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C.R.A. EXPLORATION PROPRIETARY LIMITED

Ref. No. GENERAL/TASMANIA

70-661

SUBJECT: RECOMMENDATIONS FOR TESTING E.L. 36/70,
DEVONPORT, TASMANIA.

MICROFILMED

AUTHOR: Miss S. E. Close

DATE: 12th August, 1970.

Recommendations for testing
E.L. 36/70, Devonport, C.R.A.
by
S.E. Close 12/8/70

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of the Company.

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C.R.A. EXPLORATION PTY. LIMITED.

12th August, 1970.

Memorandum to : G. W. PATTERSON

Copy : C. L. Knight

From : Miss S. E. Close

Recommendations for Testing EL.36/70
Devonport, TasmaniaINTRODUCTION

The deep red soils which occur extensively over basalt in Northern Tasmania were tested by airborne scintillometer traversing followed by hand augering. This disclosed some areas with high total alumina values. The available area was applied for and an Exploration Licence of 378 square miles extending south from Devonport then east past Westbury was recently granted, and subsequently examined to determine what testing work was required.

CONCLUSION

The areas marked as basalt on the accompanying map are generally correct. Some have deep red soils developed while in other areas only black soils are found and basalt often outcrops on the edge of each area.

Closer spaced power auger drilling (for example a Gemco) should be carried out, especially concentrated on the red soil areas. However at the moment the ground is saturated and the drilling programme should not be commenced for several months, when the ground has dried out and drilling conditions are more satisfactory. Sufficient coverage should be obtained by drilling on roadsides and tracks, rather than entering private land.

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DESCRIPTION

The results of the airborne scintillometer traversing have been reported previously - see report of February, 1970.

The follow up sampling by hand augering was carried out with particular emphasis on the areas with a radio-metric high, notably near Westbury.

A total of 145 samples was taken and analysed at Zinc Corporation for Al_2O_3 , SiO_2 and Fe_2O_3 . The sample locations are shown on the accompanying plan and the logs and results are also included in this report.

Several high alumina values were obtained, few samples containing more than 50% total alumina. However, mostly the areas are very restricted and the bauxite occurrences seem to be topographically controlled, being only remnants of a formerly more extensive area. The elevation of the bauxite remnants increases with distance from the coast.

Within the Exploration Licence the areas of greatest interest with respect to potential area and presence of red soil and its thickness are, between Deloraine and Exton, between Deloraine and east of Elizabeth Town and in the northern part of the Exploration Licence area near Sassafras, where red soils extend north and west of the marked basalt.

The southeastern corner of the Exploration Licence area, near Westbury, has red soil developed from basalt resting on the gravel beds and sediments of the Launceston Basin. However the basaltic red soils are very limited in extent. In the southwestern corner, near Mole Creek most of the red soils are derived from limestone, the area of weathered basalt being very small.

SEC:jp

S. E. Close
S. E. Close

APPENDIX

Pages 1 - 17 Auger sample logs and sample analyses.

KEYWORDS

Bauxite, laterite, basalt, reconnaissance, auger drilling.

Locality: Tasmania 1 : 250,000 Sheet 3 Burnie.
Sheet 4 Launceston.

PLAN

T.773 Northern Tasmania Bauxite Reconnaissance Including EL.36/70. 2 miles = 1"

003

978004

CRA EXPLORATION PTY LIMITED

CRAE 66

AUGER DRILL LOG & ASSAY SHEET

①

LOCALITY *North TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *5753 5130*
 ANALYSED BY *Z.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	L.O.I.	A.I.
R/C	140169			Ferruginous nodular laterite fragments in red soil	2.6	29.1	40.9			
R/C	140170			Deeply weathered basalt, probably mostly kaolinitic and chloritic. Some remnants of weathered basalt. Weathered to depth of approx 15 ft.	50.8	10.6 15.4	10.6			
R/C	140171			Deeply weathered vesicular basalt kaolinized and stained material in vesicles.	32.5	18.1 21.3	18.1			
O/C	140172			Fragments of yellow brown weathered basalt.	5.2	13.9 52.6	13.9		28.6	
T1	140173	0.7	1.8	Brown soil with organic material. Limonite staining and highly weathered rock fragments.	41.8	19.2	17.4			
T1	140174	1.8	3.3	Light buff coloured friable clayey material with fine highly weathered rock fragments; also high content of fine quartz and garnet grains.	44.6	21.3	15.3			
R/C	140175	2.5	7.5	Red brown to yellow brown highly weathered basalt (?).	49.1	20.6	14.7			
R/C	140177	2.0	2.5	Iron concretions	-	-	-			
R/C	140176	2.0	10.0	Quartzose, friable sandstone with thin (1/8" - 1/2") discontinuous	86.0	8.2	1.9			

REMARKS:-

R/C = Road cutting

O/C = Outcrop

All depths measured in feet.

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CRA EXPLORATION PTY LIMITED
AUGER DRILL LOG & ASSAY SHEET

978001

②

LOCALITY *NORTH TASMANIA*
CO-ORDINATES
DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
D.P.O. No. *5133 5134*
ANALYSED BY *Z.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₂ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₂ O ₂	L.O.I.	A.I.
R/C	140178	10	3.0	<i>lenses of grey clay (cf hole 11)</i> Grey to dark grey clay with limonite staining on joints. Porous, possibly silt vesicles.	44.8 83.1	9.1	3.4			
R/C	140179	3.0	5.0	As above (140178)	44.6 84.1	8.4	3.5			
Dam	140180			Pale blue grey clay with isolated patch of black ferru- ginous material	49.1 53.4	21.4	8.0			
Dam.	140181			Aggregate of ferruginous nodules; may contain ilmenite.	—	20.5	—			
o/c	140182			Basalt cobble from field of red soil with high content of basalt cobbles.	—	—	—			
Dam	140183	2.5	4.0	Green grey to grey clay with a high content of organic mat- erial.	47.1	20.5	12.7			
T ₂	140184	0	1.0	Red clayey soil with ferrugin- ous nodules.	42.4	13.2	22.9			
Dam o/c	140185			Basalt cobble - fresh to slightly weathered.	—	—	—			
Dam.	140186	1.0	2.0	Red soil with cobbles of basalt and fine ferruginous nodules.	48.6	17.8	16.7			
"	140187	2.0	4.0	Mustard coloured clay with highly weathered rock fragments.	42.0	11.6	30.4			

REMARKS:-

Dam = farm waterhole or dam cutting
o/c = outcrop.

005

978006

CRAE 66

CRA EXPLORATION PTY LIMITED
 AUGER DRILL LOG & ASSAY SHEET

(3)

LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *5133 5134*
 ANALYSED BY *2C*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	L.O.I.	AI.
R/C	140188	0.0	6.0	Red brown clayey soil.	33.4	26.3	22.00			
"	140189	6.0	15.0	Light brown to buff coloured highly weathered basalt with limonite staining and a white material on some joints - (boulders spheroidally weathered).	32.3	27.0	22.0			
"	140190			Mottled red and buff coloured clay material from 15' in the above soil profile.	33.4	26.4	22.2			
"	140191			Black material - ferruginous or mangani ferous. - seen in clay sample 140180.	25.6	23.9	27.1			
T3	140192	0.7	1.6	Light brown to buff coloured highly weathered basalt.	41.4	16.6	19.5			
Dam	140193	4.0	10.0	Red brown clayey soil with rock fragments.	47.9	17.2	19.9			
"	140195	10.0	20.0	Salmon pink clay with buff coloured sections.	53.7	16.7	15.0			
	140194	20.0	25.0	Mainly buff to green - grey clay with salmon pink patches - contains moderately to highly weathered rock fragments.	48.5	23.6	14.4			

REMARKS:- *R/C - road cutting*
Dam - from water hole on dam cutting.

006

CRA EXPLORATION PTY LIMITED
AUGER DRILL LOG & ASSAY SHEET

978007

CRAE 66

④

LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *51335134*
 ANALYSED BY *Z.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
<i>O/c</i>	<i>140196</i>			<i>Basalt cobble.</i>						
	<i>140197</i>			<i>Red clayey soil with moderately to highly weathered (spheroidally) basalt boulders.</i>	<i>31.0</i>	<i>26.7</i>	<i>23.8</i>			
<i>T4</i>	<i>140198</i>	<i>1.0'</i>	<i>3.3'</i>	<i>Red brown clayey soil.</i>	<i>30.6</i>	<i>23.0</i>	<i>25.1</i>			
"	<i>140199</i>	<i>3.3'</i>	<i>5.3'</i>	<i>(as above)</i>	<i>29.4</i>	<i>23.0</i>	<i>24.9</i>			
"	<i>140200</i>	<i>5.3'</i>	<i>5.9'</i>	<i>Light brown to green brown highly weathered basalt.</i>	<i>30.5</i>	<i>21.9</i>	<i>24.0</i>			
<i>T5</i>	<i>116514</i>	<i>0.8'</i>	<i>1.1'</i>	<i>Dark brown soil with a trace of organic material and moderately weathered rock fragments.</i>	<i>47.9</i>	<i>26.5</i>	<i>17.1</i>			
<i>T6</i>	<i>116518</i>	<i>1.0'</i>	<i>2.0'</i>	<i>Red brown clayey soil with traces of organic material and moderately to highly weathered rock fragments.</i>	<i>42.0</i>	<i>19.1</i>	<i>19.4</i>			
<i>T7</i>	<i>116519</i>	<i>1.0'</i>	<i>3.1'</i>	<i>Red brown clayey soil with traces of organic material and buff coloured highly weathered rock fragments.</i>	<i>33.8</i>	<i>22.8</i>	<i>24.2</i>			
"	<i>116520</i>	<i>3.1'</i>	<i>3.9'</i>	<i>as above but with no organic material.</i>	<i>32.7</i>	<i>23.3</i>	<i>22.8</i>			
<i>T8</i>	<i>116521</i>	<i>0.5'</i>	<i>1.0'</i>	<i>Grey clayey soil with feruginous nodules.</i>	<i>52.5</i>	<i>5.5</i>	<i>29.7</i>			

REMARKS:- *O/c - outcrop.*

007

CRA EXPLORATION PTY LIMITED 978008
 AUGER DRILL LOG & ASSAY SHEET

CRAE 66

⑤

LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *5133 5134*
 ANALYSED BY *Z.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
<i>Dam.</i>	<i>116522</i>	<i>1'0"</i>	<i>4'0"</i>	<i>Red brown clay.</i>	<i>50.4</i>	<i>19.0</i>	<i>16.5</i>			
<i>"</i>	<i>116523</i>	<i>4'0"</i>	<i>6'0"</i>	<i>Red brown clay with some buff coloured highly weathered rock fragments</i>	<i>44.8</i>	<i>15.4</i>	<i>17.3</i>			
<i>O/e</i>	<i>116524</i>			<i>Basalt cobble.</i>						
	<i>116525</i>	<i>2'0"</i>	<i>4'0"</i>	<i>Red brown clay with few moderately weathered rock fragments and cobbles.</i>	<i>28.5</i>	<i>25.6</i>	<i>25.6</i>			
	<i>116526</i>	<i>4'0"</i>	<i>6'0"</i>	<i>as above - but with highly weathered rock fragments.</i>	<i>27.5</i>	<i>24.2</i>	<i>26.3</i>			
	<i>116527</i>	<i>6'0"</i>	<i>8'0"</i>	<i>Buff to grey coloured clay with limonitic staining and highly weathered rock fragments.</i>	<i>68.5</i>	<i>16.0</i>	<i>6.3</i>			
<i>T9</i>	<i>116528</i>	<i>1'0"</i>	<i>3'3"</i>	<i>Red brown clay with yellow limonitic patches and highly weathered rock fragments.</i>	<i>31.8</i>	<i>21.1</i>	<i>26.4</i>			
<i>"</i>	<i>116529</i>	<i>3'3"</i>	<i>5'3"</i>	<i>as above.</i>	<i>31.1</i>	<i>23.1</i>	<i>24.9</i>			
<i>"</i>	<i>116530</i>	<i>5'3"</i>	<i>6'3"</i>	<i>Brown highly weathered bedrock with red and yellow limonitic patches.</i>	<i>32.7</i>	<i>21.8</i>	<i>26.5</i>			
<i>T10</i>	<i>116531</i>	<i>1'0"</i>	<i>3'0"</i>	<i>Red brown clay with yellow limonitic and grey patches of completely weathered rock.</i>	<i>29.0</i>	<i>22.7</i>	<i>27.3</i>			
<i>"</i>	<i>116532</i>	<i>3'0"</i>	<i>5'2"</i>	<i>as above.</i>	<i>30.8</i>	<i>24.8</i>	<i>25.3</i>			

REMARKS:-

008

CRA EXPLORATION PTY LIMITED 978009
 AUGER DRILL LOG & ASSAY SHEET

CRAE 66

(6)

LOCALITY NORTH TASMANIA
 CO-ORDINATES
 DATE DRILLED 18/3/70 to 26/3/70

SAMPLE DISPATCHED
 D.P.O. No. 5133 5134
 ANALYSED BY Z. C.

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	AI.
T10 (contd)	116533	5.1	7.0	Green brown to grey green clay with highly to completely weathered rock fragments and minor amounts of white clayey material.	33.2	22.6	26.0			
"	116534	7.0	8.6	as above.	34.0	22.2	23.9			
T11	116535	1.0	3.3	Red brown clay with some limonitic material at 3 ft. $\frac{2}{3}$	35.1	24.1	23.5			
T12	116536	1.3	3.0	Red brown clay with limonite staining ^{staining} and minor amounts of carbonaceous material.	50.1	16.6	17.5			
"	116537	3.0	5.0	Red brown clay as above.	39.0	23.1	20.2			
R/C	116538	1.5	4.0	Red clay with some organic material.	32.8	26.6	22.3			
R/C	116539	1.5	5.0	Grey highly to completely weathered basalt with yellow limonite staining and containing slightly to moderately weathered (spheroidally) basalt boulders.	42.0	28.2	14.1			
T13	116540	1.0	3.0	Red brown clay with few ferruginous nodules, trace of organic material and minor amounts of highly weathered rock fragments.	42.0	28.2	14.1			
"	116541	3.0	5.2	as above.	32.7	25.7	22.8			

REMARKS:- R/C - road cutting.

009

CRA EXPLORATION PTY LIMITED 978010
 AUGER DRILL LOG & ASSAY SHEET

CRAE 66

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LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *5133 5134*
 ANALYSED BY *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	L.O.I.	A.I.
R/C	116542	5.0	10.0	Red clay with spheroidal ally weathered basalt boulders.	31.7	26.9	22.0			
"	116543	10.0	13.0	as above.	31.3	26.9	22.4			
R/C	116544			Red brown and yellow- brown highly weathered basalt fragment - lateritized.	1.9	48.3	18.9		27.12	
	116545			as above.	1.5	49.8	20.0		27.52	
R/C	116546	2.0	5.0	Red brown clayey soil with yellow limonitic flecks and hard porous silicious? nodules.	13.0	34.3	28.3		19.37	
"	116547	5.0	8.0	as above - with moderately to highly weathered rock fragments.	9.7	38.8	30.0		20.67	
"	116548			Sample of porous silicious material ^{from} the above profile.	7.0	58.5	6.7		29.10	
R/C	116549	2.0	5.0	Brown-red clay	29.2	28.4	23.0			
"	116550	5.0	8.0	Brown-red clay with moderately to completely weathered (spheroidally) basalt cobbles. White compacted soft material (kaolin?) with the appearance of chalcedony (but not hardness) formed in the	29.7	27.4	21.5			

REMARKS:- *R/C - road cutting.*
O/C - outcrop.

CRA EXPLORATION PTY LIMITED
 AUGER DRILL LOG & ASSAY SHEET

978011

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010

LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *5133 5134*
 ANALYSED BY *Z.C*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
				<i>outer layers of spheroidally weathered basalt cobbles</i>						
"	116551			<i>Sample of white material found in the skin of spheroidally weathered cobbles. (Kaolin?) - which has the colour and appearance (but not hardness) of chalcodony.</i>	37.2	35.7	7.1		16.16	
R/C	116555	1.0'	3.0'	<i>Red-brown clayey soil with highly weathered basalt fragments.</i>	30.9	28.5	21.3			
"	116552	3.0'	7.0'	<i>Red brown clay with mod. to highly weathered rock fragments - white compact soil material with associated black staining occurs in the skin of weathered cobbles.</i>	30.0	30.7	17.8			
"	116553	7.0'	10.0'	<i>As above but with a higher content of mod. to highly weathered basalt.</i>	32.7	30.4	18.7			
O/C	116554			<i>Grey highly weathered basalt with red limonite staining and white material in the vesicles (quartzite?)</i>	32.5	26.2	22.2			
R/C	116556	2.0'	4.0'	<i>Red brown clay with highly weathered rock fragments and traces of organic material</i>	36.6	34.3	28.6			

REMARKS:-

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CRA EXPLORATION PTY LIMITED
 AUGER DRILL LOG & ASSAY SHEET

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9

LOCALITY .. NORTH TASMANIA ..
 CO-ORDINATES ..
 DATE DRILLED .. 18/3/70. to 23/3/70.

SAMPLE DISPATCHED ..
 D.P.O. No. .. 5133, 5134
 ANALYSED BY .. Z.C ..

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	L.O.I.	A.I.
R/C	116557	4.0'	7.0'	As above with higher content of mod. to highly weathered rock fragments.	32.3	34.3	27.7			
"	116558	7.0'	10.0'	Mod. to highly weathered spher. ordially weathered basalt cobbles & boulders with red and yellow limonite staining on joints. with red-brown clay developed.	35.4	32.3	30.2			
O/C	116559			Basalt cobble from field						
R/C	116560	2.0'	7.0'	Red-brown clay with fragments of mod. to highly spher. ordially weathered basalt.	31.9	25.5	22.8			
T14	116562	1.1'	2.9'	Red brown friable clay with fragments of mod. to highly weathered basalt and traces of organic matter.	21.1	29.2	27.2			
"	116563	2.9'	3.9'	As above with no organic matter and a high content of mod. to highly weathered rock fragments.	17.6	30.8	28.3			
	116564	2.9'	3.9'	As above. (cave in material)	16.8	33.8	26.5		20.46	
O/C	116565			Mod to highly weathered basalt.						
R/C	116566	3.0'	6.0'	Red brown clay; traces of organic matter.	35.2	27.7	20.7			
"	116567	6.0'	10.0'	Mixture of red-brown and yellow brown clay; traces of weathered r.f. increasing down.	30.9	27.7	22.2			

REMARKS:-

012

CRA EXPLORATION PTY LIMITED 978013
 AUGER DRILL LOG & ASSAY SHEET

CRAE 66

(10)

LOCALITY NORTH TASMANIA
 CO-ORDINATES
 DATE DRILLED 18/3/70 to 23/3/70

SAMPLE DISPATCHED
 D.P.O. No. 5133 5134
 ANALYSED BY Z.C.

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
R/C	116561	1.5'	3.0'	Red brown clay with ferrug- inuous rock fragments common	35.9	26.0	21.9			
Dam	116569	4.0'	7.0'	Red brown clay with fine highly weathered rock frags.	33.2	21.1	26.2			
"	116570	7.0'	10.0'	As above with higher content of rock fragments.	31.9	21.9	26.5			
R/C	116571	4.0'	5.5'	Mixture of red-brown and yellow-brown clay showing framework of spheroidal weathering.	27.0	24.6	28.1			
"	116572	5.5'	8.0'	As above.	25.0	23.0	29.5			
R/C	116573	2.0'	5.0'	Red-brown clayey soil with mod. to highly weathered basalt cobbles. Pieces of white material (gibbsite?) filling vesicles.	41.2	20.8	22.8			
"	116574	5.0'	7.0'	As above with higher content of weathered basalt fragments.	33.8	26.6	20.9			
"	116575	7.0'	9.0'	Grey-brown highly to compl- etely weathered basalt with white material in vesicles	34.6	24.8	21.6			
"	116576	9.0'	13.0'	Red-brown highly to complet- ely weathered basalt with white material in vesicles.	38.1	23.0	18.8			
"	116577	13.0'	20.0'	Green-brown to red-brown highly to completely weathered basalt with a high content of white materials in vesicles.	38.9	21.6	19.7			

REMARKS:-

013

CRA EXPLORATION PTY LIMITED 978014
AUGER DRILL LOG & ASSAY SHEET

CRAE 66

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LOCALITY .. NORTH TASMANIA ..
CO-ORDINATES ..
DATE DRILLED .. 18/3/70 to 23/3/70 ..SAMPLE DISPATCHED ..
D.P.O. No. ~~5133~~ 5134 ..
ANALYSED BY .. Z.C. ..

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
R/C	116578	15.0'	20.0'	White kaolinitic material in basalt.	78.9	12.1	3.1			
R/C	116579			Feruginous yellow brown sandstone with high quartz content and fragments of highly to weathered basalt.						
R/C	116581	2.0'	5.0'	Highly to completely weathered red brown and yellow brown basalt with interstitial cobbles of fresh basalt.	41.4	20.6	18.3			
"	116582	5.0'	7.0'	Grey highly to completely weathered basalt with white material (gibbsite?) filling vesicles.	44.6	18.9	16.4			
"	116580			Fresh basalt.						
R/C	116583			Fresh basalt.						
R/C	116584	4.0'	8.0'	Yellow brown clay with highly to completely weathered basalt with limonitic staining throughout. Cobbles of fresh basalt.	24.4	27.8	24.4			
Dam	116585	2.0'	4.0'	Hard porous layers of dark grey feruginous material resembling a basalt.	21.7	7.0	46.0			
"	116586	4.0'	7.0'	Yellow brown highly weathered basalt with small lenses of grey clay flecked with white material and hard porous feruginous nodules.	33.0	14.8	32.8			

REMARKS:-

014

CRA EXPLORATION PTY LIMITED 978015
 AUGER DRILL LOG & ASSAY SHEET

CRAE 66

(12)

LOCALITY .. NORTH TASMANIA ..
 CO-ORDINATES ..
 DATE DRILLED .. 18/3/70 .. to .. 23/3/70 ..

SAMPLE DISPATCHED ..
 D.P.O. No. .. 5133, 5134 ..
 ANALYSED BY .. ZC ..

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
Dam	116587	7.0'	10.0'	Grey clay with white flecks (gibbsite?) and highly to completely weathered basalt fragments (limonite stained)	41.7	18.8	22.6			
"	116588	2.0'	4.0'	Hard rock specimen of 116585.						
Dam	116589	2.0'	3.5'	Grey brown clay with limonite staining, and highly to completely weathered basalt fragments	42.1	18.2	17.3			
"	116590	3.5'	5.0'	As above	41.6	16.4	15.5			
T15	116591	5.0'	7.2'	From as above to sandy friable yellow brown material	42.7	20.8	17.5			
Dam dc	116592			Fresh basalt						
Dam dc	116593			Fresh basalt						
Dam	116594	4.0'	8.0'	Green-brown clay grading downwards into grey-white clay with moderately to highly weathered basalt containing white material (gibbsite?) in vesicles	60.2	18.4	9.8			
R/C	116595	2.0	4.0	White gibbsite(?) nodules from soil profile of weathered basalt	76.0	14.9	4.5			
T16	116596	2.5'	4.5'	Red brown clay with completely weathered limonitic basalt and cream coloured clay fragments	38.4	20.2	19.5			
"	116597	4.5'	6.6'	As above but with overall change in colour to yellow brown with increase in	37.8	22.0	20.0			

REMARKS:-

CRA EXPLORATION PTY LIMITED
 AUGER DRILL LOG & ASSAY SHEET

978016 CRAE 66

(13)

015

LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to*

SAMPLE DISPATCHED
 D.P.O. No. *5134*
 ANALYSED BY *2. C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	L.O.I.	A.I.
				<i>amount of completely weathered rock.</i>						
	<i>116598</i>	<i>6.6</i>	<i>7.2</i>	<i>As above but with dark ferruginous fragments.</i>	<i>36.4</i>	<i>21.5</i>	<i>19.9</i>			
<i>T17</i>	<i>116599</i>	<i>2.5</i>	<i>4.8</i>	<i>Red-brown clay with fine highly to completely weathered rock fragments.</i>	<i>35.6</i>	<i>23.1</i>	<i>20.7</i>			
"	<i>140004</i>	<i>4.8</i>	<i>6.8</i>	<i>Red-brown clay with yellow brown completely weathered rock fragments and thin lenses of grey clay.</i>	<i>37.4</i>	<i>23.1</i>	<i>19.9</i>			
<i>Silage Pit.</i>	<i>140005</i>	<i>1.0</i>	<i>4.0</i>	<i>Red brown to yellow brown clay with completely weathered rock fragments (basalt cobbles in upper section).</i>	<i>39.4</i>	<i>21.1</i>	<i>20.7</i>			
	<i>140006</i>	<i>4.0</i>	<i>6.0</i>	<i>Yellow brown clay; mottled with grey brown clay and highly weathered rock fragments in places. Dark grey soft ferruginous nodules at base of section.</i>	<i>45.6</i>	<i>20.3</i>	<i>16.6</i>			
"	<i>140007</i>			<i>Fresh basalt from 2 ft in soil profile. - in red clay.</i>						
<i>T18</i>	<i>140008</i>	<i>4.0</i>	<i>8.0</i>	<i>Red brown bamy clay with highly to completely weathered rock fragments and cobbles.</i>	<i>31.6</i>	<i>25.3</i>	<i>23.7</i>			

REMARKS:-

016

AUGER DRILL LOG & ASSAY SHEET

(14)

LOCALITY NORTH TASMANIA
 CO-ORDINATES
 DATE DRILLED 18/3/70 to 26/3/70

SAMPLE DISPATCHED
 D.P.O. No. 5134
 ANALYSED BY Z.C.

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
"	140009	8.0'	10.0'	of fresh basalt. Red-brown to yellow-brown clay with gray clay patches and limonite stained joints	31.9	24.3	23.8			
"	140010	10.0'	12.0'	Yellow brown completely weathered basalt. - not as clayey as 140009.	33.5	22.2	23.5			
R/C	140011	2.0'	6.0'	Moderately to completely weathered yellow brown basalt with limonite staining.	15.1	36.4	24.9		20.48	
	140012			Sample of red-brown and yellow brown highly weathered (spheroidally) basalt with a white clayey material. Sample taken from skin of some boulders so as to include as much as possible of the white material.	34.1	30.7	17.1		14.57	
R/C	140013	4.0'	8.0'	Red brown clay with patches of yellow brown moderately to completely weathered basalt.	42.1	21.8	19.5			
O/C	140014			Hard red brown ferruginous material containing highly to completely weathered basalt fragments.	2.6	47.8	22.5		26.54	
R/C	140015	2.0'	4.0'	Yellow brown to red-brown	36.3	24.5	20.2			

REMARKS:-

R/C - Road cutting.

O/c - outcrop.

017

CRA EXPLORATION PTY LIMITED 978018
 AUGER DRILL LOG & ASSAY SHEET

CRAE 00
 (15)

LOCALITY
 CO-ORDINATES
 DATE DRILLED

SAMPLE DISPATCHED
 D.P.O. No.
 ANALYSED BY Z.C.

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	L.O.I.	A.I.
				highly to completely weathered basalt with limonite staining and contains spheroidally weathered basalt cobbles.						
"	140016	4.0'	6.0'	as above. - framework of spheroidally weathering evident	37.8	23.1	19.1			
	140017			Fresh basalt.						
T19	140018	1.0'	3.1'	Yellow brown highly weathered basalt - friable with a few fine ferruginous nodules.	44.2	19.2	16.4			
"	140019	3.1'	4.2'	as above.	45.6	15.7	15.2			
R/C	140020			White to grey nodules (gibbsite?) from a red-brown soil.	71.1	16.4	3.5			
R/C	140023			Fresh basalt.						
"	140022	3.0'	5.0'	Yellow brown to dark brown moderately to completely weathered basalt with limonite staining in places.	46.5	16.0	14.4			
T20	140024	1.5'	3.5'	Yellow brown clayey loam - highly to completely weathered basalt.	41.7	18.1	20.9			
"	140025	3.5'	5.2'	as above.	44.2	15.7	18.7			
"	140026	5.2'	6.0'	as above.	45.2	13.7	16.7			

REMARKS:-

018

(16)

LOCALITY *NORTH TASMANIA*
 CO-ORDINATES
 DATE DRILLED *18/3/70 to 26/3/70*

SAMPLE DISPATCHED
 D.P.O. No. *5134*
 ANALYSED BY *Z.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	L.O.I.	A.I.
T21	140021	2'2"	3'8"	Yellow brown to grey completely to highly weathered basalt with some ferruginous nodules and fine rock fragments.	47.4	18.1	15.8			
"	140028	3'8"	5'5"	Grey brown highly to completely weathered basalt with fine rock fragments and ferruginous nodules.	49.0	16.9	13.7			
	140027			Slightly weathered basalt from surface.						
T22	140029	1'0"	3'0"	Light red-brown clay with completely weathered rock fragments and flecks of white and grey clay in places.	32.8	23.5	26.0			
"	140030	3'0"	4'8"	as above.	37.2	25.2	20.1			
T23	140031	2'7"	3'8"	Yellow brown highly to completely weathered basalt with fine ferruginous nodules.	48.3	16.5	14.6			
T24	140032	1'5"	3'5"	Dark brown clay with high content of ferruginous nodules. Below 2'8" change to brown clay with fewer nodules.	57.8	13.9	17.1			
	140033	3'5"	5'5"	Brown clay with buff coloured weathered rock	48.1	19.2	12.9			

REMARKS:-

NO.



Boundary of E.L. 36/70 **978021** M.L.S. 2 SCALE 70-661
 Td Tertiary basalt, sketched from B.M.s. to 1 in Geological Map of Tasmania
 1000 counts per minute contour
 * Readings, by 100 for counts per minute.
 ⊕ 116525 Sample location and number

**NORTHERN TASMANIA
 BAUXITE RECONNAISSANCE
 INCLUDING BASALT
 E.L. 36/70 2165**

DATE: AUG 1970 GEOLOGIST: S.E. CLOSE PLAN NO: T73