



NT ENVIRONMENTAL
LABORATORIES

NORTHERN TERRITORY ENVIRONMENTAL LABORATORIES

CHEMICAL ANALYSIS REPORT

ARAFURA RESOURCES NL

Invoice: Box 3047 Adelaide Tce PERTH 6832

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AUSTRALIA

REPORT CODE: NT45349
Report Date: 24/03/2016
Samples Received: 9/03/2016
Number of Samples: 24

Purchase Order: PO#
Project: ARU_ExplorationBGF_160309
Cost Code:

**Intertek Testing Services
(Australia) Pty Ltd**
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Report Details: **NATA ACCREDITATION No: 14610**
Test results only apply to samples received
Samples were analysed between 09/03/16 and 24/03/16
Water samples will be discarded one month from date of report

Comments:

Authorisation:

Fiona Dunbar-Smith

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ACCREDITATION

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17025

NORTHERN TERRITORY ENVIRONMENTAL LABORATORIES

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Methodology:

Analysis	Analytical Method	Technique	Accuracy/ Precision +/-%	Detection Limit	Data Units
Ag	B100M	ICPMS	10	0.05	mg/kg
Al	B100M	ICPMS	10	10	mg/kg
As	B100M	ICPMS	10	0.5	mg/kg
Au	B100M	ICPMS	10	0.05	mg/kg
Ba	B100M	ICPMS	10	0.05	mg/kg
Bi	B100M	ICPMS	10	0.02	mg/kg
Ca	B100I	ICPOES	10	10	mg/kg
Cd	B100M	ICPMS	10	0.05	mg/kg
Ce	B100M	ICPMS	10	0.01	mg/kg
Cr	B100M	ICPMS	10	5	mg/kg
Cu	B100M	ICPMS	10	0.2	mg/kg
Dy	B100M	ICPMS	10	0.005	mg/kg
Er	B100M	ICPMS	10	0.005	mg/kg
Eu	B100M	ICPMS	10	0.01	mg/kg
Fe	B100M	ICPMS	10	10	mg/kg
Gd	B100M	ICPMS	10	0.01	mg/kg
Hg	B100M	ICPMS	10	0.05	mg/kg
Ho	B100M	ICPMS	10	0.01	mg/kg
K	B100I	ICPOES	10	50	mg/kg
La	B100M	ICPMS	10	0.01	mg/kg
Li	B100M	ICPMS	10	0.1	mg/kg
Mg	B100I	ICPOES	10	10	mg/kg
Mn	B100M	ICPMS	10	0.05	mg/kg
Mo	B100M	ICPMS	10	0.05	mg/kg
Na	B100I	ICPOES	10	50	mg/kg
Nd	B100M	ICPMS	10	0.05	mg/kg
Ni	B100M	ICPMS	10	0.2	mg/kg
P	B100I	ICPOES	10	20	mg/kg
Pb	B100M	ICPMS	10	0.2	mg/kg
Pr	B100M	ICPMS	10	0.01	mg/kg
S	B100I	ICPOES	10	20	mg/kg
Sb	B100M	ICPMS	10	0.05	mg/kg
Se	B100M	ICPMS	10	0.5	mg/kg
Sm	B100M	ICPMS	10	0.01	mg/kg
Sn	B100M	ICPMS	10	0.2	mg/kg
Sr	B100M	ICPMS	10	0.05	mg/kg
Tb	B100M	ICPMS	10	0.01	mg/kg
Th	B100M	ICPMS	10	0.01	mg/kg
Ti	B100M	ICPMS	10	0.5	mg/kg
Tl	B100M	ICPMS	10	0.01	mg/kg
U	B100M	ICPMS	10	0.01	mg/kg
V	B100M	ICPMS	10	10	mg/kg
W	B100M	ICPMS	10	0.05	mg/kg
Y	B100M	ICPMS	10	0.01	mg/kg
Yb	B100M	ICPMS	10	0.02	mg/kg
Zn	B100M	ICPMS	10	0.5	mg/kg
Zr	B100M	ICPMS	10	0.1	mg/kg

NORTHERN TERRITORY ENVIRONMENTAL LABORATORIES

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Project: ARU_ExplorationBGF_160309

Element:	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce
Method:	B100M	B100M	B100M	B100M	B100M	B100M	B100I	B100M	B100M
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample ID									
NBVEG1	<0.05	390	<0.5	<0.05	24.4	0.04	1.13%	<0.05	32.8
F10198	<0.05	80	<0.5	<0.05	7.75	<0.02	1.57%	<0.05	0.28
F10199	<0.05	80	<0.5	<0.05	7.00	<0.02	1.46%	<0.05	0.18
F10200	<0.05	50	<0.5	<0.05	6.30	<0.02	1.32%	<0.05	0.11
F10201	<0.05	50	<0.5	<0.05	6.05	<0.02	1.18%	<0.05	0.10
F10202	<0.05	50	<0.5	<0.05	6.40	<0.02	1.11%	<0.05	0.13
F10203	<0.05	50	<0.5	<0.05	27.7	<0.02	1.42%	<0.05	0.09
F10204	<0.05	50	<0.5	<0.05	12.1	<0.02	1.19%	<0.05	0.10
F10205	<0.05	60	<0.5	<0.05	17.8	<0.02	1.31%	<0.05	0.16
F10206	<0.05	50	<0.5	<0.05	12.5	<0.02	1.66%	<0.05	0.10
F10207	<0.05	40	<0.5	<0.05	4.10	<0.02	1.48%	<0.05	0.07
F10208	<0.05	50	<0.5	<0.05	3.50	<0.02	1.20%	<0.05	0.10
F10209	<0.05	40	<0.5	<0.05	9.60	<0.02	8920	<0.05	0.19
F10210	<0.05	60	<0.5	<0.05	10.4	<0.02	1.37%	<0.05	0.11
F10211	<0.05	60	<0.5	<0.05	20.6	<0.02	1.25%	<0.05	0.12
F10212	<0.05	50	<0.5	<0.05	42.6	<0.02	1.96%	<0.05	0.09
F10213	<0.05	60	<0.5	<0.05	9.25	<0.02	1.89%	<0.05	0.12
F10214	<0.05	30	<0.5	<0.05	9.45	<0.02	1.78%	<0.05	0.08
F10215	<0.05	40	<0.5	<0.05	12.2	<0.02	2.14%	<0.05	0.08
F10216	<0.05	50	<0.5	<0.05	7.70	<0.02	1.29%	<0.05	0.09
F10217	<0.05	60	<0.5	<0.05	11.7	<0.02	1.30%	<0.05	0.11
F10218	<0.05	40	<0.5	<0.05	23.0	<0.02	1.54%	<0.05	0.09
F10219	<0.05	50	<0.5	<0.05	37.2	<0.02	2.30%	<0.05	0.08
F10220	<0.05	70	<0.5	<0.05	40.1	<0.02	1.31%	<0.05	0.19

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Element:	Cr	Cu	Dy	Er	Eu	Fe	Gd	Hg	Ho
Method:	B100M	B100M	B100M	B100M	B100M	B100M	B100M	B100M	B100M
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample ID									
NBVEG1	<5	5.4	0.325	0.110	0.29	550	0.75	<0.05	0.05
F10198	<5	2.8	0.015	0.005	<0.01	130	0.01	<0.05	<0.01
F10199	<5	4.2	0.005	0.010	<0.01	120	0.02	<0.05	<0.01
F10200	<5	2.0	<0.005	0.005	<0.01	80	<0.01	<0.05	<0.01
F10201	<5	2.8	0.005	0.005	<0.01	80	<0.01	<0.05	<0.01
F10202	<5	3.2	0.010	<0.005	<0.01	80	<0.01	<0.05	<0.01
F10203	<5	3.4	0.005	0.005	<0.01	80	<0.01	<0.05	<0.01
F10204	<5	3.6	0.010	<0.005	<0.01	70	<0.01	<0.05	<0.01
F10205	<5	4.0	0.010	<0.005	<0.01	100	<0.01	<0.05	<0.01
F10206	<5	2.0	0.005	<0.005	<0.01	70	<0.01	<0.05	<0.01
F10207	<5	2.8	<0.005	<0.005	<0.01	70	<0.01	<0.05	<0.01
F10208	<5	3.6	<0.005	<0.005	<0.01	90	<0.01	<0.05	<0.01
F10209	<5	2.4	0.010	0.005	<0.01	60	0.02	<0.05	<0.01
F10210	<5	2.6	0.010	<0.005	<0.01	90	<0.01	<0.05	<0.01
F10211	<5	3.0	0.010	<0.005	<0.01	80	0.01	<0.05	<0.01
F10212	<5	2.6	0.005	<0.005	<0.01	70	<0.01	<0.05	<0.01
F10213	<5	3.2	0.010	0.005	<0.01	70	<0.01	<0.05	<0.01
F10214	<5	1.4	<0.005	<0.005	<0.01	60	<0.01	<0.05	<0.01
F10215	<5	2.0	<0.005	<0.005	<0.01	70	<0.01	<0.05	<0.01
F10216	<5	0.8	<0.005	0.005	<0.01	70	<0.01	<0.05	<0.01
F10217	<5	1.6	0.005	<0.005	<0.01	80	0.02	<0.05	<0.01
F10218	<5	3.4	<0.005	0.005	<0.01	70	<0.01	<0.05	<0.01
F10219	<5	3.6	0.005	<0.005	<0.01	70	<0.01	<0.05	<0.01
F10220	<5	2.6	0.015	0.010	<0.01	110	0.02	<0.05	<0.01

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Element:	K	La	Li	Mg	Mn	Mo	Na	Nd	Ni
Method:	B100I	B100M	B100M	B100I	B100M	B100M	B100I	B100M	B100M
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample ID									
NBVEG1	8000	12.0	0.2	1300	43.6	0.50	100	13.8	1.4
F10198	8000	0.13	0.1	1670	39.4	4.35	150	0.10	0.2
F10199	7200	0.09	<0.1	1740	29.9	6.85	200	0.10	0.4
F10200	5850	0.05	<0.1	1550	30.1	2.45	50	<0.05	<0.2
F10201	7100	0.05	<0.1	1270	34.4	4.25	<50	0.10	0.2
F10202	7750	0.09	<0.1	1250	37.2	0.85	<50	0.05	0.4
F10203	6850	0.06	<0.1	1740	22.2	3.05	100	<0.05	0.4
F10204	7750	0.05	<0.1	1720	18.5	1.70	100	<0.05	0.2
F10205	8700	0.08	<0.1	990	9.60	0.10	100	0.05	<0.2
F10206	7000	0.04	<0.1	1250	14.7	0.20	50	<0.05	<0.2
F10207	8050	0.04	<0.1	2490	29.9	1.35	<50	<0.05	<0.2
F10208	1.03%	0.08	<0.1	1550	62.3	1.80	50	0.05	0.6
F10209	6900	0.16	<0.1	1860	103	0.75	50	0.15	0.8
F10210	7550	0.08	<0.1	2170	26.5	0.60	100	0.05	0.2
F10211	7200	0.04	<0.1	1320	9.50	1.80	50	0.05	<0.2
F10212	5350	0.05	0.3	2470	12.9	1.50	100	<0.05	<0.2
F10213	5750	0.07	<0.1	1620	10.3	1.00	50	0.05	0.2
F10214	6500	0.06	<0.1	1350	12.7	0.20	<50	0.05	<0.2
F10215	6400	0.12	<0.1	1490	18.1	0.05	<50	<0.05	<0.2
F10216	7300	0.04	<0.1	1550	8.80	0.50	<50	0.05	<0.2
F10217	6450	0.13	<0.1	1720	24.3	0.10	50	0.10	0.4
F10218	6400	0.07	<0.1	1450	25.7	0.15	<50	0.10	0.4
F10219	5600	0.07	<0.1	1310	27.0	<0.05	<50	0.05	0.2
F10220	6250	0.22	<0.1	1290	32.0	<0.05	150	0.15	0.6

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Element:	P	Pb	Pr	S	Sb	Se	Sm	Sn	Sr
Method:	B100I	B100M	B100M	B100I	B100M	B100M	B100M	B100M	B100M
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample ID									
NBVEG1	660	1.2	3.72	1120	<0.05	<0.5	1.81	<0.2	119
F10198	580	<0.2	0.04	1120	<0.05	<0.5	0.03	<0.2	151
F10199	740	<0.2	0.02	1180	<0.05	<0.5	0.01	<0.2	209
F10200	620	<0.2	0.01	1020	<0.05	<0.5	<0.01	<0.2	249
F10201	620	<0.2	<0.01	1040	<0.05	<0.5	0.02	<0.2	130
F10202	760	<0.2	0.02	1220	<0.05	<0.5	<0.01	<0.2	99.7
F10203	580	<0.2	0.02	1020	<0.05	<0.5	0.02	<0.2	176
F10204	500	<0.2	<0.01	1100	<0.05	<0.5	<0.01	<0.2	199
F10205	700	<0.2	0.02	1220	<0.05	<0.5	0.01	<0.2	99.0
F10206	520	<0.2	0.01	1160	<0.05	<0.5	0.01	<0.2	72.8
F10207	700	<0.2	<0.01	1340	<0.05	<0.5	<0.01	<0.2	153
F10208	760	<0.2	0.01	1120	<0.05	<0.5	0.01	<0.2	98.8
F10209	600	<0.2	0.03	1060	<0.05	<0.5	<0.01	<0.2	110
F10210	580	<0.2	0.02	1140	<0.05	<0.5	<0.01	<0.2	93.2
F10211	540	<0.2	0.02	1060	<0.05	<0.5	<0.01	<0.2	173
F10212	480	<0.2	<0.01	1020	<0.05	<0.5	<0.01	<0.2	121
F10213	480	0.2	0.01	1040	<0.05	<0.5	<0.01	<0.2	140
F10214	460	<0.2	0.01	1020	<0.05	<0.5	<0.01	<0.2	46.9
F10215	460	<0.2	0.01	1000	<0.05	<0.5	<0.01	<0.2	58.3
F10216	460	<0.2	<0.01	960	<0.05	<0.5	<0.01	<0.2	52.0
F10217	460	<0.2	0.02	1060	<0.05	<0.5	0.02	<0.2	70.4
F10218	460	<0.2	0.01	1060	<0.05	<0.5	0.02	<0.2	77.1
F10219	460	<0.2	0.02	960	<0.05	<0.5	<0.01	<0.2	83.7
F10220	480	<0.2	0.04	1040	<0.05	<0.5	0.03	<0.2	48.5

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Element:	Tb	Th	Ti	Tl	U	V	W	Y	Yb
Method:	B100M	B100M	B100M	B100M	B100M	B100M	B100M	B100M	B100M
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample ID									
NBVEG1	0.08	6.20	9.5	0.02	0.60	<10	0.20	1.35	0.06
F10198	<0.01	0.30	2.0	<0.01	<0.01	<10	0.10	0.07	<0.02
F10199	<0.01	0.10	1.5	<0.01	<0.01	<10	<0.05	0.06	<0.02
F10200	<0.01	0.06	1.0	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10201	<0.01	0.03	<0.5	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10202	<0.01	0.02	1.0	<0.01	<0.01	<10	<0.05	0.05	<0.02
F10203	<0.01	0.02	1.0	<0.01	<0.01	<10	<0.05	0.05	<0.02
F10204	<0.01	0.02	0.5	<0.01	<0.01	<10	<0.05	0.03	<0.02
F10205	<0.01	0.02	1.0	<0.01	<0.01	<10	<0.05	0.05	<0.02
F10206	<0.01	0.02	1.0	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10207	<0.01	0.01	<0.5	<0.01	<0.01	<10	<0.05	0.03	<0.02
F10208	<0.01	0.01	<0.5	<0.01	<0.01	<10	<0.05	0.05	<0.02
F10209	<0.01	0.01	0.5	<0.01	<0.01	<10	<0.05	0.08	<0.02
F10210	<0.01	0.01	1.0	<0.01	<0.01	<10	<0.05	0.05	<0.02
F10211	<0.01	0.01	1.0	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10212	<0.01	<0.01	0.5	<0.01	<0.01	<10	<0.05	0.02	<0.02
F10213	<0.01	0.02	0.5	<0.01	<0.01	<10	<0.05	0.05	<0.02
F10214	<0.01	<0.01	<0.5	<0.01	<0.01	<10	<0.05	0.03	<0.02
F10215	<0.01	<0.01	0.5	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10216	<0.01	<0.01	0.5	<0.01	<0.01	<10	<0.05	0.02	<0.02
F10217	<0.01	<0.01	0.5	<0.01	<0.01	<10	<0.05	0.08	<0.02
F10218	<0.01	0.01	0.5	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10219	<0.01	<0.01	0.5	<0.01	<0.01	<10	<0.05	0.04	<0.02
F10220	<0.01	0.01	1.5	<0.01	<0.01	<10	<0.05	0.10	<0.02

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Project: ARU_ExplorationBGF_160309

<hr/>			
Element:	Zn	Zr	
<hr/>			
Method:	B100M	B100M	
Units:	mg/kg	mg/kg	
Sample ID			
NBVEG1	11.0	0.6	
F10198	12.0	<0.1	
F10199	10.5	<0.1	
F10200	10.0	<0.1	
F10201	12.0	<0.1	
F10202	10.5	<0.1	
F10203	10.5	<0.1	
F10204	9.5	<0.1	
F10205	7.5	<0.1	
F10206	9.5	<0.1	
F10207	8.0	<0.1	
F10208	12.0	<0.1	
F10209	12.5	<0.1	
F10210	15.0	<0.1	
F10211	7.5	<0.1	
F10212	3.5	<0.1	
F10213	8.5	<0.1	
F10214	8.5	<0.1	
F10215	8.5	<0.1	
F10216	8.0	<0.1	
F10217	12.0	<0.1	
F10218	7.0	<0.1	
F10219	9.0	<0.1	
F10220	10.0	<0.1	