

1963/165

COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT
BUREAU OF MINERAL RESOURCES
GEOLOGY AND GEOPHYSICS

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COMPILATION AND REVIEW OF THE GEOPHYSICS OF THE

BONAPARTE GULF BASIN

by

A.L. BIGG-WITHER

1963/165

Vol. 1 Part 2

(Appendices to accompany Vol. 1, Part 2 of Text)

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BUREAU OF MINERAL RESOURCES,
GEOLOGY AND GEOPHYSICS

B.M.R. SURVEY JULY 1956

APPENDIX 'A' PAGES 1 - 4

GRAVITY FIELD SHEETS FROM B.M.R. FILE NO. 56041

BUREAU OF MINERAL RESOURCES GRAVITY SURVEYArea: Bonaparte Gulf. Traverse:- Carlton HillInstrument: Heiland:53 Scale/Factor: 0.08706Date 19th July 1956Field Sheet No.8005

	Station	Time	Reading	Remarks
Base	G 1	1036	79.0	+510
	G 2	1052	77.3	+510
	G 3	1110	49.4	+510
	G 4	1123	5.3	+510
Base	G 1	1154	79.9	+510
	G 4	1248	5.4	+510
	G 5	13.08	435.3	
	G 6	1325	312.7	
	G 7	1340	283.4	
	G 8	1356	265.9	
	G 4	1445	9.1	+510 (Excessive drift reading repeated on 20th July 1956)
	G 5	1500	435.5	
	G 6	1520	314.5	
	G 7	1534	284.6	
	G 8	1550	266.9	

Date 19th July 1956Field Sheet No.8006

Base	G 1	1036	79.0	+510
	G 2	1052	77.3	+510
	G 3	1110	49.4	+510
	G 4	1123	5.3	+510
Base	G 1	1154	79.9	+510
	G 4	1248	5.4	+510

Date 20th July 1956Field Sheet No.8006

	G4	0742	13.6	+510
	G 5	0806	440.2	
	G 6	0827	317.4	
	G 7	0846	287.4	
	G 4	0930	11.4	+510
	G 7	1002	286.4	
	G 8	1029	268.3	
	G 9	1045	247.5	
	G10	1102	308.8	
	G 7	1130	285.3	
	G10	1211	308.8	
Base	G10	1321	308.4	

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY

Area: Bonaparte Gulf. Traverse: Carlton Hill - West Australian Border
Instrument: Heiland: 53 Scale/Factor: 0.08706

Field Sheet No. 8006Date 20th July 1956

Station	Time	Reading	Remarks
G11	1348	327.6	
G12	1404	341.9	
G13	1419	354.6	
G10	1450	309.1	
Base G13	1527	354.3	
G14	1554	367.8	
G15	1610	376.2	
G16	1629	385.4	

Field Sheet No. 8007

G13	1658	354.6
G16	1732	385.5

Field Sheet No. 8007Date 21st July 1956

G16	0809	388.0
G17	0832	370.0
G18	0853	345.1
G19	0906	342.0
G16	0936	386.4
G19	1011	341.4
G20	1035	355.1
G21	1103	362.3
G19	1128	340.6
G21	1215	361.9
55M.N.	1249	361.2
G21	1303	362.0

Field Sheet No. 8008Date 23rd July 1956

G1	1015	86.0
Wyndham	{ 1157	56.2
	{ 1203	56.1
G1	1339	84.5

BUREAU OF MINERAL RESOURCES GRAVITY SURVEYArea: Carlton Hills S.P. No.1 to 53Field Sheet No.: 8009

S.P.1 = 978385.51 milligals

Instrument: Heiland 53Scale valve 0.08706

Station	Time	Reading	<u>Date</u> 25th July 1956
Base No.1 not marked	0845	225.9	
S.P.3	0858	211.8	
S.P.5	0906	196.0	
S.P.7	0914	185.2	
S.P.8	0922	182.7	
Base No.1	0940	225.7	
8	0958	182.2	
9	1009	161.7	
11	1021	151.1	
13	1030	155.0	
15	1040	132.6	
17	1051	106.3	
8	1116	181.4	
Base 17	1141	105.8	
19	1154	70.0	
21	1203	60.5	
23	1212	59.1	
25	1220	52.5	
Base 17	1241	105.9	
Base 25	1347	51.7	
27	1353	64.5	
29	1404	61.0	
31	1412	60.7	
33	1421	67.6	
35	1429	74.4	
37	1440	76.5	
Base 25	1510	53.4	
<u>Field Sheet No.:</u> 8010			<u>Date</u> 25th July 1956
Base 37	1540	77.1	
39	1552	82.1	
41	1601	76.7	
43	1612	83.1	
Base 37	1629	77.7	

BUREAU OF MINERAL RESOURCES GRAVITY SURVEYField Sheet No.: 8010

Station	Time	Reading	<u>Date</u> 25th July 1956
Base 43	1651	84.2	
45	1701	80.3	
47	1710	82.6	
49	1717	85.4	
51	1726	83.1	
53	1737	80.2	
43	1804	85.5	

Field Sheet No.: 8010Date 26th July 1956

S.P.1	0928	226.8
G 8	1052	270.4
S.P.1	1204	224.5

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS

Place of Operations: BONAPARTE GULF
CARLTON - NINBING

Computation Sheets from B.M.R. File No. 56042

B.M.R. SURVEY JULY 1956

by

G.F. Clarke

APPENDIX 'B' PAGES 1 - 4

SEISMIC TRAVERSE GRAVITY SURVEY SP1 to SP53

Sta.	Obs. Gravity (SP1=0) (mgals)	Elevation (SP1=0) (feet)	Combined Elev. Corr. (= 2.5)	Lat. Corr. (mgals)	Reduced Value (mgals)
SP 1	0	0	0	0	0
3	-1.23	3.64	+0.23	+0.27	-0.73
5	-2.59	18.57	1.15	0.54	-0.90
7	-3.53	25.24	1.57	0.81	-1.15
8	-3.75	24.14	1.50	0.94	-1.31
9	-5.44	45.20	2.81	1.07	-1.56
11	-6.44	47.54	2.96	1.34	-2.14
13	-6.09	40.24	2.50	1.61	-1.98
15	-8.04	68.78	4.28	1.88	-1.88
17	-10.32	97.56	6.07	2.15	-2.10
19	-13.43	136.21	8.46	2.35	-2.62
21	-14.26	139.21	8.65	2.48	-3.13
23	-14.38	138.69	8.61	2.61	-3.16
25	-14.97	138.77	8.62	2.75	-3.60
27	-13.86	111.10	6.91	2.88	-4.07
29	-14.18	106.96	6.64	3.01	-4.53
31	-14.23	96.12	5.98	3.14	-5.11
33	-13.64	76.38	4.75	3.28	-5.61
35	-13.07	61.10	3.79	3.41	-5.87
37	-12.90	45.93	2.85	3.54	-6.51
39	-12.48	29.73	1.85	3.67	-6.96
41	-12.96	23.11	1.44	3.80	-7.72
43	-12.41	6.91	0.43	3.94	-8.04
45	-12.77	0.45	0.03	4.07	-8.67
47	-12.58	-11.21	-0.70	4.20	-9.08
49	-12.35	-22.25	-1.38	4.33	-9.40
51	-12.56	-30.17	-1.87	4.47	-9.96
53	-12.83	-38.37	-2.38	4.60	-10.61

CARLTON HILLS - W.A. BORDER GRAVITY SURVEY LATITUDE CORRECTION

Station	Latitude	(?) m/gals	Corrn. m/gals	Relative to
				Wyndham Pend. Stn. Observed Gravity 978417.9 mgals.
G1	15°29'	978,416.092	0	
2	15°29'	416.092	0	
3	15°29'	416.092	0	
4	15°28'	415.321	+0.77	
5	15°27'	414.551	+1.54	
6	15°26'	413.782	+2.31	
7	15°24'	412.246	+3.85	
8	15°24'	412.246	+3.85	
9	15°23'	411.479	+4.61	
10	15°23'	411.479	+4.61	
11	15°22'	410.712	+5.38	
12	15°23'	411.479	+4.61	
13	15°23'	411.479	+4.61	
14	15°23'	411.479	+4.61	
15	15°24'	412.246	+3.85	
16	15°24'	412.246	+3.85	
17	15°24'	412.246	+3.85	
18	15°24'	412.246	+3.85	
19	15°23'	411.479	+4.61	
20	15°23'	411.479	+4.61	
21	15°24'	412.246	+3.85	
AAO 55	15°24'	412.246	+3.85	

OBSERVED GRAVITY VALUES - CARLTON HILLS - W.A. BORDER GRAVITY SURVEYWYNDHAM PENDULUM STATION - 9784154 gals

Station	Gravity Values (gals)
G 1	978.4179
2	.4178
3	.4153
4	.4115
5	.4042
6	.3936
7	.3910
8	.3895
9	.3877
10	.3930
11	.3947
12	.3959
13	.3970
14	.3982
15	.3989
16	.3997
17	.3982
18	.3960
19	.3958
20	.3970
21	.3976
AA055	.3976

CARLTON HILLS - W.A. GRAVITY SURVEY

Stn.	Obs. Gravity ($G_1=0$) (mgals)	Elevation ($G_1=0$) (feet)	Combined ($=2.5$) (mgals)	Lat. Corr'n. (mgals)	Reduced (mgals)
G1	0	0	0	0	0
2	-0.17	+10.5	+0.65	0	+0.48
3	-2.61	36.4	2.26	0	-0.35
4	-6.46	82.3	5.12	+0.77	-0.57
5	-13.69	169.3	10.53	1.54	-1.62
6	-24.35	247.9	15.40	2.31	-6.64
7	-26.90	185.5	11.54	3.85	-11.51
8	-28.46	167.0	10.38	3.85	+14.23
9	-30.24	145.2	9.02	4.61	-16.61
10	-24.88	101.6	6.31	4.61	-13.96
11	-23.24	80.7	5.02	5.38	-12.84
12	-22.00	67.2	4.18	4.61	-13.21
13	-20.92	56.7	3.53	4.61	-12.78
14	-19.73	47.5	2.97	4.61	-12.15
15	-19.01	46.7	2.91	3.85	-12.25
16	-18.21	42.0	2.61	3.85	-11.75
17	-19.74	35.8	2.22	3.85	-13.67
18	-21.88	39.0	2.43	3.85	-15.60
19	-22.14	37.7	2.34	4.61	-15.19
20	-20.93	42.0	2.61	4.61	-13.71
21	-20.27	27.9	1.74	3.85	-14.68
AA055	-20.34	26.7	1.66	3.85	-14.83

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS

APPENDIX 'C' PAGES 1 - 8

B.M.R. JULY 1956 SURVEY

(BAROMETRIC FIELD SHEETS)

and

CALCULATION SHEET FROM B.M.R. FILE NO. 56041

BUREAU OF MINERAL RESOURCESSURVEY (BAROMETRIC) JULY 1956

G.F. Clarke

Date 20th July 1956Base Barometer No. 531308Field Sheet No. 8103

Station	Time	Reading	Temp. °C	Wet °F	Dry °F
G10	1320	212.5	33.6	77.7	88.8
	1335	211.2	33.6	77.0	92.1
	1340	211.3	33.8	75.7	91.0
	1345	211.1	33.8	75.5	91.0
	1350	210.7	33.8	75.0	90.5
	1355	210.0	34.0	76.1	91.7
	1400	210.0	33.8	76.2	92.0
	1405	210.8	34.0	76.7	92.5
	1410	209.8	34.0	77.3	93.7
	1415	210.0	34.0	78.0	94.6
	1420	209.9	33.8	77.0	93.0
	1425	209.5	34.0	78.0	94.0
	1430	209.3	33.9	77.6	94.5
	1435	209.8	33.8	76.5	93.5
	1440	210.0	33.7	76.4	92.6
	1449	210.6	33.7	77.9	95.0

Field Sheet No. 8104

G13	1525	227.3	34.4	79.0	96.0
	1550	229.0	34.4	76.9	91.1
	1555	229.1	34.4	77.4	91.5
	1600	229.0	34.0	77.6	92.0
	1605	229.3	34.0	76.8	91.6
	1610	229.3	33.8	76.5	90.7
	1615	229.7	33.5	76.7	89.5
	1620	230.0	33.4	76.9	88.4
	1625	230.6	33.2	77.0	88.0
	1630	230.6	33.2	77.0	87.3
	1635	231.0	33.0	76.3	86.7
	1640	231.5	32.8	76.3	85.9
	1645	232.0	32.3	76.2	85.3
	1650	232.5	32.3	75.0	84.0
	1655	232.9	32.2	74.8	85.0

2.

Traverse Barometer No.: 531333 Range: 15

Date 20th July 1956

Field Sheet No. 8011

Station	Time	Reading	Temp °C
G10	1320	178.9	32.7
G11	1340	183.7	33.2

Field Sheet No. 8012

G12	1400	186.1	33.3
G13	1415	189.1	33.6
G10	1449	177.3	33.8
G13	1525	194.0	33.4
G14	1550	198.8	33.4
G15	1605	199.5	34.5
G16	1625	202.5	34.5
G13	1655	201.3	34.6

BUREAU OF MINERAL RESOURCESDate 21st July 1956Base Barometer 531308Field Sheet No. 8104

Station	Time	Reading	Temp °C	Wet °F	Dry °F
G16	0801	270.8	22.1	64.3	79.0
	0825	273.8	23.2	63.3	79.0
	0830	274.0	23.6	64.0	80.5
	0835	274.0	23.8	64.4	80.5
	0840	274.5	24.2	64.5	81.3
	0845	274.1	24.5	65.0	82.0
	0850	274.0	24.8	65.0	81.3
	0855	274.0	25.1	64.7	82.0
	0900	273.8	25.3	64.7	81.3
	0905	273.6	25.5	64.4	81.2
	0910	273.3	25.7	64.3	81.3
	0915	273.3	26.0	64.0	81.5
	0920	273.3	26.1	64.1	81.3
	0925	272.9	26.2	65.0	82.0
	0930	273.3	26.4	65.0	82.3

Field Sheet No. 8105

G19	1008	271.3	27.1	66.0	83.8
	1030	268.0	27.8	66.5	85.8
	1035	267.6	28.0	66.6	85.8
	1040	267.5	28.3	66.7	86.0
	1045	266.2	28.6	67.3	86.5
	1050	265.9	28.5	67.0	86.0
	1055	264.8	28.5	67.7	88.0
	1100	263.9	28.7	67.3	88.0
	1105	263.5	29.0	67.0	86.5
	1110	263.0	29.2	67.0	86.7
	1115	262.0	29.4	67.7	87.7
	1120	262.7	29.6	67.7	88.0
	1125	261.8	29.4	68.0	87.6

Field Sheet No. 8104Date 21st July 1956Base Microbarometer 531308 Range 15

G 21	1215	255.5	30.6	68.5	88.8
	1240	252.0	31.0	69.8	91.0
	1245	251.5	31.3	69.0	90.3
	1250	251.4	31.3	69.3	89.3
	13.00	250.1	31.5	69.8	90.5

BUREAU OF MINERAL RESOURCESDate 21st July 1956Traverso Microbarometer No. 531333 Range 15Field Sheet No. 8012

Station	Time	Reading	Temp. °C
G 16	0801	244.0	22.4
G 17	0825	249.0	23.2
G 18	0845	248.0	23.7
G 19	0900	248.0	24.3
G 16	0930	246.3	25.2
G 19	1008	244.8	26.3
G 20	1040	239.8	27.3
G 21	1100	240.1	27.8
G 19	1125	235.0	28.6
G 21	1215	228.8	29.5
AAO 55	1245	225.0	30.5
G 21	1300	223.3	30.6

BUREAU OF MINERAL RESOURCESDate 23rd July 1956Base Microbarometer No.

531308

Field Sheet No. 8106

Station	Time	Reading	Temp. °C	Wet °F	Dry °F
G 1	1454	259.0	33.2	69.5	88.0
	1505	259.4	32.3	69.5	88.0
	1510	259.2	32.2	69.5	88.2
	1515	259.2	32.2	69.5	88.1
	1520	254.5	32.1	69.5	88.0
	1525	259.4	32.0	69.9	87.5
	1530	259.7	31.9	69.2	86.5
	1535	260.2	31.9	71.0	87.9
	1540	260.5	31.8	70.2	88.5
	1545	260.9	31.9	69.5	87.5
	1550	261.2	31.9	69.6	88.0
	1554	261.3	31.8	69.5	87.5

Traverse Microbarometer No. 531333Field Sheet No. 8013Date 23rd July 1956

Station	Time	Reading	Temp. °C
G 1	1454	230.2	26.7
G 2	1505	228.1	27.0
G 3	1515	220.7	27.4
G 4	1530	208.6	28.2
G 1	1554	233.5	28.2

BUREAU OF MINERAL RESOURCESDate 28th July 1956Base Microbarometer No. 531333 Range 15Field Sheet No. 8108

Station	Time	Reading	Temp. °C	Wet °F	Dry °F
G 7	0712	211.3	18.2	54.5	69.6
	0720	212.6	18.3	54.3	70.0
	0725	213.2	18.6	54.1	70.0
	0730	213.5	18.6	54.5	70.6
	0735	214.0	18.8	54.6	71.1
	0740	214.3	19.0	55.2	71.0
	0745	215.0	19.3	55.0	71.8
	0750	215.8	19.5	55.7	72.1
	0755	216.3	19.7	56.0	72.0
	0805	216.5	20.0	51.5 Dry	73.8 Wet
	0815	216.2	20.8	74.7	56.9
	0820	216.1	21.0	74.7	57.1
	0825	215.9	21.1	75.9	57.2
	0830	215.9	21.4	76.0	57.3
	0835	215.8	21.7	76.8	58.0
	0840	215.7	21.9	77.0	58.2
	0845	216.1	22.2	77.4	58.4
	0850	215.8	22.4	78.5	58.4
	0855	215.7	22.7	78.2	58.8
	0900	215.7	22.9	78.8	58.5
	0905	215.1	23.3	79.0	59.0
	0911	215.3	23.5	80.0	59.0

Field Sheet No. 8017

28th July 1956

Traverse

Microbarometer 531308

Station	Time	Reading	Temp. °C	Wet °F
G 7	0712	231.0	17.3	
G 8	0725	238.0	17.7	
G 9	0735	245.0	18.2	
G10	0745	258.2	18.6	
G 7	0805	235.8	19.6	
G 7	0805	235.8	19.6	
G 6	0820	217.5	20.4	
G 5	0830	239.5	21.0	
G 4	0840	263.7	21.5	
G 7	0905	233.9	22.7	

BAROMETRIC RESULTS CARLTON HILLS - W.A. BORDER GRAVITY SURVEY

Station (531308)	Time	Read.	Height (feet)	Inst. Temp. °C	Corr. (ft)	Corr. Height (feet)	Station (531333)	Time	Read.	Height (feet)	Inst. Temp. °C	Corr. feet	Corr. Height (feet)	Diff. & Drift corr. ft	Final Corr. Height (ft)	Interval between Stations	Wet Bulb °C	Dry Bulb °C	% error	Corr. Interval beteen stations (feet)	Stn.	Elevation Above G1 i.e. G1=0 feet	
G1	1454	259.0	952.0	33.2	+14.0	966.0	G1	1454	230.2	956.6	26.7	+7.5	964.1	+1.9	966.0	0							
	1505	259.4	950.6	32.3	+13.0	963.6	2	1505	228.1	963.7	27.0	+7.9	971.6	+1.9	973.5	+ 9.9	G2-G1=19.9	20.8	31.1	+6.3	10.5	G1	0
	1515	259.2	951.3	32.2	+12.9	964.2	3	1515	220.7	988.4	27.4	+8.1	996.5	+1.9	988.4	+34.2	G3-G2=24.3	20.8	31.4	6.4	25.9	G2	+10.5
	1530	259.7	949.6	31.9	+12.8	962.4	4	1530	208.6	1029.0	28.2	+9.0	1038.0	+1.9	1039.9	+77.5	G4-G3=43.3	20.6	30.3	6.0	45.9	G3	36.4
	1554	261.3	944.2	31.8	+12.7	956.9	G1	1554	233.5	945.6	28.2	+9.4	955.0	+1.9	956.9	0						G4	82.3
(531333)							(531308)														G5	169.3	
G7	0805	216.5	1002.5	20.0	0	1002.5	G7	0805	235.8	1031.3	19.6	-0.3	1031.0	-28.5	1002.5	0						G6	247.9
	0820	216.1	1003.9	21.0	+1.1	1005.0	6	0820	217.5	1094.0	20.4	+0.3	1094.3	-29.0	1065.3	+60.3	G5-G4=83.7	14.6	25.0	3.9	87.0	G7	185.5
	0830	215.9	1004.5	21.4	+1.5	1006.0	5	0830	239.5	1018.7	21.0	+1.0	1019.7	-29.2	990.5	-15.5	G6-G5=75.8	14.1	24.4	3.6	78.6	G8	167.0
	0840	215.7	1005.2	21.9	+2.0	1007.2	4	0840	263.7	935.9	21.5	+1.5	937.4	-29.4	908.0	-99.2	G6-G7=60.3	23.7	13.9	3.4	62.4	G9	145.2
	0905	215.1	1007.2	23.3	+3.6	1010.2	G7	0905	233.9	1037.7	22.7	+2.6	1040.3	-30.1	1070.2	0						G10	101.6
(531333)							(531308)														G11	80.7	
G7	0712	211.3	1020.0	18.2	-2.0	1018.0	G7	0712	231.0	1047.6	17.3	-3.0	1044.6	-26.6	1018.0	0						G12	67.2
	0725	213.2	1013.6	18.6	-1.5	1012.1	8	0725	238.0	1023.8	17.7	-2.5	1021.3	-27.3	994.0	-18.1	G7-G8=18.1	12.3	21.1	2.5	18.5	G13	56.7
	0735	214.0	1010.9	18.8	-1.2	1009.7	9	0735	245.0	1000.0	18.2	-2.0	998.0	-27.6	970.4	-39.3	G8-G9=21.2	12.6	21.6	2.6	21.8	G14	47.5
	0745	215.0	1007.5	19.3	-0.7	1006.8	10	0745	258.2	954.7	18.6	-1.5	953.2	-28.0	925.2	-81.6	G9-G10=42.3	12.8	21.1	2.8	43.6	G15	46.7
	0805	216.5	1002.5	20.0	0	1002.5	G7	0805	235.8	1031.3	19.6	-0.3	1031.0	-28.5	1002.5	0						G16	42.0
(531308)							(531333)														G17	35.8	
G10	1320	212.5	1111.2	33.6	+13.8	1125.0	G10	1320	178.9	1128.5	32.7	+13.2	1141.7	-16.7	1125.0	0						G18	39.0
	1340	211.3	1115.3	33.8	+13.9	1129.2	11	1340	183.7	1112.4	33.2	+14.0	1126.4	-16.7	1109.7	-19.5	G10-G11=19.5	24.3	32.8	7.2	20.9	G19	37.7
	1400	210.0	1119.8	33.8	+13.9	1133.7	12	1400	186.1	1104.3	33.3	+14.0	1118.3	-16.7	1101.6	-32.1	G11-G12=12.6	24.6	33.3	7.4	13.5	G20	42.0
	1415	210.0	1119.8	34.0	+14.0	1133.8	13	1415	189.1	1094.2	33.6	+14.5	1108.7	-16.7	1092.0	-41.8	G12-G13=9.7	25.6	34.8	8.0	10.5	G21	27.9
	1449	210.6	1117.8	33.7	+13.8	1131.6	G10	1449	177.3	1133.9	33.8	+14.4	1148.3	-16.7	1131.6	0						AA055	26.7
(531308)							(531333)																
G13	1525	227.3	1060.2	34.4	+14.8	1075.0	G13	1525	194.0	1077.9	33.4	+14.3	1092.2	-17.2	1075.0	0							
	1550	229.0	1054.4	34.4	+14.9	1069.3	14	1550	198.8	1062.0	34.4	+15.5	1077.5	-16.8	1060.7	-8.6	G13-G14=8.6	25.0	32.9	7.3	9.2		
	1605	229.3	1053.4	34.0	+14.5	1067.9	15	1605	199.5	1059.6	34.5	+15.7	1075.3	-16.7	1058.6	-9.3	G14-G15=0.7	24.9	33.1	7.3	0.8		
	1625	230.6	1049.0	33.2	+13.7	1062.7	16	1625	202.5	1049.5	34.5	+15.9	1065.4	-16.4	1049.0	-13.7	G15-G16=4.4	25.0	31.1	6.7	4.7		
	1655	232.9	1041.1	32.2	+12.5	1053.6	G13	1655	201.3	1053.6	34.6	+15.9	1069.5	-15.9	1053.6	0							
(531308)							(531333)																
G16	0801	270.8	911.7	22.1	+2.2	913.9	G16	0801	244.0	910.5	22.4	+2.8	913.3	+0.6	913.9	0							
	0825	273.8	901.5	23.2	+3.2	904.7	17	0825	249.0	893.7	23.2	+3.9	897.6	+1.1	898.7	-6.0	G16-G17=6.0	17.4	26.1	4.4	6.2		
	0845	274.1	900.4	24.5	+4.9	905.3	18	0845	248.0	897.1	23.7	+4.1	901.2	+1.1	902.3	-3.0	G18-G17=3.0	18.4	27.8	5.1	3.2		
	0900	273.8	901.5	25.3	+5.9	907.4	19	0900	248.0	897.1	24.3	+5.0	902.1	+1.2	903.2	-4.2	G18-G19=1.2	18.2	27.4	4.9	1.3		
	0930	273.3	903.2	26.4	+6.9	910.1	G16	0930	246.3	902.8	25.2	+6.0	908.8	+1.3	910.1	0							

(531308)						(531333)											
G19	1008	271.3	910.0	27.1	+7.7	917.7	G19	1008	244.8	907.8	26.3	+7.1	914.9	+2.8	917.7	0	
	1040	267.5	922.9	28.3	+7.9	930.8	20	1040	239.8	924.6	27.3	+8.2	932.8	+2.1	934.9	+4.1	G20-G19=4.1 19.3 30.5 5.8 4.3
	1100	263.9	935.2	28.7	+8.0	943.2	21	1100	240.1	923.6	27.8	+8.9	932.5	+1.5	934.0	-9.2	G20-G21=13.3 19.6 31.1 6.2 14.1
	1125	261.8	942.5	29.4	+9.0	951.5	G19	1125	235.0	940.6	28.6	+9.8	950.4	+1.1	951.5	0	
(531308)																	
G21	1215	255.5	964.0	30.6	+11.1	975.1	G21	1215	288.8	961.3	29.5	+10.5	971.8	+3.3	975.1	0	
	1245	251.5	977.7	31.3	+11.9	989.6	AA055	1245	225.0	974.0	30.5	+11.5	985.5	+3.0	988.5	-1.1	G21-AA055=1.1 20.6 32.4 6.7 1.2
	1300	250.1	982.5	31.5	+12.0	994.5	G21	1300	223.3	979.7	30.6	+11.9	991.6	+2.9	994.5	0	

BUREAU OF MINERAL RESOURCES SURVEYJULY 1956Barometric levels

Elevations: I With respect to station G 1 = 0 feet.

II With respect to 126.7* feet (ground level at Minad/A.A.O. 55 M.N. post.

III With respect to a height of 101.48 feet at the bench mark near Kimberley Research Station thought to be with respect to mean Low Water Wyndham**.

IV Elevations adjusted by -25.1 ft to bring them to Low Water Mark, Wyndham.

STATION	I Elevation	II Elevation	III Elevation	IV Elevation
G 1	0	100	21.4	-3.7
G 2	+10.5	110.5	31.9	+6.5
G 3	+36.4	136.4	57.8	+32.7
G 4	+82.3	182.3	103.7	+78.6
G 5	+169.3	269.3	190.7	+165.6
G 6	+247.9	347.9	269.3	+244.2
G 7	+185.5	285.5	206.9	+181.8
G 8	+167.0	267.0	188.4	+163.3
G 9	+145.2	245.2	166.6	+141.5
G10	+101.6	201.6	123.0	+97.9
G11	+80.7	80.7	102.1	+77.0
G12	+67.2	167.2	88.6	+63.5
G13	+56.7	156.7	78.1	+53.0
G14	+47.5	147.5	68.9	+43.8
G15	+46.7	146.7	68.1	+43.0
G16	+42.0	142.0	63.4	+38.3
G17	+35.8	135.8	57.2	+32.1
G18	+39.0	139.0	60.4	+35.3
G19	+37.7	137.7	59.1	+34.0
G20	+42.0	142.0	63.4	+38.3
G21	+27.9	127.9	49.3	+24.2
A.A.O 55 M.N.+26.7		126.7 feet	48.1	+23.0

* The height of 126.7 feet (ground level) for 55 M.N. was obtained by a tie between 60 M.N. and 55 M.N. posts of the Border Survey by Minad during the Keep River Survey, 1955 and is with respect to an assumed height of 200 feet at 60 M.N. post as datum.

** A recent survey has shown by a tie between P.W.D. bench mark A.R.38 and S.P.1 on traverse 'A' Ninbing that 101.48 feet taken as the height of the bench mark near Kimberley Research Station is 25.1 feet too low (see page).

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS

B.M.R. SURVEY SEPTEMBER - OCTOBER 1956

APPENDIX 'A' PAGES 1 - 9

GRAVITY FIELD SHEETS FROM

B.M.R. FILE NO. 56041

No. 8020.

Area, Bonaparte Gulf. Traverse, Spirit Hill
Seismic. Inst. H.53. Obs. PMS
Scale: Value 0.08706
Date, 1-10-56.

Stn.	Time	Tripod Ht.	Reading	Remarks
SP320	0923	1.8	332.3	
Border Post 50MN	0936	-0.8 (Ht. to top of post)	331.6	ground level Very rough black soil plain
SP319	0950	2.0	326.6	
SP320	1000	1.9	332.6	
SP321	1009	2.0	335.1	
SP322	1021	2.1	342.4	
SP323	1029	2.0	352.8	
SP324	1039	1.9	366.3	
SP320	1057	1.9	332.9	
SP324	1115	1.9	367.1	
SP325	1127	2.0	378.5	
SP326	1137	2.0	384.3	

No. 8021.Date, 1-10-56.

SP327	1148	1.9	389.1	Height to ground level.
SP328	1156	2.3	378.6	Close to steep hill.
SP324	1220	2.0	367.4	
SP319	1341	2.1	326.8	
SP318	1351	2.1	319.0	
SP317	1401	2.2	312.7	
SP316	1415	1.8	315.3	Near Keep River Crossing
SP315	1429	2.0	312.0	
SP319	1451	2.0	327.1	
SP315	1514	2.1	312.0	
SP314	1525	2.0	302.7	
SP313	1534	2.0	303.9	
SP312	1543	2.0	305.5	

No. 8022.Date, 1-10-56.

SP311	1551	2.0	309.6	
SP310	1558	1.8	309.8	
SP315	1612	2.0	312.2	

<u>No. 8023.</u>				<u>Date, 2-10-56.</u>
Stn.	Time	Tripod Ht.	Reading	Remarks
SP310	0821	2.0	308.9	Better ground from 311 on.
SP309	0830	2.1	312.7	
SP308	0837	1.8	314.3	
SP307	0845	1.8	312.3	
SP306	0852	1.7	304.8	
SP305	0900	1.5	304.9	
SP310	0912	2.0	308.7	
SP305	0923	1.5	304.3	
SP304	0929	1.8	303.0	
SP303	0935	1.6	304.5	
SP301	0949	1.5	310.1	Ht. to top of Survey Peg.
SP302	0957	2.0	311.0	
SP305	1006	1.5	303.9	

<u>No. 8024.</u>				<u>Date, 2-10-56.</u>
SP301	1017	1.5	310.2	Ht. to top of Survey Peg.
SP329	1029	2.0	314.7	
SP330	1036	2.1	308.7	
SP331	1042	2.0	304.1	
SP332	1050	1.9	299.3	
SP333	1056	2.0	291.0	
SP334	1103	2.1	282.8	
SP335	1110	1.8	274.2	
SP336	1118	2.0	258.5	
SP301	1135	1.5	309.3	
SP336	1307	2.0	259.3	
SP337	1315	2.2	247.0	
SP338	1322	2.1	241.8	

<u>No. 8025.</u>				<u>Date, 2-10-56.</u>
SP339	1331	2.2	228.8	
SP340	1338	2.3	217.0	
SP341	1345	2.2	214.8	
SP342	1351	2.2	213.5	
SP343	1359	2.0	219.2	
SP336	1414	2.0	260.3	
SP343	1427	2.0	219.2	
SP344	1434	2.1	246.3	
SP345	1441	1.9	259.9	
SP346	1448	2.0	283.3	Near small cliff. Small Terr. Corr.
SP347	1455	2.0	329.6	
SP348	1501	1.7	366.8	
SP349	1509	2.0	376.5	

<u>No. 8026.</u>				<u>Date, 2-10-56.</u>
Stn.	Time	Tripod Ht.	Reading	Remarks.
SP350	1517	1.9	380.0	
SP351	1521	2.2	374.9	Foot of steep
SP343	1536	2.0	221.0	large hill.

<u>No. 8027.</u>				
Traverse, Milligan's Lagoon 'C' Seismic.				<u>Date, 3-10-56.</u>

SP416	0748	2.0	293.2	Ht. to ground
SP417	0758	2.1	297.5	level. Very
SP418	0808	2.2	299.1	rough ground.
SP419	0818	2.2	300.3	Sml. hill at 416
SP420	0828	2.1	300.7	
SP421	0837	2.2	299.9	
SP416	0903	2.0	291.8	
SP422	0943	2.2	298.8	
SP423	0953	2.0	300.8	
SP424	1001	2.0	302.6	
SP425	1010	2.3	305.6	
SP426	1016	1.7	308.2	
SP427	1023	1.5	307.9	
SP422	1040	2.2	298.0	

<u>No. 8028.</u>				<u>Date, 3-10-56.</u>
SP406	1318	2.0	270.5	
SP405	1327	2.0	269.9	
SP404	1333	2.1	270.2	
SP403	1338	2.0	270.3	
SP402	1344	2.0	270.0	
SP401	1353	2.1	271.8	
SP406	1407	2.0	271.4	
SP406	1413	2.0	271.3	
SP407	1419	2.2	270.6	
SP408	1425	2.3	265.5	
SP409	1432	2.2	267.1	
SP410	1442	2.1	265.8	
SP406	1456	2.0	271.9	

<u>No. 8029.</u>				<u>Date, 3-10-56.</u>
37MN	1503	0.1	269.4	Ht. to top of
NT/WA				Border Peg.
SP406	1508	2.0	271.5	Ht. to ground
SP410	1522	2.1	265.6	Very rough from
SP411	1531	2.2	267.5	408 to 415.
SP412	1538	2.3	270.6	
SP413	1545	2.2	266.7	
SP414	1551	2.3	268.2	
SP415	1559	2.3	265.0	
SP410	1620	2.0	267.4	

No. 8030.Date, 4-10-56.

Traverse, Martin's Gap. (Branch)

Stn.	Time	Tripod Ht.	Reading	Remarks.
SP311	0903	2.3	309.6	Ht. to ground level.
M1A	0918	2.3	314.6	
M2A	0932	2.3	306.3	
SP311	0957	2.3	308.2	
M2A	1014	2.3	305.9	
M3A	1028	2.2	297.3	
M4	1038	2.3	295.7	
M2A	1052	2.3	304.9	

No. 8031.Date, 4-10-56.

Traverse, Tie "B".

M6	1318	1.4	283.5	Ht. to Bm.
SP456	1330	2.2	279.1	Ht. to ground
B2	1343	1.8	277.2	Ht. to Bm.
M6	1400	1.4	284.0	"
B2	1424	1.8	278.4	" 170.8
B1	1436	1.7	272.8	" 173.2
SP406	1452	2.1	272.0	(ground)
B2	1520	1.8	279.2	(Bm.)

No. 8032.Date, 5-10-56.

Traverse, Martin's Gap.

SP335	0956	2.0	276.2	Ht. to ground
M1	1010	1.8	220.8	Ht. to Bm.
M2	1024	1.8	257.8	"
SP335	1046	2.0	275.0	
M2	1114	1.8	256.5	"
M3	1127	2.2	281.4	Sml. Terr. Corr.
M4	1144	1.3	294.3	
M2	1208	1.8	257.1	

Date, 4-10-56.

M6	1537	1.4	287.0
M5	1551	1.5	296.1
M4	1559	1.3	297.9
M6	1615	1.4	287.8

No. 8033.Date, 5-10-56.

M6	1339	1.5	284.5	Bm.
M7	1354	1.4	294.8	"
M8	1419	1.7	297.9	"
M6	1442	1.4	285.3	
M8	1503	1.6	299.9	
M9	1517	1.7	355.7	"
M10	1541	1.5	403.9	"
M8	1606	1.6	300.0	

No. 8034. Date, 8
 Traverse, Milligan's Lagoon Seismic "C"

Stn.	Time	Tripod Ht.	Reading	Remarks.
M5	0737	1.5	298.4	Bm.
SP416	0746	2.0	294.0	Ground
M5	0753	1.5	298.3	Bm.
SP427	0944	1.8	308.8	Ground
SP428	0952	1.9	310.3	"
SP429	0959	2.0	310.0	"
SP430	1005	2.0	299.7	"
SP431	1011	2.0	304.3	Short Foot
SP427	1022	1.9	309.1	of cliff. T.C.

No. 8035. Date, 8-10-56.
 Traverse, Milligan's Lagoon, Seismic "D"

M3	0818	1.8	285.6
SP461	0828	2.2	300.7
SP460	0836	2.2	308.1
SP459	0842	2.3	315.1
SP458	0849	2.0	317.6
SP442	0854	2.0	317.9
SP432	0900	2.0	317.2
SP433	0909	1.9	317.0
M3	0923	1.8	284.7
SP423	1034	2.1	301.8
SP436	1040	2.0	304.1
SP435	1048	2.2	306.6
SP434	1055	2.1	309.5

<u>No. 8036.</u>			<u>Date, 8-10-56.</u>
SP433	1104	2.0	313.0
SP423	1123	2.1	299.8

No. 8037. Date, 8-10-56.
 Traverse, Milligan's Lagoon, Seismic "E"

SP456	1302	2.0	278.6	Very rough black soil plain
SP457	1313	1.8	282.3	
(-1 Geophone interval)				
SP456	1321	2.0	278.7	
SP455	1329	2.0	277.7	
SP454	1336	2.0	278.9	
SP453	1344	2.0	281.8	
SP446	1353	2.2	286.1	
SP456	1410	2.0	279.5	
SP446	1428	2.2	286.9	
SP452	1437	2.0	290.6	
SP451	1446	2.2	297.5	
SP450	1456	2.0	299.0	
SP449	1506	2.0	300.6	

No. 8038.Date, 8-10-56.

Traverse, Milligan's Lagoon, Seismic "E" & "D"

Stn.	Time	Tripod Ht.	Reading	Remarks
SP448	1514	2.0	295.0	Short leg. On bank of Keep R. Small T.C.
SP446	1540	2.2	289.1	
SP445	1550	2.0	291.2	
SP444	1558	2.0	292.0	
SP443	1606	2.1	293.5	
SP441	1615	2.0	296.4	
SP446	1634	2.2	291.0	
SP447	1642	2.0	289.4	
SP446	1649	2.2	291.6	

No. 8036Date, 9-10-56.

Traverse, Milligan's Lagoon, Seismic "D"

SP423	0821	2.1	306.2
SP437	0830	2.0	303.8
SP423	0850	2.1	305.5

No. 8039.Date, 12-10-56.

Traverse, Ninbing Seismic.

SP1	1206	2.0	196.8	Long detour between 65 & 67
SP55	1215	2.0	223.0	
SP57	1225	2.0	238.7	
SP59	1234	2.2	251.1	
SP1	1248	2.0	197.1	
SP59	1304	2.2	251.3	
SP61	1313	2.1	268.5	
SP63	1324	2.0	264.6	
SP65	1333	2.0	252.0	
SP67	1351	2.0	246.2	
SP59	1421	2.2	250.2	

No. 8040.Date, 12-10-56.

SP67	1554	2.0	246.2
SP69	1602	2.0	246.4
SP71	1609	2.2	243.5
SP73	1617	2.0	251.6
SP75	1626	2.0	253.1
SP67	1645	2.0	246.4

No. 8041.Date, 13-10-56.

Stn.	Time	Tripod Ht.	Reading	Remarks.
SP165	1003	2.0	62.2	
SP163	1013	2.0	51.5	
SP159	1018	2.0	14.2	
SP161	1027	2.0	29.0	
SP165	1047	2.0	(61.8 524.8)	
SP159	1101	2.0	14.8	
SP157	1111	2.1	34.0	Latirite outcrops
SP155	1121	2.1	63.3	
SP153	1130	2.0	69.2	
SP151	1139	1.9	62.6	
SP137	1149	1.9	55.4	Numbering of SPs. is 137-138-157-158
SP159	1207	2.0	14.3	Secussively.

No. 8042.Date, 13-10-56.

SP137	1341	1.8	54.5
SP135	1349	1.8	53.4
SP133	1357	2.0	45.1
SP131	1405	2.1	45.0
SP52	1414	2.0	47.6
SP53	1421	2.1	48.1
SP137	1437	1.8	55.7

No. 8043.Date, 14-10-56.

SP75	0926	2.0	250.7	Rough black soil
SP77	0936	2.0	251.2	
SP79	0944	2.0	246.8	
SP81	0952	1.8	253.0	
SP83	1000	2.0	266.2	
SP85	1007	2.1	272.2	
SP75	1029	2.0	250.6	
SP85	1053	2.1	272.9	
SP87	1102	2.2	276.5	
SP89	1109	2.0	275.0	
SP91	1117	1.8	272.4	
SP93	1124	2.0	276.1	
SP95	1132	2.0	269.0	
SP85	1150	2.1	272.2	

No. 8044.Date, 16-10-56.

Traverse, Carlton-Ivanhoe

Stn.	Time	Tripod Ht.	Reading	Remarks
35M	0805		113.1	
39M	0816		125.9	
43M	0828		112.0	
47M	0841		64.6	Button's Gap
35M	0903		112.3	Small Terr. Corr.
47M	0926		64.6	
47M	0926		574.6	
51M	0938		461.7	
55M	0951		586.7	
P2	1012		(76.7)	
			(534.2)	
			(24.2)	
47M	1034		573.4	
			(63.4)	

All readings taken at mile posts on Highway except 55m (not marked) and P₂ (Point Sprint traverse)

Traverse, Ninbing Gravity.

Date, 17-10-56

G8	0914	277.2	Terr. Corr. cliff
N1	0928	283.7	and creek
N2	0942	323.9	
G8	0959	276.2	
N2	1016	321.6	
N3	1031	293.0	
SP75	1044	286.9	
N2	1104	321.0	

No. 8046.Date, 17-10-56.

Traverse, Carlton.

G1	1557	86.0
G31	1608	92.3
G32	1618	89.5
G1	1635	86.4

Date, 18-10-56.

G32	0812	91.7	
G33	0825	99.8	
G34	0834	100.0	Near Ord River.
G32	0852	91.7	V. Small Terr. Corr.
G34	0907	100.2	
35M	0919	104.3	
G34	0930	98.8	

No. 8047Date, 19-10-56.Traverse, Point Spring.

Stn.	Time	Tripod Ht.	Reading	Remarks
55M	0834		71.5	Terr. Corr.
P1	0839	2.0	33.0	Small Terr. Corr.
P2	0848	1.0	18.5	
55M	0856		71.9	
P2	0904	1.0	528.4	
P3	0913	2.1	492.0	
P4	0922	1.9	496.6	
P2	0934	1.0	528.2	
P4	1006	1.9	496.6	
P5	1018	1.8	502.2	
P6	1028	1.8	487.6	
P4	1044	1.9	495.5	

No. 8115.Date, 19-10-56.Traverse, Martin's Gap.

M10	1140	1.8	433.8	
M11	1158	2.4	420.7	Terr. Corr.
M12	1214	2.2	479.6	
M10	1239	1.8	433.6	
M12	1358	2.2	479.9	
M13	1411	2.2	473.6	
P6	1424	2.0	486.8	
M12	1443	2.2	480.7	

No. 8116Date, 26-10-56.Traverse, Point Spring.

P6	0833	2.0	492.1	
P7	0847	1.7	467.8	Terr. Corr.
P8	0856	1.7	463.7	" "
P6	0911	2.0	491.2	
P8	0926	1.7	463.6	
P9	0935	1.7	474.7	Small Terr. Corr.
P10	0945	1.6	480.3	
P11	0958	1.5	481.4	
P8	1016	1.7	463.1	
P11	1034	1.5	480.6	
P12	1044	2.1	471.3	
P13	1056	2.2	460.0	
P11	1112	1.5	480.1	

No. 8117Date, 26-10-56.

P13	1128	2.2	460.7	
P14	1141	2.1	437.2	
P15	1153	1.4	391.2	
G18	1208	2.0	347.5	
P13	1238	2.2	460.3	

BUREAU OF MINERAL RESOURCES,
GEOLOGY AND GEOPHYSICS

APPENDIX 'B' PART I, PAGES 1-6

Place of Operations: BONAPARTE GULF
CARLTON - NINBING

Computation Sheets from B.M.R. File No. 56042 in Gravity Section

B.M.R. SURVEY SEPTEMBER-OCTOBER, 1956

by

P.M. Stott

GRAVITY SURVEY

Stn.	Elev.*	Obs. Gravity	Normal Gravity	Free Air Correctn.	Free Air Anomaly	Bouguer Correctn.	Bouguer Anomaly
SP 1	194.7	978385.58	978406.65	+18.31	-2.76	-5.20	-7.96
3	198.2	4.35	6.39	18.64	-3.40	-5.30	-8.70
5	213.1	2.99	6.13	20.03	-3.11	-5.70	-8.81
7	219.8	2.05	5.87	20.68	-3.14	-5.88	-9.02
8	218.7	1.83	5.74	20.58	-3.33	-5.84	-9.17
9	239.8	0.14	5.61	22.56	-2.91	-6.41	-9.32
11	242.1	379.14	5.35	22.79	-3.42	-6.47	-9.89
13	234.8	9.49	5.09	22.08	-3.52	-6.28	-9.80
15	263.3	7.54	4.83	24.77	-2.52	-7.04	-9.56
17	292.1	5.26	4.58	27.48	-1.84	-7.81	-9.65
19	330.8	2.15	4.39	31.14	-1.10	-8.84	-9.94
21	333.8	1.32	4.27	31.40	-1.55	-8.93	-10.48
23	333.3	1.20	4.14	31.36	-1.58	-8.92	-10.50
25	333.3	0.61	4.02	31.36	-2.05	-8.92	-10.97
27	305.7	1.72	3.89	28.76	-3.41	-8.18	-11.59
29	301.5	1.40	3.77	28.35	-4.02	-8.07	-12.09
31	290.7	1.35	3.64	27.33	-4.96	-7.79	-12.75
33	270.9	1.94	3.52	25.49	-6.09	-7.26	-13.35
35	255.7	2.51	3.39	24.06	-6.82	-6.84	-13.66
37	240.5	2.68	3.27	22.64	-7.95	-6.43	-14.38
39	224.3	3.10	3.14	21.12	-8.92	-6.00	-14.92
41	217.7	2.62	3.02	20.48	-9.92	-5.82	-15.74
43	201.5	3.17	2.89	18.96	-10.76	-5.38	-16.14
45	195.0	2.81	2.77	18.34	-11.62	-5.22	-16.84
47	183.3	3.00	2.64	17.25	-12.39	-4.90	-17.29
49	172.3	3.23	2.52	16.21	-13.08	-4.61	-17.69
51	164.4	3.02	2.39	15.47	-13.90	-4.40	-18.30
53	156.2	2.75	2.27	14.70	-14.82	-4.18	-19.00

Instrument height 2' above surface

Area: Bonaparte Gulf Traverse: Ninbing Seismic Date of Survey: 25.7.56

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Wyndham Density Factor: 2.1

Map Reference: Cambridge Gulf Date: 6/12/56

* Instrument height 2 ft above surface

GRAVITY SURVEY

Stn.	Elev.	Obs. Gravity	Normal Gravity	Free Air Correctn.	Free Air Anomaly	Bouguer Correctn.	Bouguer Anomaly
35M	26.2	978419.38	978421.53	+2.46	+0.31	-0.70	-0.39
G34	26.1	8.96	1.01	2.46	0.41	-0.70	-0.29
33	27.8	8.94	419.35	2.62	2.21	-0.74	-1.47
32	31.5	8.23	8.68	2.96	2.51	-0.84	1.67
31	21.6	8.48	7.76	2.03	2.75	-0.58	2.17
1	25.2	7.94	6.50	2.37	3.81	-0.67	3.14
2	35.8	7.77	6.31	3.37	4.83	-0.96	3.87
3	62.0	5.32	5.66	5.83	5.49	-1.66	3.83
4	108.4	1.47	5.15	10.20	6.52	-2.90	3.62
5	196.4	404.23	4.55	18.45	8.13	-5.26	2.87
6	275.7	393.56	4.15	25.90	5.31	-7.37	-2.06
7	214.0	0.97	2.74	20.10	-1.67	-5.73	-7.40
8	195.7	389.41	2.16	18.40	-4.35	-5.23	-9.58
9	174.1	7.61	2.05	16.37	-8.07	-4.66	-12.73
10	131.0	392.95	2.18	12.32	-6.91	-3.50	-10.41
11	110.3	4.59	1.86	10.36	-6.91	-2.95	-9.86
12	96.9	5.83	2.32	9.11	-7.38	-2.59	-9.97
13	86.5	6.92	2.32	8.13	-7.27	-2.32	-9.59
14	77.4	8.09	2.10	7.27	-6.74	-2.07	-8.81
15	76.6	8.82	2.22	7.20	-6.20	-2.05	-8.25
16	72.0	9.62	2.18	6.77	-5.79	-1.93	-7.72
17	65.9	8.08	2.32	6.20	-8.04	-1.76	-9.80
18	68.9	5.94	2.18	6.48	-9.76	-1.84	-11.60
19	62.1	5.69	1.67	5.84	-10.14	-1.66	-11.80
20	61.9	6.90	1.48	5.82	-8.76	-1.66	-10.42
21	51.1	7.55	2.05	4.81	-9.69	-1.37	-11.06
55MN 70	56.7	7.48	2.45	5.33	-9.64	-1.52	-11.16

55MN (126.7*
AAO Value

* Level to top of mile post = (approx.) the height of the gravity instrument (2 ft)
= 2 ft $\pm$ above surface.

NOTE: Instrument height 2' above surface.

Area: Bonaparte Gulf Traverse: Carlton Date of Survey: July 1956

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Elev. MLW Wyndham
Grav.P.S. Wyndham

Density Factor: 2.1 Map Reference Cambridge Gulf 4 mile = 1" Date: 4/12/56

GRAVITY SURVEY

Stn.	Elev.	Obs. Gravity	Normal Gravity	Free Air Correctn.	Free Air Anomaly	Bouguer Correctn.	Bouguer Anomaly
35M	27.3	978419.38	978421.53	+2.57	+0.42	-0.73	-0.31
39M	28.0	420.51	1.29	2.63	1.85	-0.75	+1.10
43M	54.3	419.31	0.94	5.11	3.48	-1.45	+2.03
47M	89.1	415.22	2.01	8.38	1.59	-2.38	-0.79
51M	92.1	405.45	3.38	8.66	-9.27	-2.46	-11.73
55M	57.1	416.39	5.65	5.37	-3.89	-1.53	-5.42
P 1	106.2	3.07	5.57	10.00	-2.50	-2.84	-5.36
2	111.0	1.82	6.79	10.44	-4.53	-2.97	-7.50
3	109.8	408.67	5.64	10.33	-6.64	-2.94	-9.58
4	109.7	9.07	4.58	10.32	-5.19	-2.94	-8.13
5	103.4	9.59	3.29	9.74	-3.96	-2.77	-6.73
6	99.9	8.35	2.02	9.39	-4.28	-2.67	-6.95
7	101.1	6.28	0.67	9.50	-4.89	-2.70	-7.59
8	98.6	5.94	419.49	9.26	-4.29	-2.64	-6.93
9	92.8	6.91	8.30	8.74	-2.65	-2.48	-5.13
10	86.3	7.41	7.01	8.12	-1.48	-2.31	-3.79
11	84.1	7.52	6.01	7.92	-0.57	-2.25	-2.82
12	83.2	6.72	5.87	7.83	-1.32	-2.22	-3.54
13	74.2	5.75	4.61	6.98	-1.88	-1.98	-3.86
14	65.1	3.72	3.74	6.13	-3.89	-1.74	-5.63
15	64.1	399.72	2.67	6.03	-6.92	-1.71	-8.63
G18	69.9	5.94	2.18	6.58	-9.66	-1.87	-11.53

NOTE: Instrument height 2' above surface.

Area: Bonaparte Gulf Traverse: Carlton - Ivanhoe Date of Survey: 16.10.56
+ Point Spring 19.10.56
27.10.56

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Elev. MLW Wyndham
Gravity P.S. Wyndham

Density Factor: 2.1 Map Reference: Cambridge Gulf 1"= 1 mile Date: 4.12.56

GRAVITY SURVEY

Stn.	Elev.	Obs. Gravity	Normal Gravity	Free Air Correctn.	Free Air Anomaly	Bouguer Correctn.	Bouguer Anomaly
M6	88.5	978343.64	978421.92	+8.33	-19.95	-2.37	-22.32
7	90.6	4.52	2.86	8.53	-19.81	-2.42	-22.23
8	113.0	4.76	3.02	10.63	-17.63	-3.02	-20.65
9	101.2	9.61	2.29	9.52	-13.16	-2.71	-15.87
10	114.8	403.79	1.89	10.80	- 7.30	-3.07	-10.37
11	169.5	2.66	2.05	15.95	-3.44	-4.53	-7.97
12	104.2	7.80	2.00	9.80	-4.40	-2.79	-7.19
13	101.6	7.23	1.59	9.56	-4.80	-2.72	-7.52
P6	99.9	8.35	2.02	9.40	-4.27	-2.67	-6.94

Area: Bonaparte Gulf Traverse: Martin's Gap Date of Survey: 4.10.56

Meter: Heiland 53 Sensitivity: 0.08706 Datum:

Density Factor: 2.1 Map Reference: Bonaparte Gulf (Traves) 1"= 4 mile

Date: 7.12.56.

GRAVITY SURVEY

Stn.	Elev.	Obs. Gravity	Normal Gravity	Free Air Correctn.	Free Air Anomaly	Bouguer Correctn.	Bouguer Anomaly
SP95	214.5	978392.11	978409.84	+20.20	+2.47	-5.74	-3.27
93	205.4	2.72	9.69	19.30	2.33	-5.50	-3.17
91	198.9	2.39	9.54	18.72	1.57	-5.32	-3.75
89	185.7	2.61	9.38	17.47	0.70	-4.96	-4.26
87	177.1	2.73	9.23	16.67	0.17	-4.74	-4.57
85	176.4	2.41	9.08	16.60	-0.07	-4.72	-4.79
83	179.7	1.89	8.93	16.90	-0.14	-4.81	-4.95
81	187.9	0.74	8.78	17.68	-0.36	-5.02	-5.38
79	191.7	0.19	8.62	18.03	-0.40	-5.13	-5.53
77	181.7	0.57	8.47	17.08	-0.82	-4.86	-5.68
75	179.9	390.53	8.32	16.91	-0.88	-4.81	-5.69
73	178.4	0.40	8.17	16.79	-0.98	-4.77	-5.75
71	189.9	389.69	8.02	17.86	-0.47	-5.08	-5.55
69	180.5	9.95	7.86	16.99	-0.92	-4.83	-5.75
67	176.4	9.93	7.71	16.60	-1.18	-4.72	-5.90
65	174.6	390.40	7.56	16.42	-0.74	-4.67	-5.41
63	170.3	1.49	7.41	16.02	+0.10	-4.56	-4.46
61	172.8	1.81	7.26	16.25	0.80	-4.62	-3.82
59	179.8	0.30	7.10	16.91	0.11	-4.81	-4.70
57	174.9	389.23	6.95	16.45	-1.27	-4.74	-7.01
55	177.1	7.86	6.80	16.67	-2.27	-4.74	-7.01
SP 1	194.7	385.58	6.65	18.31	-2.76	-5.20	-7.96
G8	195.7	978389.41	412.16	18.40	-4.35	-5.23	-9.58
N1		390.00					
N2		3.52					
N3		1.05					
SP75	179.9	0.53	408.32	16.92	-0.87	-4.81	-5.68

Area: Bonaparte Gulf Traverse: Ninbing Seismic Date of Survey: 12.10.56
14.10.56

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Wyndham Density Factor: 2.1

Map Reference: Cambridge Gulf Date: 6/12/56

GRAVITY SURVEY

Stn.	Elev.	Obs. Gravity	Normal Gravity	Free Air Correctn.	Free Air Anomaly	Bouguer Correctn.	Bouguer Anomaly
SP52	161.6	978372.72	978402.33	+15.20	-14.41	-4.32	-18.73
53	156.3	2.75	2.27	14.70	-18.82	-4.18	-19.00
131	153.9	2.51	2.20	14.48	-15.21	-4.11	-19.32
133	146.1	2.53	2.08	13.74	-15.81	-3.91	-19.72
135	130.3	3.27	1.96	12.26	-16.43	-3.48	-19.91
137	118.0	3.38	1.83	11.10	-17.35	-3.15	-20.50
151	111.8	4.00	1.71	10.52	-17.19	-2.99	-20.18
153	93.5	4.57	1.58	8.80	-18.21	-2.50	-20.71
155	88.3	4.06	1.46	8.31	-19.09	-2.36	-21.45
157	119.7	1.50	1.33	11.26	-18.57	-3.20	-21.77
159	133.9	369.82	1.21	12.60	-18.79	-3.58	-22.37
161	108.6	371.11	1.08	10.20	-19.77	-2.90	-22.67
163	73.1	3.06	0.96	6.87	-21.03	-1.96	-22.99
165	54.0	3.98	0.83	5.08	-21.77	-1.44	-23.21

Area: Bonaparte Gulf Traverse: Ninbing Seismic Date of Survey: 13.10.56
 Meter: Heiland 53 Sensitivity: 0.08706 Datum: Wyndham Density Factor: 2.1
 Map Reference: Cambridge Gulf 1" = 4 mile Date: 6.12.56

BUREAU OF MINERAL RESOURCES,

GEOLOGY AND GEOPHYSICS

APPENDIX 'B' PART II, PAGES 1-10

Place of Operations: BONAPARTE GULF

Computation Sheets from File No. 56044 in Gravity Section

(Drift Sheets are also included in this File but are not presented here).

B.M.R. SURVEYS JULY, SEPTEMBER-OCTOBER, 1956

by

G.F. Clarke and P.M. Stott

GRAVITY SURVEY

Stn.	Latitude	Elevation	Observed Gravity	Normal Gravity	Free Air	
					Bouguer Correctn.	Bouguer Anomaly
			978	978	0.067	
					+	
M55)	15°28'46"	<u>126.7</u>	417.98	415.90	+8.49	<u>+10.57</u>
M50)	5 miles	<u>129.4</u>	417.94	419.26	+8.67	<u>+7.35</u>

Underlined data from Mines Administration.

For final calculations data from Lands & Survey (Perth i.e. elevations and maps has not been received.

Final data (Schedule of levels of Seismic Survey of the Ninbing area) received from Chief Property Officer, Department of Interior, W.A. on 17.4.58.

See File 56046

B.C. Barlow 5.8.58

GRAVITY SURVEY

Stn.	Lat.	Long.	Elev. LWM	Obs. Grav.	Normal Gravity	Free Air Corr. 0.09406	Free Air Anom.	Boug. Corr. 0.02680	Boug. Anom.
Wyndham P. Stn.		MSL 19+11.5=	30.5	970 415.9	978 417.2	+2.87		-0.82	+0.75
G1	15°29.3		23.2	418.44	416.32	+2.18	+4.30	-0.62	+3.68
G2	29.4		33.8	418.27	416.40	3.18	5.05	-0.91	4.14
G3	28.5		60.0	415.81	415.71	5.64	5.74	-1.61	4.13
G4	27.8		106.4	411.95	415.17	10.01	-6.79	-2.85	3.94
G5	26.9		194.4	404.71	414.47	18.29	8.53	-5.21	3.32
G6	26.0		273.7	394.00	413.78	25.74	5.96	-7.34	-1.38
G7	24.4		212.0	391.41	412.56	19.94	-1.21	-5.68	-6.89
G8	23.4		193.7	389.86	411.79	18.22	-3.71	-5.19	-8.90
G9	22.8		172.1	388.07	411.33	16.19	-7.07	-4.61	-11.68
G10	23.0		129.0	393.41	411.48	12.13	-5.94	-3.46	-9.40
G11	22.4	Barometer Levels	108.3	395.06	411.02	10.19	-5.77	-2.90	-8.67
G12	22.8		94.9	396.30	411.33	8.93	-6.10	-2.54	-8.64
G13	23.1		84.5	397.39	411.56	7.95	-6.22	-2.26	-8.48
G14	23.0		75.4	398.56	411.48	7.09	-5.83	-2.02	-7.85
G15	23.3		74.6	399.29	411.71	7.02	-5.40	-2.00	-7.40
G16	23.8		70.0	400.08	412.10	6.58	-5.44	-1.88	-7.32
G17	23.9		63.9	398.55	412.17	6.01	-7.61	-1.71	-9.32
G18	24.1		66.9	396.41	412.33	6.29	-9.63	-1.79	-11.42
G19	23.2		60.1	396.17	411.63	5.65	-9.81	-1.61	-11.42
G20	22.9		59.9	397.39	411.41	5.63	-8.39	-1.61	-10.00
G21	24.0		49.1	398.03	412.25	4.62	-9.60	-1.32	-10.92
55MN	24.3	Tie to Mines Adm.	54.7*	397.96	412.48	5.15	-9.37	-1.47	-10.84
G31	15°30.9		20.8	418.98	417.56	1.96	+3.38	-0.56	+2.82
G32	32.2		30.6	418.73	418.57	2.88	3.04	-0.82	2.22
G33	33.6		26.9	419.44	419.65	2.53	2.32	-0.72	1.60
G34	35.0		25.2	419.46	420.73	2.37	1.10	-0.68	0.42
35M	35.6		25.3	419.83	421.20	2.38	1.01	-0.68	0.33
39M	35.5		26.0	420.96	421.12	2.45	2.29	-0.70	1.59
43M	35.3		52.3	419.76	420.96	4.92	3.72	-1.40	2.32

Area: Bonaparte Gulf Traverse:

Date of Survey: 1956

Meter: Heiland 53 Sensitivity: 0.08706 Datum Wyndham P. Stn. Density Factor: 2.1

* Mines Administration height ref. to M.L.W. Wyndham (surface) 48.1 ft.

Geophysical Section, Bureau of Mineral Resource, Geology and Geophysics.

GRAVITY SURVEY

STN.	LAT.	LONG.	ELEV.	OBS. GRAV.	NORM. GRAV.	FREE AIR CORR.	FREE AIR ANOM.	BOUG. CORR.	TERR. CORR.	BOUG. ANOM.
47M	15° 36.2'		87.1	970415.66	978421.67	+ 8.19	+2.18	-2.33		-0.15
51M	38.0'		90.1	405.87	423.06	8.47	-8.72	-2.41		-11.13
55M	41.2'		55.1	416.83	425.56	5.18	-3.55	-1.48		-5.03
P1	40.9'		101.2	413.55	425.33	9.80	-1.98	-2.79		-4.77
P2	42.5'		110.0	412.30	426.57	10.35	-3.92	-2.95		-6.87
P3	41.5'		107.7	409.15	425.79	10.13	-6.51	-2.89		-9.40
P4	40.0'		107.8	409.55	424.62	10.14	-4.93	-2.89		-7.82
P5	38.0'		101.6	410.06	423.06	9.56	-3.44	-2.72		-6.16
P6	36.3'		96.4	408.82	421.74	9.07	-3.85	-2.58		-6.43
P7	34.1'		96.4	406.74	420.04	9.07	-4.23	-2.58		-6.81
P8	32.5'		94.2	406.40	418.80	8.86	-3.54	-2.52		-6.06
P9	31.2'		88.8	407.38	417.80	8.35	-2.07	-2.38		-4.45
P10	30.1'		82.8	407.88	416.94	7.79	-1.27	-2.22		-3.49
P11	28.9		81.0	407.98	416.01	7.62	-0.41	-2.17		-2.58
P12	28.6		79.8	407.18	415.78	7.51	-1.09	-2.14		-3.23
P13	27.0		71.0	406.21	414.55	6.68	-1.66	-1.90		-3.56
P14	25.6		62.3	404.18	413.47	5.86	-3.43	-1.67		-5.10
P15	24.4		62.3	400.19	412.56	5.86	-6.51	-1.67		-8.18
G18	24.1		66.9	396.41	412.33	6.29	-9.63	-1.79		-11.42
N1	15° 21.3			390.45	409.41					
N2	19.4			393.98	408.72					
N3	18.4			391.51	407.95					
SP75	17.6)		177.9	391.00	408.41	16.73	-0.68	-4.77		-5.45
SP77	17.7)		179.7	391.04	408.55	16.90	-0.61	-4.82		-5.43
SP79	18.0)		189.7	390.66	408.70	17.84	-0.20	-5.08		-5.28
SP81	18.1) G.N.		186.1	391.21	408.84	17.50	-0.13	-4.99		-5.12
SP83	18.4)		177.7	392.36	408.99	16.71	+0.08	-4.76		-4.68
SP85	18.6)	12/8/58	174.3	392.88	409.13	16.39	+0.14	-4.67		-4.53
SP87	18.9)		174.9	393.20	409.28	16.45	+0.37	-4.69		-4.32
SP89	19.6)		183.7	393.08	409.42	17.28	+0.94	-4.92		-3.98

AREA BONAPARTE GULF TRAVERSE

DATE OF SURVEY 1956

METER HILLAND 53 SENSITIVITY 0.00706

DATUM WYNDHAM P. SE. DENSITY FACTOR 2.1

gms/cc

GRAVITY SURVEY

Stn.	Latitude	Elev.	Observed Gravity	Normal Gravity	Free Air Corr.	Free Air Anom.	Boug. Corr.	Boug. Anom.
			970	978				
M10	15° 36.5'	113.2	404.27	421.90	10.65	-6.98	-3.03	-10.01
M 9	37.1	99.6	400.08	422.37	9.37	-12.92	-2.67	-15.59
M 8	38.0	111.8	395.22	423.06	10.52	-17.32	-3.00	-20.32
M 7	38.0	89.2	394.98	423.06	8.39	-19.69	-2.39	-22.08
M 6	36.9	87.0	394.10	422.21	8.18	-19.93	-2.33	-22.26
M 5	35.8	81.0	394.87	421.35	7.62	-18.86	-2.17	-21.03
M 4	35.4	80.9	395.02	421.04	7.61	-18.41	-2.17	-20.58
M 3	34.5	130.1	393.91	420.35	12.24	-14.20	-3.49	-17.69
M 2	34.5	168.6	391.75	420.35	15.86	-12.74	-4.52	-17.26
M 1	32.9	197.2	388.50	419.10	18.55	-12.05	-5.28	-17.33
* SP335		120.8	393.29	417.59	11.36	-12.94	-3.24	-16.18
337		147.8	390.85	417.76	13.90	-13.01	-3.96	-16.97
338		156.1	390.39	417.84	14.68	-12.77	-4.18	-16.95
339		169.0	389.24	417.93	15.90	-12.79	-4.53	-17.32
340		186.3	388.20	418.01	17.52	-12.29	-4.99	-17.28
341		191.2	388.00	418.20	17.98	-12.12	-5.12	-17.24
342		192.4	387.88	418.18	18.10	-12.20	-5.16	-17.36
343		193.6	387.39	418.26	18.21	-12.66	-5.19	-17.85
344		175.2	389.73	418.34	16.48	-12.13	-4.70	-16.83
345	15° 32.03'	157.9	390.90	418.43	14.85	-12.68	-4.23	-16.91
346		156.8	392.93	418.46	14.75	-10.78	-4.20	-14.98
347	32.10'	131.5	396.94	418.49	12.37	-9.18	-3.52	-12.70
348		105.1	400.16	418.58	9.89	-8.53	-2.82	-11.35
349		101.9	400.99	418.66	9.58	-8.09	-2.73	-10.82
350	32.42'	102.6	401.28	418.74	9.65	-7.81	-2.75	-10.56
351	32.49'	107.0	400.83	418.79	10.06	-7.90	-2.87	-10.77
334		106.2	394.02	417.50	9.99	-13.49	-2.85	-16.34
333		99.6	394.71	417.42	9.37	-13.34	-2.67	-16.01

Area: Bonaparte Gulf

Date of Survey: 1956

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Wyndham P. Stn.

* SP336	138.0	391.93	417.67	12.98	-12.76	-3.70	-16.46
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Geophysical Section, Bureau of Mineral Resources, Geology and Geophysics.

GRAVITY SURVEY										
STN.	LAT.	LONG.	ELEV.	OBS. GRAV.	NORM. GRAV.	FREE AIR CORR.	FREE AIR ANOM.	BOUG. CORR.	TERR. CORR.	BOUG. ANOM.
SP 332			89.8	978395.42	978417.33	+0.45	-13.46	-2.41		-15.87
SP 331			82.6	395.82	417.25	7.77	-13.66	-2.21		-15.87
SP 330			77.0	396.20	417.16	7.24	-13.72	-2.06		-15.78
SP 329			70.6	396.70	417.08	6.64	-13.74	-1.89		-15.63
SP 301			74.9	396.29	416.99	7.05	-13.65	-2.01		-15.66
SP 302			66.5	396.37	416.91	6.25	-14.29	-1.78		-16.07
SP 303			70.3	395.77	416.82	6.61	-14.44	-1.88		-16.32
SP 304			69.1	395.62	416.74	6.50	-14.62	-1.85		-16.47
SP 305			67.1	395.72	416.66	6.31	-14.63	-1.80		-16.43
SP 306			66.2	395.70	416.58	6.23	-14.65	-1.77		-16.42
SP 307	15° 29.52'		55.1	396.33	416.49	5.18	-14.98	-1.48		-16.46
SP 308			49.4	396.49	416.46	4.65	-15.32	-1.32		-16.64
SP 309			48.3	396.34	416.44	4.54	-15.56	-1.29		-16.85
SP 310			50.0	395.99	416.42	4.70	-15.73	-1.34		-17.07
SP 311			46.7	396.06	416.39	4.39	-15.94	-1.25		-17.19
SP 312			47.2	395.71	416.36	4.44	-16.21	-1.26		-17.47
SP 313			48.6	395.57	416.34	4.57	-16.20	-1.30		-17.50
SP 314			49.7	395.47	416.32	4.67	-16.18	-1.33		-17.51
SP 315			42.7	396.28	416.29	4.02	-15.99	-1.14		-17.13
SP 316			40.6	396.58	416.26	3.82	-15.86	-1.09		-16.95
SP 317			50.1	396.36	416.24	4.71	-15.17	-1.34		-16.51
SP 318			50.6	396.91	416.22	4.76	-14.55	-1.36		-15.91
SP 319			51.0	397.59	416.19	4.80	-13.80	-1.37		-15.17
SP 320			50.8	398.04	416.16	4.78	-13.34	-1.36		-14.70
50MN	gravity tie to Mines Admin.		50.8	398.00	415.95	4.78	-13.17	-1.36		-14.53
SP 321			52.4	398.26	416.14	4.87	-13.01	-1.39		-14.40
SP 322			52.4	398.89	416.12	4.93	-12.30	-1.40		-13.70
SP 323			52.6	399.79	416.29	4.95	-11.35	-1.41		-12.76
SP 324			52.6	400.96	416.06	4.95	-10.15	-1.41		-11.56
SP 325			52.6	401.95	416.04	4.95	-9.14	-1.41		-10.55
AREA BONAPARTE GULF TRAVERSE						DATE OF SURVEY 1956				
METER HEILAND 53 SENSITIVITY 0.08706						DATUM WYNDHAM		DENSITY FACTOR 2.1 gms/cc		
MAP REFERENCE			WORKED		CHECKED			DATE		

GRAVITY SURVEY

Stn.	Latitude	Elev.	Observed Gravity	Normal Gravity	Free Air Corr.	Free Air Anom.	Boug. Corr.	Boug. Anom
			970	978				
SP405		99.4	392.87	424.50	+9.35	-22.28	-2.66	-24.94
SP404		98.9	392.89	424.39	9.30	-22.20	-2.65	-24.85
SP403		97.3	392.89	424.27	9.15	-22.23	-2.61	-24.84
SP402		99.6	392.86	424.16	9.37	-21.93	-2.67	-24.60
SP401	15° 39.26'	99.1	393.00	424.04	9.32	-21.72	-2.66	-24.38
37MN	15° 40.15'		392.74	424.74				
SP407		98.4	392.87	424.73	9.26	-22.60	-2.64	-25.24
SP408		102.7	392.42	424.84	9.66	-22.76	-2.75	-25.51
SP409		98.2	392.55	424.96	9.24	-23.17	-2.63	-25.80
SP410		99.8	392.43	425.07	9.39	-23.25	-2.67	-25.92
SP411		101.2	392.58	425.18	9.52	-23.08	-2.71	-25.79
SP412		102.4	392.82	425.29	9.63	-22.84	-2.74	-25.58
SP413		104.5	392.46	425.40	9.83	-23.11	-2.80	-25.91
SP414		104.6	392.57	425.52	9.84	-23.11	-2.80	-25.91
SP415		106.7	392.27	425.63	10.04	-23.32	-2.86	-26.18

Area: Bonaparte Gulf

Date of Survey: 1956

Meter: Heiland 53

Sensitivity: 0.08706

Datum: Wyndham P. Stn.

Geophysical Section, Bureau of Mineral Resources, Geology and Geophysics.

STN.	LAT.	LONG.	ELEV.	GRAVITY SURVEY		FREE AIR CORR.	FREE AIR ANOM.	BOUG. CORR.	TERR. CORR.	BOUG. ANOM.
				OBS. GRAV.	NORM. GRAV.					
SP31	15° 11.6')		288.7	978372.06	978403.86	27.16	-4.64	-7.74		-12.30
SP33	11.5')		268.9	372.64	403.73	25.29	-5.80	-7.21		-13.01
SP35	11.3')		253.7	373.21	403.60	23.86	-6.53	-6.80		-13.33
SP37	11.1')		238.5	373.37	403.48	22.43	-7.68	-6.39		-14.07
SP39	11.0')		222.3	373.79	403.35	20.91	-8.65	-5.86		-14.61
SP41	10.8')	G.N. 12/8/58	215.7	373.31	403.22	20.29	-9.62	-5.73		-15.40
SP43	10.6')		199.5	373.86	403.10	18.76	-10.48	-5.35		-15.83
SP45	10.5')		193.0	373.50	402.98	18.15	-11.33	-5.17		-16.50
SP47	10.3')		181.3	373.69	402.85	17.05	-12.11	-4.86		-16.97
SP49	10.1')		170.3	373.92	402.72	16.02	-12.78	-4.56		-17.34
SP51	10.0')		162.4	373.71	402.60	15.28	-13.61	-4.35		-17.96
SP52	9.9'	G.N. 12/8/58	159.6	373.41	402.54	15.01		-4.28		-18.44
SP53	(15° 9.9') (15° 11.2')		154.2	373.44	402.48	14.50	-14.54	-4.13		-18.67
SP131	(15° 9.8') (15° 11.1')		151.8	373.20	402.41	14.28	-14.93	-4.07		-19.00
SP133	9.5')		143.8	373.23	402.29	13.53	-15.53	-3.85		-19.33
SP135	9.3')		128.5	373.96	402.17	12.09	-16.12	-3.44		-19.56
SP137	9.1')		116.2	374.07	402.06	10.93	-17.06	-3.11		-20.17
SP151	9.0')	G.N.	109.9	374.69	401.94	10.34	-16.91	-2.95		-19.86
SP153	8.8')	12/8/58	91.5	375.26	401.82	8.61		-2.45		-20.40
SP155	8.6')		86.2	374.74	401.71	8.11		-2.31		-21.17
SP157	8.4')		117.6	372.18	401.59	11.06		-3.15		-21.50
SP159	8.2')		131.9	370.50	401.47	12.41		-3.53		-22.09
SP161	8.1')		106.6	371.80	401.36	10.03		-2.86		-22.39
SP163	8.0')		71.1	373.74	401.24	6.69		-1.91		-22.72
SP165	(15° 7.9') (15° 09.4')		52.0	374.67	401.12	4.89		-1.39		-22.95
P6	(15° 36.3') (15° 36.3')		96.4	408.82	421.74	9.07	-3.85	-2.58		-6.43
M13	35.8'		99.4	407.70	421.35	9.35	-4.30	-2.66		-6.96
M12	36.3'		102.0	408.27	421.74	9.59	-3.88	-2.73		-6.61
M11	36.7'		167.1	403.14	422.05	15.72	-3.19	-4.48		-7.67

AREA BONAPARTE GULF TRAVERSE

DATE OF SURVEY 1956.

METER HEILAND 53 SENSITIVITY 0.08706 DATUM WYNDHAM P. St. DENSITY FACTOR
 MAP REFERENCE WORKED S.W. CHECKED DATE. 2.1 gms/cc

Geophysical Section, Bureau of Mineral Resources, Geology and Geophysics.

STN.	LAT.	LONG.	GRAVITY		SURVEY		FREE AIR CORR.	FREE AIR ANOM.	BOUG. CORR.	TERR. CORR.	BOUG. ANOM.
			ELEV.	OBS. GRAV.	NORM. GRAV.						
SP1			197.1	978392.86	978409.57	18.54	+1.83	-5.28			- 3.45
SP93			203.4	393.19	409.72	19.13	+2.60	-5.45			- 2.85
SP95	15° 20.9'		212.5	392.58	409.87	19.99	+2.70	-5.70			- 3.00
SP73			176.4	391.05	408.26	16.59	-0.62	-4.73			- 5.35
SP71			187.7	390.35	408.12	17.66	-0.11	-5.03			- 5.14
SP69			178.5	390.60	407.97	16.79	-0.53	-4.78			- 5.36
SP67			174.4	390.59	407.83	16.40	-0.84	-4.67			- 5.51
SP65			172.6	391.07	407.68	16.23	-0.38	-4.63			- 5.01
SP63			168.3	392.16	407.54	15.83	+0.45	-4.51			- 4.06
SP61			170.7	392.48	407.39	16.06	+1.15	-4.57			- 3.42
SP59			177.6	390.97	407.25	16.71	+0.43	-4.76			- 4.33
SP57			172.9	389.90	407.10	16.26	-0.94	-4.63			- 5.57
SP55			175.1	388.54	406.96	16.47	-1.95	-4.69			- 6.64
SP1	15° 16.9'		192.7	386.26	406.81	18.13	-2.42	-5.16			- 7.58
SP3			196.2	385.04	406.55	18.45	-3.06	-5.26			- 8.32
SP5			211.1	383.67	406.30	19.86	-2.77	-5.66			- 8.43
SP7			217.8	382.73	406.04	20.49	-2.82	-5.84			- 8.66
SP8			216.7	382.52	405.91	20.38	-3.01	-5.81			- 8.82
SP9			237.8	380.74	405.78	22.37	-2.67	-6.37			-9.04
SP11			240.1	379.83	405.53	22.58	-3.12	-6.43			- 9.55
SP13			232.8	380.18	405.27	21.90	-3.19	-6.24			- 9.43
SP15			251.3	378.24	405.02	23.64	-3.14	-6.73			- 9.87
SP17	15° 14.2'		290.1	375.96	404.76	27.29	-1.51	-7.77			- 9.28
SP19	15° 14.0'		328.8	372.84	404.61	30.93	-0.84	-8.81			- 9.65
SP21			331.8	372.00	404.48	31.21	-1.27	-8.89			-10.16
SP23			331.3	371.88	404.36	31.16	-1.32	-8.88			-10.20
SP25			331.3	371.31	404.24	31.16	-1.77	-8.88			-10.65
SP27			303.7	372.41	404.11	28.57	-3.13	-8.14			-11.27
SP29			299.5	372.10	403.98	28.17	-3.71	-8.03			-11.74

AREA BONAPARTE GULF TRAVERSE

DATE OF SURVEY 1956.

MATER HEILAND 53 SENSITIVITY 0.08706 DATUM WYNDHAM P. St DENSITY FACTOR
2.1 gms/cc

MAP REFERENCE

WORKED S.W. CHECKED

DATE

GRAVITY SURVEY

Stn.	Latitude	Elev.	Observed Gravity	Normal Gravity	Free Air Corr.	Free Air Anom.	Boug. Corr.	Boug. Anom.
			978	978				
SP326		52.4	402.45	416.02	+4.93	-8.64	-1.40	-10.04
SP327		52.2	402.86	415.99	4.91	-8.22	-1.40	- 9.62
SP328	15°28.87'	70.4	401.95	415.97	6.62	-7.40	-1.89	- 9.29
SP461		110.8	395.23	420.50	10.42	-14.85	-2.97	-17.82
SP460		99.7	395.88	420.64	9.38	-15.38	-2.67	-18.05
SP459		91.6	396.50	420.78	8.62	-15.66	-2.45	-18.11
SP458		86.5	396.73	420.93	8.14	-16.06	-2.32	-18.38
SP442		82.8	396.76	421.07	7.79	-16.52	-2.22	-18.74
SP432		80.8	396.71	421.21	7.60	-16.90	-2.16	-19.06
SP433		80.1	396.70	421.36	7.53	-17.13	-2.15	-19.28
SP434		83.7	396.36	421.50	7.87	-17.27	-2.24	-19.51
SP435		84.1	396.08	421.64	7.91	-17.65	-2.25	-19.90
SP436		84.4	395.84	421.79	7.94	-18.01	-2.26	-20.27
SP423		85.1	395.61	421.93	8.00	-18.32	-2.28	-20.60
SP437		85.4	395.41	422.07	8.03	-18.63	-2.29	-20.92
SP311	15°29.4	46.7	396.06	416.40	4.39	-15.95	-1.25	-17.20
M1A	30.7	56.1	396.53	417.40	5.28	-15.59	-1.50	-17.09
M2A	32.7	61.1	395.84	418.95	5.75	-17.36	-1.64	-19.00
M3A	34.1	71.0	395.13	420.04	6.68	-18.23	-1.90	-20.13
SP416	15°35.71'	83.8	394.50	421.28	7.88	-18.90	-2.25	-21.15
SP417		78.4	394.89	421.37	7.37	-19.11	-2.10	-21.21
SP418		79.8	395.08	421.46	7.51	-18.87	-2.14	-21.01
SP419		80.1	395.19	421.55	7.53	-18.83	-2.15	-20.98
SP420		82.3	395.24	421.64	7.74	-18.66	-2.21	-20.87
SP421		83.9	395.19	421.73	7.89	-18.65	-2.25	-20.90
SP422		85.6	395.42	421.84	8.05	-18.37	-2.29	-20.66
SP423		85.2	395.61	421.93	8.01	-18.31	-2.28	-20.59

Bonaparte Gulf

Area: Bonaparte Gulf

Date of Survey: 1956

Meter: Heiland 53

Sensitivity: 0.08706

Datum: Wyndham P. Stn.

GRAVITY SURVEY

Stn.	Latitude	Elev.	Observed Gravity	Normal Gravity	Free Air Corr.	Free Air Anom.	Boug. Corr.	Boug. Anom.
			978	978				
SP424		87.8	395.77	422.05	+8.26	-18.02	-2.35	-20.37
SP425		87.0	396.04	422.11	8.18	-17.89	-2.33	-20.22
SP426		90.1	396.27	422.20	8.47	-17.46	-2.41	-19.87
SP427		95.7	396.25	422.29	9.00	-17.04	-2.56	-19.60
SP420		101.6	396.38	422.38	9.56	-16.44	-2.72	-19.16
SP429		108.4	396.35 (396.38)	422.47	10.20	-15.92 (15.67)	-2.91	-18.83 (18.68)
SP430	15° 37.35	112.4	395.45	422.56	10.57	-16.54	-3.01	-19.55
SP431	37.42	120.7	395.84	422.62	11.35	-15.43	-3.23	-18.66
SP456	15° 37.63'	(85.8)	393.71	422.78	8.07	-21.00	-2.30	-23.30
B2	15° 38.14	(90.3)	393.53	423.17	8.49	-21.15	-2.42	-23.57
B1	15° 38.84	(94.8)	393.03	423.71	8.92	-21.76	-2.54	-24.30
SP406	15° 40.0'	99.3	392.94	424.62	9.34	-22.34	-2.66	-25.00
SP457	37.53'	79.3	394.03	422.70	7.46	-21.21	-2.13	-23.34
SP455		87.1	393.61	422.87	8.19	-21.07	-2.33	-23.40
SP454		87.9	393.71	422.96	8.27	-20.98	-2.36	-23.34
SP453		88.7	393.94	423.05	8.34	-20.77	-2.38	-23.15
SP446		89.5	394.31	423.14	8.42	-20.41	-2.40	-22.81
SP452		90.2	394.61	423.23	8.48	-20.14	-2.42	-22.56
SP451		89.9	395.18	423.32	8.46	-19.68	-2.41	-22.09
SP450		90.7	395.28	423.41	8.53	-19.60	-2.43	-22.03
SP449	38.56	92.0	395.39	423.50	8.65	-19.46	-2.47	-21.93
SP448	38.66	96.4	394.89	423.57	9.07	-19.61	-2.58	-22.19
SP447	38.29	90.4	394.15	423.28	8.50	-20.63	-2.42	-23.05
SP445		88.7	394.46	422.99	8.34	-20.19	-2.38	-23.57
SP444		87.9	394.51	422.85	8.27	-20.07	-2.36	-22.43
SP443		87.1	394.74	422.70	8.19	-19.77	-2.33	-22.10
SP441	37.35	86.5	394.97	422.56	8.14	-19.45	-2.32	-21.77

Area: Bonaparte Gulf

Date of Survey: 1956

Meter: Heiland 53

Sensitivity: 0.08706 Datum: Wyndham P. Stn.

BUREAU OF MINERAL RESOURCES,

GEOLOGY AND GEOPHYSICS

APPENDIX 'B' PART III, PAGES 1-7

Place of Operations: BONAPARTE GULF

Computation Sheets from B.M.R. File No. 56041 in Gravity Section

B.M.R. SURVEY SEPTEMBER-OCTOBER, 1956

by

P.M. Stott

APPENDIX B, Part III

GRAVITY SURVEY

EXO.09406

Ex 0.0268

Stn.	Latitude	Long.	Elev. *	Obs. Grav. ϕ	Norm. Grav.	Free Air Corr.	Free Air Anom.	Boug. Corr.	Terr. Corr.	Boug. Anom.
				978.418	978.415					
SP328	15°28'41"		151.3	8.31	5.85	+14.23	+16.69	-4.05	?	+12.64
327			132.7	9.22	5.88	12.48	15.82	-3.55		12.27
326			133.0	8.81	5.90	12.51	15.42	-3.56		11.86
325			133.2	8.31	5.92	12.53	14.92	-3.57		11.35
324			133.1	7.32	5.95	12.52	13.89	-3.56		10.33
323			133.2	6.14	5.97	12.53	12.70	-3.57		9.13
322			133.3	5.24	6.00	12.53	11.77	-3.57		8.20
321			132.4	4.60	6.02	12.46	11.04	-3.54		7.50
				978.41432	978.41582					
50 MN	15°28'46"	129°E	131.7	4.32	5.82	12.38	10.88	-3.52		7.36
320	15°28'56"		131.3	4.39	6.04	12.35	10.70	-3.51		7.19
319			131.6	3.88	6.07	12.37	10.18	-3.52		6.66
318			131.3	3.20	6.09	12.35	9.46	-3.51		5.95
317			130.9	2.64	6.12	12.30	8.82	-3.50		5.32
316			121.0	2.86	6.14	11.39	8.11	-3.24		4.87
315			123.0	2.56	6.16	11.57	7.97	-3.29		4.68
314			130.3	1.75	6.19	12.26	7.82	-3.48		4.34
313			129.2	1.85	6.21	12.16	7.80	-3.46		4.34
312			127.8	1.99	6.24	12.01	7.76	-3.42		4.34
311	15°29'12"		127.3	2.35	6.26	11.98	8.07	-3.41		4.66
310			130.4	2.37	6.28	12.27	8.36	-3.48		4.88
309			129.0	2.70	6.31	12.13	8.52	-3.45		5.07
308			129.8	2.85	6.33	12.20	8.72	-3.47		5.25
307	15°29'20"		135.5	2.68	6.36	12.74	9.06	-3.62		5.44
306			146.5	2.03	6.44	13.78	9.37	-3.92		5.45
305			147.2	2.05	6.53	13.85	9.37	-3.94		5.43
304			149.5	1.95	6.62	14.06	9.39	-4.00		5.39
303			150.5	2.08	6.70	14.15	9.53	-4.02		5.51
302			147.1	2.66	6.78	13.83	9.71	-3.94		5.77
301	15°30'00"		155.0	978412.57	978416.87					
				2.57	6.87	14.58	10.28	-4.14		6.14

Area: Bonaparte Gulf Traverse: Spirit Hill Date of Survey: 1.10.56 - 2.10.56
Seismic Traverse 'A'

Meter: Heiland 53 Sensitivity: 0.08706 mg/ Datum: Elev. Boundary NT.WA
Grav. AAO map @ 50 MN

Map Reference: Cambridge Gulf Worked: P.M. Stott Density Factor: 2.1
+ Auvergne 4 mile = 1"

* Instrument height has been added to surface levels.

ϕ (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

GRAVITY SURVEY

Stn.	Latitude	Elev. *	Obs. Grav.Ø	Norm. Grav.	Free Air Corr.	Free Air Anom.	Boug. Corr.	Terr. Corr.	Boug. Anom.
			978412.57	978416.87					
SP301	15°30'00"	155.0	2.57	6.87	14.58	+10.28	-4.14		+6.14
329		151.2	2.97	6.96	14.22	10.23	-4.05		6.18
330		157.7	2.46	7.04	14.82	10.24	-4.22		6.02
331		163.2	2.07	7.12	15.37	10.32	-4.37		5.95
332		170.3	1.66	7.21	16.02	10.47	-4.56		5.91
333		180.2	0.94	7.30	16.96	10.60	-4.83		5.77
334		186.9	410.24 0.24	7.38	17.58	10.44	-5.00		5.44
335	15°30'46"	201.2	409.50 9.50	7.46	18.92	10.96	-5.38		5.58
336		218.6	8.14	7.55	20.58	11.17	-5.85		5.32
337		228.6	7.06	7.64	21.52	10.94	-6.12		4.82
338		236.8	6.60	7.72	22.28	11.16	-6.34		4.82
339		249.8	5.45	7.80	23.48	11.13	-6.68		4.45
340		267.2	4.41	7.89	25.14	11.66	-7.13		4.53
341		272.0	4.21	7.98	25.59	11.82	-7.28		4.54
342		273.2	4.09	8.06	25.72	11.75	-7.31		4.44
343		274.2	4.58	8.14	25.80	12.24	-7.34		4.90
344		255.9	6.92	8.23	24.03	12.72	-6.84		5.88
345	15°31'52"	238.4	408.09 8.09	8.31	22.42	12.20	-6.38	?	5.82
346		237.4	410.12 0.12	8.34	22.32	14.10	-6.35		7.75
347	15°31'56"	212.1	4.14	8.37	19.97	15.74	-5.68		10.06
348		185.4	7.36	8.46	17.44	16.34	-4.96		11.38
349		182.5	8.19	8.54	17.17	16.82	-4.88		11.94
350		183.1	8.48	8.62	17.23	17.09	-4.90	?small	12.19
			978418.03	978418.71					
351	15°32'22"	187.8	8.03	8.71	17.66	16.98	-5.02	?	11.96

Area: Bonaparte Gulf Traverse: Spirit Hill Date of Survey: 1.10.56 - 2.10.56
Seismic 'A'

Heiland 53 Sensitivity: 0.08706 mg/ Datum: Elev. Border NT/WA Density Factor:
Grav. 1955 Survey at 2.1
50 MN

Map Reference: Auvergne 1" = 4 mile

Cambridge Gulf " Worked: P.M. Stott Date: 3.11.56

* Instrument height has been added to surface levels.

Ø (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

GRAVITY SURVEY

Stn.	Latitude	Long.	Elev. *	Obs. Grav. ϕ	Norm. Grav.	Free Air Corr.	Free Air Anom.	Boug. Corr.	Terr. Corr.	Boug. Anom.
				978409.30	978423.89					
SP401	15°39'06"		179.8	9.30	3.89	+16.90	+2.31	-4.81		-2.70
402			180.1	9.15	4.00	16.96	2.11	-4.82		-2.71
403			177.9	9.18	4.11	16.72	1.79	-4.75		-2.96
404			179.5	9.18	4.23	16.89	1.84	-4.80		-2.96
405			180.0	9.16	4.34	16.92	1.74	-4.82		-3.08
406	15°39'50"	129°E	180.0	9.23	4.45	16.92	1.70	-4.82		-3.12
37 MN		129°E		9.03						
407			179.2	9.16	4.57	16.87	1.46	-4.79		-3.33
408			183.6	8.71	4.68	17.27	1.30	-4.91		-3.61
409			179.0	8.84	4.79	16.84	0.89	-4.78		-3.89
410			180.4	8.72	4.91	16.98	0.79	-4.83		-4.04
411			182.0	8.86	5.02	17.11	0.95	-4.87		-3.92
412			183.3	9.11	5.13	17.24	1.22	-4.90		-3.68
413			185.3	8.75	5.25	17.43	0.93	-4.96		-4.03
414			185.5	8.86	5.36	17.45	0.95	-4.96		-4.01
415			187.2	8.56	5.47	17.61	0.70	-5.01		-4.31
462										
463										
464	15°41'23"									
M6				978410.39						
				0.39						
SP456			166.4	410.00						
				0.00						-1.38
				409.82	978423.14	16.27	2.95	-4.62	? small	-1.67
B2			172.8	9.82	3.14					
B1			174.9	9.32	3.80	16.45	1.97	-4.68		-2.71
SP406			180.0	9.23	4.45	16.92	1.70	-4.82		-3.12

Area: Bonaparte Gulf Traverse: Milligans Lagoon Date of Survey: 3.10.56 -
Seismic 'B' & Tie 4.10.56
Traverses

Heiland: 53 Sensitivity: 0.08706 Datum: NT/WA Border 1955 Density Factor:
Seismic & 50 MN 1955 2.1
Survey for 'G'

Map Reference: Cambridge Gulf
& Auvergne 1" = 4 mile Worked: P.M. Stott Date: 6.10.56

* Instrument height has been added to surface levels.

ϕ (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

GRAVITY SURVEY

Stn.	Latitude	Long.	Elev. *	Obs. Grav. ϕ	Norm. Grav.	Free Air Corr.	Free Air Anom.	Boug. Corr.	Terr. Corr.	Boug. Anom.
				978410.79	978421.16					
SP416	15° 35' 34"		164.6	0.79	1.16	+15.48	+5.11	-4.40	?small	+0.71
417		1.507M E. of 129°	159.1	1.18	1.25	14.97	4.90	-4.26		0.64
418			160.6	1.34	1.34	15.10	5.10	-4.29		0.81
419			160.8	1.46	1.43	15.12	5.15	-4.30		0.85
420			163.0	1.50	1.52	15.33	5.31	-4.36		0.95
421			164.6	1.45	1.61	15.48	5.32	-4.40		0.92
422			166.6	1.62	1.70	15.67	5.59	-4.46		1.13
423	15° 36' 23"		165.8	1.81	1.79	15.59	5.61	-4.43		1.18
424			168.4	1.98	1.88	15.84	5.94	-4.51		1.43
425			167.9	2.25	1.97	15.79	6.07	-4.48		1.59
426			170.4	2.49	2.06	16.02	6.45	-4.56		1.89
427			175.8	2.47	2.15	16.52	6.84	-4.70		2.14
428			182.1	2.59	2.24	17.13	7.48	-4.87		2.61
429			189.0	2.56	2.33	17.78	8.01	-5.05		2.96
430	15° 37' 12"		193.0	1.65	2.42	18.15	7.38	-5.16		2.22
431	15° 37' 14"		201.2	2.05	2.45	18.91	8.51	-5.38	?	3.13
M5				978411.16 1.16						
SP416				0.79						

Area: Bonaparte Gulf Traverse: Milligans Lagoon Traverse 'C' & tie.
 Meter: Heiland 53 Sensitivity: 0.08706 Datum: Elev. NT/WA Border
 Grav. 1955 Survey
 @ 50 MN

Density Factor: 2.1 Map Reference: Auvergne 1" = 4 mile Worked: P.M. Stott
 Date: 8.10.56

* Instrument height has been added to surface levels.

ϕ (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

GRAVITY SURVEY

Stn.	Latitude	Elev. *	Obs. Grav. ϕ	Norm. Grav.	Free Air Corr.	Free Air Anom.	Boug. Corr.	Terr. Corr.	Boug. Anom.
			978410.18	978420.36					
M3			0.18						
SP461	15°34'32"	191.6	1.50	0.36	+18.00	+9.14	-5.12		+4.02
460		180.5	2.16	0.50	16.97	8.63	-4.82		3.81
459		172.5	2.77	0.65	16.21	8.33	-4.61		3.72
458		167.1	3.00	0.79	15.70	7.91	-4.47		3.44
442		163.4	3.03	0.93	15.37	7.47	-4.37		3.10
432		161.4	2.98	1.07	15.19	7.10	-4.32		2.78
433		160.6	2.89	1.21	15.10	6.78	-4.29		2.49
434		164.4	2.56	1.36	15.47	6.67	-4.40		2.27
435		164.9	2.28	1.50	15.50	6.28	-4.41		1.87
436		165.0	2.03	1.64	15.52	5.91	-4.41		1.50
423	15°36'23"	165.8	1.81	1.79	15.59	5.61	-4.43		1.18
437		166.0	1.62	1.95	15.61	5.28	-4.44		0.84
438				2.08					
439				2.22					
440	15°37'03"			2.30					
441		167.3	1.14	2.40	15.72	4.46	-4.47		- 0.01
443		167.8	0.91	2.54	15.77	4.14	-4.48		- 0.34
444		168.5	0.81	2.68	15.83	3.96	-4.51		-0.55
445		169.3	0.77	2.82	15.92	3.87	-4.53		-0.66
446		170.2	0.61	2.97	16.00	3.64	-4.55		-0.91
447		171.0	0.44	3.11	16.08	3.41	-4.57		-1.16

Area: Bonaparte Gulf Traverse: Milligans Lagoon Date of Survey: 8.10.56
Seismic 'D'

Meter: Heiland: 53 Sensitivity: 0.08706 Datum: Elev. NT/WA Border
Grav. 50 MN 1955
Survey

Density Factor: 2.1

Map Reference: Auvergne 1" = 4 mile Worked: P.M.Stott Date: 8.11.56

* Instrument height has been added to surface levels.

ϕ (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

GRAVITY SURVEY

Stn.	Latitude	Long.	Elev. *	Obs. Gravity ϕ	Norm Grav.	Free Air Corr.	Free Air Anom.	Boug. Corr.	Terr. Corr.	Boug. Anom.
					978410.31	978422.57				
SP457			164.8	0.31 978410.00	2.57	+15.50	+3.24	-4.41		-1.17
456			166.4	0.00 978409.90	2.61	15.65	3.04	-4.42		-1.38
455			169.0	9.90 410.00	2.70	15.89	3.09	-4.52		-1.43
454			168.5	0.00 978410.24	2.79	15.84	3.05	-4.50		-1.45
453			169.3	0.24	2.88	15.92	3.28	-4.53		-1.25
446			170.2	0.61	2.97	16.00	3.64	-4.55		-0.91
452			170.8	0.91	3.06	16.06	3.91	-4.56		-0.65
451			170.7	1.49	3.15	16.05	4.39	-4.56		-0.17
450			171.3	1.59	3.24	16.12	4.47	-4.58		-0.11
449			172.6	1.70	3.33	16.22	4.59	-4.61		-0.02
448			177.0	1.20	3.38	16.63	4.45	-4.73	?	-0.28

Area: Bonaparte Gulf Traverse: Milligans Lagoon Date of Survey: 8.10.56
Seismic 'E'

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Elev. NT/WA Border
Grav. 1955 Survey
Density Factor: 2.1 @ 50 MN

Map Reference: Cambridge Gulf Worked: P.M. Stott Date: 5.11.56
& Auvergne 1" =
4 miles.

* Instrument height has been added to surface levels.

ϕ (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

GRAVITY SURVEY

Stn.	Latitude	Long.	Elev. *	Obs. Gravity ϕ	Norm. Grav.	Free Air Corr.	Free Air Anom	Boug. Corr.	Terr. Corr.	Boug. Anom.
978412.35 978416.26										
SP311	15°29'12"		127.3	2.35	6.26	+11.98	+8.07	-3.41		+4.66
M1A			136	2.82	7.48	12.80	8.14	-3.64		4.50
2A			149	2.13	9.19	14.02	6.96	-3.98		2.98
3A			156	1.42	420.09 0.09	14.67	6.00	-4.17		1.83
4			160.8	1.30	0.81	15.13	5.62	-4.29		1.33
978409.50 978417.46										
SP335	15°30'46"		201.2	9.50	7.46	18.92	10.96	-5.38		5.58
M1			277.6	4.73	8.92	26.14	11.95	-7.41		4.54
2			249.0	8.01	420.09 0.09	23.43	11.35	-6.65	?small	4.70
3			210.9	0.18	0.23	19.86	9.81	-5.63		4.18
4			160.8	411.30 1.30	0.81	15.13	5.62	-4.29		1.33
5			161.0	1.16	1.25	15.14	5.05	-4.30		0.75
6			167.1	0.39	1.92	15.72	4.19	-4.47		-0.28
7			169.2	1.27	2.72	15.92	4.47	-4.52		-0.05
8			191.5	1.51	2.80	18.02	6.73	-5.11		+1.62
9			179.8	6.37	2.23	16.90	11.04	-4.80		6.24

Area: Bonaparte Gulf Traverse: Martins Gap Date of Survey: 4.10.56

Meter: Heiland 53 Sensitivity: 0.08706 Datum: Elev. NT/WA Border
'G' 1955 Survey
Density Factor: 2.1 @ 50 MN

Map Reference: Cambridge Gulf Worked: P.M. Stott Date: 6.10.56
& Auvergne 1" = 4 miles

* Instrument height has been added to surface levels.

ϕ (Note B). Take 16.75 mgal from these to reduce to Wyndham Pendulum Station Datum.

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS

B.M.R. SEPTEMBER - OCTOBER 1956 SURVEY

APPENDIX 'C' PAGES 1 - 20

(BAROMETRIC FIELD SHEETS)

FROM B.M.R. FILE NO. 56041

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,
SEPTEMBER - OCTOBER, 1956.

Observer: P.M. Stott

Date: 17.10.56

Base Microbarometer No.: 531308

Field Sheet No.: 8112

Traverse:- Ninbing Gravity

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
N 2	1120	36.7	224.0	70.7	101.2
	1125	37.0	223.2	69.9	99.8
	1130	37.0	222.0	70.4	99.3
	1135	37.3	220.7	71.6	100.4
	1140	37.4	220.7	72.2	102.5
	1145	37.9	219.8	70.8	103.6
	1150	38.3	219.8	69.7	101.1
	1155	38.6	219.5	70.1	102.9
	1158	38.8	219.0	70.8	101.5
N 2	1306	42.2	210.7	70.2	103.8
	1315	42.1	209.0	70.2	104.0
	1320	42.1	208.3	69.9	102.8
	1325	42.0	207.2	70.7	105.0
	1330	42.0	206.7	70.2	105.2
	1335	42.0	205.9	70.7	106.0
	1340	42.0	205.8	70.8	106.0
	1345	41.9	205.0	71.0	104.7
	1350	41.8	204.7	69.8	103.7
	1357	41.7	203.9	69.7	104.6

Traverse Microbarometer No.: 531333

Field Sheet No.: 8150A

N 2	1120	36.0	200.0
N 3	1130	36.6	190.9
S.P.75	1140	37.0	187.9
N 2	1200	37.5	194.3
N 2	1305	39.8	186.8
N 1	1320	40.5	169.9
G 8	1335	40.5	168.3
N 2	1355	40.5	160.9

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,
SEPTEMBER - OCTOBER, 1956

Observer: P.M. Stott

Date: 9.10.56

Base Microbarometer No.: 531308

Field Sheet No.: 8110

Traverse: Martin's Gap (Branch)

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
M 4	1106	35.5	226.7	76.3	96.5
	1110	35.7	226.0	75.1	98.5
	1120	36.3	224.1	76.8	102.0
	1125	36.8	223.7	76.8	96.3
	1130	37.0	223.0	74.8	97.1
	1135	37.1	222.8	75.7	99.8
	1140	37.3	222.4	76.4	100.0
	1145	37.7	221.6	77.1	102.3
	1150	37.8	220.6	76.9	103.0
	1155	38.1	219.8	75.2	99.2
	1200	38.3	219.5	76.3	103.4
	1205	38.6	218.7	76.2	101.7
	1210	38.9	218.2	75.4	101.3
	1215	39.0	218.5	75.5	99.2
	1220	39.1	217.3	77.0	101.0
	1226	39.3	215.9	75.3	99.0

Observer: Dave Cooper

Traverse Microbarometer No.: 531333

Field Sheet No.: 8150B

M 4	11.10	36.1	201.7
M 2A	1130	37.0	201.4
M 1A	1140	37.3	203.0
S.P. 311	1155	38.0	204.5
M 4	1225	39.0	190.5

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,SEPTEMBER - OCTOBER, 1956.Observer: P.M. StottDate: 26.10.56Base Microbarometer No.: 531333Traverse: Ninbing Gravity

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
N 2	1522	42.0	147.0	76.0	99.8
	1530	42.0	147.2	77.0	100.0
	1535	41.7	147.7	76.1	99.4
	1540	41.4	148.1	76.0	99.0
	1545	41.0	149.1	74.5	98.0
	1550	40.8	148.8	76.2	96.7
	1555	40.4	149.0	75.9	96.2

Traverse Microbarometer:-

No data appears to be available for the traverse microbarometer.

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,SEPTEMBER - OCTOBER, 1956Observer: P.M. StottDate: 28.10.56.Base Microbarometer No.: 531308Field Sheet No.: 8118Traverse: Carlton Extension

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
35 M	0848	29.4	232.8	75.6	93.2
	0855	30.1	232.3	75.7	94.7
	0900	30.6	231.7	75.6	95.2
	0905	31.1	231.6	75.5	94.6
	0910	31.4	231.4	76.0	95.2
	0915	31.9	231.0	75.8	95.3
	0925	32.8	230.1	75.7	95.0

Traverse Microbarometer No.: 531333Field Sheet No.: 8118 (Data copied on 8118 from Field Sheet 8149A)*

35 M	0848	29.0	217.0
G 34	0900	29.8	215.2
G 33	0910	30.5	213.9
35 M	0925	32.0	212.9

* Field Sheet 8149A same as 8118.

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,SEPTEMBER - OCTOBER, 1956Observer: P.M. StottDate: 28.10.6Base Microbarometer No.: 531308Field Sheet No.: 8119Traverse: Carlton Extension

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
G 33	1000	34.3	225.7	76.2	100.2
	1010	34.7	224.8	76.7	100.0
	1015	35.0	223.5	76.0	103.0
	1020	35.4	222.6	76.4	103.0
	1025	35.7	221.7	76.9	102.4
	1030	36.0	220.3	76.3	102.1
	1040	36.6	219.0	77.0	103.6
	1050	37.4	218.8	75.8	103.5
	1100	38.7	217.9	74.9	104.6

Traverse Microbarometer No.: 531333Field Sheet No.: 8119 (Data copied from field sheet 8149B)*

G 33	1000	33.9	207.6
G 32	1015	35.0	202.6
G 1	1035	36.0	202.0
31	1045	36.5	201.4
G 33	1100	37.3	198.0

* Field Sheet 8149B cannot be found.

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,
SEPTEMBER - OCTOBER, 1956

Barometric Field Sheets (Copies)

Observer: P.M. Stott

Date: 28.10.56

Base Microbarometer No.: 531333

Field Sheet No.: 8120

Traverse: Ninbing Gravity Traverse

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
G 8	1345	>43	133.7	75.0	105.2
	1355	>43	132.0	76.2	106.7
	1400	>43	131.2	76.3	106.6
	1405	>43	131.0	75.9	106.4
	1410	>43	131.1	76.0	105.0
	1415	>43	131.4	75.7	105.0
	1420	>43	130.3	75.3	104.8
	1425	>43	130.2	75.0	103.7
	1430	>43	130.2	76.0	104.6
	1436	>42.8	129.6	75.3	104.4

Traverse Microbarometer No.: 531308

Field Sheet No.: 8120 (Data copied on 8120 from Field Sheet 8148A*)

G 8	1345	>43	154.2
N 1	1400	>43	153.1
I 2	1415	>43	166.2
G 8	1436	>43	149.5

* Field Sheet 8148A cannot be found.

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,
SEPTEMBER - OCTOBER 1956.

Observer: P.M. Stott

Date: 29.10.56

Base Microbarometer No.: 531333

Field Sheet No.: 8122

Traverse: Carlton-Ivanhoe

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
35M	1422	41.4	175.8	81.2	105.0
	1430	41.3	175.2	80.7	105.2
	1435	41.4	175.0	82.1	107.1
	1440	41.3	175.1	81.2	106.1
	1445	41.3	174.9	80.9	105.3
	1450	41.3	174.7	80.6	104.8
	1455	41.3	174.3	79.8	102.9
	1502	41.4	174.3	80.3	103.3

Traverse Microbarometer No.: 531308

Field Sheet No.: 8122 (Copied on sheet 8122 from original sheet 8148)*

35M	1422	41.4	191.9)	
39M	1435	41.3	191.1)	(8122) copy
43M	1445	41.3	184.0)	(8148) original
M	1502	41.3	190.9)	

* Field Sheet 8148 cannot be found.

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,
SEPTEMBER - OCTOBER, 1956.

Observer: P.M. Stott

Date: 29.10.56

Base Microbarometer No.: 531333

Field Sheet No.: 8123

Traverse: Carlton - Ivanhoe

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
43 M	1523	41.2	168.1	79.8	102.0
	1530	41.2	168.6	79.6	101.3
	1535	41.0	169.8	79.6	101.1
	1540	40.8	169.4	79.8	100.9
	1545	40.9	169.7	79.4	100.2

Traverse Microbarometer No.: 531308

Field Sheet No. 8123 (Copied on Sheet 8123 from original sheet 8148B)*

43 M	1523	41.4	184.9)	531308 (8123) copy (8148B) original
47 M	1535	41.5	177.4)	
43 M	1545	41.5	187.0)	

* Field Sheet 8148B cannot be found.

BUREAU OF MINERAL RESOURCES GRAVITY SURVEY,SEPTEMBER - OCTOBER, 1956Observer: P.M. StottDate: 29.10.56Base Microbarometer No.: 531333 . Up to 16.48 p.m. & 531308 for the others.Traverse: Carlton - IvanhoeField Sheet No.: 8124

Station	Time	Temp. °C	Reading	Wet °F	Dry °F
P 1	1610	40.7	158.4	79.2	100.6
	1620	40.3	157.3	79.0	100.0
	1625	40.3	157.4	79.0	99.6
	1630	40.2	157.5	79.0	99.1
	1635	39.8	158.2	78.8	98.6
	1640	39.6	158.9	78.5	98.0
	1648	39.3	158.8	78.1	97.1
	1652	40.5	176.5)		
	1658	40.0	176.6)	531308	No other readings
				(8124)	Copy
				(8148B)	Copy.

Traverse Microbarometer No.: 531308. Up to 16.43 p.m. & 531333 for the others.Field Sheet No.: 8124 (Copied on 8124 from original field sheet 8148B)*

P 1	1610	41.4	175.8)	
47 M	1630	41.2	179.5)	
M	1640	41.0	180.5)	531308
P 1	1648	40.5	176.3)	(8124) copy and (8148B) original.
55 M	1652	39.0	172.2)	
P 1	1658	38.9	158.6)	53133 (8124) copy (8148B) original

* Field Sheet 8148B cannot be found.

APPENDIX Level Data

<u>POINT SPRING TRAVERSE</u>			<u>MARTIN'S GAP TRAVERSE</u>		
Stn.	<u>Levels in Feet</u>		Stn.	<u>Levels in Feet</u>	
	<u>1955 Survey Datum</u>	<u>MLW Wynd.</u>		<u>1955 Survey Datum</u>	<u>MLW Wynd.</u>
			SP		
P1	182.81	104.21	335	199.39	120.79
P2	188.59	109.99	M1	275.81	197.21
P3	186.34	107.74	M2	247.23	168.63
P4	186.35	107.75**	M3	208.70	130.10
P5	180.16	101.56	M4	159.54	80.94
P6	176.52*	97.92	M5	159.55	80.95
P7	178.04	99.44	M6	165.66	87.06
P8	175.52	96.92	M7	167.77	89.17
P9	169.68	91.08	M8	189.90	111.30
P10	163.26	84.66	M9	178.12	99.52
P11	161.20	82.60	M10	191.76	113.16
P12	159.68	81.08	M11	245.72	167.12
P13	150.64	72.04	M12	180.63	102.03
P14	141.64	63.04	M13	178.02	99.42
P15	141.34	62.74	P6	176.52	97.92
G17	142.50	63.90			

* Mean of levels obtained from
50 M.N. and 55 M.N.

** Connection made from P4 to
Bench Mark near Research
Stn. Correction for Mean
Sea Level approx. 11.5 feet

CARLTON - IVANHOE HIGHWAY

Stn.	<u>Levels in Feet</u>	
	<u>Barometric</u>	<u>Corrected*</u>
P1	104.2	104.2
55M	55.1	55.1
51M	89.9	90.1
47M	86.9	87.1
43M	51.7	52.3
39M	25.1	26.0
35M	24.4	25.3

* Corrected between P1 and G17.

CARLTON TRAVERSE

NINBING SEISMIC

Stn.	Levels in Feet		
	Barometric	Corrected* Barometric	
			**
			Surveyed
35M	24.4	25.3	
G34	24.3	25.2	
33	26.0	26.9	
32	29.7	30.6	
31	19.8	20.8	
G1	22.2	23.2	
2	32.7	33.8	
3	58.6	60.0	
4	104.5	106.4	
5	191.5	194.4	
6	270.1	273.7	
7	207.7	212.0	
8	189.2	193.7	
9	167.4	172.1	
10	123.8	129.0	
11	102.9	108.3	
12	89.4	94.9	
13	78.9	84.5	
14	69.7	75.4	
15	68.9	74.6	
16	64.2	70.0	
17	58.0	63.9	63.9
18	61.2	67.1	66.9
19	59.9	65.8	60.1
20	64.2	70.1	59.9
21	50.2	56.1	49.1
55MN	49.0	54.9	54.7

Stn.	Levels in Feet	
	Assumed Datum SP1=250'	MLW Wyndham
	SP	
52	216.9	159.6
53	211.5	154.2
131	209.1	151.8
133	201.4	144.1
135	185.8	128.5
137	173.5	116.2
151	167.2	109.9
153	148.8	91.5
155	143.5	86.2
157	174.9	117.6
159	189.2	131.9
161	163.9	106.6
163	128.4	71.1
165	109.3	52.0
167	105.4	48.1
169	104.2	46.9
171	103.9	46.6
173	100.4	43.1
175	88.4	31.1
177	82.2	24.9
*74MN	85.4	28.1

* 74 M.N. = 85.40' assumed datum
= 106.70' 1955
Company's Survey and therefore
= 28.10' MLW Wyndham
Hence Subtract 57.30' to reduce
assumed datum (SP1) to MLW Wynd.

* Corrected P1 - G17

** Surveyed Levels used G17-55MN

BUREAU OF MINERAL RESOURCES SURVEYSEPTEMBER-OCTOBER 1956

I Elevation of stations obtained from field books 391 and 392.
Datum:- 199.39*feet at S.P.335 on Traverse 'A' Spirit Hill
(Minad Datum).

II Elevation with respect to a height of 101.48 feet at the bench
mark near Kimberley Research Station thought to be with respect
to mean Low Water, Wyndham**.

III Elevations adjusted by -25.1 feet to bring them to mean Low Water
Mark Wyndham.

STATION	I Elevation	II Elevation	III Elevation
P 1	182.81	104.21	79.11
P 2	188.59	109.99	84.89
P 3	186.34	107.74	82.64
P 4	186.35	107.75	82.65
P 5	180.16	101.56	76.46
P 6	174.99	96.39	71.29
M 13	178.02	99.42	74.32
M 12	180.63	102.03	76.93
M 11	245.72	167.12	142.02
M 10	191.76	113.16	88.06
M 9	178.12	99.52	74.42
M 8	189.90	111.30	86.20
M 7	167.77	89.17	64.07
M 6	165.56	86.96	61.86
M 5	159.55	80.95	55.85
M 4	159.54	80.94	55.84
M 3	208.70	130.10	105.00
M 2	247.23	168.63	143.53
M 1	275.81	197.21	172.11
S.P.335	199.39	120.79	95.69

* This height was obtained by a tie between S.P.319 on traverse 'A' Spirit Hill and 50 M.N. post of the Border. The height of 132.5 ft at 50 M.N. was taken as the datum. This height was obtained by Minad by a tie to 60 M.N. post of the Border Survey during the Keep River Survey.

** A recent survey has shown, by a tie between P.W.D. bench mark A.R.38 and S.P.1 on traverse 'A' that 101.48 feet taken as the height of the bench mark near Kimberley Research Station is 25.1 feet too low (see page).

FROM FIELD BOOK 392 OF THE DEPARTMENT OF THE INTERIOR
Bureau of Mineral Resources Survey, September-October 1956

Elevation of stations with respect to -

I S.S. 29 as datum. Height 133.34 feet, R.L. to top of Border Post.

II 101.48 feet at bench mark near Kimberley Research Station.

III Elevations adjusted by 25.1 feet to bring them to mean Low Water, Wyndham.

STATION	I Elevation	II Elevation	III Elevation
P 6	178.06	99.46	74.36
P 7	178.04	99.44	74.34
P 8	175.52	96.92	71.82
P 9	169.68	91.08	65.98
P10	163.26	84.66	59.56
P11	161.20	82.60	57.50
P12	159.68	81.08	55.98
P13	150.64	72.04	46.94
P14	141.64	63.04	37.94
P15	141.34	62.74	37.64
G17	142.50	63.90	38.80
G18	145.54	66.94	41.84
G19	138.70	60.10	35.00
G20	138.54	59.94	34.84
G21	127.74	49.14	24.04
S.S. 29	133.34	54.74	29.64

BUREAU OF MINERAL RESOURCES SURVEYSEPTEMBER-OCTOBER 1956

Stations P 6 to P 15, G 17 to G 21 and S.S.29

Elevations: I With respect to 133.34* feet at S.S.29 as datum.

II With respect to a height of 101.48 feet at the bench mark near Kimberley Research Station thought to be with respect to mean low water, Wyndham**.

III With respect to mean low water mark, Wyndham.

STATION	I Elevation	II Elevation	III Elevation
P 6	178.06	99.46	74.36
P 7	178.04	99.44	74.34
P 8	175.52	96.92	71.82
P 9	169.68	91.08	65.98
P 10	163.26	84.66	59.56
P 11	161.20	82.60	57.50
P 12	159.68	81.08	55.98
P 13	150.64	72.04	46.94
P 14	141.64	63.04	37.94
P 15	141.34	62.74	37.64
G 17	142.50	63.90	38.80
G 18	145.50	66.90	41.80
G 19	138.70	60.10	35.00
G 20	138.54	59.94	34.84
G 21	127.74	49.14	24.04
(Top of Post)			
S.S.29	133.34	54.74	29.62

* This height was obtained at S.S.29 by Minad by a tie between 60 M.N. post of the Border Survey (Minad datum) and S.S.29 during the Keep River Survey.

** A recent survey has shown by a tie between P.W.D. bench mark A.R.38 and S.P.1 on traverse 'A' Ninbing that 101.48 feet taken as the height of the bench mark near Kimberley Research Station is 25.1 feet too low (see page).

DATUM:- 101.48 feet at a bench mark near
Kimberley Research Station

Station	Clarke's Elevation (Barometrically levelled)	Stott's Elevation (Optically levelled)
G 1	21.4	
G 2	31.9	
G 3	57.8	
G 4	103.7	
G 5	190.7	
G 6	269.3	
G 7	206.9	
G 8	188.4	
G 9	166.6	
G 10	123.0	
G 11	102.1	
G 12	88.6	
G 13	78.1	
G 14	68.9	
G 15	68.1	
G 16	63.4	
G 17	57.2	63.90
G 18	60.4	66.90
G 19	59.1	60.10
G 20	63.4	59.94
G 21	49.3	49.14
Minad./A.A.055 M.N.	48.1	
		S.S.29
		54.74

DATUM: 101.48 feet at the bench mark near
Kimberley Research Station

	<u>Clarke's</u>	<u>Stott's</u>
G 1	21.4	22.2
G 2	31.9	32.7
G 3	57.8	58.6
G 4	103.7	104.5
G 5	190.7	191.5
G 6	269.3	270.1
G 7	206.9	207.7
G 8	188.4	189.2
G 9	166.6	167.4
G10	123.0	123.8
G11	102.1	102.9
G12	88.6	89.4
G13	78.1	78.9
G14	68.9	69.7
G15	58.1	68.9
G16	63.4	64.2
G17	57.2	58.0
G18	60.4	61.2
G19	59.1	59.9
G20	63.4	64.2
G21	49.3	50.2
A.A.O. 55 M.N.	48.1	49.0

ADJUSTMENT OF BAROMETRIC LEVELS

The loop closure chart for the adjustment of the barometric levels is shown in figure page . This loop was not included in the network of the adjustment of the optical levels of the B.M.R.'s stations surveyed between July and October 1956, as the accuracy of the barometric levels were not considered good enough.

The adjustment of the barometric levels should be carried out by accepting the levels at G8, G17 and P1 obtained by optical levelling and adjusting the values obtained barometrically to agree with them.

The height obtained for G8 by a tie to S.P.73 was 195.38 feet with respect to a height of 101.48 feet at a bench mark near Kimberley Research Station. A tie between P1 and P6 during Stott's Survey gave a difference in elevation between them of 7.82 feet. When the closure errors are distributed around the loop the elevation of P6 will become 176.52 feet (the average of the two levels obtained at P6). The elevation of P1 is therefore 184.34 feet.

63.9 feet; the unadjusted value for G17 will be taken for the adjustment. When the loop closure errors are distributed and a new value obtained for G17 the levels will have to be re-adjusted. However, as G17 is only 5 stations from S.S.29 the maximum adjustment to it will be less than .13 feet.

The method employed for the adjustment of levels for station G8 to G17 is given below:-

There is a difference of 4.64 feet between the optical and barometric levels at station G8. At station G17 there is a difference of 4.36 feet between the optical and barometric levels. The adjustment was carried out by adding 4.64 feet to the barometric level at G8 and 4.36 to the barometric level at G17 and applying a correction varying linearly between 4.64 and 4.36 to the intermediate stations. The corrections were progressively decreased by steps of .031 feet.

At P1 the barometric level was taken to be the optical level at that point. For stations between P1 and G8 via 35M and G1 the adjustment was carried out by applying a correction of 0 feet at P1 and 4.64 feet at G8 and applying a correction which varied linearly between 0 feet and 4.64 feet to the intermediate stations. The corrections were progressively increased by steps of + 0.258 feet. (See page and figure page .)

- I. Stott's uncorrected barometric levels (see Appendix C, pages 10 & 11)
Datum P1 = 104.2 feet.
- II. Barometric levels with respect to Datum P1 = 105.74 feet.
- III. Surveyed levels (optical)
- IV. Difference between barometric and optical levels.
- V. Adjustments applied to Barometric levels
- VI. Barometric levels adjusted to tie to P1, G18 and G17.

Stn.	Elevation (feet)	Elevation (feet)	Elevation (feet)	Diff. in Elev.	Adjustment Applied (feet)	Adjusted levels (feet)
P1	104.2	105.74	105.74	0	0	105.74
55M	55.1	56.64			+ .258 1	56.90
51M	89.9	91.44			+ .516 2	91.96
47M	86.9	88.44			+ .774 3	89.21
43M	51.7	53.24			+ 1.03 4	54.27
39M	25.1	26.64			+ 1.290 5	27.93
35M	24.4	25.94			+ 1.548 6	27.49
G34	24.3	25.84			+ 1.806 7	27.65
G33	26.0	27.54			+ 2.064 8	29.60
G32	29.7	31.24			+ 2.322 9	33.56
G31	19.8	21.34			+ 2.580 10	23.92
G1	22.2	23.74			+ 2.838 11	26.58
G2	32.7	34.24			+ 3.096 12	37.34
G3	58.6	60.14			+ 3.354 13	63.49
G4	104.5	106.04			+ 3.612 14	109.65
G5	191.5	193.04			+ 3.870 15	196.91
G6	270.1	271.64			+ 4.128 16	275.77
G7	207.7	209.24			+ 4.386 17	213.63
G8	189.2	190.74	195.38	+ 4.64	+ 4.64	195.38
G9	167.4	168.94			+ 4.61	173.55
G10	123.8	125.34			+ 4.58	129.92
G11	102.9	104.44			+ 4.55	108.99
G12	89.4	90.94			+ 4.52	95.46
G13	78.9	80.44			+ 4.48	84.92
G14	69.7	71.24			+ 4.45	75.69
G15	68.9	70.44			+ 4.42	74.86
G16	64.2	65.74			+ 4.39	70.13
G17	58.0	59.54	63.90	4.36	63.90 + 4.36	63.90
G18	61.2	62.74	66.94		66.94 -	66.94
G19	59.9	61.44	60.10		60.10 -	60.10
G20	64.2	65.74	59.94		59.94 -	59.94
G21	50.2	51.74	49.14		49.14 -	49.14
55 MN	49.0	50.54			50.54 -	50.54
S.S. 29			54.70		54.70 -	54.70

TIE BETWEEN STATION P1 AND A TEMPORARY BENCH MARK SITUATED
BETWEEN STATION M1 AND M2

Datum 200 ft (Assumed at 60 MN post of the Border)

Minad Datum

STATION DESCRIPTIONS

<u>Station No.</u>	<u>Elevation</u>	<u>Remarks</u>
P1	182.81	(Stn. P1 Red Peg in ground, 6' out from (left hand Gate Post, Ivanhoe Stn. entrance.
P2	188.59	
P3	186.34	(Stn. P3, Red Peg, inside first gate, (left side.
P4	186.35	(Stn. P4, Red Peg, int: of tracks near (entrance to Research Stn.
P5	180.16	Stn. P5, Red Peg, 4' to right of track.
P6	174.99 *(178.06)	(Stn. P6, Red Peg, left of track, (Junction of Point Spring and Milligans (tracks.
M13	178.02	Stn. M13, White Peg, 8' to left of track
M12	180.63	(Stn. M12, Red Peg, near gate, 3' right (of track
M11	245.72	(Stn. M11, Red Peg near Red Gum, 3' to left (of track.
M10	191.76	Stn. M10, Red Peg near Grey Gum.
M9	178.12	Stn. M9, White Peg Gum.
M8	189.90	Stn. M8, Spike near small Gum.
M7	167.77	(Stn. M7, iron bolt near Baobab Tree (2.45 miles from M8).
M6	165.56	Stn. M6, spike near Coolibah tree.
M5	159.55	(Stn. M5, spike near Coolibah tree, ((2.3 miles from M6)
M4	159.54	(Stn. M4, spike near sycamore tree. ((0.7 miles from M5).
M3	208.70	Stn. M3, spike near Gum.
M2	247.23	Stn. M2, Red Peg near Red Gum
T.B.M.	286.57	Temporary Bench Mark (stone). (A Station between M1 and M2. (Jack's last change point.

Extracted from Field Book 391 of the Department of the Interior, Property and Survey Branch.

Surveyor: W.B. Martyr.

(Elevations of intermediate pegs between stations are not given).

* This elevation was obtained by a tie between station P6 and Border peg S.S.29.

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS

B.M.R. SEPTEMBER - OCTOBER 1956 SURVEY

APPENDIX 'D'

APPENDIX 'D': Part 1, Pages 1 - 16

Appendix 'D': Part 2, Pages 1 - 16

ELEVATIONS FROM DEPARTMENT OF THE INTERIOR

Milligans Lagoon - Spirit Hill traverse Pages 1 - 16.

Ninbing traverse Pages 1 - 16.

GEOPHYSICAL SEISMIC SURVEY
KIMBERLEYS, WESTERN AUSTRALIA.

NINBING.

LEVELS.

DATUM: L.W.M. Wyndham.

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
1		0.00	192.6		1		206.6
	1		194.6		2		207.4
	2		193.7		3		208.5
	3		194.6		4		209.4
	4		195.3		5		209.9
	5		196.4		6		210.7
	6		197.8		7		211.4
	7		198.8		8		212.3
	8		199.8		9		214.1
	9		200.5		10		216.3
	10		200.8		11		215.4
	11		200.4	5	12	1.00	211.1
2	12	0.25	199.2		1		209.4
	1		198.9		2		208.0
	2		198.2		3		205.9
	3		197.6		4		204.0
	4		196.4		5		202.1
	5		190.7		6		201.8
	6		192.3		7		201.8
	7		195.3		8		202.1
	8		195.1		9		203.3
	9		195.3		10		204.1
	10		195.8		11		205.4
	11		195.3	6	12	1.25	207.2
3	12	0.50	196.2		1		209.4
	1		217.3		2		211.0
	2		205.6		3		215.4
	3		198.2		4		230.4
	4		196.0		5		226.3
	5		195.5		6		230.5
	6		195.6		7		228.4
	7		196.5		8		225.9
	8		198.4		9		223.8
	9		200.6		10		221.6
	10		202.5		11		219.8
	11		205.3	7	12	1.50	217.8
4	12	0.75	206.3		1		216.2

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	2		215.9	11	12	2.50	240.1
	3		216.2		1		239.5
	4		217.		2		239.4
	5		220.9		3		239.9
	6		219.6		4		240.5
	7		219.5		5		241.4
	8		219.3		6		243.5
	9		218.3		7		244.4
	10		217.5		8		244.1
	11		216.3		9		243.5
8	12	1.75	216.7		10		242.9
	1		217.2		11		242.2
	2		218.4	12	12	2.75	241.3
	3		220.2		1		240.4
	4		222.2		2		238.8
	5		224.3		3		237.5
	6		226.6		4		235.9
	7		228.8		5		234.5
	8		231.2		6		233.8
	9		233.8		7		233.4
	10		244.7		8		232.9
	11		239.4		9		232.7
9	12	2.00	237.8		10		232.5
	1		236.8		11		232.5
	2		236.0	13	12	3.00	232.8
	3		235.6		1		233.0
	4		235.2		2		233.4
	5		235.0		3		233.5
	6		234.8		4		234.1
	7		235.1		5		234.7
	8		235.2		6		235.0
	9		235.7		7		235.2
	10		235.9		8		235.7
	11		236.7		9		235.9
10	12	2.25	237.7		10		236.0
	1		238.7		11		236.3
	2		239.7	14	12	3.25	237.5
	3		240.1		1		238.9
	4		240.5		2		240.5
	5		240.7		3		242.8
	6		240.6		4		244.6
	7		240.6		5		246.5
	8		240.6		6		243.4
	9		240.5		7		250.2
	10		240.5		8		251.9
	11		240.4		9		253.6

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	10		255.3		8		320.2
	11		257.5		9		322.1
15	12	3.50	261.3		10		324.2
	1		266.0		11		326.3
	2		269.0	19	12	4.50	328.8
	3		275.7		1		331.8
	4		274.6		2		340.7
	5		274.3		3		344.1
	6		274.7		4		347.2
	7		275.5		5		350.9
	8		275.2		6		352.5
	9		274.6		7		349.6
	10		274.2		8		347.3
	11		274.6		9		345.3
16	12	3.75	275.4		10		343.6
	1		276.2		11		342.0
	2		277.4	20	12	4.75	340.4
	3		278.6		1		339.5
	4		280.0		2		338.3
	5		281.0		3		337.4
	6		282.3		4		336.5
	7		283.6		5		335.5
	8		284.7		6		334.7
	9		286.3		7		333.8
	10		287.6		8		333.1
	11		288.8		9		332.6
17	12	4.00	290.1		10		332.3
	1		291.5		11		332.1
	2		292.6	21	12	5.00	331.8
	3		293.8		1		331.8
	4		295.0		2		331.4
	5		296.2		3		330.9
	6		297.3		4		330.7
	7		298.5		5		330.4
	8		299.9		6		330.4
	9		301.3		7		330.9
	10		302.8		8		331.3
	11		304.1		9		332.3
18	12	4.25	305.6		10		333.1
	1		307.2		11		333.7
	2		309.0	22	12	5.25	334.1
	3		310.7		1		334.1
	4		312.6		2		334.7
	5		314.4		3		334.7
	6		316.2		4		334.9
	7		318.3		5		334.6

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	6		333.7		4		311.8
	7		333.0		5		310.5
	8		332.5		6		309.2
	9		332.2		7		308.3
	10		332.2		8		307.2
	11		331.6		9		306.4
23	12	5.50	331.3		10		305.7
	1		330.6		11		305.4
	2		330.3	27	12	5.50	303.7
	3		329.8		1		304.2
	4		329.4		2		303.7
	5		329.4		3		303.2
	6		329.6		4		302.8
	7		329.3		5		302.5
	8		329.5		6		301.1
	9		330.2		7		301.9
	10		330.8		8		301.6
	11		331.1		9		301.5
24	12	5.75	331.5		10		301.3
	1		332.0		11		301.1
	2		332.2	28	12	6.75	301.1
	3		332.7		1		301.3
	4		333.4		2		301.2
	5		333.7		3		301.2
	6		333.3		4		301.1
	7		332.8		5		301.1
	8		332.4		6		300.7
	9		332.0		7		300.5
	10		331.6		8		300.1
	11		331.3		9		299.9
25	12	6.00	331.3		10		299.7
	1		330.8		11		299.8
	2		329.8	29	12	7.00	299.5
	3		328.7		1		299.2
	4		327.6		2		298.9
	5		326.4		3		298.6
	6		325.2		4		298.2
	7		324.0		5		298.1
	8		322.9		6		297.8
	9		321.7		7		297.6
	10		320.5		8		297.3
	11		319.3		9		297.0
26	12	6.25	317.9		10		296.4
	1		316.2		11		296.4
	2		314.7	30	12	7.25	296.2
	3		313.2		1		295.4

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	2		294.9	133	12	13.75	143.8
	3		294.3		1		143.8
	4		293.7		2		143.3
	5		293.3		3		143.1
	6		292.6		4		142.9
	7		292.1		5		142.8
	8		291.1		6		143.1
	9		290.6		7		143.7
	10		290.1		8		143.8
	11		289.4		9		143.5
31	12	7.50	288.7		10		142.6
32		7.75	278.6		11		141.8
33		8.00	268.9	134	12	14.00	141.0
34		8.25	262.3	135		14.25	128.5
35		8.50	253.7	136		14.50	121.7
36		8.75	246.0		1		121.4
37		9.00	238.5		2		121.1
38		9.25	231.0		3		120.8
39		9.50	222.3		4		120.7
40		9.75	222.8		5		120.5
41		10.00	215.7		6		120.5
42		10.25	207.6		7		120.2
43		10.50	199.5		8		119.9
44		10.75	196.1		9		119.4
45		11.00	193.0		10		118.2
46		11.25	186.5		11		117.3
47		11.50	181.4	137	12	14.75	116.2
48		11.75	176.1		1		115.4
49		12.00	170.3		2		115.6
50		12.25	161.2		3		115.6
51		12.50	162.4		4		115.9
52		12.75	159.6		5		116.2
53		13.00	154.2		6		116.5
131		13.25	151.8		7		116.3
132		13.50	146.1		8		116.0
	1		146.0		9		115.7
	2		146.6		10		115.4
	3		146.3		11		114.9
	4		145.6	138	12	15.00	113.9
	5		144.9	151		15.25	109.9
	6		144.1	152		15.50	100.7
	7		143.2	153		15.75	91.5
	8		142.7	154		16.00	89.8
	9		142.7	155		16.25	86.2
	10		142.9	156		16.50	98.6
	11		143.9	157		16.75	117.6

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
155		17.00	128.9		1		175.5
159		17.25	131.9		2		175.4
160		17.50	122.1		3		175.2
161		17.75	106.6		4		174.8
162		18.00	87.2		5		174.1
163		18.25	71.1		6		173.7
164		18.50	54.2		7		172.8
165		18.75	52.0		8		172.4
166		19.00	50.1		9		171.7
167		19.25	48.1		10		172.8
168		19.50	48.1		11		175.2
169		19.	46.9	56	12	0.75	175.2
170		20.00	46.2		1		173.8
171		20.25	46.6		2		173.3
172		20.50	44.3		3		173.4
173		20.75	43.1		4		173.8
174		21.00	42.1		5		173.2
175		21.25	31.1		6		172.6
176		21.50	29.9		7		172.2
177		21.75	25.0		8		171.7
					9		170.5
1		0.00	192.6		10		171.8
	1		193.2		11		168.8
	2		193.4	57	12	1.00	172.9
	3		193.3	Cross Traverse at S.P. 57			
	4		185.0	145		0.00	162.2
	5		189.3		1		159.5
	6		192.1		2		160.2
	7		191.1		3		166.2
	8		190.4		4		167.9
	9		189.1		5		167.5
	10		187.6		6		167.6
	11		186.0		7		167.6
54	12	0.25	185.2		8		167.3
	1		183.6		9		167.1
	2		182.4		10		167.3
	3		181.3		11		167.7
	4		179.9	146	12	0.25	168.0
	5		179.2		1		167.9
	6		178.9		2		167.8
	7		178.4		3		167.5
	8		178.3		4		167.4
	9		177.1		5		168.2
	10		176.1		6		169.0
	11		175.6		7		169.3
55	12	0.50	175.1		8		169.4

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
147	9		169.3		7		185.0
	10		169.2		8		185.3
	11		169.		9		186.1
	12	0.50	168.8		10		186.8
	1		166.4		11		187.4
	2		169.9	150	12	1.50	188.5
	3		169.8				
	4		169.8	57		1.00	172.9
	5		169.9		1		173.5
	6		170.2		2		172.0
	7		170.7		3		171.1
57	8		171.1		4		171.1
	9		171.5		5		171.5
	10		172.4		6		171.8
	11		172.5		7		172.1
	12	0.75	172.9		8		172.6
	1		172.5		9		172.7
	2		171.4		10		173.1
	3		171.6		11		173.7
	4		172.2	58	12	1.25	173.7
	5		173.5		1		173.8
	6		173.8		2		174.6
148	7		174.1		3		175.6
	8		174.5		4		176.8
	9		174.4		5		177.8
	10		173.1		6		178.2
	11		172.0		7		178.7
	12	1.00	173.6		8		179.2
	1		176.5		9		178.6
	2		177.5		10		178.5
	3		178.4		11		178.0
	4		179.4	59	12	1.50	177.6
	5		180.5		1		176.9
149	6		181.5		2		177.1
	7		182.4		3		177.4
	8		183.0		4		177.1
	9		183.6		5		177.3
	10		184.3		6		178.5
	11		184.8		7		178.7
	12	1.25	185.4		8		179.5
	1		185.9		9		179.6
	2		185.8		10		179.2
	3		185.8		11		179.1
	4		185.6	60	12	1.75	178.7
	5		185.3		1		177.9
	6		185.2		2		177.1

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	3		176.2		1		170.3
	4		175.5		2		170.6
	5		174.6		3		170.6
	6		174.1		4		171.1
	7		172.6		5		171.5
	8		172.3		6		172.6
	9		172.4		7		173.3
	10		171.1		8		173.0
	11		171.0		9		172.4
61	12	2.00	170.7		10		173.0
	1		170.6		11		173.1
	2		170.5	65	12	3.00	172.6
	3		169.9		1		173.1
	4		170.0		2		172.8
	5		169.7		3		173.2
	6		170.2		4		174.8
	7		170.3		5		174.1
	8		169.3		6		173.8
	9		169.3		7		173.1
	10		168.6		8		174.1
	11		169.3		9		173.4
62	12	2.25	169.5		10		174.0
	1		169.4		11		175.2
	2		169.4	66	12	3.25	175.1
	3		169.3		1		174.8
	4		169.6		2		173.8
	5		168.9		3		174.1
	6		168.7		4		173.8
	7		169.5		5		174.1
	8		169.3		6		173.5
	9		169.1		7		173.6
	10		168.3		8		173.8
	11		168.3		9		173.6
63	12	2.50	168.3		10		173.0
	1		168.3		11		174.1
	2		167.5	67	12	3.50	174.4
	3		167.7		1		174.6
	4		166.4		2		174.0
	5		167.1		3		173.8
	6		167.0		4		173.8
	7		165.7		5		174.2
	8		168.2		6		174.4
	9		169.0		7		174.1
	10		169.4		8		174.7
	11		169.6		9		174.7
64	12		169.9		10		175.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
68	11		175.3		7		166.1
	12	3.75	175.9		8		166.9
	1		176.2		9		167.8
	2		176.4		10		168.7
	3		176.2		11		169.7
	4		176.6	140	12	0.25	170.4
	5		176.9		1		171.6
	6		176.8		2		172.4
	7		177.1		3		173.1
	8		177.6		4		173.8
	9		176.9		5		174.3
69	10		177.6		6		175.1
	11		177.8		7		175.5
	12	4.00	178.5		8		176.8
	1		178.7		9		176.7
	2		179.5		10		177.1
	3		178.8		11		177.9
	4		180.8	141	12	0.50	178.7
	5		181.4		1		179.7
	6		182.3		2		180.3
	7		183.8		3		180.6
	8		184.3		4		181.3
70	9		184.0		5		181.9
	10		185.3		6		182.9
	11		186.5		7		183.9
	12		185.9		8		185.2
	1		187.7		9		185.1
	2		187.5		10		186.3
	3		186.7		11		186.7
	4		188.2	71	12	0.75	187.7
	5		189.2		1		188.6
	6		187.8		2		189.4
	7		187.8		3		190.1
71	8		188.6		4		190.8
	9		189.0		5		196.6
	10		188.4		6		193.4
	11		188.3		7		194.2
	12	4.50	187.7		8		194.3
Cross Traverse at S.P. 71					9		194.5
139		0.00	159.7		10		194.3
	1		160.6		11		194.5
	2		161.5	142	12	1.00	194.8
	3		162.3		1		194.4
	4		163.3		2		195.0
	5		164.3		3		195.2
	6		165.5		4		194.8

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	5		195.6		1		176.1
	6		196.1		2		175.8
	7		196.6		3		175.3
	8		196.7		4		175.9
	9		197.2		5		175.4
	10		196.8		6		175.0
	11		197.4		7		175.2
143	12	1.25	197.9		8		174.8
	1		198.8		9		175.3
	2		199.6		10		175.3
	3		199.8		11		175.1
	4		200.4	74	12	5.25	174.1
	5		201.5		1		174.4
	6		202.3		2		175.5
	7		202.9		3		175.9
	8		202.8		4		175.5
	9		203.3		5		175.9
	10		202.8		6		176.5
	11		204.0		7		176.6
144	12	1.50	204.3		8		176.1
71					9		176.9
71		4.50	187.7		10		177.9
	1		188.3		11		177.5
	2		188.1	75	12	5.50	177.9
	3		187.7		1		177.9
	4		188.2		2		178.2
	5		187.0		3		177.1
	6		187.8		4		178.1
	7		188.3		5		178.5
	8		188.4		6		178.4
	9		186.5		7		178.7
	10		184.7		8		178.5
	11		185.8		9		178.8
72	12		186.1		10		178.1
	1		185.9		11		178.7
	2		183.8	76	12	5.75	179.6
	3		183.0		1		179.3
	4		182.8		2		179.5
	5		182.1		3		179.7
	6		180.5		4		180.1
	7		180.1		5		180.0
	8		179.3		6		180.0
	9		179.0		7		180.4
	10		178.4		8		180.7
	11		177.4		9		180.9
73	12	5.00	176.6		10		180.9

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
77	11	6.00	180.2	81	9	9.00	187.3
	12		179.7		10		187.0
	1		179.6		11		186.7
	2		180.3		12		186.1
	3		181.5		1		185.3
	4		181.5		2		185.2
	5		181.4		3		184.5
	6		182.9		4		183.9
	7		183.4		5		183.7
	8		185.0		6		183.2
	9		185.2		7		182.7
78	10	6.25	186.3	82	8	7.25	182.7
	11		187.8		9		182.4
	12		188.3		10		181.9
	1		188.9		11		181.4
	2		189.4		12		180.9
	3		189.6		1		181.2
	4		190.2		2		181.5
	5		189.7		3		180.7
	6		190.1		4		180.2
	7		189.9		5		180.3
	8		190.0		6		179.8
79	9	6.50	190.4	83	7	7.50	179.4
	10		190.4		8		178.9
	11		190.4		9		179.0
	12		189.7		10		178.5
	1		189.1		11		177.9
	2		188.8		12		177.7
	3		188.9		1		177.0
	4		187.9		2		176.4
	5		189.6		3		176.0
	6		189.4		4		176.0
	7		189.2		5		175.7
80	8	6.75	189.2	84	6	7.75	174.8
	9		189.0		7		174.4
	10		188.8		8		173.9
	11		189.7		9		173.8
	12		190.2		10		174.2
	1		189.6		11		173.1
	2		189.2		12		172.6
	3		188.3		1		171.5
	4		187.9		2		171.6
	5		187.4		3		171.5
	6		187.9		4		170.8
	7		188.0		5		171.8
	8		187.6		6		173.2

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	7		173.5		5		185.9
	8		173.9		6		186.8
	9		174.2		7		186.6
	10		173.9		8		186.2
	11		174.4		9		184.4
85	12	8.00	174.3		10		184.3
	1		174.1		11		185.0
	2		174.6	89	12	9.00	183.7
	3		174.5		1		182.7
	4		174.2		2		182.5
	5		174.0		3		183.5
	6		173.9		4		184.7
	7		174.3		5		184.7
	8		173.9		6		184.8
	9		173.9		7		185.3
	10		173.4		8		186.0
	11		173.7		9		187.5
86	12	8.25	173.6		10		188.4
	1		173.6		11		190.6
	2		173.8	90	12	9.35	192.2
	3		173.8		1		192.3
	4		173.6		2		192.8
	5		173.2		3		194.2
	6		173.9		4		194.7
	7		174.2		5		194.2
	8		174.3		6		193.9
	9		174.3		7		194.0
	10		174.0		8		194.3
	11		174.6		9		195.1
87	12	8.50	175.0		10		195.5
	1		174.5		11		196.4
	2		175.0	91	12	9.50	197.1
	3		175.2		1		197.7
	4		178.4		2		197.9
	5		180.9		3		198.7
	6		182.1		4		199.4
	7		182.3		5		199.9
	8		182.9		6		200.0
	9		182.7		7		200.2
	10		181.7		8		200.0
	11		180.6		9		199.5
88	12	8.75	180.0		10		199.2
	1		180.6		11		198.9
	2		181.4	92	12	9.75	199.1
	3		182.6		1		199.2
	4		184.1		2		200.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	3		201.7		1		216.4
	4		199.8		2		217.0
	5		196.4		3		217.4
	6		199.5		4		217.8
	7		199.0		5		218.3
	8		199.8		6		218.7
	9		199.7		7		219.1
	10		200.8		8		219.5
	11		203.4		9		219.5
93	12	10.00	203.4		10		219.5
	1		203.0		11		219.6
	2		203.3	97	12	11.00	219.3
	3		203.9		1		218.7
	4		204.9		2		218.6
	5		205.9		3		218.6
	6		206.7		4		218.6
	7		207.8		5		218.8
	8		208.7		6		219.1
	9		208.7		7		219.5
	10		207.4		8		219.9
	11		207.5		9		220.2
94	12	10.25	207.4		10		220.5
	1		207.4		11		220.5
	2		207.8	98	12	11.25	220.7
	3		209.2		1		221.3
	4		209.9		2		221.2
	5		209.3		3		222.7
	6		209.8		4		222.9
	7		210.0		5		221.8
	8		210.6		6		222.0
	9		211.0		7		222.3
	10		211.7		8		222.6
	11		212.5		9		222.9
95	12	10.50	212.5		10		222.8
	1		211.8		11		223.0
	2		211.2	99	12	11.50	223.1
	3		209.5		1		223.2
	4		209.8		2		223.2
	5		208.3		3		222.9
	6		208.9		4		223.3
	7		212.0		5		219.9
	8		212.7		6		214.3
	9		214.3		7		223.2
	10		215.5		8		224.1
	11		216.1		9		224.9
96	12	10.75	216.2		10		225.6

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	11		226.3		9		269.0
100	12	11.75	227.1		10		270.5
	1		226.6		11		271.6
	2		226.9	104	12	12.75	273.1
	3		228.1		1		274.8
	4		228.2		2		276.6
	5		228.6		3		277.7
	6		229.6		4		279.7
	7		230.6		5		280.3
	8		231.7		6		279.9
	9		232.9		7		278.7
	10		234.0		8		278.2
	11		234.7		9		278.1
101	12	12.00	235.2		10		278.2
	1		235.3		11		278.0
	2		235.2	105	12	13.00	278.0
	3		234.8		1		277.3
	4		234.7		2		276.9
	5		234.6		3		276.0
	6		234.8		4		275.3
	7		235.1		5		273.4
	8		236.0		6		272.4
	9		236.9		7		271.9
	10		238.5		8		271.2
	11		239.6		9		270.6
102	12	12.25	240.2		10		270.3
	1		240.7		11		269.4
	2		241.2	106	12	13.25	267.7
	3		241.4		1		266.1
	4		242.1		2		264.1
	5		243.0		3		260.5
	6		244.0		4		259.7
	7		245.4		5		257.3
	8		246.7		6		264.2
	9		248.3		7		267.6
	10		249.7		8		268.4
	11		251.4		9		269.2
103	12	12.50	253.0		10		269.6
	1		254.9		11		270.6
	2		256.5	107	12	13.50	271.9
	3		258.4		1		273.6
	4		260.4		2		276.2
	5		262.1		3		279.2
	6		263.6		4		281.9
	7		265.3		5		284.6
	8		267.2		6		286.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
108	7	13.75	288.1		5		235.0
	8		290.0		6		235.3
	9		292.7		7		235.0
	10		295.0		8		233.5
	11		297.3		9		230.7
	12		299.7		10		229.5
	1		302.1		11		231.0
	2		304.3	112	12	14.75	232.7
	3		308.2		1		233.0
	4		311.0		2		232.5
	5		313.3		3		231.6
109	6	14.00	315.8		4		231.2
	7		317.6		5		230.9
	8		319.3		6		230.3
	9		320.8		7		229.5
	10		316.4		8		229.1
	11		307.3		9		227.5
	12		301.2		10		226.0
	1		296.8		11		214.2
	2		292.4	113	12	15.00	199.3
	3		288.5		1		195.5
	4		285.6		2		191.8
110	5	14.25	287.6		3		187.8
	6		291.9		4		184.0
	7		291.9		5		180.3
	8		262.3		6		177.1
	9		258.5		7		173.8
	10		253.9		8		170.7
	11		249.5		9		168.5
	12		249.2		10		166.3
	1		246.7		11		164.5
	2		247.8	114	12	15.25	162.2
	3		245.5		1		160.2
111	4	14.50	242.2		2		158.2
	5		243.9		3		157.0
	6		243.9		4		155.9
	7		244.0		5		155.1
	8		243.5		6		154.4
	9		242.3		7		153.9
	10		240.8		8		153.0
	11		238.8		9		151.9
	12		236.6		10		151.8
	1		235.0		11		154.0
	2		233.8	115	12	15.50	156.9
	3		234.2		1		159.4
	4		234.6		2		161.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	3		162.6		10		79.2
	4		163.4		11		77.4
	5		163.5	122	12	17.25	75.5
	6		162.4		1		73.6
	7		161.9		2		72.6
	8		163.5		3		71.1
	9		163.8		4		69.2
	10		160.8		5		67.5
	11		155.7		6		67.1
116	12	15.75	153.4		7		67.0
117		16.00	111.0		8		67.9
	1		108.2		9		69.3
	2		105.8		10		71.1
	3		98.1		11		75.2
	4		101.7	123	12	17.50	81.1
	5		100.4	124		17.75	61.1
	6		99.2	125		18.00	57.7
	7		97.1		1		57.7
	8		95.5		2		57.2
	9		94.2		3		57.3
	10		94.0		4		56.8
	11		93.2		5		56.0
118	12	16.25	96.1		6		55.1
	1		95.3		7		54.7
	2		94.1		8		54.5
	3		93.5		9		54.7
	4		91.6		10		55.0
	5		76.5		11		55.3
	6		84.3	126	12		55.9
	7		83.2		1		57.4
	8		81.9		2		58.8
	9		82.4		3		60.1
	10		84.4		4		61.6
	11		84.7		5		63.2
119	12	16.50	85.7		6		64.4
120		16.75	88.6		7		64.1
121		17.00	110.6		8		62.7
	1		111.0		9		61.1
	2		107.0		10		59.3
	3		103.4		11		55.3
	4		100.9		12		52.1
	5		97.4				
	6		93.0				
	7		88.1				
	8		85.8				
	9		82.0				

GEOPHYSICAL SEISMIC SURVEY.

KIMBERLEYS, WESTERN AUSTRALIA AND NORTHERN TERRITORY

MILLIGAN'S LAGOON - SPIRIT HILL

LEVELS.

DATUM: Mines Administration
(00 = 78.6 above L.W.M. Wyndham)

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
TRAVERSE "A" SPIRIT HILL.				304	12	0.75	147.7
301		00	153.5		1		147.9
	1		154.7		2		148.1
	2		152.4		3		148.3
	3		151.9		4		148.6
	4		151.6		5		148.4
	5		150.7		6		147.9
	6		149.8		7		147.7
	7		148.7		8		147.3
	8		147.7		9		147.1
	9		146.8		10		146.7
	10		145.9		11		146.4
	11		145.5	305	12	1.00	145.7
302	12	0.25	145.1		1		145.0
	1		145.5		2		144.8
	2		145.9		3		144.7
	3		146.1		4		145.0
	4		145.9		5		145.1
	5		145.9		6		145.4
	6		146.1		7		145.3
	7		146.9		8		145.4
	8		147.7		9		145.3
	9		148.3		10		145.0
	10		148.8		11		144.8
	11		148.9	306	12	1.25	144.8
303	12	0.50	148.9		1		144.3
	1		148.9		2		144.1
	2		149.3		3		144.3
	3		149.9		4		143.7
	4		150.2		5		141.5
	5		150.3		6		141.0
	6		150.1		7		140.0
	7		149.8		8		138.7
	8		149.5		9		137.6
	9		149.0		10		136.1
	10		148.4		11		135.0
	11		147.7	307	12	1.50	133.7

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	1		132.9		11		126.0
	2		131.7	311	12	2.50	125.3
	3		130.2		1		125.2
	4		129.2		2		125.3
	5		127.5		3		125.4
	6		126.1		4		125.7
	7		125.5		5		125.8
	8		124.9		6		125.3
	9		125.1		7		125.6
	10		125.4		8		125.6
	11		126.5		9		125.9
308	12	1.75	128.0		10		125.9
	1		129.7		11		126.2
	2		131.1	312	12	2.75	125.8
	3		132.3		1		126.1
	4		133.3		2		126.3
	5		134.3		3		126.0
	6		134.7		4		126.6
	7		134.7		5		126.5
	8		134.0		6		126.5
	9		133.0		7		126.7
	10		131.4		8		126.7
	11		128.6		9		127.0
309	12	2.00	126.9		10		126.8
	1		126.5		11		126.9
	2		126.1	313	12	3.00	127.2
	3		125.8		1		126.8
	4		126.0		2		126.9
	5		126.4		3		127.1
	6		126.5		4		127.6
	7		126.4		5		127.5
	8		126.6		6		127.9
	9		126.7		7		127.8
	10		126.8		8		128.1
	11		127.6		9		127.9
310	12	2.25	128.6		10		128.2
	1		129.3		11		128.5
	2		129.3	314	12	3.25	128.3
	3		128.2		1		128.0
	4		127.3		2		127.6
	5		126.9		3		126.7
	6		126.3		4		125.9
	7		126.5		5		126.0
	8		126.6		6		125.4
	9		126.4		7		125.1
	10		126.3		8		125.2

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	9		124.4		7		129.7
	10		122.3		8		129.9
	11		121.8		9		129.6
315	12	3.50	121.3		10		129.6
	1		122.5		11		129.6
	2		122.9	319	12	4.50	129.6
	3		122.3		1		129.4
	4		118.2		2		129.1
	5		121.4		3		129.1
	6		112.6		4		129.3
	7		118.7		5		128.9
	8		119.7		6		129.1
	9		120.2		7		128.9
	10		120.4		8		128.8
	11		119.0		9		128.9
316	12	3.75	119.2		10		129.1
	1		118.3		11		129.4
	2		119.1	320	12	4.75	129.4
	3		114.3		1		129.7
	4		120.8		2		129.7
	5		115.5		3		130.1
	6		117.1		4		130.0
	7		123.5		5		130.2
	8		127.4		6		130.2
	9		128.8		7		130.1
	10		128.9		8		130.2
	11		128.8		9		130.1
317	12	4.00	128.7		10		130.5
	1		128.6		11		130.3
	2		128.4	321	12	5.00	130.4
	3		128.5		1		130.4
	4		128.4		2		130.6
	5		128.4		3		130.6
	6		128.4		4		130.8
	7		128.3		5		130.6
	8		128.3		6		130.7
	9		128.5		7		130.8
	10		128.8		8		131.0
	11		128.9		9		130.6
318	12	4.25	129.2		10		131.0
	1		129.3		11		131.0
	2		129.3	322	12	5.25	131.0
	3		129.5		1		131.1
	4		129.5		2		131.2
	5		129.4		3		131.1
	6		129.8		4		131.0

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	5		131.2		3		131.2
	6		131.2		4		130.8
	7		131.1		5		131.1
	8		131.0		6		130.7
	9		131.1		7		130.4
	10		130.9		8		130.8
	11		131.1		9		130.8
323	12	5.50	131.2		10		130.7
	1		131.1		11		130.7
	2		131.3	327	12	6.50	130.8
	3		131.1		1		130.8
	4		131.0		2		131.1
	5		131.2		3		131.3
	6		131.0		4		131.0
	7		131.0		5		131.3
	8		131.1		6		131.9
	9		131.2		7		133.8
	10		131.2		8		136.3
	11		131.1		9		139.2
324	12	5.75	131.2		10		143.2
	1		131.0		11		146.2
	2		131.2	328	12	6.718	149.0
	3		131.0	TRAVERSE "A" SPIRIT HILL			
	4		131.0	301		00	153.5
	5		131.1		1		154.6
	6		131.3		2		155.6
	7		131.2		3		155.0
	8		131.1		4		153.9
	9		131.2		5		153.7
	10		131.1		6		153.2
	11		131.1		7		152.5
325	12	6.00	131.2		8		151.8
	1		131.3		9		150.0
	2		131.2		10		148.5
	3		130.9		11		148.7
	4		131.1	329	12	0.25	149.2
	5		131.0		1		150.8
	6		130.9		2		150.9
	7		131.0		3		151.6
	8		131.1		4		152.1
	9		131.2		5		152.5
	10		131.0		6		152.8
	11		131.0		7		153.3
326	12	6.25	131.0		8		153.5
	1		131.2		9		154.0
	2		131.1		10		154.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
330	11		154.9		9		184.0
	12	0.50	155.6		10		184.3
	1		156.8		11		184.5
	2		157.9	334	12	1.50	184.8
	3		157.9		1		184.9
	4		157.5		2		185.3
	5		157.3		3		185.8
	6		157.7		4		186.4
	7		157.7		5		186.7
	8		157.9		6		186.9
	9		157.9		7		187.9
	10		159.0		8		189.7
331	11		160.2		9		191.6
	12	0.75	161.2		10		193.7
	1		161.6		11		196.8
	2		161.2	335	12	1.75	199.4
	3		161.3		1		201.8
	4		161.9		2		204.4
	5		163.1		3		207.1
	6		163.2		4		209.6
	7		163.2		5		212.4
	8		163.7		6		213.4
	9		164.1		7		214.3
	10		164.8		8		214.9
332	11		167.1		9		215.3
	12	1.00	168.4		10		215.8
	1		170.0		11		216.1
	2		170.8	336	12	2.00	216.6
	3		171.4		1		217.2
	4		172.5		2		218.1
	5		173.6		3		219.2
	6		174.4		4		220.9
	7		175.1		5		221.7
	8		175.6		6		222.3
	9		176.2		7		223.1
	10		176.9		8		223.8
333	11		177.6		9		224.4
	12	1.25	178.2		10		225.2
	1		178.8		11		225.7
	2		179.6	337	12	2.25	226.4
	3		180.2		1		226.9
	4		180.9		2		227.5
	5		181.8		3		228.1
	6		182.2		4		228.8
	7		182.8		5		229.5
	8		183.4		6		230.2

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	7		231.3		5		270.2
	8		231.9		6		270.3
	9		232.6		7		270.2
	10		233.3		8		270.3
	11		234.0		9		270.4
338	12	2.50	234.7		10		270.5
	1		235.5		11		270.7
	2		236.2	342	12	3.50	271.0
	3		237.2		1		271.5
	4		237.9		2		272.2
	5		239.0		3		272.7
	6		240.0		4		273.0
	7		241.3		5		273.0
	8		242.5		6		273.2
	9		243.7		7		273.1
	10		244.9		8		273.2
	11		246.2		9		273.5
339	12	2.75	247.6		10		273.3
	1		249.2		11		272.9
	2		250.6	343	12	3.75	272.2
	3		252.1		1		271.3
	4		253.8		2		270.3
	5		253.3		3		269.0
	6		257.0		4		267.7
	7		258.2		5		266.3
	8		259.7		6		265.1
	9		261.3		7		263.4
	10		262.5		8		261.6
	11		263.9		9		259.6
340	12	3.00	264.9		10		257.3
	1		265.8		11		255.2
	2		266.8	344	12	4.00	253.8
	3		267.5		1		254.3
	4		268.2		2		254.3
	5		268.8		3		252.7
	6		268.9		4		250.5
	7		269.2		5		248.6
	8		269.5		6		246.5
	9		269.7		7		244.6
	10		269.7		8		243.3
	11		269.7		9		241.7
341	12	3.25	269.8		10		240.4
	1		269.9		11		238.7
	2		270.1	345	12	4.25	236.5
	3		270.3		1		235.4
	4		270.3		2		234.8

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	3		234.5		1		180.8
	4		233.3		2		180.5
	5		233.7		3		180.7
	6		233.5		4		180.6
	7		233.6		5		180.5
	8		233.7		6		180.4
	9		233.9		7		179.3
	10		234.4		8		179.0
	11		234.7		9		178.8
346	12	4.50	235.4		10		179.1
	1		234.2		11		180.1
	2		231.5	350	12	5.50	181.2
	3		228.4		1		182.0
	4		225.5		2		182.8
	5		222.6		3		183.7
	6		220.0		4		184.4
	7		217.8		5		184.8
	8		215.9		6		184.9
	9		214.1		7		184.8
	10		212.6		8		185.0
	11		211.3		9		185.4
347	12	4.75	210.1		10		185.3
	1		208.9		11		185.5
	2		207.6	351	12	5.641	185.6
	3		206.5	TRAVERSE "B" MILLIGAN'S LAGOON			
	4		205.1	401		00	177.7
	5		203.6		1		176.0
	6		202.1		2		177.6
	7		200.0		3		178.2
	8		197.3		4		177.9
	9		194.4		5		176.8
	10		191.8		6		179.6
	11		187.9		7		179.0
348	12	5.00	183.7		8		178.0
	1		181.0		9		176.6
	2		180.3		10		176.8
	3		179.9		11		177.6
	4		179.5	402	12	0.25	178.2
	5		180.5		1		178.1
	6		177.3		2		177.0
	7		174.2		3		177.6
	8		174.6		4		177.2
	9		173.4		5		176.7
	10		177.8		6		176.8
	11		180.5		7		176.8
349	12	5.25	180.5		8		177.2

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
403	9		177.0		7		180.1
	10		177.6		8		180.5
	11		176.7		9		179.5
	12	0.50	175.9		10		178.5
	1		175.8		11		178.1
	2		175.6	407	12	1.50	177.0
	3		175.8		1		178.6
	4		175.1		2		178.3
	5		175.1		3		177.6
	6		175.3		4		177.7
	7		175.2		5		177.0
	8		175.4		6		177.4
404	9		175.6		7		178.6
	10		175.8		8		180.0
	11		176.5		9		179.7
	12	0.75	177.5		10		180.4
	1		177.3		11		181.5
	2		177.2	408	12	1.75	181.3
	3		177.5		1		180.5
	4		178.4		2		180.5
	5		178.0		3		180.5
	6		178.6		4		180.1
	7		179.6		5		179.8
	8		179.3		6		179.4
405	9		178.4		7		178.9
	10		177.7		8		177.9
	11		177.5		9		177.7
	12	1.00	178.0		10		177.4
	1		178.1		11		177.5
	2		176.3	409	12	2.00	176.8
	3		176.1		1		176.7
	4		175.1		2		177.2
	5		175.1		3		176.9
	6		175.9		4		177.0
	7		176.5		5		177.7
	8		176.2		6		178.1
406	9		177.1		7		178.2
	10		177.9		8		177.7
	11		177.4		9		178.0
	12	1.25	177.9		10		178.0
	1		178.2		11		178.6
	2		178.8	410	12	2.25	178.4
	3		180.0		1		178.5
	4		179.8		2		178.4
	5		178.8		3		179.1
	6		178.6		4		178.8

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	5		179.0		3		183.5
	6		179.1		4		183.5
	7		179.4		5		184.1
	8		179.3		6		184.5
	9		179.6		7		184.6
	10		179.9		8		184.4
	11		179.5		9		184.5
411	12	2.50	179.8		10		184.7
	1		179.9		11		184.7
	2		180.0	415	12	3.50	185.3
	3		180.3		1		185.4
	4		180.4		2		186.2
	5		180.4		3		186.4
	6		180.5		4		186.3
	7		181.0		5		185.8
	8		181.5		6		185.8
	9		181.3		7		184.8
	10		181.6		8		185.6
	11		181.5		9		184.9
412	12	2.75	181.0		10		186.2
	1		181.0		11		186.2
	2		180.3	462	12	3.75	186.7
	3		180.2		1		187.1
	4		180.2		2		187.5
	5		180.1		3		187.5
	6		180.3		4		187.4
	7		176.5		5		187.5
	8		177.8		6		188.2
	9		180.9		7		188.6
	10		181.1		8		189.0
	11		182.4		9		189.6
413	12	3.00	183.1		10		190.0
	1		183.2		11		190.7
	2		183.3	463	12	4.00	190.7
	3		183.7		1		191.2
	4		184.7		2		191.3
	5		179.9		3		191.3
	6		184.3		4		190.9
	7		183.4		5		191.0
	8		182.9		6		190.5
	9		182.6		7		190.2
	10		183.3		8		190.2
	11		183.2		9		190.6
414	12	3.25	183.2		10		190.8
	1		183.1		11		191.1
	2		183.3	464	12	4.25	191.1

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
<u>TRAVERSE "C" MILLIGAN'S LAGOON</u>							
416		00	162.4		9		160.2
	1		161.4		10		160.5
	2		160.1	420	11		160.8
	3		158.8		12	1.00	160.9
	4		157.7		1		161.5
	5		157.2		2		161.2
	6		157.3		3		161.5
	7		157.4		4		161.3
	8		157.6		5		161.5
	9		157.3		6		161.5
	10		157.2		7		161.7
	11		157.1		8		161.7
417	12	0.25	157.0		9		161.5
	1		157.1		10		161.9
	2		157.0	421	11		162.3
	3		157.3		12	1.25	162.5
	4		157.5		1		162.9
	5		157.6		2		163.1
	6		157.5		3		163.7
	7		157.8		4		148.8
	8		157.7		5		148.8
	9		157.7		6		164.9
	10		158.1		7		164.6
	11		158.3		8		162.5
418	12	0.50	158.4		9		162.3
	1		157.4		10		163.6
	2		156.8	422	11		164.2
	3		157.3		12	1.50	164.2
	4		158.2		1		159.9
	5		158.7		2		162.7
	6		159.0		3		158.3
	7		158.9		4		161.0
	8		158.9		5		161.0
	9		158.6		6		162.0
	10		158.7		7		162.5
	11		158.9		8		162.9
419	12	0.75	158.7		9		163.1
	1		158.4		10		163.4
	2		158.1	423	11		163.6
	3		157.9		12	1.75	163.8
	4		158.4		1		164.4
	5		159.1		2		165.1
	6		159.9		3		166.0
	7		160.1		4		161.8
	8		160.1		5		163.1
					6		165.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	7		165.7		5		176.5
	8		165.7		6		177.6
	9		166.1		7		178.7
	10		166.3		8		178.7
	11		166.6		9		179.5
424	12	2.00	166.4		10		179.4
	1		162.7		11		179.5
	2		164.8	428	12	3.00	180.2
	3		165.6		1		180.4
	4		164.8		2		180.7
	5		164.3		3		181.3
	6		161.6		4		182.2
	7		162.1		5		184.1
	8		166.9		6		184.0
	9		166.5		7		184.8
	10		166.4		8		185.5
	11		165.8		9		186.5
425	12	2.25	165.6		10		186.1
	1		165.7		11		186.9
	2		165.6	429	12	3.25	187.0
	3		165.9		1		187.3
	4		165.8		2		187.4
	5		166.0		3		186.7
	6		165.9		4		186.9
	7		166.3		5		187.3
	8		166.2		6		187.4
	9		166.4		7		187.6
	10		167.0		8		188.0
	11		167.8		9		188.3
426	12	2.50	168.7		10		188.9
	1		170.0		11		189.9
	2		170.4	430	12	3.50	191.0
	3		171.2		1		191.7
	4		171.6		2		191.8
	5		171.6		3		192.1
	6		172.3		4		192.1
	7		172.8		5		192.4
	8		173.0		6		192.8
	9		173.4		7		192.8
	10		173.7		8		193.5
	11		173.8		9		194.4
427	12	2.75	174.3		10		196.1
	1		174.6		11		197.8
	2		175.2	431	12		199.3
	3		175.6	<u>TRAVERSE "D" MILLIGAN'S LAGOON</u>			
	4		176.0	End of Spread		00	206.7

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	1		206.0		11		165.4
	2		204.9	458	12	1.00	165.1
	3		203.2		1		164.8
	4		201.6		2		164.5
	5		200.0		3		164.1
	6		198.4		4		164.3
	7		197.0		5		163.7
	8		195.5		6		163.3
	9		193.6		7		163.0
	10		192.0		8		162.7
	11		190.6		9		162.5
461	12	0.25	189.4		10		162.1
	1		188.0		11		161.6
	2		186.6	442	12	1.25	161.4
	3		185.3		1		161.2
	4		184.2		2		161.0
	5		182.7		3		160.6
	6		181.8		4		160.7
	7		181.0		5		160.7
	8		180.6		6		160.1
	9		180.1		7		160.2
	10		179.8		8		159.9
	11		179.1		9		159.7
460	12	0.50	178.3		10		159.6
	1		177.2		11		159.4
	2		176.6	432	12	1.50	159.4
	3		176.4		1		159.1
	4		175.8		2		158.7
	5		174.7		3		159.2
	6		173.3		4		159.2
	7		172.5		5		159.5
	8		172.0		6		159.3
	9		171.4		7		158.9
	10		170.8		8		159.0
	11		170.7		9		159.0
459	12	0.75	170.2		10		159.2
	1		169.9		11		158.8
	2		169.5	433	12	1.75	158.7
	3		168.9		1		158.9
	4		168.2		2		159.0
	5		168.2		3		159.4
	6		167.1		4		159.9
	7		166.7		5		160.1
	8		166.6		6		160.5
	9		166.0		7		160.7
	10		165.7		8		161.2

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	9		161.8		7		162.5
	10		161.8		8		161.6
	11		162.0		9		161.9
434	12	2.00	162.3		10		162.2
	1		162.6		11		163.2
	2		162.9	437	12	3.00	164.0
	3		163.0		1		164.7
	4		162.4		2		165.5
	5		162.2		3		165.1
	6		162.5		4		165.4
	7		162.6		5		165.5
	8		161.9		6		156.7
	9		161.5		7		165.4
	10		162.7		8		164.0
	11		163.3		9		161.8
435	12	2.25	162.7		10		160.1
	1		162.7		11		160.3
	2		162.5	438	12	3.25	157.4
	3		162.3		1		163.5
	4		162.6		2		161.2
	5		162.4		3		159.6
	6		162.4		4		162.8
	7		162.4		5		165.0
	8		162.7		6		165.6
	9		162.8		7		166.1
	10		162.7		8		166.8
	11		163.1		9		167.3
436	12	2.50	163.0		10		167.1
	1		163.5		11		167.3
	2		163.7	439	12	3.50	167.3
	3		163.6		1		167.2
	4		163.6		2		167.3
	5		163.8		3		167.5
	6		164.1		4		167.1
	7		164.2		5		162.8
	8		163.8		6		166.7
	9		163.8		7		165.0
	10		163.8		8		165.7
	11		163.8		9		168.6
423	12	2.75	163.7		10		149.3
	1		164.0		11		160.5
	2		164.7	440	12	3.75	168.7
	3		162.6		1		169.1
	4		162.4		2		168.0
	5		163.3		3		169.2
	6		163.2		4		168.6

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	5		167.9		3		167.6
	6		167.4		4		167.4
	7		167.1		5		167.3
	8		166.9		6		167.8
	9		166.3		7		168.2
	10		166.0		8		167.8
	11		165.3		9		167.6
441	12	4.00	165.1		10		168.1
	1		164.3		11		167.9
	2		164.0	446	12	5.00	168.1
	3		164.5		1		168.1
	4		165.2		2		168.3
	5		165.2		3		168.4
	6		165.6		4		168.3
	7		165.7		5		168.5
	8		165.5		6		168.5
	9		165.4		7		168.7
	10		165.0		8		168.6
	11		165.5		9		168.8
443	12	4.25	165.7		10		169.0
	1		166.3		11		168.9
	2		166.3	447	12	5.25	169.0
	3		166.3	<u>TRAVERSE "E" MILLIGAN'S LAGOON</u>			
	4		165.9	448		00	175.0
	5		166.2		1		173.7
	6		166.1		2		173.0
	7		166.5		3		172.1
	8		166.4		4		171.7
	9		166.6		5		171.1
	10		166.6		6		170.8
	11		166.3		7		170.5
444	12	4.50	166.5		8		172.1
	1		166.6		9		171.6
	2		166.8		10		171.4
	3		166.8		11		171.2
	4		166.7	449	12	0.214	170.6
	5		166.9		1		170.9
	6		167.1		2		170.2
	7		167.0		3		170.6
	8		167.2		4		170.7
	9		167.5		5		170.5
	10		167.6		6		170.5
	11		167.3		7		170.3
445	12	4.75	167.3		8		170.3
	1		167.5		9		169.6
	2		167.5		10		169.6

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	11		169.4		9		167.6
450	12	0.464	169.3		10		167.4
	1		169.7		11		167.0
	2		170.0	453	12	1.464	167.3
	3		169.7		1		167.1
	4		169.2		2		167.0
	5		169.5		3		167.1
	6		169.1		4		167.3
	7		169.3		5		167.0
	8		169.0		6		167.1
	9		169.1		7		166.9
	10		169.0		8		166.9
	11		168.8		9		167.0
451	12	0.714	168.5		10		167.6
	1		168.9		11		166.6
	2		168.9	454	12	1.714	166.5
	3		168.8		1		166.4
	4		168.8		2		166.3
	5		168.9		3		165.9
	6		168.7		4		166.0
	7		168.7		5		166.1
	8		168.5		6		166.0
	9		168.6		7		165.9
	10		168.5		8		166.1
	11		168.6		9		165.8
452	12	0.964	168.8		10		166.0
	1		168.4		11		166.0
	2		168.3	455	12	1.964	165.7
	3		168.3		1		165.8
	4		167.9		2		165.7
	5		167.8		3		165.6
	6		168.1		4		165.4
	7		167.8		5		165.2
	8		168.0		6		164.9
	9		168.0		7		165.3
	10		167.9		8		164.9
	11		168.1		9		164.9
446	12	1.214	168.1		10		164.8
	1		167.9		11		164.5
	2		168.1	456	12	2.214	164.4
	3		168.4		1		164.8
	4		168.0		2		164.6
	5		168.0		3		164.6
	6		167.8		4		164.3
	7		167.4		5		164.2
	8		167.8		6		163.5

SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.	SHOT POINT	GEOPHONE PEG NO.	DISTANCE MILES	R.L.
	7		163.4		3		164.7
	8		163.2		4		165.0
	9		163.3		5		165.8
	10		163.4		6		165.5
	11		163.1		7		167.6
457	12	2.418	157.9		8		168.7
<u>TRAVERSE "F" MILLIGAN'S LAGOON</u>					9		169.7
465		00	177.0		10		169.4
	1		176.3		11		169.2
	2		176.1	468	12	1.00	169.4
	3		176.1				
	4		175.9				
	5		175.4				
	6		175.3				
	7		174.7				
	8		174.0				
	9		173.1				
	10		171.8				
	11		170.6				
466	12	0.25	169.7				
	1		169.0				
	2		168.5				
	3		168.0				
	4		167.3				
	5		167.0				
	6		166.5				
	7		166.0				
	8		165.4				
	9		165.2				
	10		165.2				
	11		165.1				
458	12	0.50	165.1				
	1		165.1				
	2		165.1				
	3		164.8				
	4		164.9				
	5		164.6				
	6		164.5				
	7		164.2				
	8		164.2				
	9		163.8				
	10		163.7				
	11		163.6				
467	12	0.75	163.7				
	1		164.1				
	2		164.3				

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS

APPENDIX 'E'

B.M.R. SURVEY SEPTEMBER - OCTOBER 1956 SURVEY

Place of Operations: Milligans Lagoon - Spirit Hill
pages 1 - 4.

Ninbing Traverse - pages 1 - 6.

Latitudes and Longitude: Plates 70 and 71 (Vol. IV, Part 4)
read from the Department of the
Interior, for the above traverses.

SEISMIC SURVEYMILLIGAN'S LAGOON, SPIRIT HILL.

PAGE 1.

SHOT POINT	LONG	EAST	LAT.	SOUTH	DETAILS
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TRAVERSE "A"

	D	M	S	D	M	S
SP328	128	58	10.5	15	28	51.25
327	128	58	22.5	15	28	53
326	128	58	35.5	15	28	55
325	128	58	48	15	28	57
324	128	59	2.5	15	28	58.25
323	128	59	16	15	29	0
322	128	59	28.25	15	29	2
321	128	59	42	15	29	3.75
320	128	59	56.25	15	29	6
319	129	0	8.25	15	29	7.5
318	129	0	22	15	29	8.75
317	129	0	37	15	29	11.75
316	129	0	48.75	15	29	13.25
315	129	1	2	15	29	15
314	129	1	16	15	29	17
313	129	1	28.25	15	29	18.25
312	129	1	42	15	29	21
311	129	1	56.75	15	29	22.5
310	129	2	9	15	29	24
309	129	2	23	15	29	26.25
308	129	2	35.5	15	29	28
307	129	2	49	15	29	30
306	129	3	1.75	15	29	37
305	129	3	12.5	15	29	43
304	129	3	24	15	29	50
303	129	3	35.25	15	29	57.25
302	129	3	45	15	30	2.5
301	129	4	0	15	30	9
329	129	4	10.5	15	30	16
330	129	4	22	15	30	22.5
331	129	4	33.25	15	30	28.75
332	129	4	45	15	30	36
333	129	4	57.5	15	30	42.5

SEISMIC SURVEY

2.

MILLIGAN'S LAGOON, SPIRIT HILL.

PAGE 2.

SHOT POINT	LONG.	EAST	LAT.	SOUTH	DETAILS
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TRAVERSE "A"

	D	M	S	D	M	S
SP334	129	5	9	15	30	48.25
335	129	5	21	15	30	56
336	129	5	32	15	31	2
337	129	5	43.25	15	31	8.25
338	129	5	56	15	31	15
339	129	6	7.75	15	31	21.75
340	129	6	18.75	15	31	28.25
341	129	6	30.5	15	31	35
342	129	6	42.5	15	31	41.75
343	129	6	55	15	31	48.25
344	129	7	6.5	15	31	55
345	129	7	17.5	15	32	1.75
346	129	7	31.25	15	32	4.00
347	129	7	43.75	15	32	6.25
348	129	7	57	15	32	13.00
349	129	8	6.75	15	32	18.75
350	129	8	18.0	15	32	25
351	129	8	26	15	32	29

END OF TRAVERSE "A"

TRAVERSE "E"

	D	M	S	D	M	S
SP457	129	0	25	15	37	31.75
456	129	0	34	15	37	37.5
455	129	0	46	15	37	45
454	129	0	58	15	37	52.5
453	129	1	8.75	15	37	59
446	129	1	20	15	38	5
452	129	1	31.25	15	38	13
451	129	1	43.25	15	38	19
450	129	1	55	15	38	26.75
449	129	2	6.5	15	38	33
448	129	2	16	15	38	39

Intersect. Trav. D
at this point

END OF TRAVERSE "E"

MILLIGAN'S LAGOON, SPIRIT HILL.

PAGE 3.

SHOT POINT	LONG.	EAST	LAT.	SOUTH	DETAILS
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TRAVERSE "D"

	D	M	S	D	M	S
SP401	128	59	8.25	15	39	15
402	128	59	18.75	15	39	23.5
403	128	59	28	15	39	32.5
404	128	59	38.25	15	39	41.5
405	128	59	48.35	15	39	50
406	128	59	57.5	15	39	59.5
407	129	0	9	15	40	7.5
408	129	0	18.75	15	40	16.75
409	129	0	28.75	15	40	25
410	129	0	39	15	40	34
411	129	0	49	15	40	42.5
412	129	1	0	15	40	52.5
413	129	1	9	15	41	0
414	129	1	19	15	41	9
415	129	1	29	15	41	17.5
462	129	1	39	15	41	26
463	129	1	49	15	41	35
464	129	2	0	15	41	45

END OF TRAVERSE "D"

TRAVERSE "F"

	D	M	S	D	M	S
SP468	129	2	57	15	35	1
467	129	3	8	15	35	8
458	129	3	19	15	35	15
466	129	3	31	15	35	21.75
465	129	3	41.75	15	35	28.25

Trav. "D" Shot Point
of D & F.

END OF TRAVERSE "F"

TRAVERSE "D"

	D	M	S	D	M	S
SP461	129	3	41.25	15	34	41
460	129	3	33	15	34	53.25
459	129	3	26	15	35	3.75
458	129	3	19	15	35	15
442	129	3	12.5	15	35	25.5
432	129	3	5.5	15	35	36.75
433	129	2	58.75	15	35	48.75
434	129	2	51.25	15	35	59.5

Intersect. of Trav.
D & F.

MILLIGAN'S LAGOON, SPIRIT HILL.

PAGE 4.

SHOT POINT	LONG.	EAST	LAT.	SOUTH	DETAILS
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TRAVERSE "D"

	D	M	S	D	M	S	
SP435	129	2	43.75	15	36	10.5	
436	129	2	36.75	15	36	21.25	
423	129	2	29	15	36	32.5	Intersect. of Trav. D & C
437	129	2	22.5	15	36	43.25	
438	129	2	15.5	15	36	54.5	
439	129	2	7.5	15	37	5.5	
440	129	2	1.5	15	37	16.5	
441	129	1	49	15	37	21	
443	129	1	42	15	37	32	
444	129	1	35	15	37	43	
445	129	1	28	15	37	54	
446	129	1	20	15	38	5	Intersect. of Trav. D & E.
447	129	1	12.5	15	38	16.75	

END OF TRAVERSE "D"TRAVERSE "C"

	D	M	S	D	M	S
SP416	129	1	10	15	35	43
417	129	1	21.5	15	35	50
418	129	1	32.75	15	35	58
419	129	1	43.75	15	36	5
420	129	1	56	15	36	12.25
421	129	2	6.75	15	36	18.25
422	129	2	18	15	36	25
423	129	2	29	15	36	32.5
424	129	2	41	15	36	39
425	129	2	52.5	15	36	46.75
426	129	3	4	15	36	53.5
427	129	3	16.0	15	37	0.5
428	129	3	26.75	15	37	7
429	129	3	38	15	37	14
430	129	3	49.5	15	37	21.5
431	129	3	56.25	15	37	25

SEISMIC SURVEY

NINDING.

PAGE 1.

SHOT POINT	LONG.		EAST	LAT.		SOUTH	DETAILS
	D	M	S	D	M	S	
127	128	28	29	15	24	46	
126	128	28	39.5	15	24	37.5	
125	128	28	50	15	24	30	
124	128	29	1.5	15	24	20	
123	128	29	11	15	24	12.5	
122	128	29	21	15	24	3.75	
121	128	29	31.25	15	23	57	
120	128	29	42	15	23	48	
119	128	29	52	15	23	40	
118	128	30	2.5	15	23	30	
117	128	30	12.5	15	23	22.5	
116	128	30	22.5	15	23	13	
115	128	30	33	15	23	5	
114	128	30	43	15	22	57.5	
113	128	30	55	15	22	50.5	
112	128	31	6	15	22	42	
111	128	31	17	15	22	35	
110	128	31	28	15	22	27.5	
109	128	31	37.5	15	22	22.5	
108	128	31	50	15	22	17.5	
107	128	32	2.5	15	22	11	
106	128	32	14.25	15	22	5.5	
105	128	32	26	15	22	0	
104	128	32	37.5	15	21	54	
103	128	32	50	15	21	48.5	
102	128	33	2.5	15	21	42	
101	128	33	14.5	15	21	36.25	
100	128	33	26.25	15	21	30.5	
99	128	33	38	15	21	24	
98	128	33	50.5	15	21	18.75	
97	128	34	2.5	15	21	13	
96	128	34	14	15	21	7.75	
95	128	34	26.25	15	21	2	
94	128	34	38	15	20	56.25	
93	128	34	50	15	20	50.5	

SEISMIC SURVEY

NINBING.

PAGE 2.

SHOT POINT	LONG.	EAST	LAT.	SOUTH	DETAILS
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	D	M	S	D	M	S
92	128	35	3	15	20	43.75
91	128	35	15	15	20	38
90	128	35	27	15	20	32
89	128	35	38	15	20	26.25
88	128	35	51	15	20	21
87	128	36	3	15	20	15
86	128	36	15	15	20	8.75
85	128	36	27	15	20	3
84	128	36	39	15	19	57
83	128	36	52	15	19	52
82	128	37	3	15	19	45.5
81	128	37	15	15	19	39
80	128	37	27	15	19	33
79	128	37	38.75	15	19	27.5
78	128	37	51	15	19	22.25
77	128	38	3	15	19	16.5
76	128	38	15	15	19	10
75	128	38	27.25	15	19	4
74	128	38	39	15	18	59
73	128	38	52	15	18	53
72	128	39	3.75	15	18	46.75
71	128	39	16.25	15	18	42.0
70	128	39	28	15	18	36
69	128	39	40	15	18	30
68	128	39	52.5	15	18	24
67	128	40	3.75	15	18	17.5
66	128	40	16.75	15	18	12
65	128	40	28	15	18	6.75
64	128	40	40	15	18	1.0
63	128	40	52.5	15	17	54.5
62	128	41	5	15	17	48.25
61	128	41	17	15	17	42.5
60	128	41	28.25	15	17	36.75
59	128	41	41	15	17	31
58	128	41	53	15	17	25

Intersection of
another Trav.

SEISMIC SURVEYNINBING.

PAGE 3.

SHOT POINT	LONG.			LAT.			SOUTH
	D	M	S	D	M	S	
57	128	42	6	15	17	19	
56	128	42	18	15	17	13.25	
55	128	42	29.5	15	17	7.5	
54	128	42	41.75	15	17	2	
1	128	42	55	15	16	56.75	
2	128	43	3.25	15	16	45	
3	128	43	11.75	15	16	35	
4	128	43	19	15	16	25	
5	128	43	27.5	15	16	15	
6	128	43	36.75	15	16	5	
7	128	43	44	15	15	54	
8	128	43	53	15	15	43.75	
9	128	44	1.5	15	15	33.75	Just N.E. of Sandstone Ridge
10	128	44	9	15	15	23.25	
11	128	44	17	15	15	13.25	
12	128	44	25	15	15	3	
13	128	44	34	15	14	52.5	
14	128	44	42	15	14	42.5	
15	128	44	51	15	14	32.5	Sandstone Ridge
16	128	44	59.25	15	14	22.5	
17	128	45	7	15	14	12	
18	128	45	15	15	14	2	
19	128	45	28	15	13	57	
20	128	45	41	15	13	52	
21	128	45	53.25	15	13	47.5	
22	128	46	6	15	13	42.5	
23	128	46	18	15	13	37.5	
24	128	46	31.5	15	13	33.0	
25	128	46	43	15	13	28	
26	128	46	56.5	15	13	23	
27	128	47	8.25	15	13	18.25	

SEISMIC SURVEY

NINBING.

PAGE 4.

SHOT POINT	LONG.	EAST	LAT.	SOUTH	DETAILS
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	D	M	S	D	M	S
28	128	47	21	15	13	14
29	128	47	33	15	13	9
30	128	47	46	15	13	4
31	128	47	59	15	13	0
32	128	48	11	15	12	55
33	128	48	23.25	15	12	50
34	128	48	36	15	12	45
35	128	48	48	15	12	40
36	128	49	1	15	12	35.5
37	128	49	13	15	12	30.5
38	128	49	26	15	12	26
39	128	49	27.5	15	12	21.5
40	128	49	50	15	12	16.5
41	128	50	3	15	12	11.5
42	128	50	15	15	12	6.75
43	128	50	28.25	15	12	2
44	128	50	41	15	11	57
45	128	50	53.25	15	11	52
46	128	51	6.5	15	11	47
47	128	51	18.25	15	11	42
48	128	51	31	15	11	37
49	128	51	43.25	15	11	32.5
50	128	51	57	15	11	27.25
51	128	52	8.75	15	11	23.25
52	128	52	21.5	15	11	18.75
53	128	52	33.75	15	11	13.25
131	128	52	46	15	11	8.75
132	128	52	59	15	11	4
133	128	53	12.5	15	10	59
134	128	53	24.5	15	10	54.5
135	128	53	37	15	10	49.5
136	128	53	49.5	15	10	44.5
137	128	54	3	15	10	39
138	128	54	14.75	15	10	34.5

SEISMIC SURVEYNINBING.

PAGE 5.

SHOT POINT	LONG.			LAT.		SOUTH	DETAILS
	D	M	S	D	M		
151	128	54	28	15	10	29.5	
152	128	54	39.5	15	10	25	
153	128	54	52.5	15	10	20.5	
154	128	55	3.75	15	10	15	
155	128	55	16	15	10	10	
156	128	55	18	15	10	5.5	
157	128	55	41.5	15	10	1	
158	128	55	54	15	9	56	
159	128	56	6.5	15	9	51	
160	128	56	18	15	9	46	
161	128	56	31	15	9	41	
162	128	56	44	15	9	36.5	
163	128	56	57	15	9	31.5	
164	128	57	9	15	9	26.75	
165	128	57	21.75	15	9	21.75	
166	128	57	33.75	15	9	17	
167	128	57	46.75	15	9	12.5	
168	128	58	0	15	9	7.5	
169	128	58	12	15	9	2.5	
170	128	58	25	15	8	57.5	
171	128	58	37.5	15	8	52.5	
172	128	58	50	15	8	48	
173	128	59	3	15	8	42.5	
174	128	59	15.5	15	8	37.5	
175	128	59	28.25	15	8	32.5	
176	128	59	40	15	8	27.5	
177	128	59	53	15	8	22.5	

SEISMIC SURVEY

NINBING.

PAGE 6.

SHOT POINT	LONG.			LAT.			DETAILS
	D	M	S	D	M	S	
144	128	38	58.25	15	18	6.75	
143	128	39	3.25	15	18	18.25	
142	128	39	10	15	18	29.5	
SP71	128	39	16.25	15	18	42.0	
141	128	39	22	15	18	53.25	
140	128	39	27.5	15	19	4	
139	128	39	33.25	15	19	16.25	

1st. Small Traverse Intersecting Main Traverse Line.
This Traverse Line passes through SP71.

	D	M	S	D	M	S	
1st. SP150	128	41	47	15	16	45	
149	128	41	53.25	15	16	56.75	
148	128	42	0	15	17	7.5	
SP57	128	42	6	15	17	19	Intersection of other Traverse
147	128	42	12	15	17	31	
146	128	42	17.5	15	17	42.5	
145	128	42	23.75	15	17	54.5	

Travelling East along main Traverse Line
Intersection of Second Small Traverse (Running N.N.W.)

* (This traverse passes through S.P. 57 on main traverse line)