831001

**Pioneer Tin Mining CO**

**Miscellaneous drilling and mining information**

**1925**



**BMI Mining Pty Ltd**

**Monarch Mine**

**Miscellaneous drilling and mining information**

**MLs 9068M, 8991M, 8675M, 8908M, 9027M, 8686M, 10375M, 9329M**

**Monarch Tin Mining Company NL**

**1971**



# TCR 95-3690

83

831002

Lease Info.
+
G.I. Fisher Surveying

BMI mining Pty Ltd *;

# Monarch.

9068 - 10 ac  Monarch T.M.C. - 1923

8991 - 80 ac  " " - 1923

8675 - 10  P.V. Cross - 1921

8908 - 10  J. C. Macmichael - 1923

9027 - 25  Monarch T.M.C. - 1923.

ML 8686 - 80  F.W + P.V. Cross - 1921

ML 10375 - 358 ac  Monach T.M.C. - 1928.

ML 9239 M-

95-3690.

831003

Report on land held in Tasmania without reservation of minerals and proposed legislation to include it in the operation of the Mining Act.

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## INTRODUCTION.

The object of this report is to briefly discuss the application of the present Mining Act (1917) to the lands of Tasmania. Provision is made for mining on Crown Land, and portion of the private land, but no provision is made for mining on other private land. Proposed legislation is submitted to overcome this difficulty and is discussed from various aspects.

## LAND STATISTICS IN TASMANIA.

| | | Acres |
|---|---|---|
| Area of Tasmania | | 16,778,000 |
| Area alineated for process of alienation | | |
| Prior to 14th November 1893 | 4,780,572 | 6,207,235 |
| Since do | 1,426,663 | |
| Area of Crown Land leased for closer and Soldiers Settlement | 206,072 | |
| Area of Crown Land leased for pastoral | 1,993,725 | |
| timber getting &c. | | 2,339,620 |
| for Mining purposes | 49,823 | |
| Area reserved for public purposes whether occupied or not | | 118,823 |
| Area unreserved and unoccupied | | 8,113,145 |

### Lands which come within the provision of the Mining Act.

(I) Crown Land. Provision is made in the Mining Act, 1917, for the carrying out of mining operations on Crown Land which is defined as follows

"Crown Lands"or"Crown Land" means all land of the Crown in Tasmania except -

I. Reserves as defined by this Section

II. Land subject to any lease or licence for mining purposes or relating to mining granted under this or any former Act, or lands held by virtue of a miner's right, consolidated miner's right, or prospectors licence.

III. Any "authorised holding" as defined by this Act i.e. any street or road; or any lands which are for the time being set apart, reserved or dedicated for any public purpose, and any land which for the time being is excepted from occupation for mining purposes under the provision of this Act or otherwise.

The total area of such land is 10,106,870 acres made up as follows -:

| | |
|---|---|
| Crown Land unoccupied and unreserved | 8,113,145 acres |
| do leased for pastoral and timber getting | 1,993,725 " |

to which should be added 49,823 acres already leased so that the total area of Crown Land which can be dealt with under the Mining Act Is 10,156,693 acres or 60.5% the area of Tasmania.

(2) Private Land. Provision is made in the Mining Act , 1917 for mining on private land which is defined as follows :-

"Private Land" means any land not being Crown Land (as defined above) The term does not include a reserve. So far as related to minerals which have not been reserved or do not belong to the Crown the term does not include land alienated in fee-simple from the Crown before the Fourteenth day of November, One thousand eight hundred and ninety-three.

The area of such land is as follows :-

Alienated since 1893 — 1,426,663 acres

Leased for Soldier and Closer Settlement — 296,072 "

or the total of 1,722,735 acres representing 10.2% of the area of Tasmania.

Lands which do not come within the provision of the Mining Act.

From the above it will be seen that the lands which do not come within the provision of the Act are :-

(1) Reserves

(2) Authorised holdings

(3) Land alienated prior to 14th November 1893.

The area of land reserved for public purposes amounts of 118,823 acres, and that of the authorised Holdings is exceedingly small The area of land alienated prior to 1893 amounts to 4,780,572 acres representing 28.5% of the area of Tasmania, and forms the greatest portion of that which does not come within the provision of the Mining Act,1917.

Mineral Deposits on Land Alienated prior 1893.

On this land only ores of gold and silver are reserved to the Crown and the owners hold the mineral rights of anyother minerals or ores occurring on it.

In such a large proportion (28.5%) ofthe State it is unlikely that no large mineral deposits occur. As a matter of fact such deposits do occur as will be seen from the following examples.

Alluvial tin ore occurs on private property in many parts of the Ringarooma Valley and also along the St. Pauls River. Coal is found on private property in many of the East Coast Coalfields.

Practically all the limestone deposits of Northern and North-western

Tasmania are on private land. Iron ore occurs on private property on the North West Coast. Silver-lead, and tin ore deposits are known on the V.D.L. Company's property in the Hampshire District, and on other private holdings in the North-western Districts. Coal and Shale deposits occur on private property in the Latrobie, Railton, Nook, Beulah, Quamby Brook, and Kimberly districts.

Present position with regard to the Development of such Depsoits.

The only way that these deposits can be developed at the present time is either by the owner working them himself or else by arrangement with the owners to do so. The owners are actually working some in a small way.This refers particularly to limestone which is quarried or burnt for lime. In other cases, arrangements have been made by companies or individuals with the owners to work or test the deposits. In still other cases the owners will not permit of any operations whatsoever on their land, while others insist on terms so extortionate as to prevent any arrangements being made.

Disadvantages of Present System.

This system of arrangement with the owner of the land and of the mineral rights to test or work a mineral deposit is a great disadvantage to the State. As already stated, some owners absolutely refuse to allow any prospecting or mining on their land and thus the development of portion of the State 's mineral resources is prevented. also, other owners insist on terms so extortionate that successful mining operations could not be carri ed out and such are not attempted so that development of the deposits is hindered as in the above case.

In addition there is the general disinclination of prospectors,

miners and mining men generally, particularly of the former, to approach private owners to arrange work on their land. This may not seem of any great moment, but experience amongst prospectors &c. proves that it is widespread and definiteand that it often proves an obstacle to the prospecting of deposits . Owners in many cases are hol-ing to land (unfit for agriculture or pastoral purposes)in order to derive advantage therefrom because of the minerals they contain . They will not develop the deposits nor allow others to develop them . This has prevented the establishment of important industries.

Present Postiion in other States.

A similar position to that which exists in Tasmania has existed inother States of the Commonwealth.

In New South Wales in particular an analogous position existed, but in 1918 legislation was passed to bring land without reservation of minerals under the operations of the Mining Act, The result is strikingly evident as shown in the annual report of the Mines Department.

Proposed Legislation.

The proposed legislation to bring such lands on which no reservation of minerals for the Crown has been made under the operations of the Mining Act, is attached herewith. It is based on the New South Wales legislation and is adapted to the existing legislation ( the Mining Act , 1917 and amendments) in Tasmania.

It is proposed to issue permits to enter and search, and to grant leases as is already done on private land which comes under the operations of the Act.Provision is made for compensation for surface damage, and assessment of such by the Warden.

As compensation the owner of the mineral rights is to receive

5% of the net annual profits resulting from mining operations, which sum is to be collected by the Minister and paid ( less 1% of the actual sum )to the owner.

Provision is made to protect those holders of mineral rights who are themselves, or by arrangement, working the deposits . Such protection to continue while bona fide mining operations are being carried out, no lease being granted in this period. A distinction is made between the owner of the land and the owner of the mineral rights in such case where t the land has been sold without the mineral rights.

The 5% royalty is to be paid to the owner of the Mineral rights, while compensation for surface damage &c. is payable to the owner of the land.

## Advantages of proposed Legislation to the State.

The proposed legislation would in many ~~cases~~ ways be beneficial to the development of the State's mineral deposits on land held without reservation of the minerals.

It would bring a large proportion (28.5%) of the land of the State into line with the remaining portions as being under the provisions of the Mining Act, 1917.

Prospectors and miners would take advantage of this and the mineral deposits would be prospected in a more vigorous manner.

The prevention of the prospecting and mining of the deposits either by absolute refusal of permission or demand of extortionate terms would be eliminated.

The results from every view point would be better development of the mineral resources and the resulting increased production and

prosperity of the State.

Advantages of proposed Legislation to Owners.

The proposed legislation would cause no loss in any way to the owners. Compensation would be paid for surface damage, and a royalty for the extraction of minerals. Deposits now lying idle would be tested and worked and the owners would receive royalty instead of nothing as at the present time.

( sgd.) A. McINTOSH REID.

P.B. NYE

GOVERNMENT GEOLOGISTS.

HOBART

22nd January, 1925.

Resumption of private land for mining villages

Section 183. A (1) Whenever, in the opinion of the Governor, any land is required for the purpose of a mining village , and no Crown land suitable for the purpose is available within a reasonable distance of the centre of mining operations, the Governor may, by notification in the Gazette, resume any private lands which he may deem necessary for such purposes, and such resumption may be of the land without any limitation as to depth, or of the surface and the land to any specified depth below the surface.

(2) Upon publication of such notification in the Gazettsuch private land shall vest in His Majesty, freed and discharged from estates, interests, and trusts, affecting the same, and shall become Crown Lands, within the meaning of the Crown Land Act, 1911, and this Act,may be disposed of under any such Act, shut shall be reserved from sale lease and exempted from occupation under any miner's right or business license until the Governor, by notification in the Gazette revokes such resveration or exmption.

(3) Upon publication of such notification the owner of such land shall be entitled to compensation for the loss of his interest therein, and in the event of there being a tenant or rightful occupier on such land other than the owner , such tenant or occupier shall be entitled to compensation for the loss of his interest therein.

(4) The Minister may direct the Warden or other person to assess the market value of such land and any improvements thereon at the date of resumption, reasonable allowance being made for any damage that may be caused by sexvenance , and if there is any person

other than the owner having interest in such land, the value of such interest shall also be assessed , and such assessed value shall be paid to the persons entitled thereto respectively.

(5) It shall be lawful, if the owner so desires, for the Governor to accept a surrender of such private lands, and to grant the owner by way of exchange any area of Crown Lands to equal value, and the provisions of the relating to surrender and exchange of lands shall apply to any such surrender or exchange.

## PART VIII A.

### Mining on private land held without reservation of minerals.

### Interpretation

Section 183 B. In this part of the Act the words and terms, with the exception of "private land" and "mineral land"have the same meanings and inclusions as in Section 163 of this Act.

"Private Land" means any land not being Crown Land within the meaning of Section Four of this Act, and which is held without reservation of minerals to the Crown. The term includes land alienated in fee-simple from the Crown before the Fourteenth day of November, one thousand eight hundred and ninety three.

"Owner" Includes in addition to the definition in Section 163, the owner of the mineral rights of any private land. In every case where "Owner" is used in this part it is specified whether of the land or the mineral rights.

## Grant of Permit to Enter.

Section I83 C. (I) Except as hereinafter provided it shall be lawful and after the day of One thousand nine hundred and for the warden to grant a permit or permits to enter and search for minerals in and upon any private lands alienated and fee-simple from the Crown before the Fourteenth day of November, One thousand eight hundred and ninety-three without any reservation of minerals to the Crown , ow with a reservation of gold or gold and silver only.

(2) Application for any such permit to enter shall be made to, and such authority may be granted by the warden subject to assessment and payment of compensation in the manner prescribed in Section I68 of this Act, and the regulations thereunder in the case of permits to enter applied for or granted thereunder.

(3) Every such person shall confer the like rights and privileges and entail the like obligation and penalties as are respectively prescribed by this Act in relation to permits to enter granted under the said Section

## Application for Lease

Section I83 D. (I) Any holder of any such permit to enter who desires to obtain a lease of the land defined in such permit or any part thereof may make application for such lease, in the manner prescribed in Section I7I, of this Act.

(2) Leases may be granted and the provisions of Section I69 and I70 of this Act relating to the grant or refusal of applications made under this section.

(3) The provision of this Act in relation to the term, rent, area dimensions, form, and condition of leases of private lands and the rights and duties of lessees shall apply to leases granted under this part.

Percentage of Profits payable

Section 183 E. (1) The holder of any permit, and the lessee of any lease granted under the preceding Sections of this part, shall at any the times and in the manner prescribed pay to the Minister on behalf of the owner of the mineral rights of the land included in such permit or lease a sum equal to five per centum of the nett annual profits of working the mines or winning the minerals in and from the said land.

(2) The Minister shall at the time and in the manner prescribed pay to the owner of the mineral rights of the said land all the sums paid as aforesaid less an amount equal to one per centum of the sums, which he is hereby authorised to deduct from such sums, and the amounts so deducted shall be paid by the Minister into the Treasury and carried to the Consolidation Revenue Fund.

Protection of Land upon which Mining Operations are being carried on.

Section 183 F. (1) No permit to enter, and no lease under this Part shall be granted in respect of any land in or upon which bona fide mining operations are being carried on by or with the concurrence of the owner at the time when the application is made . Provided that in the event of any dispute arising as to whether bona fide mining operations are being carried ~~out~~ on as aforesaid, or as to the area protected by this section , the question shall be determined by the Minister after inquiry and report by the Warden.

(2) The provisions of Section I70 of this Act shall apply to applications for permit to enter or lease under this Part.

EXEMPTIONS.

Section I83 G. The Governor may from time to time, by proclamation from the operations of this Act, either wholly or for such period as he thinks fit, private lands in any specified locality or any specified portions of private lands.

Resumption of Private Land for Mining Villages.

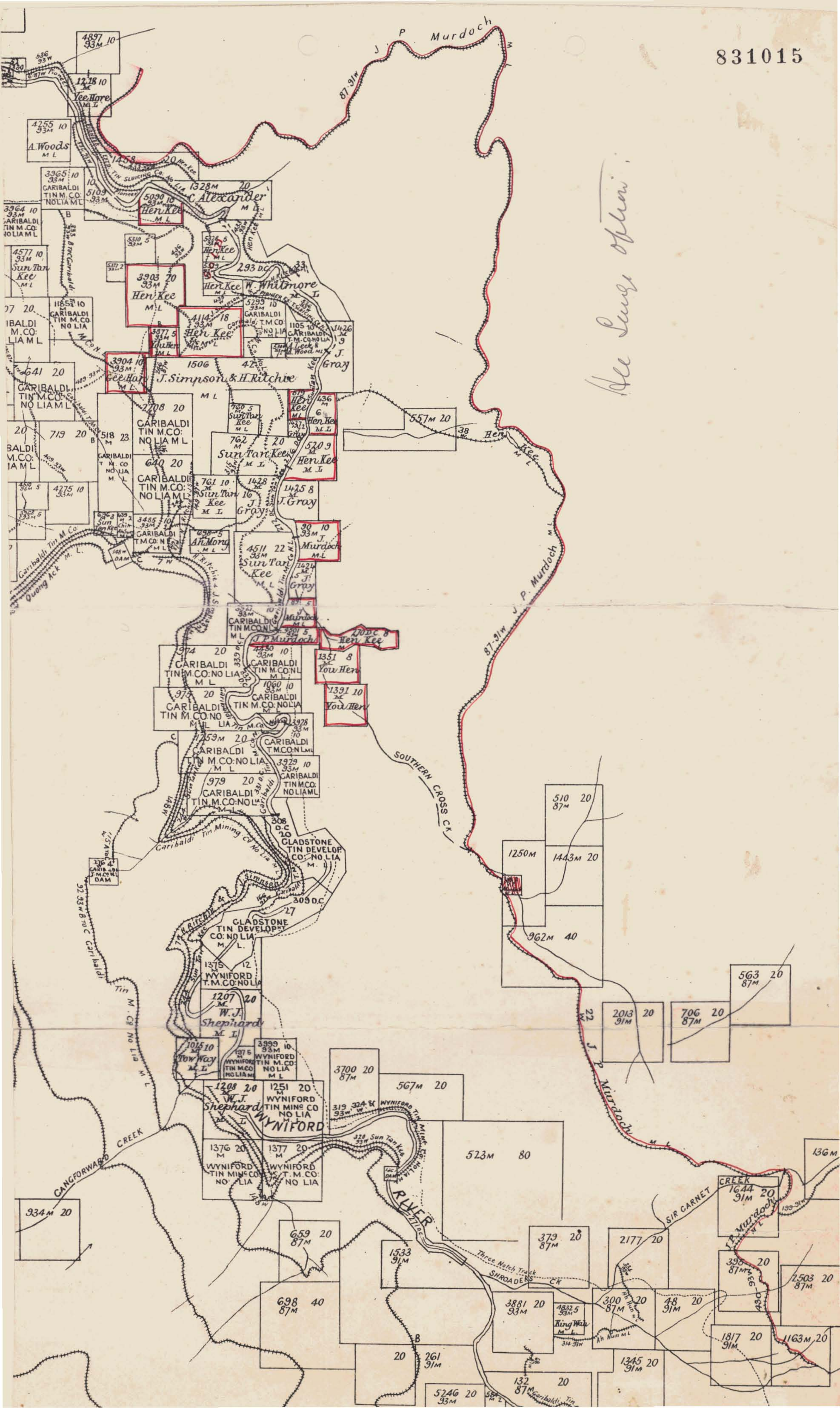
Section I83 H. The Governor may, if any land is required for the purpose of a mining village , and no Crown Land suitable for the purpose available within a reasonable distance of the centre of mining operations resume any private land deemed necessary for this purpose in like manner to Section I83 A and subject to the same conditions as regards notification compensation to owners assessment of compensation and right of owner to surrender land in exchange for other land.

Prepared by A. McINTOSH REID. and

P. B. NYE.

GOVERNMENT GEOLOGISTS.

831015



See Lease Option.

# MINERAL

831016

14

208/ 43

## DIAGRAM FROM ACTUAL SURVEY

COUNTY OF DORSET

VICINITY OF NORTH BOOBYALLA

5 cm

Scale 10 chains to an inch.

REFERENCE TO CORNERS

| COR. | BEARING | DISTANCE IN LINKS | FROM |
|---|---|---|---|
| | | | |

CONSOLIDATED LEASE 10375 M 358 AC.

MONARCH TIN MINING COMPANY NO LIA.

Datum

90° 3000

360° 3000

270° 3000

90° 1781

180° 668

90° 670

90° 1200

90° 1414

180° 1377

90° 1094

180° 1414

360° 1000

270° 1288

180° 707

270° 899

180° 745

270° 1602

360° 1000

270° 1151

359° 54' 1000

180° 1999

359° 55' 1000

269° 55' 998

SHALLAMAR CK

574 Monarch T.M. Co. No Lia.

1399.8 2237 W Monarch

574 W Monarch T.M. Co. No Lia. M.L.

See 228/5

Later incorporated in 11108/M

To be filled in by Surveyor

~~Date of Instructions~~

~~Survey commenced~~

~~Survey finished~~

Error of close 1 in 23630

Office examination

Plotted by LD 19/9/28

Finally examined by [illegible] 21.9.28

Entered on General Plan by [illegible] 21-9-28

Tracing to Launceston [illegible] 21.9.28.

May be acted upon GP 26.4.28

Acted upon

Diagram drawn in Office from original field notes of surveys by G.C. Smith 1913 to 1927.

Surveyor.

15

831017

191/ 8

# MINERAL

DIAGRAM FROM ACTUAL SURVEY

## COUNTY OF DORSET

## VICINITY OF Nth BOOBYALLA

Scale 3 chains to an inch.

**REFERENCE TO CORNERS.**

| CORNER | BEARING | DISTANCE IN LINKS | FROM |
|---|---|---|---|
| 2 | 158°30' | 44½ | Pepp'm't |
| 3 | 221°07' | 68 | Stump |

5 cm

Consolidated

8686
M
~~EW & PV Cross~~ M. L.
182/18

9239

1258

(4) 270° 0' 10·00 (1) PN.

Lease surrendered & land included in Consolidated lease 10375. Diagram drawn 19/9/28

~~9068~~ M 10ac

~~The Monarch Tin Mining Co. No Lia~~

App+

10·00 360° 0' 10·00 180° 0'

270° 0' 1000 (2)

(3) 137°20' 120 1151

8888 M 1ac
EW Cross
185/2

8675 M 10ac
~~EW Cross~~ & ~~PV Cross~~ M. L.
182/16

187/12

8487 M 10
182/17

P.V. & E.W. Cross M. L.

To be filled in by Surveyor

Date of Instructions 10. 9. 23

Survey commenced } 18. 12. 23

Survey finished }

Error of close ~~1 in~~ nil

Office examination

Plotted by

Finally examined by 1/1/24

Entered on General Plan by 10 - 1 - 24

Tracing to Launceston 12 - 1 - 24

May be acted upon 10.3

Acted upon

9 JAN 24 HOBART

G Campbell Smith
District Surveyor.

831018

(1)
COR
1000
8686 80 ac
M
F.W. Cross
&
P.V. Cross
M.L
()
90°00'
From 4
(4)
New Cor
1000
90°00'
4.10S
TRAIL
CART
500
475
68
22°30'
(6) Stn
()
360°00'
From 3
(3)
New
Cor & Stones
1000
12°
137' 5.30'
8888
4 lac
FW Cross
M.L
158' 30'
6' Pg
44½
()
270°00'
From 2
(2)
Recent Cor
1000
8675 10
M
F.W. Cross
&
P.V. Cross
M.L.
Recent Cor P.
()
180°00'

F.W. Cross & P.V. Cross M.L
at NW L of 10 ac N
No Lia Appts Beginn
The Monarch Tin Min:
Survey of 10 ac N° 90

831019

# MINERAL

DIAGRAM FROM ACTUAL SURVEY

187/ **11**

## COUNTY OF DORSET

## VICINITY OF NTH BOOBYALLA

Scale 8 chains to an inch.

REFERENCE TO CORNERS.

| CORNER | BEARING | DISTANCE IN LINKS. | FROM |
|---|---|---|---|
| 2 | 360° | 132·6 | Peppt |
| 4 | 181°14' | 158·5 | " |

5 cm

9031 M 80ac
The Monarch
T M Co No 1 ia
appt
M L
187/8

90° 30·00
wire fence
tailings
8991 M 80ac
~~The Monarch Tin~~
~~Mining Co. No 1 ia~~
~~appt~~
M L
187/8

30·00
360°
30·00
1500

10·00
90°
187/7
8908 M 10
~~T C~~ Monarch T.M.Co
Macmichael
M L No 1 a
270° M.L.

10·00
Lease surrendered & land included in Consolidated Lease 10375. Diagram drawn 19/9/28.
M 270° 0' 30·00

6·92
10·00
360°

3·84
13·05
360°

187/9
9027 M 25ac
The Monarch
T M Co No 1 ia
appt
M L

Consolidated Lease
9239 160ac
~~8686 M 80ac~~
P.V. & F.W
~~FW & PV~~ Cross
M. L.
182/18

29·67
P.N.

To be filled in by Surveyor
- Date of Instructions 16. 3. 23
- Survey commenced / Survey finished 23. 8. 23
- Error of close 1 in 3000

Office examination
- Plotted by
- Finally examined by 17/9/23
- Entered on General Plan by 1. 9. 23
- Tracing to Launceston 1. 9. 23

a/c form £16 11/9/23

May be acted upon 28. 9. 23

Acted upon

MINERAL OFFICE 3 LAUG 28 HOBART

G Campbell Smith
District Surveyor.

831020

N 3000 — S 1305, 1000, 692, 2997 — E 3000, 1000 — W 1000, 2000, 4000

2000
2997
5000
13997
4666 Close

From 8 — (8) — 1030 — 90°00' — 550 — Cor — 1305 — 0 — 360°00'

From 7 — (7) — 1000 — 0 — 90°00'

From 6 — (6) — 1000 — Cor — 0 — 360°00'

From 5 — 0 — 270°00'

(5) — 692 — Cor — 0 — 360°00' — AGAIN FROM 0

9027 M 25 ac — Monarch T M Co — Cor & Trenches — 1° 141 abpts — 15 8½ — Pppmt — Tail 135 from workings — Cor

8908 M — Monarch T M Co M.L.

10 ac

8686 M — 80 ac

From 3 — 3000 — Cor & Trenches — Marsh — Wire — 2000 T P — 1807 — Fence — 1300 — 1000 T P — Swamp — 0 — 90°00'

(3) — Cor — 3000 — 90.31 M — 80 ac — Swamp — The Monarch Wire T M Co No Lia: open — 2480 — 2000 T P — 1500 Cor — 1000 T P — 700 — 0 — 360°00' — From 2

(2) — Cor & Trenches — 3000 — 132.6, 150.00 Pppmt — Fence — Marsh — 2000 T P — 1200 — 1000 T P — Marsh — 180°00 — 1000 — 8686 M — 270°00' 80 — E W Cross — P N. — & P V. Cross M.L

of 80 ac N° 8686 M at 10 chs north from S.W.L Angts Beginning at S.E. L The Monarch Tin Min: Co: No Lia: Survey of 80 ac No 8991 M.

831021

182/ 16

# MINERAL

DIAGRAMS FROM ACTUAL SURVEY

## COUNTY OF DORSET

## VICINITY OF N. BOOBYALLA

Scale 3 chains to an inch.

MAR 1921

MINES BRANCH

5 cm

**REFERENCE TO CORNERS.**

| CORNER | BEARING | DISTANCE IN LINKS. | FROM |
|---|---|---|---|
| 2 | 158°30' | 44½ | Pepp'mt |
| 3 | 308°30' | 26½ | " |

182/18

8686 80
M
EW Cross & PV Cross
~~Apps~~ M.L.
667

① 3·13 ④

270° 10·00

PN ×

*Lease surrendered & land included in Consol Lease 9239 160ac.*

10·00 10·00

M ~~8675~~ 10ac.

*Fredk Wm Cross & Percy Vincent Cross*

*Apps*

180 360

90° 10·00 1·52

(2) 1·51 (3)

1068 10
M
Monarch S. Mn Co.

8906
M
Monarch S Mn Co

~~8487~~
~~8478~~ 10 182/17
M

E.W. Gross & P.V. Gross

~~Apps~~ M.L.

616

357° 54' 1052

300

93/31

1052 142/16

To be filled in by Surveyor

Date of Instructions 6. 1. 21

Survey commenced } 29. 1. 21

Survey finished }

Error of close ~~1 in~~ nil

Office examination

Plotted by

Finally examined by 7/4/21

Entered on General Plan by 11. 3. 21

Tracing to Launceston 10-3-21

May be acted upon 8. 4. 21

Acted upon

a/ Apps 14.3.21

MINES DEPARTMENT TASMANIA 9 MAR 1921 HOBART

Stanfield Smith
District Surveyor.

831022

| | | | |
|---|---|---|---|
| | Cor | (4) 1000 | |
| | — | 687 | Cor 8675 10 ac M Fd: Cross & P.V. Cross ✓ |
| 8686 10 M F.W. Cross & P.V. Cross | | 0 90°0' | From (1) |
| | | (4) 1000 | ✓ Crown ✓ |
| P.V. Cross abt | | 0 360°0' | 152 |
| | | (3) 1000 | Cor 8478 10 ac M F.W. & P.V. Cross abt's |
| F.W. Cross & 8675 M | | 151 C 90°0' | ✓ |
| | | (2) 1000 | Cor ✓ |
| 687 8686 M | | 0 180°00 | 80 |

Off 80 ac N° 8686 M
N.W. ∠ on Southern Boundary
Cross Arms & Beginning at
Fred^k William & Percy Vincent
Survey Cor 10 ac N° 8675 M

831023

# MINERAL

DIAGRAM FROM ACTUAL SURVEY

187/ 7

21

## COUNTY OF DORSET

## VICINITY OF N. BOOBYALLA

Scale 3 chains to an inch.

| REFERENCE TO CORNERS. | | | |
|---|---|---|---|
| CORNER | BEARING | DISTANCE IN LINKS | FROM |
| 1 | 81° | 29·2 | Pepp+ |
| 3 | 236°8′ | 39·5 | " |

5 cm

Monarch

m

187/11

(3) swamp (4)

90° 1000

Lease surrendered & land included in Consolidated lease 10375. Diagram drawn 19/9/28

M ~~8908~~ 10ac

~~M~~ 208

a r s 43h

~~J C Macmichael app^t~~

(2) ~~THE MONARCH TIN MG. CO. NO LIA~~

1000 1000 275

360° 180°0′

PN × 1000

270°

(2) (1)

8686 80 M

EW & PV Cross

M.L.

182/18

To be filled in by Surveyor

Date of Instructions 19.12.22

Survey commenced } 18.2.23

Survey finished }

Error of close 1 in nil

Office examination

Plotted by [illegible] 3/5/23

Finally examined by [illegible] 3/5/23

Entered on General Plan by [illegible] 12.3.23

Tracing to Launceston [illegible] 12-3-23

McPorter L&S 9/3/23

MINES DEPT. No. 4 TASMANIA 9 MAR 23 HOBART

May be acted upon [illegible] 3.5.23

Acted upon

[illegible] Surveyor

831024

(1)
1000
Cor

8686 80
M
↓
F.W. & P.V. Cross
M.L.

180°00'

(4)
1000
Cor & Trenches

360°00'
275
Cor
↓

"O. Ref. Mark
for NWL 80
2578
M
Gum
236 25' 130
236°05
129½
from NWL M

sur d er

0
90°00'
From 3

(3)
1000
Swamp

Cor
& Trees

a n d

0
360°00'
From 2

(2)
1000
Cor
& Trenches

Peppermint
39 8/10
21

180°00

0

360°00'

Cor & T.

270°00

8686
M
P.V & F.W. Cross M.L.

80

Cross M.L.
of 80 ac N° 8686 F.W & P.V.
at S.E. L on western boundary
J.C. Macmichael And Beginning
Survey of 10 ac N° 8908
M

23

831025

187/ 9

# MINERAL

DIAGRAM FROM ACTUAL SURVEY

## COUNTY OF DORSET

## VICINITY OF NTH BOOBYALLA

Scale 4 chains to an inch.

AUG 1923

| REFERENCE TO CORNERS. | | | |
|---|---|---|---|
| CORNER | BEARING | DISTANCE IN LINKS. | FROM |
| 2 | 149° | 47 | Stump |
| 3 | 353°45 | 70·8 | Pepp't. |

5 cm

Area increased at 40 applicants request.

Fence

Wire (2)

(3)

90° 0' 17·81

3.84

14.14

~~9027~~ M

25ac

~~The Monarch Tin Mining Co~~

~~No 11a.~~

Appt

Lease surrendered and land included in Consolidated Lease 10375 M

Portion of Diagram drawn 19/9/28

208

43

270° 17·79

PN (1)

PUMPING PLANT

(4)

14.14

6.68

Hut

Hut

360°0'

180°0'

Water owned by Company

7960 M

200

21

8928 M

Monarch T.M. Co

100

110

8991 M 80ac

The Monarch T M Co No 11a appt

187/11

Consol Leas

~~8686~~ 9239 M 80ac

P.M

~~F.W~~ Cross & ~~P.V~~ Cross

new workings

M. L.

187/18 187/12

Date of Instructions 28/4/23

Survey commenced 24/8/23

Survey finished 25/8/23

Error of close 1 in 3194

To be filled in by Surveyor

Office examination

Plotted by

Finally examined by 17/9/23

Entered on General Plan by

Tracing to Launceston

Accepted £8.0.0 11/9/23

Bal. £1/10 Jno 21/9/24

May be acted upon 28.9.23

Acted upon

31 AUG 1923 HOBART

Campbell Smith

District Surveyor.

831026

8686 M 80 ac

(4)
1414
Marked 90°00' Line
340°
139
Hut
Hut
1000
191°
193°
Land
Survey
0
180°00'
From 3

(3)
1781
Corr Trenches
Crown
1000 T.P
Land
Wire
120
Fence
Land
Cor & Trenches 0
From 2 90°00'

Q 47
Stump 149°00'
(2)
1414
1380
Fence
384
Wire
1030 Cor & Trenches
Tailings

8991 M 80
Monarch T.M. Co No Lia: M.L.
Tailings
Cor P.N. 0
360°00'

(1)
1779 Cor
Land
8686 M 80ac 779 T.P
under
1111 470
New Workings
F.W. Cross
& P.V. Cross M.L. 170
Survey
18
Cor & Trenches 0
270°00'
From (4)

Cross M.L.
No 8686 M F.W. Cross & P.V. at N.W. Cor of 80 ac No Lia: Apps Beginning The Monarch Tin Min: Co: Survey of 25 ac No 9027 M

25

831027

182/ 18

# MINERAL

DIAGRAM FROM ACTUAL SURVEY

## COUNTY OF DORSET

## VICINITY OF N. BOOBYALLA

Scale 8 chains to an inch.

5 cm

**REFERENCE TO CORNERS.**

| CORNER | BEARING | DISTANCE IN LINKS | FROM |
|---|---|---|---|
| 1 | 12°30' | 18 | Pepp'm't |
| 12 | 45°50' | 62 | do |

9027 25ac
M
Monarch T M Co
No Lia

8926 10
M
PN
Monarch T M Co

8907
M

90° 29·74 707

270° 7155 5 M FW & PV Cross M L 90° 158/4

707

180° 607 716 325 675

360° 430 525

180° 1007

270°

29·67

360° 0'

9·00

180°

12·50

180°

270° 29 75

313

8606 25
M
Monarch T M Co
No Lia

~~9686~~
M
80 AC
FW Cross & PV Cross
Apps
Lease surrendered & land included in Consol: Lease 9239 M 160ac.

5992 10
145/46 M
PV Cross & FW Cross
M L

8675 10
M
182/16
FW Cross & PV Cross 182/16
M L

To be filled in by Surveyor

Date of Instructions 11 1 21

Survey commenced } 28 / 21

Survey finished }

Error of close 1 in

Office examination

Plotted by 28/4/21

Finally examined by 2/5/21

Entered on General Plan by 5 4 21

Tracing to Launceston 1-7-21

May be acted upon 18

Acted upon

4 Jun 6.7.21

Surveyor.

831028

2974
90°
2000
1000
0
90°00
From 12

(12)
2967
45°50'
62
Peppmt
2000 T.P
Marsh
1000 T1
0
360°00
From 11

(11)
2975
Peppmt 12°30 18
CART
1380
1000
687
8675 10
M1
F.W. Cross
& P.V. Cross
Abbt
0
270°00
From 10

(10)
1250
0
180°00
From 9

(9)
5992 10 ac
M
325
F.W. & P.V. Cross
M.L.
0
90°00

(8)
900
5992 10 ac
M
0
180°00
From 7

(7)
707
M.L.
0
90°00
From 6

(6)
707
P.V. & F.W. Cross
0
180°00
From 5

(5)
707
7155 5 ac
M
0
270°00
From 4

(4)
607
0
360°00
From 3

(3)
325
0
270°00
From 2

5992
M
Marked
(2)
716
10 ac
Line 325
270

P.N.
0
180°00

P.N.
Beginning at N.E. L at
F.W. Cross & P.V. Cross Angt
Survey of 80 ac No 8686
M

survey
survey
survey
Land
Land
Land

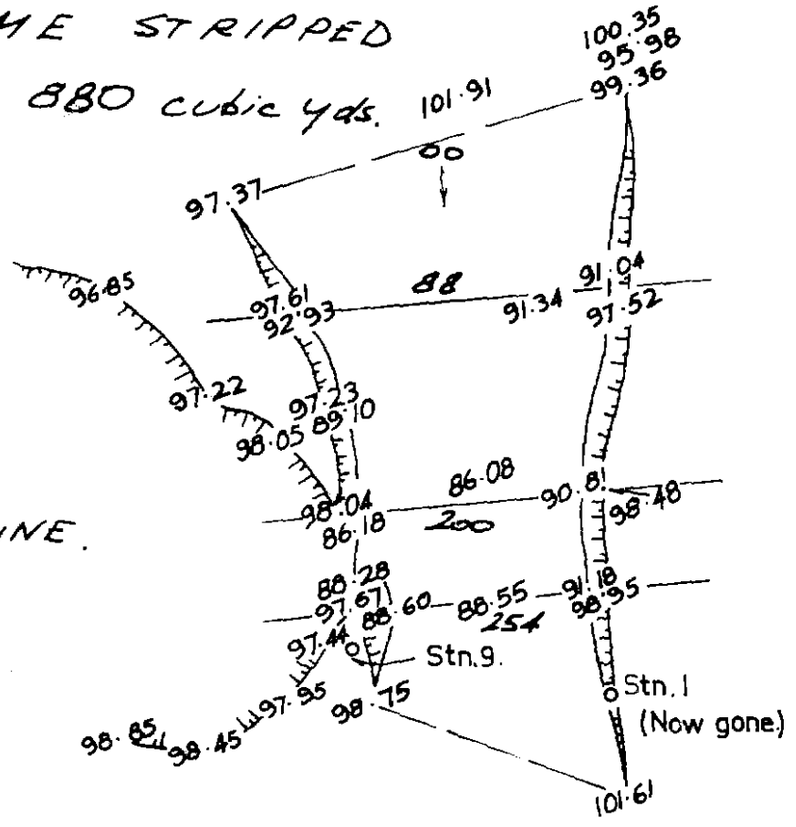
# SURVEYOR'S REPORT. 831029

## B. M. I. MINING PTY LTD
## MONARCH MINE

OVERBURDEN STRIPPING TO 1.30 P.M. 24th MARCH 1971.

VOLUME STRIPPED

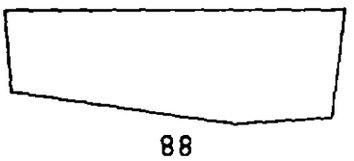
10, 880 cubic yds.



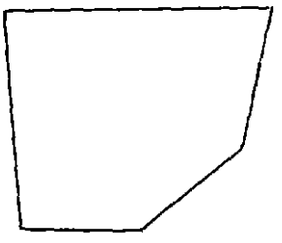

o Stn 2.

PLAN.
Scale : 100' to 1"

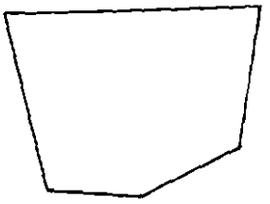
CROSS-SECTIONS.
Scale: Horiz: 100 to 1".
Vert: 10' to 1".



88



200



254


REGISTERED SURVEYOR
323 BRISBANE ST.
LAUNCESTON.
PHONE 31 4207.


5 cm

8/18

831030

| | |
|---|---|
| Jan. | 3,900,000 |
| Feb | 5,046,000 |
| March | 5,018,000 |
| April | 7,053,000 |
| May | 8,559,000 |
| June | 9,841,000 |
| July | 9,785,000 |
| August. | 9,284,000 |
| Sept. | 7,834 |
| Oct | 8,698 |
| Nov. | 5,798 |

---

Full by Nov 1971

---

Monthly accumulation. 7,246,000 cft.

or 45,000,000 gals

---

Precipitation Ponca 831031

| | | | |
|---|---|---|---|
| Jan | 168 | = .140 | ~~14~~ · 1.400 |
| Feb | 217 | = .181 | ~~1808~~ · 1.808 |
| March | 216 | = .180 | ~~18~~ · 1.800 |
| April | 303 | = .253 | ~~25~~ · 2.525 |
| May | 368 | = .307 | · 3.067 |
| June | 423 | = .353 | · 3.53 |
| July | 421 | = .351 | · 3.508 |
| August | 401 | = .333 | · 3.333 |
| Sept | 338 | = .281 | 2.817 ~~2816~~ |
| Oct | 374 | = .312 | · 3.117 |
| Nov | 250 | = .208 | ~~2083~~ |
| Dec. | 264 | = .220 | · 2.200 |

3.119

Ave (37.43) /ann.

V = 76,762,200 cu feet

K = 8.85 Sq miles

ie pa V = ~~2,787~~ 27,878,400 × 3.1191 = 86,955,517

80,000,000 a.ft. pa.

| Contour | Area 1 | Area 2 | Total Area |
|---|---|---|---|
| 95 (.17) | 68.12 | 66.84 (.17) | 134.96 |
| 85 (.03) | 27.00 | 55.31 (.07) | 82.31 |
| 75 | | 38.12 (.03) | 38.12 |
| 68 | | 14.56 | 14.56 |

140 05
72.20
67 85

100
~~33.34~~

133.34
65.21
68.13

47 65
20.75
26.90

66
68
134

101.45
33.34
68.11

74.80
47 65
27.25
26.90

101.90
26 30
27 10
25 90

177.12
110.22
66 90

113.12
75.04
38.08

113.49
58.2
55.29
55.31

157.30
90.59
66.69

68.02
53.52
14.50

51 29
13 12
39.17

687
13.49
55.52

14.50
14.63
113

~~87.56~~
82.93
1463

56

831032

435 10 000
24100 000
7371 000
1,747200
---
7,672 82·00

| | $A_1$ | $A_2$ | $\Sigma A$ |
|---|---|---|---|
| 95 | 68.3 13/30 | 67.01 | 135.4 4/5 |
| 85 | 27.03 | 55.38 | 82.4 |
| 75 | | 38.09 | 38.09 |
| 68 | | 14.56 | 14.56 |

831033

95 – 85 $\left(\frac{135.31 + 82.41}{2}\right) \times \frac{400,000}{40,000 \times 10}$ c.ft.

43,544,000 c.ft.

85 – 75 $\left(\frac{82.41 + 38.09}{2}\right) \times 400,000$

24,100,000 c.ft.

75 – 68 $\left(\frac{38.09 + 14.56}{2}\right) \times \frac{280,000}{40,000 \times 7}$

7,371,000

total 75,015,000 c.ft.

68 – 62 $14.56 \times 3 \times 40,000$

$= 1,747,200$

1 Sq m = 200′ × 200′

1 cft = 40,000 Sq ft.

6 × 8 = 48

$\Sigma V = 76,762,200$ c ft

$479,764,000$ gal $\approx$ 480 million gallon

831034

$Q = c A^{3/4}$

$6c\ 3.1\sqrt{77}$

$6134\ 4137$

$= .112q$

$A = (ck^{3/4})$

$= 70 \times 8.85^{3/4}$

$= 70 \times 5.12$

$= 358\ sq\ ft$

$= 71.6\ ft\ long \times 5\ ft\ high$

$8.85^3$

$4\overline{)0.9\overset{v}{4}6\ 9\overset{v}{4}33}$

$.2^3 87358$

$\times$

$.710v$

---

$Q = C . A^{3/4}$

$= 1000 \times 5.12$

$= 5120\ Cusecs$

$1.75$

$885$

$Q_2 = va$

$v = 3'/sec$

$5120 = va$

$a = 1706\ sq\ ft$

$Q_2 = 1416\ cusecs$

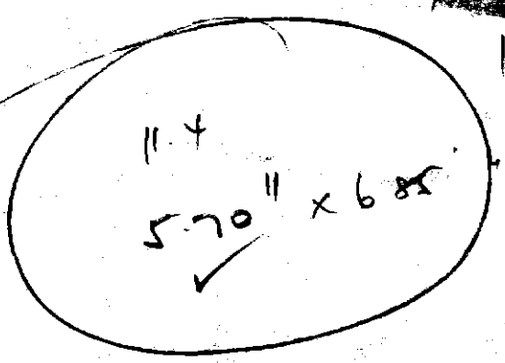
$A = 472\ sq\ ft$

F ROBS

831035

115.91
76.65
39.26 ✓

155.06
115.91
39.17 Sq mi




13.70
6.85

Catchment Wimaleah Sheet

122.36
88.80
33.56
.74
130

33.65 Sq mi

156.10
122.36
33.74

1 Sq in =

2256
11.4" = 10,000 yd
= 5.687 miles
1" = .497 miles
= .5
1 in² = .25 Sq in

$A_1$ = 33.65 x .25 = **8.41** Sq miles

Tomahawk Sheet

~~11.88~~

A1 8.41
A2 44
8.8555 miles

77.25
75.07
2.18
4.31
2.56
1.75

7986
7725
261

~~4.37~~

6.11
4.31
180

~~4~~ 1.77
4

54.29 / 1.77 / 52.52 — 101.8 / 51 / 186.9 — 831036 — 50.49 / 1.65 / 52.54 — 55.39

4 P.M. (7)

Call (186.9) = 56.97 mi

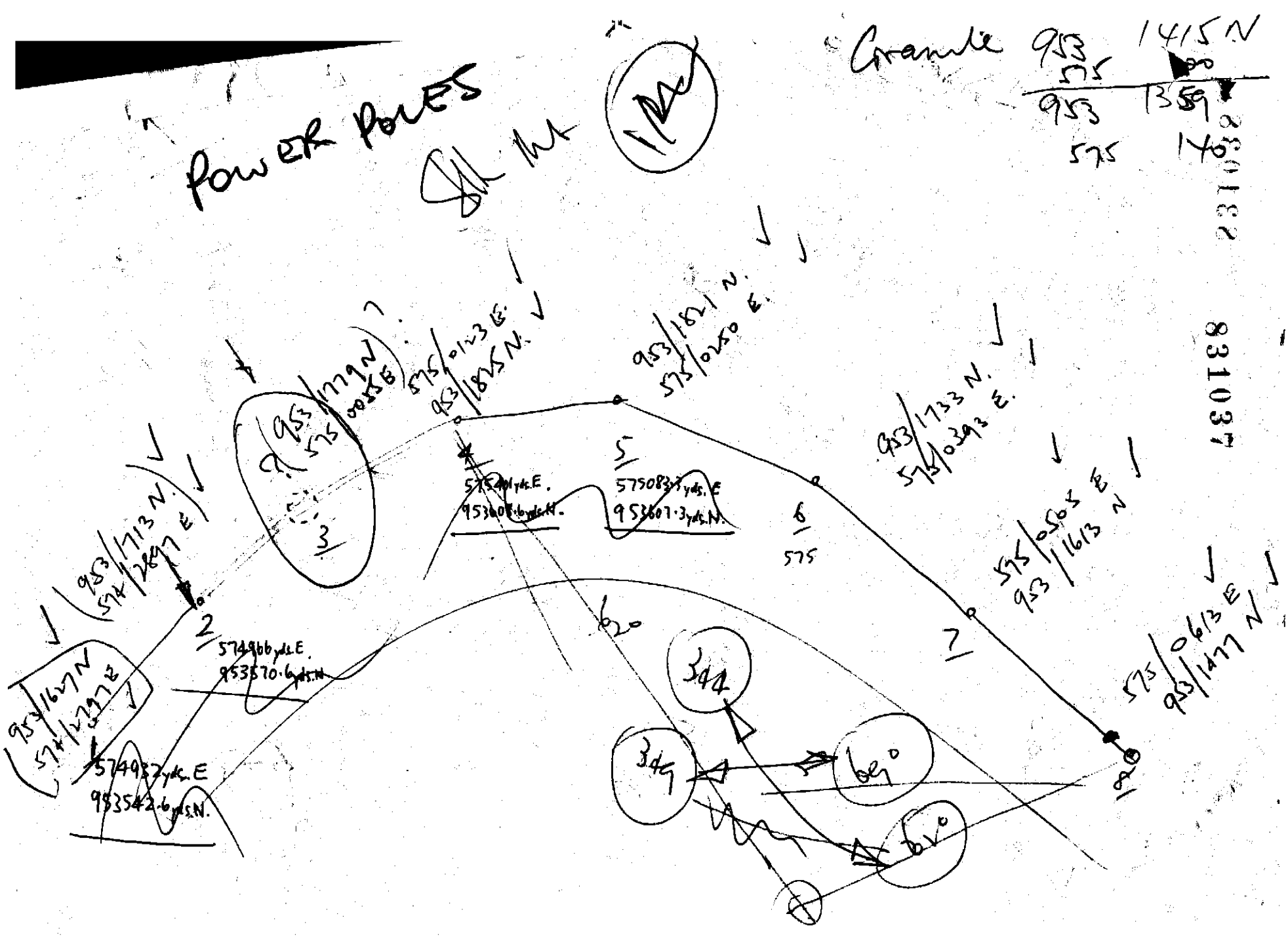
| | | HD | Dist | Point RL | RLs |
|---|---|---|---|---|---|
| to P.M. 9 | 299 00 50 | 231.46 | 759.38 | 50.12 — 1.28 = 48.84 | 46.24 |
| AM 10 | 278 44 03 | 250.96 | 823.36 | 50.03 — 1.40 = 48.63 | 47.23 |
| 11 | 201 37 05 | 257.87 | 846.03 | 49.27 — 1.34 = 47.93 | 45.59 |
| 12 | 333 08 10 | 113.83 | 373.46 | 53.29 — 1.34 = 51.95 | 49.71 |
| 13 | 302 16 10 | 90.92 | 298.29 | 53.18 — 1.37 = 51.81 | 49.73 |
| 14 | 171 32 45 | 79.11 | 259.55 | 56.37 — 1.40 = 54.97 | 53.21 |
| 15 | 155 15 45 | 189.97 | 623.26 | 51.74 — 1.40 = 50.34 | 48.76 |
| 16 | 46 05 00 | 294.86 | 967.39 | 56.23 — 1.40 = 54.83 | 53.09 |
| 17 | 34 12 03 | 449.96 | 1541.86 | 52.32 — 1.43 = 50.89 | 48.76 |
| 18 | 104 06 10 | 199.97 | 655.91 | 54.96 — 1.34 = 53.62 | 52.28 |
| 19 | 218 18 30 | 216.45 | 710.14 | 55.79 — 1.40 = 54.39 | 53.11 |
| TRAV 16 | 227 12 15 | 74.34 | 243.90 | 56.38 — 1.40 = 54.98 cf 54.83 | 53.55 |

5.15 mi

Leg Hosp Dist from (7)

| | | | | | | |
|---|---|---|---|---|---|---|
| | 312 19 33 | 414.79 | 1354.30 | 53.61 — 1.28 = 52.33 | = | 171.69 |
| PM 14 | | | | | | |
| PM 20 | 173 58 30 | 353.78 | 1160.70 | 64.45 — 1.40 = 63.05 | = | 206.91 |

| | N | E | | | |
|---|---|---|---|---|---|
| | 2265.03 | 2722.73 | | | |
| 9 | ~~2265.03~~ 2021.74 | ~~3[illegible]~~ 2573.00 | 9-10 | 3°36 37" | 285.67 |
| 10 | ~~1924.87~~ | ~~3[illegible]~~ 76 | | | |
| 11 | 2559.91 | 2861.51 | ~~11-9~~ | 205°12 11" | 325.90 |
| 12 | 2229.63 | 3217.57 | 12-11 | 312 50 57 | 485.66 |
| 13 | 2055.98 | 3134.57 | 13-12 | 25 32 24 | 193.40 |
| 14 | 1643.37 | 3330.36 | | | |
| 15 | 2496.25 | 3557.16 | 15/3 | 223 49 20 | 610.35 |
| 16 | 2288.70 90 | 4271.07 14 | | | |
| 17 | 3171.95 | 4253.48 | 17-15 | 215 51 39 | 97.27 |
| 18 | 3012.13 | 4489.62 | | | |
| 19 | 2435.38 | 4450.06 | | | |
| 20 | 489.09 | 3452.19 | 20-7 | 357 20 27 | 1469.12 |
| Hosp Dist PM11 | 2808.62 | 2385.51 | | | |


POWER POLES
Granite
953 1415 N
575
953 1355
575 1405
831037
953/1779 N
575/0018 E
953/1851 N
575/0143 E
953/1621 N
575/0250 E
953/1733 N
575/0393 E
575/0503 E
953/1613 N
575/0613 E
953/1477 N
953/1713 N
574/2697 E
953/1647 N
574/2377 E
574966 yds. E
953570.6 yds. N
574937 yds. E
953542.6 yds. N
575401 yds. E
953608.6 yds. N
575083.7 yds. E
953607.3 yds. N
575
344
344
60°
60°
60°
831037

831038

.43

Total
2.88 2.90
5.80
2.90

82 — .05
84 — .30
86 — .40
88 — .50
90
92

2.85
2.60
2.50
2.40
2.14
1.95

94
96
98

100

90V

100V

1.0
0.9
0.5
0.1

1867 Rubber

97.08

82 — 2.90
84 — 2.90
86 — 2.80
88 — 2.70
90 — 1.66
92 — 1.30
94 — 1.00
96 — .78
98 — .58
100 — .2
102 — .7

12496
12467
29

+ 135 + A'

11.3 A8
1286 7
A 81

G. I. FISHER, AUTHORISED SURVEYOR,
18 BRISBANE ST, LAUNCESTON,
PHONE: 314207

831039

MEMORANDUM

TO:

SUBJECT: 220 46' 331.95 (N / E)

DATE:

JOB NO:

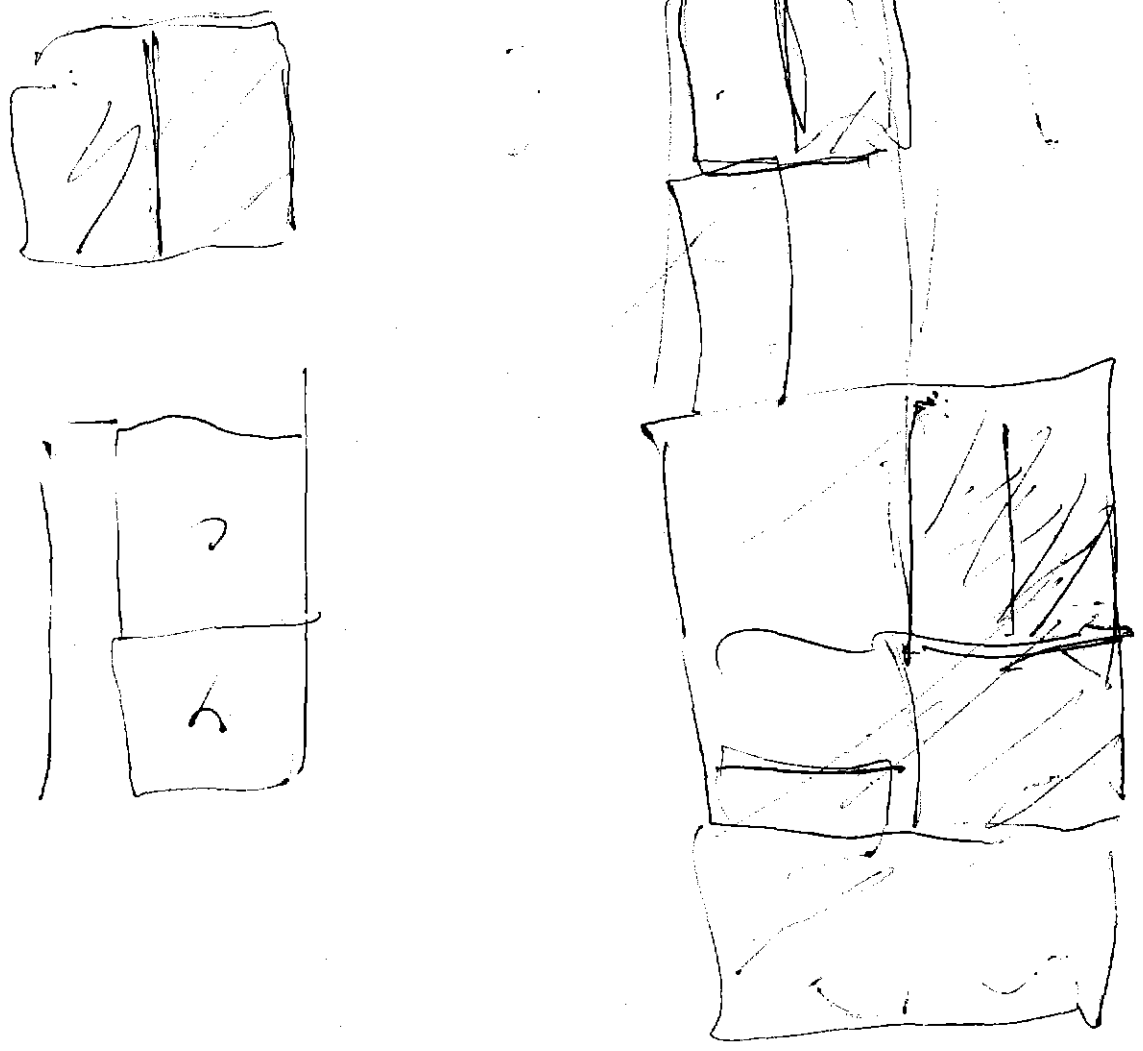
| | | | | | |
|---|---|---|---|---|---|
| PM.11 | 2559.91 | | 2861.51 | | |
| | 2866.00 | | 2990.00 | | |
| 1064 | N 306.09 | | E 128.49 | | |
| | 2866.00 | | 2990.00 | | |
| | 2818.00 | | 3227.00 | | |
| 1066 | ~~2818.00~~ S | (94°20' / 237) | E 237 | | |
| | 2818 | | 3227 | | |
| | 3414 | | 3377 | | |
| 1070 | 566 N | (14°51' / 586 ✓) | E 150 | | |
| | 3414 | | 3377 | | |
| | 3537 | | 3576 | | |
| 1071 | 123 N | (48°30' / 186) | 139 E | | |
| | 3537 | | 3576 | | |
| | 3452 | | 3662 | | ✓ |
| 1072 | 85 S | (120°12' / 169) | 146 E | | |
| | 3452 | | 3662 | | |
| | 3375 | | 3926 | | |
| 1074 | 77 S | (106°16' / 275) | 264 E | | ✓ |
| | 3375 | | 3926 | | |
| | 3420 | | 4090 | | |
| 1075 | 45 N | (71°39' / 170) | 164 E | | ✓ |
| | 3420 | | 4090 | | |
| | 3367 | | 4347 | | |
| 1077 | 53 S | (101°39' / 262 ✓) | 257 E | | ✓ |
| | 3367 | | 4347 | | |
| | 3300 | | 4590 | | |
| 1078 | 675 | (105°25' / 252 ✓) | 243 E | | ✓ |
| | 3300 | | 4590 | | |
| | 3012.13 N | | 4889.62 | | |
| | 287.87 S | | 299.62 E | | |
| | | (133°50' / 418) | | | |

MONARCH FILL
DRILL HOLE
TRAVERSE

.....

G.I. FISHER.
AUTHORISED SURVEYOR.

831040



831041

4 P.M. ①

Coll (186.9) = 56.97 W

| | | HD | Dist | Point ll | RL |
|---|---|---|---|---|---|
| to PM 9 | 299 00 50 | 231.46 | 759.38 | 50.12 — 1.28 = 48.84 | 160.24 |
| PM 10 | 278 44 03 | 256.96 | 823.36 | 50.03 — 1.40 = 48.63 | 159.55 |
| 11 | 321 37 05 | 257.87 | 846.03 | 49.37 — 1.34 = 48.03 | 157.58 |
| 12 | 333 03 10 | 113.83 | 373.46 | 53.39 — 1.34 = 52.05 | 167.49 |
| 13 | 302 16 10 | 90.92 | 298.29 | 53.18 — 1.37 = 51.81 | 169.98 |
| 14 | 292 33 45 | 79.11 | 259.55 | 56.37 — 1.40 = 54.97 | 180.35 |
| 15 | 351 45 | 189.97 | 623.26 | 51.74 — 1.40 = 50.34 | 165.16 |
| 16 | 66 05 00 | 294.86 | 967.39 | 56.23 — 1.40 = 54.83 | 179.89 |
| 17 | 34 12 03 | 449.96 | 1541.86 | 52.32 — 1.43 = 50.89 | 166.96 |
| 18 | 104 06 10 | 199.92 | 655.91 | 54.96 — 1.34 = 53.62 ✓ | 175.92 |
| 19 | 218 14 30 | 216.45 | 710.14 | 55.79 — 1.40 = 54.39 ✓ | 178.42 |
| TRAV 16 | 227 12 45 | 74.34 | 243.90 | 56.38 — 1.40 = 54.98 cf 54.83 | 180.38 |

S = 15 W

Reg Heap Dist from ①

| | | | | | |
|---|---|---|---|---|---|
| | 312 19 33 | 414.79 | 1354.30 | 53.61 — 1.28 = 52.33 = | 171.69 |
| PM 17 | | | | | |
| PM 20 | 173 58 30 | 353.78 | 1160.70 | 64.45 — 1.40 = 63.05 = | 206.82 |

| | N | E | | | |
|---|---|---|---|---|---|
| 9 | 2265.03 | 2722.73 | 9-10 | 31 36 37 | 185.67 |
| 10 | 2021.74 | 2572.00 | | | |
| 11 | 2559.91 | 2861.51 | 11-9 | 205 12 11 | 325.90 |
| 12 | 2229.63 | 3217.57 | 12-11 | 312 50 57 | 485.66 |
| 13 | 2255.98 | 3134.59 | 13-12 | 25 32 24 | 192.46 |
| 14 | 2642.37 | 3330.36 | | | |
| 15 | 2446.25 | 3557.16 | 15-13 | 223 49 30 | 610.25 |
| 16 | 2288.90 | 4271.07 | | | |
| 17 | 3171.95 | 4253.48 | 17-15 | 245 51 39 | 970.27 |
| 18 | 2012.13 | 4289.62 | | | |
| 19 | 2454.34 | 4450.86 | | | |
| 20 | 1869.09 | 3452.19 | 20-7 | 357 20 27 | 1809.11 |
| Heap Dist | 2808.62 | 2385.54 | | | |

2559.91 N
2661.51 E

831042

PM. 11 141°37
to Iron pipe by PM

| | | Hole |
|---|---|---|
| 316°00 | 223 | 1062 |
| 22°46 22°00 | ~~330~~ 332 | 1064 |
| 38° 30' | 175 | 1063 |

At 1064

| | | |
|---|---|---|
| 18°30 | 300 237 | 1065 |
| ~~9°20~~ | ~~240~~ | 1066 |

At 1066

| | | |
|---|---|---|
| 14°15 | 198 | 1067 |
| | 330 | 1068 |
| | 437 | 1069 |
| 14°57' | ~~587~~ 586 | 1070 |
| 92°15 | 292 | 1073 |

At 1070

| | | |
|---|---|---|
| ~~91°15~~ | ~~292~~ | |
| ~~48°30~~ 48°00' | 186 | 1071 |

At 1071

| | | |
|---|---|---|
| 120°~~15~~ 12 | 168 169 | 1072 |

At 1072

| | | |
|---|---|---|
| 106°45 16 | 275 ✓ | 1074 |
| At 1074 ~~71°30~~ 71°00' | 170 ✓ | 1075 |

At 1075

| | | |
|---|---|---|
| 136 30 | 170 | 1076 |
| 101 ~~30~~ | 262 | 1077 ✓ |

At 1077

| | | |
|---|---|---|
| 105°25 | ~~265~~ | 1078 |

ML to PM ~~18~~ 3012.13 N
RL 196.92 4689.62 E

ML 137°39' 40
~~AA 88~~
133°50
A15

831043

| | | | |
|---|---|---|---|
| Pt 1084 | 234°50' | to 1005 | |
| | 359°40' | 124 | 1083 — 7 o/s to right |
| | " | 270 | 1082 |
| | " | 408 | 1081 Lock. |
| | 187°00 | 140 | 1085 |

| | | | |
|---|---|---|---|
| Pt 1088 | 334°50 | to PM18 | |
| | 183°30 | 256' | 1089 |

| | | | | |
|---|---|---|---|---|
| Pt 1089 | 03°30' | to 1085 | | |
| | 102°20' | 486 | 1090 | check. |

831044

90° to 1041

AA 984 57° 0' 115' 1097

AA 1041 360° to 989

338° 40 72' 1097

AA 993 180° to 1039

360° 95' 1098

AA 820 90° to 823 174° 30' to 1059 203'

293° 10 239' 1100

318° 30 178' 1101 Locate PM

235 00 117' 1102

754
1004

1005
PM16.
1049

849

850

851

853

842
836
835

820

831045

A# 1049 180°00 to 839
77°20' 174 1090

A# 836 360° to 835 180° to 837
59°00' 186' 1091
78°40' 55' 1092

A# 849 360° to 850
83°00' 118' 1093
67°30 ~~149'~~ 1090 ——— to pit.

A# 850 180° to 849
~~36°20'~~ 73°30' 156' 1094

A# 851 180° to 850
86°30' 145' 1095

A# ~~853~~ 852 360° to 852
67°20' 160' 1096

A# 841 180° to 842 360° to 840
96°00 147' 1095
216°10' 1091
221°40' 1092
272°30' 835 R

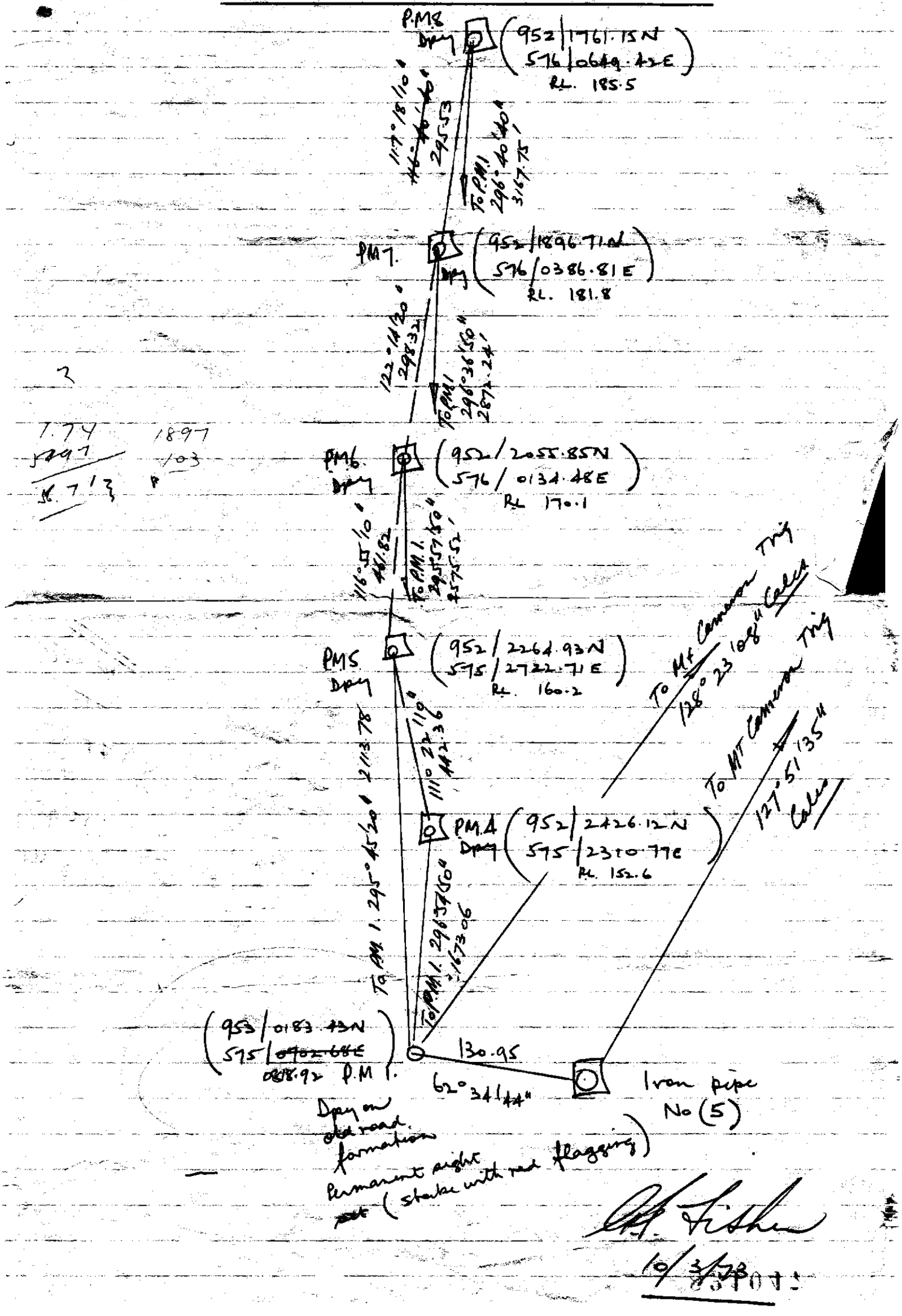
A# 18 313°50' to 1078
246°15' 263' 1079
154 50 690 1088

A# 754 180° to 754 & 755
113°30' 140' 1081
294°30' ~~294'~~ 154' 1099
43°30' 224' 1080

A# 1005 360° to 755
114°50' 146' 1084

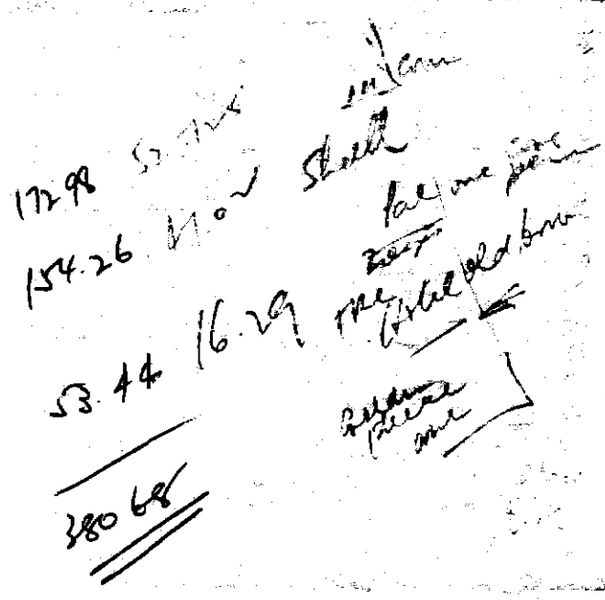
831046

# MONARCH CONTROL POINTS




10/3/78

831047




831046

518.92
70.68
116.24

PM 264 ✓2582.92 N
✓1966.10 E

2582.92
116.24
2699.16

PM 265 2238.31 N
2351.71 E

116.24
1849.85
1966.09

1505.48
116.24
1389.24

PM 267 2085.88 N
1389.24 E

2235.47
116.24
2351.71

831049

~~2354~~ 2385

~~239~~ 244.1

At 105 State 1.H 5.4 from Level Dpsy 5.6 kn N/S

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 69 56 | 9.93 6 | 393 | 7.97 | +05 | −7.5 | 346 38 | 236.6 ~~234.5~~ | 101 |
| 69 57 | 696 6 | 296 | 7.47 | | | 347 5v | | 10v |
| 69 46 | 796 6 | 396 | 698 | | | 346 4q | | 103 |
| 69 36 | 70v 6 | 10v | 651 | | | 347 1L | | 104 |
| 69 45 | 6 5 | 100 | 550 | | | 166 23 | | 106 |
| 69 37 | 726 4 | 326 | 563 | +2.3 ✓ | −33 | 263 38 | 240.8 ~~235.7~~ | P 201 |
| | | | | | | 21 37 | M Cam | |

At P201 83-31 to 105 (1H 5.5)

~~244.5~~ 246.3

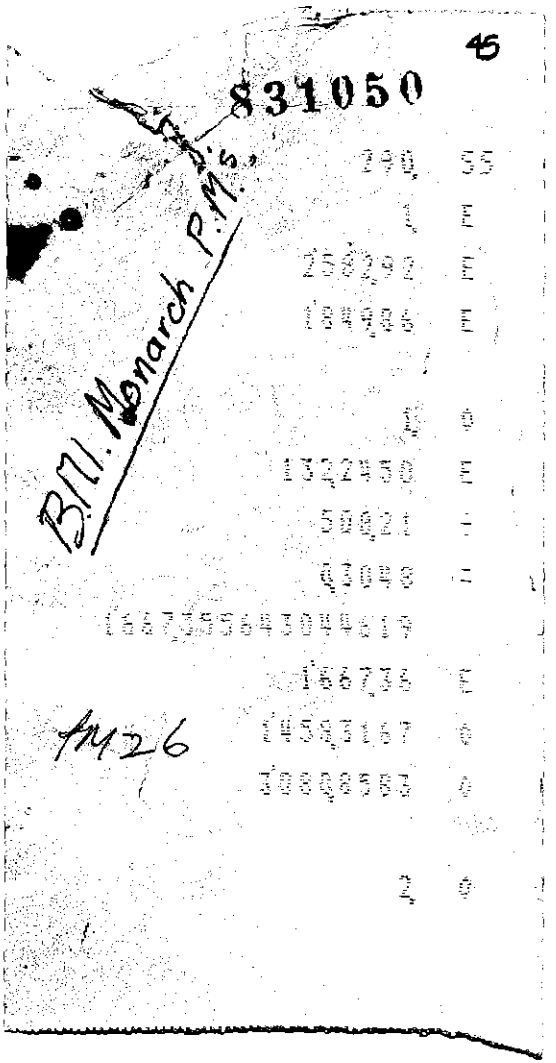
| | | | | |
|---|---|---|---|---|
| L | 50 | 5.7 | 339 00 | 240.6 P200 |
| L | 100 | 5.9 | | 240.4 P199 |
| | 150 | 5.7 | | ~~238.6~~ 240.6 P198 |
| L | 223 | 6.9 | 1535 | Low SW / HIV |
| L | 118 | 5.7 | 111 05 | 116 |

b 23 69 H796 0°00 to old Hole —

796 – 800

800 – 817

23°00 165


45
831050
B.M. Monarch P.M.s.
290, 55
1, E
258292 E
189986 E
5 0
13223350 E
50821 -
93048 -
1667356 E
1458,3167 0
3088,8593 0
2 0
1426

831051

| | | |
|---|---|---|
| | 290 | 55 |
| | 1 | E |
| | 518343 | E |
| | 702669 | E |
| | 1 | 0 |
| | 117375 | E |
| | 1294,85 | E |
| | 2582,91193 | 0 |
| PM 24 | 1849,86606 | 0 |
| | 2 | 0 |
| | 131,9710 | E |
| | 517,16 | E |
| | 2238,3088 | 0 |
| PM25 | 2235,8745 | 0 |
| | 3 | 0 |
| | 290 | 55 |
| | 1 | E |
| | 2582,92 | E |
| PM24 | 1849,86 | E |
| | 1 | 0 |
| | 2229,920 | E |
| | 677,66 | E |
| | 2085,8792 | 0 |
| PM27 | 1389,2370 | 0 |
| | 2 | 0 |

Monarch
Pickup of old Workings

| | | |
|---|---|---|
| | 290 | S |
| | 674 | S |
| | 290 | S |
| | 142 | E |
| | 1371 | E |
| | 2100 | E |
| | 8129 | E |
| 13988555 | | 0 |
| 2276079 | | 0 |
| | 142 | E |
| | 1371 | E |
| | 210 | E |
| | 8129 | E |
| 138886 | | 0 |
| 217088 | | 0 |
| | 418 | E |
| | 1159 | E |
| | 2113 | E |
| | 9852 | E |
| 117458 | | 0 |
| 202093 | | 0 |
| | 082 | E |
| | 1341 | E |
| | 05 | E |
| | 2073 | E |
| | 8007 | E |
| 79584 | | 0 |
| 207756 | | 0 |
| | 057 | E |
| | 1328 | E |
| | 7647 | E |
| 54020 | | 0 |
| 206707 | | 0 |
| | 104 | E |
| | 1352 | E |
| | 8132 | E |

| | | |
|---|---|---|
| 208925 | | 0 |
| | 071 | E |
| | 935 | E |
| | 8546 | E |
| 70613 | | 0 |
| 207177 | | 0 |
| | 413 | E |
| | 1337 | E |
| | 8146 | E |
| 110701 | | 0 |
| 209392 | | 0 |
| | 082 | E |
| | 241 | E |
| | 8232 | E |
| 81848 | | 0 |
| 208416 | | 0 |
| | 103 | E |
| | 552 | E |
| | 8819 | E |
| 10 | | 0 |
| 204804 | | 0 |
| | 029 | E |
| | 435 | E |
| | 40 | E |
| 28000 | | 0 |
| 202950 | | 0 |
| | 12 | E |
| | 164 | E |
| | 8152 | E |
| 117398 | | 0 |
| 207706 | | 0 |
| | 067 | E |
| | 833 | E |
| | 8553 | E |
| 66655 | | 0 |
| 203767 | | 0 |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 8609 | E | 3 |
| 0 | 497 | E | 4 |
| 0 | 4894190 | | |
| 0 | 3452148 | | |

| | | | |
|---|---|---|---|
| 0 | 7 | | |
| 0 | 2824 | E | 3 |
| 0 | 49782772 | | |
| 0 | 5803737 | | |

| | | | |
|---|---|---|---|
| 0 | 4 | | |
| 0 | 28420 | E | 3 |
| 0 | 152 | E | 3 |
| 0 | 62165659 | | |
| 0 | 7615213872 | | |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 7323 | E | 3 |
| 0 | 161 | E | 3 |
| 0 | 5868987 | | |
| 0 | 7663279 | | |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 7029 | E | 3 |
| 0 | 161 | E | 3 |
| 0 | 5452060 | | |
| 0 | 7608897 | | |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 8399 | E | 3 |
| 0 | 1089671 | E | 3 |
| 0 | 8398481 | E | 3 |
| 0 | 1089671 | E | 3 |
| 0 | 8398481 | E | 3 |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 1732850 | E | 3 |
| 0 | 116070 | E | 3 |
| 0 | 4890853 | | |
| 0 | 3452186 | | |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 1925399 | E | 3 |
| 0 | 259553 | E | 3 |
| 0 | 1684137 | | |
| 0 | 2350356 | | |

| | | | |
|---|---|---|---|
| 0 | 11 | | |
| 0 | 3350 | E | 3 |
| 0 | 184 | E | 3 |
| 0 | 1559535 | | |
| 0 | 374272 | | |

| | | | |
|---|---|---|---|
| 0 | 10 | | |
| 0 | 1414 | E | 3 |
| 0 | 266 | E | 3 |
| 0 | 1394587 | | |
| 0 | 2831306 | | |

| | | | |
|---|---|---|---|
| 0 | 14 | | |
| 0 | 3398 | E | 3 |
| 0 | 1089671 | E | 3 |
| 0 | 3132696 | | |
| 0 | 3766130 | | |

| | | | |
|---|---|---|---|
| 0 | 12 | | |
| 0 | 3350 | E | 3 |
| 0 | 228 | E | 3 |
| 0 | 1762198 | | |
| 0 | 3651497 | | |

| | | | |
|---|---|---|---|
| 0 | 12 | | |
| 0 | 2972 | E | 3 |
| 0 | 2955 | E | 3 |
| 0 | 1689275 | | |
| 0 | 3598066 | | |

| | | | |
|---|---|---|---|
| 0 | 14 | | |
| 0 | 1046 | 4 | 0 |
| 0 | 20592 | | 0 |
| 0 | 1375 | | 0 |
| 0 | 8DEC | | 0 |
| 0 | 9681126 | 74 | 6 |

| | | | |
|---|---|---|---|
| 0 | 2 | | |
| 0 | 8609 | E | 3 |
| 0 | 497 | E | 4 |
| 0 | 4894190 | | |
| 0 | 3452148 | | |

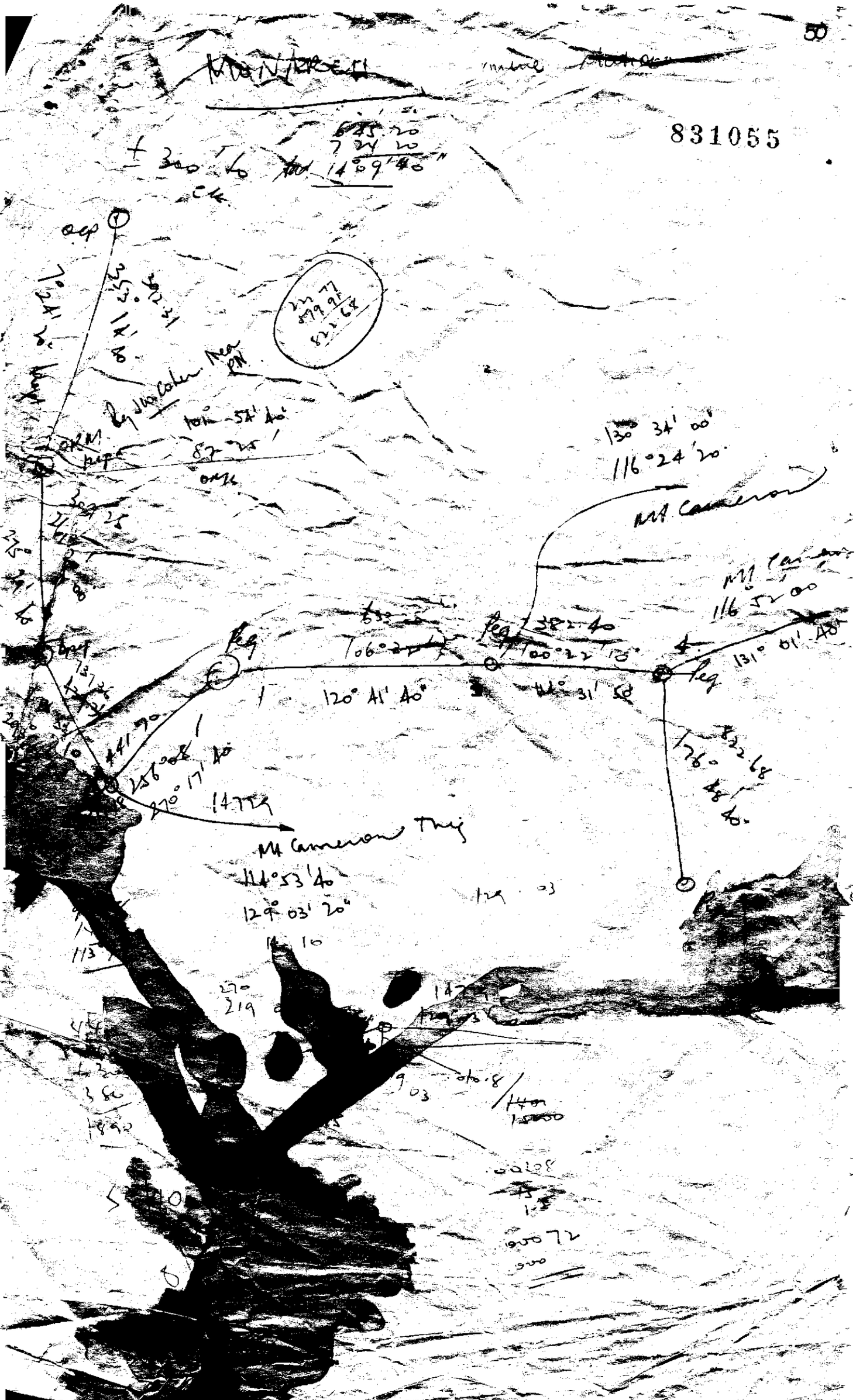
| | | | |
|---|---|---|---|
| 0 | 11 | | |
| 0 | 1105 | 0 | E |
| 0 | 46 | | E |
| 0 | 8151727 | 7 | |
| 0 | 5884845 | 8 | 9 |

831054

CO-ORDS.

| STN | N | E | R.L. |
|---|---|---|---|
| (1) | 9460559 | 5780452 | 231.3 |
| 100 | 1074 | 1109 | 246.7 |
| 101 | 1219 | 2072 | 277.5 |
| 102 | 1690 | 2903 | 286.8 |
| 103A | 1371 | 5790699 | 288.5 |
| 104 | 1483 | 1231 | 290.1 |
| 105 | 1576 | 1133 | 287.4 |
| 106 | 1182 | 1786 | 273.4 |
| 107 | 0806 | 2111 | 291.8 |
| 108 | 0533 | 2090 | 278.3 |
| 109 | 0129 | 2000 | 275.7 |
| 110 | 0625 | 2234 | 285.3 |
| 111 | 0523 | 2536 | 273.7 |
| 112 | 0639 | 2945 | 245.1 |
| 113 | 1396 | 2871 | 252.9 |
| 114 | 1887 | 2985 | 260.5 |
| 115 | 1707 | 2734 | 268.3 |
| 116 | 1765 | 2535 | 275.0 |
| 117 | 2282 | 2252 | 288.2 |
| 118 | 1963 | 1725 | 294.0 |

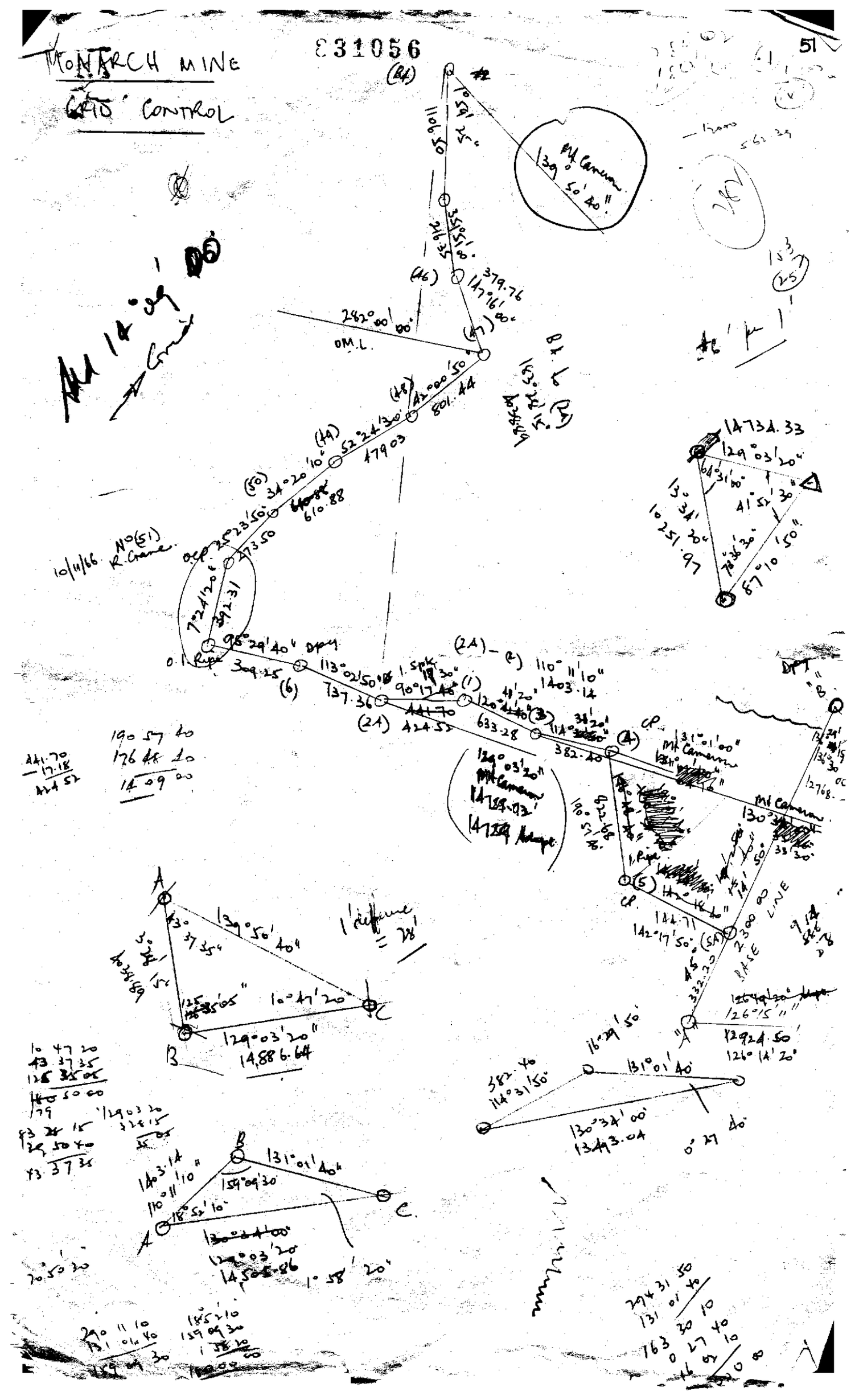
831055



# MONARCH MINE

## GRID CONTROL

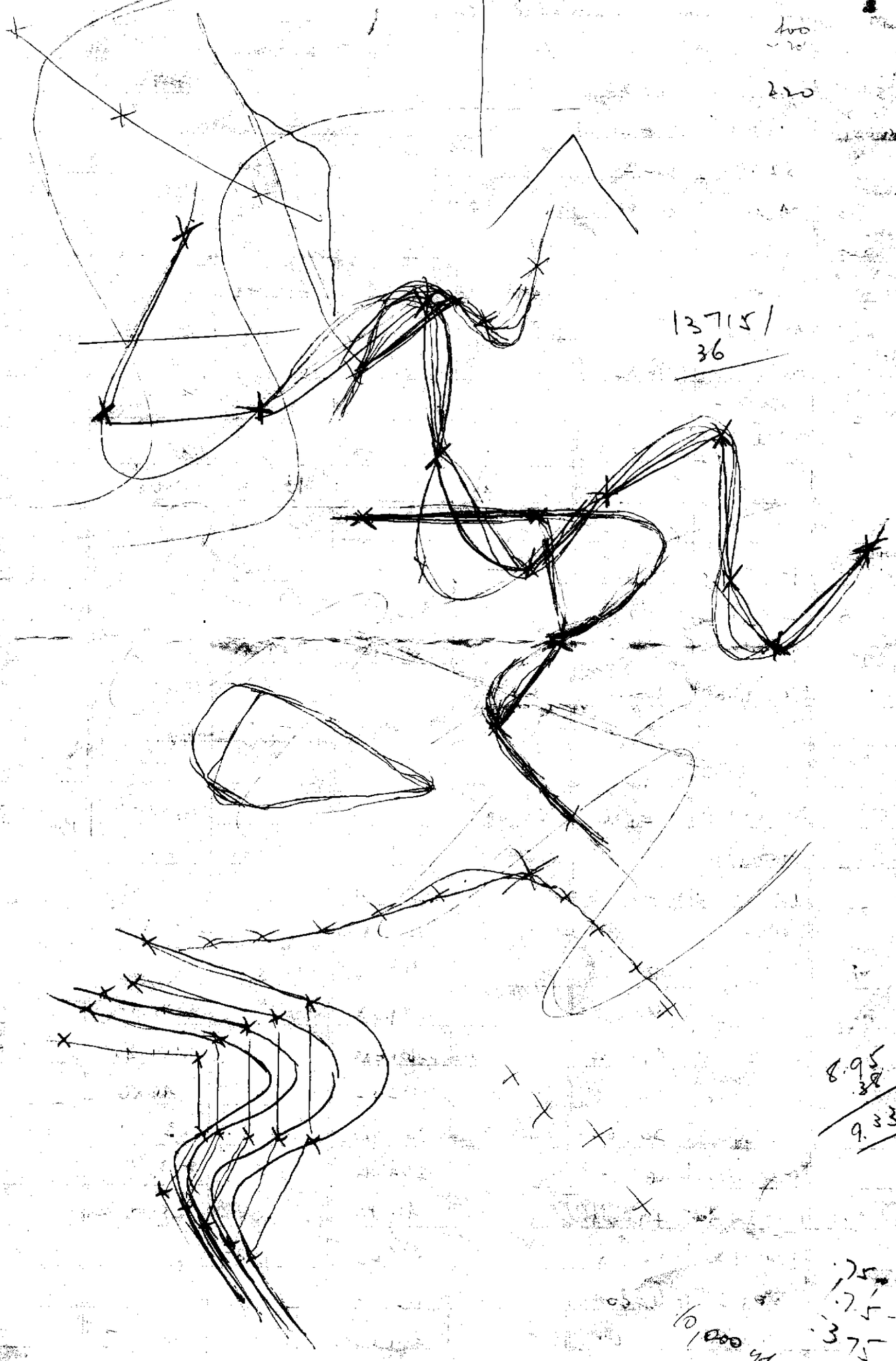
E31056



(1) MONARCH 831057

| Sine / Cosine | Bearing | Distance | LATITUDE N. | LATITUDE S. | DEPARTURE E. | DEPARTURE W. | D.M.D. |
|---|---|---|---|---|---|---|---|
| ·391490 / ·920183 | 293°02'50" | 737.36 | 288.67 | | | 678.51 | ✓ |
| ·095749 / ·995405 | 275°29'40" | 309.25 | 29.61 | | | 307.83 | |
| ·125892 / ·991659 | 7°24'20" | 392.31 | 389.04 | | 50.57 | | |
| ·218891 / ·903356 | 25°23'50" | 273.50 | 247.07 | | 117.30 | | |
| ·564047 / ·825743 | 34°20'10" | 610.88 | 504.43 | | 344.57 | | |
| ·792378 / ·610030 | 52°24'30" | 479.03 | 292.22 | | 379.57 | | |
| ·669311 / ·742983 | 42°00'50" | 801.44 | 595.46 | | 536.41 | | |
| ·540730 / ·841196 | 327°16'00" | 379.76 | 319.45 | | | 205.35 | |
| ·141765 / ·989900 | 351°51'00" | 216.35 | 214.16 | | | 30.67 | |
| ·034730 / ·999397 | 1°59'25" | 1106.50 | 1105.83 | | 38.43 | | |
| ✓ | (183°28'15") | (4038.89) | | (4031.48) | | (244.49) | |
| | | | 4031.48 | | 1466.85 | 1466.85 | |
| | | | | 606.45 | | | |
| ·005139 / ·999987 | 90°17'40" | 424.52 | | 2.18 | 424.51 | | |
| ·510460 / ·859902 | 120°41'40" | 633.28 | | 323.26 | 544.56 | | |
| ·415178 / ·909740 | 114°31'50" | 382.40 | | 158.76 | 347.88 | | |
| | (290°11'10") | (1403.14) | (484.20) | | | (1316.95) | |
| | | | | | | | |
| by 48 50 | | | | | | | |
| | 293°02'50" | 737.36 | 288.67 | | | 678.51 | |
| | 275°29'40" | 309.25 | 29.61 | | | 307.83 | |
| | 187°24'20" | 266.23 | | 264.01 | | 31.31 | |
| | 181°09'20" | 1184.75 | | 1184.51 | | 23.89 | |
| | 165°29'20" | 433.00 | | 419.19 | 108.50 | | |
| | 185°04'50" | 449.60 | | 447.83 | | 39.81 | 879641 |
| | 212°23'20" | 474.94 | | 401.05 | | 254.41 | 113438 |
| | 215°12'50" | 714.25 | | 583.55 | | 411.86 | 990079 |
| | 190°50'10" | 207.64 | | 203.94 | | 39.04 | |
| | 174°23'00" | 265.33 | | 264.06 | 25.97 | | |
| | 190°22'40" | 474.04 | | 466.29 | | 85.39 | |
| | 174°07'50" | 900.35 | | 895.63 | 92.07 | | |
| | 155°05'30" | 664.00 | | 602.24 | 279.66 | | |
| | 197°20'40" | 229.67 | | 219.23 | | 68.47 | |
| | 231°30'50" | 346.75 | | 215.79 | | 271.42 | |

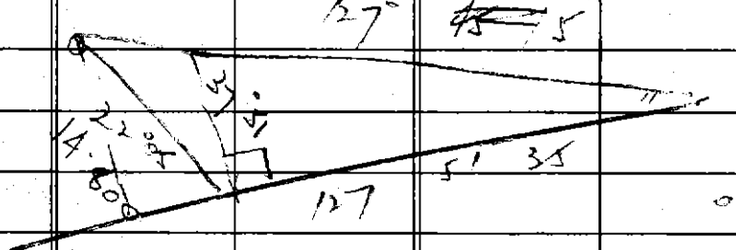
831058



(2) MONARCH 831059

| Sine / Cosine | Bearing | Distance | LATITUDE N. | LATITUDE S. | DEPARTURE E. | DEPARTURE W. | D.M.D. |
|---|---|---|---|---|---|---|---|
| | 240°34'50" | 1111.25 | | 545.84 | | 967.95 | |
| | 188°31'40" | 678.68 | | 671.18 | ~~1.61~~ | ~~100.64~~ 671.18 | |
| | 187°34'40" | 564.76 | ✓ | 559.83 | | 71.48 | |
| | 187°37'10" | 504.40 | | 499.95 | | 66.88 | |
| | 182°56'30" | 298.15 | | 297.76 | | 15.30 | |
| | 157°21'00" | 494.80 | | 456.64 | 190.55 | | |
| | 155°42'20" | 793.33 | | 723.08 | 326.40 | | |
| | 178°14'40" | 362.54 | | 362.37 | 11.11 | | |
| ✓ | (13°34'20" | (10251.97 | (9965.69 | | (2405.93) | | |
| | | | 10283.97 | 10283.97 | 3440.19 | 3440.19 | |
| | 90°00' | 615.1 | — | | 615.1 | | |
| | 0°00' | 650.0 | 650.0 | | — | | |
| | 223°25'10" | 894.90 | | (650.0) | | (615.1) | |
| | 90°11'40" | ~~424.52~~ | — | 2.28 | 424.52 | | |
| | 120°41'40" | 633.28 | | 323.26 | 544.56 | | |
| | 114°31'50" | 382.40 | | 158.76 | ~~347.88~~ 382.30 | 34.42 | |
| | 190°58'20" | ~~822.68~~ | | 807.64 | | 156.58 | |
| | 142°18'40" | 144.71 | | 114.52 | 88.47 | | |
| | 225°15'40" | 332.20 | | 233.83 | | 235.97 | |
| | 126°15'11" | 12924.50 | | 7642.94 | 10422.48 ~~7642.94~~ | | |
| calc. | ~~309°41'10"~~ (308 59.6) | ~~14729.03~~ ~~14755.72~~ | (9283.13) | | | (11464.78 35.36) | |
| | 309°03'20" Mag. | | | | ~~1186.33~~ 27.91 | ~~1186.33~~ 1186.55 | |
| Trig. | | | | | | 950 1134.51 | 578 1979.70 |
| Trig–(2a) | 309°03'20" | 14756 | 9297.37 | | | 11458.55 | 953 1431.88 / 574 2521.15 |
| (1) | 90°18'30" | 424.52 | | 2.28 | 424.51 | | 1429.60 2945.66 |
| (3) | 120°43'20" | 633.28 | | 323.53 | 544.40 | | 575 1106.07 1490.06 |
| (4) | 114°34'20" | 382.40 | | 159.02 | 347.77 | | 947.05 837.83 |
| (5) | 191°01'40" | 822.68 | | 807.49 | | 157.37 | 1395.6 680.46 |
| (5A) | 142°22'50" | 144.71 | | 114.62 | 88.33 | | 24.94 768.79 |
| "A" | 225°19'50" | 332.20 | | 233.54 | | 236.25 | 952 2791.40 532.54 |
| Trig. | 126°19'20" | 12924.50 | | 7655.52 | 10413.26 | | 950 1135.88 / 578 1945.80 |

| Sine / Cosine | Bearing | Distance | LATITUDE N. | LATITUDE S. | DEPARTURE E. | DEPARTURE W. | D.M.D. |
|---|---|---|---|---|---|---|---|
| (2a) | 309°03'20" | 1729.03 | 9280.38 | | | 437.61 | 950 1134.51 / 953 1414.89 / 578 1979.7 / 574 2542.0 |
| (1) | 90°17'30" | 424.57 | | 2.18 | 424.57 | | 1412.71 / 2966.6 |
| (3) | 120°41'20" | 633.28 | | 323.21 | 544.59 | | 1089.50 / 575 511.2 |
| (4) | 114°31'20" | 382.40 | | 158.71 | 347.91 | | 930.79 / 859. |
| (5) | 190°57'40" | 822.68 | | 807.67 | | 156.43 | 123.12 / 702.68 |
| (5A) | 162°17'50" | 144.71 | | 114.49 | 88.50 | | 863 / 791.8 |
| "A" | 225°14'50" | 332.20 | | 233.89 | | 235.91 | 952 277474 / 555.27 |
| TRIG. | 126°14'20" | 12924.50 | | 7640.36 | 10324.37 | | 950 1134.38 / 578 1979.64 |
| | | | 9280.38 | 9280.51 | 11829.89 | 11827.95 | |
| | | | (2.62) | | (2.19) | | |
| (2a) | | | | | | | 953 1414.89 / 574 2542.09 |
| (6) | 293°02'50" | 737.36 | 288.67 | | | 678.51 | 1703.56 / 1863.58 |
| (7) | 275°29'40" | 309.25 | 29.61 | | | 307.83 | 953 1733.17 / 574 1555.7 |
| | | | | | 10512.87 | 2392.34 | |
| | | | | | | | 7773.44 |
| 5-6 Trig | 127°51'35" | 13016.62 | | 7988.74 | 10276.96 | | |
| TRIG | | | | | | | |
| | | | 7988.74 | | | 10276.96 | |
| 6 | | | | | | | 953 375 / 123.12 702.68 |
| | 22°5' | 15.31 | 14.19 | | 5.61 | | |
| ECCE | | | | | | | 953 574 / 937.31 706.4 |



| Sine / Cosine | Bearing | Distance | LATITUDE N. | LATITUDE S. | DEPARTURE E. | DEPARTURE W. | D.M.D. |
|---|---|---|---|---|---|---|---|
| | | | | | | 953 | 575 400 |
| | 147°10' | 80 | | 67.2 | 43.4 | | 22828 4434 |
| | 104°09' | 320 | | 3227 | 1279.9 | | 1960.1 1723.3 |
| | 194°09' | 1056 | | 1024.0 | | 258.2 | 936.1 1465.1 |
| | 225°00' | 1190 | ✓ | 841.5 | | 841.5 | 94.6 623.6 |
| | 5°39'40" | 2266.5 | (2255.4) | | (223.6) | (123.1) | (7027) |
| | | | | | | (78.5) | (79.1) |
| | 953 2350.0 | 578 1979.6 575 400 | | | | | |
| | 950 1134.4 | | 105796 | | | | |
| | 215.6 | | | E | | 24.4 | 79 98 19 |
| | 5 | | | | | | |
| | 134°00' | 14712.1 | | 10219.9 | 10583.0 | | |
| | 952 450 | | 575 2163.0 | | | | |
| | 952 2821.9 | | 2033.1 | | L | | |
| | 628.1 N | | 129.9 E | | | | |
| | | | ✓ | | | | |
| 715) 719 | 11°41' | 641.4 | 628.1 | | 129.9 ✓ | | |

831062 76 4 50

1622.6 14.8 1637.4

1622.6/219.2

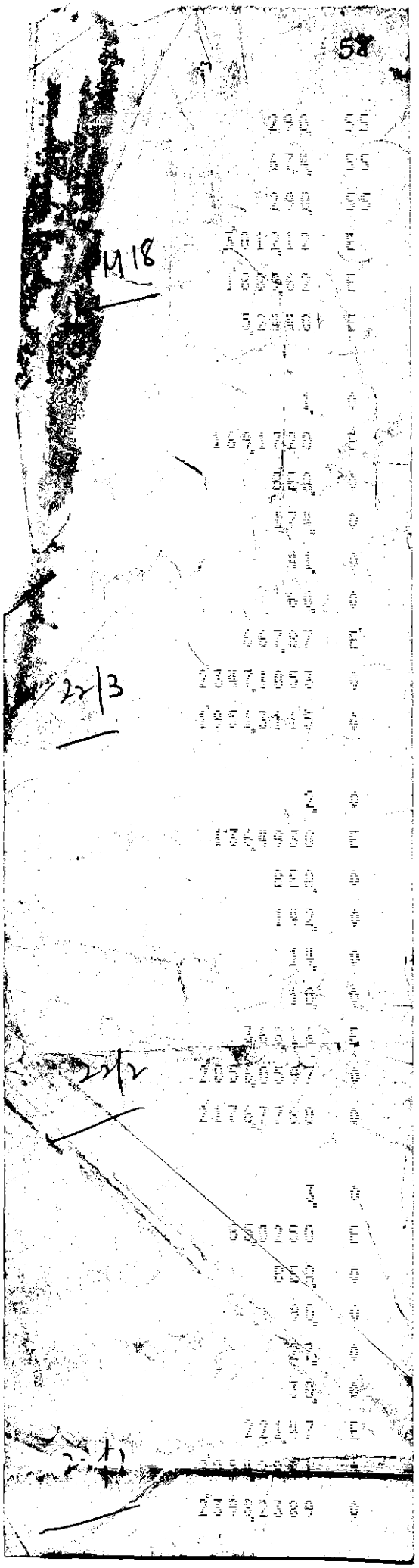
1622.6 14.6 56 322

| Sine / Cosine | Bearing | Distance | LATITUDE N. | LATITUDE S. | DEPARTURE E. | DEPARTURE W. | D.M.D. |
|---|---|---|---|---|---|---|---|
| | 74°19 | 303.5 | 82.0 | | 292.2 | | |
| | 89°12' | 858.2 | 12.0 | | 858.1 | | |
| | 123°33' | 566.7 | | 313.2 | 472.3 | | 4.27 36 |
| 277°41'40 | (~~283°10'~~) | | 219.2 ~~311.2~~ | | | (1622.6 ~~1620.4~~) | |
| | 4.27 | | 313.2 | 7.402 | | | |
| 311.2 | 1330.4.00 | | 219.2 6 | 1622.6 | 1622.6 | | |
| | ~~1248~~ 1244.8 | | 1534 | | | | |
| | 85 60 | | 8820 | | | | 2905.1 |
| | 6224 | | 8768 | | | | 215.0 |
| | 23360 | | 5200 | | | | 3123.1 |
| | 21754 | | 4384 | | | | |
| | 16060 | | 8160 | | | | 31 |
| | 9336 | | | | | | 952 |
| | 6724 | | | | | | |
| (5) | | | | | | | 953 525 |
| 523 | 97°39' | 1637.4 | | 218.0 | 1622.8 | | 123.1 7027 |
| T1 | 336°44' | 1227.8 | 1128.0 | | | 485.0 | 952 2905.1 23255 |
| "b" | 43°54' | 501.5 | 361.4 | | 347.7 | | 953 1033.1 18405 |
| (51) | 225°15' | 19 1667.8 | | 1355.4 ~~1174.2~~ | | ~~1397.5~~ ~~1165.5~~ | 13945 21882 |
| (5) | 322°18' | 144.7 | 114.5 | | | 88.5 | 0009.1 790.7 ~~790.7~~ |
| | | | 1603.9 | ~~1603.4~~ ~~1391.2~~ 1603.4 | 1970.5 | 1971.0 ~~1760.5~~ | 123.6 702 ~~672~~ 672.2 |
| | | | (211.7) | | (212.5) | | |
| 1637.4 | 3.214 1548 | | 501.5 | 2.700 2709 | | | |
| Sin 7°39 | T·12424 77 | | Cos 43°54 | T·857 1646 | | | |
| 218.0 | 2.338 1025 | | 361.4 | 2.557 9357 | | | |
| 1637.4 | 3.214 1548 | | ~~1667.8~~ | 3 ~~2.923 1440~~ 293 9610 | | | |
| Cos 7°39 | T·996 1174 | | Sin 45°15 | T·857 3717 | | | |
| 1622.8 | 3.210 2722 | | 1184.5 | 3.145 1327 2.073 1957 | | | |
| 1227.8 | 3.089 1276 | | ~~1667.8~~ | 293 9810 3 ~~2.923 1440~~ | | | |
| Sin ~~7°39~~ 23°16 | T·596 6093 ~~P·996 1174~~ | | Cos 45°15 | T·847 5817 | | | |
| 485.0 | 2.685 7369 | | 1355.4 ~~1174.2~~ | 141 5627 3.089 1276 | | | |
| 1227.8 | 3.089 1276 | | 144.7 | 2.160 4685 | | | |
| Cos 23°16' | T·963 1625 | | Sin 37°42' | T·786 4157 | | | |
| 1128.0 | 3.052 2901 | | 88.5 | 1.946 8842 | | | |
| 501.5 | 2.700 2709 | | 144.7 | 2.160 4685 | | | |
| Sin 43°54 | T·840 9850 | | Cos 37°42' | T·898 299 | | | |
| 347.7 | 2.541 2559 | | 114.5 | 2.058 7677 | | | |

+14.09 COORDS DRILL HOLES 831063 57

| Sine / Cosine | Bearing | Distance | LATITUDE N. | LATITUDE S. | DEPARTURE E. | DEPARTURE W. | D.M.D. |
|---|---|---|---|---|---|---|---|
| (4) | | | | | | | 953 930.8 / 575 559.1 |
| 19F86 | 170° 15' | 195 | | 192.2 | 33.0 | | 7386 692.1 |
| 350 | 122° 57' | 282 | | 153.4 | 236.6 | | 585.2 1128.7 |
| 357 | 123° 05' | 282 | | 153.9 | 236.3 | | 431.3 B65.3 |
| 364 | 123° 05' | 282 | | 153.9 | 236.3 | | 275 277.4 1600 1601.6 |
| 21F146 | 121° 07' | 283 | | 146.2 | 242.3 | | 127 134.2 1842 1843.9 |
| (32) | 132° 27' | 505 | | 340.8 | 372.6 | | 952 2784 2790.4 2212 2216.5 |
| (31) | 280° 45 | 1027 | 191.6 | | | 1009.0 | 2976 2982.0 1203 1207.5 |
| (5) | 286° 22' | 522 | 147.1 | | | 500.8 | 953 ✓ 123.1 ✓ 575 ✓ 702.7 |
| | | | | | | | 129.1 706.7 |
| | | | | | | | 6.1 4 |
| (5) | 89° 16 | 499 | | | | | 953 123.1 575 702.7 |
| 367 | 89° 12 | 858.2 | 12.0 | | 858.1 | | 135.1 1560.8 |
| 415 | 123° 33 | 586.7 | | 313.2 | 472.3 | | 952 2821.9 2036.7 |
| 421 (3) | 74° 19' | 303.5 | 82.0 | | 292.2 | | 2903.9 23.53 |
| 435 | 114° 39' | 267.5 | | 111.6 | 243.1 | | 2792.3 2568.4 |
| 51 | 165° 22' | 557.1 | | 539.0 | 140.7 | | 2253.3 2709.1 |
| 444 | 152° 47' | 379.1 | | 337.1 | 173.4 | | 1916.3 2582.5 |
| (5) | | | | | | | 953 123 575 703 |
| 354 | 75° 21' | 645 | 163 | | 624 | | 286 1327 |
| (5) | | | | | | | 953 123 575 703 |
| 353 | 51° 10' | 499 | 313 | | 389 | | 436 1092 |

831064



58

290 55
674 55
290 55
3012,12 E
1,3562 E
5,2430 E
1 0
169,1720 E
[illegible] 0
[illegible] 0
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[illegible] 0
667,87 E
2347,1053 0
1951,3115 0
2 0
1736,9930 E
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2176,7760 0
3 0
950250 E
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[illegible] 0
22147 E
2398,2389 0

M18

2+1/3

2+1/2

2+1

Hole 1090 and P&I 22

Hole today

Hole 839

4 0
1612,6 E
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[illegible] 0
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[illegible] 0
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1903,4339 0
2473,4980 0
5 0
77,07 E
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[illegible] 0
[illegible] 0
173 E
1925,9317 0
2605,0289 0
6 0
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[illegible] 0
[illegible] 0
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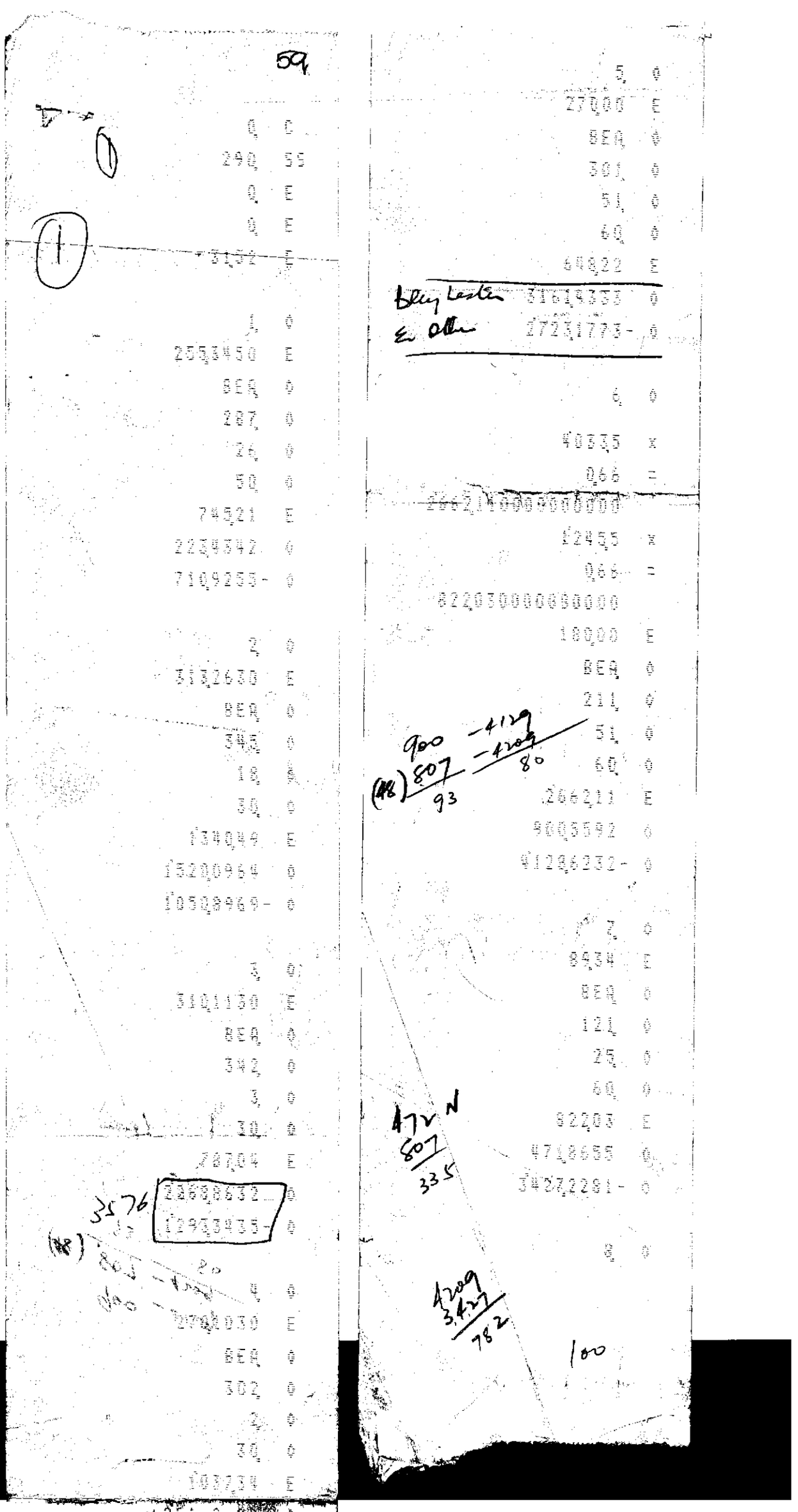
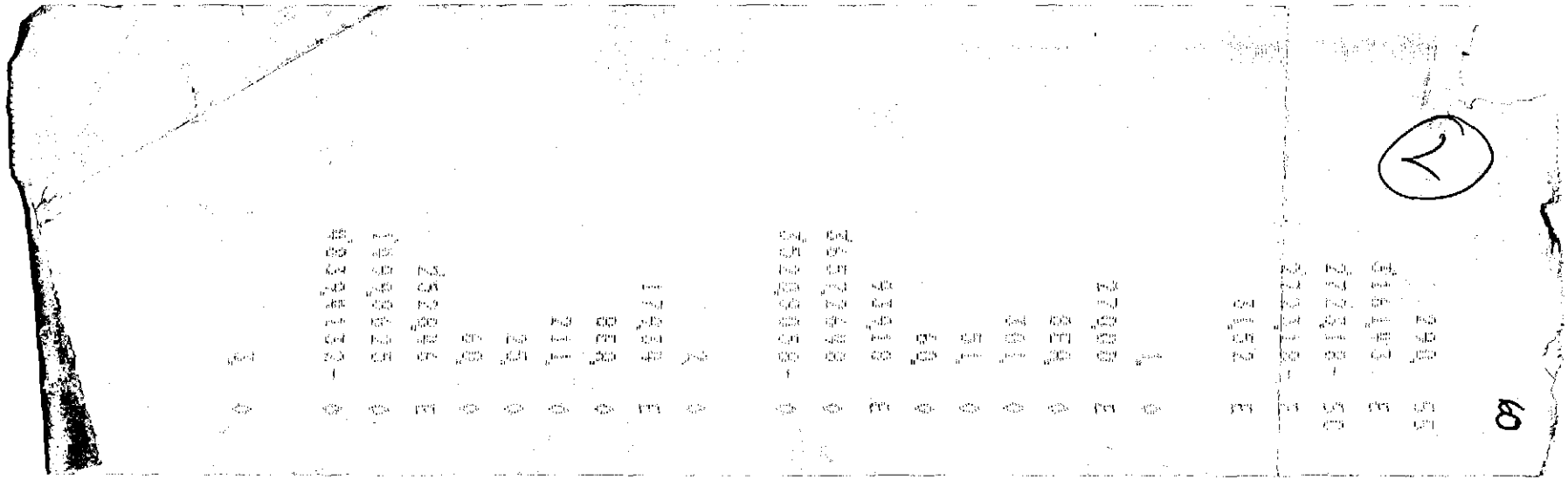
2614,4477 0
7 0

831065





8310664

61

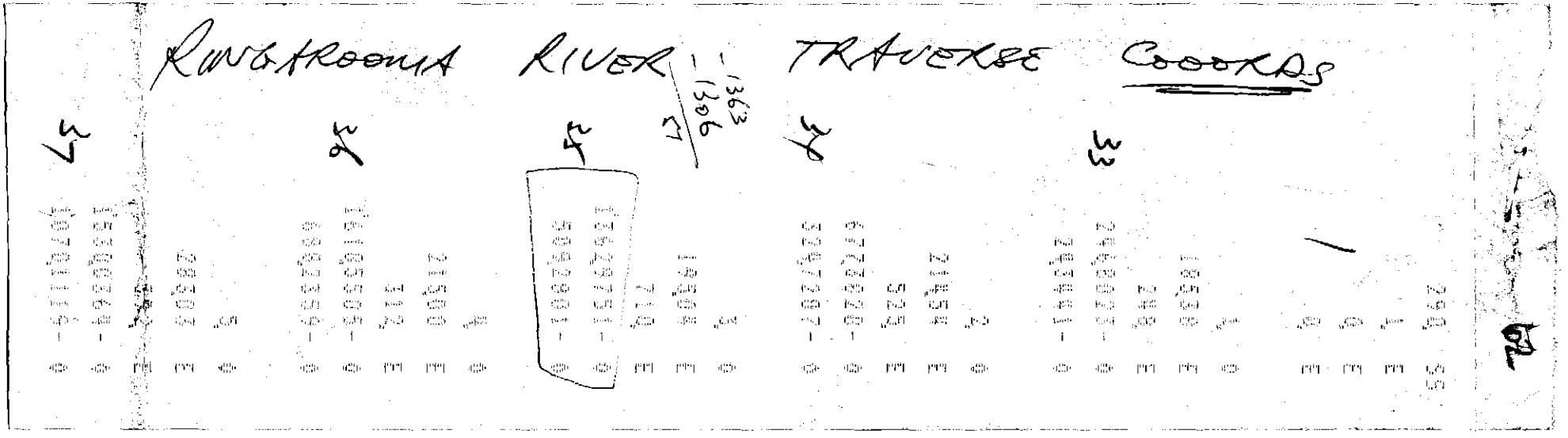
3

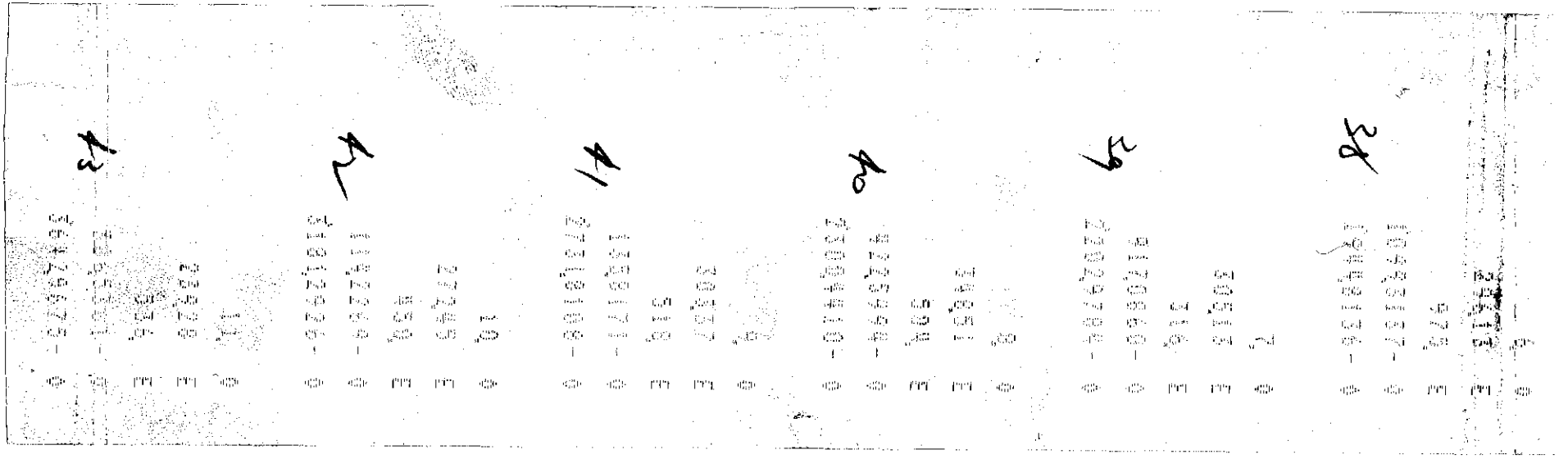
| | |
|---|---|
| 290 | S |
| 226886 | E |
| 129434 | E |
| 31,52 | E |
| 1 | 0 |
| 9007 | E |
| BEH | 0 |
| 121 | 0 |
| 58 | 0 |
| 60 | 0 |
| 3576 | E |
| 374,309 | 0 |
| ~~1244~~ 1740 | 0 |
| 2 | 0 |

-1293.3

4326
-2586
1740

831067



62 cont.

12, 0
28496 E
408, E
44 30333841- 0
90925938- 0

13, 0
31292 E
308, E
45 998862- 0
4262,8682- 0

14, 0
33707 E
340, E
46 2133353 0
4395,0792- 0

15, 0
35830 E
249, E
47 9622700 0
4401,5973- 0

16, 0
2919 E
395, E
48 8066811 0
4208,1910- 0

17, 0
34657 E
390, E
49 1186,0900 0
4298,4833- 0

18, 0
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285, E
50 1286,5200 0
4565,1809- 0

19, 0
30247 E
175, E
51 1381,2762 0
4712,3077- 0

20, 0
25290 E
720, E
52 1166,7668 0
5589,6108- 0

21, 0
28593 E
344, E
53 1314,6671 0
3925,1974- 0

22, 0
25387 E
630, E
54 1158,1700 0
4535,4504- 0

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BEA 0
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BDER 0
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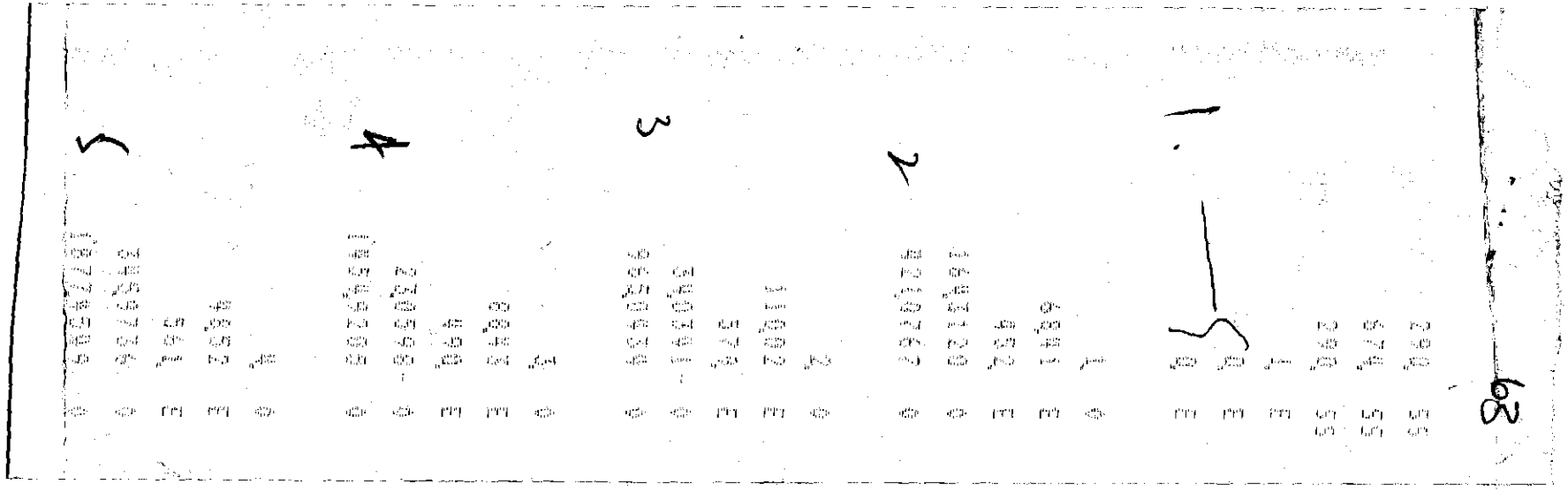
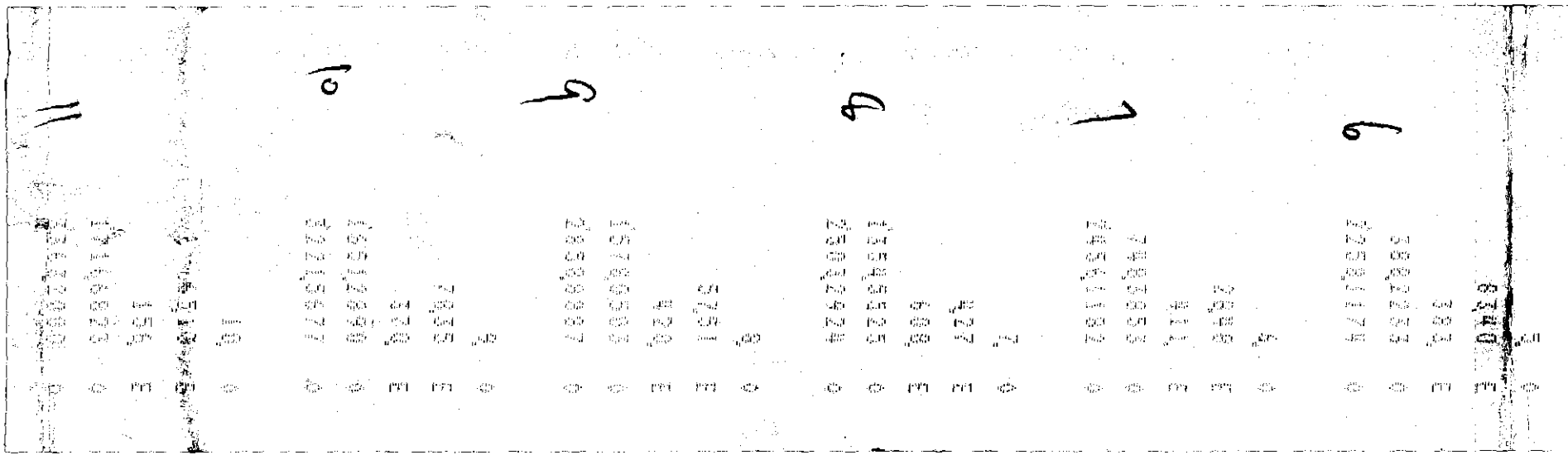
(1)-54

831069



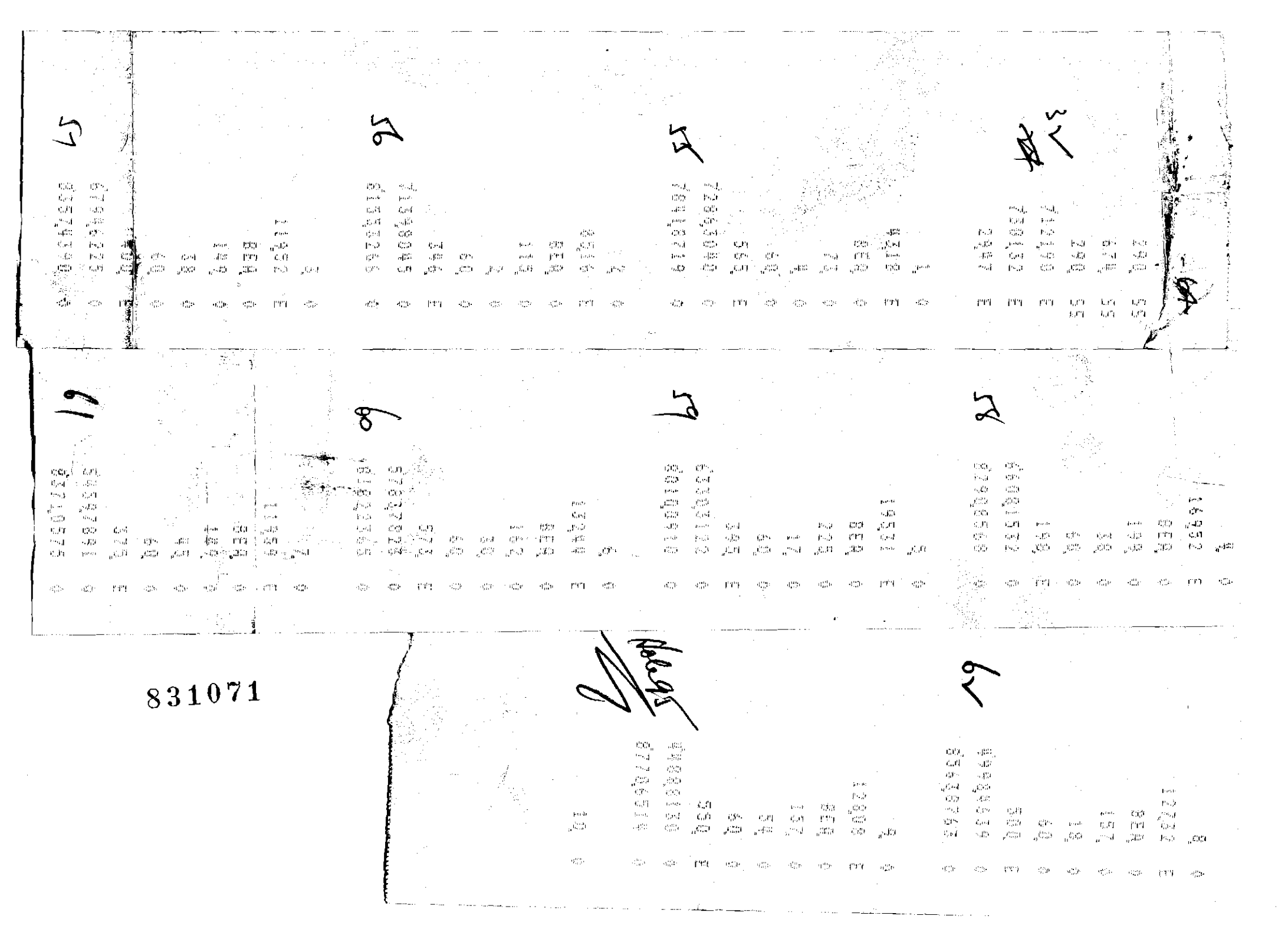


831070

63 cont.

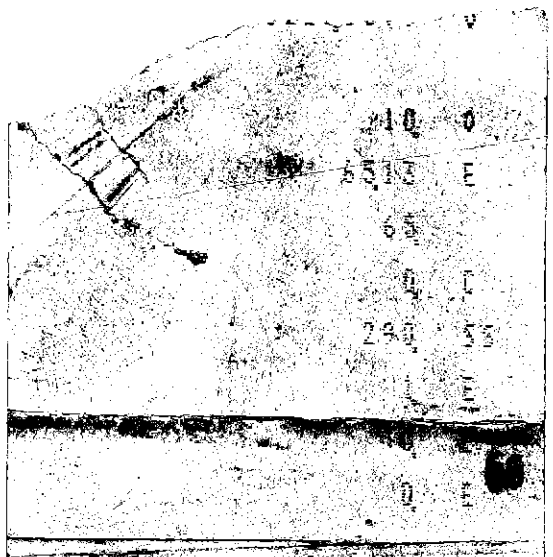
| | |
|---|---|
| 11 | 0 |
| 4092 | E |
| 622 | E |
| 2193293 | 0 |
| 3763291 | 0 |
| 12 | 0 |
| 336,45 | E |
| 915 | E |
| 3033,6232 | 0 |
| 3902,1004 | 0 |
| 13 | 0 |
| 2915 | E |
| 720 | E |
| 3661,8204 | 0 |
| 3753,8077 | 0 |
| 10 | 0 |
| 2321 | E |
| 640 | E |
| 4249,9049 | 0 |
| 4007,3697 | 0 |
| 15 | 0 |
| 2245 | E |
| 450 | E |
| 4578,0300 | 0 |
| 4313,0300 | 0 |
| 16 | 0 |
| 7912 | E |
| 600 | E |
| 4707,2693 | 0 |
| 4988,9854 | 0 |

| | |
|---|---|
| 17 | 0 |
| 1649 | E |
| 618 | E |
| 4428,4886 | 0 |
| 5931,5223 | 0 |
| 19 | 0 |
| 1054,0 | E |
| 372 | E |
| 4328,0116 | 0 |
| 5859,7022 | 0 |
| 19 | 0 |
| 1529 | E |
| 434 | E |
| 4747,1322 | 0 |
| 5901,1952 | 0 |
| 20 | 0 |
| 353,09 | E |
| 500 | E |
| 5243,5631 | 0 |
| 5931,5600 | 0 |
| 21 | 0 |
| 08 | 0 |
| 7915,9665 | 0 |
| 8EA | 0 |
| 238 | 0 |
| 31 | 0 |
| 23 | 0 |
| 80EA | 0 |
| 5264,2226969 | 0 |



831071

831072



10 0
65,513 E
65, E
0, E
298, 53
1, E
0 E

(2)

1, 0
6841, E N
452, E E
N 16,43120 0
E 4210767 0

(3)

2, 0
11002, E
579, E
N 34,03411- 0
E 9650434 0

(4)

3, 0
8843, E
490, E
230598- 0
14549205 0

(5)

4, 0
9852, E
561, E
345,9736 0
1877,9549 0

(6)

5, 0
8340, E
383, E
38822233 0
22581174 0

(7)

1, 0
2048, E
410, E
74,38893 0
2456,1162 0

429 608

7, 0
57,51, E
420, E
971,8831 0
2811,7145 0

8, 0
7835, E
370, E
10451219 0
6174,3936 0

9, 0
65,513 E
156, E
11105152 0
3316,0259 0

10, 0
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4002, E
622, E
15867621 0
3716,1169 0

11, 0
33645, E
915, E
2427,4561 0
3359,9263 0

831073

65 cont.

| | |
|---|---|
| 12 | 0 |
| 2915 | E |
| 720 | E |
| 305566532 | 0 |
| 3705573355 | 0 |

| | |
|---|---|
| 13 | 0 |
| 2321 | E |
| 640 | E |
| 3694323781 | 0 |
| 3960 3955 | 0 |

| | |
|---|---|
| 14 | 0 |
| 2445 | E |
| 450 | E |
| 3973 6829 | 0 |
| 4265 9539 | 0 |

| | |
|---|---|
| 15 | 0 |
| 7912 | E |
| 680 | E |
| 4101 1822 | 0 |
| 4933 8[illegible] | 0 |

| | |
|---|---|
| 16 | 0 |
| 11649 | E |
| 610 | E |
| 3822 2994 | 0 |
| 5485 3982 | 0 |

| | |
|---|---|
| 17 | 0 |
| 10549 | E |
| 372 | E |
| 3721 8944 | 0 |
| 5845 5280 | 0 |

| | |
|---|---|
| 18 | 0 |
| 1229 | E |
| 451 | E |
| 4140 9651 | 0 |
| 5444 0210 | 0 |

4141
607
4748

| | |
|---|---|
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| [illegible] | 0 |
| [illegible] | 0 |
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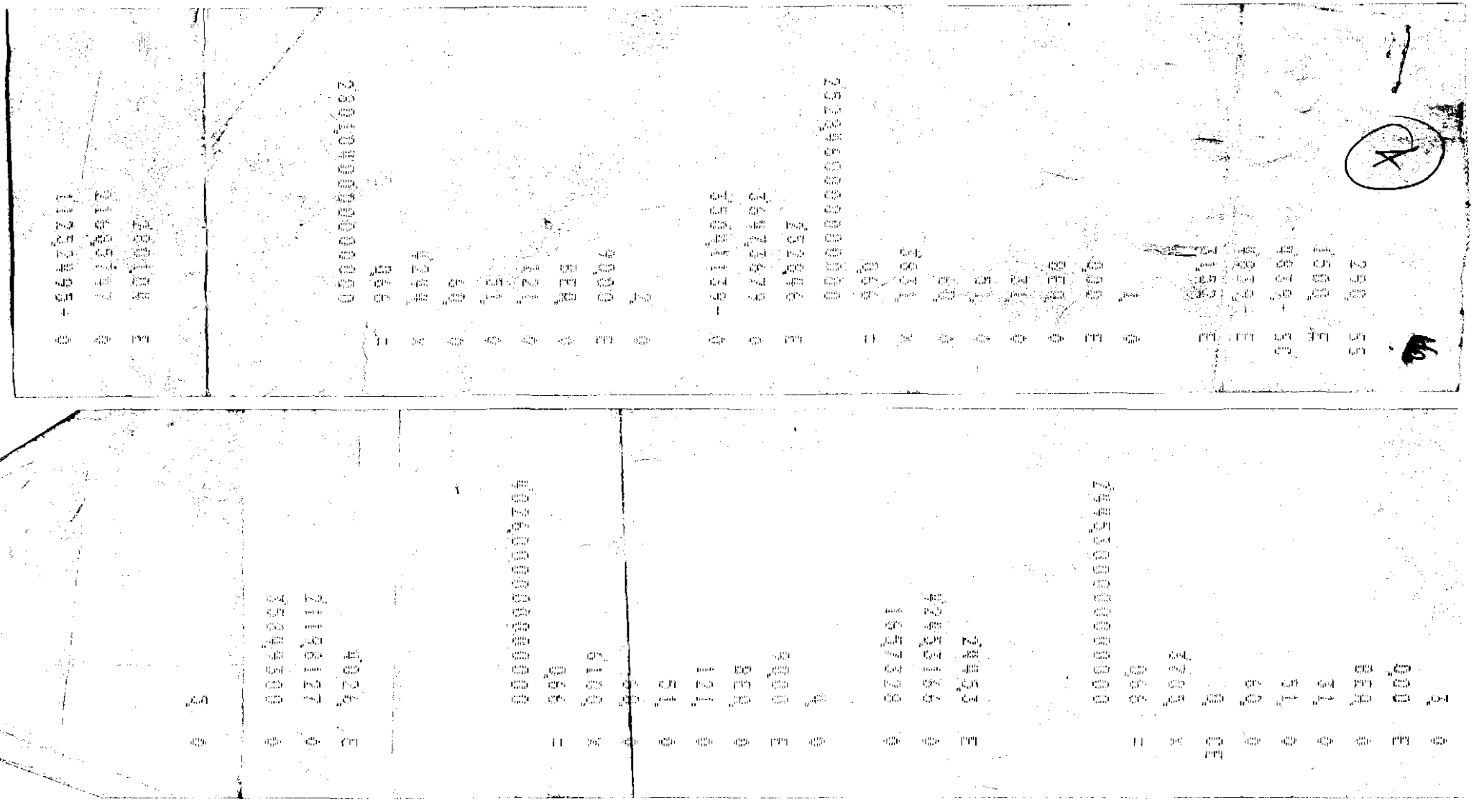
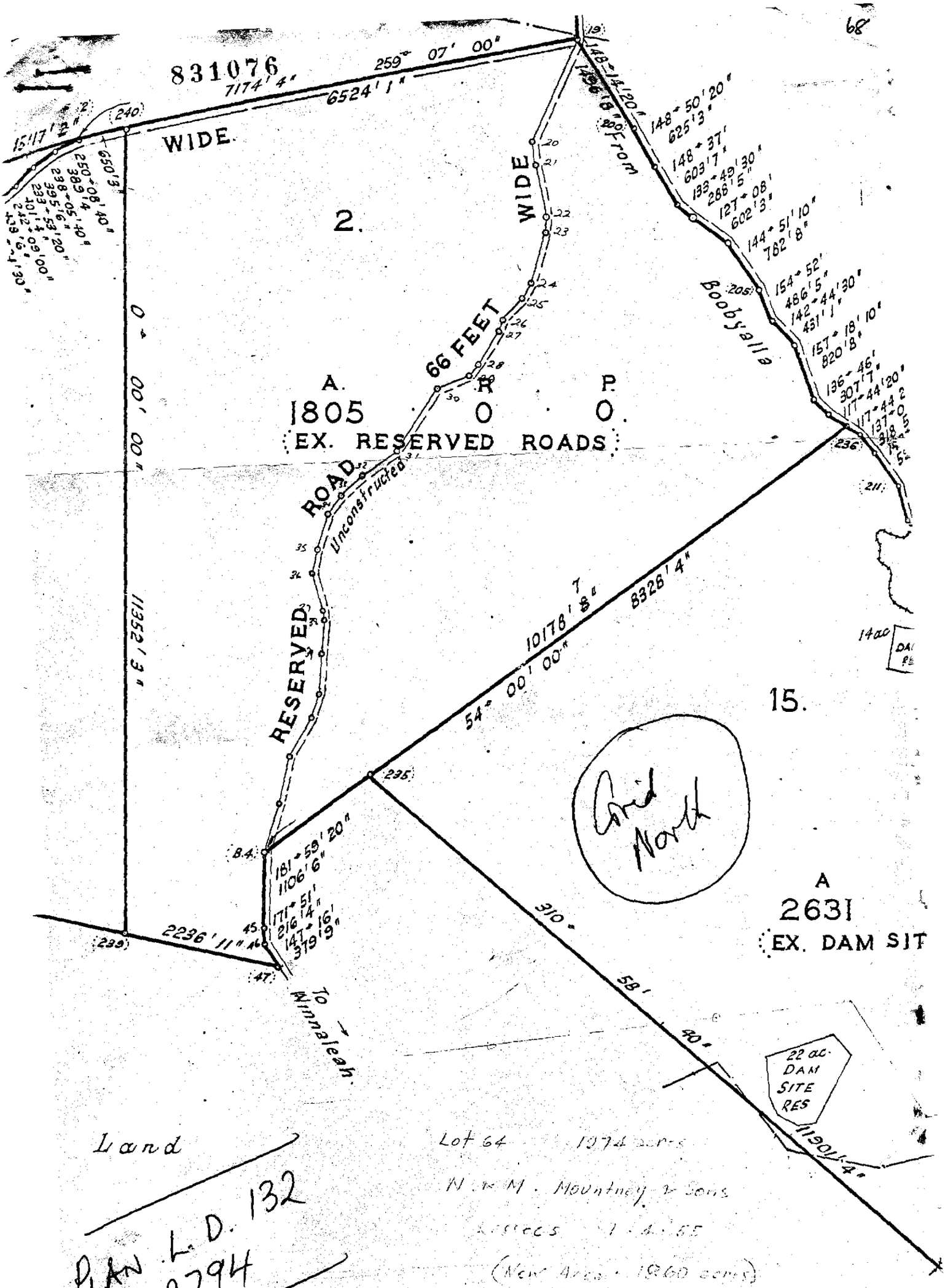
831074



831075

| | | |
|---|---|---|
| 24 | 290 | E |
| | 1 | E |
| | 0 | E |
| | 6294356 | E |
| | 5991156 | E |
| | 1 | 0 |
| | 835115 | E |
| | 782 | E |
| 25 | 5958628687 | 0 |
| | 5602207498 | 0 |
| | 2 | 0 |
| | 837250 | E |
| | 356 | E |
| 26 | 6287195668 | 0 |
| | 5967175352 | 0 |
| | 3 | 0 |
| | 42492 | E |
| | 437 | E |
| 27 | 6608111455 | 0 |
| | 5769111110 | 0 |
| | 5 | 0 |
| | 88125 | E |
| | 739 | E |
| 28 | 6629953337 | 0 |
| | 6502882289 | 0 |
| | 5 | 0 |
| | 105151 | E |
| | 580 | E |
| 29 | 6500126998 | 0 |
| | 7027112888 | 0 |
| | 6 | 0 |
| | 38827 | E |
| | 207 | E |
| 30 | 6662138003 | 0 |
| | 7155884479 | 0 |
| | 7 | 0 |
| | 17334 | E |
| | 682 | E |
| 31 | 7121180229 | 0 |
| | 7301113229 | 0 |
| | 8 | 0 |
| | 80 | 0 |
| | 2328178418 | 0 |
| | 8833 | 0 |
| | 2114 | 0 |
| | 8 | 0 |
| | 4 | 0 |
| | 8DE3 | 0 |
| | 5878176711 | 0 |

24 - 32




Land

Lot 64 197.4 acres

N. W. M. Mountney & Sons

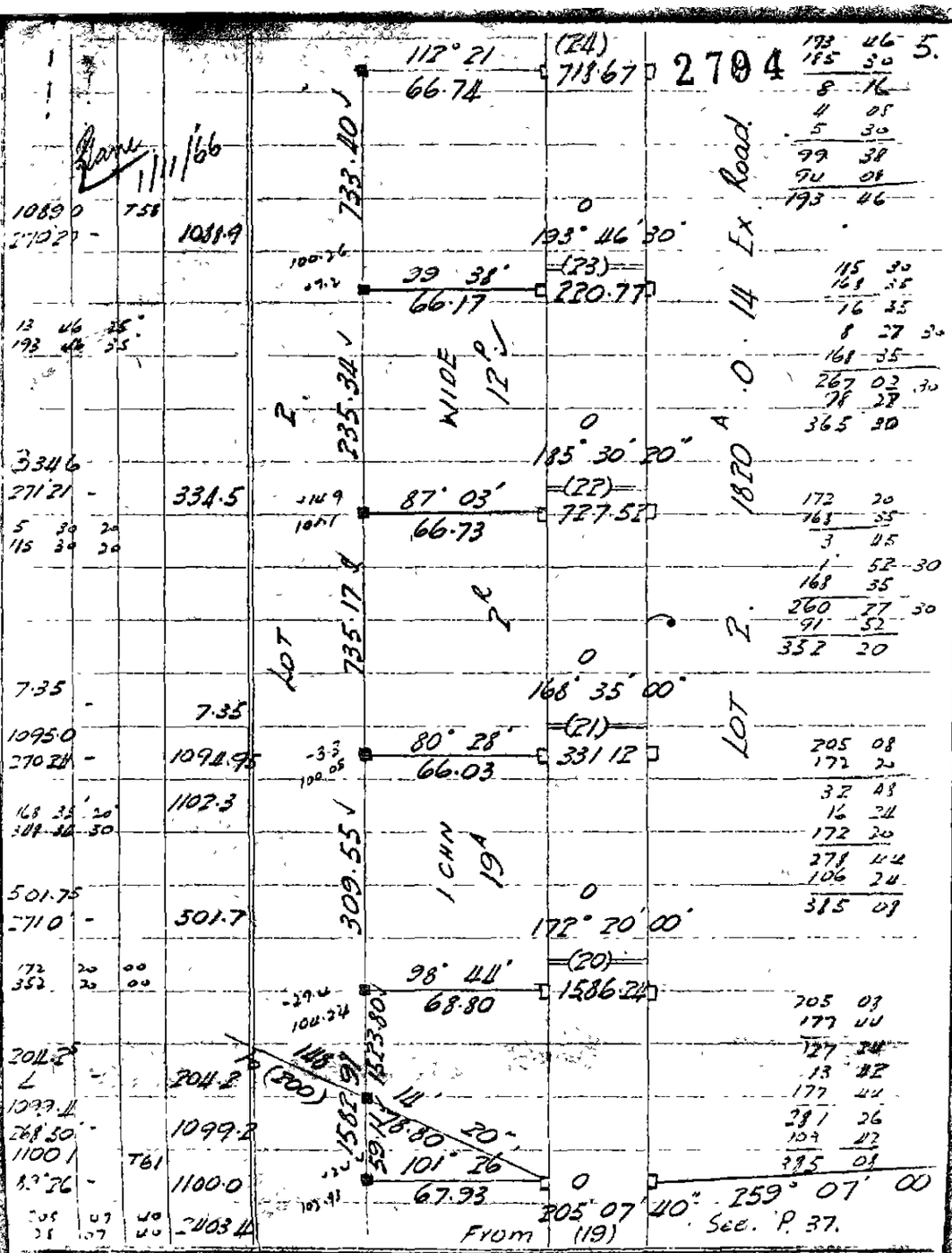
Areas 1.4.65

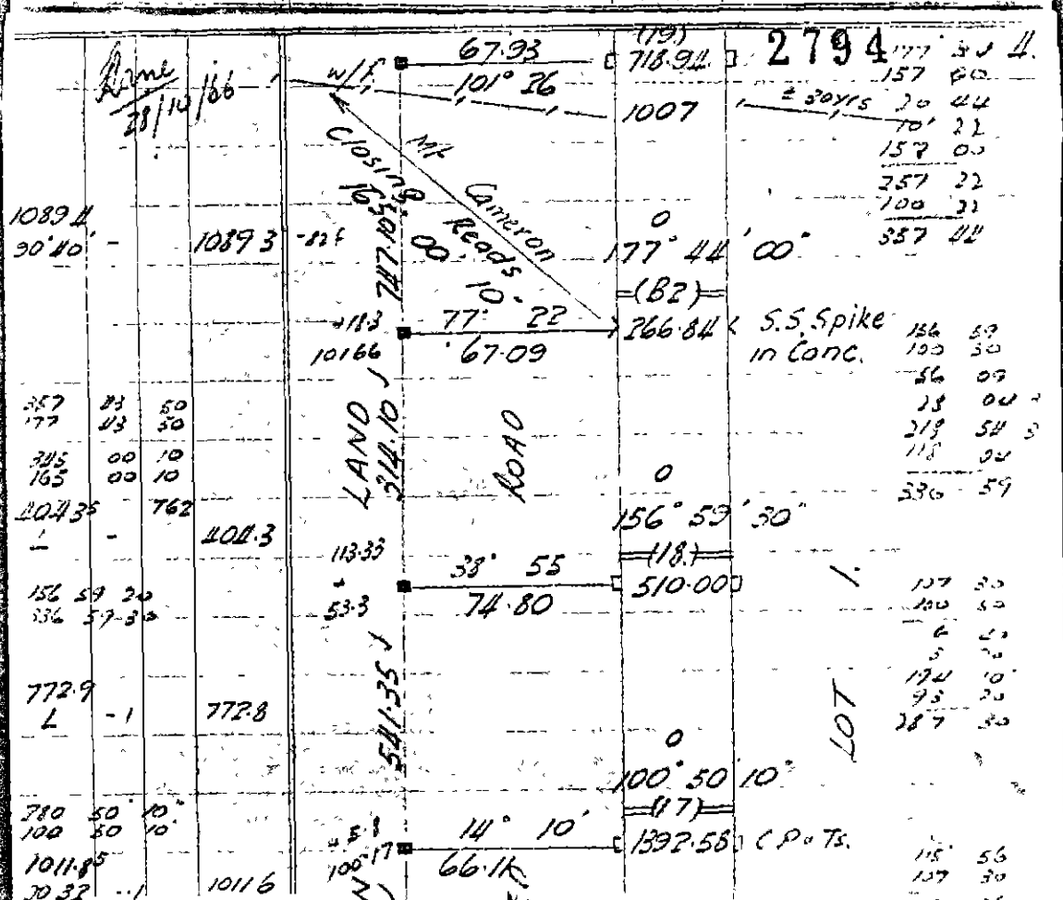
(New Area - 1960 acres)

PLAN L.D. 132

F.B. 2794

8310177


2704
112° 21'
66.74
(24)
718.67
733.40
193° 46' 30"
(23)
39° 38'
66.17
220.77
235.34
WIDE
12 P.
185° 30' 20"
(22)
87° 03'
66.73
727.52
735.17
LOT
168° 35' 00"
(21)
80° 28'
66.03
331.12
309.55
1 CHN
19
177° 20' 00"
(20)
98° 44'
68.80
1586.24
Road.
Ex
14
A
1870
LOT
2.
5.
From (19)
See P. 37.


2794
67.93
101° 26'
718.94
1007
(19)
Closing
Mt.
Cameron
Roads
10'
717.10
(82)
77° 22'
67.09
266.84
S.S. Spike
in Conc.
LAND
214.10
ROAD
156° 59' 30"
(18)
38° 55'
74.80
510.00
541.35
100° 50' 10"
(17)
14° 10'
66.11
1392.56
C.P. Ts.
LOT
1.

8310178

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7416.5 | | | | | 183.70 | | | |
| 272 15' | | | 741.1 | | | | | |
| 66 92 30 | | | | | | | | |
| 346 02 30 | | | | | | | | |
| | | | | 144° 32' | | | | |
| | | | | 67.35 | | | | |
| | | | | From 20 | | 246° 02' 30" | | |
| | | | | | | | | |
| Date 1/11/66 | | | | 144° 32' | | (20) 199.20 | 2794 | |
| | | | | 67.35 | | | | |
| | | | | | 218.88 | | | |
| | | | | | | 223° 00' 50" | | |
| 3029 | | | | 127° 35½' | | (28) | | |
| 274 57' | | | 301.8 | 66.30 | | 563.38 | | |
| | | | | | 578.40 | | | |
| 223 00 55 | | | | | | | | |
| 48 00 55 | | | | | | | | |
| | | | | | | 212° 09' 50" | | |
| 8536 | | | | 114° 36' | | (27) | | |
| L - | | | | 66.57 | | 181.90 | | |
| 32 10 00 | | | | | 175.99 | | | |
| 212 09 50 | | | | | | | | |
| | | | | | | 197° 02' 30" | | |
| 8316 | | | | 119° 34' | | (26) | | |
| L - | | | | 67.61 | | 816.66 | | |
| 197 02 15 | | | | | 108.44 | | | |
| 17 02 15 | | | | | | | | |
| | | | | | | 222° 06' 30" | | |
| 8316 | | | | 126° 31' | | (25) | | |
| 271 82 - | | | 631.3 | 66.32 | | 260.20 | C.P. & Ts. | |
| | | | | | 276.61 | | | |
| 222 06 20 | | | | | | | | |
| 112 06 25 | | | | | | | | |
| 30 56 05 | | | | | | | | |
| 210 56 15 | | | | | | | | |
| 3911.4 | | | | 112° 21' | | | | |
| 271 29' | | | 3911.2 | 66.72 | | | | |
| | | | | From (24) | | 210° 56' 10" | | |

Ref in Ppm't

| | |
|---|---|
| 66 | 03 |
| 83 | 01 |
| 23 | 02 |
| 11 | 31 |
| 13 | 01 |
| 144 | 32 |
| 101 | 31 |
| 246 | 03 |

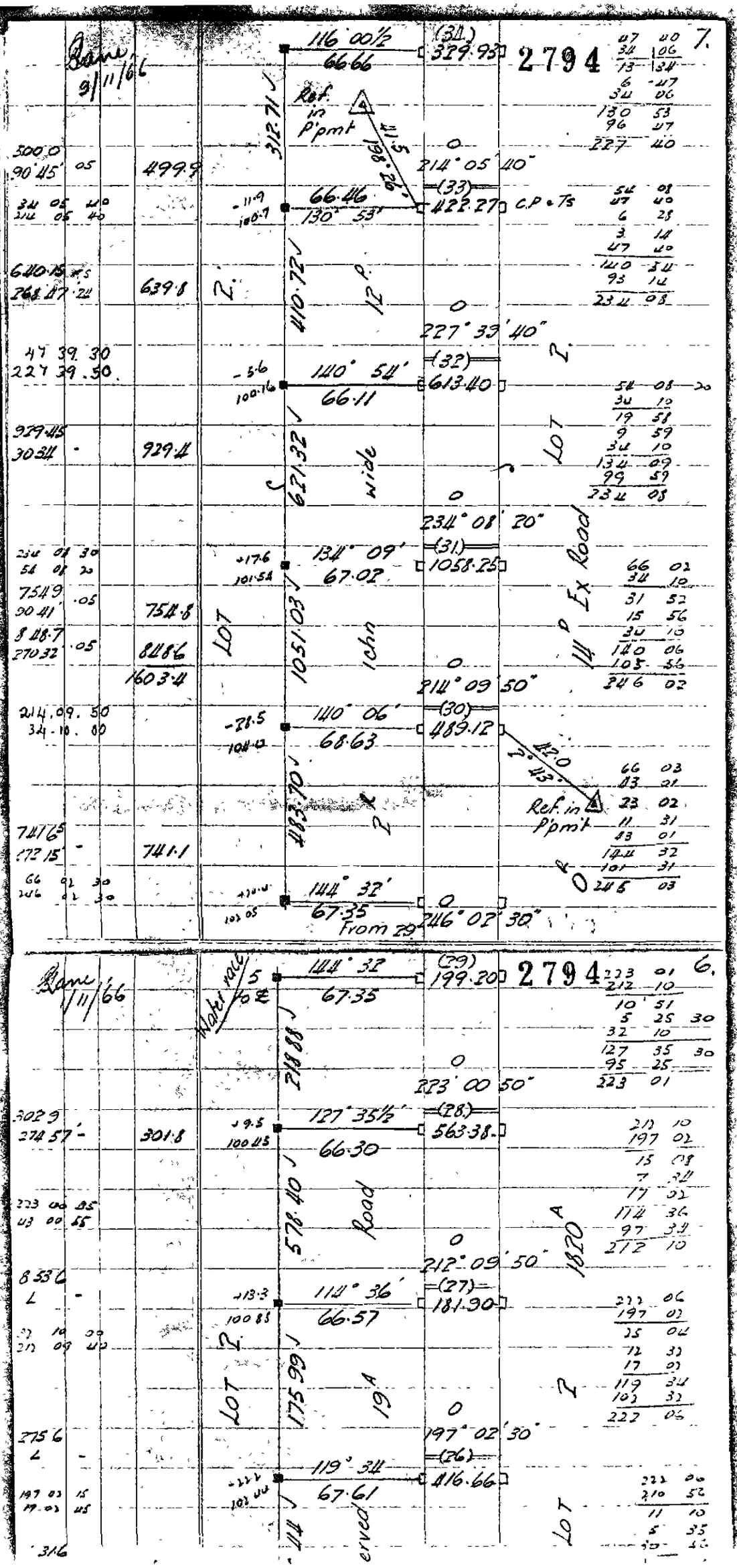
| | |
|---|---|
| 223 | 01 |
| 212 | 10 |
| 10 | 51 |
| 5 | 25 30 |
| 32 | 10 |
| 127 | 35 30 |
| 95 | 25 |
| 223 | 01 |

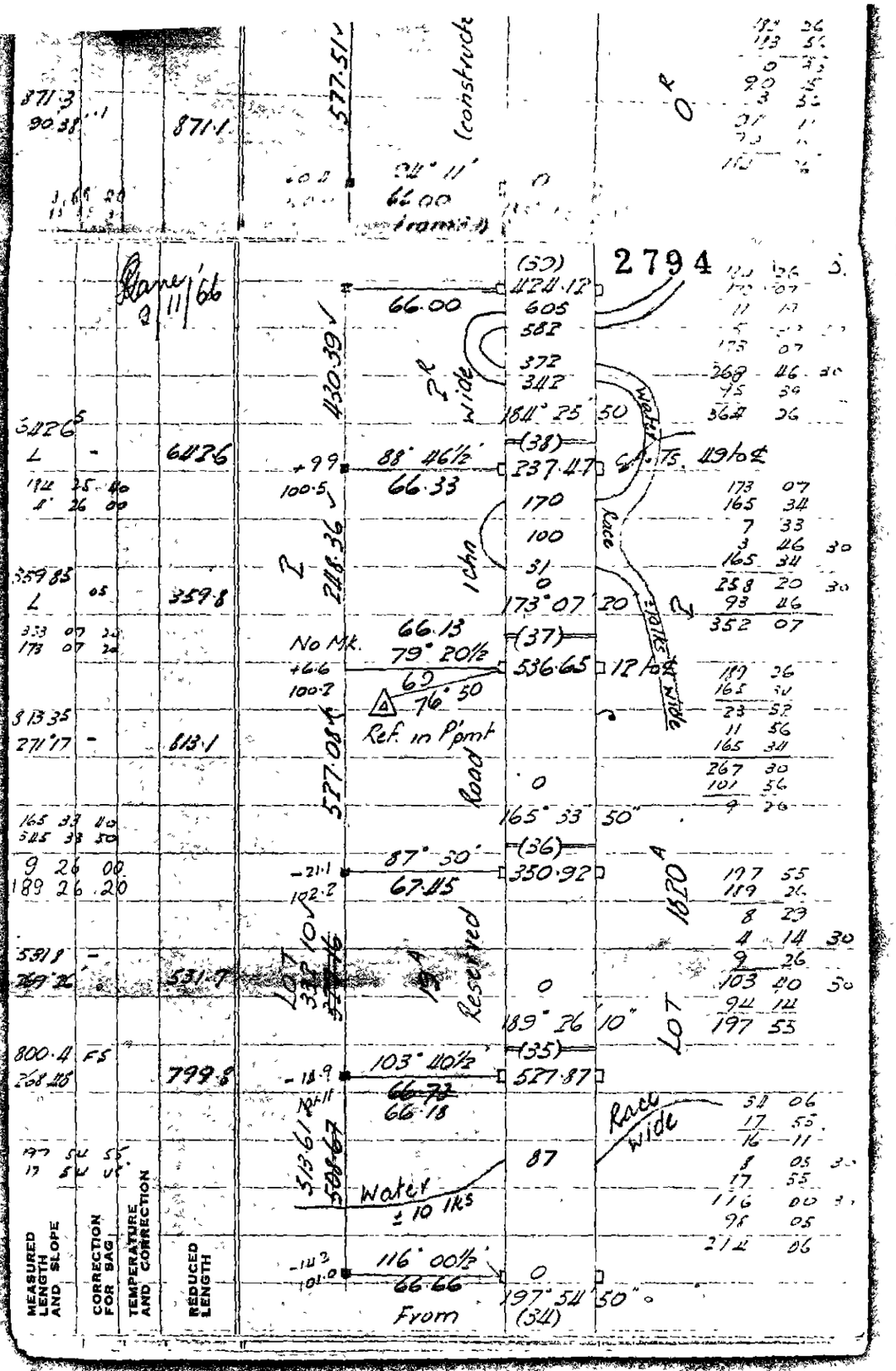
| | |
|---|---|
| 211 | 10 |
| 197 | 02 |
| 15 | 08 |
| 7 | 32 |
| 77 | 02 |
| 114 | 36 |
| 97 | 34 |
| 212 | 10 |

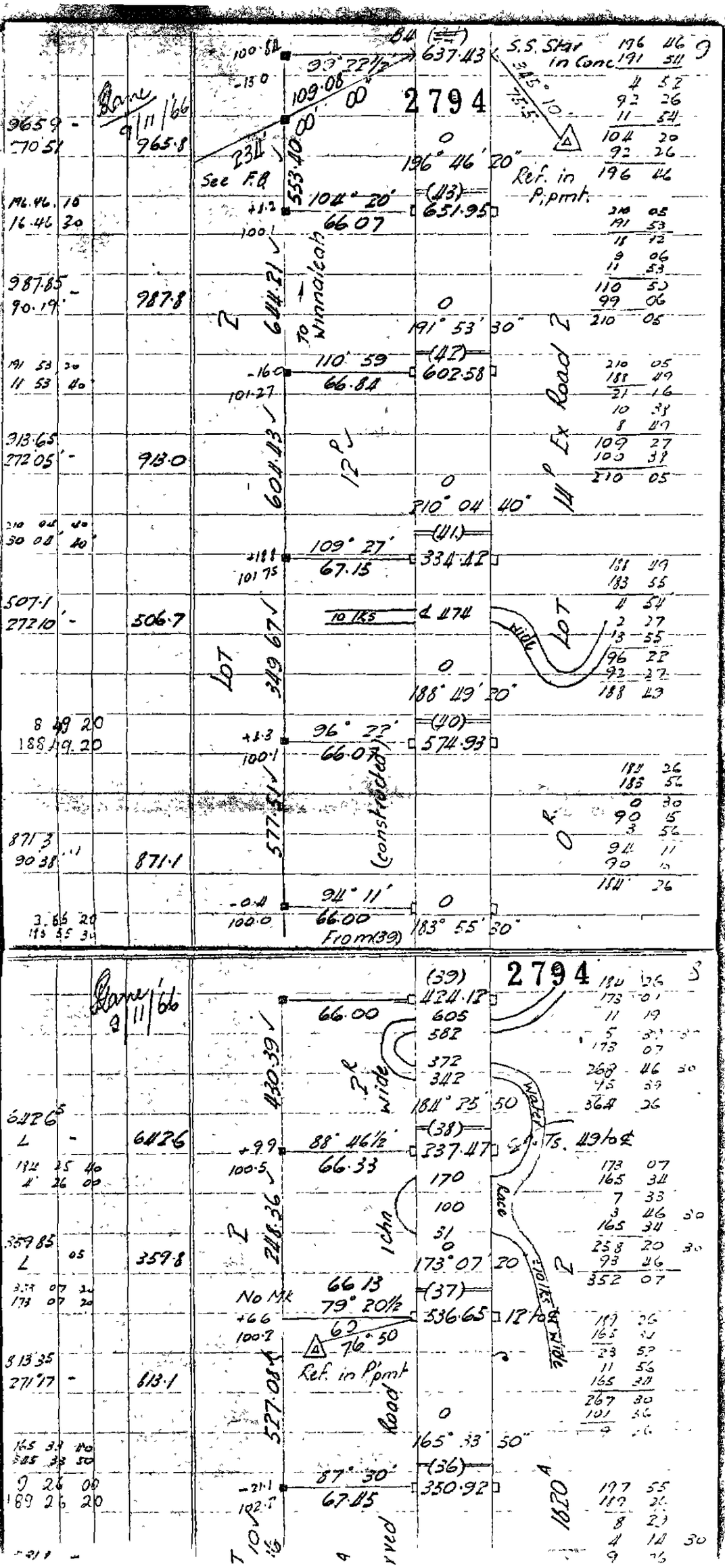
| | |
|---|---|
| 222 | 06 |
| 197 | 02 |
| 25 | 04 |
| 12 | 33 |
| 17 | 02 |
| 119 | 34 |
| 102 | 32 |
| 222 | 06 |

| | |
|---|---|
| 222 | 06 |
| 210 | 56 |
| 11 | 10 |
| 5 | 35 |
| 30 | 56 |
| 126 | 31 |
| 95 | 35 |
| 222 | 06 |

| | |
|---|---|
| 210 | 56 |
| 198 | 46 |
| 17 | 10 |
| 8 | 35 |
| 13 | 46 |
| 112 | 21 |
| 98 | 35 |
| 210 | 56 |


Lane 9/11/66
116 00½
6666
(34)
329.93
2794
7.
Ref. in p'pmt
312.71
92.86
S 5 11 E
214° 05' 40"
(33)
422.27
C.P. Ts
66.46
130° 53'
-11.9
100.7
500.0
90 45 05
499.9
34 05 40
214 05 40
6440.15
268 37 22
639.8
2.
410.72
12 P.
227° 39' 40"
47 39 30
227 39 50
(32)
613.40
-5.6
100.76
140° 54'
66.11
929.45
303.11
929.4
621.32
wide
LOT
234° 08' 20"
234 08 30
54 08 20
(31)
1058.25
+17.6
101.52
134° 09'
67.02
7549
90 41 05
754.8
8 48.7
270 32 05
808.6
1603.4
1051.03
Ichn
Ex Road
214° 09' 50"
214.09.50
34.10.00
(30)
489.12
-28.5
101.12
140° 06'
68.63
483.70
7417.5
172 15
741.1
2.
2.42
2.43
Ref. in p'pmt
66 92 30
246 02 30
246° 02' 30"
From 29
Lane 11/66
Water race
5
144° 32'
67.35
(29)
199.20
2794
6.
219.88
223° 00' 50"
3029
274 57
301.8
127° 35½'
66.30
563.38
+9.5
100.05
578.40
Road
A
1820
212° 09' 50"
8536
L
-
114° 36'
66.57
181.90
+13.3
100.05
175.99
LOT
19.A
197° 02' 30"
2756
L
-
119° 34'
67.61
416.66
-2.2
100.00
LOT
Curved
316


2794
MEASURED LENGTH AND SLOPE
CORRECTION FOR SAG
TEMPERATURE AND CORRECTION
REDUCED LENGTH
Race wide
Water
Road
Reserved
From


2794
Game 9/11/66
See F.B.
Winnacoh
Ex Road
Lot
Main
Water
Lace
Ref. in P.pmt.
S.S. Star in Conc
From(39)
(constructed)
Road
Ref. in P'pmt

8310 82

Creek

150

0

214° 20' 10"

2794 10.

Rama 10/11/66

(43)
479.03

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH |
|---|---|---|---|
| 726.80 | 50 | | |
| 92.47 | 5 | | 725.8 |
| | | | |
| 52.24 | 40 | | |
| 232.14 | 20 | | |
| | | | |
| 116.35 | | | |
| 86.40 | - | | 116.1 |
| | | | |
| 1100.2 | | | |
| 73.27 | - | | 1098.2 |
| | | | |
| 42.00 | 55 | | |
| 222.00 | 45 | | |
| | | | |
| 578.55 | 15 | | |
| 95.51 | .2 | | 575.4 |
| | | | |
| 327.16 | 00 | | |
| 147.16 | 00 | | |
| | | | |
| 171.51 | 00 | | |
| 351.51 | 00 | | |
| | | | |
| ~~328.85~~ | | | |
| 265.25 | | | 327.1 |
| | | | |
| 118.25 | | | 118.3 |
| 462.6 | | | |
| 92.13 | - | | 462.2 |
| 1096.3 | - | | |
| 89.31 | | | 1096.2 |
| | | | |
| 181.59.30 | | | |
| 1.59.20 | | | 181.59.30 |

0

232° 24' 30"

(48)

801.44

LOT 4

0

222° 00' 50"

(47)

379.76

See F.B. P. 36.

282.00

CROWN

0

147° 16.00"

(46)

216.35

LOT 2

0

171° 51' 00"

(45)

1106.50

139.50 to Corner

139 50 40
319 50 40

0

From 44

181° 59' 25"

B2

196 26
181 59
14 27
7 23 30
1 59
99 22 30
97 23
196 46

2794 11.

Land

(53)
626.10

951.85
269.34 -1
1.07 10
181.07 20
951.7

1164.75 (calc)
181° 09' 20"
0
181° 07' 20"
556.70 dpy

843.65
89.37 -1
1.11 50
181.11 40
843.5

0
181° 11' 40"
(52)
658.54

-212
999.05
272.44 -.1
181.24 20
724 20
997.0
W/F. ± 20YY

786 good condition
0
187° 24' 20"
(51)
273.50 C.P. + Ts.

114.75
67.38 -
35.23 55
205.23 45
1144

LAND
0
205° 23' 50"
(50)
610.88 C.P. and Ts

LOT

925.7
L -.1
925.6

Creek
150

0

214° 20' 10"

658.54
39.31
266.23

2794 10.

Land 10/11/66

(49)
479.03

726.80 Sag
92.47 5
725.8

0
232° 24' 30"
(48)
801.44

LOT 4

50.24 40
232.24 20
116.35
86.40 -
1100.2
73.27 -
1098.2

0
222° 00' 50"
(47)
370.76

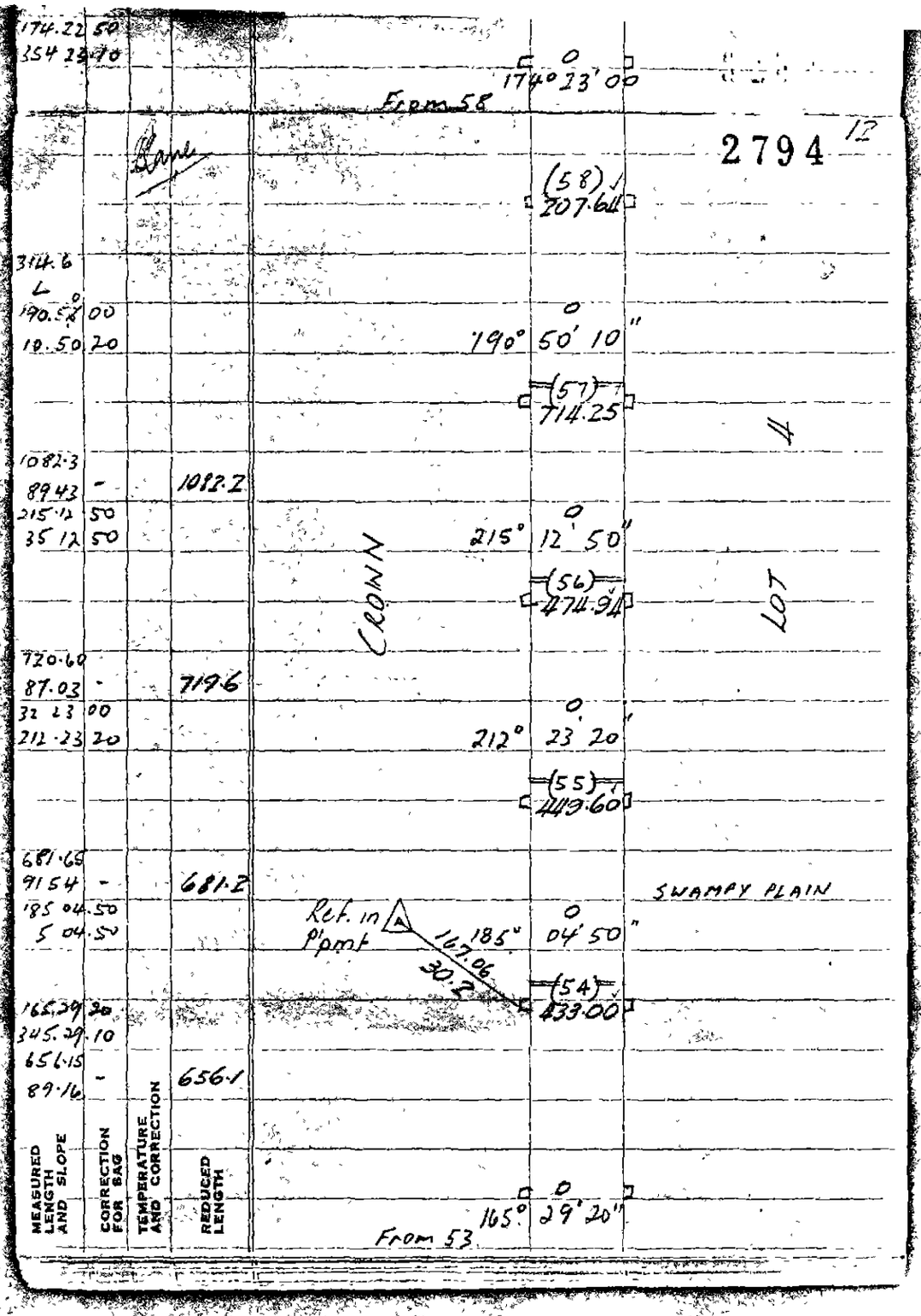
See F.B.
P. 36.

42.00 55
22.00 45
578.55 15
95.51 .2
576.4

CROWN

0
147° 16' 00"
(46)
216.35

327.16 00
147.16 00
171.51 00


2794
From 58
174° 23' 00"
(58)
207.68
190° 50' 10"
(57)
714.25
215° 12' 50"
(56)
474.94
CRONIN
LOT 4
212° 23' 20"
(55)
449.60
SWAMPY PLAIN
Ref. in p'pmt
185°
167.06
30.2
(54)
433.00
165° 29' 20"
From 53
MEASURED LENGTH AND SLOPE
CORRECTION FOR BAG
TEMPERATURE AND CORRECTION
REDUCED LENGTH
174.22 50
354 23 10
314.6
190.52 00
19.50 20
1082.3
89.43 -
1082.2
215.12 50
35 12 50
720.60
87.03 -
719.6
32 23 00
212.23 20
681.65
91.54 -
681.2
185 04 50
5 04 50
165.39 30
345.29 10
656.15
89.16 -
656.1

Plan 11/11/66

348.3
92.05 -
17.20 40
197 20 40

348.6

(63)
230.00
229.67

197° 20' 40"

(62)
661.00

1006.2
89 28 .1
335 05 30
155 05 30

1006.1

155° 05' 30"

(61)
900.35

268.45
91.40 -

268.3

1096.35
271.26 -.1
354 07 50
174 07 50

1096.0
5.9

174° 07' 50"

(60)
474.01

LAND LOT

718.65
88 33 -.1
10.22 40
190 22 30

718.3

190° 22' 40"

(59)
265.33

402.0 —
L
174.22 50
354 33 10

174° 23' 00

From 58



Plan

2794

(58)
207.61

314.6
L
190.58 00
10 50 20

190° 50' 10"

(57)
714.25

1082.3
89.43 -
215 12 50
35 12 50

1082.2

215° 12' 50"

(56)
474.91

CROWN LOT

720.60
87.03 -
32 23 00
212 23 20

719.6

212° 23' 20"

(55)
449.60

8310896

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH | | |
|---|---|---|---|---|---|
| 764.35 | | | | | |
| 89 08 | - | | 764.2 | | |
| 737.05 | | | | | |
| 187 37 35 | | | | From (67) 187° 5 0 37' 10" | |
| | | | | (67) 564.76 | 2794 1+ |
| 5 " | | | | | |
| 846.85 | | | | | |
| 87 07 | - | | 855.7 | | |
| 7-34 50 | | | | 0 | |
| 187 34 30 | | | | 187° 34' 40" | |
| | | | | (66) 678.68 | C.P. w Tr |
| 1028.35 | | | | | |
| L | - | | 1028.3 | | |
| 8 31. 5040 | | | | 0 | |
| 188 31 840 | | | | 188° 31' 40" | |
| | | | | (65) 111125 | 188° 00' 00" See P. 49 |
| | | | | 1584 | |
| | | | | 1400 | |
| 185 95 | | | | | |
| 83 41 | - | | 184.8 | CROWN Creek | |
| 576.8 1 | | | | | |
| 88 17 | | | 576.8 | | L.P |
| 925.65 | | | | | |
| 94 38 | -1 | | 922.5 | L.P | |
| 240.34 305 | | | 683.7 | ✓ | |
| 60.34 65 | | | | 240° 0 34' 50" | |
| | | | | (64) 346.75 | LOT 4 |
| 51 30 45 | | | | | |
| 231 30 55 | | | | | |
| 525.95 | | | | | |
| 92 34 | - | | 525.4 | | |
| | | | | 0 | |
| | | | | From (63) 231° 30' 50" | |

2794

8310871

Leads - 87° 10' 50"
← to Mt Cameron

(B5) 362.54 S.S. Spike in Conc. 15

547.45 -1
∠
178 14 40
358 14 40

5493

0
178° 14' 40"

(71) 793.33

113.7
∠
1088.35
∠
335 42 30
155 42 10

1202.0

0
155° 42' 20"

(70) 498.80

749.8
89.19 -

w/f 1181 220 Yr.

749.7

0
337 21 00
157 21 00

157° 21' 00"

(69) 298.15 L.P. w/ Ts.

LAND

451.75 -
∠
256 30
182 56 30

0
182° 56' 30"

(68) 508.40 L.P. w/ Ts

764.35
89.08 -
737 05
187 37 15

764.2

0
From (67) 187° 37 10"

(67) 364.76

2794 14

5"
846.85
87.07 -
7 34 50
187 34 30

855.7

0
187° 34' 40"

(66) 678.68 L.P. w/ Ts.

1028.35 -
∠
8 31. 50 40
188 31 40

1028.3

0
188° 31' 40"

(65) 1111.25 88° 00' 00" See P 43

1584

1400

CROWN Creek

185.95
83.41 -
576.8 -1
88.17
725 6

184.8

576.8

L.P.

831088

2794 16

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH | | |
|---|---|---|---|---|---|
| 6 13 40 | | | | | |
| 15 13 40 | | | | | |
| | | | | | 0 |
| | | | | | 185° 13' 40" |
| | | | | (76.) | |
| | | | | (76) | |
| | | | | From | 661.76 |
| | | Done 14/11/66 | | | |
| 1003.35 | | | | | |
| 271 33 | 57 | | 1002.7 | | |
| | | | | | 0 |
| | | | | | 178° 19' 40" |
| | | | | | (75.) |
| 178 19 45" | | | | | |
| 358 19 40" | | | | | 542.00 |
| 167 01 00 | | | | | |
| 347 01 70° | | | | | |
| | | | | | 0 |
| 821 25 | | | | | 167° 01' 10" |
| 770 34 | - | | 821.2 | | |
| | | | | | (74) |
| 184 46 40 | | | | | |
| 4 47 00 | | | | | 217.54 |
| 329.6 | | | | | |
| L | - | | | | |
| | | | | | 0 |
| | | | | | 184° 46' 50" |
| | | | | | (73) |
| 177 01 10 | | | | | |
| 357 01 10 | | | | | 635.64 |
| 963 1 | | | | | |
| L | - | | | | |
| | | | | | 0 |
| | | | | Ref. in Pmt | 177° 01' 10" |
| | | | | 37 | |
| | | | | 163° 13' | |
| 111 44 50 | | | | | (72) |
| 1 44 50 | | | | | |
| 1099.9 | .15 | | | | 817.60 |
| L | | | | | |
| 139 0 | - | | | | |
| L | | | | | |
| 87 10 50 | | | 1238.8 | | |
| 267 10 50 | | | | | |
| | | | | | 0 |
| | | | | From (B5) | 181° 44' 50" |
| | | | | | S.S. Spike |
| | | | | | b 5 87° 11' 05" |

(81.)
475·73

2794 17

Rame
11/18/66

721·5
87 29 -
720·8

3 59 25

0
183° 59' 30"

(80.)
1228 15

199·8
272 30
1996

1099 5
272 36 05
1098·0

Swampy

plain

565·8 -
72 41
569·2

0
173° 24' 00"

(79.)
360·40

173 24 00
353 24 00

546 5
91 04
546·0 5

0
182° 31' 40"

(78.)
683·23

113 31 40
2 31 40

1035 9
268 08 .05
1035·2

0
165° 33' 20"

(77.)
555·72

345 33 20
165 33 20

842·7
85 30 .1
842·0

0
185° 13' 40"

(76.)

From

(76.)
661·78

2794 16

Rame
11/11/66

1003 5
271 33 57
1002·7

0
178° 19' 40"

(75.)
542.00

178 19 45"
358 19 40"

167 01 00
347 01 20"

821 25
270 34 -
821·2

0
167° 01' 10"

(74.)
217·54

184 46 40
4 47 00

329 6
L -

0
184° 46' 50"

(73.)
635·64

177 01 10
357 01 10

963·1
L -

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH | |
|---|---|---|---|---|
| 1706.15 | | | | |
| L | - | | | |
| 347 59 40 | | | | |
| 167 39 20 | | | | |
| | | | | (86) 386.56 |
| | | | | 167° 39' 30" |
| | | | | 2794 10 |
| 273.02 | | | | |
| 586.55 | - | | 585.7 | |
| | | | | 144° 58' 50" |
| | | | | (85) |
| 314 58 60 | | | | 499.08 |
| 144 58 50 | | | | |
| | | | | Ground |
| 756.2 | | | | |
| L | - | | | |
| | | | | 152° 55' 50" |
| 332 55 50 | | | | (84) |
| 152 55 00 | | | | 442.80 |
| | | | | 235° 02' |
| | | | | 31.9 |
| | | | | Ref. in White Gun. |
| 671.15 | | | | 30.9 91 |
| 88 57 | -1 | | 670.9 | |
| | | | | 158° 39' 20" |
| 158 39 50 | | | | (83) |
| 338 39 70 | | | | 562.40 |
| | | | | Swamp |
| 852.2 | | | | |
| 90 53 | - | | 852.1 | |
| | | | | 182° 40' 40" |
| 182 40 40 | | | | (82) |
| 2 40 40 | | | | 315.52 |
| 1178.85 | | | | |
| 93 17 | - | | 1178.05 | |
| 158 29 45 | | | | |
| 338 29 45 | | | | |
| | | | | 0 |
| | | | | 338° 29' 50" |
| | | | | From (81) |
| | | | | 183 59' 3- |

Rame 15/11/66

(89) 184.73 — 2794 — 19

60 25
282.35 — 279.9
354 20 20
172 20 20

0
N 174° 172° 20' 20"
(534.60) dpy

87

810.3
88 37 — 810.0

0
137° 04' 00"
(88)
263.00

317 04 15
137 04 05

Burnside

L
378.5 —

0
170° 23' 20"
(346.75) dpy

170 23 20
350 23 20

Swamp

151 45 00
331 44 40

0
151° 44' 50"
(87)
466.05

5256 FS
268 58 1 — 525.4

706.15
L —

317 59 40
167 59 20

0
167° 59' 30"

From (86)

Rame 15/11/66

(86) 386.56 — 2794 — 18

279.02
586.55 — 585.7

0
144° 58' 50"
(85)
499.08

Burnside

321 58 50
102 58 50

756.2
L —

0
152° 55' 50"
(84)
442.80

235.02'
319

Ref in White Gun.

30.9'

671.15
88 57 — 670.9

0
158° 39' 20"
(83)
562.40

158 39 30
338 39 30

Swamp

8310 92

2794

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH | |
|---|---|---|---|---|
| 854 8 | | | | |
| 87 61 | - | | 854.2 | |
| | | | | 0 |
| | | | | ℄ 218° 216° 01' 40" |
| 276 01 40 | | | | From (94), |
| 93 40 | | Same | | 382.57 |
| | | 15/11/66 | | |
| 87 44' | | | | 0 |
| 580 3 | FS. | | 579.6 | ℄ 170° 168° 11' 15" |
| 345 11 20 | | | | (93) |
| 168 11 10 | | | | 321.85 |
| 487 8 | FS | | | 0 |
| 271 07 | | | 487.65 | ℄ 161° 159° 59' 20" |
| 159 59 20 | | | | (92) |
| 339 59 20 | | | | 686.86 |
| | | | | 209° 47' 207 58.3 Ref. in P'pmt |
| | | | | 0 |
| 1041 1 | | | | ℄ 187° 185° 15' 40" |
| 88 25 | - | | 1040.7 | (91) |
| 5 15 40 | | | | 336.75 |
| 185 15 40 | | | | |
| 511 85 | | | | |
| 86 06' | - | | 510.2 | |
| 358 31' 05" | | | | 0 |
| 179 31 15 | | | | ℄ 180° 179° 32' 10" |
| | | | | (90) |
| 608 1 | | | | 400.62 |
| 273 26' | - | | 607.0 | |
| 8 44 00 | | | | |
| 188 44 20 | | | | |
| | | | | 0 |
| | | | | ℄ 190° 188° 44' 10" |
| | | | | From (89) 192 20 20 |

2794 21.

(99)
569·17

Road
500

150
0

Rame 15/11/66

864·0
33 21 56

862·4

311 55 10
131 55 30

℄ 133° ~~134~~° 55' 20"

(38)
522·00

791·5
88 30 55

790·9

353 06 40
173 07 00

0
℄ 175° ~~173~~° 06' 50"

(97)
322·66

1189·1
88 36 -

1188·9

355 04 00
175 04 20

0
℄ 177° ~~175~~° 04' 10"

(96)
331·22

506·6
268 19 -

506·4

9 49 50
189 49 30

0
℄ 191° ~~189~~° 49' 40"

(95)
563·75

854·8
87 51 -

852·2

0
℄ 218° ~~216~~° 01' 40"

214 01 40
From

(94)
382·57

20

Rame 15/11/66

2794

87 48' F.S.
580 3

579·6

0
℄ 170° ~~168~~° 11' 15"

348 11 20
168 11 10

(93)
321·85

487·8 F.S.
271 07

487·6

0
℄ 161° ~~159~~° 59' 20"

159 59 20
339 59 20

(92)
686·86

209° 47'
207
58·3

Ref. in P'pmt

1041·1
88 25 -

1040·7

0
℄ 187° ~~185~~° 15' 40"

5 15 00
185 15 00

(91)
336·75

311 15

| MEASURED LENGTH AND SLOPE | CORRECTION FOR SAG | TEMPERATURE AND CORRECTION | REDUCED LENGTH | |
|---|---|---|---|---|
| | | | | Creek 115 → |
| 535.11 | | | | |
| 86.40 - | | | 531.5 | |
| | | | | ℄ 190° 186°11'20" |
| 188 27 30 | | | | From (104) |
| 1 27 10 | | | | 835.35 |
| | | | Many 16/11/66 | |
| 836.9 | | | | 2794 |
| 91 08 | | | | |
| 429.15 | | | | dpy |
| 272 30 | | | 429.0 | |
| | | | 836.7 | |
| 256 03 30 | | | 1265.7 | ℄ 178° 176°03'30" |
| | | | | (103) |
| | | | | 651.46 |
| | | | | 352 350.02 56 |
| | | | | ref. in dpmt |
| 988 85 | | | | |
| 31 10 .05 | | | 9886 | |
| | | | | ℄ 238° 236°23'30" |
| 56 23 35 | | | | (102) |
| 32 23 35 | | | | 476.75 |
| 722 4 | | | | |
| 2 - | | | 722.3 | |
| | | | | ℄ 249° 247°30'50" |
| 217 50 45 | | | | (101) |
| 67 50 55 | | | | 536.17 |
| 817 15 | | | | |
| 89 33 - | | | 812.4 | |
| 249 14 20 | | | | ℄ 251° 249°11'20" |
| 67 14 15 | | | | (100) |
| 113.15 | | | | 799.75 |
| 2 | | | 113.15 | |
| 10988 05 | | | | |
| 89 08 | | | 10986 | |
| 176 15 00 | | | | |
| 356 14 50 | | | 1211.7 | |
| | | | | ℄ 178° 176°11'55" |
| | | | | From (99.) |

2794 23

Plane 16/11/66

211 32' 45
38 35 56

126 — 126

10980
86 29 — 1095.9

1108.5

347 28 30
167 28 10

B.M. 731.60 < S.S. Star in Conc.

℄ 36° 32' 50"
℄ 34
To Cameron

℄ 169° ~~167~~ 28' 20"
(106)
563.44

854.6 F.S.
88 21 — 853.7

200 50 30
20 50 40

0
℄ 202° ~~200~~ 50' 40"
(105)
352.77

Creek
115

535.11
86 40 — 531.5

188 47 30
1 47 10

0
℄ 190° ~~188~~ 47' 20"
From (104)
835.35

836.9
91 04 — 745.9

Plane 16/11/66

2794

429.45
272 34 — 429.0

836.7

356 03 30 — 1265.7

0
℄ 178° ~~176~~ 03' 30"
(103)
652.46

352
350.02
56
Ref. in Pipmt

988 85
31 10 .05 — 988.6

0
℄ 238° ~~236~~ 23' 30"
(102)
476.75

56 23 35
232 23 35

722.8
1 — 722.3

0
℄ 249° ~~247~~ 50' 50"
(101)
536.17

247 50 45
67 50 45

812.8
89 33 — 812.4

8310965

C.P. in Old peg hole
Star 3. 137/30

Plane 4/11/66

Reservation

W/F poor

± 30yr condition

17 1 28

Crown

(109)

~~1076.9~~
710.75

797

0

173° ~~183~~° 31' 20"

(108)

dry

~~4222~~
278.65 ℄

River

Booby alla Bridge

1077.0
270.30

1076.9

185 31 20
3 31 35

422.85
33 09

422.3

0

℄ ~~234~~
244 12 10"

(107)

~~6805~~
℄ 449.13

O.C.P. (C.A.B Survey)

200 12 10
68 12 10

0

B1.

333° 03' 30" Reads -
323° 03' 30"

152° 46' 10" Mt Cameron

6805
2

183 03 35
303 03 25

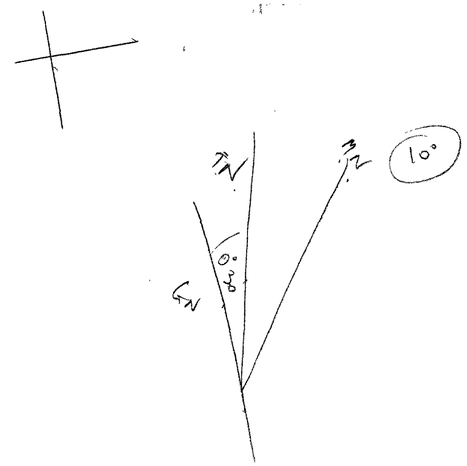
of 60 acs Dorset 20/23

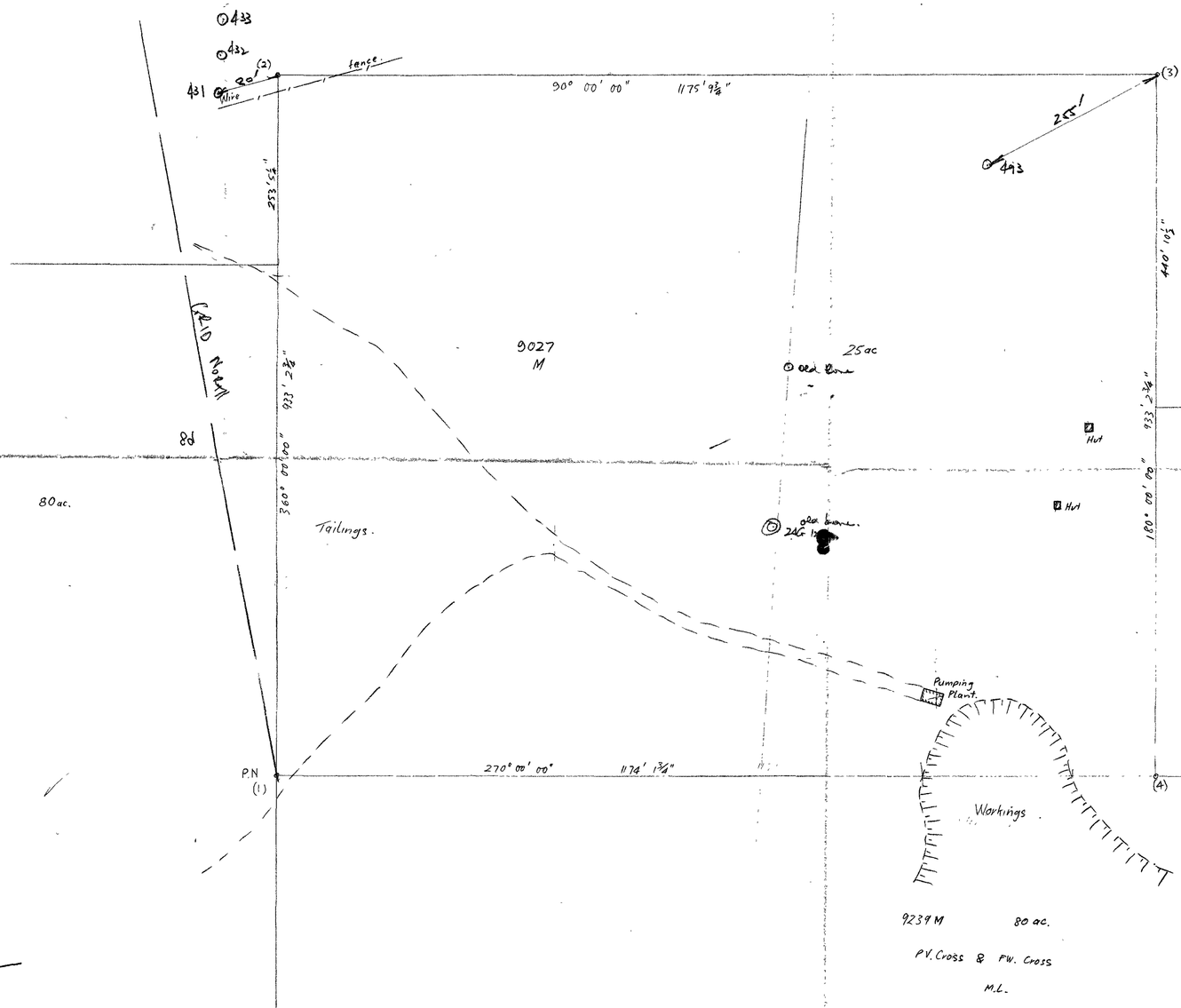
Connection from B1 to locate survey made

4

2794

8310096




831097

5 cm

Scale: 100' TO 1"

831098

**Pioneer Tin Mining CO**

**Miscellaneous drilling and mining information**

**1925**

**BMI Mining Pty Ltd**

**Monarch Mine**

**Miscellaneous drilling and mining information**

**MLs 9068M, 8991M, 8675M, 8908M, 9027M, 8686M, 10375M, 9329M**

**Monarch Tin Mining Company NL**

**1971**

**TCR 95-3690**

# Bore No 1

831099

| Date | Depth | Time | Core | Cubic C. Ins | Strata |
|---|---|---|---|---|---|
| | 0 | | | | Surface Sand gone |
| | 1 | | 12 | | Hard Sand |
| | to | | 24 | | Fine yellow " |
| | 2 | | 36 | 3/10 | |
| | 4 | | 24 | | Coarse White & Yellow Sand (Light |
| | to | | 24 | 3 1/2 / 10 | " " " |
| | 8 | | 48 | | |
| | 8 | | 12 | | " " " |
| | to | | 18 | | " " " |
| | 12 | | 9 | 4/10 | " " " |
| | | | 9 | | " " " |
| | | | 48 | | |
| 19 | 12 | | 12 | | " " " |
| | to | | 10 | 3 1/2 / 10 | " " " |
| | 16 | | 11 | | " " " |
| | | | 48 | | |
| | 16 | | 12 | | " " " |
| | to | | 12 | | " & Sandy Pug |
| | 20 | | 12 | 3 3/4 / 10 | " & " " |
| | | | 12 | | Sandy Pug & Sand |
| | | | 48 | | |
| | 20 | | 12 | | Sand |
| | to | | 12 | 3 1/4 | " |
| | 24 | | 12 | | " |
| | | | 12 | | " |
| | | | 48 | | |

831100 Bore No 1 Continued

| Date | Depth | Rise | Core | Cubic Ft | Zinc | Strata |
|---|---|---|---|---|---|---|
| Sept 19 | 24 | | 12 | | | Sand |
| | to | | 18 | 3 1/4 / 10 | | " |
| | 28 | | 18 | | | Sandy Brown Pug |
| | | | 48 | | | |
| | 28 | | 18 | | | " " " |
| | to | | 12 | 3/10 | Nil | " " " |
| | 32 | | 18 | | | " " " |
| | | | 48 | | | |
| | 32 | | 24 | | | " " " |
| | to | | 12 | 3 1/4 / 10 | Nil | Light brown Pug |
| | 36 | | 12 | | | " " " |
| | | | 48 | | | |
| | 36 | | 12 | | | " " " |
| | to | | 12 | 1 3/4 / 10 | Nil | " " " |
| | 40 | | | | | |
| | | | 24 | | | |

831101

List showing the number of Water Rights held on the Frome River and tributaries.

| No | Name | Source | No of Sls | Hds | Date of Priority | | |
|---|---|---|---|---|---|---|---|
| 71W &72 | Pioneer Tin Mng Co Ltd. | Frome River | 6 | 20 | 2 | 1882 | |
| 149W | Do | Do | 2 | 28 | 5 | 1885 | |
| 128-87W | Do | Do | 4 | 7 | 3 | 1888 | |
| 71-93W | J.Thomson | Do | 6 | 2 | 4 | 1895 | |
| 155-93W | R.B.Inglis | Knights Creek | 3 | 28 | 1 | 1897 | |
| 297-93W | C.E.Houston | Frome River | 3 | 14 | 2 | 1899 | |
| 305-93W | Pioneer Tin Mng Co Ltd. | Do | 15 | 22 | 2 | 1899 | |
| 354-93W | Do | Do | 6 | 1 | 6 | 1899 | |
| 380-93W | J.Rundle | Wickborgs Creek | 1 | 22 | 7 | 1899 | |
| 453-93W | C.E.Houston | Frome River | 3 | 16 | 11 | 1899 | |
| 621-93W | W.Cochrane | Knights Creek | 2 | 20 | 2 | 1901 | |
| 626-93W | J.E.Nichols and others | Wickborgs Ck | 1 | 11 | 3 | 1901 | |
| 5-W | Do | Knights Creek | 1 | 29 | 6 | 1901 | |
| 26-W | Do | Kent Creek | 2 | 23 | 9 | 1901 | |
| 32-W | Do | Wickborgs Ck | 1 | 15 | 11 | 1901 | |
| 33-W | Do | Knights Creek | 1 | 15 | 11 | 1901 | |
| 36-W | W.H.J.Thomas | Frome River | 1 | 27 | 11 | 1901 | |
| 77-W | L.Swanson | Knights Creek | 1 | 25 | 6 | 1902 | |
| 118-W | C.E.Houston | Frome River | 14 | 10 | 2 | 1903 | |
| 188-W | C.E.Houston | Frome River | 6 | 13 | 11 | 1903 | |
| 529-W | J.Dunn | Frome River | 10 | 26 | 3 | 1906 | |
| 568 W | A.S. Cameron | " " | 3 | 6 | 5 | 06 | |
| 576 W | C.E. Houston | " " | 4 | 9 | 5 | 06 | |
| 634 W | E. Bryce | " " | 1 | 31 | 7 | 06 | |
| | Pioneer T.M.Co | " " | 30 | 20 | 8 | 06 | |

Mines Department
Hobart April 3rd, 1906.

C.G.Ryan Esq,
Manager Pioneer Tin Mng Co Ltd,
BRADSHAWS CREEK.

$$
\begin{array}{r}
14 \\
20 \\
\hline
280 \\
8 \\
\hline
1120 \\
28 \\
\hline
896 \\
224 \\
\hline
14500\overline{)\,31360\,(2.1} \\
29000 \\
\hline
23600
\end{array}
$$

831102

## List of Water Rights held.

### Weld River.

| | | | | |
|---|---|---|---|---|
| 321-93W. | Kelly and Eyres | 2 | sluice-heads | 17th March, 1899. 10 |
| 167-93W. | Pioneer Tin Mg Coy. | 10 | do. | 15th March, 1897. 9 |
| 271-91W. | J.J.Rumpff extension of 106-87W | | | 30th October, 1893. |
| 106-87W. | J.Thomson | 3 | sluice-heads | 17th January, 1888. 8 |
| 19-87W. | J.A.Thomson | 10 | do. | 6th August, 1887. 6 |
| 221w. | do. | 3 | do. | 10th September, 1886 2 |
| 388-93W. | Alfred Deedes | 5 | do. | 1st August, 1899. 11 |
| 266W | John Rundle | 6 | do. | 4th April, 1887. 5 |
| 239W. | W.Lovett & R.B.Inglis | 6 | do. | 19th November, 1886. 3 |
| 56-87W. | A.P.Miller | 1 | do. | 30th November, 1887. 7 |
| 261W. | do. | 2 | do. | 8th March, 1887. 4 |
| 145W. | do. | 2 | do. | 20th April, 1885. 1 |

### Frome River.

| | | | | |
|---|---|---|---|---|
| 71-93W | J.Thomson | 6 | sluice-heads | 1st April, 1895. 4 |
| 72. | Pioneer Tin Mg.Co. | 6 | do. | 20th February, 1882. 1 |
| 128-87W. | do. | 4 | do. | 29th March, 1888. 3 |
| 287-93W. | P.Oldham | 3 | do | 3rd February, 1899. 5 |
| 149W. | J.C.Macmichael | 2 | do. | 15th May, 1885. 2 |
| 305-93W. | H.J.Daly | 15 | do. | 21st February, 1898. 6 |
| 354-93W. | Pioneer Tin Mg.Co. | 6 | do. | 24th May, 1899. 7 |
| 306-93W. | Brooks & McGowan | 5 | do. | 15th September, 1898 8 |
| 453-93W. | P.Oldham | 3 | do. | 10th November, 1899. |

### Wynyford River.

| | | | | |
|---|---|---|---|---|
| 180-93W | J.Ogilvie | 6 | sluice-heads | 21st June, 1897. 10 |
| 52-3330 | Pioneer Tin Mg.Co. | 10 | do. | 30th May, 1882. 1 |
| 166-91W | Garibaldi Tin Mg.Co. | 6 | do. | 26th August, 1892. 9 |
| 148W | do. | 3 | do. | 14th May, 1885. 5 |
| 71-87W. | do. | 3 | do. | 10th December, 1887 |
| 68-87W. | do. | 4 | do. | 6th December, 1887. |

E31103

List of Water-Rights held and applied for on the Wynifera River and tributaries.

| No | Name | No of heads | Situation | Date of Priority |
|---|---|---|---|---|
| 1 52-3330 & 242-91W | Pioneer T.M.Co. Ltd | 10 | Wynifera R. | 23 5 1882 |
| 4 53-1697 | Do | 10 | Do | 22 8 1883 |
| 2 7W | Garibaldi Tin Mng Co N.L. | 10 | Do | 14 9 1882 |
| 3 38W | Pioneer T.M.Co. Ltd | 4 | Do | 2 12 1882 |
| 5 148W | Garibaldi T.M.Co .N.L. | 3 | Do | 22 5 1885 |
| 6 6-87W | Pioneer T.M.Co Ltd | 8 | Do | 16 6 1887 |
| 62-87W | Garibaldi T.M. Co Ltd | 3 | Cottons Creek | 3 12 1887 |
| 68-87W | Do | 4 | Wynifera River | 7 12 1887 |
| 71-87W | Do | 3 | Do | 12 12 1887 |
| 87-91W | Hen Kee | 2 | Southern Cross Ck | 23 10 1891 |
| 166-91W | Garibaldi T.M.Co N.L. | 6 | Wynifera R. | 29 8 1892 |
| 245-91W | Do | 3 | Cottons Creek | 16 5 1893 |
| 314-93W | Ah Hun | 2 | Trib. Wynifera River | 10 3 1899 |
| 315-93W | Quong Ack | 2 | Do | 7 3 1899 |
| 320-93W | Sun Tan Kee | 2 | Wynifera River | 23 3 1899 |
| 334-93W | Ah Hun | 2 | Shroders Creek | 20 4 1899 |
| 430-93W | Hen Kee | 2 | Trib. Wynifera R. | 26 9 1899 |
| 433-93W | Do | 3 | Wynifera River | 5 10 1899 |
| 536-93W | Pioneer Extended T.S.Co | 12 | Do | 16 11 1900 |
| 613-93W | Cross F.W. | 1 | Trib. Wynifera R. | 22 1 1901 |
| 22-W | Hen Kee | 2 | Do | 26 8 1901 |
| 38-W | Do | 1 | Royston Creek | 2 12 1901 |
| 115-W | Garibaldi T.M.Co N.L. | 3 | Wynifera River | 19 1 1903 |
| 122-W | Pioneer T.M.Co Ltd | 1 | Moon Creek | 7 2 1903 |
| | | 1 | Hope Creek | 10 3 1903 |
| 244-W | Sun Tan Kee | 2 | Gang Forward Creek | 23 6 1904 |
| 335-W | Yee Gee | 1 | Wynifera River | 18 5 1905 |
| 451-W | Pioneer Ext. T.S.Co N.L. | 8 | Do | 2 11 1905 |
| 488-W | Do | 12 | Wynifera River | 6 1 1906 |
| 532-W | Hen Kee | 4 | Do | 23 3 1906 |
| 728-W | Whitmore W. | 2 | Do | 28 1 1907 |
| 921-W | Ah Hop | 2 | Sir Garnet Creek | 5 8 1908 |
| 957-W | Garibaldi T.M.Co N.L. | 14 | Cottons Creek | 11 12 1908 |
| 970-W | White E. | 2 | Seven Mile Creek | 10 2 1909 |
| 971-W | Do | 1 | Do | 10 2 1909 |
| 1003-W | Allen C. | 1 | Button Grass Flat | 10 7 1909 |
| 1025-W | Hodgman G & Clark J.M. | 5 | Blue River | 18 9 1909 |
| 1023-W | Chapman E & Dunn J. | 3 | Wynifera River | 27 9 1909 |

The Manager

Pioneer Company,

Bradshaws Creek.

Wyniford River (continued).

| | | | | |
|---|---|---|---|---|
| 319-93W | Sam How | 1 | sluice-head | 21st March, 1899. |
| 320-93W. | Too On | 2 | do. | 23rd March, 1899. |
| 7W | Derry Tin Mg.Co. | 10 | do. | 9th October, 1882 |
| 38W. | Poineer Tin Mg.Co. | 4 | do. | 15th September,1882 |
| 53-1697 | Kent Proprietary | 10 | do. | 22nd August, 1883. |
| 6-87W | Pioneer Tin Mg.Co. | 8 | do. | 8th June, 1887. |
| 170-93W. | Australian T.M.Co. | 6 | do. | 14th March, 1899. |
| 287-93W. | W.G.Pilbeam | 5 | do. | 25th January, 1899 |

Bradshaws Creek.

| | | | | |
|---|---|---|---|---|
| 151-87W | Pioneer Tin Mg.Co. | 2 | sluice-heads | 5th April, 1888. |
| 8. | do. | 4 | do. | 1st June, 1881. |

831105

# List of water Rights held on the Weld River and tributaries.

| No | Name | No of Sls Hds | Source | Date of priority | | |
|---|---|---|---|---|---|---|
| 145W | Moorina Tin Mines Ltd | 2 | Weld River | 25 | 4 | 1885 |
| 155W | Do | 1 | Trib. do | 25 | 6 | 1885 |
| 221W | J.A.Thomson | 3 | Weld River | 24 | 9 | 1886 |
| 261W | Moorina Tin Mines Ltd | 2 | Weld River | 16 | 3 | 1887 |
| 266W | Do | 6 | Do | 14 | 4 | 1887 |
| 19-87W | J.A.Thomson | 10 | Do | 11 | 8 | 1887 |
| 56-87W | Moorina Tin MinesLtd | 1 | Tribs Do | 3 | 12 | 1887 |
| 106-87W | J.A.Thomson | 3 | Weld River | 27 | 1 | 1888 |
| 167-93W | Pioneer Tin Mng Co Ltd | 10 | Do | 15 | 3 | 1897 |
| 321-93W | Kelly and Eyres | 2 | Do | 24 | 3 | 1899 |
| 388-93W | Moorina Tin Mines Ltd | 5 | Do | 1 | 8 | 1899 |
| 462-93W | Pioneer Tin Mng Co Ltd | 5 | Do | 20 | 12 | 1899 |
| 618-93W | J.A.Thomson | 10 | Do | 20 | 2 | 1901 |
| 65-W | Gee Sue | 3 | Chid Creek | 20 | 4 | 1902 |
| 158-W | Ah Fat | 1 | Weld River | 5 | 8 | 1903 |
| 315-W | Kelly and Eyres | 2 | Do | 6 | 3 | 1905 |
| 407-W | Fancy Creek Tin S.S.N.L. | 7 | Trib. Do | 21 | 8 | 1905 |
| 412-W | Do (Shift of intake) | 6 | Weld River & tribs | 23 | 11 | 1886 |
| | | 7 | Do | 16 | 8 | 1900 |
| 439-W | J.A.Thomson | 1 | P.B.Creek | 29 | 9 | 1905 |
| 581-3W & 84-W | Nobes,McKibbin & Russell | 3 | Trib Weld River | 22 | 7 | 1900 |
| 391-W | A.Sawyer (Shift of intake | 5 | P.B.Creek | 24 | 12 | 1887 |
| | | 2 | | 23 | 11 | 1901 |
| 434-W | Nobes,McKibbin & Russell | 5 | Gorge Creek | 18 | 9 | 1905 |
| 448-W | Do | 2 | Do | 3 | 10 | 1905 |
| 590-W | P.R.Eyres | 2 | Little Rio Grande Ck | 28 | 6 | 1906 |
| 677-W | G.Chin Tock | 2 | Ferny Creek | 14 | 11 | 1906 |
| 841-W | Fancy Creek T.S.S.N.L. | 16 | Tribs Weld River | 7 | 10 | 1907 |
| 863-W | Moorina Tin Mines Ltd (Shift of Intake) | 2 | Weld River | 6 | 5 | 1903 |
| 889-W | J.Eddy | 1 | E branch Black Jack Ck | 23 | 3 | 1908 |
| 897-W | W.H.Miller | 1 | Ferny Creek | 9 | 4 | 1908 |
| 902-W | Fancy Creek T.S.S.N.L. (Shift of intake) | 5 | Rio Grande Creek | 21 | 8 | 1905 |
| 914-W | W.Dickinson | 1 | Little Do | 21 | 6 | 1905 |
| 927-W | P.Hassett | 2 | Rio Grande Creek | 26 | 8 | 1908 |
| 933-W | Fancy Creek T.S.S.N.L. | 4 | Do | 30 | 9 | 1908 |
| 1000-W | Do | 4 | Do | 23 | 6 | 1909. |

C.G.Ryan Esq,
Manager Pioneer T.M.Co.

831106

THE PIONEER TIN MINING COMPANY LIMITED.

BRADSHAWS CREEK.

TASMANIA.

APRIL 8th. 1912.

SPECIFICATION OF WORK FOR CONSTRUCTION OF WATER RACE FOR THE ABOVE COMPANY, FROM POINT NEAR OLD RUBY FLAT WORKINGS TO THE 1MILE 57 CHAIN PEG.

1

These specifications extend from level peg marked 0 chains. at a point on short race crossing main road to St. Helens above old Ruby Flat workings to peg marked 1 M. 57 Ch.

Total length included in this contract is 1 mile 57 chains.

The approximate ~~lengths~~ quantities to be excavated and built are

3400 cu. yds.

Fluming approximately

4 chains.

These quantities are not guaranteed as correct and are simply for the guidance of contractors.

All fluming is to be erected after all cutting is finished as it may be found suitable to replace such fluming by building.This decision is to be left to the companys Engineer.

51 feet approximately of fluming and trestling will be necessary between pegs marked 12 & 13 chains.

The boundaries of this contract are determined by the pegs or marks on the ground,irrespective of any differences of measurement that may or may not be found in construction of race.

2

CLEARINGFOR CUTTING,BUILDING AND FLUMING.

All logs ,rubbish and growth of every description to be removed for the full width of excavation or building or fluming.

Any trees on direct line of race must be either grubbed or felled clear of race,or race cut round the tpp side.

All trees along course of race for a width of 4 feet on lower side to be felled,width to be measured from edge of channel,and in case of buildings from the outside edge of building.

Any logs on upper side of race in danger of slipping or rolling down hill to be made secure to the satisfaction of the companys Engineer.

In case of flumings, all scrub for a width of 12feet on either side to be cleared and burned.

3

CUTTINGS.

Race to be cut to the full depth of 2 feet vertical below level peg, except in cases where extra cutting is necessary,when the ex extra depth is marked on picket at side of peg; to be 3 feet clea width at the bottom,with a batter of 3 ins. to 1 footon both sides Lower edge of race to be 6 ins. inside level pegs,which are to be left standing.

831108

Spoil bank to start 1 foot from edge on lower side and to have batter of ~~2~~ 1 1/2 to 1.

All roots in sides and bottom of races to be cut out to a depth of 1 foot and holes filled in with well rammed earth; any other holes or cavities in sides and bottom to be filled in the same way.

Wherever sharp bends occur the race must be cut to as great a radius as the bend will allow.

When boulders ~~stumps~~ crop up in the race they must be removed or the race carried round them.

The following list gives extr a depth and pegs at which extra depth of cutting is required.

| Peg. | extra depth. |
|---|---|
| 6 1/2 ch. | 5 1/2" |
| 7 " | 9" |
| 18 " | 1' 5" |
| 18 1/2 " | 1' 10" |
| 19 | 2' 6 1/2" |
| 19 1/2 " | 1' 11" |
| 20 " | 1' 5" |
| 20 1/2 " | 9 1/2" |
| 29 " | 5 1/2" |
| 29 1/2 | 1' 4" |
| 36 | 7 4/5" |
| 36 1/2 " | 1' 11 1/2" |
| 37 | 2' 5 2/5" |
| 37 1/2 | 1' 7 4/5" |

831109

| | | |
|---|---|---|
| 38 ch. | 1' | 0" |
| 38 1/2 | | 5 3/4" |
| 55 | 2' | 0" |
| 56 1/2 | 1' | 8" |
| 57 | 2' | 1 1/3" |
| 57 1/2 | 1' | 0" |
| 58 | 1' | 5 3/4" |
| 58 1/2 | | 8" |
| 72 1/2 | 1' | 0 2/3" |
| 73 | 1' | 5 1/4" |
| 73 1/2 | 2' | 3 1/2" |
| 77 | 1' | 1 1/3" |
| 81 | | 5 1/2" |
| 81 1/2 | 1' | 7 1/4" |
| 90 1/2 | | 6 1/3" |
| 91 | | |
| 91 | | 9 1/2" |
| 94 1/2 | 2' | 6 1/2" |
| 95 | 1' | 11 3/4" |
| 95 1/2 | 1' | 1 1/3" |
| 104 1/2 | | 5" |
| 111 | | 8 3/4" |
| 120 1/2 | | 8 4/5" |
| 121 | 1' | 74/5" |
| 133 1/2 | | 1 1/2" |
| 134 | | 81/2" |

CUTTING AND BUILDING.

When the race cannot be cut to the full depth owing to the existance of solid rock, the race will be partly cut and partly built. In such case contractor shall remove all surface soil until solid compact earth is reached before starting log walling, so that the foundation of latter may rest on a firm foundation.

Where building is necessary no timber of less than 6 ins. diameter small end must be used in its construction and must not be of wattle or pear wood.

The width of building must not be less than 2ft. 6ins. on top and the spaces between logs must be filled with soil and well rammed.

Logs used for building must be firmly attached to those supporting them and must be built up with a batter of 4ins. to the footing on the outside, the inside wall to have a batter of 1 1/2 to 1, an inside wall of logs will not be necessary except in those places where sharp turns in the building are unavoidable.

Keys used in the building must be of split timber and must not project within 6ins. of the inside of the race. Ground to be built over must be first clear ed of scrub, loose stones, and logs, and out-side logs must rest on a solid foundation. Where building require filling in to form the bottom of race the filling must be of soil well rammed.

6

APPROACHES TO FLUMING.

The race to be flumed across all creeks crossing the line, except where specified to the contrary.

Approaches to and exits from flumings are to be constructed as shown in detail sections. All spaces between boarding and sides o of cutting to be filled with well rammed earth. the floor of cuttin g on which tapered portion of flume rests must be of well rammed earth, and the joints made as shown in detail section.
Nailing to agree with specification of fluming. At the approaches a and exits the sides of the race must be tri mmed to make a neat joint with the boarding.

6

FLUMING.

The diminsions of the flumes are width 3 ft. and depth 2 ft. 4 1/2 ins. clear inside dimensions the bottom being composed of three 12ins.x1 1/2 ins. by 12 ft. boards; and the sides by two 12 ins. x 1 1/2 ins.)x 12 ft. boards and one 6 ins. x 11/2 ins x 12 ft. board.

All sawn timber to be of Stringy Bark when procurable in the vicinity. Round, split, or hewn timber may be of ~~&~~ Peppermint, Stringy Bark or other timber approved of by the companys Engineer no Wattle or Sassafras to be used. No heartwood shall be used for sawn timber, which must be free from knots, gum veins, shakes, and other defects and must be cut on the quarter, and to the approval of the companys Engineer.

The framing to consist of sawn sets, spaced 4 ftl centres and buil as shown in detailed sketch, of 6 ins. x 4 ins. sleepers, 4 ins. x 3 ins. posts. Each post to be nailed on three sides with three 4 ins. nails to the sleeper, as shown, and ~~supported by two 3 ins~~

also secured by a 4 ins. x 1 1/2 ins. batten nailed with three 3 ins. nails to sleeper, as shown, and supported by two 3 ins x 1 ins. struts (one on each side),nailed with three 2 1/2 ins. at each end to post and sleeper.

The side boards are to be nailed to the edge of bottom boards with 3 ins. nails spaced 6 ins., the bottom boards to be nailed to sleepers with three 3 ins. nails in each board to each sleeper and the side boards to posts with three 3 ins. nails in each board to each post.

The battens over joints of sides and bottom to be nailed with 2 ins. nails spaced 6 ins.

The trestling for fluming to be spaced not more than 12 ft. centres and to have their cap pieces blind mortised or notched to fit legs. All timber used for trestles or stringers to be not less than 6 ins. diameter small end. Gum, Iron Bark, or Stringy Bark must be used.

Stringers must be properly secured to cap pieces and must be overlap each end and not be butted.

Where trestles legs are set on side of rock they must be secured to prevent slipping and when they rest on soil, bottom sills must be put in.

All round timber must be barked.

51 ft approximately of fluming and trestling will be necessary between pegs marked 12 and 13 chains.

831113

MAINTENANCE.

Contractor must maintain race for one month at his own expense after the water has been turned through it.

TIME.

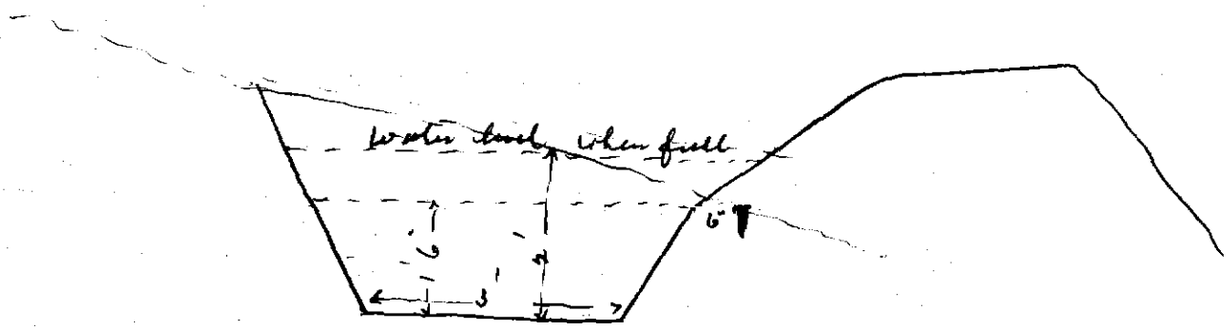
Contractor must distinctly state time in which he will complete the work.

TOOLS AND MATERIALS.

Contractor to find necessary tools and materials.

831114

Cross section of Mt Cameron Race




Race per chain .06 or 1 — 1100.

See. for Miners Hand on Copies of Races Specifications.
Take Campbell Smith round works. + deeply Specifications.
See Dayton re Compensation.

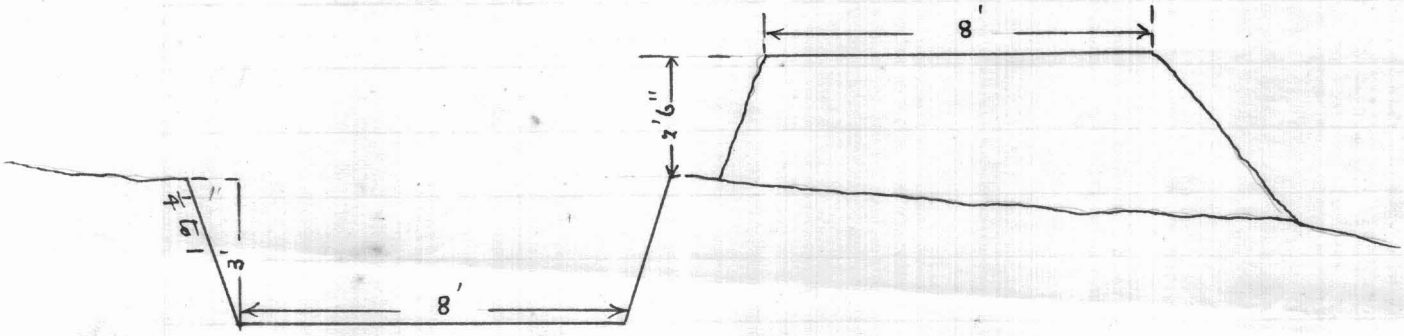
.06 50/0 1/4

8311115

# The Pioneer Tin Mining Company Limited.

Bradshaw's Creek, 191
TASMANIA. 7th March 1

SPECIFICATION OF WORK FOR CONSTRUCTION OF FLOOD RACE FROM BRADSHAWS CREEK TO RACECOURSE CREEK.




Race to be cut to a depth of 3 ft below pegs, in the solid, and lower bank to be built up to a height of 5 ft 6 inches above the botton of Race.

The spoil bank on lower side to be not less than 8 ft wide on top, and 10 ft wide on top where race crosses swamp and Bradshaws Ck:. A width of 12 inches to be left between lower side of race and foot of spoil bank.

All logs, rubbish, and growth to be cleared off lower side of race and surface of ground chipped for the width of base of spoil bank to ensure a good bond.

831116

# The Pioneer Tin Mining Company Limited.

Bradshaw's Creek, 7th March 1911

TASMANIA.

SPECIFICATION OF WORK FOR CONSTRUCTION OF FLOOD RACE FROM BRADSHAWS CREEK TO RACECOURSE CREEK.

Race to be cut to a depth of 3 ft below pegs, in the solid, and lower bank to be built up to a height of 5 ft 6 inches above the bottom of Race.

The spoil bank on lower side to be not less than 8 ft wide on top, and 10 ft wide on top where race crosses swamp and Bradshaws Ck:.

A width of 12 inches to be left between lower side of race and foot of spoil bank.

All logs, rubbish, and growth to be cleared off lower side of race and surface of ground chipped for the width of base of spoil bank to ensure a good bond.

831117

# The Pioneer Tin Mining Company Limited.

Bradshaw's Creek, 7th March 1911

TASMANIA.

SPECIFICATION OF WORK FOR CONSTRUCTION OF FLOOD RACE FROM BRADSHAWS CREEK TO RACECOURSE CREEK.

Race to be cut to a depth of 3 ft below pegs, in the solid, and lower bank to be built up to a height of 5 ft 6 inches above the bottom of Race.

The spoil bank on lower side to be not less than 8 ft wide on top, and 10 ft wide on top where race crosses swamp and Bradshaws Ck:.

A width of 12 inches to be left between lower side of race and foot of spoil bank.

All logs, rubbish, and growth to be cleared off lower side of race and surface of ground chipped for the width of base of spoil bank to ensure a good bond.

831118

# The Pioneer Tin Mining Company Limited.

Bradshaw's Creek, 7th March 191

TASMANIA.

SPECIFICATION OF WORK FOR CONSTRUCTION OF FLOOD RACE FROM BRADSHAWS CREEK TO RACECOURSE CREEK.

Race to be cut to a depth of 3 ft below pegs, in the solid, and lower bank to be built up to a height of 5 ft 6 inches above the bottom of Race.

The spoil bank on lower side to be not less than 8 ft wide on top, and 10 ft wide on top where race crosses swamp and Bradshaws Ck:.

A width of 12 inches to be left between lower side of race and foot of spoil bank.

All logs, rubbish, and growth to be cleared off lower side of race and surface of ground chipped for the width of base of spoil bank to ensure a good bond.

# The Pioneer Tin Mining Company Limited. 831119

Bradshaw's Creek, 7th March 1911
TASMANIA.

SPECIFICATION OF WORK FOR CONSTRUCTION OF FLOOD RACE FROM BRADSHAWS CREEK TO RACECOURSE CREEK.

Race to be cut to a depth of 3 ft below pegs, in the solid, and lower bank to be built up to a height of 5 ft 6 inches above the bottom of Race.

The spoil bank on lower side to be not less than 8 ft wide on top, and 10 ft wide on top where race crosses swamp and Bradshaws Ck:.

A width of 12 inches to be left between lower side of race and foot of spoil bank.

All logs, rubbish, and growth to be cleared off lower side of race and surface of ground chipped for the width of base of spoil bank to ensure a good bond.

# Prospecting on Shields & Horan Option near Gladstone

| Date | Depth | Cub. C | Lin. | Strata | ft | in |
|---|---|---|---|---|---|---|
| | | No. 1. | Edge | Old Face on Terrace | | |
| Nov 1st | 0 to 9 | 5-½/10 | | Surface sand | 2 | 0 |
| | | | | Brown Cement ~~Hard~~ | 3 | 0 |
| | | | | Sof. Fine sand | 4 | 0 |
| | | | | Soft Granite | 9 | 0 |
| | | No. 2. | | 100 ft - North of No 1 | | |
| Nov 1st | 0 to 4 | 6/10 | | Surface sand | 2 | 0 |
| | | | | Brown Cement | 1 | 0 |
| | | | | Fine Sand | 1 | 0 |
| | | | | | 4 | 0 |
| | | No 3 | | 100 ft N of No 2 | | |
| Nov 1st | 0 to 3.6" | 4½/10 | | Surface Sand | 2 | 0 |
| | | | | Sof. Brown Cement | 1 | 6 |
| | | | | | 3 | 6 |
| | | No 4 | | 100 ft N of No 3 | | |
| Nov 1st | 0 to 5' | 6/10 | | Tailings | 2 | 0 |
| | | | | Surface Sand | 1 | 6 |
| | | | | Clayey Wash | 1 | 6 |
| | | | | | 5 | 0 |
| | | No 5 | | 100 ft N of No 4 | | |
| Nov 1st | 0 to 1.6" | 2/10 | | Surface Sand | 0 | 6 |
| | | | | White Cement | 1 | 0 |
| | | | | | 1 | 6 |

831120

Prospecting on Shields + Harlin Upton near Gladstone

No 6. 100 ft. N of No 5

| Date | Depth | Cubic | Lin | Strata | ft | in |
|---|---|---|---|---|---|---|
| Nov 1st | 0 to 2. 6" | 3½/10 | | Surface Sand | 1 | 6 |
| | | | | Yellow clay | 1 | 0 |
| | | | | | 2 | 6 |
| | | No? | 7 & 8 | South of No 1 Old worked ground | | |
| Nov 1st | | No | 9 | 30 ft. South of No 1 | | |
| | 0 to 4 | 5/10 | | Surface Sand | 1 | 6 |
| | | | | Hard cement | 1 | 6 |
| | | | | Soft clay | 1 | 0 |
| | | | | | 4 | 0 |
| | | No | 10 | 100 ft. S of No 9 | | |
| Nov 2nd | 0 to 4. 3" | 6/10 | | Surface Sand | 1 | 0 |
| | | | | Hard brown cement | 1 | 0 |
| | | | | clay little wash | 2 | 3 |
| | | | | | 4 | 3 |
| | | No | 11 | 100 ft S of No 10 | | |
| Nov 2nd | 0 to 4 | 3¼/10 | | Surface Sand | 1 | 0 |
| | | | | Hard cement | 2 | 0 |
| | | | | Yellow clay | 1 | 0 |
| | | | | | 4 | 0 |

All samples very poor

831121