4509175		ug/L	Z
Aliph	nC31	42.2750	4143149		ug/L	Z
Aliph	nC32	43.3560	3424342		ug/L	Z
Aliph	nC33	44.5840	2744079		ug/L	Z
Aliph	nC34	46.0130	2075739		ug/L	Z
Aliph	nC35	47.7140	1461264		ug/L	Z
Aliph	nC36	49.7870	1241547		ug/L	Z
Aliph	nC37	52.2630	1018165		ug/L	Z
Aliph	nC38	55.2360	966757		ug/L	Z
Aliph	nC39	58.9110	859055		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	81406		ug/L	Z

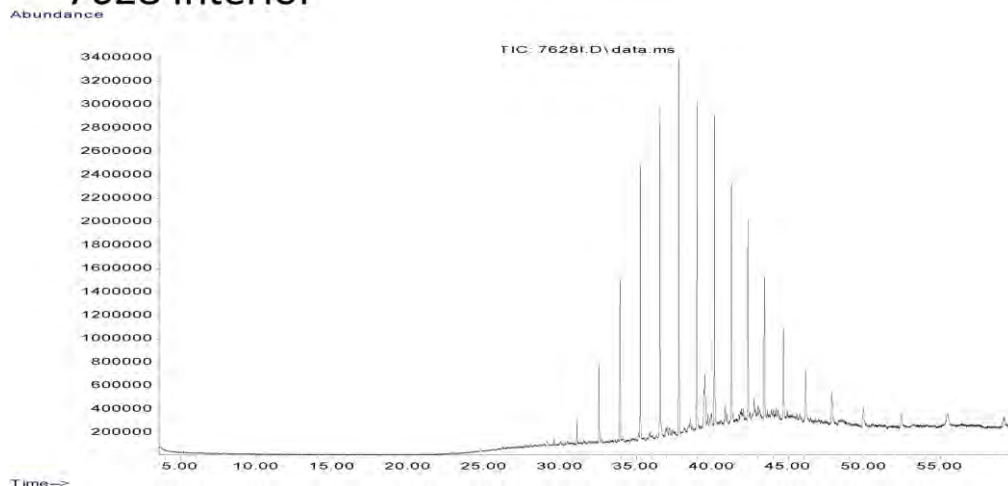
Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	65162	ug/L	Z
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Results for: GCMS with Full Scan**Unique ID:** W13/007628 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007628_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7628 Interior



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			0.721920753841461	ug/L	Y
Aliph	Botryococcane	39.4290	4145344		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810	119734		ug/L	Z
Aliph	nC21	29.5510	278190		ug/L	Z
Aliph	nC22	31.0540	1062741		ug/L	Z
Aliph	nC23	32.4960	3291161		ug/L	Z
Aliph	nC24	33.8800	7090473		ug/L	Z
Aliph	nC25	35.2120	11119041		ug/L	Z
Aliph	nC26	36.4960	13598263		ug/L	Z
Aliph	nC27	37.7300	15352803		ug/L	Z
Aliph	nC28	38.9260	14359988		ug/L	Z
Aliph	nC29	40.0740	12402056		ug/L	Z
Aliph	nC30	41.1930	10500178		ug/L	Z
Aliph	nC31	42.2750	8895734		ug/L	Z
Aliph	nC32	43.3560	6949105		ug/L	Z
Aliph	nC33	44.5840	5162744		ug/L	Z
Aliph	nC34	46.0130	3379770		ug/L	Z
Aliph	nC35	47.7140	2560491		ug/L	Z
Aliph	nC36	49.7870	1866474		ug/L	Z
Aliph	nC37	52.2630	1479403		ug/L	Z
Aliph	nC38	55.2360	1594999		ug/L	Z
Aliph	nC39	58.9110	1325650		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	158871		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	114692	ug/L	Z
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Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007629**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Upper Intertidal

Local Date Time: 10/09/2015 3:04:27 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

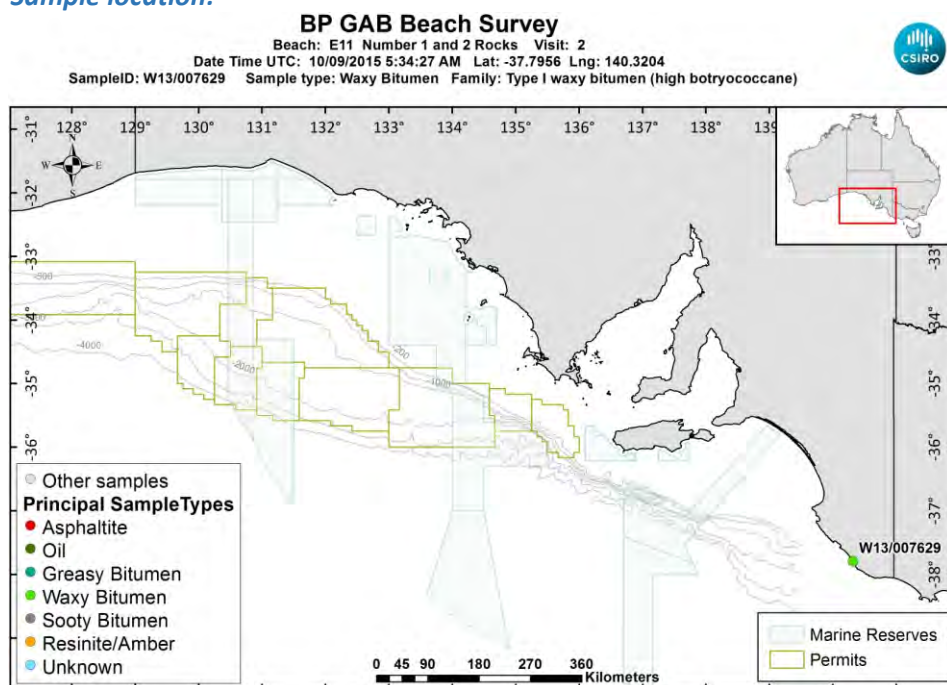
Size (cm): 3

Latitude (Y): -37.795602

Weight (gm): 2.5

Longitude (X): 140.320400

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007629_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007629_146A1621.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007629_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007629_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.77	percent	Y
Inorg	Hydrogen			9.0302324055666	percent	Y
Inorg	Nitrogen			0.34	percent	Y
Inorg	Sulphur			1.71166375260142	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007629 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 18/11/2016

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007629_bulk_WholeOil.jpg](#)

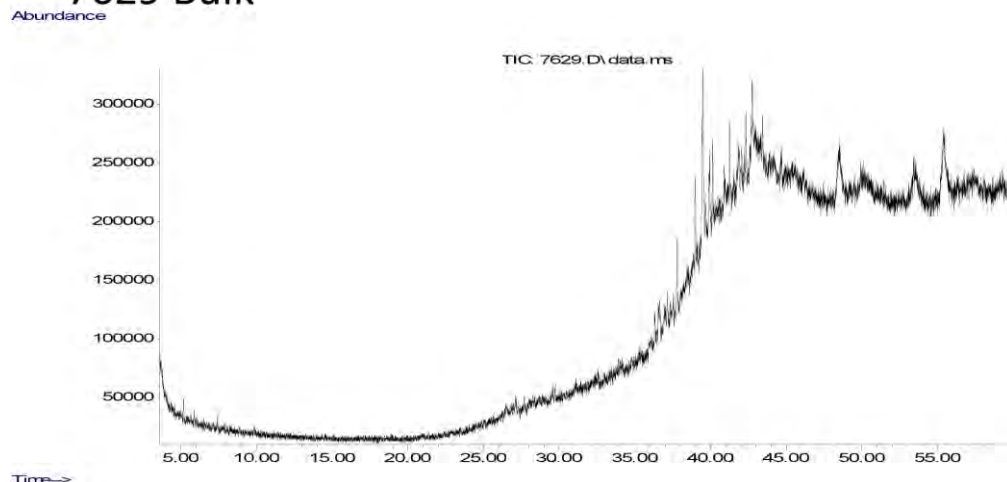
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7629 Bulk



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	1249129		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	74154		ug/L	Z
Aliph	nC26	36.4960	148233		ug/L	Z
Aliph	nC27	37.7300	261355		ug/L	Z
Aliph	nC28	38.9260	366639		ug/L	Z
Aliph	nC29	40.0740	373938		ug/L	Z
Aliph	nC30	41.1930	305157		ug/L	Z
Aliph	nC31	42.2750	268634		ug/L	Z
Aliph	nC32	43.3560	169446		ug/L	Z
Aliph	nC33	44.5840	137923		ug/L	Z
Aliph	nC34	46.0130	95606		ug/L	Z
Aliph	nC35	47.7140			ug/L	U
Aliph	nC36	49.7870			ug/L	U
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007630**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Mid Intertidal

Local Date Time: 10/09/2015 3:09:04 PM

Type: Waxy Bitumen

Family: Type II waxy bitumen (low botryococcane)

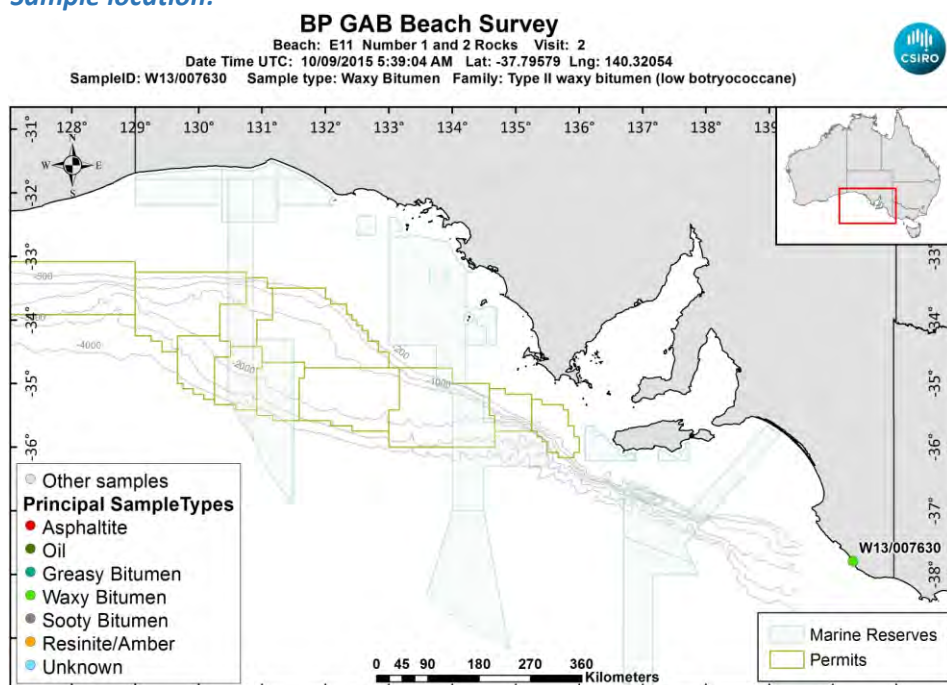
Size (cm): 2

Latitude (Y): -37.795793

Weight (gm): 1.9

Longitude (X): 140.320535

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007630_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007630_146A1623.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13_007630_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007630_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

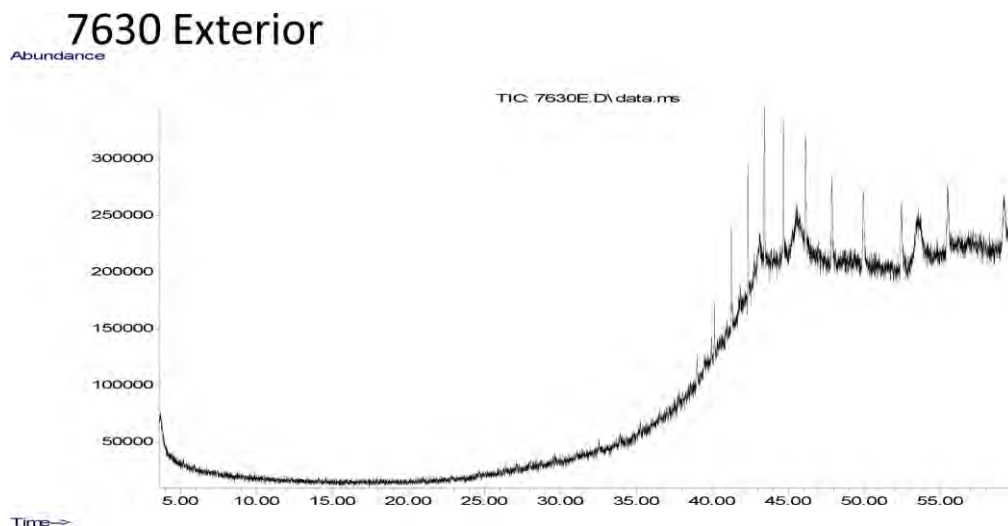
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			83.35	percent	Y
Inorg	Hydrogen			6.74200059642147	percent	Y
Inorg	Nitrogen			0.419074550128535	percent	Y
Inorg	Sulphur			2.91554934457916	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007630_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007630_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120			ug/L	U
Aliph	nC26	36.4960			ug/L	U
Aliph	nC27	37.7300	54762		ug/L	Z
Aliph	nC28	38.9260	104764		ug/L	Z
Aliph	nC29	40.0740	222366		ug/L	Z
Aliph	nC30	41.1930	378692		ug/L	Z
Aliph	nC31	42.2750	587328		ug/L	Z
Aliph	nC32	43.3560	780702		ug/L	Z
Aliph	nC33	44.5840	790030		ug/L	Z
Aliph	nC34	46.0130	705786		ug/L	Z
Aliph	nC35	47.7140	664170		ug/L	Z
Aliph	nC36	49.7870	643634		ug/L	Z
Aliph	nC37	52.2630	689451		ug/L	Z
Aliph	nC38	55.2360	997140		ug/L	Z
Aliph	nC39	58.9110	914225		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

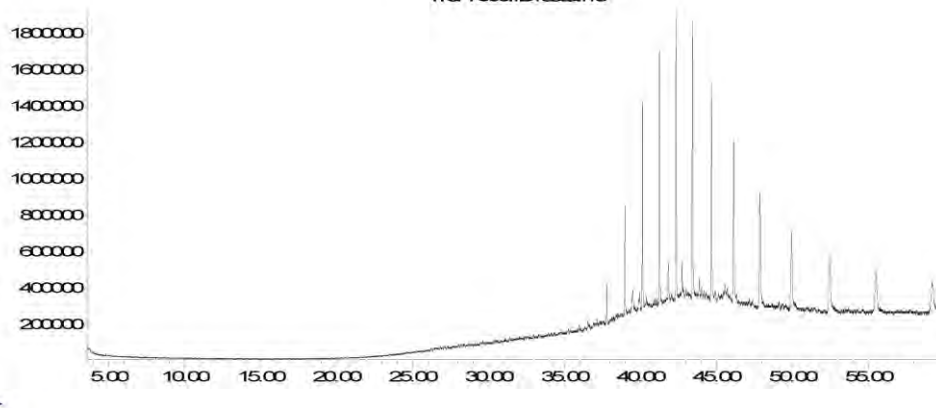
Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007630 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007630_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7630 Interior – HT-GCMS?

Abundance

TIC: 76301.D\data.ms



Time-->

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	947950		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120			ug/L	U
Aliph	nC26	36.4960	223962		ug/L	Z
Aliph	nC27	37.7300	1180535		ug/L	Z
Aliph	nC28	38.9260	3305217		ug/L	Z
Aliph	nC29	40.0740	5760495		ug/L	Z
Aliph	nC30	41.1930	7314144		ug/L	Z
Aliph	nC31	42.2750	8211845		ug/L	Z
Aliph	nC32	43.3560	8842432		ug/L	Z
Aliph	nC33	44.5840	8000911		ug/L	Z
Aliph	nC34	46.0130	7434529		ug/L	Z
Aliph	nC35	47.7140	6451525		ug/L	Z
Aliph	nC36	49.7870	5063945		ug/L	Z
Aliph	nC37	52.2630	4373079		ug/L	Z
Aliph	nC38	55.2360	3814447		ug/L	Z
Aliph	nC39	58.9110	3420116		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007631**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 3:15:26 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

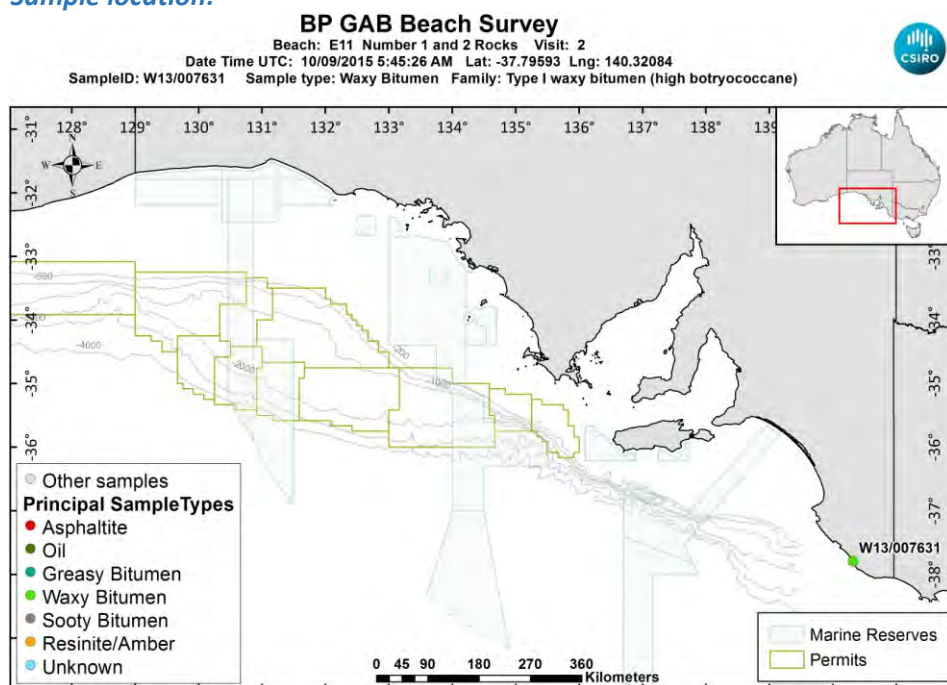
Size (cm): 4

Latitude (Y): -37.795928

Weight (gm): 7.5

Longitude (X): 140.320840

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007631_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007631_146A1626.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007631_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007631_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.46	percent	Y
Inorg	Hydrogen			8.7626958250497	percent	Y
Inorg	Nitrogen			0.591739502999143	percent	Y
Inorg	Sulphur			1.97399374868901	percent	Y

Results for: GCMS with Full Scan

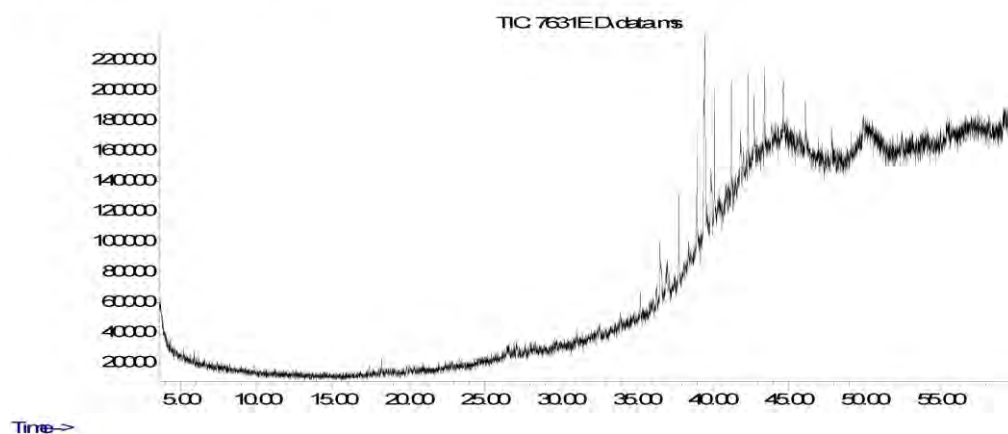
Unique ID: W13/007631_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007631_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7631 Exterior

Abundance



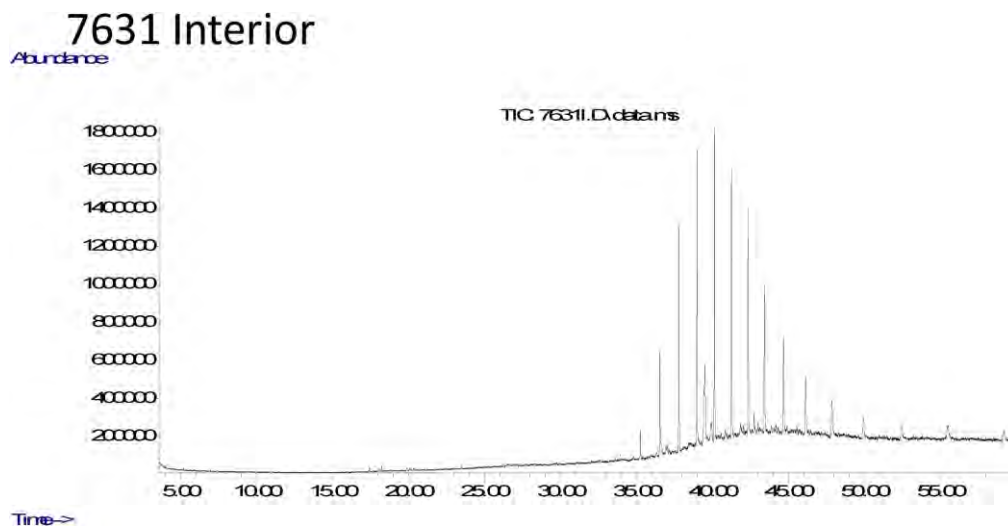
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	1222055		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	45861		ug/L	Z
Aliph	nC25	35.2120	93012		ug/L	Z
Aliph	nC26	36.4960	174996		ug/L	Z
Aliph	nC27	37.7300	288574		ug/L	Z
Aliph	nC28	38.9260	341845		ug/L	Z
Aliph	nC29	40.0740	364812		ug/L	Z
Aliph	nC30	41.1930	384330		ug/L	Z
Aliph	nC31	42.2750	334660		ug/L	Z
Aliph	nC32	43.3560	297083		ug/L	Z
Aliph	nC33	44.5840	245948		ug/L	Z
Aliph	nC34	46.0130	169071		ug/L	Z
Aliph	nC35	47.7140	143980		ug/L	Z
Aliph	nC36	49.7870			ug/L	U
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007631 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007631_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	3922730		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960	48408		ug/L	Z
Aliph	nC24	33.8800	126881		ug/L	Z
Aliph	nC25	35.2120	762830		ug/L	Z
Aliph	nC26	36.4960	2620188		ug/L	Z
Aliph	nC27	37.7300	5894103		ug/L	Z
Aliph	nC28	38.9260	7515401		ug/L	Z
Aliph	nC29	40.0740	8125546		ug/L	Z
Aliph	nC30	41.1930	6926021		ug/L	Z
Aliph	nC31	42.2750	6083120		ug/L	Z
Aliph	nC32	43.3560	4620555		ug/L	Z
Aliph	nC33	44.5840	3413064		ug/L	Z
Aliph	nC34	46.0130	2412143		ug/L	Z
Aliph	nC35	47.7140	1643829		ug/L	Z
Aliph	nC36	49.7870	1232552		ug/L	Z
Aliph	nC37	52.2630	927542		ug/L	Z
Aliph	nC38	55.2360	1052790		ug/L	Z
Aliph	nC39	58.9110	959564		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007632**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Possibly asphaltite - Should do GCMS

Location: Shore Upper

Local Date Time: 10/09/2015 3:17:53 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

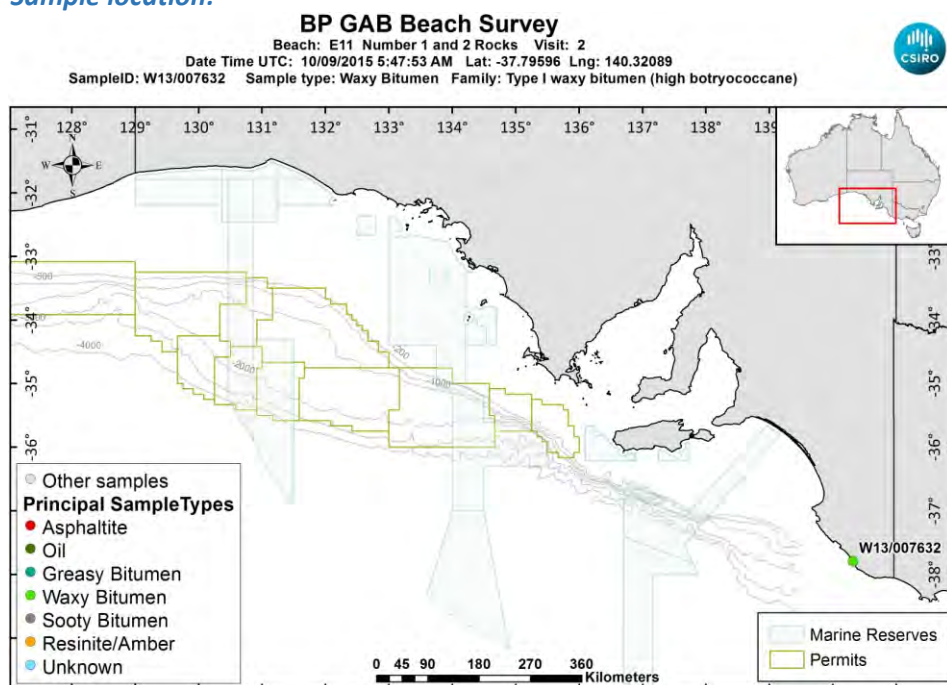
Size (cm): 5.3

Latitude (Y): -37.795960

Weight (gm): 10.3

Longitude (X): 140.320888

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007632_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007632_146A1628.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007632_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007632_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.49	percent	Y
Inorg	Hydrogen			7.29030536779324	percent	Y
Inorg	Nitrogen			0.484241645244216	percent	Y
Inorg	Sulphur			1.23432715353565	percent	Y

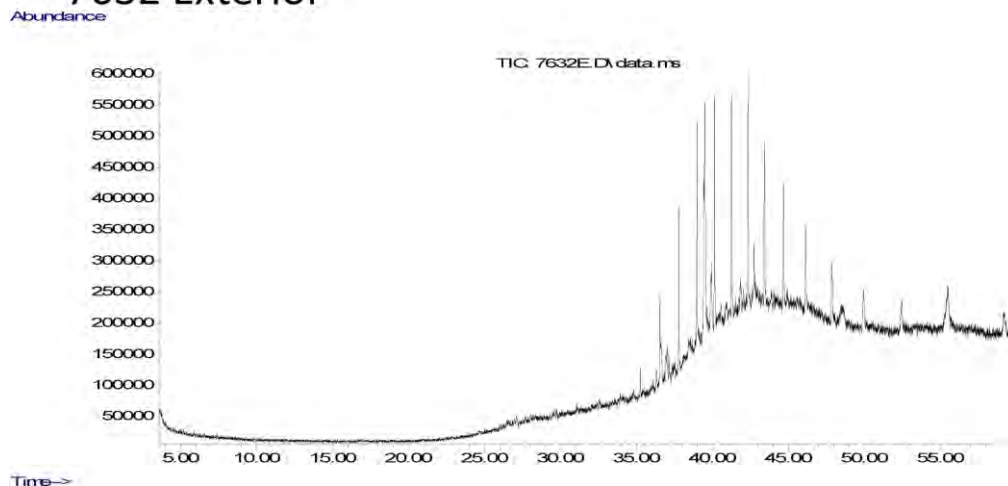
Results for: GCMS with Full Scan

Unique ID: W13/007632_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007632_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7632 Exterior



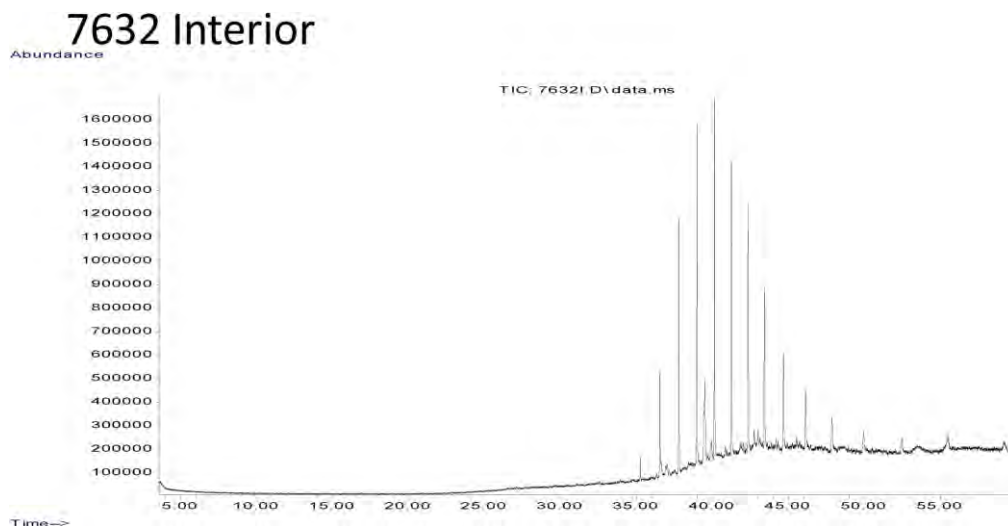
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	3517150		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	58516		ug/L	Z
Aliph	nC25	35.2120	194784		ug/L	Z
Aliph	nC26	36.4960	733545		ug/L	Z
Aliph	nC27	37.7300	1349979		ug/L	Z
Aliph	nC28	38.9260	1752915		ug/L	Z
Aliph	nC29	40.0740	1891938		ug/L	Z
Aliph	nC30	41.1930	1824023		ug/L	Z
Aliph	nC31	42.2750	1781112		ug/L	Z
Aliph	nC32	43.3560	1642752		ug/L	Z
Aliph	nC33	44.5840	1426268		ug/L	Z
Aliph	nC34	46.0130	1113723		ug/L	Z
Aliph	nC35	47.7140	766293		ug/L	Z
Aliph	nC36	49.7870	704604		ug/L	Z
Aliph	nC37	52.2630	580864		ug/L	Z
Aliph	nC38	55.2360	1248112		ug/L	Z
Aliph	nC39	58.9110	606828		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007632 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007632_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	3194224		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	72830		ug/L	Z
Aliph	nC25	35.2120	457560		ug/L	Z
Aliph	nC26	36.4960	2166979		ug/L	Z
Aliph	nC27	37.7300	5303229		ug/L	Z
Aliph	nC28	38.9260	6962841		ug/L	Z
Aliph	nC29	40.0740	8016779		ug/L	Z
Aliph	nC30	41.1930	6655278		ug/L	Z
Aliph	nC31	42.2750	5581025		ug/L	Z
Aliph	nC32	43.3560	4054393		ug/L	Z
Aliph	nC33	44.5840	2878055		ug/L	Z
Aliph	nC34	46.0130	2036263		ug/L	Z
Aliph	nC35	47.7140	1289809		ug/L	Z
Aliph	nC36	49.7870	983610		ug/L	Z
Aliph	nC37	52.2630	714990		ug/L	Z
Aliph	nC38	55.2360	983061		ug/L	Z
Aliph	nC39	58.9110	565094		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007633**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Upper Intertidal

Local Date Time: 10/09/2015 3:22:14 PM

Type: Waxy Bitumen

Family: Type II waxy bitumen (low botryococcane)

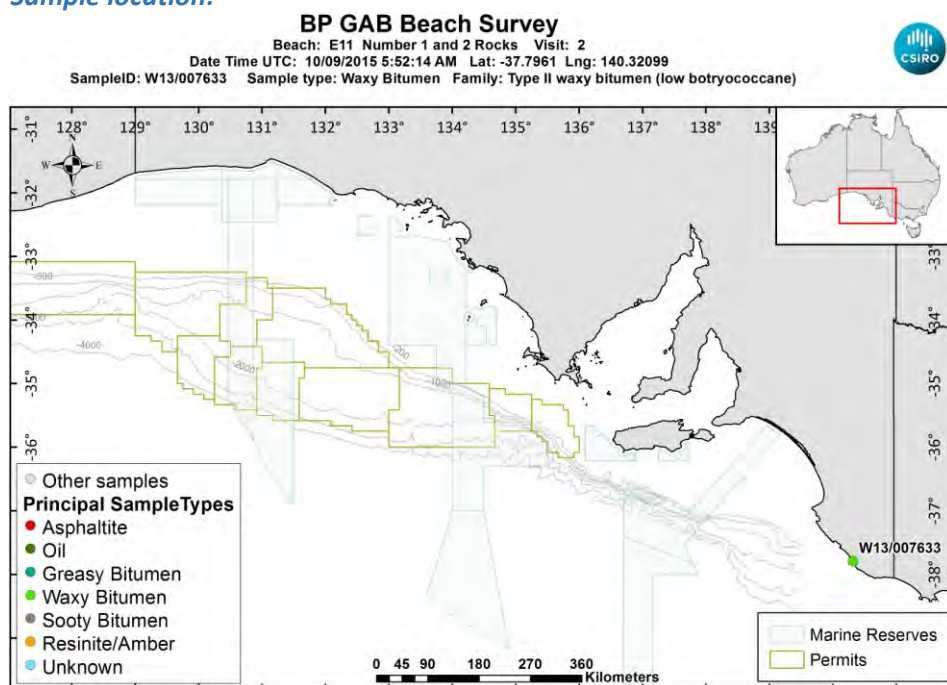
Size (cm): 3.8

Latitude (Y): -37.796095

Weight (gm): 4

Longitude (X): 140.320988

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007633_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007633_146A1631.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007633_photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007633_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			83.76	percent	Y
Inorg	Hydrogen			7.95906998011928	percent	Y
Inorg	Nitrogen			0.582159383033419	percent	Y
Inorg	Sulphur			3.21546556950797	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007633 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 18/11/2016

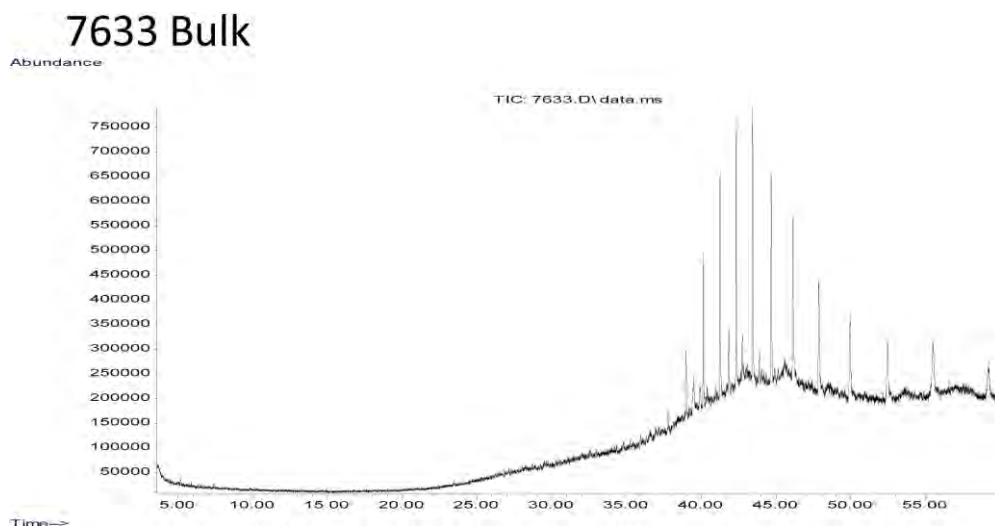
Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007633_bulk_WholeOil.jpg](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	546337		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120			ug/L	U
Aliph	nC26	36.4960	85967		ug/L	Z
Aliph	nC27	37.7300	168179		ug/L	Z
Aliph	nC28	38.9260	671028		ug/L	Z
Aliph	nC29	40.0740	1556602		ug/L	Z
Aliph	nC30	41.1930	2356537		ug/L	Z
Aliph	nC31	42.2750	2906376		ug/L	Z
Aliph	nC32	43.3560	3285000		ug/L	Z
Aliph	nC33	44.5840	2876564		ug/L	Z
Aliph	nC34	46.0130	2706674		ug/L	Z
Aliph	nC35	47.7140	2039029		ug/L	Z
Aliph	nC36	49.7870	1817880		ug/L	Z
Aliph	nC37	52.2630	1422251		ug/L	Z
Aliph	nC38	55.2360	1749313		ug/L	Z
Aliph	nC39	58.9110	1049839		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007634**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 3:26:42 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

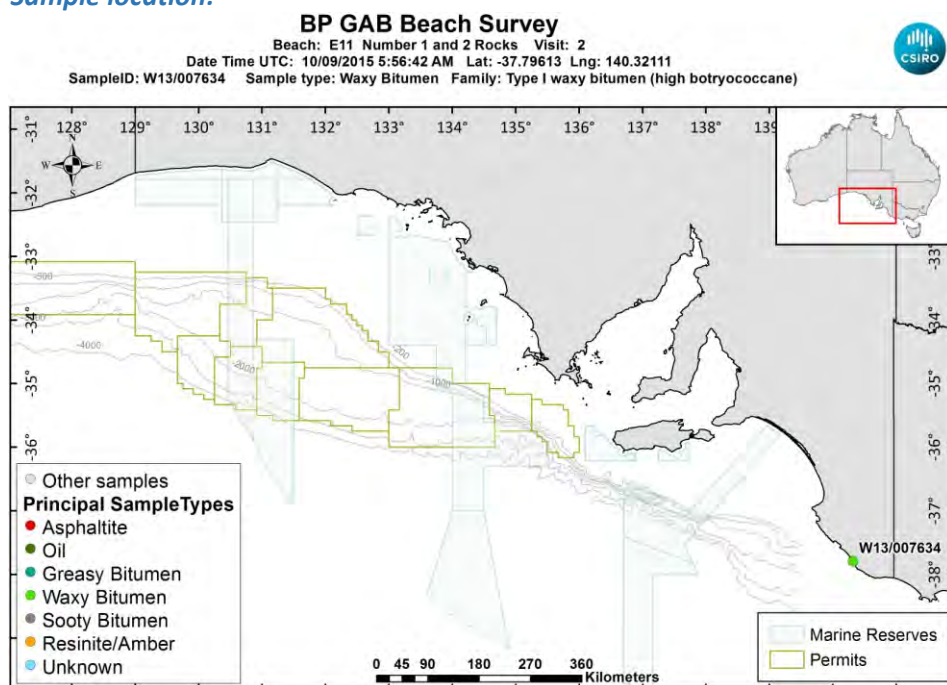
Size (cm): 6.2

Latitude (Y): -37.796127

Weight (gm): 57.4

Longitude (X): 140.321113

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007634_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007634_146A1634.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007634_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007634_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.18	percent	Y
Inorg	Hydrogen			7.93670616302187	percent	Y
Inorg	Nitrogen			0.513037703513282	percent	Y
Inorg	Sulphur			1.45526507974702	percent	Y

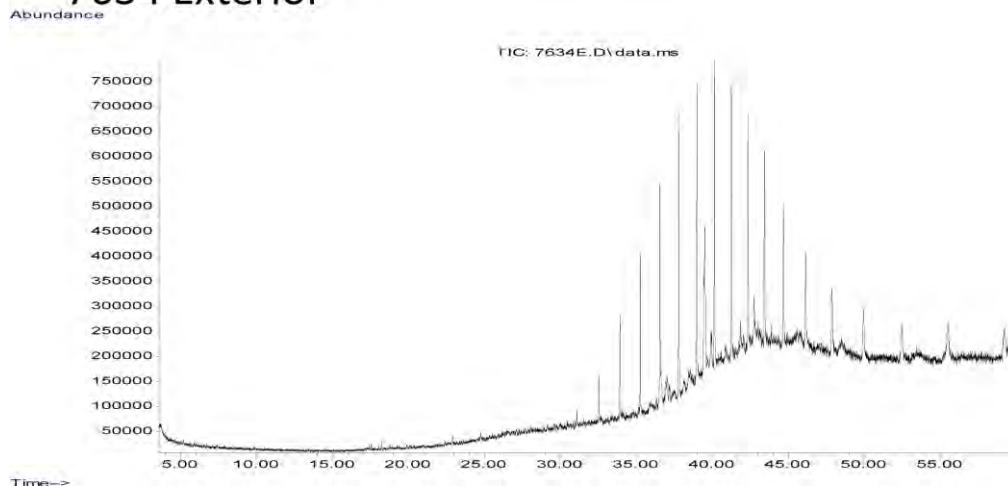
Results for: GCMS with Full Scan

Unique ID: W13/007634_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007634_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7634 Exterior



Data Sheet:

(default units ppb)

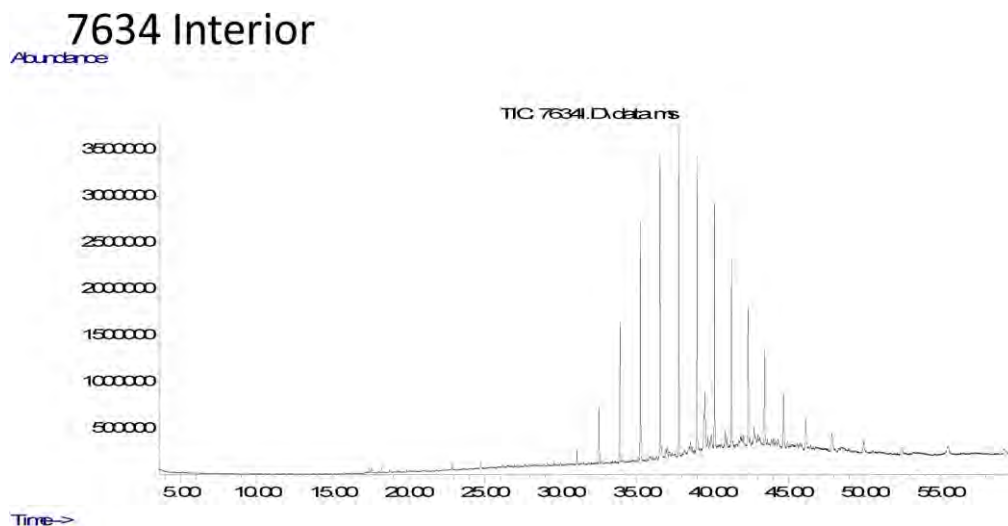
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			1.80657605020275	ug/L	Y
Aliph	Botryococcane	39.4290	2697959		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540	150703		ug/L	Z
Aliph	nC23	32.4960	437582		ug/L	Z
Aliph	nC24	33.8800	966780		ug/L	Z
Aliph	nC25	35.2120	1515200		ug/L	Z
Aliph	nC26	36.4960	1988253		ug/L	Z
Aliph	nC27	37.7300	2913113		ug/L	Z
Aliph	nC28	38.9260	3038716		ug/L	Z
Aliph	nC29	40.0740	3136225		ug/L	Z
Aliph	nC30	41.1930	2776988		ug/L	Z
Aliph	nC31	42.2750	2420926		ug/L	Z
Aliph	nC32	43.3560	2084128		ug/L	Z
Aliph	nC33	44.5840	1890628		ug/L	Z
Aliph	nC34	46.0130	1444594		ug/L	Z
Aliph	nC35	47.7140	1239785		ug/L	Z
Aliph	nC36	49.7870	1034553		ug/L	Z
Aliph	nC37	52.2630	880890		ug/L	Z
Aliph	nC38	55.2360	1299373		ug/L	Z
Aliph	nC39	58.9110	908759		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	84375		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	152429	ug/L	Z
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Results for: GCMS with Full Scan**Unique ID:** W13/007634 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007634_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			1.43996285178571	ug/L	Y
Aliph	Botryococcane	39.4290	5301083		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510	169778		ug/L	Z
Aliph	nC22	31.0540	812848		ug/L	Z
Aliph	nC23	32.4960	3053272		ug/L	Z
Aliph	nC24	33.8800	7639695		ug/L	Z
Aliph	nC25	35.2120	13004492		ug/L	Z
Aliph	nC26	36.4960	15892938		ug/L	Z
Aliph	nC27	37.7300	17466648		ug/L	Z
Aliph	nC28	38.9260	14799446		ug/L	Z
Aliph	nC29	40.0740	13090321		ug/L	Z
Aliph	nC30	41.1930	9836775		ug/L	Z
Aliph	nC31	42.2750	7923141		ug/L	Z
Aliph	nC32	43.3560	5613895		ug/L	Z
Aliph	nC33	44.5840	3948667		ug/L	Z
Aliph	nC34	46.0130	2706975		ug/L	Z
Aliph	nC35	47.7140	1843268		ug/L	Z
Aliph	nC36	49.7870	1406667		ug/L	Z
Aliph	nC37	52.2630	957918		ug/L	Z
Aliph	nC38	55.2360	1330222		ug/L	Z
Aliph	nC39	58.9110	891016		ug/L	Z
Aliph	Norpristane	21.8010	133286		ug/L	Z
Aliph	Phytane	24.7190	426346		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	613923	ug/L	Z
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Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007635**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 3:33:40 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

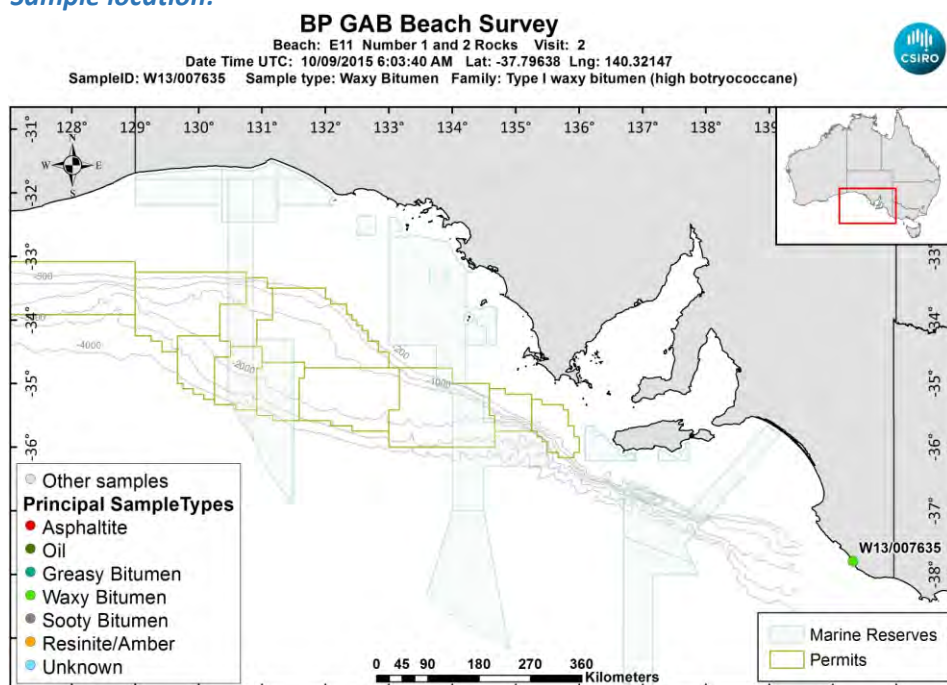
Size (cm): 4.5

Latitude (Y): -37.796377

Weight (gm): 9.4

Longitude (X): 140.321467

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007635_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007635_146A1637.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB_BCH1\Samples\W13_007635_Photo02.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007635_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

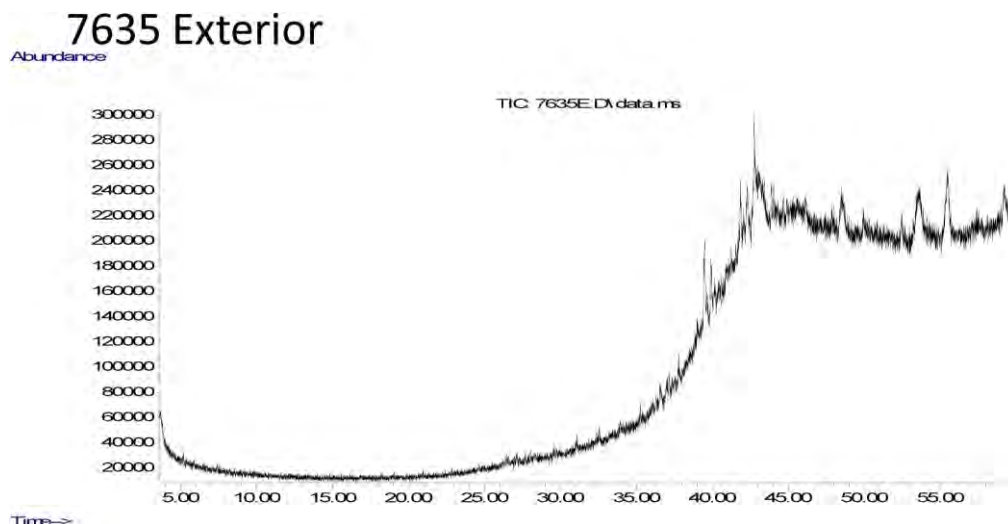
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.45	percent	Y
Inorg	Hydrogen			11.9631332007952	percent	Y
Inorg	Nitrogen			0.468688946015424	percent	Y
Inorg	Sulphur			3.02777650810443	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007635_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13_007635_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



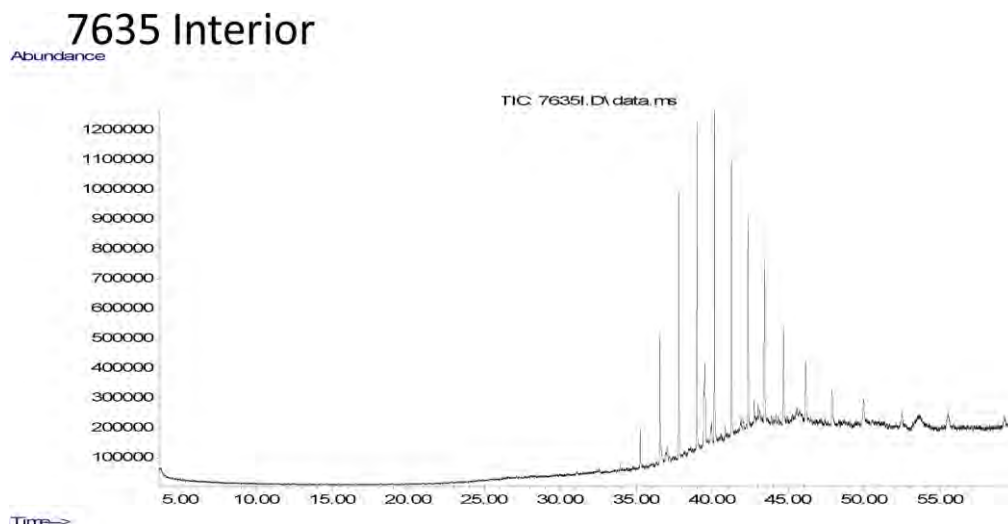
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	566080		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	49272		ug/L	Z
Aliph	nC26	36.4960	57067		ug/L	Z
Aliph	nC27	37.7300	65286		ug/L	Z
Aliph	nC28	38.9260	56330		ug/L	Z
Aliph	nC29	40.0740			ug/L	U
Aliph	nC30	41.1930			ug/L	U
Aliph	nC31	42.2750			ug/L	U
Aliph	nC32	43.3560			ug/L	U
Aliph	nC33	44.5840			ug/L	U
Aliph	nC34	46.0130			ug/L	U
Aliph	nC35	47.7140			ug/L	U
Aliph	nC36	49.7870			ug/L	U
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007635 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007635_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2718240		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	89231		ug/L	Z
Aliph	nC25	35.2120	573336		ug/L	Z
Aliph	nC26	36.4960	2065318		ug/L	Z
Aliph	nC27	37.7300	4490573		ug/L	Z
Aliph	nC28	38.9260	5419103		ug/L	Z
Aliph	nC29	40.0740	5647301		ug/L	Z
Aliph	nC30	41.1930	4751957		ug/L	Z
Aliph	nC31	42.2750	4003651		ug/L	Z
Aliph	nC32	43.3560	3046403		ug/L	Z
Aliph	nC33	44.5840	2279153		ug/L	Z
Aliph	nC34	46.0130	1549312		ug/L	Z
Aliph	nC35	47.7140	1146357		ug/L	Z
Aliph	nC36	49.7870	934832		ug/L	Z
Aliph	nC37	52.2630	680145		ug/L	Z
Aliph	nC38	55.2360	762084		ug/L	Z
Aliph	nC39	58.9110	702082		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007636**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 3:35:03 PM

Type: Unknown

Family: Not bitumen (false sample)

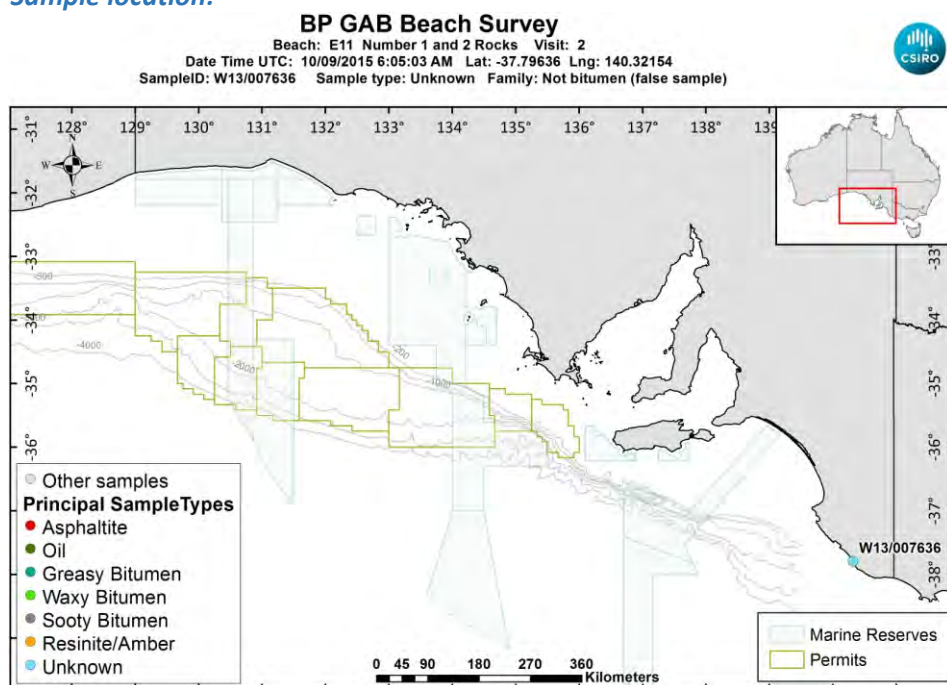
Size (cm): 7

Latitude (Y): -37.796363

Weight (gm): 22.8

Longitude (X): 140.321545

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007636_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007636_146A1639.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007636_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:**Sample Analyses Completed:**

No results to date

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007637**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 3:42:36 PM

Type: Waxy Bitumen

Family: Type II waxy bitumen (low botryococcane)

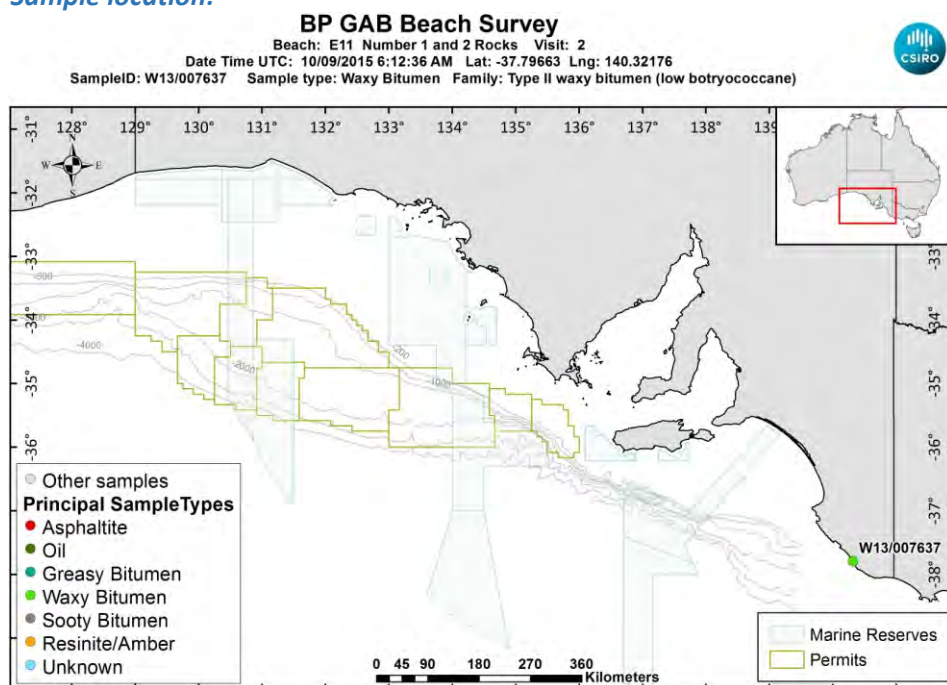
Size (cm): 4.8

Latitude (Y): -37.796633

Weight (gm): 10.6

Longitude (X): 140.321758

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007637_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007637_146A1641.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13_007637_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007637_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

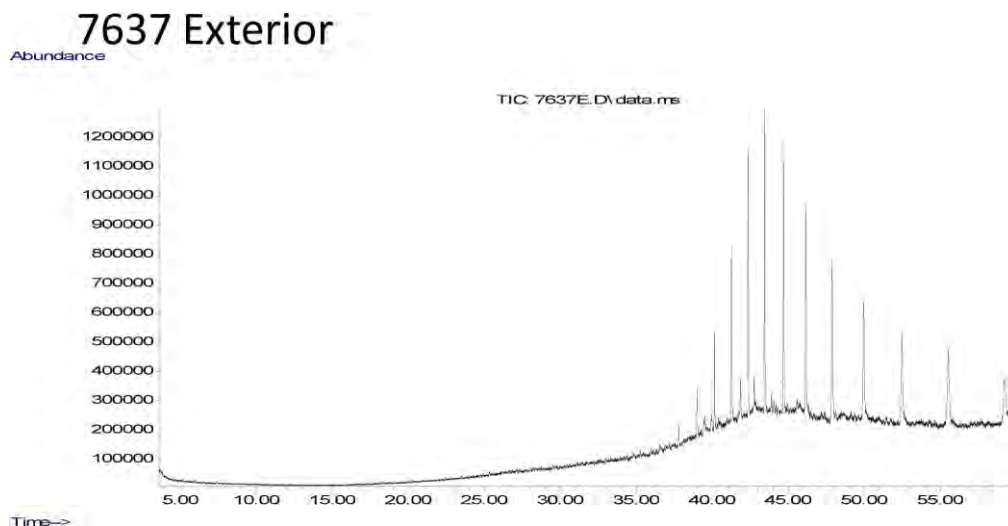
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.68	percent	Y
Inorg	Hydrogen			12.3840550695825	percent	Y
Inorg	Nitrogen			0.16	percent	Y
Inorg	Sulphur			4.33493643059384	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007637_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007637_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



Data Sheet:

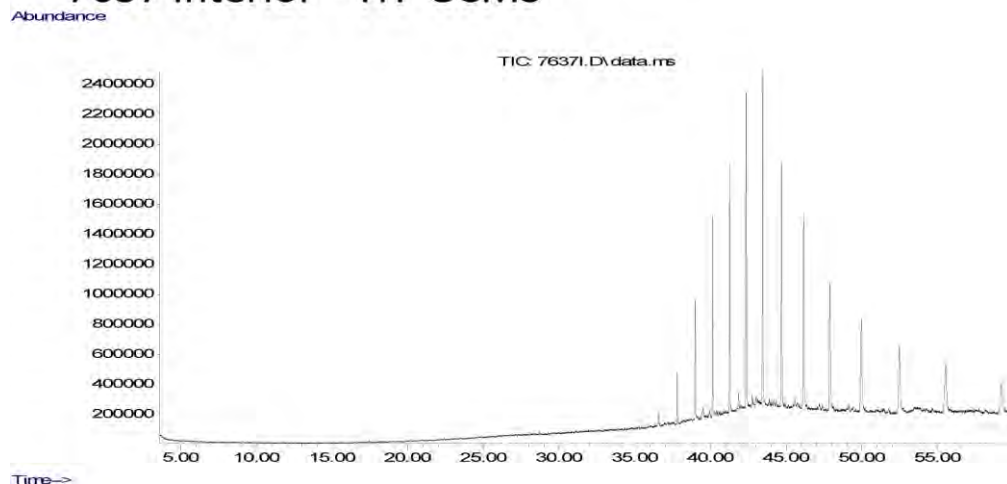
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	440273		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	39483		ug/L	Z
Aliph	nC26	36.4960	108766		ug/L	Z
Aliph	nC27	37.7300	340427		ug/L	Z
Aliph	nC28	38.9260	822664		ug/L	Z
Aliph	nC29	40.0740	1680165		ug/L	Z
Aliph	nC30	41.1930	3087322		ug/L	Z
Aliph	nC31	42.2750	4650195		ug/L	Z
Aliph	nC32	43.3560	5989576		ug/L	Z
Aliph	nC33	44.5840	6090907		ug/L	Z
Aliph	nC34	46.0130	5468825		ug/L	Z
Aliph	nC35	47.7140	4650447		ug/L	Z
Aliph	nC36	49.7870	4316539		ug/L	Z
Aliph	nC37	52.2630	3897800		ug/L	Z
Aliph	nC38	55.2360	3755953		ug/L	Z
Aliph	nC39	58.9110	2841356		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007637 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007637_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7637 Interior – HT-GCMS



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	635210		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	71663		ug/L	Z
Aliph	nC25	35.2120	105042		ug/L	Z
Aliph	nC26	36.4960	400280		ug/L	Z
Aliph	nC27	37.7300	1678449		ug/L	Z
Aliph	nC28	38.9260	3972919		ug/L	Z
Aliph	nC29	40.0740	6474021		ug/L	Z
Aliph	nC30	41.1930	8465903		ug/L	Z
Aliph	nC31	42.2750	10568574		ug/L	Z
Aliph	nC32	43.3560	11870580		ug/L	Z
Aliph	nC33	44.5840	10726848		ug/L	Z
Aliph	nC34	46.0130	9777221		ug/L	Z
Aliph	nC35	47.7140	8317266		ug/L	Z
Aliph	nC36	49.7870	6764763		ug/L	Z
Aliph	nC37	52.2630	5725965		ug/L	Z
Aliph	nC38	55.2360	4908253		ug/L	Z
Aliph	nC39	58.9110	3565537		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007638**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Mid Intertidal

Local Date Time: 10/09/2015 4:04:19 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

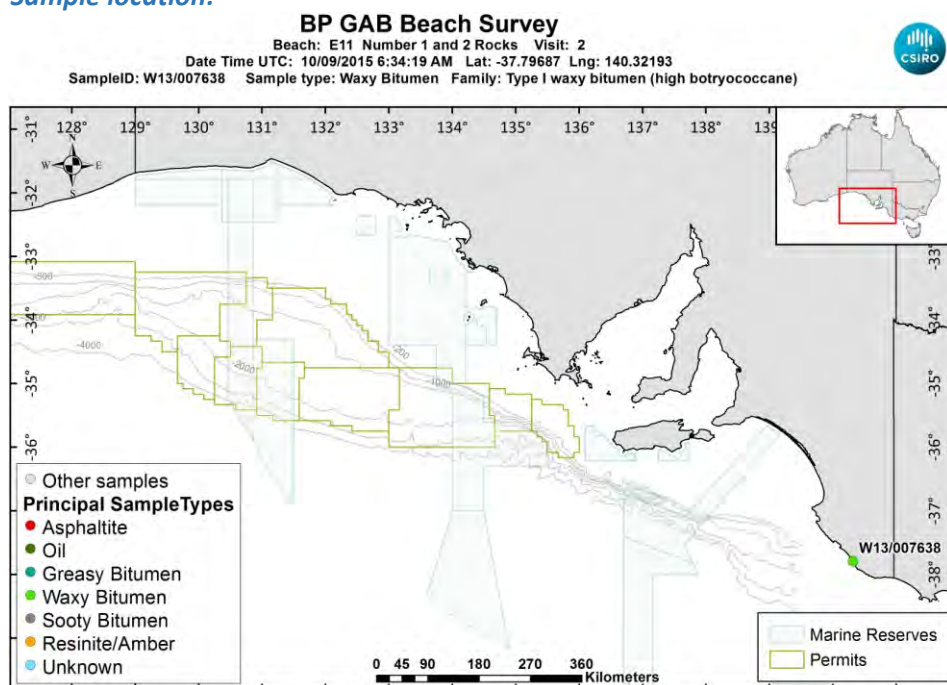
Size (cm): 1.6

Latitude (Y): -37.796870

Weight (gm): 1.6

Longitude (X): 140.321930

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007638_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007638_146A1683.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007638_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007638_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.5	percent	Y
Inorg	Hydrogen			11.1331984095427	percent	Y
Inorg	Nitrogen			0.24	percent	Y
Inorg	Sulphur			3.09269784190983	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007638 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 18/11/2016

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007638_bulk_WholeOil.jpg](#)

Preparation: Dissolved in solvent

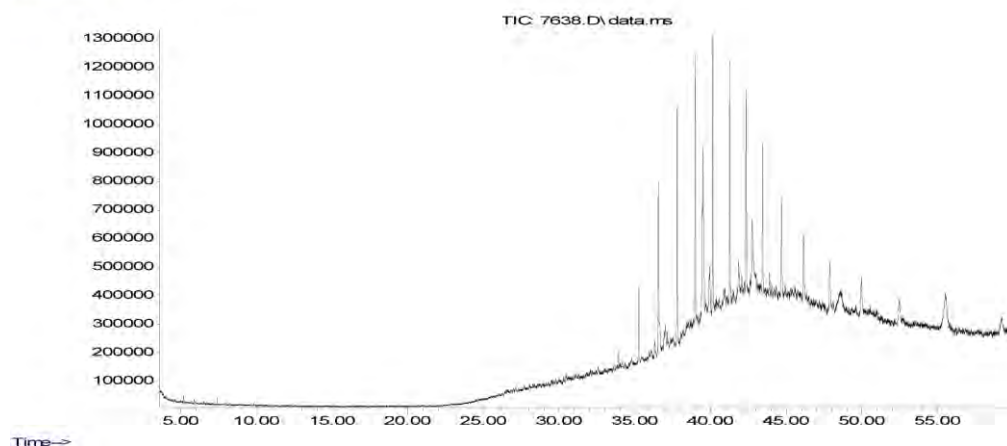
Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7638 Bulk

Abundance



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	5320309		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960	75588		ug/L	Z
Aliph	nC24	33.8800	316329		ug/L	Z
Aliph	nC25	35.2120	1257936		ug/L	Z
Aliph	nC26	36.4960	2802590		ug/L	Z
Aliph	nC27	37.7300	4220885		ug/L	Z
Aliph	nC28	38.9260	4666112		ug/L	Z
Aliph	nC29	40.0740	4836442		ug/L	Z
Aliph	nC30	41.1930	4180859		ug/L	Z
Aliph	nC31	42.2750	3750920		ug/L	Z
Aliph	nC32	43.3560	3023003		ug/L	Z
Aliph	nC33	44.5840	2427557		ug/L	Z
Aliph	nC34	46.0130	1834060		ug/L	Z
Aliph	nC35	47.7140	1602987		ug/L	Z
Aliph	nC36	49.7870	1296977		ug/L	Z
Aliph	nC37	52.2630	1066296		ug/L	Z
Aliph	nC38	55.2360	3175545		ug/L	Z
Aliph	nC39	58.9110	921104		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007639**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Upper Intertidal

Local Date Time: 10/09/2015 4:06:29 PM

Type: Waxy Bitumen

Family: Type II waxy bitumen (low botryococcane)

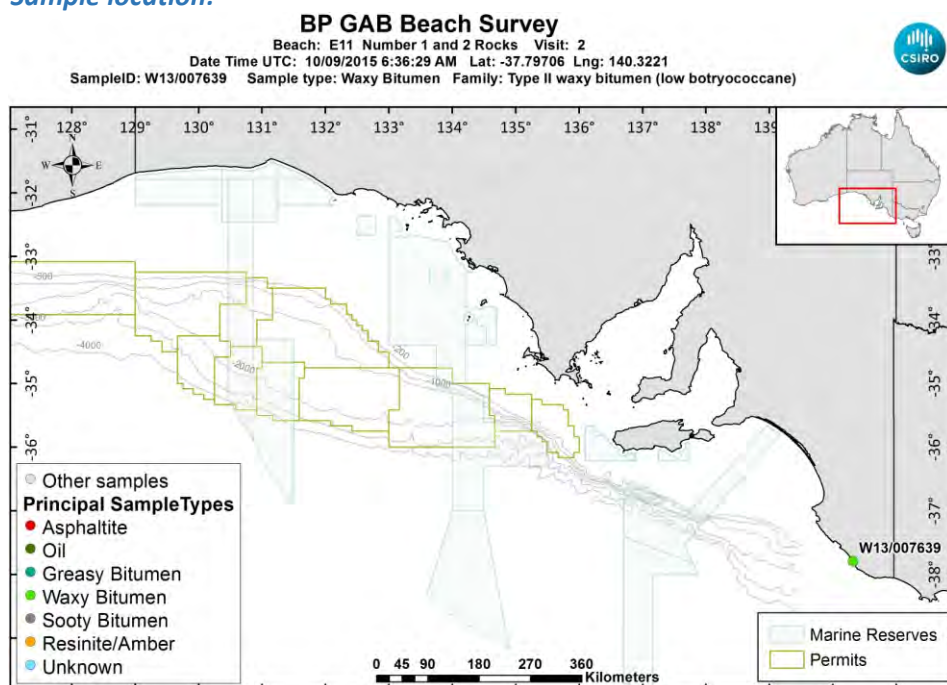
Size (cm): 2.8

Latitude (Y): -37.797063

Weight (gm): 2.7

Longitude (X): 140.322102

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007639_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007639_146A1685.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007639_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007639_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			84.47	percent	Y
Inorg	Hydrogen			11.0396377733598	percent	Y
Inorg	Nitrogen			0.29	percent	Y
Inorg	Sulphur			4.19235941643502	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007639 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 18/11/2016

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007639_bulk_WholeOil.jpg](#)

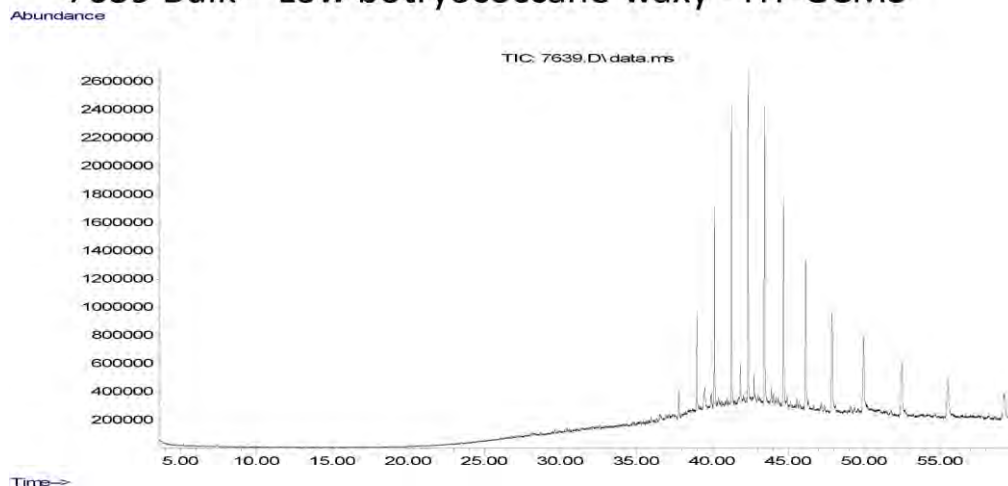
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7639 Bulk – Low botryococcane waxy - HT-GCMS



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	1216898		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120			ug/L	U
Aliph	nC26	36.4960	207104		ug/L	Z
Aliph	nC27	37.7300	994137		ug/L	Z
Aliph	nC28	38.9260	3454265		ug/L	Z
Aliph	nC29	40.0740	7056437		ug/L	Z
Aliph	nC30	41.1930	10226328		ug/L	Z
Aliph	nC31	42.2750	11918503		ug/L	Z
Aliph	nC32	43.3560	11421083		ug/L	Z
Aliph	nC33	44.5840	9997660		ug/L	Z
Aliph	nC34	46.0130	8543840		ug/L	Z
Aliph	nC35	47.7140	6916752		ug/L	Z
Aliph	nC36	49.7870	858670		ug/L	Z
Aliph	nC37	52.2630	4529020		ug/L	Z
Aliph	nC38	55.2360	4025336		ug/L	Z
Aliph	nC39	58.9110	3511732		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007640**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Found to be charcoal - will NOT be analysed

Location: Upper Intertidal

Local Date Time: 10/09/2015 4:09:18 PM

Type: Charcoal

Family: Not bitumen (false sample)

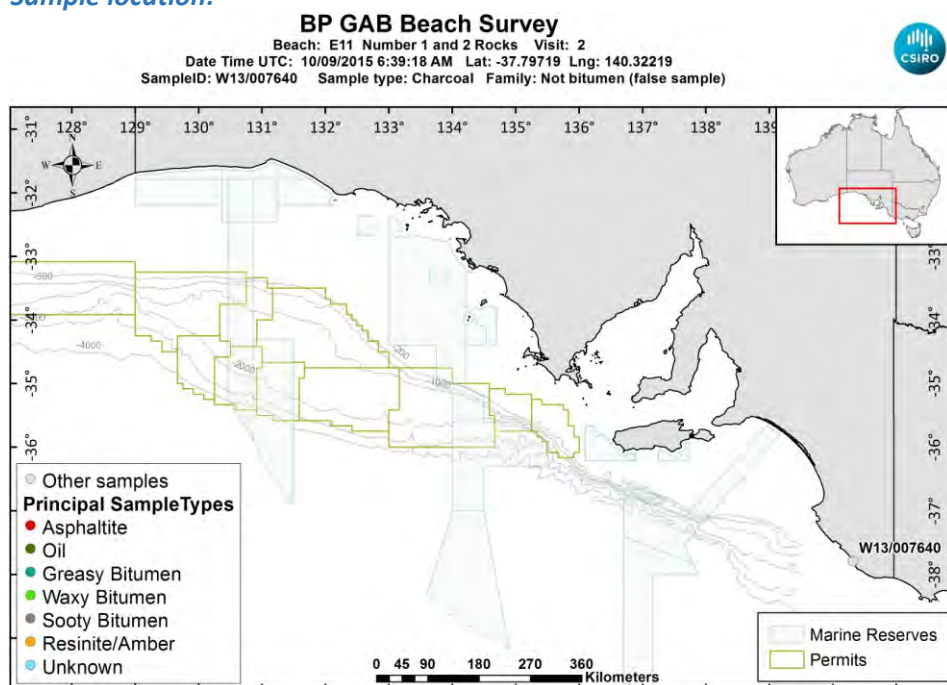
Size (cm): 2.8

Latitude (Y): -37.797193

Weight (gm):

Longitude (X): 140.322193

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007640_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007640_146A1688.JPG](#)

Sample ID : W13/007640**Beach E11: Number 1 and 2 Rocks Visit: 2****Analyses Requested****Analyses Completed:**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Sample Analyses Completed:**No results to date****Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007641**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Mid Intertidal

Local Date Time: 10/09/2015 4:12:52 PM

Type: Waxy Bitumen

Family: Type II waxy bitumen (low botryococcane)

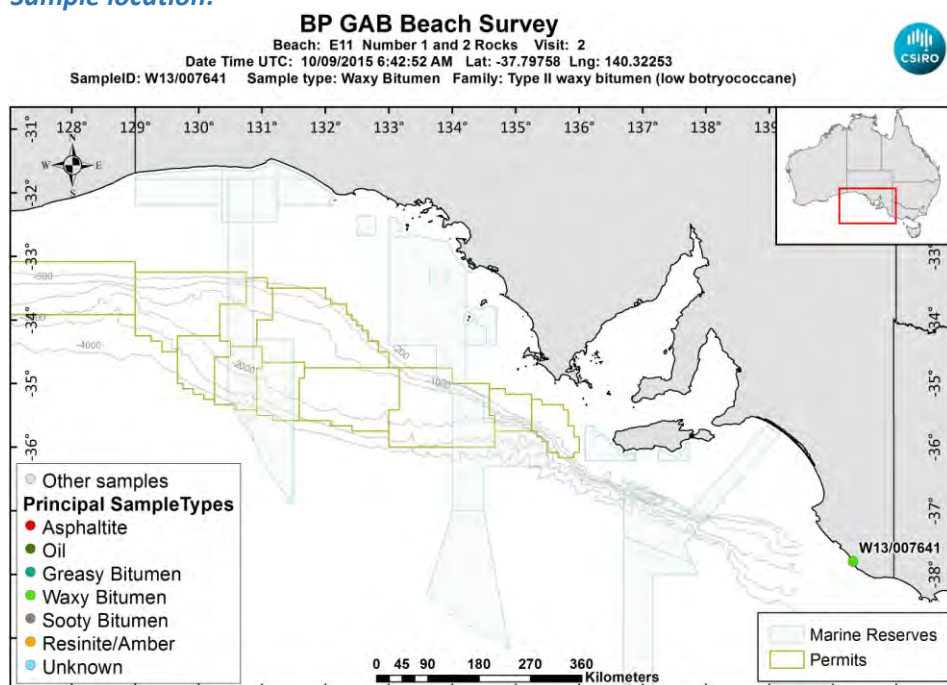
Size (cm): 2.8

Latitude (Y): -37.797582

Weight (gm): 2.1

Longitude (X): 140.322525

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007641_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007641_146A1692.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007641_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007641_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.29	percent	Y
Inorg	Hydrogen			11.8334413518887	percent	Y
Inorg	Nitrogen			0.23	percent	Y
Inorg	Sulphur			4.45532481928112	percent	Y

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007642**

Beach E11: Number 1 and 2 Rocks Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 10/09/2015 4:15:12 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

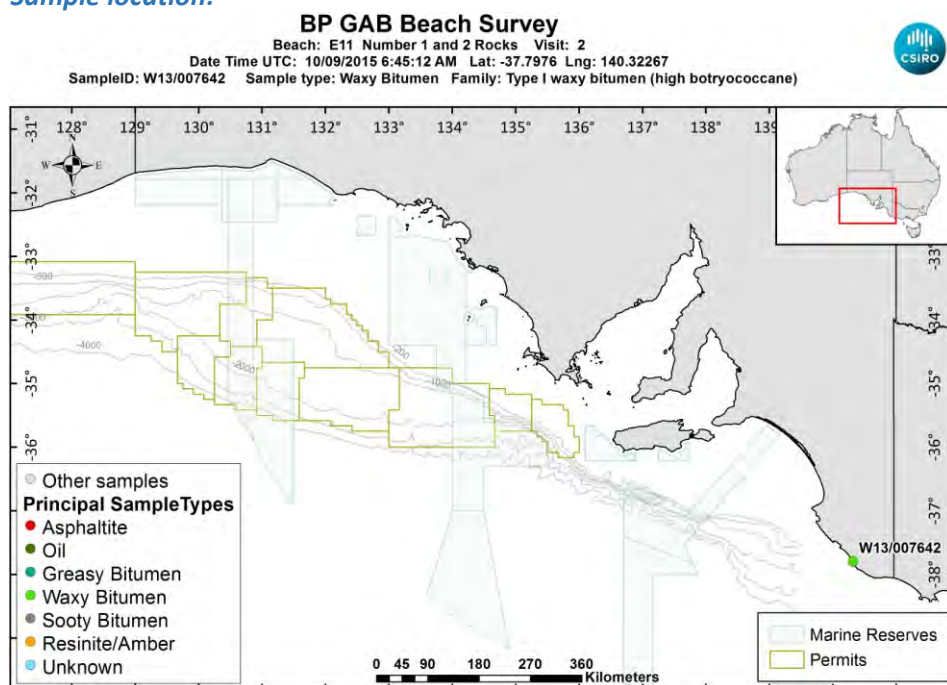
Size (cm): 3.5

Latitude (Y): -37.797605

Weight (gm): 8.1

Longitude (X): 140.322672

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007642_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007642_146A1693.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007642_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007642_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.07	percent	Y
Inorg	Hydrogen			14.0971551312127	percent	Y
Inorg	Nitrogen			0.262838389031705	percent	Y
Inorg	Sulphur			2.4739895912959	percent	Y

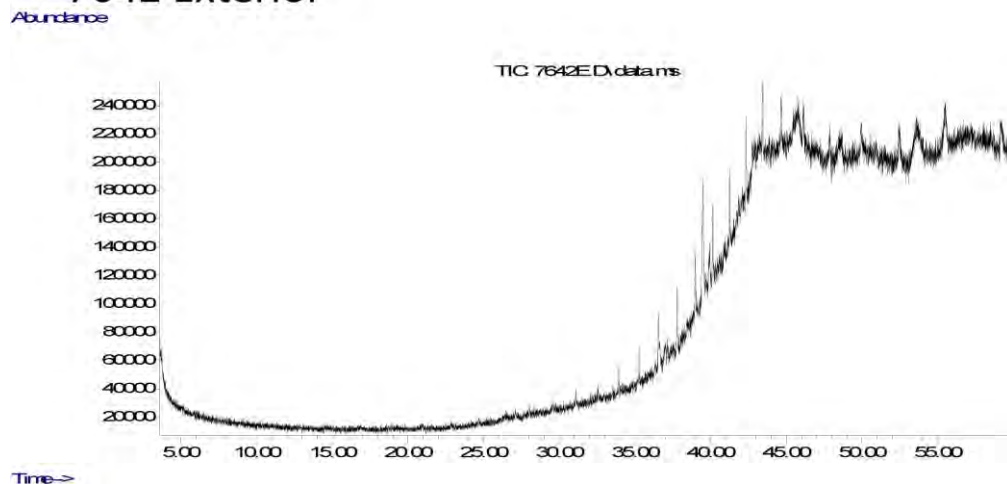
Results for: GCMS with Full Scan

Unique ID: W13/007642_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007642_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7642 Exterior



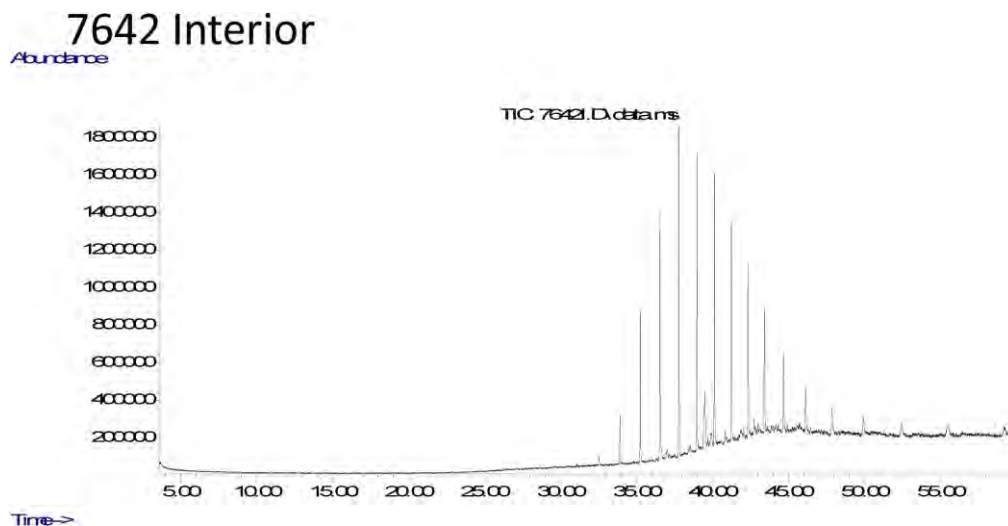
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	742389		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	91350		ug/L	Z
Aliph	nC25	35.2120	123811		ug/L	Z
Aliph	nC26	36.4960	182135		ug/L	Z
Aliph	nC27	37.7300	186855		ug/L	Z
Aliph	nC28	38.9260	224961		ug/L	Z
Aliph	nC29	40.0740	259887		ug/L	Z
Aliph	nC30	41.1930	249509		ug/L	Z
Aliph	nC31	42.2750	271030		ug/L	Z
Aliph	nC32	43.3560	268862		ug/L	Z
Aliph	nC33	44.5840	227630		ug/L	Z
Aliph	nC34	46.0130	318367		ug/L	Z
Aliph	nC35	47.7140	204214		ug/L	Z
Aliph	nC36	49.7870	295626		ug/L	Z
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007642 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007642_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2784195		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960	249296		ug/L	Z
Aliph	nC24	33.8800	1389173		ug/L	Z
Aliph	nC25	35.2120	4108471		ug/L	Z
Aliph	nC26	36.4960	6514704		ug/L	Z
Aliph	nC27	37.7300	8505262		ug/L	Z
Aliph	nC28	38.9260	7827267		ug/L	Z
Aliph	nC29	40.0740	7524439		ug/L	Z
Aliph	nC30	41.1930	5986433		ug/L	Z
Aliph	nC31	42.2750	4897289		ug/L	Z
Aliph	nC32	43.3560	3714891		ug/L	Z
Aliph	nC33	44.5840	2820199		ug/L	Z
Aliph	nC34	46.0130	1828003		ug/L	Z
Aliph	nC35	47.7140	1410933		ug/L	Z
Aliph	nC36	49.7870	1022270		ug/L	Z
Aliph	nC37	52.2630	776216		ug/L	Z
Aliph	nC38	55.2360	947505		ug/L	Z
Aliph	nC39	58.9110	697638		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001055

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 12:52:36 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

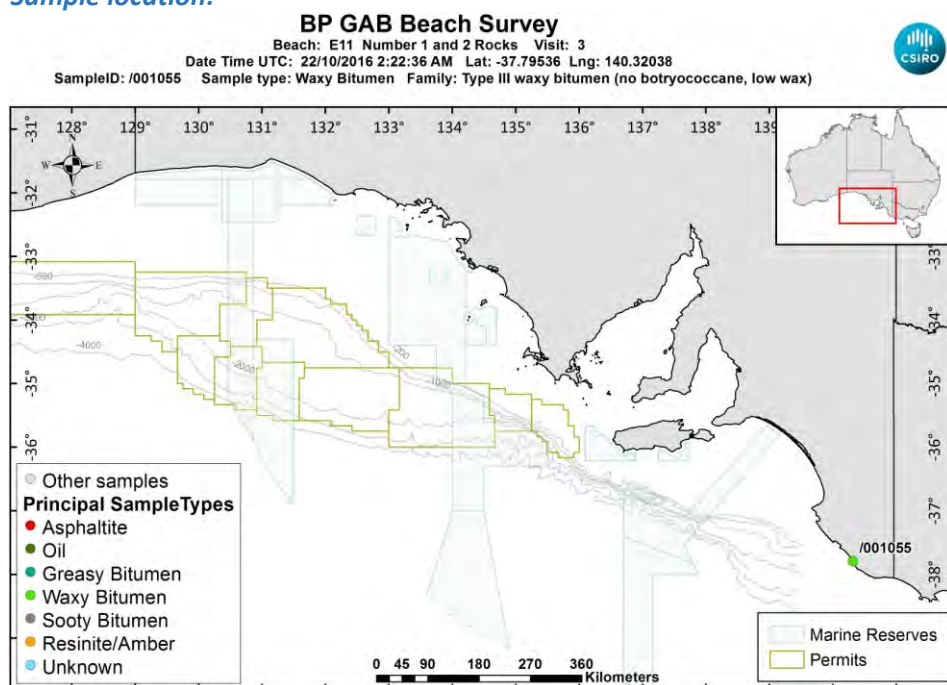
Size (cm): 1.8

Latitude (Y): -37.795363

Weight (gm): 0.50907

Longitude (X): 140.320375

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001055 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001055_146A7146.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001055_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: /001055 DISS GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Bulk Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			25.8774561438597	ratio	Y
BiomRatio	% C27 abb 20(R+S)			31.6580015812783	ratio	Y
BiomRatio	% C28 aaa 20R			19.7811526375907	ratio	Y
BiomRatio	% C28 abb 20(R+S)			25.0800929108482	ratio	Y
BiomRatio	% C29 aaa 20R			54.3413912185496	ratio	Y
BiomRatio	% C29 abb 20(R+S)			43.2619055078735	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.136030303731145	ratio	Y
BiomRatio	25-Nor/C30H			5.99826527514664E-02	ratio	Y
BiomRatio	C19t/C23t			0.074620502121191	ratio	Y
BiomRatio	C22t/C21t			9.45182624533202E-02	ratio	Y
BiomRatio	C22t/C24t			5.43577103162919E-02	ratio	Y
BiomRatio	C23t/C30H			9.17185079810952E-02	ratio	Y
BiomRatio	C24t/C23t			0.929729075003255	ratio	Y
BiomRatio	C24Tet/C23t			0.424760855017124	ratio	Y
BiomRatio	C24Tet/C26t			0.4097201208078	ratio	Y
BiomRatio	C24Tet/C30H			3.89584318709449E-02	ratio	Y
BiomRatio	C26t/C25t			1.77441490673959	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.627199316238336	ratio	Y
BiomRatio	C27 Dia/Ster			0.630688857971496	ratio	Y
BiomRatio	C28BNH/C30H			3.69558050653632E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.36653936910084	ratio	Y
BiomRatio	C29H/C30H			0.708130071591423	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.248121551715444	ratio	Y
BiomRatio	C30DiaH/C30H			9.69295147908485E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			3.92613554656203E-02	ratio	Y
BiomRatio	C35HS/C34HS			0.422760843166193	ratio	Y
BiomRatio	Gam/C30H			7.93714663590858E-02	ratio	Y
BiomRatio	Gam/C31HR			0.460152964286864	ratio	Y
BiomRatio	Ole/C30H			7.42908833071199E-02	ratio	Y
BiomRatio	Sterane/hopane			4.93257157295922E-02	ratio	Y
BiomRatio	Steranes/Terpanes			4.20453011612777E-02	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.1731564376335	ratio	Y

Results for: Elemental Analyser

Unique ID: /001055_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

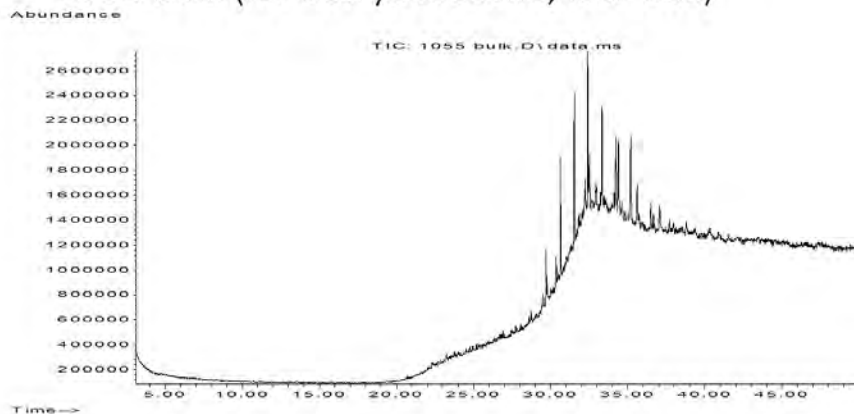
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			84.93	percent	Y
Inorg	Hydrogen			8.94654572564613	percent	Y
Inorg	Nitrogen			0.16	percent	Y
Inorg	Sulphur			2.01676079136881	percent	Y

Results for: GCMS with Full Scan**Unique ID:** /001055_DISS_GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001055_bulk_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan

1055 bulk (no botryococcane, low wax)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	423034			Z
Aliph	nC26	29.6680	1757406			Z
Aliph	nC27	30.6080	4418952			Z
Aliph	nC28	31.5080	5658883			Z
Aliph	nC29	32.3700	5943444			Z
Aliph	nC30	33.2910	4150535			Z
Aliph	nC31	34.3470	3536156			Z
Aliph	nC32	35.5720	1944408			Z
Aliph	nC33	37.0130	1481200			Z
Aliph	nC34	38.7280	690443			Z
Aliph	nC35	40.8080	418728			Z
Aliph	nC36	43.3510	467984			Z
Aliph	nC37	46.4710	203670			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001056

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 12:55:27 PM

Type: Waxy Bitumen

Family: 1&2 Rocks Soft Bitumen (Unknown)

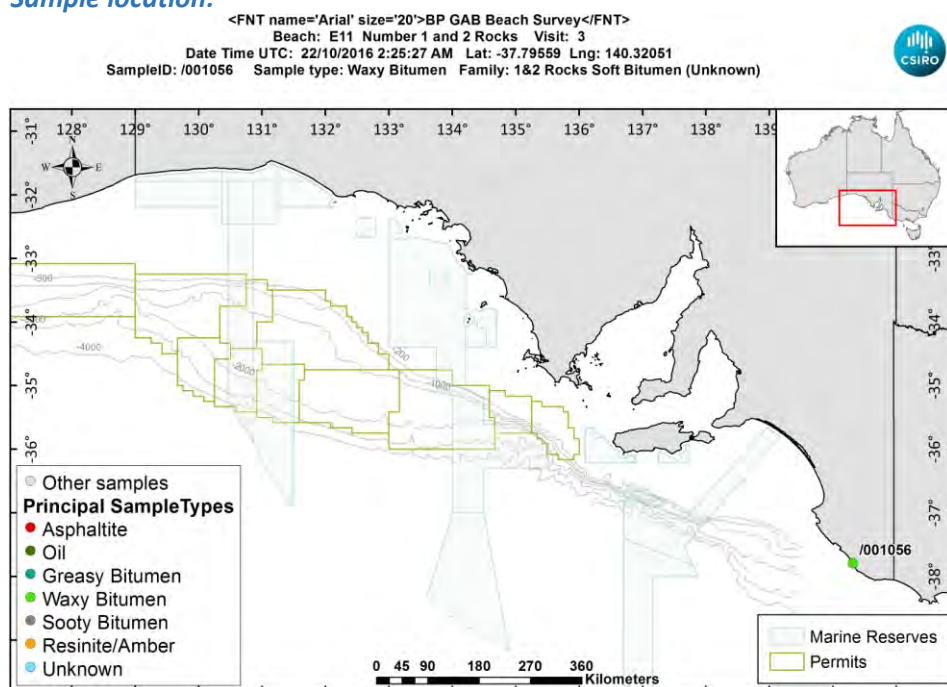
Size (cm): 4.7

Latitude (Y): -37.795590

Weight (gm): 8.78334

Longitude (X): 140.320513

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001056 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001056_146A7148.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001056_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: /001056 DISS_GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Bulk Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			35.0300378738409	ratio	Y
BiomRatio	% C27 abb 20(R+S)			36.0659273819679	ratio	Y
BiomRatio	% C28 aaa 20R			28.7264965108768	ratio	Y
BiomRatio	% C28 abb 20(R+S)			25.7869821607388	ratio	Y
BiomRatio	% C29 aaa 20R			36.2434656152823	ratio	Y
BiomRatio	% C29 abb 20(R+S)			38.1470904572933	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.204529585011692	ratio	Y
BiomRatio	25-Nor/C30H			4.20582251590623E-02	ratio	Y
BiomRatio	C19t/C23t			0.170852164041796	ratio	Y
BiomRatio	C22t/C21t			0.134997942708276	ratio	Y
BiomRatio	C22t/C24t			9.98831110054733E-02	ratio	Y
BiomRatio	C23t/C30H			0.308942681249202	ratio	Y
BiomRatio	C24t/C23t			0.486942500707514	ratio	Y
BiomRatio	C24Tet/C23t			0.299718024921936	ratio	Y
BiomRatio	C24Tet/C26t			1.13762588650882	ratio	Y
BiomRatio	C24Tet/C30H			9.25956902380981E-02	ratio	Y
BiomRatio	C26t/C25t			0.568751304895454	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.342865488327028	ratio	Y
BiomRatio	C27 Dia/Ster			0.280575726209115	ratio	Y
BiomRatio	C28BNH/C30H			5.03917442150654E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.05770441040609	ratio	Y
BiomRatio	C29H/C30H			0.824420073820475	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			8.55081141346988E-02	ratio	Y
BiomRatio	C30DiaH/C30H			3.60956702780134E-02	ratio	Y
BiomRatio	C30Ts/C30H			0.062293587620731	ratio	Y
BiomRatio	C35 Homohopane Index			0.110195135599537	ratio	Y
BiomRatio	C35HS/C34HS			1.02285432935912	ratio	Y
BiomRatio	Gam/C30H			0.109207868730727	ratio	Y
BiomRatio	Gam/C31HR			0.33909528861107	ratio	Y
BiomRatio	Ole/C30H			6.39334983856822E-03	ratio	Y
BiomRatio	Sterane/hopane			0.298991670572465	ratio	Y
BiomRatio	Steranes/Terpanes			0.235980377572967	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.267019205781273	ratio	Y

Results for: Elemental Analyser

Unique ID: /001056_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

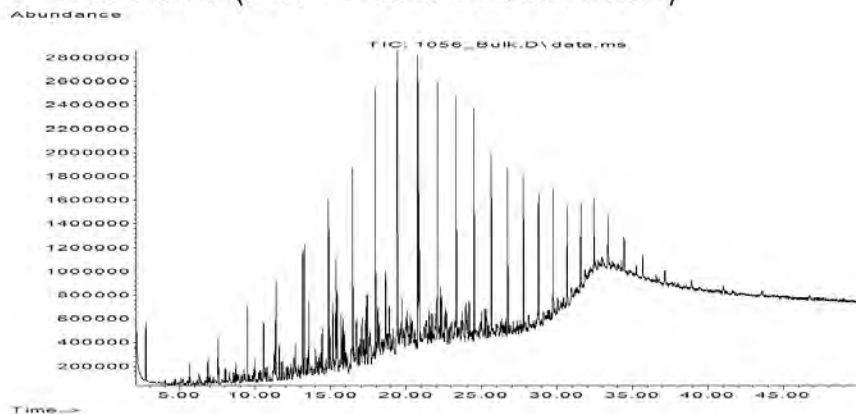
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			54.67	percent	Y
Inorg	Hydrogen			6.60338827037773	percent	Y
Inorg	Nitrogen			0.43	percent	Y
Inorg	Sulphur			3.02517056480155	percent	Y

Results for: GCMS with Full Scan**Unique ID:** /001056_DISS_GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001056_bulk_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Bulk

Results for: GCMS with Full Scan

1056 bulk (1 & 2 Rocks soft bitumen)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	1931428			Z
Aliph	nC11	9.4450	3061790			Z
Aliph	nC12	11.3220	3984060			Z
Aliph	nC13	13.1110	4588085			Z
Aliph	nC14	14.8030	5925045			Z
Aliph	nC15	16.4030	6291435			Z
Aliph	nC16	17.9160	7581194			Z
Aliph	nC17	19.3500	11105004			Z
Aliph	nC18	20.7170	8398874			Z
Aliph	nC19	22.0170	7583992			Z
Aliph	nC20	23.2570	7145805			Z
Aliph	nC21	24.4410	6213332			Z
Aliph	nC22	25.5760	5512232			Z
Aliph	nC23	26.6620	4579809			Z
Aliph	nC24	27.7060	4288556			Z
Aliph	nC25	28.7100	3795457			Z
Aliph	nC26	29.6680	4052764			Z
Aliph	nC27	30.6080	2732608			Z
Aliph	nC28	31.5080	2356041			Z
Aliph	nC29	32.3700	1908712			Z
Aliph	nC30	33.2910	1561011			Z
Aliph	nC31	34.3470	1242296			Z
Aliph	nC32	35.5720	890173			Z
Aliph	nC33	37.0130	647808			Z
Aliph	nC34	38.7280	486576			Z
Aliph	nC35	40.8080	404980			Z
Aliph	nC36	43.3510	344403			Z
Aliph	nC37	46.4710	280340			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200	829433			Z
Aliph	Norpristane	18.5830	4332860			Z
Aliph	Phytane	20.7870	5907430			Z
Aliph	Pristane	19.3870	3713439			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001057

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 12:57:03 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

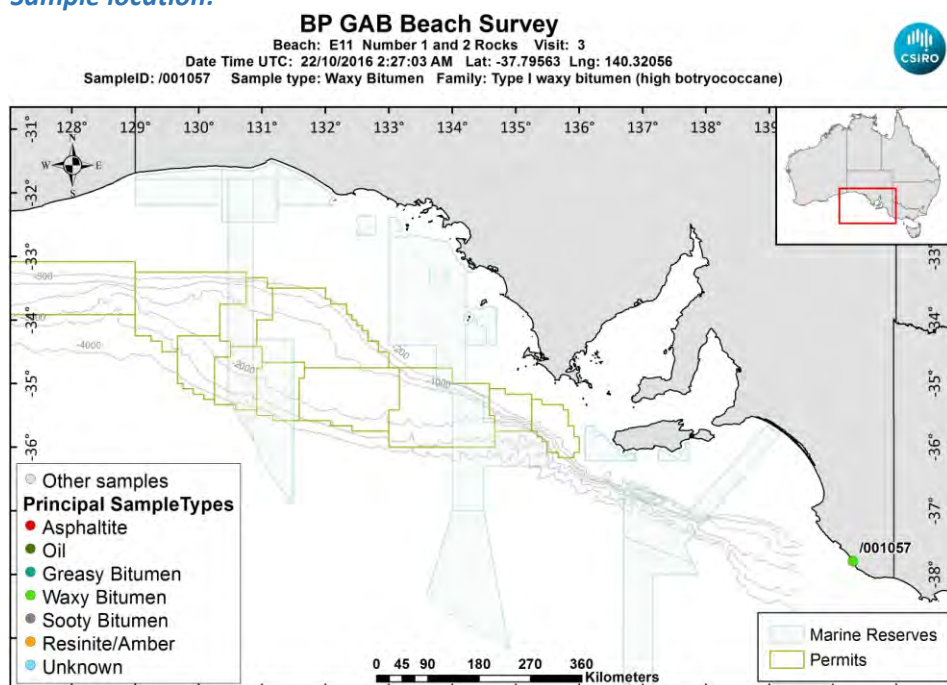
Size (cm): 2

Latitude (Y): -37.795635

Weight (gm): 1.27392

Longitude (X): 140.320565

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001057 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001057_146A7150.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001057_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001057_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.06	percent	Y
Inorg	Hydrogen			7.39488966202783	percent	Y
Inorg	Nitrogen			0.24	percent	Y
Inorg	Sulphur			1.47668498299974	percent	Y

Results for: GCMS with Full Scan

Unique ID: /001057_DISS_GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

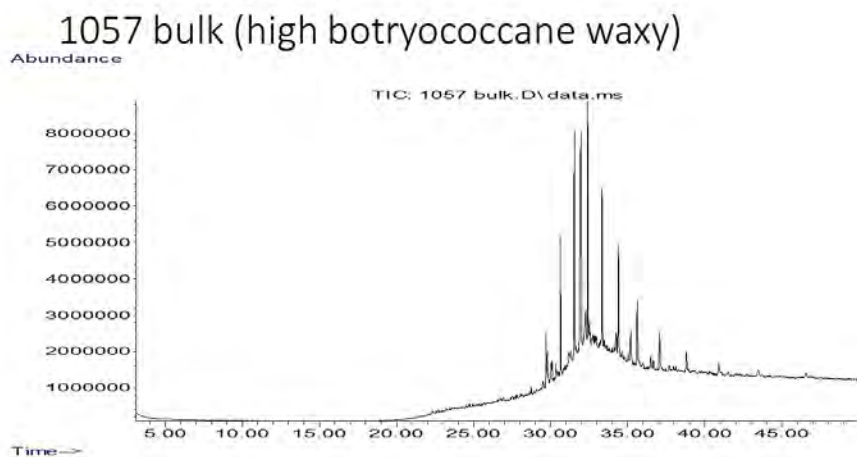
Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001057_bulk_WholeOil.JPG](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	43662987			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	922358			Z
Aliph	nC26	29.6680	5128524			Z
Aliph	nC27	30.6080	17726866			Z
Aliph	nC28	31.5080	26246341			Z
Aliph	nC29	32.3700	27856014			Z
Aliph	nC30	33.2910	22867033			Z
Aliph	nC31	34.3470	17452042			Z
Aliph	nC32	35.5720	12049974			Z
Aliph	nC33	37.0130	8896033			Z
Aliph	nC34	38.7280	6006142			Z
Aliph	nC35	40.8080	3742901			Z
Aliph	nC36	43.3510	2633684			Z
Aliph	nC37	46.4710	2114757			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001058

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 12:59:16 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

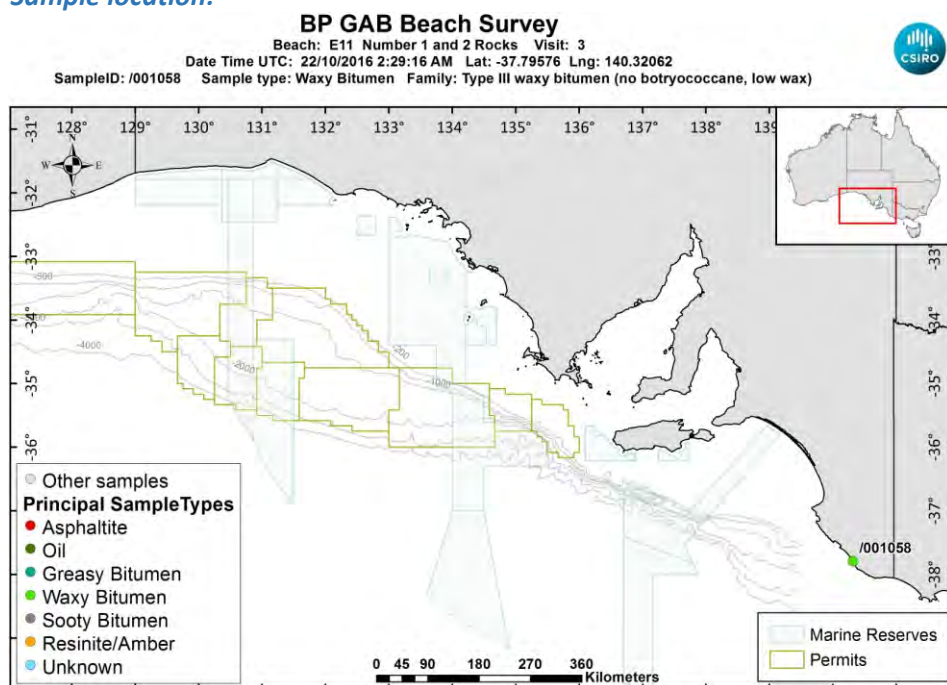
Size (cm): 1.5

Latitude (Y): -37.795763

Weight (gm): 0.38414

Longitude (X): 140.320625

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001058 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001016_146A7058.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001058_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001058_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.5	percent	Y
Inorg	Hydrogen			7.15278230616302	percent	Y
Inorg	Nitrogen			0.31	percent	Y
Inorg	Sulphur			1.52184420896046	percent	Y

Results for: GCMS with Full Scan

Unique ID: /001058_DISS_GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001058_bulk_WholeOil.JPG](#)

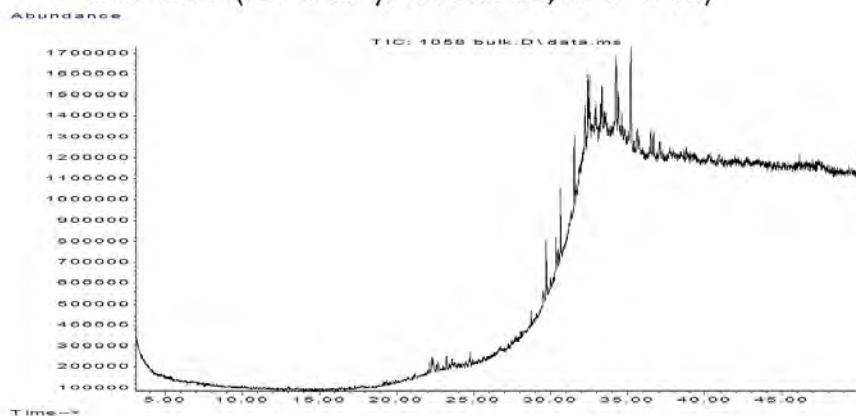
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

1058 bulk (no botryococcane, low wax)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	363656			Z
Aliph	nC26	29.6680	1024403			Z
Aliph	nC27	30.6080	1678204			Z
Aliph	nC28	31.5080	1419954			Z
Aliph	nC29	32.3700	1353564			Z
Aliph	nC30	33.2910	916762			Z
Aliph	nC31	34.3470	962978			Z
Aliph	nC32	35.5720	600346			Z
Aliph	nC33	37.0130	495968			Z
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001059

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

VERY FRESH

Location: Shore Upper

Local Date Time: 22/10/2016 1:01:19 PM

Type: Waxy Bitumen

Family: 1&2 Rocks Soft Bitumen (Unknown)

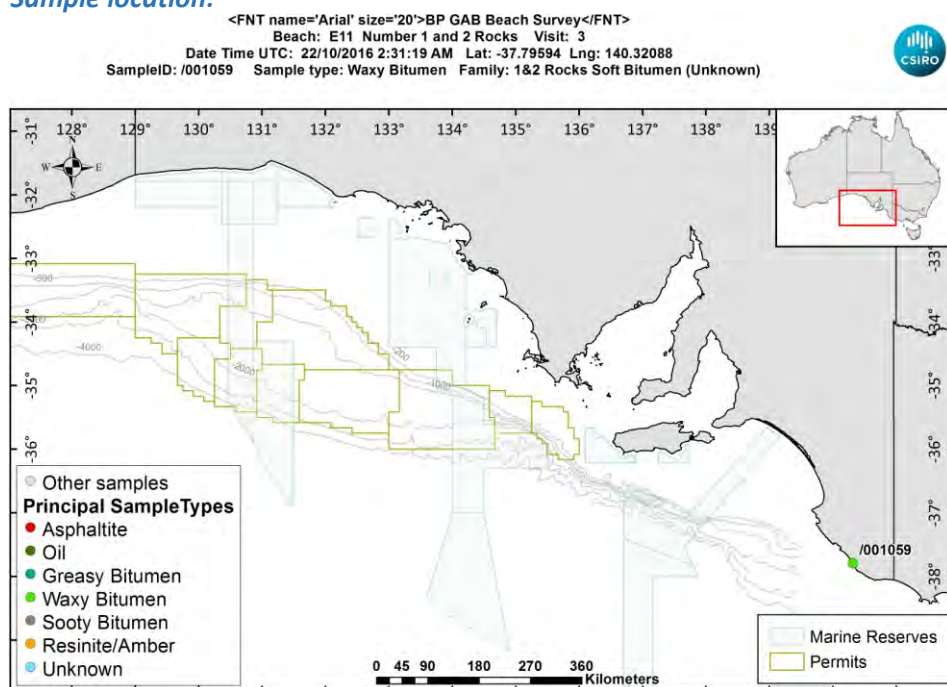
Size (cm): 8.2

Latitude (Y): -37.795935

Weight (gm): 132

Longitude (X): 140.320885

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001059 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001059_146A7155.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\001059 Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001059_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			48.1	percent	Y
Inorg	Hydrogen			5.80778349900597	percent	Y
Inorg	Nitrogen			0.42	percent	Y
Inorg	Sulphur			2.55226551226368	percent	Y

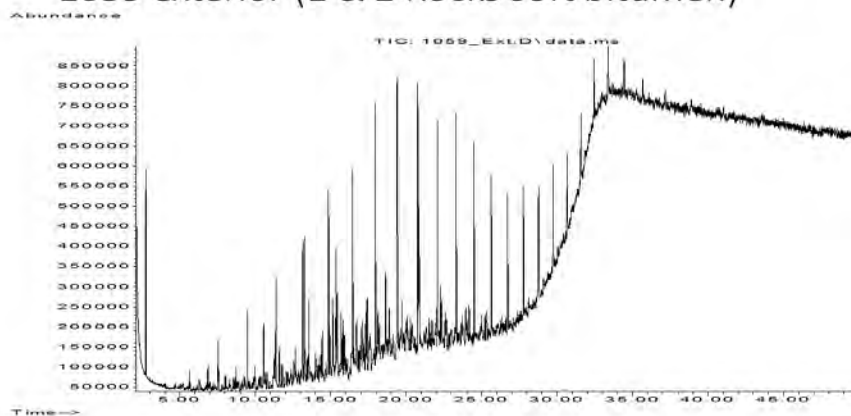
Results for: GCMS with Full Scan

Unique ID: /001059_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\ 001059_ext_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

1059 exterior (1 & 2 Rocks soft bitumen)



Data Sheet:

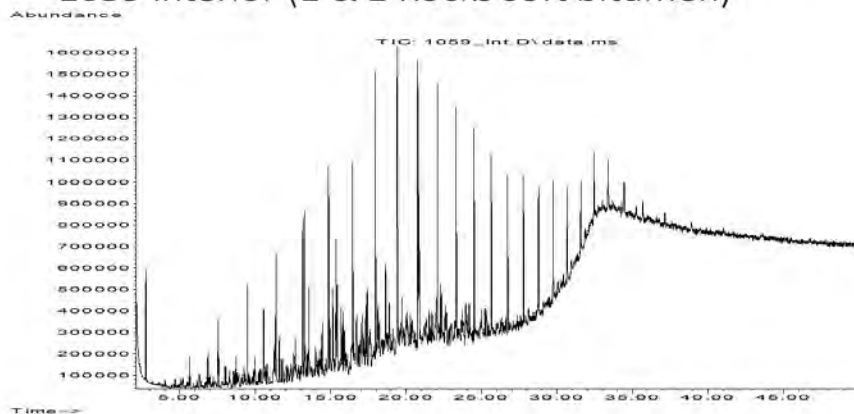
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	599707			Z
Aliph	nC11	9.4450	945914			Z
Aliph	nC12	11.3220	1240431			Z
Aliph	nC13	13.1110	1488343			Z
Aliph	nC14	14.8030	1848016			Z
Aliph	nC15	16.4030	1905733			Z
Aliph	nC16	17.9160	2224846			Z
Aliph	nC17	19.3500	3018164			Z
Aliph	nC18	20.7170	2340425			Z
Aliph	nC19	22.0170	2074886			Z
Aliph	nC20	23.2570	1953411			Z
Aliph	nC21	24.4410	1685096			Z
Aliph	nC22	25.5760	1436835			Z
Aliph	nC23	26.6620	1197192			Z
Aliph	nC24	27.7060	1073548			Z
Aliph	nC25	28.7100	907324			Z
Aliph	nC26	29.6680	954871			Z
Aliph	nC27	30.6080	665295			Z
Aliph	nC28	31.5080	592109			Z
Aliph	nC29	32.3700	521310			Z
Aliph	nC30	33.2910	434898			Z
Aliph	nC31	34.3470	335952			Z
Aliph	nC32	35.5720	281625			Z
Aliph	nC33	37.0130	201033			Z
Aliph	nC34	38.7280	177762			Z
Aliph	nC35	40.8080	133543			Z
Aliph	nC36	43.3510	91748			Z
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200	241901			Z
Aliph	Norpristane	18.5830	1323731			Z
Aliph	Phytane	20.7870	1696435			Z
Aliph	Pristane	19.3870	1288986			Z

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** /001059 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001059_int_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

1059 interior (1 & 2 Rocks soft bitumen)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	1582043			Z
Aliph	nC11	9.4450	2355608			Z
Aliph	nC12	11.3220	2734052			Z
Aliph	nC13	13.1110	3210574			Z
Aliph	nC14	14.8030	3755573			Z
Aliph	nC15	16.4030	3720203			Z
Aliph	nC16	17.9160	4455305			Z
Aliph	nC17	19.3500	6386737			Z
Aliph	nC18	20.7170	4671326			Z
Aliph	nC19	22.0170	4288720			Z
Aliph	nC20	23.2570	3988220			Z
Aliph	nC21	24.4410	3393626			Z
Aliph	nC22	25.5760	3059968			Z
Aliph	nC23	26.6620	2557496			Z
Aliph	nC24	27.7060	2296322			Z
Aliph	nC25	28.7100	1800985			Z
Aliph	nC26	29.6680	2071047			Z
Aliph	nC27	30.6080	1459062			Z
Aliph	nC28	31.5080	1114984			Z
Aliph	nC29	32.3700	956173			Z
Aliph	nC30	33.2910	827721			Z
Aliph	nC31	34.3470	567848			Z
Aliph	nC32	35.5720	425002			Z
Aliph	nC33	37.0130	341649			Z
Aliph	nC34	38.7280	276562			Z
Aliph	nC35	40.8080	193935			Z
Aliph	nC36	43.3510	142587			Z
Aliph	nC37	46.4710	99907			Z
Aliph	nC8	4.0300	75635			Z
Aliph	nC9	5.6200	711991			Z
Aliph	Norpristane	18.5830	2510214			Z
Aliph	Phytane	20.7870	3415178			Z
Aliph	Pristane	19.3870	2035380			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001060

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 22/10/2016 1:03:29 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

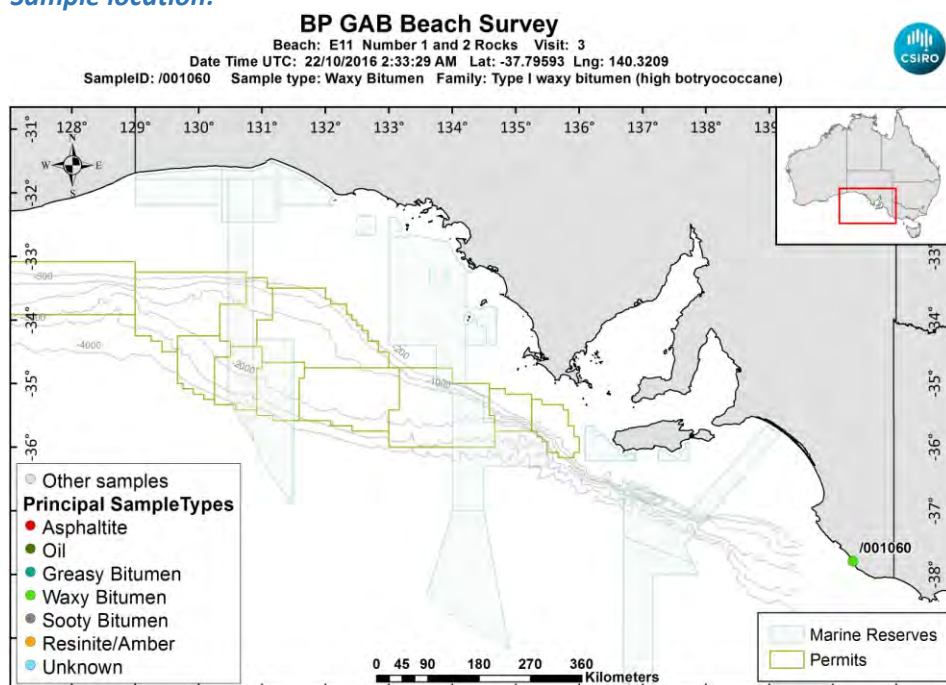
Size (cm): 1.7

Latitude (Y): -37.795928

Weight (gm): 0.57185

Longitude (X): 140.320895

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001060 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001060_146A7157.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001060_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001060_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.53	percent	Y
Inorg	Hydrogen			8.29238170974155	percent	Y
Inorg	Nitrogen			0.27	percent	Y
Inorg	Sulphur			2.61128166411217	percent	Y

Results for: GCMS with Full Scan

Unique ID: /001060_DISS_GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001060_bulk_WholeOil.JPG](#)

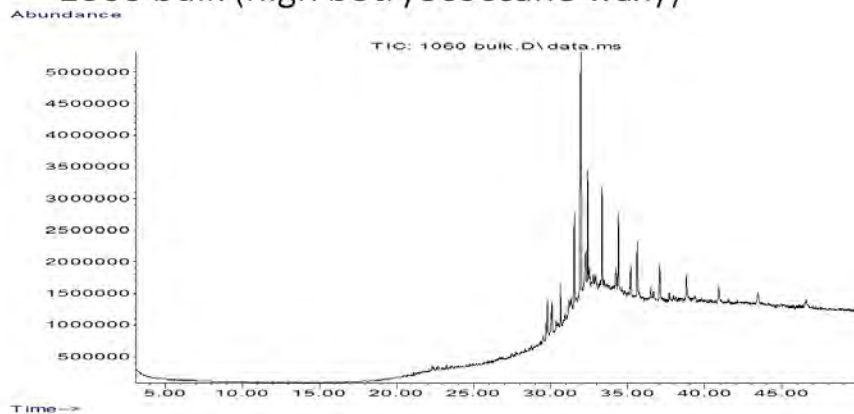
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

1060 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	28614139			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	283231			Z
Aliph	nC26	29.6680	692115			Z
Aliph	nC27	30.6080	3361716			Z
Aliph	nC28	31.5080	6631897			Z
Aliph	nC29	32.3700	8330079			Z
Aliph	nC30	33.2910	8171582			Z
Aliph	nC31	34.3470	7462995			Z
Aliph	nC32	35.5720	6019390			Z
Aliph	nC33	37.0130	4261747			Z
Aliph	nC34	38.7280	3742609			Z
Aliph	nC35	40.8080	3136641			Z
Aliph	nC36	43.3510	2169209			Z
Aliph	nC37	46.4710	1713410			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001061

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 1:09:03 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

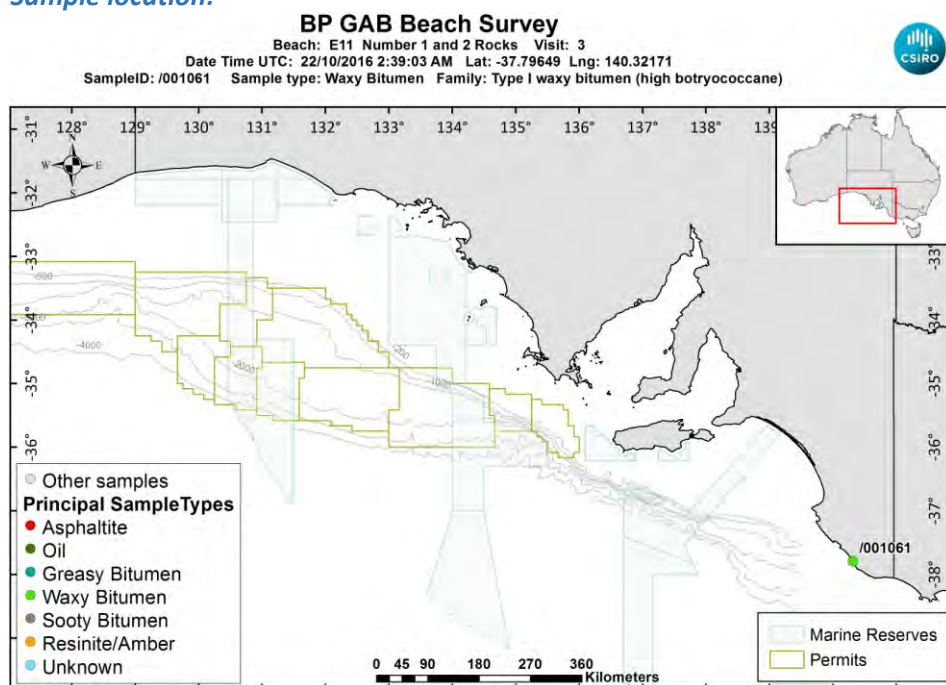
Size (cm): 0.9

Latitude (Y): -37.796493

Weight (gm): 0.12167

Longitude (X): 140.321712

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001061 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001061_146A7160.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001061_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: /001061_DISS_GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001061_bulk_WholeOil.JPG](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

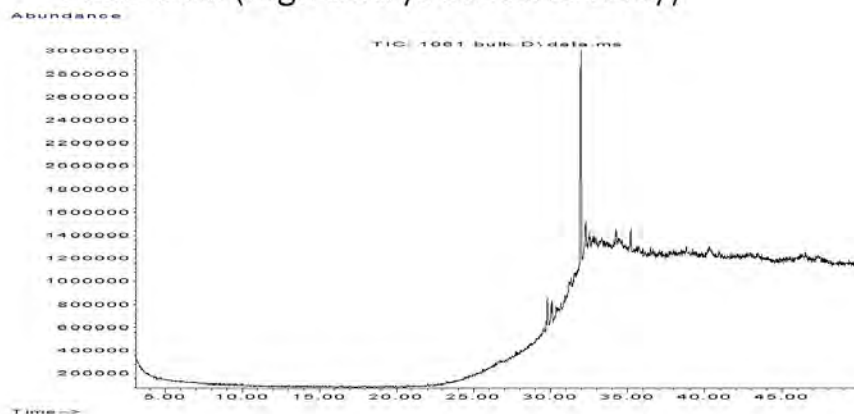
Extract Volume:

Dilution Factor:

Comment: Bulk

Results for: GCMS with Full Scan

1061 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	13580531			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001062

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 1:15:51 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

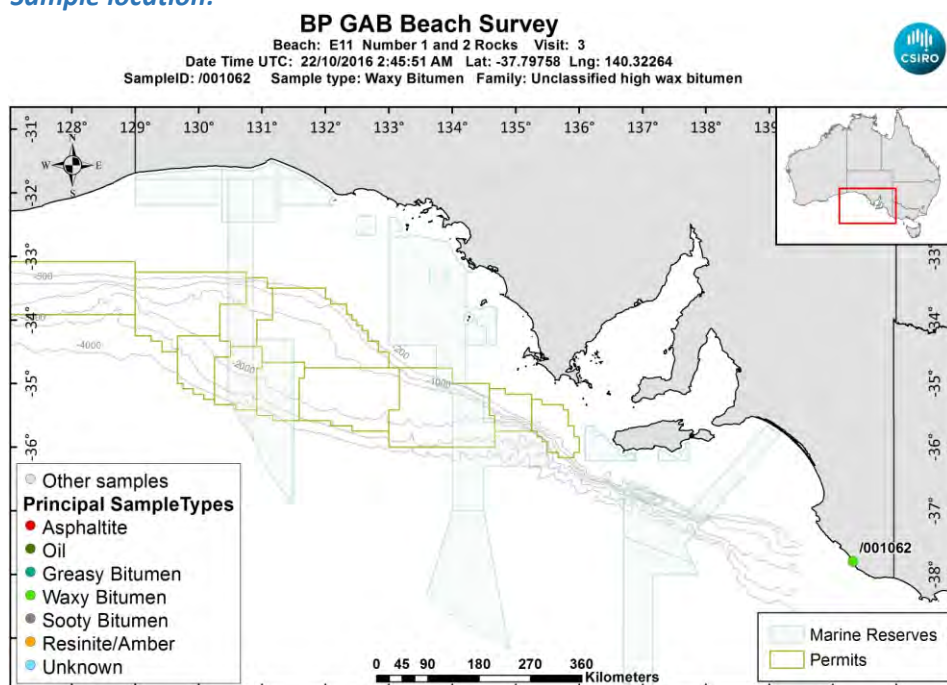
Size (cm): 2.1

Latitude (Y): -37.797578

Weight (gm): 1.691

Longitude (X): 140.322637

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001062 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001062_146A7162.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001062_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001062_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			84.81	percent	Y
Inorg	Hydrogen			8.26139403578529	percent	Y
Inorg	Nitrogen			0.04	percent	Y
Inorg	Sulphur			2.66648024622503	percent	Y

Results for: GCMS with Full Scan

Unique ID: /001062_DISS_GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

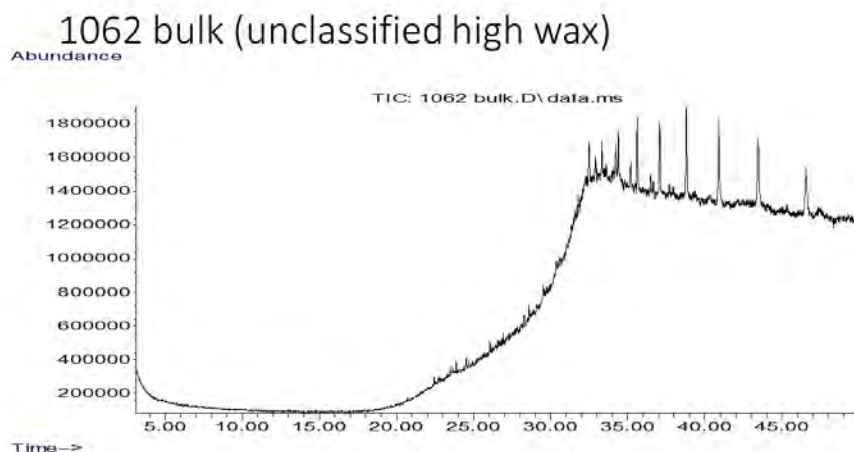
Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001062_bulk_WholeOil.JPG](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470	2155404			Z
Aliph	nC32	35.5720	2888720			Z
Aliph	nC33	37.0130	3277829			Z
Aliph	nC34	38.7280	5263996			Z
Aliph	nC35	40.8080	6044356			Z
Aliph	nC36	43.3510	5970868			Z
Aliph	nC37	46.4710	5014609			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001063

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

VERY FRESH

Location: Upper Intertidal

Local Date Time: 22/10/2016 1:19:16 PM

Type: Waxy Bitumen

Family: 1&2 Rocks Soft Bitumen (Unknown)

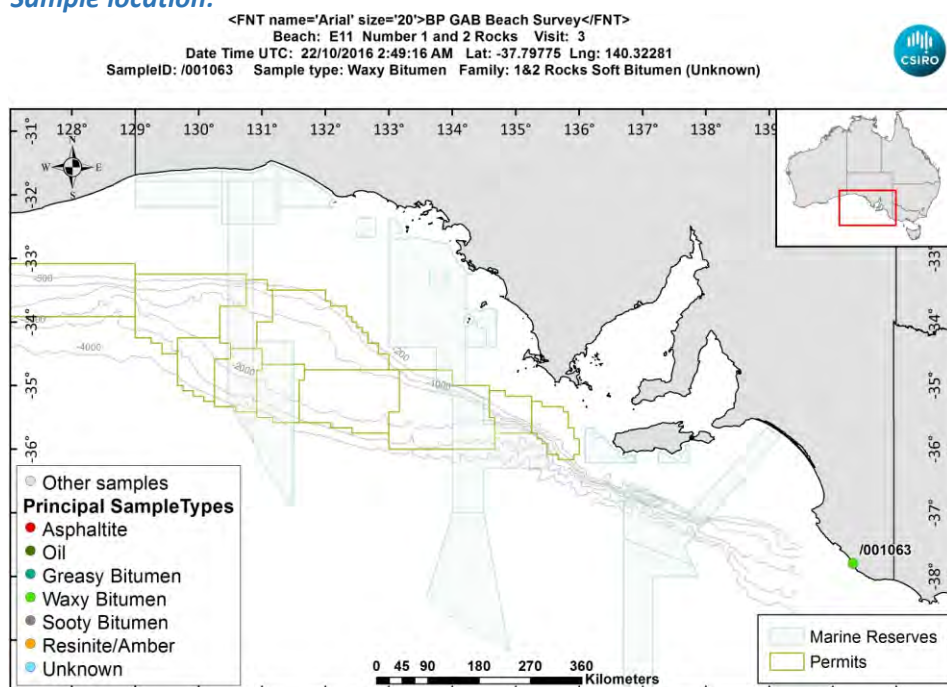
Size (cm): 8.5

Latitude (Y): -37.797748

Weight (gm): 52

Longitude (X): 140.322807

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001063 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001063_146A7164.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001063_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES
5	CSIA	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
CSIA	Compound Specific Isotope Analysis d13C Run: 3
CSIA	Compound Specific Isotope Analysis d2H Run: 2
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: /001063_DISS_GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Bulk Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			35.3294253986577	ratio	Y
BiomRatio	% C27 abb 20(R+S)			35.8621794832512	ratio	Y
BiomRatio	% C28 aaa 20R			28.8690240101829	ratio	Y
BiomRatio	% C28 abb 20(R+S)			25.719320414409	ratio	Y
BiomRatio	% C29 aaa 20R			35.8015505911595	ratio	Y
BiomRatio	% C29 abb 20(R+S)			38.4185001023398	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.206365140070959	ratio	Y
BiomRatio	25-Nor/C30H			4.29169861683685E-02	ratio	Y
BiomRatio	C19t/C23t			0.178898495949694	ratio	Y
BiomRatio	C22t/C21t			9.91351625864464E-02	ratio	Y
BiomRatio	C22t/C24t			8.05091280878237E-02	ratio	Y
BiomRatio	C23t/C30H			0.314007295636992	ratio	Y
BiomRatio	C24t/C23t			0.470043211410093	ratio	Y
BiomRatio	C24Tet/C23t			0.285033212916994	ratio	Y
BiomRatio	C24Tet/C26t			0.917231093450203	ratio	Y
BiomRatio	C24Tet/C30H			8.95025083547883E-02	ratio	Y
BiomRatio	C26t/C25t			0.667081653278686	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.429087354536446	ratio	Y
BiomRatio	C27 Dia/Ster			0.405956721637512	ratio	Y
BiomRatio	C28BNH/C30H			4.30049716937265E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.07128179759076	ratio	Y
BiomRatio	C29H/C30H			0.795192460663564	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.108972492419509	ratio	Y
BiomRatio	C30DiaH/C30H			3.72465236765468E-02	ratio	Y
BiomRatio	C30Ts/C30H			5.68724112688996E-02	ratio	Y
BiomRatio	C35 Homohopane Index			0.10421336796025	ratio	Y
BiomRatio	C35HS/C34HS			1.0041434973453	ratio	Y
BiomRatio	Gam/C30H			0.119150561137919	ratio	Y
BiomRatio	Gam/C31HR			0.374956133431637	ratio	Y
BiomRatio	Ole/C30H			6.80839156832664E-03	ratio	Y
BiomRatio	Sterane/hopane			0.315967284243364	ratio	Y
BiomRatio	Steranes/Terpanes			0.247597925824204	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.276130578200817	ratio	Y

Results for: Compound Specific Isotope Analysis d13C

Unique ID: /001063 PTE CSIA-C13/03

Instrument / Type: Compound Specific Isotope Analysis d13C Run: 3

for Analysis: CSIA

Preparation: Pentane Extraction

Analysis Date: 17/07/2017

Method ID/s: Final d13C

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Final d13C

Results for: Compound Specific Isotope Analysis d13C

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Aliph	nC13			-30.524	value	Y
Aliph	nC14			-31.546	value	Y
Aliph	nC15			-31.726	value	Y
Aliph	nC16			-32.29	value	Y
Aliph	nC17			-32.297	value	Y
Aliph	nC18			-33.522	value	Y
Aliph	nC19			-32.152	value	Y
Aliph	nC20			-32.105	value	Y
Aliph	nC21			-32.063	value	Y
Aliph	nC22			-32.087	value	Y
Aliph	nC23			-32.231	value	Y
Aliph	nC24			-32.244	value	Y
Aliph	nC25			-31.821	value	Y
Aliph	nC26			-32.022	value	Y
Aliph	nC27			-31.639	value	Y
Aliph	nC28			-31.806	value	Y
Aliph	nC29			-31.789	value	Y
Aliph	nC30			-31.581	value	Y
Aliph	nC31			-31.996	value	Y
Aliph	nC32			-31.621	value	Y
Aliph	nC33			-31.687	value	Y
Aliph	nC34			-31.058	value	Y
Aliph	nC35			-32.841	value	Y
Aliph	nC36			-31.765	value	Y
Aliph	nC37			-32.922	value	Y
Aliph	nC38			-33.658	value	Y
Aliph	nC39				value	U

Results for: Compound Specific Isotope Analysis d2H

Unique ID: /001063_PTE_CSIA/02

Instrument / Type: Compound Specific Isotope Analysis d2H Run: 2

for Analysis: CSIA

Preparation: Pentane Extraction

Analysis Date: 17/07/2017

Method ID/s: Final d 2H/1H

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal 2H analysis

Results for: Compound Specific Isotope Analysis d2H

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Aliph	nC13			-112.562	value	Y
Aliph	nC14			-124.517	value	Y
Aliph	nC15			-121.867	value	Y
Aliph	nC16			-128.03	value	Y
Aliph	nC17			-130.25	value	Y
Aliph	nC18			-123.997	value	Y
Aliph	nC19			-127.3955	value	Y
Aliph	nC20			-125.506	value	Y
Aliph	nC21			-128.9735	value	Y
Aliph	nC22			-126.4025	value	Y
Aliph	nC23			-126.424	value	Y
Aliph	nC24			-126.775	value	Y
Aliph	nC25			-126.931	value	Y
Aliph	nC26			-123.727	value	Y
Aliph	nC27			-118.7195	value	Y
Aliph	nC28			-117.462	value	Y
Aliph	nC29			-115.1925	value	Y
Aliph	nC30			-112.52	value	Y
Aliph	nC31			-109.126	value	Y
Aliph	nC32			-114.255	value	Y
Aliph	nC33			-111.682	value	Y
Aliph	nC34			-107.007	value	Y
Aliph	nC35			-83.886	value	Y
Aliph	nC36				value	U
Aliph	nC37				value	U
Aliph	nC38				value	U
Aliph	nC39				value	U

Results for: Elemental Analyser

Unique ID: /001063_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

(default units ppb)

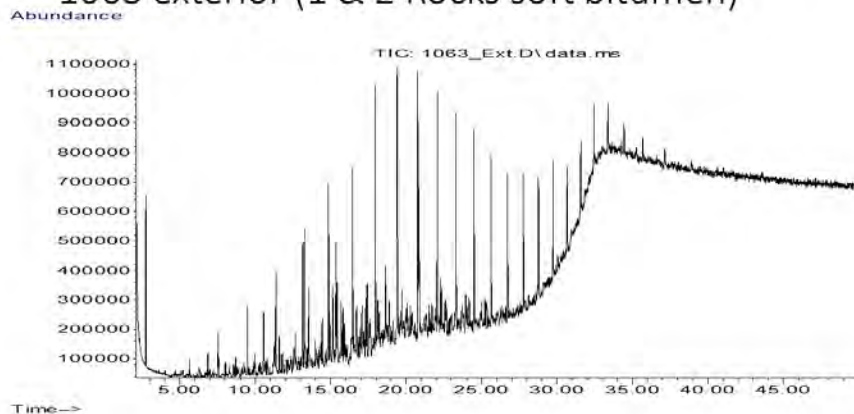
Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Inorg	Carbon			54.7	percent	Y
Inorg	Hydrogen			5.67882107355865	percent	Y
Inorg	Nitrogen			0.47	percent	Y
Inorg	Sulphur			2.76928214353324	percent	Y

Results for: GCMS with Full Scan

Results for: GCMS with Full Scan**Unique ID:** /001063 DISS GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\ 001063_ext WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

1063 exterior (1 & 2 Rocks soft bitumen)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	698516			Z
Aliph	nC11	9.4450	1209533			Z
Aliph	nC12	11.3220	1561861			Z
Aliph	nC13	13.1110	1922648			Z
Aliph	nC14	14.8030	2367332			Z
Aliph	nC15	16.4030	2505850			Z
Aliph	nC16	17.9160	3050551			Z
Aliph	nC17	19.3500	3968162			Z
Aliph	nC18	20.7170	3249408			Z
Aliph	nC19	22.0170	2932868			Z
Aliph	nC20	23.2570	2685469			Z
Aliph	nC21	24.4410	2281155			Z
Aliph	nC22	25.5760	2028981			Z
Aliph	nC23	26.6620	1685870			Z
Aliph	nC24	27.7060	1593893			Z
Aliph	nC25	28.7100	1297549			Z
Aliph	nC26	29.6680	1401722			Z
Aliph	nC27	30.6080	1040961			Z
Aliph	nC28	31.5080	849268			Z
Aliph	nC29	32.3700	713601			Z
Aliph	nC30	33.2910	628542			Z
Aliph	nC31	34.3470	456596			Z
Aliph	nC32	35.5720	318342			Z
Aliph	nC33	37.0130	214839			Z
Aliph	nC34	38.7280	180665			Z
Aliph	nC35	40.8080	144877			Z
Aliph	nC36	43.3510	126934			Z
Aliph	nC37	46.4710	83988			Z
Aliph	nC8	4.0300	30116			Z
Aliph	nC9	5.6200	282856			Z
Aliph	Norpristane	18.5830	1743594			Z
Aliph	Phytane	20.7870	2285884			Z
Aliph	Pristane	19.3870	1365355			Z

Results for: GCMS with Full Scan

Results for: GCMS with Full Scan

Unique ID: /001063 DISS GCMS-Scan/02

Instrument / Type: GCMS with Full Scan Run: 2

for Analysis: Whole Oils

Preparation: Dissolved in solvent

Analysis Date: 30/10/2017

Method ID/s:

Linked Image: [LinkedFiles\GAB_BCH1\GCMS_001063_int_WholeOil.JPG](#)

Sample Volume:

Volume Units:

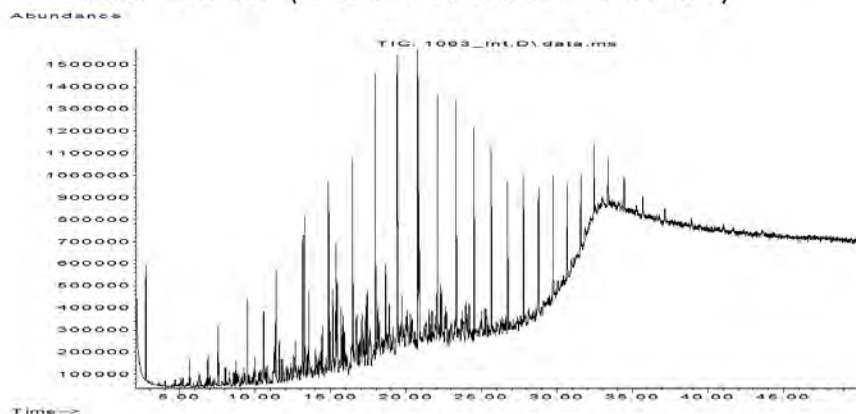
Extract Volume:

Dilution Factor:

Comment: Interior

Results for: GCMS with Full Scan

1063 interior (1 & 2 Rocks soft bitumen)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	1328643			Z
Aliph	nC11	9.4450	1977323			Z
Aliph	nC12	11.3220	2415729			Z
Aliph	nC13	13.1110	2769006			Z
Aliph	nC14	14.8030	3440323			Z
Aliph	nC15	16.4030	3516911			Z
Aliph	nC16	17.9160	4192352			Z
Aliph	nC17	19.3500	5425535			Z
Aliph	nC18	20.7170	4586594			Z
Aliph	nC19	22.0170	4213213			Z
Aliph	nC20	23.2570	3789077			Z
Aliph	nC21	24.4410	3317369			Z
Aliph	nC22	25.5760	3008510			Z
Aliph	nC23	26.6620	2446044			Z
Aliph	nC24	27.7060	2172058			Z
Aliph	nC25	28.7100	1986208			Z
Aliph	nC26	29.6680	2037487			Z
Aliph	nC27	30.6080	1417577			Z
Aliph	nC28	31.5080	1115624			Z
Aliph	nC29	32.3700	1021645			Z
Aliph	nC30	33.2910	867338			Z
Aliph	nC31	34.3470	652107			Z
Aliph	nC32	35.5720	483966			Z
Aliph	nC33	37.0130	387326			Z
Aliph	nC34	38.7280	266410			Z
Aliph	nC35	40.8080	219135			Z
Aliph	nC36	43.3510	219900			Z
Aliph	nC37	46.4710	119442			Z
Aliph	nC8	4.0300	75300			Z
Aliph	nC9	5.6200	623647			Z
Aliph	Norpristane	18.5830	2377198			Z
Aliph	Phytane	20.7870	3211988			Z
Aliph	Pristane	19.3870	1955835			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001064A

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

2 pieces. Part A

Location: Mid Intertidal

Local Date Time: 22/10/2016 1:22:27 PM

Type: Waxy Bitumen

Family: Unknown

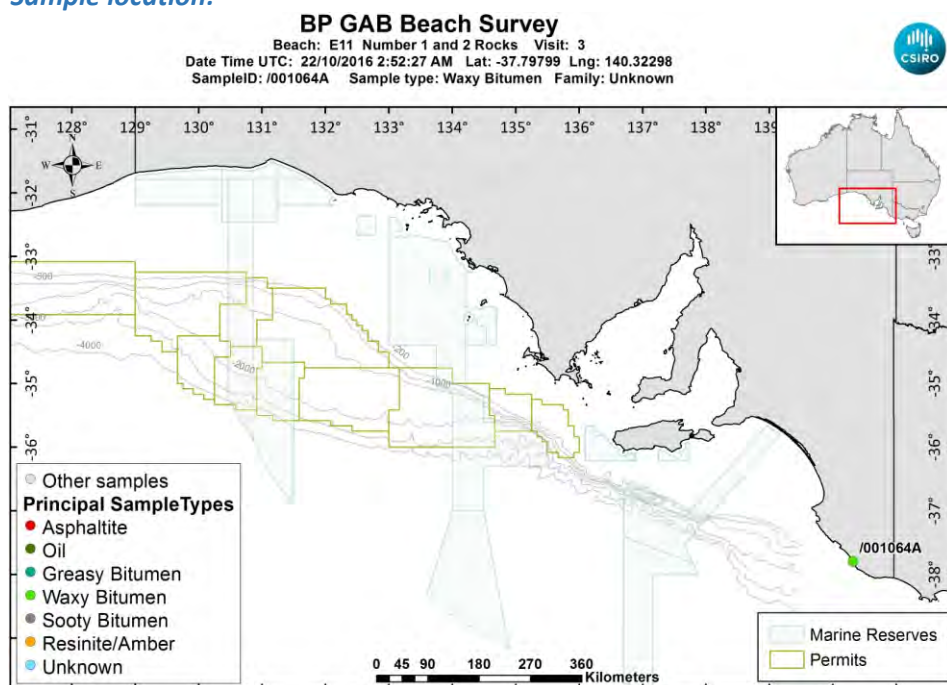
Size (cm): 1.9

Latitude (Y): -37.797993

Weight (gm): 1.11545

Longitude (X): 140.322985

Sample location:



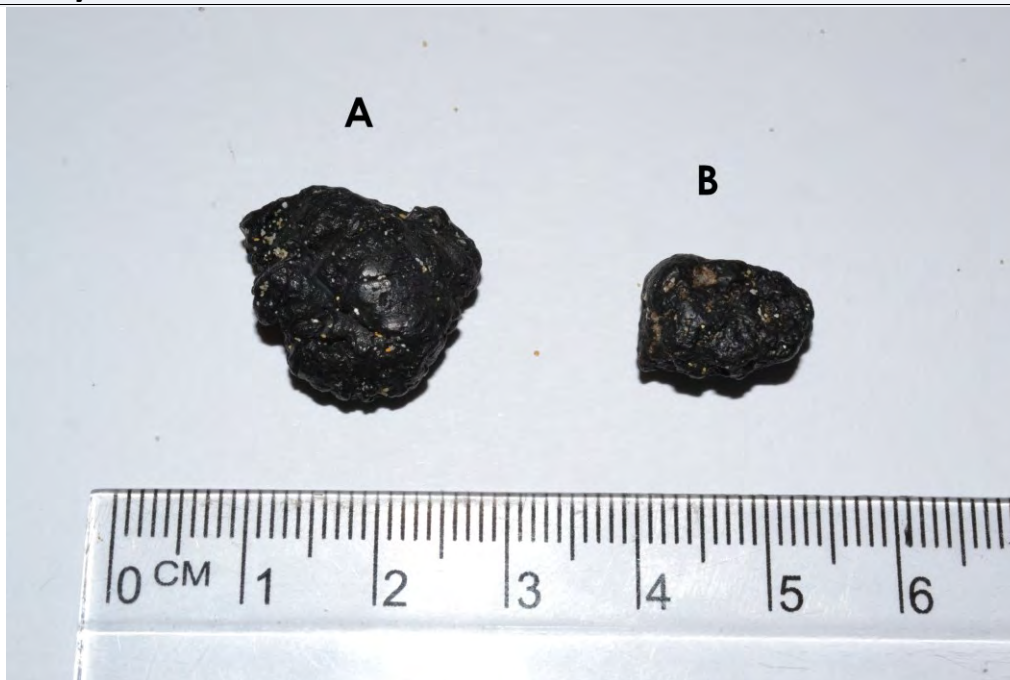
[LinkedFiles\GAB_BCH1\SampleLocations\ 001064A_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001064_146A7166.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001064_AB_Photo02.jpg](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001064A_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.81	percent	Y
Inorg	Hydrogen			6.43785666003976	percent	Y
Inorg	Nitrogen			0.88	percent	Y
Inorg	Sulphur			1.32749779714293	percent	Y

Results for: GCMS with Full Scan

Unique ID: /001064A DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001064A_bulk_WholeOil.JPG](#)

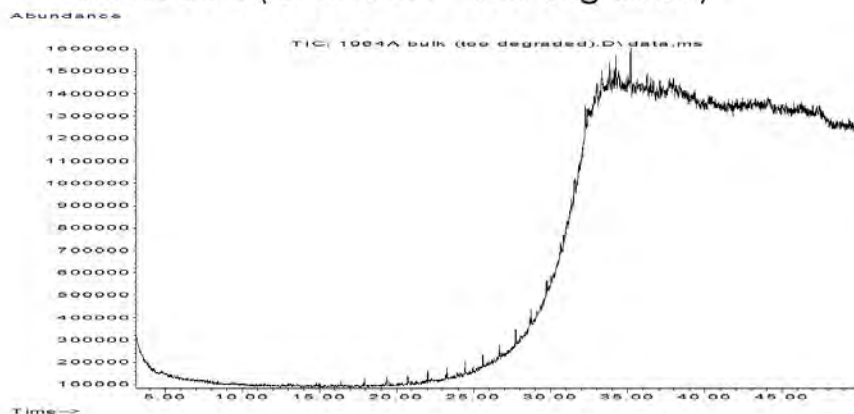
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

1064A bulk (Unknown – too degraded)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001064B

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Part B subsample

Location: Mid Intertidal

Local Date Time: 22/10/2016 1:22:27 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

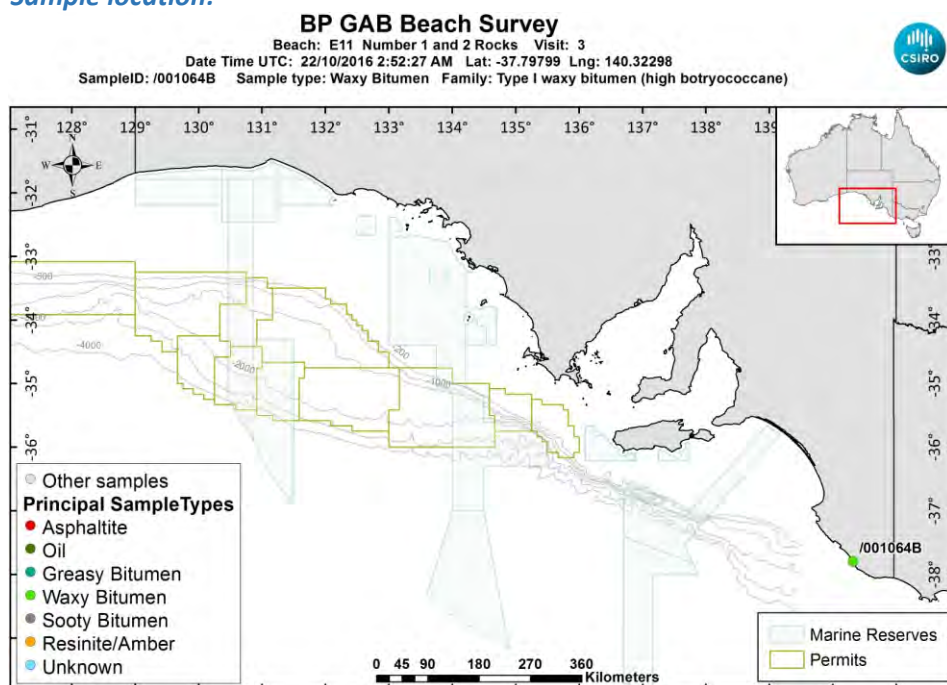
Size (cm): 1.3

Latitude (Y): -37.797993

Weight (gm): 0.46752

Longitude (X): 140.322985

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001064B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001064 AB Photo02.jpg](#)

Sample ID : /001064B**Beach E11: Number 1 and 2 Rocks Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: /001064B_SPE_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

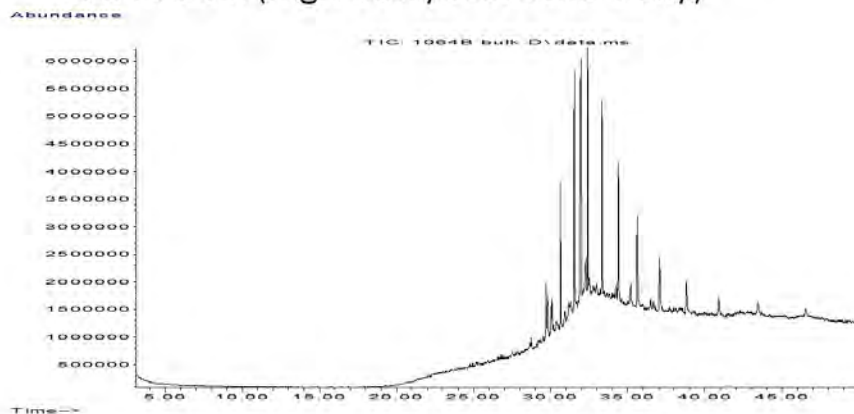
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.23	percent	Y
Inorg	Hydrogen			6.17594512922465	percent	Y
Inorg	Nitrogen			0.23	percent	Y
Inorg	Sulphur			1.05905403947709	percent	Y

Results for: GCMS with Full Scan**Unique ID: /001064B_DISS_GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001064B_bulk_WholeOil.JPG](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

1064B bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	32199907			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	686853			Z
Aliph	nC26	29.6680	3945615			Z
Aliph	nC27	30.6080	13025077			Z
Aliph	nC28	31.5080	17935629			Z
Aliph	nC29	32.3700	20429509			Z
Aliph	nC30	33.2910	18056078			Z
Aliph	nC31	34.3470	15087304			Z
Aliph	nC32	35.5720	11271580			Z
Aliph	nC33	37.0130	8390518			Z
Aliph	nC34	38.7280	5965248			Z
Aliph	nC35	40.8080	4052977			Z
Aliph	nC36	43.3510	3185845			Z
Aliph	nC37	46.4710	2608538			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001065

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 22/10/2016 1:23:56 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

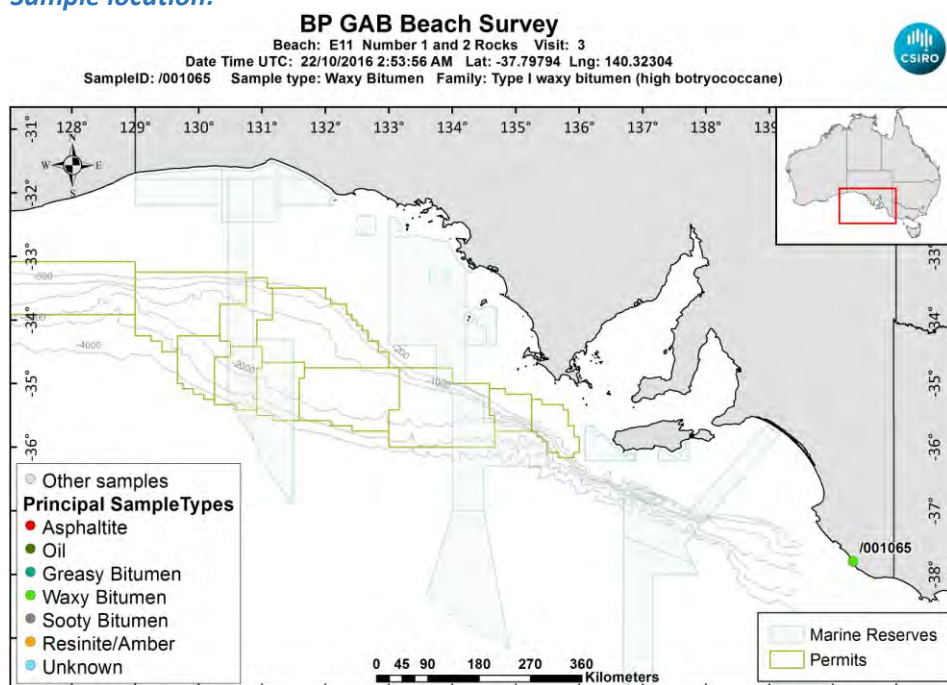
Size (cm): 1.3

Latitude (Y): -37.797945

Weight (gm): 0.27444

Longitude (X): 140.323043

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001065 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001065_146A7168.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001065_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: /001065_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.08	percent	Y
Inorg	Hydrogen			8.10061988071571	percent	Y
Inorg	Nitrogen			0.31	percent	Y
Inorg	Sulphur			2.49729788295447	percent	Y

Results for: GCMS with Full Scan

Unique ID: /001065_DISS_GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

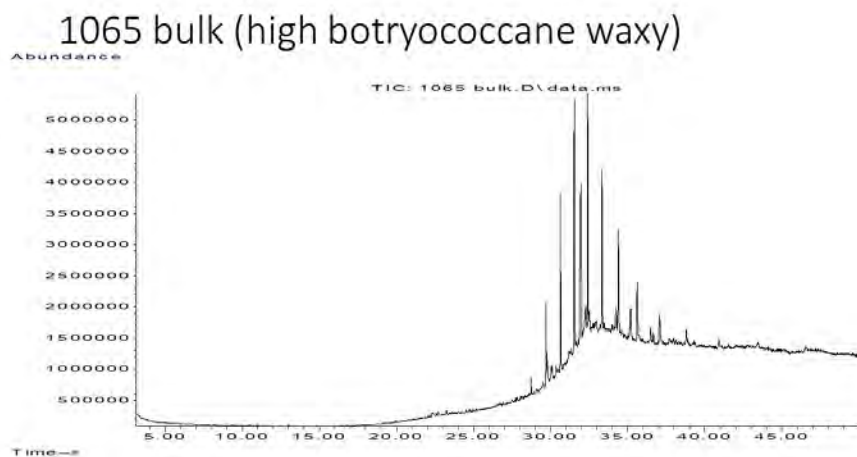
Linked Image: [LinkedFiles\GAB_BCH1\GCMS\ 001065_bulk_WholeOil.JPG](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	18819858			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	1137661			Z
Aliph	nC26	29.6680	4977659			Z
Aliph	nC27	30.6080	14053044			Z
Aliph	nC28	31.5080	18168736			Z
Aliph	nC29	32.3700	17853345			Z
Aliph	nC30	33.2910	13577837			Z
Aliph	nC31	34.3470	10297936			Z
Aliph	nC32	35.5720	6231546			Z
Aliph	nC33	37.0130	4194268			Z
Aliph	nC34	38.7280	2631017			Z
Aliph	nC35	40.8080	1720715			Z
Aliph	nC36	43.3510	1444751			Z
Aliph	nC37	46.4710	1220139			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001066

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 22/10/2016 1:26:01 PM

Type: Resinite/Amber

Family: Resin/Amber

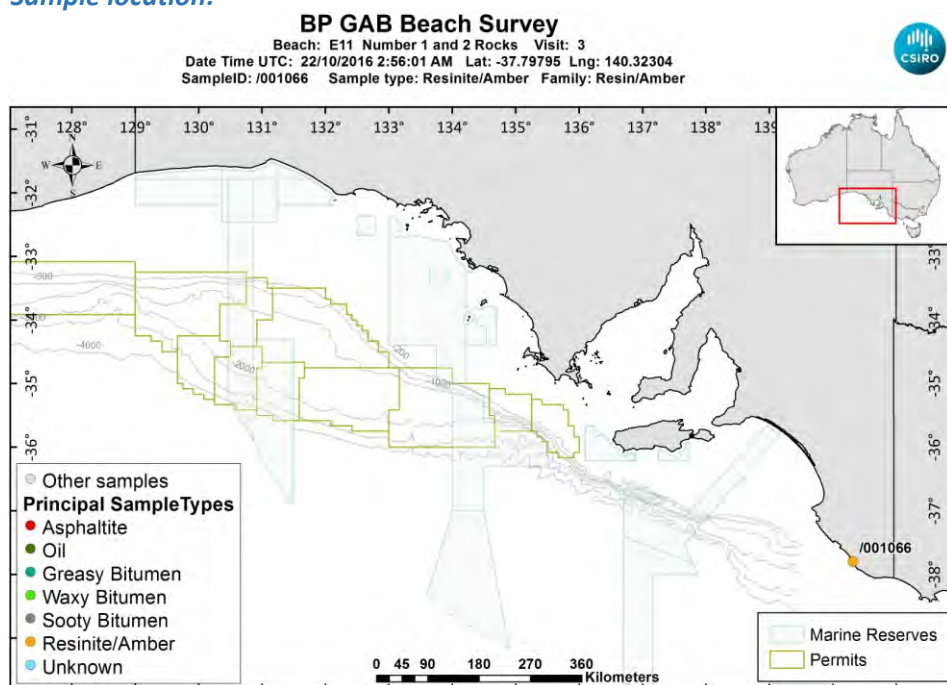
Size (cm): 2.9

Latitude (Y): -37.797950

Weight (gm): 8.3565

Longitude (X): 140.323038

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001066 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001066_146A7170.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001066_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: GCMS with Full Scan

Unique ID: /001066 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001067

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:
VERY SOFT

Location: Shore Upper

Local Date Time: 22/10/2016 1:28:40 PM

Type: Waxy Bitumen

Family: 1&2 Rocks Soft Bitumen (Unknown)

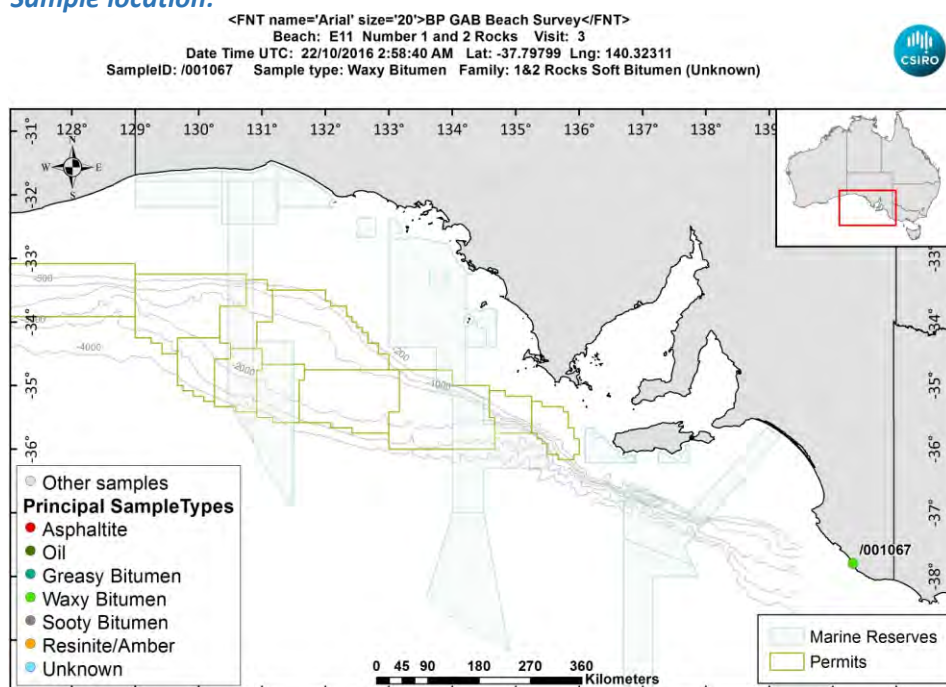
Size (cm): 7.7

Latitude (Y): -37.797992

Weight (gm): 26.5753

Longitude (X): 140.323107

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001067 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001067_146A7172.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001067_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: /001067_DISS_GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Bulk Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			34.3157974664321	ratio	Y
BiomRatio	% C27 abb 20(R+S)			35.1514440742375	ratio	Y
BiomRatio	% C28 aaa 20R			28.7714347182323	ratio	Y
BiomRatio	% C28 abb 20(R+S)			24.9047225711955	ratio	Y
BiomRatio	% C29 aaa 20R			36.9127678153355	ratio	Y
BiomRatio	% C29 abb 20(R+S)			39.943833354567	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.232056198493099	ratio	Y
BiomRatio	25-Nor/C30H			0.040470563094496	ratio	Y
BiomRatio	C19t/C23t			0.160239124874896	ratio	Y
BiomRatio	C22t/C21t			0.109296694962224	ratio	Y
BiomRatio	C22t/C24t			0.086302366934778	ratio	Y
BiomRatio	C23t/C30H			0.297055528901276	ratio	Y
BiomRatio	C24t/C23t			0.5070110675251	ratio	Y
BiomRatio	C24Tet/C23t			0.362896171736411	ratio	Y
BiomRatio	C24Tet/C26t			1.10512296175116	ratio	Y
BiomRatio	C24Tet/C30H			0.107800314231408	ratio	Y
BiomRatio	C26t/C25t			0.765990078646207	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.426559111824885	ratio	Y
BiomRatio	C27 Dia/Ster			0.397283377082607	ratio	Y
BiomRatio	C28BNH/C30H			9.59900977905626E-04	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.13633548795914	ratio	Y
BiomRatio	C29H/C30H			0.782074725186282	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			8.67324637360598E-02	ratio	Y
BiomRatio	C30DiaH/C30H			3.83710615699984E-02	ratio	Y
BiomRatio	C30Ts/C30H			5.94958212912073E-02	ratio	Y
BiomRatio	C35 Homohopane Index			0.112624208679821	ratio	Y
BiomRatio	C35HS/C34HS			1.03265194215614	ratio	Y
BiomRatio	Gam/C30H			0.116270824595529	ratio	Y
BiomRatio	Gam/C31HR			0.357047664804874	ratio	Y
BiomRatio	Ole/C30H			5.24840690087973E-03	ratio	Y
BiomRatio	Sterane/hopane			0.306284421672477	ratio	Y
BiomRatio	Steranes/Terpanes			0.241754734649928	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.266922123018566	ratio	Y

Results for: Elemental Analyser

Unique ID: /001067_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

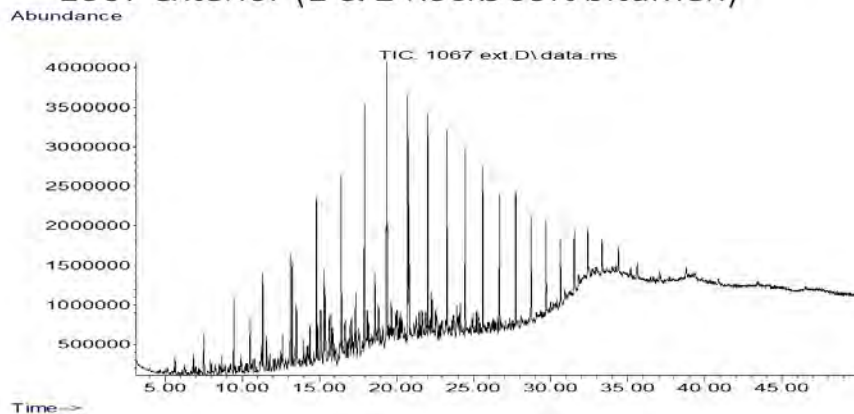
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			54.26	percent	Y
Inorg	Hydrogen			7.30196441351889	percent	Y
Inorg	Nitrogen			0.46	percent	Y
Inorg	Sulphur			3.21800688055103	percent	Y

Results for: GCMS with Full Scan**Unique ID:** /001067_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001067_ext_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

1067 exterior (1 & 2 Rocks soft bitumen)



Data Sheet:

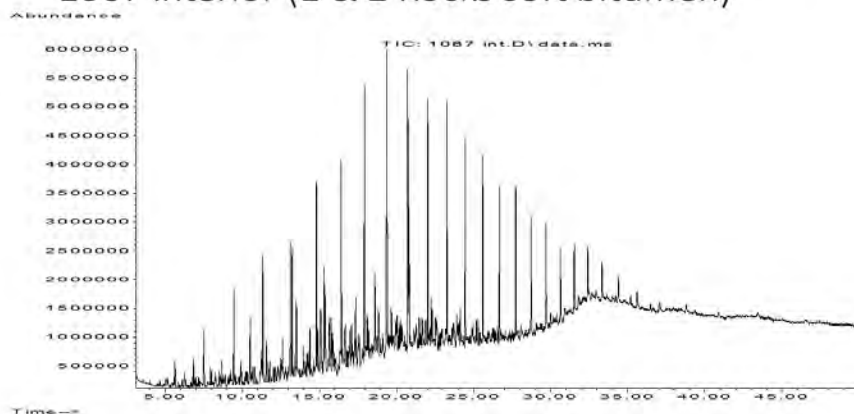
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	3121798			Z
Aliph	nC11	9.4450	4991715			Z
Aliph	nC12	11.3220	6356313			Z
Aliph	nC13	13.1110	7791101			Z
Aliph	nC14	14.8030	10016491			Z
Aliph	nC15	16.4030	10619144			Z
Aliph	nC16	17.9160	12246579			Z
Aliph	nC17	19.3500	18857520			Z
Aliph	nC18	20.7170	13667219			Z
Aliph	nC19	22.0170	12206118			Z
Aliph	nC20	23.2570	11445541			Z
Aliph	nC21	24.4410	9774516			Z
Aliph	nC22	25.5760	9091501			Z
Aliph	nC23	26.6620	7345558			Z
Aliph	nC24	27.7060	6891334			Z
Aliph	nC25	28.7100	7056197			Z
Aliph	nC26	29.6680	6237275			Z
Aliph	nC27	30.6080	4550112			Z
Aliph	nC28	31.5080	3863880			Z
Aliph	nC29	32.3700	2827959			Z
Aliph	nC30	33.2910	2545855			Z
Aliph	nC31	34.3470	2278671			Z
Aliph	nC32	35.5720	1342483			Z
Aliph	nC33	37.0130	1068539			Z
Aliph	nC34	38.7280	1410854			Z
Aliph	nC35	40.8080	864754			Z
Aliph	nC36	43.3510	924300			Z
Aliph	nC37	46.4710	947176			Z
Aliph	nC8	4.0300	148926			Z
Aliph	nC9	5.6200	1306971			Z
Aliph	Norpristane	18.5830	6988530			Z
Aliph	Phytane	20.7870	8980042			Z
Aliph	Pristane	19.3870	6370535			Z

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** /001067 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001067_int_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

1067 interior (1 & 2 Rocks soft bitumen)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	5890890			Z
Aliph	nC11	9.4450	8751938			Z
Aliph	nC12	11.3220	10861791			Z
Aliph	nC13	13.1110	13009095			Z
Aliph	nC14	14.8030	15945258			Z
Aliph	nC15	16.4030	16085440			Z
Aliph	nC16	17.9160	19511068			Z
Aliph	nC17	19.3500	21662459			Z
Aliph	nC18	20.7170	20740922			Z
Aliph	nC19	22.0170	18339114			Z
Aliph	nC20	23.2570	17036160			Z
Aliph	nC21	24.4410	14890289			Z
Aliph	nC22	25.5760	13402076			Z
Aliph	nC23	26.6620	11071003			Z
Aliph	nC24	27.7060	10575879			Z
Aliph	nC25	28.7100	8291919			Z
Aliph	nC26	29.6680	8527338			Z
Aliph	nC27	30.6080	6954151			Z
Aliph	nC28	31.5080	5561498			Z
Aliph	nC29	32.3700	4813949			Z
Aliph	nC30	33.2910	3608531			Z
Aliph	nC31	34.3470	2964064			Z
Aliph	nC32	35.5720	2489418			Z
Aliph	nC33	37.0130	1346556			Z
Aliph	nC34	38.7280	1293659			Z
Aliph	nC35	40.8080	712549			Z
Aliph	nC36	43.3510	1361718			Z
Aliph	nC37	46.4710	902768			Z
Aliph	nC8	4.0300	291155			Z
Aliph	nC9	5.6200	2670540			Z
Aliph	Norpristane	18.5830	10527813			Z
Aliph	Phytane	20.7870	13697237			Z
Aliph	Pristane	19.3870	9816561			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001068

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:
VERY SOFT

Location: Shore Upper

Local Date Time: 22/10/2016 1:30:13 PM

Type: Waxy Bitumen

Family: 1&2 Rocks Soft Bitumen (Unknown)

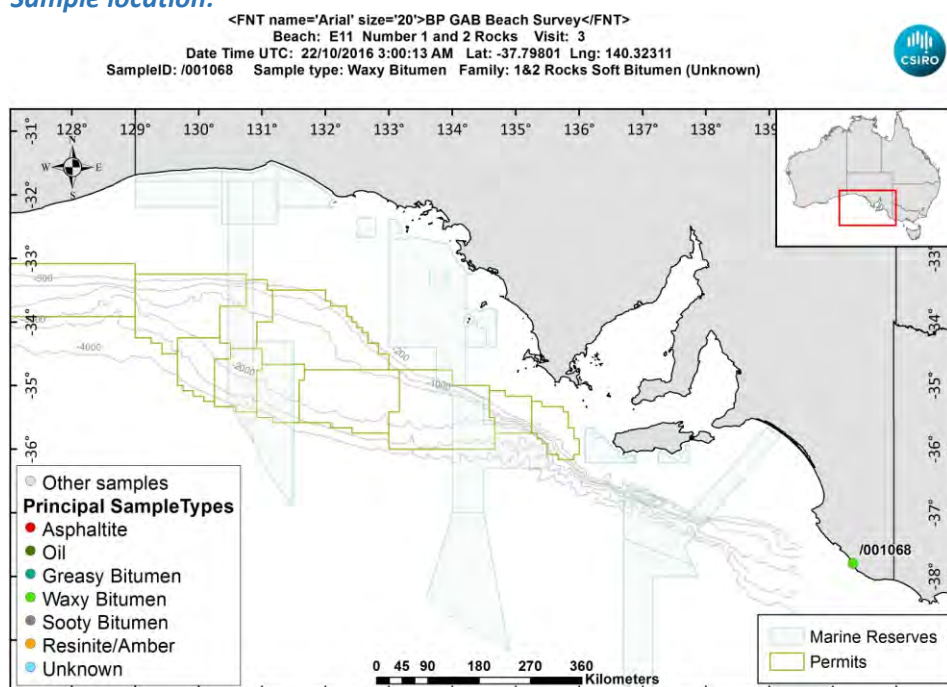
Size (cm): 4.6

Latitude (Y): -37.798010

Weight (gm): 26.95139

Longitude (X): 140.323108

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001068 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001068_146A7174.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\001068_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: /001068_DISS_GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Bulk Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			34.9823289450971	ratio	Y
BiomRatio	% C27 abb 20(R+S)			35.7933231338635	ratio	Y
BiomRatio	% C28 aaa 20R			28.8194593163385	ratio	Y
BiomRatio	% C28 abb 20(R+S)			25.0662186787471	ratio	Y
BiomRatio	% C29 aaa 20R			36.1982117385644	ratio	Y
BiomRatio	% C29 abb 20(R+S)			39.1404581873893	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.251125195532081	ratio	Y
BiomRatio	25-Nor/C30H			4.17068291368806E-02	ratio	Y
BiomRatio	C19t/C23t			0.159658491138075	ratio	Y
BiomRatio	C22t/C21t			1.12268608394908E-02	ratio	Y
BiomRatio	C22t/C24t			8.22702113549963E-03	ratio	Y
BiomRatio	C23t/C30H			0.330348060120705	ratio	Y
BiomRatio	C24t/C23t			0.505567886836462	ratio	Y
BiomRatio	C24Tet/C23t			0.352036062910925	ratio	Y
BiomRatio	C24Tet/C26t			1.27859470885862	ratio	Y
BiomRatio	C24Tet/C30H			0.116294430475154	ratio	Y
BiomRatio	C26t/C25t			0.658912347506481	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.435066030801917	ratio	Y
BiomRatio	C27 Dia/Ster			0.411705510347777	ratio	Y
BiomRatio	C28BNH/C30H			1.73150963734797E-03	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.09351283313393	ratio	Y
BiomRatio	C29H/C30H			0.754082864634108	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.111708570387788	ratio	Y
BiomRatio	C30DiaH/C30H			3.99029448091812E-02	ratio	Y
BiomRatio	C30Ts/C30H			5.68324083628589E-02	ratio	Y
BiomRatio	C35 Homohopane Index			0.106186204832534	ratio	Y
BiomRatio	C35HS/C34HS			1.0098961825137	ratio	Y
BiomRatio	Gam/C30H			0.104364669015554	ratio	Y
BiomRatio	Gam/C31HR			0.332482090122318	ratio	Y
BiomRatio	Ole/C30H			5.33635406283366E-03	ratio	Y
BiomRatio	Sterane/hopane			0.329773630089076	ratio	Y
BiomRatio	Steranes/Terpanes			0.255394646702302	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.291231567878056	ratio	Y

Results for: Elemental Analyser

Unique ID: /001068_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

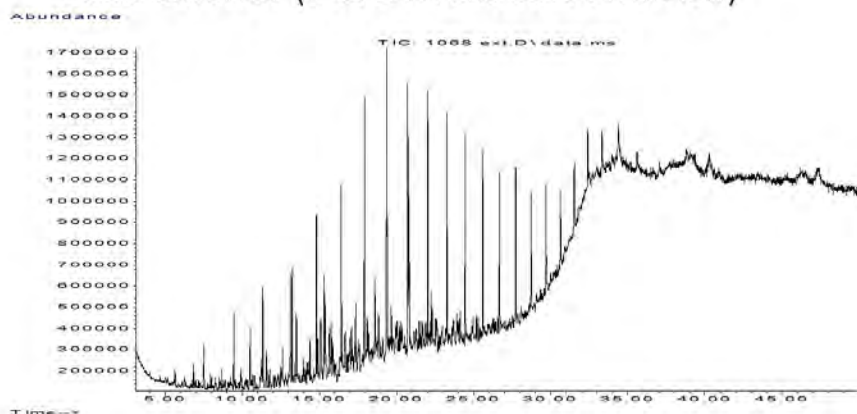
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			60.43	percent	Y
Inorg	Hydrogen			7.94086302186879	percent	Y
Inorg	Nitrogen			0.53	percent	Y
Inorg	Sulphur			3.8068184030972	percent	Y

Results for: GCMS with Full Scan**Unique ID:** /001068_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001068_ext_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

1068 exterior (1 & 2 Rocks soft bitumen)



Data Sheet:

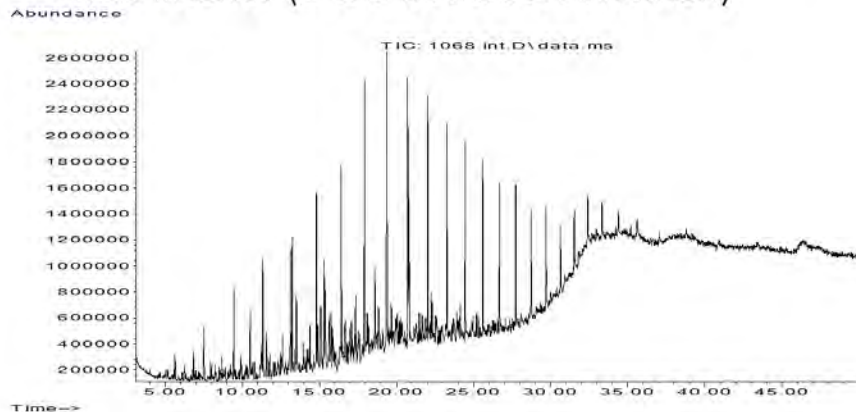
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	1281517			Z
Aliph	nC11	9.4450	1870749			Z
Aliph	nC12	11.3220	2380500			Z
Aliph	nC13	13.1110	2920080			Z
Aliph	nC14	14.8030	3871628			Z
Aliph	nC15	16.4030	4147887			Z
Aliph	nC16	17.9160	5065426			Z
Aliph	nC17	19.3500	7586832			Z
Aliph	nC18	20.7170	5467957			Z
Aliph	nC19	22.0170	4978664			Z
Aliph	nC20	23.2570	4702416			Z
Aliph	nC21	24.4410	4198960			Z
Aliph	nC22	25.5760	3657414			Z
Aliph	nC23	26.6620	3082126			Z
Aliph	nC24	27.7060	2959650			Z
Aliph	nC25	28.7100	2341630			Z
Aliph	nC26	29.6680	2592424			Z
Aliph	nC27	30.6080	1990886			Z
Aliph	nC28	31.5080	1629205			Z
Aliph	nC29	32.3700	1423101			Z
Aliph	nC30	33.2910	1072023			Z
Aliph	nC31	34.3470	1317558			Z
Aliph	nC32	35.5720	999721			Z
Aliph	nC33	37.0130	698502			Z
Aliph	nC34	38.7280	992639			Z
Aliph	nC35	40.8080	531077			Z
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300	86224			Z
Aliph	nC9	5.6200	515987			Z
Aliph	Norpristane	18.5830	2915219			Z
Aliph	Phytane	20.7870	3993197			Z
Aliph	Pristane	19.3870	2425611			Z

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** /001068 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS_001068_int_WholeOil.JPG](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

1068 interior (1 & 2 Rocks soft bitumen)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110	2541734			Z
Aliph	nC11	9.4450	3831799			Z
Aliph	nC12	11.3220	4563981			Z
Aliph	nC13	13.1110	5521979			Z
Aliph	nC14	14.8030	6691183			Z
Aliph	nC15	16.4030	6787512			Z
Aliph	nC16	17.9160	8201898			Z
Aliph	nC17	19.3500	12265246			Z
Aliph	nC18	20.7170	8827419			Z
Aliph	nC19	22.0170	7871941			Z
Aliph	nC20	23.2570	7256764			Z
Aliph	nC21	24.4410	6551898			Z
Aliph	nC22	25.5760	5817621			Z
Aliph	nC23	26.6620	4708173			Z
Aliph	nC24	27.7060	4568379			Z
Aliph	nC25	28.7100	4383717			Z
Aliph	nC26	29.6680	3984709			Z
Aliph	nC27	30.6080	2834873			Z
Aliph	nC28	31.5080	2439028			Z
Aliph	nC29	32.3700	2063011			Z
Aliph	nC30	33.2910	1466099			Z
Aliph	nC31	34.3470	1157681			Z
Aliph	nC32	35.5720	1097804			Z
Aliph	nC33	37.0130	755372			Z
Aliph	nC34	38.7280	684931			Z
Aliph	nC35	40.8080	451844			Z
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300	156751			Z
Aliph	nC9	5.6200	1037514			Z
Aliph	Norpristane	18.5830	4799006			Z
Aliph	Phytane	20.7870	5840955			Z
Aliph	Pristane	19.3870	3996583			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : /001069

Beach E11: Number 1 and 2 Rocks Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 22/10/2016 1:31:40 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

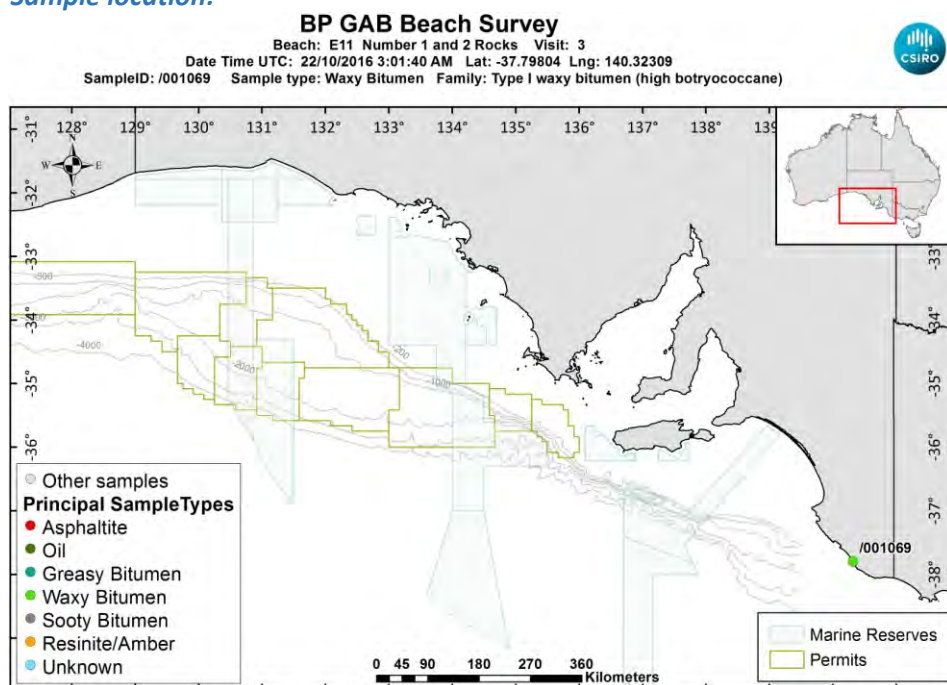
Size (cm): 2.5

Latitude (Y): -37.798042

Weight (gm): 1.46999

Longitude (X): 140.323090

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\ 001069 Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\001069_146A7176.JPG](#)

Sample - laboratory image: