97-4025

261001

ANNUAL REPORT

FOR

RETENTION LICENCE 8802

AND

CONSOLIDATED MINING LEASE 46M/90

AT

MAIN CREEK, SAVAGE RIVER, TASMANIA

FOR THE PERIOD
24 MAY 1996 TO 23 MAY 1997

BY

R. W. ANNETT

JUNE 1997

97-4025
ANNUAL REPORT - RL 8802/ML 46/90
MAIN CK,SAVAGE RIVER, SAVAGE RES.
R.W.ANNETT

SAVAGE RESOURCES LIMITED
Incorporated in Tasmania

SUMMARY

No field work was undertaken during this reporting period. A number of visits were made to the proposed pigment mining sites with possible co-venture partners and/or to maintain, in good order, the access track(s) and exploration sites.

Off site investigations focussed on the feasibility of mining and processing black, brown and yellow pigments from the Long Plains magnetite, Bowry Creek umber and Main Creek ochre pigment deposits.

Savox® black pigments were trialed and tested by a number of Australian manufacturers of concrete masonry products (pavers and tiles). Weathering of bricks and tiles coloured by Savox pigments remain on-going; results continue to confirm that Savox pigments are inert, non-toxic and extremely light fast.

Joint venture discussions with Australian, North American and Asian companies remain on-going.

® Savox is a registered Trade Name.

EXPLORATION REPORTS

The following annual and supplementary reports have been lodged with Tasmania Development Resources - Mineral Resources Tasmania:

- annual: 23 May 1988 to 23 May 1989;
- supplementary: 23 May 1988 to 23 May 1989;
- supplementary: 24 May 1989 to 31 Aug 1989;
- annual: 31 Aug 1989 to 22 May 1990;
- annual: 24 May 1990 to 23 May 1991;
- annual: 24 May 1991 to 31 Aug 1992 Volumes I and II;
- annual: 01 Sep 1992 to 30 Aug 1993 (DP&EMP);
- annual: 01 Sep 1993 to 23 May 1994 (Joint Report with CML 46M/90); and
- annual 24 May 1994 to 23 May 1995 (Joint Report with CML 46M/90).
- annual 24 May 1995 to 23 May 1996 (Joint Report with CML 46M/90).

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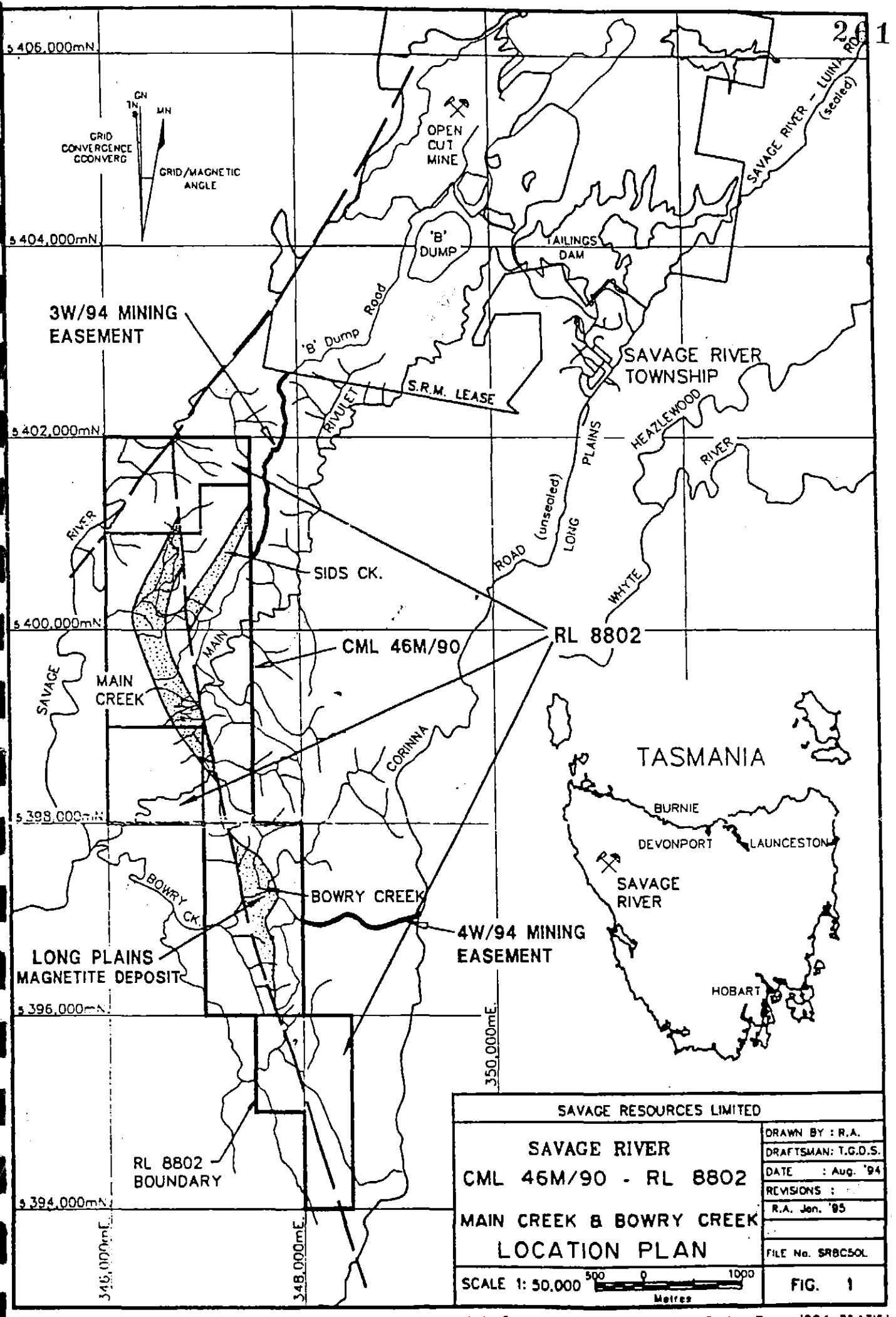

SAVAGE RESOURCES LIMITED

SAVAGE RIVER
CML 46M/90 - RL 8802
MAIN CREEK & BOWRY CREEK
LOCATION PLAN

DRAWN BY : R.A.
DRAFTSMAN: T.G.D.S.
DATE : Aug. '94
REVISIONS :
R.A. Jan. '95
FILE No. SR8C50L

SCALE 1: 50,000 (500 0 1000 Metres)

FIG. 1

N.W. Coast Computer Aided Drafting Centre Phone (004 354315)
Fax. (004 354495)

5 cm

1. INTRODUCTION

The consolidated mining lease, retention licence and mining (haulage) easements are located approximately 6 km south-west of the Savage River Township.

2. TENURE

Tenure is held under Retention Licence 8802 (expires 23 May 1998), Consolidated Mining Lease 46M/90 (expires 31 July 2003) and two Mining (Haulage) Easements 3W and 4W/94 (expire 31 January 2005). The area comprises State Forest - Multiple Use Forest Land and Crown Land - Deferred Forest Land.

There has been no change to the status of the above tenements within the reporting period.

3. PLANNING APPROVALS

On 12 January 1993, the Council of the Shire of Waratah issued SRL with all planning approvals necessary to undertake the extraction and processing of material for pigment production. An extension to the life of the permit to expire on the 11 January 1999 was approved on the 16 December 1996.

4. DEVELOPMENT ACTIVITIES

4.1 The Pigment Project

Activities have focussed on the commercial viability of the pigment project. The Information Memorandum circulated to possible co-venture partners is provided in Appendix 1. This details the current status of the Savox Pigment Project.

The results of on-going weathering trials, conducted by Allunga Exposure Laboratory in Townsville, on a number of Savox pigment colours is provided in Appendices 2 and 3.

5. CONCLUSIONS

Savage Resources and Major Projects Tasmania are currently undertaking co-venture discussions. This has taken considerably longer than anticipated.

In general the consumers of pigment are conservative in their approach and it has been difficult to gain industry acceptance of the Savox pigments without the proposed pigment operation being in full scale production.

Advanced trials of the Savox black are under way with two companies, one in Australia and the other on the eastern seaboard of the USA.

APPENDIX 1

INFORMATION MEMORANDUM

SAVOX® COLOURS

AUSTRALIAN IRON OXIDE PIGMENTS

261008

SUMMARY

The natural iron oxide pigment deposits at Savage River are located approximately 120 kilometres south of the Port of Burnie on the west coast of Tasmania. The deposits are currently owned by Savage Resources Limited (SRL), although it is anticipated that the ownership will be transferred to a wholly owned subsidiary in the name of ***Savage Pigments Pty Limited.***

SRL has established reserves of raw material to produce black, yellow, light and dark brown and red pigments sufficient to support a pigment project for a minimum life of 20 years; although the enclosed financial model is cut to 12 years.

The financial model assumes the processing of a black pigment only, sourced from the nearby iron ore operations of Australian Bulk Minerals. This is considered as the base case. Dependent upon demand yellow, brown, red ochre and calsiro pigments could also be produced.

There is no major infrastructure requirement.

Savox ® pigments have been thoroughly tested by independent organisations and conform to Industrial Standards for pigments in paint and cement (Portland) products. They are comparable to or better than other natural pigments that are currently traded; *Savox* black pigments are also the equal of Bayferrox 318/320.

Considerable support and incentive have been given or offered by the Tasmanian Government who are keen to see the establishment of a pigment and industrial mineral industry in Tasmania

This Information Memorandum contains statements, opinions, projections and forecasts prepared by SRL on the basis of information supplied by its employees and several professional consultants commissioned to undertake specific tasks. The information contained herein has been compiled with due care and responsibility and is believed to be reliable at the time of writing.

The Information Memorandum has been prepared to provide confidential information to a co-venture partner. It does not purport to contain all of the information that a prospective partner may desire or require in order to make its own assessment of the Pigment Project. Every reasonable effort has been made by SRL to ensure the accuracy of the information contained herein.

The contents of this Information Memorandum are strictly confidential and may not be reproduced or used in whole or part for any other purpose.

SAVOX® COLOURS

AUSTRALIAN IRON OXIDE PIGMENTS

261009

SAVOX PIGMENT SPECIFICATIONS

		BLACK	RED OCHRE	YELLOW	DARK BROWN	CALSIRO
Typical chemical analysis		%	%	%	%	%
Total iron as Fe_2O_3		96.0 - 98.0	67.0 - 77.0	53 - 60	54.19	94.8
$SiO_2 + Al_2O_3$		1.0 - 2.0	17.9 - 28.0	25 - 40	19.45	3.18
MnO		< .01	0.3 - 0.7	< 0.5	13.95	0.09
Loss on ignition		-2.52	3.5 - 3.75	13.0	2.9	-0.35
Water soluble salts		0.31	0.32 - 0.6	0.3	0.47	0.39
Matter volatile @ 105°C		0.29	0.96 - 1.06	0.5	0.24	0.29
Acid insoluble matter		2.8	12.70 - 24.0	11.5	6.0	3.2
Typical physical properties	**Units**	**Value**	**Value**	**Value**	**Value**	**Value**
Oil absorption	gm/100 gm	31	42	51.0	50.0	30.0
Specific gravity	-	4.6	3.2 - 3.6	3.2	3.4	4.6
Loose bulk density	kg/litre	1.3	0.38	0.7	N/A	1.3
Dispersibility in water	-	excellent	excellent	excellent	excellent	excellent
pH of a 5% aqueous suspension	-	7.8	5 to 7	5 to 7	4 to 6	7.8
Residue on a 45 micron sieve (325 mesh)	%	0.0	0.0	0.0	0.0	0.0
Maximum stable temperature	°C	200.0	200.0	200.0	600.0	200.0
Hegman fineness	-	4	7.0	5.5	6.5	6.5
Average particle size	micron	2.9	1.2	1.2	1.5	2.9
Particle shape	-	equant	equant	equant	equant	equant
Light resistance	-	excellent	excellent	excellent	excellent	excellent
Alkali resistance	-	excellent	pass	excellent	pass	excellent
Conforms to BS 1014:1975*	Yes	Yes	Yes	Yes	Yes	Yes

1. INTRODUCTION

The Savox Pigment Project is a new industry to the north-west coast of Tasmania.

1.1 LOCATION AND GENERAL FEATURES

The ochre and umber pigment deposits are located near the Savage River township which is approximately 110 km south of the Port of Burnie via the Mt Lyell and Waratah-Corinna sealed highways. The township serves the Australian Bulk Minerals ("ABM") iron ore operation and has a small population.

The north-west coast of Tasmania has cold wet winters and cool summer months. While most of the rain falls during the winter months, heavy rain can be experienced at any time of the year. Mean annual rainfall is usually in excess of 1500 mm.

1.2 THE PIGMENT PROJECT

The deposits contain significant resources of iron oxide minerals including ochre (yellow), umber (brown) and magnetite (black) pigments; calcination of these primary pigments extends the range of colours to include red ochre (red) and calsiro (reddish-brown).

The Pigment Project, as detailed in the financial model, would commence with the production of a black pigment (Stage 1), as this colour offers the best potential to quickly develop high sales volume. Production of yellow, red ochre and calsiro could then follow. A brown pigment could be mined and processed, however this is unlikely as it is considerably easier to make a brown through the blending of yellow and black.

The successful foundation of a pigment industry could also allow the development of SRL's magnesite deposits at Savage River as well as other Tasmanian industrial minerals such as lignite (as a source of high value brown pigment) and talc which is complementary to many iron oxide applications.

SRL is encouraged by the assistance given by the Tasmanian Government which fully supports the development of a pigment industry.

1.3 IRON OXIDE PIGMENTS

World production of synthetic and natural iron oxide is approximately 500,000 MT per annum. Synthetics dominate from production facilities in Germany, the United States and Japan.

In Australia the import and consumption of pigments have varied between 9,000 and 15,000 tonnes per annum (the 1991-93 recession was the exception). Table 1 overleaf details colour imports for the last two years.

Table 1. Imports by Colour for the Financial Years 1995 and 1996 (in kg)

	1995	1996
	5,021,149	2,528,808
Brown Iron Oxide	340,287	127,919
Red Iron Oxide	3,514,326	2,977,316
Yellow Iron Oxide	2,769,586	2,298,065
Other	647,833	1,063,702
Earth Colours	110,450	79,116
Grand Total	**12,403,631**	**9,074,926**

The predominant suppliers are Bayer and Brockhues of Germany and Pfizer of the United States. However, Germany's historical position of supplying approximately 85% of the Australian market has declined in recent years to approximately 50%, particularly as imports from China gain acceptability in the Australian market.

Australia has the highest per capita consumption of iron oxide pigments in the world. Consumption is dominated by the general building industries due in part to the increasing popularity of concrete block pavers. Other applications of considerable importance lie within the paint, plastic and paper industries.

2. TENURE

Tenure is held under a Consolidated Mining Lease, Mining Easement (Haulage) Licences and Retention Licence. The former tenements have for the most part superseded the latter tenement.

2.1 CONSOLIDATED MINING LEASE 46M/90 (CML 46M/90)

This was granted on the 16 August 1993 for a period of ten years to expire on 31 July 2003. The lease is renewable subject to performance.

2.2 MINING EASEMENT (HAULAGE) LICENCES (3&4W/94)

The two mining easement licences were granted for a period of 10 years to expire on the 31 January 2005. The licences are renewable subject to performance.

2.3 RETENTION LICENCE 8802 (RL 8802)

RL 8802 has been renewed for a period of three years to expire on the 23 May 1998. The three remnant parts of this licence, totalling some 3.75 sq km, are to be retained in order to maintain tenure of the strike extensions to the magnesite and magnetite deposits.

2.4 TARKINE WORLD HERITAGE

While the Savage River area is under close consideration as part of the assessment of the Regional Forestry Agreement and assessment of wilderness values, the actual areas for mining (yellow, brown or black) do not fall directly under areas of contention.

3. THE NATURAL PIGMENT DEPOSITS AT SAVAGE RIVER

3.1 LOCATION AND ACCESS

Exploration and development investigations have been predominantly confined to three areas where intensive ground exploration has defined considerable quantities of yellow, brown and black pigments.

Access to the yellow deposit is south along an exploration track from the SRM operations, a distance of some 9 km. The brown and black deposits are located 4 km to the south of the yellow deposit and 13 km by road from SRM; access is gained via a track that runs off the Waratah-Corinna road.

3.2 GEOLOGY

The yellow and brown pigments are intimately related to the occurrence of magnesite. They occur in the paleo-weathering profile of the magnesite and are a product of in-situ leaching, mass movement and surface erosion. The magnesite subcrops over a strike length of 2.5 km in the Main Creek area and 2 km at Bowry Creek.

It is estimated that only around 20% of the total area likely to contain yellow, brown or other magnesite weathering products has been explored.

The black pigment occurs at the Long Plains deposit which lies immediately adjacent to and east of the Bowry Creek magnesite.

3.3 PIGMENT RESERVES

The reserves have been prepared in accordance with the Australasian Code for Reporting of Identified and Mineral Resources and Ore Reserves, June 1988.

3.3.1 YELLOW

The reserve of yellow pigment lies within a small part of the northern half of the Main Creek magnesite occurrence. Principal investigations have occurred within an area of approximately 550 metres north-south by 2-250 metres east-west, considerable quantities of yellow outside this area are not part of the reserve estimate. The recovered tonnage of yellow pigment is 47,000 tonnes.

3.3.2 BROWN

The reserve of brown pigment lies within a small part of the western half of the Bowry Creek magnesite occurrence. The brown pigment lying on the eastern side of Bowry Creek constitutes the reserve, considerable quantities of brown discovered outside of this area are not part of the reserve estimate. The recovered tonnage of brown pigment is 11,500 tonnes.

3.3.3 BLACK

Magnetite will be sourced from the iron ore operations of ABM for the duration of the Pigment Project. The Long Plains magnetite deposit (SRL 100%) can be brought on-stream should the ABM magnetite become unavailable. The Long Plains deposit contains in excess of 10 million tonnes of magnetite.

4. MINERALOGY AND PHYSICAL PROPERTIES OF THE PIGMENTS

4.1 YELLOW AND BROWN

The as-mined pigments are very porous. They have a high water content, typically 40% by weight, and low in-situ density. They are extremely fine grained with approximately 60% of the material substantially finer than 45 micron.

Despite the very different colour of the yellow and brown pigments they both consist essentially of goethite and crystalline impurities such as quartz, chlorite, kaolinite and talc. In many cases the chlorite flakes are coated with an overgrowth of goethite and thus, from a pigment point of view, contribute to pigment colour in much the same way as a solid goethite particle.

Calcination of the yellow and brown pigments incurs a weight loss of approximately 10%; there is little to no change to the mineralogy of the material.

4.2 BLACK

The Long Plains deposit is genetically related to the magnetite from the ABM operations. Geochemically the two magnetites are identical and consist, after magnetic beneficiation, of essentially magnetite with very minor traces of serpentinite and antigorite .

5. MINING OF THE OCHRE (AND UMBER) PIGMENT DEPOSITS

Open pit mining will be carried out by an excavator and truck fleet. Bench heights will be about 2 metres to minimise dilution and maximise recovery. Pits have been designed to be essentially self draining with walls no steeper than 45°; farewell cuts in ore to depths of at least 5 metres will be possible in the pit floor. Waste will

be moved approximately 3-400 metes away in areas which have been found to contain no pigment resource.

The mining will be seasonal and undertaken by contract earth movers. Explosives will be required at the black pigment pit. As-mined pigment material will be carted to the processing facility at Savage River by a fleet of haul trucks.

Grade control will be undertaken using a spectrophotometer.

There will be no mining of black or brown pigments; the former will be sourced as a milled product from the iron ore operations of ABM.

6. PROCESSING

The process flowsheet has been designed by Worley Engineering Pty Limited following exhaustive test work and trials.

6.1 GENERAL PROCESSING PHILOSOPHY

Reference is made to the flowsheets 10-F-001 to 70-F-001. The plant capacity is 1.75 tph (dry); the process route can be broken down into five basic components:

- feed preparation (10-F-001 and 20-F-001), and
- fine milling (30-F-001 and 30-F-002), and
- drying and calcining (50-F-001), and
- blending and bagging (60-F-001), and
- utilities (40-F-001 and 70-F-001).

7. PLANNING ISSUES

A Licence to Operate a Scheduled Premises, Licence Number 5831, was granted on 7 September 1993 under Section 25 of the *Environment Protection Act 1973*, to operate scheduled premises located at Savage River for the purposes of a mine and processing facility.

On 12 January 1993, the Council of the Shire of Waratah issued SRL with all planning approvals necessary to undertake the extraction and processing of material for pigment production. An extension to the life of the permit to expire on the 11 January 1999 was approved on the 16 December 1996.

8. ENVIRONMENTAL, HEALTH AND SAFETY ISSUES

Discharges from the mine and processing facility are monitored by the Department of Environment and Land Management and the local Council. Health and safety issues are monitored by Industry Safety and Mines.

Monitoring of various aspects of the mine(s) and processing facility is a statutory requirement. Managerial practices must provide safe systems of work, adequate training and supervision and a working environment which has the least practicable risk to employee safety, health and welfare.

Iron oxides are not considered to be a physical hazard (combustible, explosive, inflammable, oxidiser, etc). They are non-toxic by oral routes of exposure and non-corrosive to skin. Iron oxide fume and dust is mechanically irritating to the eye and inhalation causes a benign pneumoconiosis. While there is no evidence that iron oxide alone is carcinogenic it is known that crystalline quartz silica which is prevalent in natural iron oxide is carcinogenic.

9. *SAVOX* PIGMENTS

Initially *Savox* black pigment will be produced. Subject to demand Savox yellow, brown, red ochre and calsiro can also be produced. Principal applications for the range of *Savox* pigments, whether for the domestic or export markets, lies within:

- the concrete, masonry, roofing and pre-cast industries,
- the coatings industry, particularly for industrial and primer paints, and
- the plastics industry, but only for low quality applications.

9.1 MARKETING TRIALS

Savox pigments comply with Industrial Standard Specifications for pigments in paint and cement (Portland) products.

Numerous samples of raw, semi-processed and fully processed pigment material, in sizes ranging anywhere between 1 kg and 10 tonnes have been forwarded to selected traders/blenders and end-users in Europe, the USA, Asia and Australia for evaluation and comment. Their findings have been extremely encouraging and in all cases *Savox* pigments have been shown to perform as well as or better than other commercial natural pigments.

Physical test work performed on masonry units tinted by *Savox* pigments have met and surpassed all physical requirements, including critical flexural, abrasion and breaking tests for high volume footpath and pedestrian mall applications.

Open air, accelerated, ultraviolet B and condensation weathering tests, on a number of *Savox* tinted blocks and concrete roofing tiles having a *Savox* tinted slurry coat have been completed. Test data confirms that the surfaces show no significant colour changes to either the roofing tile or blocks after various exposure periods in excess of nine months.

Paint tests have been performed by several of Australia's leading paint companies, including Dulux, Taubmans and Wattyl. It appears that *Savox* pigments would be readily acceptable for industrial and anti-corrosive paint applications. Dulux have also approved Calsiro for certain heavy-duty coating paint applications.

In summary *Savox* pigments have been found to be acceptable to both the masonry and paint industries. They are ultra-violet stable and show low colour deviation and efflorescence after weathering.

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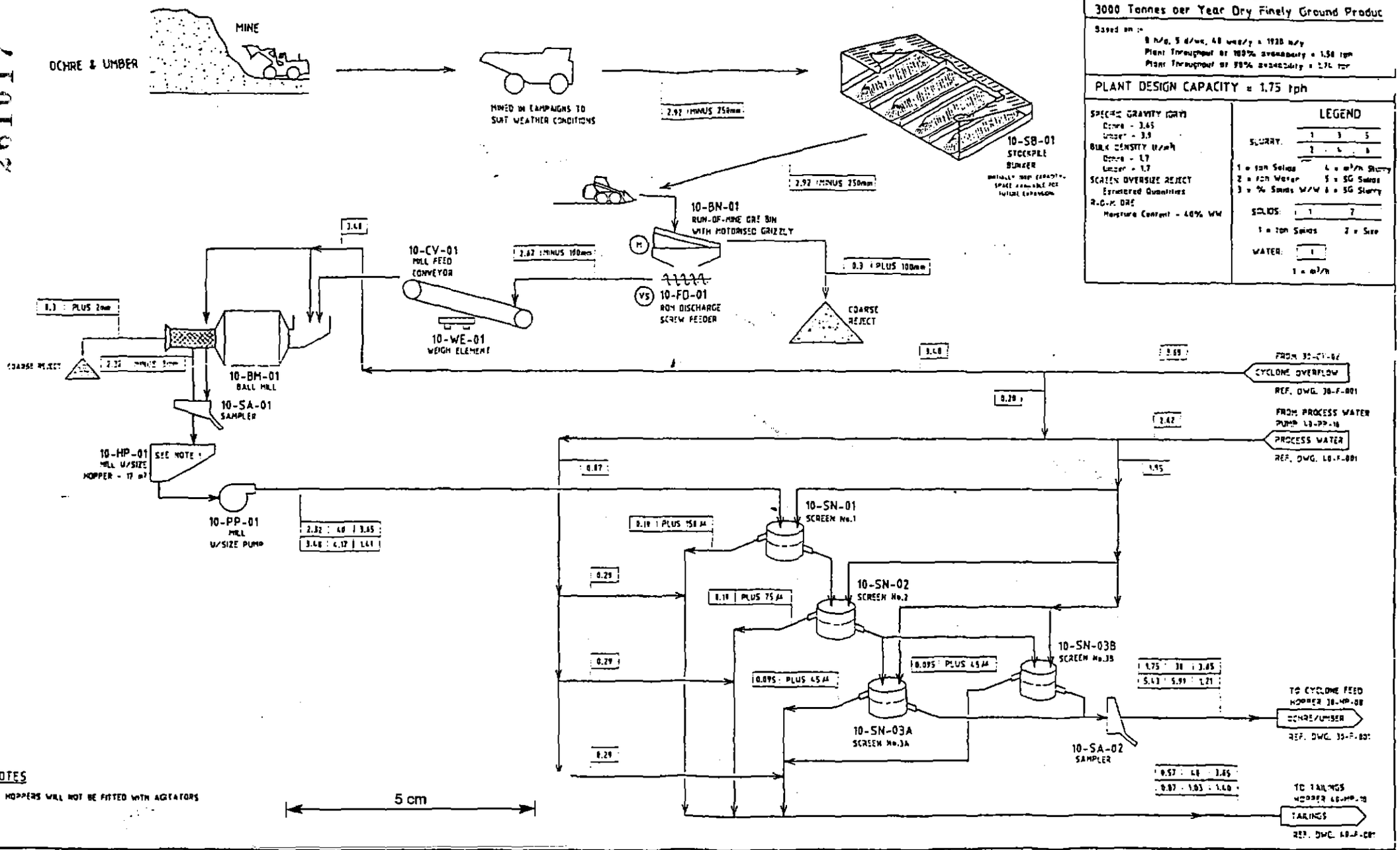


PLANT DESIGN CAPACITY FOR
3000 Tonnes per Year Dry Finely Ground Produc

Based on :
8 h/d, 5 d/wk, 48 wks/y = 1920 h/y
Plant Throughput at 100% availability = 1.56 tph
Plant Throughput at 90% availability = 1.74 tph

PLANT DESIGN CAPACITY = 1.75 tph

SPECIFIC GRAVITY (SG's)
Ochre - 3.65
Umber - 3.9
BULK DENSITY t/m³
Ochre - 1.7
Umber - 1.7
SCREEN OVERSIZE REJECT
Estimated Quantities
R.O.M. ORE
Moisture Content - 40% WW

LEGEND

SLURRY:	1	3	5
	2	4	6

1 = ton Solids
2 = ton Water
3 = % Solids W/W
4 = m³/h Slurry
5 = SG Solids
6 = SG Slurry

SOLIDS:	1	2
	1 = ton Solids	2 = Size

WATER:	1
	1 = m³/h

NOTES
1. HOPPERS WILL NOT BE FITTED WITH AGITATORS

REFERENCE DRAWINGS

WORLEY
TEL (09) 278 8711
FAX (09) 278 8118
250 St. GEORGES TCE, PERTH WA 6000

PROJECT No. 63811

SAVAGE RESOURCES LIMITED

MAIN CREEK, TAS. - SAVAGE RIVER FACILITY
IRON OXIDE PIGMENT PROJECT
OCHRE & UMBER FEED PREPARATION
PROCESS FLOW SHEET

10-F-~~001~~ 5

SERIES 20 EQUIPMENT
LOCATED AT SAVAGE RIVER MINES CONCENTRATOR

PLANT DESIGN CAPACITY FOR
3000 Tonnes per Year Dry Finely Ground Product

Based on -
8 h/d, 5 d/wk, 48 wk/y = 1920 h/y
Plant throughput at 100% availability = 1.56 tph
Plant throughput at 90% availability = 1.74 tph

PLANT DESIGN CAPACITY = 1.75 tph

SPECIFIC GRAVITY (SG's)
Magnetite = 4.95
CYCLONE FEED
85% -63 µ
100% -38 µ
CYCLONE UNDERFLOW RETURN
8% Estimated
FLOTATION CONS REJECT
3% Estimated
NON-MAGNETIC REJECT
3% Estimated

LEGEND
SLURRY: 1 3 5 / 2 4 6
1 = tph Solids
2 = cum Water
3 = % Solids W/W
4 = m³/h Slurry
5 = SG Solids
6 = SG Slurry
WATER 7
7 = m³/h

SERIES 21 EQUIPMENT
LOCATED AT
SAVAGE RESOURCES PIGMENT PLANT

20-PP-02 MAGNETITE TRANSFER PUMP
20-SA-03 SAMPLER
20-AG-01
20-TK-01 MAGNETITE CYCLONE FEED TANK - 8 m³
20-PP-03 MAGNETITE CYCLONE FEED PUMP
20-SA-04 SAMPLER
20-CY-01 MAGNETITE CYCLONE
20-HP-03 CYCLONE OVERFLOW HOPPER
20-PP-05 CYCLONE OVERFLOW PUMP
20-HP-02 CYCLONE UNDERFLOW HOPPER
20-PP-04 CYCLONE UNDERFLOW PUMP
SAVAGE RIVER MINES THICKENER
21-AG-02
21-TK-02 MAGNETITE FEED PREPARATION TANK 17 m³
21-PP-06 MAGNETITE FEED PREPARATION PUMP
SMALL INTERMITTENT FLOW
FROM PROCESS WATER PUMP 40-PP-16
PROCESS WATER 2
REF. DWG. 40-F-001
FROM PROCESS WATER TANK 41-TK-18
PROCESS WATER
REF. DWG. 40-F-001
NOT INCLUDED IN FLOW BALANCE
21-AG-04
21-TK-04 FLOTATION COLLECTOR TANK - 14 m³
21-RF-01 REAGENT FEEDER PUMP - COLLECTOR
21-AG-05
21-TK-05 FLOTATION FROTHER TANK - 14 m³
21-RF-02 REAGENT FEEDER PUMP - FROTHER
21-AG-03
21-TK-03 FLOTATION CONDITIONING TANK - 8 m³
NOT INCLUDED IN FLOW BALANCE
SULPHIDE CONCENTRATE
21-FC-01 FLOTATION CELL No.1 (C/W AGITATOR)
21-FC-02 FLOTATION CELL No.2 (C/W AGITATOR)
SEE NOTE 1
21-HP-04 FLOTATION TAILINGS PUMP HOPPER
21-PP-07 FLOTATION TAILINGS PUMP
21-MS-01 MAGNETIC SEPARATOR
MAGNETICS
NON MAGNETICS
20-SA-05 SAMPLER
20-SA-06 SAMPLER
TO MILL FEED TANK 31-TK-08B
MAGNETITE
REF. DWG. 30-F-002
TO TAILINGS HOPPER 40-HP-18
TAILINGS
REF. DWG. 40-F-001
FROM COMPRESSOR 44-CP-01
PLANT AIR
REF. DWG. 40-F-001

NOTES
- HOPPERS WILL NOT BE FITTED WITH AGITATORS

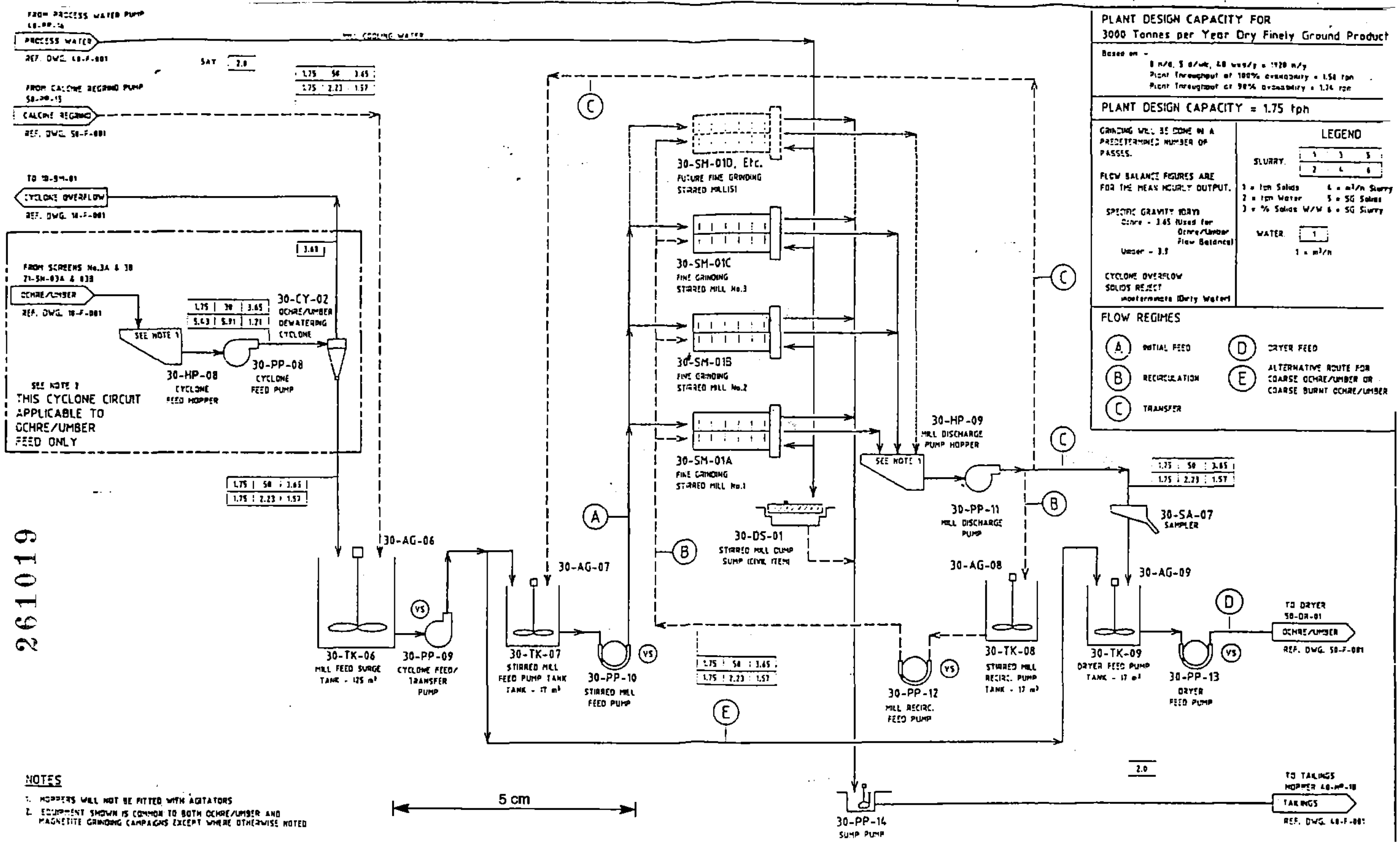
5 cm

261011

WORLEY ENGINEERING
PROJECT No. 63811

REFERENCE DRAWINGS

SAVAGE RESOURCES LIMITED
MAIN CREEK, TAS. - SAVAGE RIVER FACILITY
IRON OXIDE PIGMENT PROJECT
MAGNETITE FEED PREPARATION
PROCESS FLOW SHEET
6
20-F-001 A



PROCESS WATER
MILL COOLING WATER
CALCINE REGRIND
CYCLONE OVERFLOW
OCHRE/UMBER
SEE NOTE 1
30-CY-02
OCHRE/UMBER DEWATERING CYCLONE
30-HP-08
CYCLONE FEED HOPPER
30-PP-08
CYCLONE FEED PUMP
THIS CYCLONE CIRCUIT APPLICABLE TO OCHRE/UMBER FEED ONLY
30-AG-06
30-TK-06
MILL FEED SURGE TANK
30-PP-09
CYCLONE FEED/ TRANSFER PUMP
30-AG-07
30-TK-07
STIRRED MILL FEED PUMP TANK
30-PP-10
STIRRED MILL FEED PUMP
30-SM-01D, Etc.
FUTURE FINE GRINDING STIRRED MILL(S)
30-SM-01C
FINE GRINDING STIRRED MILL No.3
30-SM-01B
FINE GRINDING STIRRED MILL No.2
30-SM-01A
FINE GRINDING STIRRED MILL No.1
30-DS-01
STIRRED MILL DUMP SUMP (CIVIL ITEM)
30-HP-09
MILL DISCHARGE PUMP HOPPER
30-PP-11
MILL DISCHARGE PUMP
30-AG-08
30-TK-08
STIRRED MILL RECIRC. PUMP TANK
30-PP-12
MILL RECIRC. FEED PUMP
30-SA-07
SAMPLER
30-AG-09
30-TK-09
DRYER FEED PUMP TANK
30-PP-13
DRYER FEED PUMP
TO DRYER
TO TAILINGS
TAILINGS
30-PP-14
SUMP PUMP
5 cm
PLANT DESIGN CAPACITY FOR
3000 Tonnes per Year Dry Finely Ground Product
PLANT DESIGN CAPACITY = 1.75 tph
LEGEND
SLURRY
WATER
FLOW REGIMES
INITIAL FEED
RECIRCULATION
TRANSFER
DRYER FEED
ALTERNATIVE ROUTE FOR COARSE OCHRE/UMBER OR COARSE BURNT OCHRE/UMBER

NOTES

1. HOPPERS WILL NOT BE FITTED WITH AGITATORS
2. EQUIPMENT SHOWN IS COMMON TO BOTH OCHRE/UMBER AND MAGNETITE GRINDING CAMPAIGNS EXCEPT WHERE OTHERWISE NOTED

261019

WORLEY ENGINEERING

250 St. GEORGES TCE, PERTH WA 6000

PROJECT No. 63811

REFERENCE DRAWINGS

SAVAGE RESOURCES LIMITED

MAIN CREEK, TAS. - SAVAGE RIVER FACILITY
IRON OXIDE PIGMENT PROJECT
FINE GRINDING - OCHRE/UMBER
PROCESS FLOW SHEET

30-F-001

7

261020

PROCESS WATER
REF. DWG. 63-F-001

FROM CALCINE REGRIND PUMP 50-PP-15
CALCINE REGRIND
REF. DWG. 50-F-001

SEE NOTE 2
THIS CYCLONE CIRCUIT APPLICABLE TO MAGNETITE FEED ONLY

30-CY-03
MAGNETITE DEWATERING CYCLONE

FROM MAGNETIC SEPARATOR 22-MS-01
MAGNETITE
REF. DWG. 30-F-001

30-SM-01D, Etc.
FUTURE FINE GRINDING STIRRED MILL(S)

30-SM-01C
FINE GRINDING STIRRED MILL No.3

30-SM-01B
FINE GRINDING STIRRED MILL No.2

30-SM-01A
FINE GRINDING STIRRED MILL No.1

30-HP-09
MILL DISCHARGE PUMP HOPPER

SEE NOTE 1

30-PP-11
MILL DISCHARGE PUMP

30-SA-07
SAMPLER

30-DS-01
STIRRED MILL DUMP SUMP (CIVIL ITEM)

30-AG-06

30-TK-06
MILL FEED SURGE TANK - 125 m³

30-PP-09
CYCLONE FEED/ TRANSFER PUMP

30-AG-07

30-TK-07
STIRRED MILL FEED PUMP TANK
TANK - 17 m³

30-PP-10
STIRRED MILL FEED PUMP

30-AG-08

30-TK-08
STIRRED MILL RECIRC. PUMP TANK - 17 m³

30-PP-12
MILL RECIRC. FEED PUMP

30-AG-09

30-TK-09
DRYER FEED PUMP TANK - 17 m³

30-PP-13
DRYER FEED PUMP

TO DRYER 50-DR-01
OCHRE/UMBER
REF. DWG. 50-F-001

30-PP-14
SUMP PUMP

TO TAILINGS HOPPER 63-HP-10
TAILINGS
REF. DWG. 63-F-001

5 cm

PLANT DESIGN CAPACITY FOR 3000 Tonnes per Year Dry Finely Ground Product

Based on -
8 hr/c, 5 d/wk, 48 wks/y = 1920 h/y
Plant Throughput at 100% availability = 1.56 tph
Plant Throughput at 90% availability = 1.74 tph

PLANT DESIGN CAPACITY = 1.75 tph

GRINDING WILL BE DONE IN A PREDETERMINED NUMBER OF PASSES.

FLOW BALANCE FIGURES ARE FOR THE MEAN HOURLY OUTPUT.

SPECIFIC GRAVITY (DRY)
Magnetite - 4.95

LEGEND

SLURRY: 1 3 5 / 2 4 6
1 = tph Solids 4 = m³/h Slurry
2 = tph Water 5 = SG Solids
3 = % Solids W/W 6 = SG Slurry

WATER: 7
7 = m³/h

FLOW REGIMES

A INITIAL FEED
B RECIRCULATION
C TRANSFER
D DRYER FEED
E MAGNETITE CYCLONE OVERFLOW

NOTES

1. HOPPERS WILL NOT BE FITTED WITH AGITATORS
2. EQUIPMENT SHOWN IS COMMON TO BOTH OCHRE/UMBER AND MAGNETITE GRINDING CAMPAIGNS EXCEPT WHERE OTHERWISE NOTED

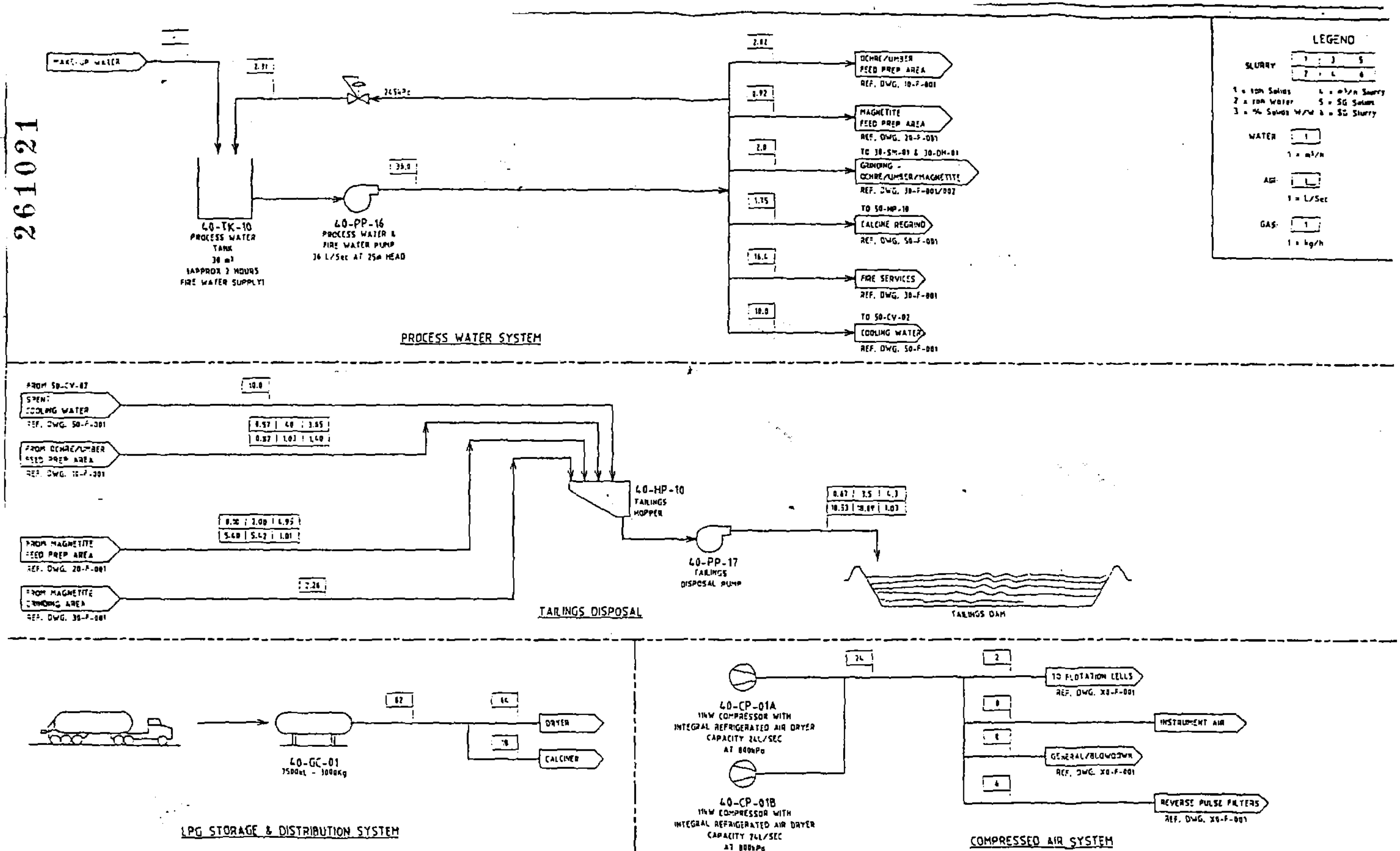
WORLEY
PROJECT No. 63811

REFERENCE DRAWINGS

SAVAGE RESOURCES LIMITED
MAIN CREEK, TAS. - SAVAGE RIVER FACILITY
IRON OXIDE PIGMENT PROJECT
FINE GRINDING - MAGNETITE
PROCESS FLOW SHEET

30-F-002

261021



WORLEY ENGINEERING

TEL | FAX

258 ST. GEORGES TCE, PERTH WA 6000

PROJECT No. 63811

REFERENCE DRAWINGS

SAVAGE RESOURCES LIMITED

MAIN CREEK, TAS. - SAVAGE RIVER FACILITY
IRON OXIDE PIGMENT PROJECT
1.75 TPH PLANT CAPACITY
UTILITIES FLOW SHEET

9

40-F-001

261022

PLANT DESIGN CAPACITY FOR FINE DRY POWDER - FLOW RATE = 1.75 tph
SIZING 100% MINUS 2 µm

FLOWS CONDUCTED ON INDIVIDUAL CAMPAIGNS

MAXIMUM THROUGHPUT AT ANY ONE TIME = 1.75T/h

BULK DENSITIES - DRIED POWDER
Process Design - 0.6 T/m³
Civil Design - 0.7 T/m³

LEGEND

SLURRY
1 = tph Solids
2 = tph Water
3 = % Solids W/W
4 = m³/h Slurry
5 = SG Solids
6 = SG Slurry

WATER
GAS
SOLIDS

FLOW REGIMES

1 ALL PRODUCTS DRIED TO 250 DEG. C

2 CALCINED PRODUCTS
MAGNETITE - 500 DEG. C
OCHRE - 400 DEG. C
UMBER - 400 DEG. C

50-BF-04
MAGNETITE - RED
BAG FILTER No.4

50-BF-03
MAGNETITE - BLACK
BAG FILTER No.3

50-BF-02
UMBER
BAG FILTER No.2

50-BF-01
OCHRE
BAG FILTER No.1

SCREW FEEDER

50-FN-01
FAN - INDUCED DRAFT - DRIED PRODUCT

50-ES-01
EXHAUST STACK

50-FN-02
FAN - INDUCED DRAFT - HEATING AIR

INDIRECT HEATING AIR

OXIDISING AIR

50-CN-01
CALCINER - ROTARY KILN - INDIRECT AIR HEATED

50-SW-01
WET SCRUBBER

MAGNETITE

FROM 63-PP-12
PROCESS WATER
REF. DWG. 63-F-001

MAGNETITE

4.75	55	4.95
1.43	1.78	1.79

50-HP-10
CALCINER DISCHARGE PUMP HOPPER

SEE NOTE 1

TO 30-TK-06
CALCINE REGRIND
REF. DWG. 30-F-001/002

50-PP-15
REGRIND CALCINE PUMP

TO 63-HP-10
SPENT WATER
REF. DWG. 63-F-001

50-PF-01
PULSED FILTER

50-BN-02
BIN - MICRONISED PRODUCTS COOLED TO < 80 DEG C

50-CV-02
CONVEYOR - DRAG FLIGHT CHAIN - WATER COOLED

4.75	55	4.95
1.17	1.52	1.92

FROM 30-PP-13
GROUND SLURRY
REF. DWG. 30-F-001/002

INDUCED AIR

50-AH-01
AIR HEATER

50-DR-01
SWEPT AIR DRYER/MILL

50-DH-02
DUMP HOPPER (CIVIL ITEM)

REF. DWG. 63-F-001

50-MB-01
COLOUR CODED MOBILE bins

OCHRE (A)
UMBER (B)
MAGNETITE (BLACK) (C)
OCHRE (RED) (D)
BURNT UMBER (E)
MAGNETITE (RED) (F)

40-FL-01
FORK LIFT

BY ROAD TO COASTAL FACILITY
DRIED & COOLED PRODUCT
REF. DWG. 60-F-001

NOTES

1. HOPPERS WILL NOT BE FITTED WITH AGITATORS

5 cm

WORLEY ENGINEERING
TEL 091 238 6111 FAX 091 238 6170
253 St. GEORGES TCE, PERTH WA 6000

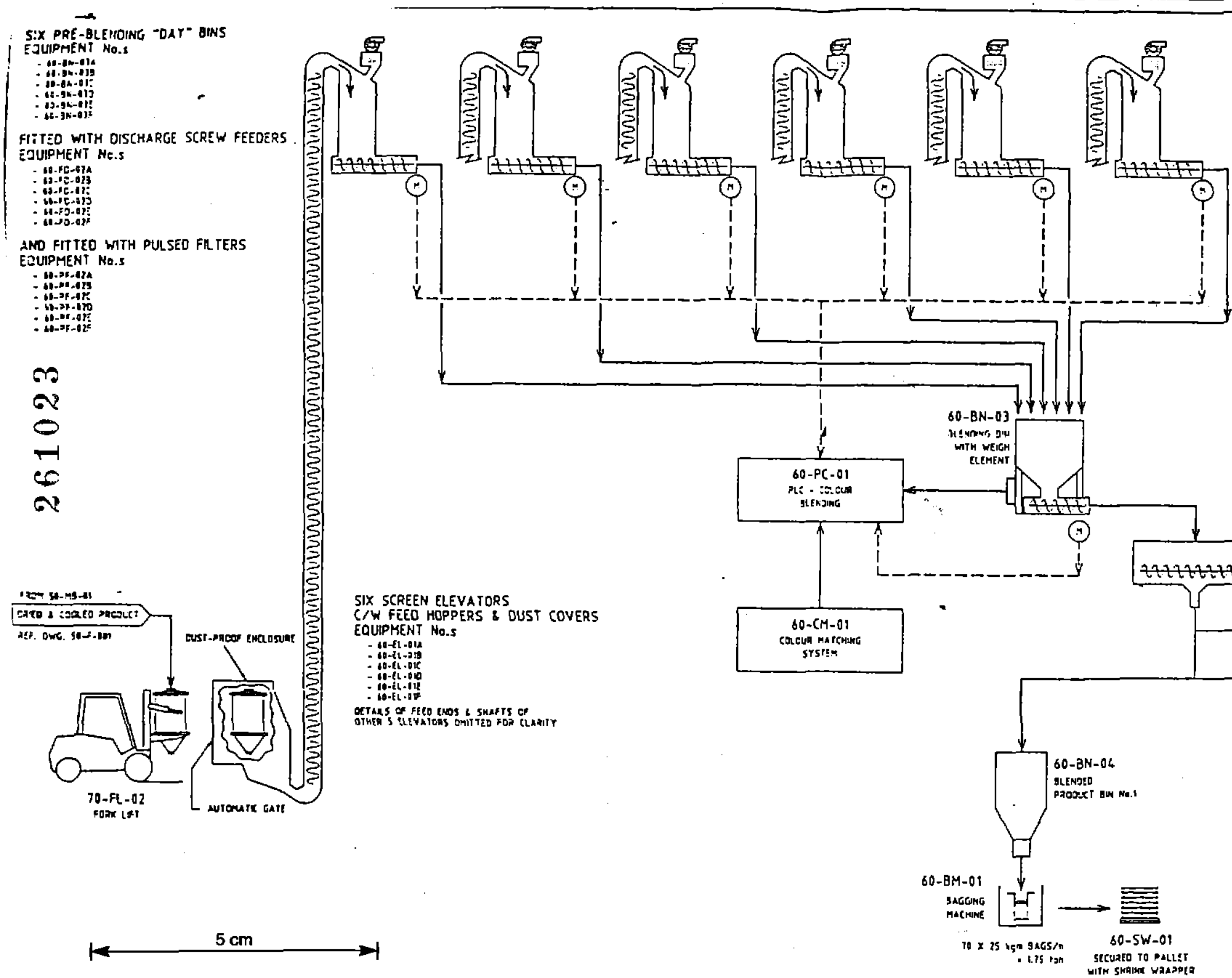
PROJECT No. 63811

REFERENCE DRAWINGS

SAVAGE RESOURCES LIMITED

MAIN CREEK, TAS. - SAVAGE RIVER FACILITY
IRON OXIDE PIGMENT PROJECT
DRYING, CALCINING AND COOLING
PROCESS FLOW SHEET 10

50-F-001 A



PLANT DESIGN CAPACITY FOR
FINE DRY POWDER FLOW RATE = 1.75 tph

BULK DENSITIES - DRIED POWDER
Process Design - 0.4 t/m³
Civil Design - 0.7 t/m³

LEGEND

SOLIDS

1. BLENDING PROCEDURE

THE MASSES OF THE VARIOUS PROPORTIONS REQUIRED WILL BE DIALLED UP ON THE COLOUR MATCHING COMPUTER. BIN DISCHARGE FEEDERS WILL BE ACTIVATED BY THE PLC AND STOPPED IMMEDIATELY THE REQUIRED AMOUNT HAS BEEN FED AS SHOWN BY THE WEIGHTOMETER ON THE BLENDER FEED BIN. WHEN ALL INGREDIENTS HAVE BEEN ADDED THE CONTENTS OF THE FEED BIN ARE TRANSFERRED TO THE BLENDER. A SIMILAR SYSTEM HAS GIVEN AN ACCURACY OF 0.1% IN THE CEMENT INDUSTRY.

2. EQUIPMENT SIZING

THE RIBBON BLENDER VOLUMETRIC CAPACITY SHALL BE AT LEAST EQUAL TO OR SLIGHTLY GREATER THAN OF THE BLENDER FEED BIN TO ENABLE ONE COMPLETE BATCH TO BE MIXED AT A TIME.
e.g. BLENDER CAPACITY SAY 4000 LITRES
e.g. BIN CAPACITY 3600 LITRES

WORLEY
TEL
FAX
250 St. GEORGES TCE, PERTH WA 6000

PROJECT No. 63811

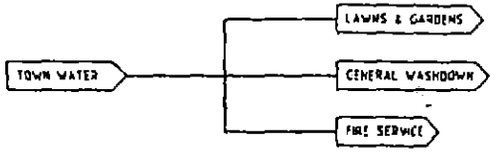
REFERENCE DRAWINGS

SAVAGE RESOURCES LIMITED

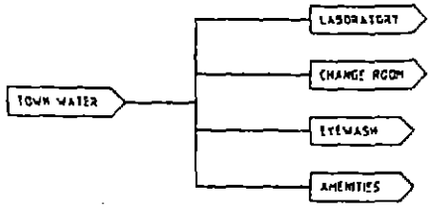
MAIN CREEK, TAS. - COASTAL FACILITY
IRON OXIDE PIGMENT PROJECT
BLENDING, BAGGING AND LOADING
PROCESS FLOW SHEET

60-F-001

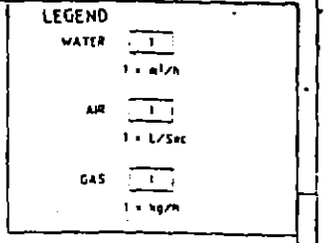
261024



PROCESS WATER SYSTEM



POTABLE WATER SYSTEM

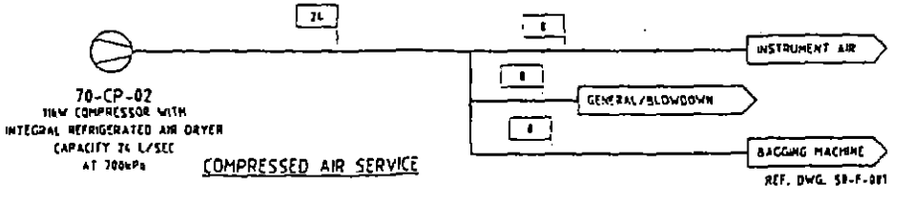


NO SLURRY TO BE HANDLED AT THE COASTAL FACILITY

TAILINGS DISPOSAL

MINOR REQUIREMENTS TO BE HANDLED BY BOTTLED GAS

LPG STORAGE & DISTRIBUTION SYSTEM



COMPRESSED AIR SERVICE

5 cm

WORLEY ENGINEERING
TEL 276 8111 FAX (089) 278 8118
250 St. GEORGES TCE, PERTH WA 6000

PROJECT No. 63811

REFERENCE DRAWINGS

GENERAL - BLENDING, BAGGING & LOADING PROCESS FLOW SHEET	SR-F-001
SAVAGE RIVER - GRINDING, CALCINING & COOLING PROCESS FLOW SHEET	SR-F-002
SAVAGE RIVER - 1.75 TPH PLANT: EXPANDED UTILITIES FLOW SHEET	SR-F-003
SAVAGE RIVER - BRINE GRINDING - MAGNETITE FEED AND PROD. FLOW SHEET	SR-F-004
SAVAGE RIVER - FINE GRINDING - CLASSIFIED FEED AND PROD. FLOW SHEET	SR-F-005
SAVAGE RIVER - MAGNETITE FEED PREPARATION PROCESS FLOW SHEET	SR-F-006

SAVAGE RESOURCES LIMITED

MAIN CREEK, TAS. - COASTAL FACILITY
IRON OXIDE PIGMENT PROJECT
1.75 TPH PLANT CAPACITY
UTILITIES FLOW SHEET

12

APPENDIX TWO

ALLUNGA OPEN AIR EXPOSURE OF SAVOX PIGMENTS

BETWEEN 12 AND 24 MONTHS

261026

ALLUNGA EXPOSURE LABORATORY

EXPOSURE REPORT

DURABILITY

Telephone +61-77-781 697
Facsimile +61-77-783 115

FREIGHT ADDRESS
Bruce Highway
Julago, Townsville
Q 4810 Australia

POSTAL ADDRESS:
Locked Bag 368
Aitkenvale Mail Centre
Q 4814 Australia

Savage Resources
Level 15
Goldfields House
1 Alfred St.
Sydney N.S.W.
ATTENTION Mr J.Perkins

Date 15-05-96 Page 1
Series BU,B318,S150
Report 12 months
Date Exposed 15-05-95
Exposure 20 ° North
Lat 19° 15 S Lon 146° 46 E Ref 203 67

AS 1580 PRE 81 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Fl. ... [illegible]	D 1.5 Change of Gloss Unwashed / Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Effects	L*	a*	b*	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
[illegible]	9	8	-	-	9	1				3.0	- 0.0	-0.7	3.1		
E-L: 10 lighter colour, and possible absorpion or slight loss of coating															
S318	9	8	9	-	- 9	1				1.0	0.1	0.2	1.1		
E-L: 10 lighter colour,possible absorption orslight loss of coating															
Brown BU	9	8	9	-	- 9	d				1.4	-0.0	0.8	1.6		
E-L: 10 darker colour,possible absorption or loss of coating															

End of Report

Please copy to Bob Annett & [illegible] Savox [illegible]

Evaluation is based on A.S. 1580 Method 481 [illegible]

E	Erosion	d	Darker	v	Wider variation in gloss readings	s	slight
F	Checking	l	lighter			md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	[illegible]	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
[illegible]	[illegible]	f	fade	ws	water spotting		
[illegible]	[illegible]		increase	cr	[illegible]		
			continued		[illegible]		

[illegible] As Received

261027

® ALLUNGA EXPOSURE LABORATORY

DURABILITY

Telephone +61-77-781 697
Facsimile +61-77-783 116

FREIGHT ADDRESS
Bruce Highway
Julago, Townsville
Q 4810 Australia

POSTAL ADDRESS
Locked Bag 369
Aitkenvale Mail Centre
Q 4814 Australia

EXPOSURE REPORT

Date 15-08-96 Page 1

Savage Resources
Level 15
Goldfields House
1 Alfred St.
Sydney N.S.W.
ATTENTION Mr J.Perkins

Series BU,B318,S150
Report 15 months
Date Exposed 15-05-95
Exposure 20 ° North

Lat 19° 15 S Lon 146° 46 E Ref 211 47

AS 1580 PRE 91 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Unwashed Change of Gloss Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Etc.	L*	a*	b*	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
S150	9	8	9	-	- 9 1					2.5	- 0.1	-0.6	2.6		
E-L: 10 lighter colour, and possible absorpion or slight loss of coating															
B318	9	8	9	-	- 9 1					-0.1	0.2	0.0	0.3		
E-L: 10 lighter colour,possible absorption orslight loss of coating															
Brown BU	9	8	9	-	~~- 9 d~~					2.6	-0.0	0.1	2.6		
E-L: 10 darker colour,possible absorption or loss of coating															

End of Report

Copy to Bob Arnett :

Bob

Any comments

Tony

19/8

4 45pm

Evaluation is based on A.S. 1580 Method 481 1 3

E	Erosion	d	Darker	w	Wider variation	S	slight
F	Checking	l	lighter		in gloss readings	md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable chan		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Receive-

ALLUNGA EXPOSURE LABORATORY

EXPOSURE REPORT

DURABILITY

Telephone +61-77-781897
Facsimile +61-77-783518

FREIGHT ADDRESS
Bruce Highway
Oonoonba Townsville
Q 4810 Australia

POSTAL ADDRESS
Locked Bag 359
Aitkenvale Mail Centre
Q 4814 Australia

SAVAGE RESOURCES LTD
Level 15
Fields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Date 14-11-96
Page 1
Series BU, B318, S150
Report 18 months
Date Exposed 15-05-95
Exposure 20 North
Lat 19 15 S Lon 146 46 E
Ref 217 47

AS 1580 PRESET 481	A 1.1 General Appearance	B 1.2 Discoloration	C 1.5 Dirt Collection	D 1.5 Unwashed Change of Gloss	Washed	M 1.12 Colour Change	EFGHIJKL 1.4 1.6 1.11 Other	L*	a*	b*	δL*	δa*	δb*	δE*
S1..	9	8	9	-	-	9 l					3.5	0.3	-0.6	3.5
E-L 10 lighter colour, and possible absorpion or slight loss of coating														
B318	9	8	9	-	-	9 l					0.0	0.0	-0.0	0.1
E-L 10 lighter colour possible absorption or slight loss of coating														
Brown BU	8	8	9	-	-	8 d					0.6	0.1	1.1	1.3
E-L 10 darker colour possible absorption or loss of coating														

End of Report

① Copy for Bob Arnott
② Save file

Bob
[illegible]

RECEIVED
20 NOV 1996

Evaluation is based on A.S. 1580 Method 481.1.3

E ...	d Darker	w Wider variation in gloss readings	s slight		
F ...	l lighter		md moderate		
G ...	r redder	t trace	sv severe		
H ...	b bluer	m includes mould			
J ...	y yellower	loc localized			
K ...	g greener	nnc no noticeable change			
...	wh whiter	sd surface distortion			
FK ...	bl blacker	ws water spotting			
FOG ...	i increased	af adhesion failure			
	a absorbed	length measurements in mm			

261028

All Samples Tested As Re...

® ALLUNGA EXPOSURE LABORATORY

DURABILITY

Telephone +61-77-781 697
Facsimile +61-77-783 115

FREIGHT ADDRESS
Bruce Highway
Julago, Townsville
Q 4810 Australia

POSTAL ADDRESS
Locked Bag 369
Aitkenvale Mail Centre
Q 4814 Australia

EXPOSURE REPORT

26102

Page 1

SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Date 13-02-97

Series BU,B318,S150
Report 21 months
Date Exposed 15-05-95
Exposure 20 . North

Lat 19° 15 S Lon 146° 46 E

Ref 218 85

AS 1580 PRE 91 1991	A 1.1 General Appearance	B 1.2 Discolour -ation	C 1.3 Dirt Collection	D 1.5 Unwashed Change of Gloss Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Etc.	L*	a*	b*	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60
S150	9	8	9	- -	9	l				-1.9	0.0	-0.0	0.6		
E-L: 10 lighter colour, and possible absorpion or slight loss of coating															
B318	9	8	9	- -	9	l				0.7	0.2	-0.0	2.2		
E-L: 10 lighter colour,possible absorption orslight loss of coating															
Brown BU	8	8	9	- -	8	d				-2.2	0.3	1.7	5.6		
E-L: 10 darker colour,possible absorption or loss of coating															

End of Report

Evaluation is based on A.S. 1580 Method 481 1 3

E	Erosion	d	Darker	w	Wider variation	S	slight	
F	Checking	l	lighter		in gloss readings	md	moderate	
G	Cracking	r	redder	t	trace	sv	severe	
H	Flaking & Peeling	b	bluer	m	includes mould			
J	Blistering	y	yellower	loc	localized			
K	Visible Rusting	g	greyer	nnc	no noticeable change			
L	Chalking	wh	whiter	sd	surface distortion			
FIC	Ford Image Clarity	f	fade	ws	water spotting			
FD	Film Defects	i	increase	af	adhesion failure			
		c	continued		length measurements in mm			

All Samples Tested As Receiv

® ALLUNGA EXPOSURE LABORATORY

DURABILITY

261030
EXPOSURE
REPORT

Telephone +61-77-781697
Facsimile +61-77-785115

FREIGHT ADDRESS
Bruce Highway
Julatte, Townsville
Q 4810 Australia

POSTAL ADDRESS
Locked Bag 369
Aitkenvale Mail Centre
Q 4814 Australia

Copy Bob Annett

Date 14-05-97 Page 1

Savage Res.

SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Series BU.B318,S150
Report 24 months
Date Exposed 15-05-95
Exposure 20 ° North

Lat 19° 15 S Lon 146° 46 E Ref 232 1

AS 1580 PRP 91 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Unwashed Change of Gloss	D 1.5 Washed Change of Gloss	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Etc.	L*	a*	b*	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
S150	8	8	9	-	-	8 d					-1.5	0.4	1.2	2.0		
E-L: 10																
B318	8	8	9	-	-	8 d					-4.8	0.5	0.7	4.8		
E-L: 10																
Brown Ref	8	7	9	-	-	7 d					-1.9	0.6	0.4	2.0		

E-L: 10 darker colour, possible absorption or loss of coating

End of Report

Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	s	Darker	w	Wider variation in gloss readings	S	slight
F	Checking	l	lighter			md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

Geoff Turner

All Samples Tested As Received

APPENDIX THREE

ALLUNGA ALTRA EXPOSURE OF SAVOX PIGMENTS

BETWEEN 22 AND 34 MONTHS

12 06 '96 09:55 ☎61 : 7799 SAVAGE RESOURCES →→→ BOB ANNETT 001

SP 11-6-96 -MW- 26F032

ALLUNGA EXPOSURE LABORATORY
P.O. BOX 36?, HERVEY PARK
QUEENSLAND 4?1? AUSTRALIA
DURABILITY

Australia Phone (077) 78 1697 Fax (077) 78 3115
Overseas Phone 61 77 78 1697 Fax 61 77 78 3315
NATA REGISTERED LABORATORY

EXPOSURE REPORT

Date	5-06-96
Page	1
Series	SAVOX
Report	22 months
Date Exposed	1-08-94
Exposure	ALTRAL
Lat 19° 15 S Lon 146° 46 E	
Ref	208 44

Savage Resources
Level 15
Goldfields House
1 Alfred St.
SYDNEY N.S.W.
ATTENTION Mr J.Perkins

AS 1580 PRE 21 1984	A 1.1 General Appearance	B 1.2 Discolour-ation	C 1.3 Dirt Collection	D 1.5 Unwashed Change of Gloss	D Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	60°
B/Umber	9	9	-	-	-	9 l	10	-0.2	0.2	0.1	0.3		
Dk Grey	9	8	-	-	-	9 d	10 trace brown	-1.4	0.1	1.6	2.1		
E-L tone													
Red	9	8	-	-	-	9 l	10	-1.6	2.1	2.0	3.3		
Yellow	9	8	-	-	-	9 d	10	-1.2	0.6	0.4	1.5		

End of Report

First set of samples returned 9 months ago.

Bob doesn't know
- Where are they?
- Are they appropriately marked?
- Do we have a consolidated report?

Allunga - Ran for 9 Months (consolidated report [illegible]
[illegible]

Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	darker	*	wider variation in gloss readings	s	slight
F	Checking	l	lighter	t	trace	md	moderate
	Cracking	r	redder	m	includes mould	sv	severe
	Flaking & Peeling	b	bluer	loc	localized		
	Blistering	y	yellower	nnc	no noticeable change		
K	Visible Rusting	g	greyer	sd	surface distortion		
	Chalking	wh	whiter	ws	water spotting		
C	Ford Image Clarity	f	fade	af	adhesion failure		
D	Film Defects	i	increase		length measurements in mm		
		c	continued				

B.H. Carmel

261033

ALLUNGA EXPOSURE LABORATORY

EXPOSURE REPORT

Telephone +61-77-781 857
Facsimile +61-77-783 115

FREIGHT ADDRESS
Bruce Highway
Julago Townsville
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Date 1-07-96 Page

Savage Resources
Level 15
Goldfields House
1 Alfred St.
Sydney N.S.W.
ATTENTION Mr J.Perkins

Series SAVOY
Report 23 months
Date Exposed 1-08-94
Exposure ALTRA

Lat 19° 15 S Lon 146° 46 E Ref 203 97

	A 1.1 General Appearance	B 1.2 Directional effect	D 1.3 Dirt Collection	D 1.5 Unwashed Change of Gloss	D 1.5 Washed Change of Gloss	M 1.12 Colour Change	EPGHLIKE 1.4, 1.6-1.11 Other Effects	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
Black	9	9	-	-	-	9 1	10	-1.5	0.2	0.2	1.5		
Grey	9	8	-	-	-	9 d	10 trace brown	-0.1	0.3	1.5	1.5		
Red	9	8	-	-	-	9 1	10	-0.8	1.8	1.5	2.5		
Yellow	9	8	-	-	-	9 d	10	-0.2	0.8	1.3	1.5		

End of Report

Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	Darker	w	Wider version	s	slight		
F	Checking	l	lighter		of gloss readings	md	moderate		
G	Cracking	r	redder	t	Trace	sv	severe		
H	Flaking & Peeling	b	bluer	in	includes inside				
J	Blistering	y	yellower	loc	localized				
K	Visible Rusting	g	greyer	nnc	no noticeable change				
L	Chalking	wh	whiter	sd	surface distortion				
NC	Post Image Clarity	f	face	ws	water spotting				
FD	Film Defects	i	increase	af	adhesion failure				
		c	continued		length measurements in mm				

All Samples Tested As Received

261034

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DURABILITY

EXPOSURE REPORT

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Date 1-08-96 Page 1

Savage Resources
Level 15
Goldfields House
1 Alfred St.
Sydney N.S.W.
ATTENTION Mr J.Perkins

Series SAVOX
Report 24 months
Date Exposed 1-08-94
Exposure 'ALTRA

Lat 19° 15 S Lon 146° 46 E Ref 206 97

AS 1580 PRE 91 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Change of Gloss Unwashed	D 1.5 Change of Gloss Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
B/Umber	9	9	-	-	-	9 l	10	-1.6	0.2	-0.0	1.6		
Dk Grey	9	8	-	-	-	9 d`	10 trace brown	-0.9	0.3	1.3	1.6		
E-L: tone													
Red	9	9	-	-	-	9 l	10	-1.0	1.0	2.0	2.4		
Yellow	9	8	-	-	-	9 d	10	-1.2	1.0	0.7	1.7		

End of Report

Robin — Copy to Bob Annett

18/8/96

FAXED 19/8 4.45pm

R115

4
902
3
T4 T10
T5

aly, is this right?! J.

Evaluation is based on A.S. 1580 Method 481 1 3

E	Erosion	d	Darker	w	Wider variation in gloss readings	s	slight
F	Checking	l	lighter			md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable chan		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Receive

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EXPOSURE REPORT

Copy: S.A.

Date 28-08-96 Page 1

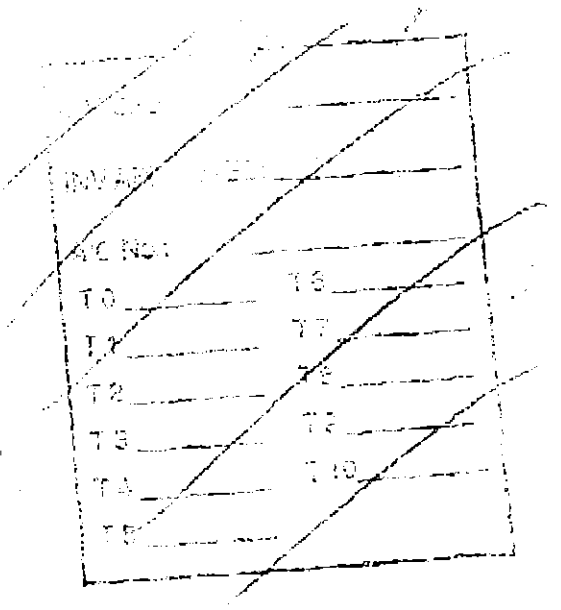
Savage Resources
Level 15
Goldfields House
1 Alfred St.
Sydney N.S.W.
ATTENTION Mr J.Bennetts

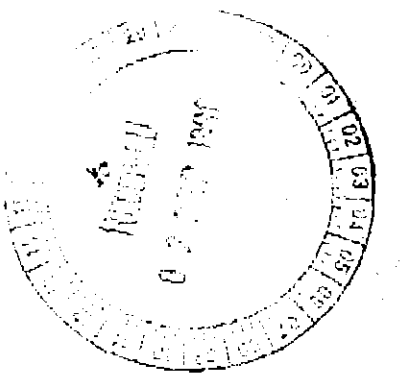
Series SAVON
Report 25 months
Date Exposed 1-08-94
Exposure ALICE

Lat 19° 15 S Lon 146° 46 E Ref 219 3

AS 1580 FRE 91 1991	A 7.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Unwashed Change of Gloss Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.5-1.11 Other Etc.	Gloss Washed 20°	Gloss Washed 60°
						δL^* δa^* δb^* δE^*		
Timber	9	9	-	-	9 1	10	-1.1 0.1 -0.1 1.1	
Grey	9	8	-	-	9 d	10 trace brown	-1.3 0.5 -1.6 2.1	
Pale tone								
Tan	9	8	-	-	9 1	10	-0.5 0.8 1.6 1.9	
Yellow	9	8	-	-	9 d	10	-0.4 0.7 1.6 1.8	

End of Report





Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	Darker	w	Wider variation	s	slight
F	Checking	l	lighter		in gloss readings	md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Fissing	b	bluer	in	indicates trends		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable chan		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Received

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EXPOSURE REPORT

Date 1-10-96 Page 1

Savage Resources
Level 15
Goldfields House
1 Alfred St.
Sydney N.S.W.
ATTENTION Mr J.Perkins

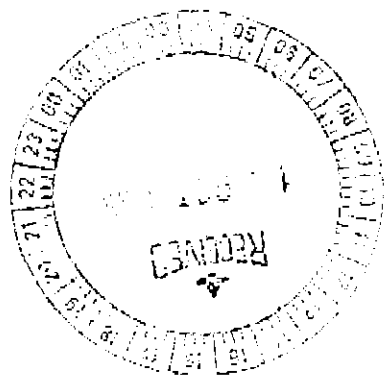
Series SAVOX
Report 26 months
Date Exposed 1-08-94
Exposure ° ALTRA

Lat 19°15 S Lon 146° 46 E Ref 210 73

AS 1580 PRE 91 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Unwashed	D 1.5 Change of Gloss	D 1.5 Washed	M 1.12 Colour Changes	EFGHJKL 1.4, 1.6-1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 6°
B/Umber	9	9	-	-	-	9	1	10	0.1	-0.0	-0.0	0.1		
DK Grey	9	8	-	-	-	9	d	10 trace brown	-1.1	0.6	1.7	2.1		
E-L: Lone														
Red	9	9	-		-	9	1	10	-1.9	1.4	1.4	2.8		
Yellow	9	8	-	-	-	9	d	10	-1.4	0.9	0.9	1.9		

End of Report

Copy, Bob Annett.
Fdk in SAVox allunga file.



Evaluation is based on A.S. 1580 [illegible] 1 1 3

E	Erosion	d	darker	w	Wider variation	S	slight
F	Checking	l	lighter		gloss readings	md	moderate
G	Cracking	r	redder		[illegible]	sv	severe
H	Flaking & Peeling	b	bluer		[illegible]udes mould		
J	Blistering	y	yellower		[illegible]calized		
K	Visible Rusting	g	greyer		no noticeable change		
L	Chalking	wh	whiter		surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Receive

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EXPOSURE REPORT

261037

Page 1

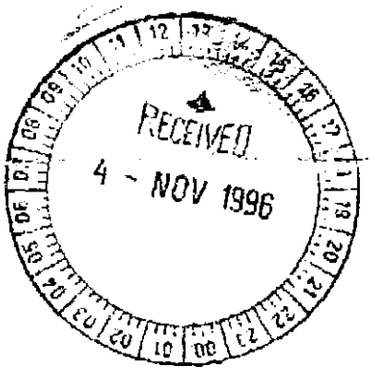
SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Date 31-10-96
Series SAVOX
Report 27 months
Date Exposed 1-08-94
Exposure ° ALTRA

Lat 18° 15 S Lon 146° 46 E Ref 220

AS 1580 PRE 91 1981	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Change of Gloss Unwashed	D 1.5 Change of Gloss Washed	M 1.12 Colour Change	E-H,J-K,L 1.4, 1.6-1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed I
B/Under	9	9	-	-	-	9 1	10	0.3	-0.0	1.0	1.1		
DK Grey	9	9	-	-	-	9 d	10 trace brown	-1.3	0.4	1.9	2.4		
Z-L: tone													
Red	9	9	-	-	-	9 1	10	-1.2	1.6	2.0	2.9		
Yellow	9	8	-	-	-	9 d	10	-2.1	0.6	2.6	3.4		

End of Report



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Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	Darker	w	Wider variation	S	slight	
F	Checking	l	lighter		in gloss readings	md	moderate	
G	Cracking	r	redder	t	trace	sv	severe	
H	Flaking & Peeling	b	bluer	m	includes mould			
J	Blistering	y	yellower	loc.	localized			
K	Visible Rusting	g	greyer	nnc	no noticeable change			
L	Chalking	wh	whiter	sd	surface distortion			
FIC	Ford Image Clarity	f	fade	ws	water spotting			
FD	Film Defects	i	increase	af	adhesion failure			
		c	continued		length measurements in mm			

All Samples Tested As

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Date 27-11-96 Page 1

SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Series SAVOX
Report 28 months
Date Exposed 1-08-94
Exposure • ALTRA

Lat 19° 15 S Lon 146° 46 E Ref 222 7

AS 1580 PPT 91 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Change of Gloss Unwashed	D 1.5 Change of Gloss Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Eta.	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 6x
Bumber	9	9	-	-	-	9 1	10	-0.5	0.0	0.3	0.6		
Dk Grey	9	8	-	-	-	9 d	10 trace brown	-2.1	0.1	2.0	2.9		
E-L: Cons:													
Red	9	9	-	-	-	9 1	10	-1.1	0.7	1.0	1.7		
Yellow	9	8	-	-	-	9 d	10	-1.7	1.0	1.7	2.6		

End of Report

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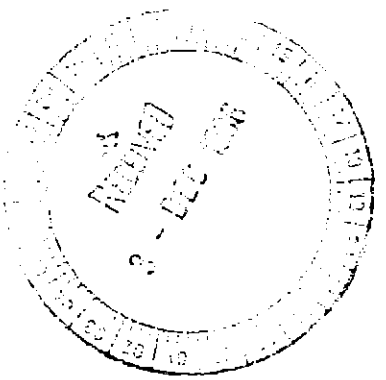

Evaluation is based on A.S. 1580 Method 481 1 3

E	Erusion	d	Darker	w	Wider variation	S	slight
F	Checking	l	lighter	n	gloss readings	md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Recei

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DURABILITY

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Q 4814 Australia

EXPOSURE REPORT

261039
Page 1

SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

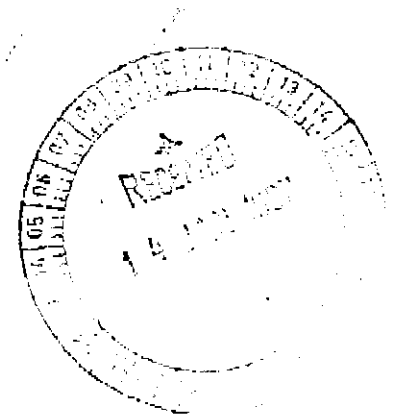
Date 7-01-97
Series SAVOX
Report 29 months
Date Exposed 1-08-94
Exposure ALTRA

Lat 19° 15 S Lon 146° 46 E Ref 223 35

AS 1580 PHE 91 1991	A 1.1 General Appearance	B 1.2 Discolouration	C 1.3 Dirt Collection	D 1.5 Unwashed	D 1.5 Change of Gloss Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Eff.	ΔL*	Δa*	Δb*	ΔE*	Gloss Washed 20°	Gloss Washed ≈
B/Umber	9	9	-	-	-	9 1	10	-0.3	0.0	0.9	0.6		
Dk Grey	9	8	-	-	-	9 d	10 trace brown	-1.3	0.3	1.9	2.8		
E-I: tone													
Red	9	9	-	-	-	9 1	10	-1.2	0.7	1.8	1.7		
Yellow	9	8	-	-	-	9 d	10	-2.1	0.6	2.0	2.6		

End of Report

Copy Bob Arnott



Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	Darker	w	Wider variation	S	slight
F	Checking	l	lighter		in gloss readings	md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Recei

261040

ALLUNGA EXPOSURE LABORATORY

EXPOSURE REPORT

DURABILITY

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SAVAGE RESOURCES LTD
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1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Date 31-01-97 Page 1
Series SAVOX
Report 30 months
Date Exposed 1-08-94
Exposure ALTRA

Lat 19° 15 S Lon 146° 46 E Ref 221 24

AS 1580 PRE 91 1991	A 1.1 General Appearance	B 1.2 Discolour -ation	C 1.3 Dirt Collection	D 1.5 Change of Gloss Unwashed	Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6-1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	60°
B/Umber	9	9	-	-	-	9 l	10	4.5	-0.3	0.9	3.5		
Dk Grey	9	8	-	-	-	9 d	10 trace brown	0.3	-0.0	-0.3	0.4		
E-L: tone													
Red	9	8	-	-	-	9 l	10	4.6	-1.4	-2.4	6.2		
Yellow	9	8	-	-	-	9 d	10	-2.2	0.3	2.0	2.4		

End of Report

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original to Sav file

Evaluation is based on A.S. 1580 Method 481 1 3

E	Erosion	d	Darker	w	Wider variation in gloss readings	S	slight
F	Checking	l	lighter			md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Received

ALLUNGA EXPOSURE LABORATORY
DURABILITY

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EXPOSURE REPORT

261041
Page 1

SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Date 19-03-97
[illegible] SAVOX
[illegible] 31 months
[illegible] 1-08-94
[illegible] ALTRA

[illegible] RJ 220 81

AS 1500 PRE 91 1991	A 1.1	B 1.2	C 1.3	D 1.5		M 1.12		[illegible] 1.4, 1.6-1.11	δL*	δa*	δb*	δE*	Gloss Washed 20°
B/Umber	9	9	-	-	-	9	l	10	4.1	0.0	-0.9	5.8	
Dk Grey	9	8	-	-	-	9	d`	10 trace brown	0.7	0.0	0.1	0.4	
E-L: tone													
Red	9	8	-	-	-	9	l	10	3.0	-1.3	-2.2	4.6	
Yellow	9	8	-	-	-	9	d	10	-1.5	0.1	-0.2	1.4	

End of Report

Evaluation is based on A.S 1580 Method 481.1.0

E	Erosion	d	Darker	w	Water variation in gloss readings	S	slight
F	Checking	l	lighter			md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localised		
K	Vehicle Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface dirt retention		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		

ALLUNGA EXPOSURE LABORATORY

261042

EXPOSURE REPORT

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SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Date 11-04-97
Page 1
Series SAVOX
Report 32 months
Date Exposed 1-08-94
Exposure ALTRA
Lat 19° 15 S Lon 146° 46 E
Ref 220 102

AS 1580 PRE 01 1991	A 1.1 General Appearance	E 1.2 Discolouration	C 1.3 Dirt Collection	D 1.4 Unassisted Change of Gloss Washed	M 1.12.3 Colour Change	SEGHURL 1.4,1.6-1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
B/Umber	9	9	-	-	- 9	1 10	-0.3	-0.4	0.5	0.7		
Dk Grey	9	8	-	-	- 9	1 10	-1.4	0.4	1.8	2.3		
Red	9	9	-	-	- 9	1 10	-1.9	1.9	1.2	3.0		
Yellow	9	8	-	-	- 9	d 10	-0.9	1.1	1.0	1.8		

End of Report

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FE - Savox

Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	Darker	w	Wider variation	S	slight	
F	Checking	l	lighter		in gloss readings	md	moderate	
G	Cracking	r	redder	t	trace	sv	severe	
H	Flaking & Peeling	b	bluer	m	includes mould			
J	Blistering	y	yellower	loc	localized			
K	Visible Rusting	g	greyer	nnc	no noticeable change			
L	Chalking	wh	whiter	sd	surface distortion			
FIC	Ford Image Clarity	f	fade	ws	water spotting			
FD	Film Defects	i	increase	af	adhesion failure			
		c	continued		length measurements in mm			

All Samples Tested As Recei.

ALLUNGA EXPOSURE LABORATORY

261043
EXPOSURE REPORT

DURABILITY

Telephone +61-77-781697
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FREIGHT ADDRESS
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Date 2-05-97 Page 1

SAVAGE RESOURCES LTD
Level 15
Goldfields House
1 Alfred Street
SYDNEY NSW 2000
ATTENTION J Perkins

Series SAVOX
Report 33 months
Data Exposed 1-08-94
Exposure ALTRA

Lat 19°15 S Lon 146° 46 E Ref 225 23

AS 1580 PRE 91 1991	A 1.1 General Appearance	B 1.2 Discolour -ation	C 1.3 Dirt Collection	D 1.5 Unwashed	D 1.5 Change of Gloss	D 1.5 Washed	M 1.12 Colour Change	EFGHJKL 1.4, 1.6–1.11 Other Etc.	δL*	δa*	δb*	δE*	Gloss Washed 20°	Gloss Washed 60°
B/Umber	9	9	-	-	-	9	1	10	-0.2	0.0	0.1	0.3		
Dk Grey	9	8	-	-	-	9	1	10	-2.1	0.4	1.7	2.8		
Red	9	9	-	-	-	9	1	10	-0.5	1.5	1.3	2.0		
Yellow	9	8	-	-	-	9	d	10	-0.1	0.8	2.1	2.2		

End of Report

ACCREDITED

Evaluation is based on A.S. 1580 Method 481.1.3

E	Erosion	d	Darker	w	Wider variation	S	slight
F	Checking	l	lighter		in gloss readings	md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localized		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
DIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	+	increase	af	adhesion failure		
		c	continued		length measurements in mm		

All Samples Tested As Receive

ALLUNGA EXPOSURE LABORATORY 261044

EXPOSURE REPORT

DURABILITY

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Date 12-06-97 Page 1

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ATTENTION J Perkins

[illegible] SAVOX
[illegible] 34 months
[illegible] 1-08-94
[illegible] ALTRA

[illegible] Ref 226 58

AS 1580 PRE 91 1931	A 1.1 General Appearance	B 1.2	C 1.3	D 1.5		E 1.12	1.4, 1.6-1.11	δL*	δa*	δb*	δE*	Gloss Wash 20°
B/Umber	9	9	-	-	-	9 1	10	-0.3	0.2	0.1	0.4	
Dk Grey	9	8	-	-	-	9 1	10	-1.7	0.6	1.7	2.5	
Red	9	8	-	-	-	9 1	10	-1.3	1.4	1.3	2.4	
Yellow	9	8	-	-	-	9 d	10	-0.6	1.1	0.3	1.3	

End of Report

Evaluation is based on A.S 1580 Method 481 1 3

E	Crossed	d	Darker	w	Water vapour in	s	slight
F	Checking	l	lighter		in gloss readings	md	moderate
G	Cracking	r	redder	t	trace	sv	severe
H	Flaking & Peeling	b	bluer	m	includes mould		
J	Blistering	y	yellower	loc	localised		
K	Visible Rusting	g	greyer	nnc	no noticeable change		
L	Chalking	wh	whiter	sd	surface distortion		
FIC	Ford Image Clarity	f	fade	ws	water spotting		
FD	Film Defects	i	increase	af	adhesion failure		
		c	continued		length measurements in mm		