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Abstracted for
Geo-Science Data Index

Date _____

REPORT OF A GRAVITY SURVEY

NEAR INUVIK, N. W. T.

FOR

AMOCO CANADA PETROLEUM COMPANY LTD.

REPORT OF A GRAVITY SURVEY

Conducted By
Overland Exploration Services
for

Amoco Canada Petroleum Company Ltd.

Near Inuvik, N. W. T.

Abstracted for
Geo-Science Data Index

Date _____

On and off Northwest Territory Permits 4259, 4260, 4261
National Topographic Grid 107B



Prepared By

E. Wicherts, P. Geoph.

June, 1969



Submitted in support of application for credit; see affidavit made
by..... of..... and in accordance with
Government Regulations under Section 45(3)(e) of the Territorial
Lands Act.

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1. Bouguer gravity map
2. Structure contour map top limestone
3. Calculated gravity map
4. Set of gravity station calculation sheets

INTRODUCTION

In 1968 Pan American acquired an interest in a block of acreage near the town of Inuvik, N.W.T. The conditions of acquisition included the obligation to drill a well. The best way to transport a rig into the area is by barge along the MacKenzie River and thus the area nearest the river would for that reason be the prime exploration target.

Due to time and other limitations it was decided to explore the area by a combined seismic-gravity survey based on helicopter transport.

The location of the surveyed lines is indicated on the Bouguer gravity map (Encl. 1). Gravity was also measured along the banks of the MacKenzie. Beyond the survey lines gravity stations were placed by helicopter using barometric elevation control.

The terrain E of the Mackenzie river is slightly undulating with hills up to 450'. Vegetation is sparse and trees do not grow over 50 feet in height. At the time of survey the temperature varied between -10° and $+33^{\circ}$ F.

GEOLOGY

South of the town of Inuvik an anticlinal or uplifted situation has been mapped known as the "Campbell High". Outcrops of Devonian shales and limestones, Ordovician Silurian dolomites and Cambrian sediments have been mapped as indicated on enclosure 1.

Further north no other outcrop has been found but the area was thought to be underlain by Cretaceous shales. This was confirmed by the black bituminous shales collected by the author from shotholes. These shales have been dated Cretaceous in age.

To the west the recent sediments of the Mackenzie delta obscure effectively all other rocktypes. No wells have been drilled in the survey area.

In 1955 Hunting Ltd. conducted an airborne magnetic survey over the Mackenzie delta and the author interpreted the data (1968) and a depth to basement map was prepared. The map shows a great sedimentary thickness in the Inuvik area, 22,000'; part of the basement depth map has been reproduced here as enclosure 4.

No evidence was found of a basement high below the Campbell High which was remarkable since all other geological positives in the Mackenzie delta are also positives on the magnetic basement map. We suggest at the time that the Campbell High could be partially caused by evaporate tectonics; the assumption was also supported by the known presence of gypsum domes in the delta near Aklavik. Since that time it was learned that thick sections of Proterozoic salt have been drilled near Norman wells some 200 miles south of Inuvik.

A seismic section was available running from a point near Inuvik airport in a SE direction. The location of this line is indicated on enclosure 1. The upper major reflection on the section could be projected to the surface where the Devonian limestone outcrops thereby identifying the reflector. Another strong reflector occurs 500 MS below the Devonian and is strictly parallel to it; this lower reflector could be identified as the top of the Cambrian. The total of the measured sections near Inuvik of the Devonian, Ordovician, Silurian section is 5,400' which would produce an interval velocity of 21,600' / sec. This high velocity corresponds to a high density probably 2.67 - 2.70.

FIELD OPERATIONS

The gravity contractor (Overland Exploration Services Ltd. of Calgary, Canada) was also responsible for the survey control of the seismic work.

Crews were based at Inuvik as well as the helicopters and pilots.

Crews, drills and instruments were airlifted to and inside the area of operations. After the initial (light) clearing of the survey lines no vehicular traffic was used except for two lightweight tracked personnel carriers. Government regulations require a careful treatment of the permafrost surface with regard to summer runoff.

Gravity surveying started on March 5th and was completed on May 3rd. A total of 783 stations were metered representing 90 miles of survey; this includes 71 helicopter located stations. Also included are the stations along the frozen E channel of the Mackenzie river which provided both a roadway and elevation control. It should be noted that the Mackenzie river line shows the smoothest gravity profile due to the absence of near surface disturbances.

The base level of the gravity survey was obtained by reoccupation of the Dominion Observatory gravity base station at Inuvik airport. The base value is: 982.503, 52 mg.

The survey was executed with a LaCoste and Romberg temperature controlled meter # 149. Data was reduced using 0.065 mg/' elevation factor representing a density of 2.3.

INTERPRETATION

The Pouguer gravity field is illustrated on enclosure 1. The field shows a rather regular dip towards the west and a series of sharp positives and negatives in the SE corner of the map. The observed gravity sections in enclosure 6 shows both topography and gravity.

The west dip of the gravity field was expected since the Mackenzie delta contains a great thickness of sediments; the sharp low however on the SE edge of the map was not foreseen and if the helicopter based station are correct a deep grabenlike structure should be located there!

Since the area is overlain by Cretaceous shales and underlain by Devonian and/or Ordovician limestone a major density contrast should be expected of 0.3 mg. The fairly constant strike direction of the gravity field north of Inuvik allows a two dimensional interpretation approach perpendicular to the observed field.

Three sections were constructed perpendicular to the field strike and two in north-south direction (Enclosures 5-1 to 5-5). In each case the observed gravity was plotted and a geological model constructed based on an increasing thickness of low density shale towards the west. It was also suggested by a qualitative interpretation that the N-S striking asymmetrical gravity highs were caused by the updip edges of limestone subcrops. These subcrops are not necessarily fault scarps; they could be the expression of an old erosion surface and therefore form a cuesta. The curved geographical shape supports this view.

Geological models were made on this basis and calculated gravity thereof plotted; the observed gravity could be matched fairly accurately as a study of the enclosed sections will show. (Enclosure 5-5 to 5-5).

The depth to the limestone interface was plotted and contoured (enclosure 2) which also required that the sections tied which is the case.

Finally the calculated gravity was plotted (enclosure 3). It will be seen that this matches the observed field closely. An accuracy analysis

shows that the average difference between the calculated and the observed gravity field is ± 0.37 mg. with a maximum deviation of $+ 1.2$ and -1.0 mg. In terms of depth, using the equation for infinite sheet, it means that the structure contour map has an average difference of $\pm 100'$ with the actual depth and that the maximum deviation will be $\pm 300'$. This is valid as long as the density contrast is constant and there is no reason to assume otherwise.

The graben - horst situation on the SE end of the survey area was interpreted on the basis of the helicopter stations (see enclosure 5-4). The deep graben (4400') is bounded by ENE-WSW striking faults and shallows to the west (enclosure 5-5). The major boundary fault will probably continue under the Mackenzie where it caused the sharp direction change of the river.

South of this area gravity information becomes insufficient but from the data at hand it is suggested that the structural conditions continue to form a graben-horst type environment.

It is noteworthy that the graben is located near the crest of the large anticlinal structure. Furthermore the constant thickness on the seismic section of the Top Devonian - Top Cambrian interval proves the structure to be non-depositional in nature. The uplift therefore must have occurred past Devonian and a graben structure near the top is to be expected.

The cause of the Campbell High could be Proterozoic evaporite movement. This would also explain the absence of a magnetic high over the area.

The graben is filled with post-Devonian, mainly Cretaceous shales, with a maximum thickness of 4400' P.S.L. The graben is open ended to the NE and will probably deepen in that direction. The updip end of the graben, near section IV may provide a drilling prospect for basal Cretaceous sands. The location is recommended as the best target in the area. The other locations would

be in the Mackenzie delta on the downside of the small fault as mapped (enclosure 2). The location however is located in the swamp and the shale section will be a 1000' less than the graben situation.

CONCLUSIONS

1. The gravity survey mapped the thickness of the Cretaceous shale effectively and cheaply.
2. The total cost of the survey, including interpretation, was about \$13,000. Can.
3. A deep graben was discovered by a few gravity stations.
4. A well should be located in the graben to test the basal Cretaceous sands in updip position.
5. Some 50 helicopter based gravity stations should be placed to detail the graben structure.

E. Wicherts

June 9th, 1969

ACKNOWLEDGEMENTS

The author gratefully acknowledges the cooperation of Mr. T. Poleantu and Dr. R. De Wit for respectively the preparation of the geology map and general geological information of the area. The seismic section south of Inuvik was made available by Mr. W. D. LePay who will also compile the seismic work in the report area.

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. INUVIK

Inst. No. 149

Density _____

Date: MARCH 7/69

Meter Const. 5700

Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
BASE P	9:25	73.61				
PAV PNT	9:27	76.47				76.47
R. 8	9:35	79.29	114.28	+11.51	524.85	525.00
9	9:38	81.325	117.29	+11.42	524.42	524.77
10	9:41	82.51	118.65	+11.28	524.05	525.00
11	9:43	81.57	117.25	+11.11	523.67	525.35
12	9:46	80.41	115.75	+10.96	523.10	526.50
13	9:48	80.60	116.25	+10.94	523.67	526.07
14	9:51	81.405	117.65	+10.92	524.22	526.53
15	9:54	83.18	122.25	+10.95	525.71	526.42
16	9:57	83.73	123.75	+10.72	525.82	526.53
17	9:59	84.345	125.25	+10.55	525.24	526.53
18	10:01	85.22	126.75	+10.46	525.52	526.53
19	10:04	85.53	127.75	+10.22	525.32	526.53
20	10:07	85.71	128.75	+10.32	524.91	526.53
21	10:10	86.99	131.74	+10.35	525.00	526.53
22	10:13	87.53	134.25	+10.11	525.65	526.53
23	10:16	87.62	136.25	+10.06	526.13	526.53
24	10:18	87.55	137.25	+9.90	526.10	526.53
25	10:21	88.33	138.75	+9.73	526.56	526.53
26	10:27	88.57	140.75	+9.65	526.43	526.53
27	10:30	87.54	138.75	+9.40	525.95	526.53
28	10:36	89.22	140.75	+9.16	525.54	525.58

[illegible]

SHEET NO. 3OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEETJob. INUVIK 13-107 Inst. No. 149 Density Date MARCH 4/50 Meter Const. 55500 Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	1145	79.58	3	+12.15		
40	1145	4.				
50	1140	85.32	45.0	11.11	5550	525.19
51	1147	87.65	47.0	11.21	5550	526.14
52	1153	87.24	49.0	11.31	5550	527.13
53	1153	83.04	50.0	11.40	5550	528.11
54	1105	81.25	157.0	11.49	5550	529.53
55	1115	81.81	168.0	11.55	5550	530.52
56	1127	81.28	179.0	11.65	5550	531.60
57	1135	83.16	212.0	11.74	5550	532.71
58	1145	83.84	265.0	11.85	5550	533.84
59	1155	83.00	47.0	11.95	5550	534.95
60	1205	78.27	273.0	11.95	5550	535.10
61	1215	70.25	327.0	11.95	5550	536.77
62	1225	68.88	386.0	11.95	5550	538.11
63	1235	65.1	439.0	11.95	5550	539.11
BASE B	1245	78.19	215.0	11.95	5550	539.52
BASE A	1255	78.11	215.0	11.95		

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	1145	96.3	+58°	1.75	963	+58°
50	1145	76.2	+46	1.45	965	+44°
51	1149	76.4	+44			
52	1154	74.6	+42	1.55	962	+33°
53	1205	74.7	+40			
54	1212	65.1	+39	2:10	972	+37°
55	1216	64.1	+34			
56	1223	60.6	+32	2:15	975	+37°
57	1235	51.3	+31			
58	1242	54.2	+30	2:40	975	+37°
59	1255	71.7	+28			
60	1258	105.6	+27	2:55	980	+37°
61	1305	115.1	+27			
62	1315	114.2	+26	3:00	981	+37°
63	1325	113.5	+25			
BASE A	1335	96.5	+24	3:10	982	+37°
BASE A	1345	85.1	+25	3:36	981	+37°

**OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET**

SHEET NO. 4

Job. INUVIK

Inst. No. 149

Density

Date Nov 11/72

Meter Const. 5700

Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	3:50	78.52	238.0	+12.15		
R-50	4:03	52.53	45.0	+12.65	525.05	516.03
64	4:11	63.05	451.0	+15.40	519.38	530.20
65	4:13	77.97	202.0	+15.25	527.37	531.52
66	4:27	66.56	400.0	+15.15	528.12	532.11
67	4:33	62.76	464.0	+15.04	529.27	531.91
68	4:39	64.28	415.0	+14.85	529.22	531.21
69	4:45	63.16	473.0	+14.76	529.21	531.17
70	4:53	63.63	454.0	+14.69	529.32	532.34
71	5:00	76.32	291.0	+14.92	530.02	532.15
72	5:07	62.56	498.0	+14.61	529.52	531.24
73	5:15	66.38	430.0	+14.42	529.35	531.05
74	5:23	75.35	225.0	+14.35	529.70	529.67
75	5:31	76.63	333.0	+14.20	529.46	529.85
76	5:33	51.13	145.0	+13.78	528.21	525.51
R-71	5:47	76.56	791	+14.42	529.53	532.10
BASE A	5:58	72.66	223.0?	+12.15		

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	3:51	992	+21	3:55	991	+23°
R-50	4:04	792	+20			
64	4:12	1367	+19	4:10	992	+20
65	4:19	945	+19			
66	4:28	1213	+18	4:25	996	+18
67	4:34	1283	+18			
68	4:40	1377	+17	4:40	1000	+17
69	4:46	1299	+17			
70	4:54	1283	+16	4:55	1000	+16
71	5:01	1061	+16			
72	5:08	1337	+16	5:10	1001	+15
73	5:16	1327	+16			
74	5:24	1225	+15	5:25	1001	+14
75	5:32	1152	+15			
76	5:40	911	+14	5:40	1001	+13
R-71	5:42	1064	+14			
BASE A	5:58	1002	+13	5:55	1001	+13

**OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET**

SHEET NO. 6

Job. INUVIK Inst. No. 149 Density _____

Date MARCH 8/69 Meter Const. 5700 Comb. Free Air-Corr. Const. _____

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	1:54	78.63	216.0	10.16		
R 59	2:08	87.03	47.0	11.17	527.56	527.73
77	2:15	84.92	44.0	11.11	525.7	525.45
78	2:22	84.75	43.0	11.56	524.77	524.84
79	2:28	86.51	40.0	11.29	526.5	526.31
80	2:37	83.56	97.0	11.83	527.30	527.67
81	2:46	68.16	440.0	112.85	530.45	530.41
82	3:02	76.51	217.0	112.95	529.37	529.51
83	3:09	82.105	226.0	113.55	529.51	529.45
84	3:06	81.35	225.0	112.88	529.19	529.89
85	3:13	79.25	238.0	113.57	529.70	529.71
86	3:22	80.65	235.0	113.02	529.06	531.30
87	3:39	68.17	432.0	113.29	530.37	532.10
88	3:57	82.07	214.0	113.24	529.09	529.53
89	3:45	71.76	274.0	113.76	531.06	531.71
R 79	3:53	84.55	40.0	11.29	526.17	526.15
R 77	3:59	76.37	291	114.52	530.74	530.77
BASE A	4:09	76.66	215?	113.16		

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	1:54	991	+34°	11.54	991	+34°
R 59	2:09	785	+34	2:09	990	+35
77	2:16	791	+34			
78	2:23	790	+34	2:24	993	+33
79	2:29	786	+33			
80	2:38	847	+33	2:39	981	+40
81	2:47	1213	+33			
82	3:03	1049	+33	2:54	930	+38
83	3:00	950	+33			
84	3:07	979	+31	3:09	982	+39
85	3:14	991	+33			
86	3:23	982	+30	3:24	976	+39
87	3:30	1206	+31			
88	3:38	937	+27	3:39	975	+40
89	3:46	1147	+26			
R 79	3:53	774	+26	3:54	971	+40
R 77	4:00	1053	+26			
BASE A	4:09	770	+27	4:09	968	+40

SHEET NO. 7

Density _____

Comb. Free Air-Corr. Const.

[illegible]

SHEET NO. 8

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. LIVER

Inst. No. 149

Density _____

Date MARCH 9/69

Meter Const. 5700.

Comb. Free Air-Corr. Const.

LINE # 1

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	TERREST.
P. 550	1:50	78.65				527.65
CSS						
LINE #1 - 1	1:53	83.55	446.77	+9.90	525.97	526.65
2	2:05	78.28	446.77	+9.70	525.24	527.64
3	2:09	66.70	446.76	+9.43	525.94	527.72
4	2:13	65.65	446.76	+9.29	526.12	528.07
5	2:18	67.98	446.76	+9.19	526.56	528.31
6	2:26	69.58	446.76	+9.63	526.73	528.57
7	2:32	79.75	446.76	+9.61	526.71	528.87
8	2:38	79.40	446.76	+9.23	526.66	528.15
9	2:46	65.00	446.76	+9.27	526.16	528.04
10	2:52	68.49	446.76	+9.19	526.20	527.96
11	2:53	64.87	446.76	+7.91	525.35	527.58
12	3:02	68.00	446.76	+7.75	525.52	527.78
13	3:08	63.60	446.76	+7.53	525.39	527.14
14	3:13	69.35	446.76	+7.35	525.43	527.15
15	3:17	74.50	446.76	+7.12	525.71	527.57
17	3:23	69.57	446.76	+6.91	525.52	527.28
19	3:30	77.77	446.76	+6.94	525.81	527.57
21	3:36	74.55	446.76	+6.50	526.26	526.47
23	3:40	73.47	446.76	+6.36	526.05	526.30
25	3:43	70.68	446.76	+6.15	525.62	526.00
27	3:54	70.55	446.76	+5.92	526.16	527.91

[illegible]

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. 17/6/14 Inst. No. 149 Density

Date MARCH 10/69 Meter Const. 5700 Comb. Free Air-Corr. Const. _____

LINE 1

Page 100-788
Type and amount paid[illegible][illegible]

SHEET NO. 10OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEETJob. INUVIKInst. No. 149Density 1.04450Date MARCH 12/69Meter Const. 5700Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
PREF A	11:45	78.82				
PREF B	11:59	70.72	428.78			
PREF C	12:04	73.14				TWO FLIES AT 5700
PREF D	12:16	78.53				
PREF C	12:34	73.15				
PREF D	12:41	73.85				
PREF F	12:52	94.15				TWO FLIES AT 5700
PREF F	1:01	78.32				
PREF A	2:17	78.90				
PREF F	2:42	94.20				
PREF B	3:09	78.92				
PREF F	3:26	94.24				

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
PREF D	3:35	78.95				
PREF F	4:00	94.28				
PREF C	4:10	73.30				
PREF F	4:20	94.29				
PREF C	4:50	73.29				
PREF F	4:55	94.21				

SHEET NO. 11OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEETJob. INUVIK Inst. No. 149 Density _____Date MARCH 14/68 Meter Const. 5700 Comb. Free Air-Corr. Const. _____

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE A	12:08	78.22				
BASE B	12:26	83.65				ONE PLUS EAST MEET 9 143.50
BASE A	12:33	79.02				
BASE B	12:43	83.66				
BASE A	12:53	79.03				
BASE B	1:02	83.67				
BASE C	12:10	73.37				
BASE B	13:01	83.67				
BASE C	12:05	73.38				
BASE B	12:50	83.62				
BASE C	12:57	73.37				
BASE D	3:14	91.67				EST. 143.50 91 143.50

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE C	2:16	73.38				
BASE D	2:54	91.68				
BASE C	2:54	73.37				
BASE E	3:26	87.47				STA. 65
BASE D	3:54	91.67				
BASE E	3:41	87.48				
BASE D	3:47	91.68				
BASE E	3:57	87.48				
BASE F	4:03	94.39				
BASE E	4:03	87.49				
BASE F	4:15	94.39				
BASE E	4:21	87.48	227.45	+2.11	525.72	

SHEET NO. 12

Date MARCH 14/69 Meter Const. 5700 Comb. Free Air-Corr. Const. _____

LINE 1

[illegible]

SHEET NO. 13OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEETJob. INDUK Inst. No. 142 Density Date MARCH 15/62 Meter Const. 5700 Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BASE E	8:51	87.49				
BASE A	9:05	79.10				
BASE E	9:17	87.50				
BASE A	9:35	79.12				
BASE E	9:55	87.54				
BASE C	10:04	73.44				
R 35	10:13	74.02	245.21	+4.11	525.09	525.48
37	10:13	73.96	245.21	+4.90	525.09	525.97
39	10:13	75.47	245.21	+4.71	525.92	525.97
41	10:13	75.04	245.21	+4.51	525.92	526.02
BASE C	10:41	73.46				
BASE A	10:43	79.16				
BASE C	4:05	73.52				

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
R 41	4:12	78.11	245.21	+4.51	525.09	526.02
43	4:16	79.90	245.21	+4.32	526.33	526.50
45	4:23	83.68	245.21	+4.12	526.33	526.50
47	4:29	91.47	152.91	+3.93	526.74	527.35
48					(41)	527.23
BASE D	4:23	91.83	150.1		(45)	527.64
49	4:37	93.13	134.28	+3.70	527.01	527.57
51	4:43	94.44	116.40	+3.51	527.07	527.53
BASE C	4:54	73.52				
52	5:05					
53	5:05					
54	5:05					
55	5:05					
56	5:05					
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94	5:05					
95	5:05					
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97	5:05					
98	5:05					
99	5:05					
100	5:05					

SHEET NO. 14

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. INDIAN

Inst. No. 149

Density _____

Date MARCH 16/69

Meter Const. 5700

Comb. Free Air-Corr. Const. _____

LINE 1

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	REDUCED
5155	3:50	94.65	227.45	+2.11	525.72	525.72
						11
551	3:53	94.46	116.40	+3.51	527.02	
53	3:55	94.28	119.40	+3.32	526.80	11
55	3:12	94.54	117.00	+3.12	526.72	1
57	3:15	94.34	116.35	+2.91	526.40	1
59	3:25	94.45	117.15	+2.70	526.31	1
61	3:33	95.26	119.25	+2.51	525.80	526.12
63	3:40	93.83	122.44	+2.31	525.35	526.01
55) 65	3:43	94.65	227.45	+2.11	525.72	525.72
67	3:57	95.19	121.10	+1.89	525.34	525.82
69	4:05	93.53	123.25	+1.74	525.07	
71	4:08	95.21	121.00	+1.58	525.44	
R 73	4:08	94.85	117.35	+1.42	525.00	
R 73	4:08	94.85	117.35	+1.42	525.00	{ uncorrected corrected
735 E	5:05	94.67	227.45	+2.11	525.72	525.72
R 39	5:10	78.63	234.01	+4.71		
Base C	5:17	73.64				

[illegible]

C. Bell

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Re-do using 0.069

SHEET NO. 1Job. INUVIK Inst. No. 149 Density Date 14 APRIL 69 Meter Const. 1.04950 Comb. Free Air-Corr. Const. 0.065

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	Terran
Bs D	8.33	5791.51	150.1	+3.91		527.41
4-54	8.44	89.71	452.6	+3.91	527.05	527.79
4-53	8.55	84.59	458.5	3.91	527.05	528.02
4-52	9.05	83.61	452.6	3.91	527.05	528.12
4-51	9.12	82.23	452.7	3.91	527.05	528.17
4-50	9.19	81.92	452.7	3.91	527.05	528.22
4-49	9.29	79.96	452.7	13.44	527.05	528.23
4-48	9.39	83.25	452.7	13.44	527.09	528.12
4-47	9.50	83.32	452.7	13.44	527.06	528.11
4-46	9.58	72.77	452.7	13.44	527.06	528.43
R-Bs'D	10.04	91.515	150.1	+3.91		
R4-46	10.13	78.57	452.7	+3.91	528.2	528.15
4-45	10.23	76.32	452.6	+3.91	528.2	528.46
4-44	10.29	74.835	452.6	+3.91	528.2	528.55
4-43	10.37	74.06	452.6	+3.91	527.16	528.97
4-42	10.44	73.85	452.6	+3.91	527.16	529.10
4-41	10.51	72.73	452.6	+3.91	527.16	529.2
4-40	10.58	73.4	452.6	+3.91	527.16	529.16
4-39	11.07	72.645	452.6	+3.91	527.16	529.26
4-38	11.14	75.45	452.6	+3.91	527.16	529.29
4-37	11.21	75.525	452.6	+3.91	527.16	529.31
4-36	11.28	75.30	452.6	+3.91	528.02	529.32
4-35	11.35	73.13	452.6	+3.91	528.02	529.35

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	
4-34	11.42	74.095	452.6	+3.91	527.72	529.35
4-33	11.52	75.35	452.6	+3.91	528.15	529.97
R-Bs'D	12.02	91.53	150.1	+3.91		
R4-33	12.11	75.345	452.6	+3.91	528.14	529.97
4-32	12.18	73.39	452.6	+3.91	527.82	529.75
4-31	12.24	72.74	452.6	+3.91	527.76	530.01
4-30	12.30	73.10	452.6	+3.91	527.23	530.22
4-29	12.36	72.77	452.6	+3.91	527.27	530.43
4-28	12.43	71.83	452.6	+3.91	528.37	530.47
4-27	12.49	73.55	452.6	+3.91	527.2	530.51
4-26	12.56	73.21	452.6	+3.91	528.14	530.95
4-25	1.02	74.48	452.6	+3.91	528.51	531.29
4-24	1.08	74.10	452.6	+3.91	529.74	531.26
4-23	1.14	75.46	452.6	+3.91	529.47	531.42
4-22	1.20	78.72	452.6	+3.91	521.81	531.57
4-21	1.26	80.24	452.6	+3.91	532.28	531.75
4-20	1.32	80.41	452.6	+3.91	532.55	531.80
4-19	1.40	80.18	452.6	+3.91	532.27	531.72
4-18	1.47	79.32	452.6	+3.91	532.10	531.51
4-17	1.52	78.38	452.6	+3.91	530.04	531.87
R-Bs'D	2.01	91.54	150.1	+3.91		
R4-17	2.11	78.38	452.6	+3.91	530.05	531.87
4-16	2.17	77.71	452.6	+3.91	529.76	531.62

SHEET NO. 2

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. 10015 Inst. No. 149 Density

Date 14 APRIL 69 Meter Const. 1.04737 Comb. Free Air-Corr. Const. 1.25

[illegible][illegible]

C. Bell

**OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET**

SHEET NO. 3Job. NOUVE Inst. No. 149 Density Date 15 APRIL 69 Meter Const. 1.74250 Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
R-B F	8 44	94.27	105.7			
R-B F	8 49	94.275	105.7			
2-15	8 57	95.87	85.7	10.92	522.85	523.17
2-16	9 03	98.10	48.3	11.21	523.70	523.91
2-17	9 10	97.94	48.5	11.22	523.72	523.93
2-18	9 16	97.47	51.2	11.23	523.83	523.88
2-19	9 23	96.83	56.6	11.24	523.51	523.76
2-20	9 36	96.80	55.2	11.25	523.46	523.72
2-21	9 43	96.38	60.2	11.26	523.81	523.73
2-22	9 49	96.305	57.7	11.27	523.20	523.44
2-23	9 55	96.19	52.2	11.28	523.31	523.25
2-24	10 02	95.83	60.5	11.30	523.01	523.25
2-25	10 09	95.76	60.0	11.31	522.44	523.20
2-26	10 16	95.73	58.3	11.32	522.54	523.17
2-27	10 22	96.01	52.7	11.33	522.73	523.14
2-28	10 29	95.55	57.5	11.34	522.77	523.03
2-29	10 37	95.58	53.3	11.35	522.41	522.85
2-30	10 43	96.01	46.6	11.36	522.70	522.90
2-31	10 49	95.93	45.9	11.37	522.13	523.83
2-32	10 54	95.97	43.6	11.38	522.59	522.78
R-B 'F'	11 00	94.255	105.7			
R-2-32	11 06	95.77	43.6	11.39	522.59	522.78
2-33	11 13	95.715	44.5	11.40	522.43	522.62

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
2-34	11 20	95.53	44.6	11.41	522.32	522.51
2-35	11 27	94.68	57.0	11.42	522.34	522.47
2-36	11 37	95.26	44.5	11.43	522.15	522.34
2-37	11 46	94.24	53.0	11.45	521.71	521.93
2-38	11 52	94.20	52.0	11.46	521.61	521.91
2-39	11 58	93.33	57.8	11.48	521.26	521.49
2-40	12 04	93.28	58.5	11.49	521.25	521.49
2-41	12 09	93.305	55.0	11.50	521.72	521.34
2-42	12 15	93.55	49.8	11.51	521.21	521.28
2-43	12 21	93.705	42.7	11.52	520.74	521.12
2-44	12 26	93.725	50.2	11.53	520.79	520.99
2-45	12 30	92.77	52.0	11.54	520.60	520.81
2-46	12 38	92.62	51.9	11.55	520.50	520.71
2-47	12 43	92.36	52.4	11.56	520.24	520.55
2-48	12 47	91.93	55.7	11.57	520.14	520.38
2-49	12 52	92.485	45.6	11.58	520.15	520.34
R-B 'F'	1 00	94.26	105.7			
R-2-49	1 06	92.48	45.6	11.59	520.14	520.32
2-50	1 14	92.26	45.3	11.60	519.74	520.13
2-51	1 19	92.01	45.3	11.61	519.74	519.93
2-52	1 24	91.79	45.3	11.62	519.56	519.75
2-53	1 31	91.32	49.4	11.63	519.37	519.52
2-54	1 38	90.62	58.1	11.64	519.29	519.52

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Comb. Free Air-Corr. Const. 2.25[illegible]

SHEET NO. 5OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEETJob. ANJIVIL Inst. No. 149 Density Date 16 Dec 69 Meter Const. 1.0000 Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUSS VALUE	
P 6 E	8-16	87.24	221.5			
3-14	8-32	74.33	470.2			521.31
3-15	8-40	75.20	460.1			522.24
3-16	8-47	77.93	424.4			524.21
3-17	8-54	79.58	393.5			526.21
3-18	9-01	76.45	423.6			524.24
3-19	9-08	77.48	423.1			525.24
3-20	9-14	77.53	420.2			525.24
3-21	9-20	79.25	397.3			527.24
3-22	9-27	81.15	369.5			529.24
3-23	9-35	79.475	386.5			527.24
3-24	9-42	77.45	413.0			525.24
3-25	9-48	75.785	436.1			523.24
3-26	9-54	75.30	440.8			523.24
3-27	9-59	75.26	440.5			523.24
3-28	10-04	75.265	431.7			523.24
3-29	10-10	78.01	397.5			526.24
3-30	10-16	80.11	363.1			528.24
P 6 E	10-24	87.225	227.5			
R 3-30	10-32	80.10	363.1			528.24
3-31	10-37	77.77	394.5			526.24
3-32	10-46	77.76	397.6			526.24
3-33	10-55	80.08	353.3			528.24

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUSS VALUE	
3-34	11-00	81.20	291.3			521.24
3-35	11-06	85.70	251.2			523.24
3-36	11-18	87.40	232.9			525.24
3-37	11-25	85.70	246.3			523.24
3-38	11-36	86.47	249.7			523.24
3-39	11-37	85.77	250.6			523.24
P 6 E	11-43	87.40	232.6			
3-40	11-52	87.80	230.5			523.24
3-41	11-58	79.11	403.7			526.24
3-42	12-01	81.47	378.5			528.24
3-43	12-09	81.15	360.6			528.24
3-44	12-15	82.51	350.1			528.24
P 6 E	12-25	82.50	372.5			
3-45	12-35	91.50				
4-55	12-43	91.71				528.24
4-56	12-56	93.12				528.24
4-57	1-01	93.17				528.24
4-58	1-02	93.12				528.24
4-59	1-04	93.12				528.24
4-60	1-08	93.12				528.24
4-61	1-08	93.12				528.24
4-62	1-13	93.12				528.24

SHEET NO. 6

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. Inuvik

Inst. No. 149

Density

Date 16 APRIL 69

Meter Const. _____

Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	Lake moving Very approx.
4-63	1.17	93.45	101.2	+4.67	526.46	526.87
4-64	1.22	94.30	91.5	+4.60	526.28	526.60
4-65	1.26	95.47	61.7	+4.67	526.56	526.51
4-66	1.30	96.60	45.2	+4.76	526.21	526.46
4-67	1.35	96.36	46.3	+4.85	526.17	526.20
4-68	1.40	96.11	46.8	+4.81	526.11	526.20
4-69	1.44	95.24	55.0	+4.96	525.70	525.72
4-70	1.49	95.665	45.1	+5.04	525.65	525.71
4-71	1.55	94.80	55.9	+5.15	525.40	525.69
4-72	1.59	94.41	59.0	+5.23	525.20	525.57
4-73	2.04	95.73	40.81	+5.31	525.45	525.70
4-74	2.08	95.02	45.61	+5.39	525.25	525.41
4-75	2.13	94.07	57.71	+5.45	525.10	525.20
4-76	2.18	93.70	60.21	+5.53	524.77	525.02
4-77	2.23	94.62	42.51	+5.61	524.93	525.09
4-78	2.32	94.30	43.31	+5.60	524.87	524.84
R-Ps D	2.39	91.52				
						Lake moving Too slow
R-C'	3.01	73.23				
5-63	3.08	70.965	433.4	+6.10	525.87	526.60
5-62	3.14	71.88	422.4	+5.94	526.06	527.15
5-61	3.20	72.41	415.6	+5.95	526.13	527.80
5-60	3.25	70.87	442.5	+5.91	526.22	527.00

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
5-59	3.30	70.63	450.5	+5.85	526.43	528.23
5-58	3.35	70.03	460.2	+5.77	526.38	528.23
5-57	3.40	69.25	472.7	+5.70	526.23	528.23
5-56	3.45	65.56	525.2	+5.65	525.90	527.90
5-55	3.50	63.44	550.2	+5.57	525.66	527.29
5-54	3.55	64.63	546.3	+5.50	525.09	528.18
5-53	3.60	66.60	522.9	+5.42	526.41	528.56
5-52	4.05	65.29	540.6	+5.35	526.76	528.96
5-51	4.10	67.815	498.2	+5.25	527.25	528.25
5-50	4.15	69.685	482.9	+5.21	526.90	527.32
5-49	4.20	71.96	450.2	+5.14	527.20	529.00
5-48	4.25	72.60	430.1	+5.05	526.15	528.71
5-47	4.30	73.28	422.2	+4.99	527.20	527.93
5-46	4.35	77.275	392.3	+4.92	527.78	529.29
5-45	4.40	77.71	378.2	+4.85	527.35	529.45
5-44	4.45	77.36	322.3	+4.79	528.04	529.58
5-43	4.50	75.88	404.1	+4.70	527.90	529.39
5-42	4.55	75.97	400.5	+4.65	527.16	527.74
R.S.C.	5.05	73.25				

Chell

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 4

Job. INUVIK

Inst. No. 149

Density

Date 18 APRIL 69

Meter Const. 1.74957

Comb. Free Air-Corr. Const. 0.065

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	
Rbs'C'	7.57	73.23				Terran
5-64	8.04	71.39	424.1	+6.12	527.81	527.42
5-65	8.09	71.77	417.2	+6.20	525.92	527.53
5-66	8.14	70.41	432.6	+6.25	526.01	527.53
5-67	8.21	73.93	350.9	+6.35	525.05	527.29
5-68	8.32	78.59	306.7	+6.40	526.05	527.22
5-69	8.33	81.83	253.7	+6.50	526.05	527.29
5-70	8.47	80.63	270.6	+6.57	525.1	527.09
5-71	9.03	74.78	327.2	+6.63	522.6	* N.B.
5-72	9.08	75.36	356.0	+6.70	526.11	527.28
5-73	9.13	79.27	294.4	+6.75	527.27	527.44
5-74	9.18	80.51	243.8	+6.82	526.44	527.41
5-75	9.23	85.99	182.2	+6.90	526.53	527.21
5-76	9.28	88.91	140.3	+6.97	526.53	527.21
5-77	9.33	90.16	117.5	+7.05	526.53	527.21
5-78	9.38	96.25	110.5	+7.12	526.21	527.21
5-79	9.44	90.71	99.9	+7.20	526.21	527.21
5-80	9.49	90.775	95.5	+7.25	526.21	527.21
5-81	9.55	91.235	84.9	+7.35	526.21	527.21
Rbs'C'	10.01	73.23				
5-3	10.12	81.025	407.4	+1.20	530.12	532.25
5-4	10.19	80.10	420.1	+1.27	530.55	532.20
5-5	10.25	80.20	420.1	+2.02	530.74	532.36

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	
5-6	10.32	80.09	421.1	+2.09	530.74	532.39
5-7	10.38	79.92	421.8	+2.16	530.69	532.32
5-8	10.44	80.40	415.9	+2.21	530.87	532.48
5-9	10.49	80.52	412.5	+2.20	530.74	532.52
5-10	10.53	80.62	410.2	+2.35	530.93	532.50
5-11	10.58	80.89	405.9	+2.42	530.97	532.52
5-12	11.03	80.915	402.6	+2.50	532.99	532.70
5-13	11.08	81.16	399.9	+2.60	532.97	532.75
5-14	11.13	81.275	391.5	+2.65	532.70	532.75
5-15	11.19	80.83	395.7	+2.71	530.63	532.79
5-16	11.24	80.81	395.7	+2.79	530.64	532.79
5-17	11.29	80.17	395.3	+2.85	530.54	532.71
5-18	11.35	80.585	393.3	+2.90	530.32	532.52
5-19	11.41	81.30	382.3	+2.91	532.32	532.52
5-20	11.47	80.76	387.8	+2.95	532.32	532.76
5-21	11.52	74.95	397.9	+2.95	530.27	532.76
Rbs'C'	12.01	73.21				
5-21	12.10	79.95	397.9	+2.95	530.27	532.76
5-22	12.15	79.18	419.1	+2.95	530.09	532.73
5-23	12.20	79.00	409.2	+3.05	529.97	532.60
5-24	12.25	78.57	411.4	+3.05	529.73	532.58
5-25	12.30	77.28	423.4	+3.40	529.75	530.92
5-26	12.35	77.22	412.5	+3.45	529.32	530.97

* GRAVITY READ 162.5' (IFLAS) SW. OF STN. 5-71

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 8

Job. 100018 Inst. No. 149 Density

Date 18 April 67 Meter Const. 1.07930 Comb. Free Air-Corr. Const. 2.265

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Page 11

BASE 'F' ELEVATION 105.7

CHill

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 9

Job. 100415 Inst. No. 149 Density

Date 19 April 69 Meter Const. 1.04950 Comb. Free Air-Corr. Const. 0.065

[illegible][illegible]

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 10

Job. 150015 Inst. No. 149 Density

Date 20 APRIL 69 Meter Const. 101.252 Comb. Free Air-Corr. Const. 2.065

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	
R. B. 'B'	8.03	82.56	211.4			
R. B. 'B'	8.09	82.56	211.4			
6-1	8.23	81.84	355.9	+13.75	531.20	532.63
6-2	8.29	82.93	352.4	+14.01	521.14	522.55
6-3	8.35	83.70	339.7	+14.10	521.71	522.5
6-4	8.40	83.91	334.9	+14.11	521.21	522.55
6-5	8.48	84.58	322.0	+14.75	521.4	522.43
6-6	8.53	84.68	318.8	+14.32	521.11	522.29
6-7	8.58	84.06	323.8	+14.41	522.07	522.16
6-8	9.04	84.26	318.4	+14.51	520.52	522.09
6-9	9.08	84.34	315.4	+14.60	522.21	522.07
6-10	9.13	84.62	309.4	+14.70	522.47	522.05
6-11	9.18	85.26	295.8	+14.78	522.52	521.93
6-12	9.23	85.06	300.7	+14.75	522.36	522.06
6-13	9.28	85.305	295.6	+14.75	522.77	521.86
6-14	9.34	85.72	283.1	+15.09	522.85	522.03
6-15	9.37	85.57	287.6	+15.05	522.74	521.39
6-16	9.45	85.35	289.9	+15.14	520.70	521.02
6-17	9.50	85.17	292.4	+15.24	522.20	522.01
6-18	9.57	84.93	293.9	+15.31	522.75	521.93
6-19	10.02	85.27	288.5	+15.40	522.25	522.01
6-20	10.07	85.20	287.9	+15.49	522.25	521.98
R. B. 'B'	10.15	82.54	211.4			

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	Large Print Good
R. B. 20	10.23	85.195	287.9	+15.49	522.82	521.98
6-21	10.34	84.85	289.7	+15.56	522.05	521.81
6-22	10.39	84.60	292.0	+15.65	520.62	521.79
6-23	10.45	84.125	298.5	+15.72	520.22	521.22
6-24	10.51	83.31	308.2	+15.81	520.49	521.73
6-25	10.56	82.12	322.8	+15.90	520.58	521.57
6-26	11.02	81.67	323.1	+15.99	529.52	521.21
6-27	11.03	80.06	349.5	+16.06	522.01	521.42
6-28	11.13	78.98	361.4	+16.15	529.74	521.10
6-29	11.18	78.47	353.0	+16.21	529.77	521.10
6-30	11.24	78.66	361.6	+16.30	529.57	521.03
6-31	11.30	77.64	375.3	+16.40	529.49	521.00
6-32	11.35	77.23	380.5	+16.49	529.22	521.06
6-33	11.40	77.00	383.6	+16.58	529.54	521.03
6-34	11.46	76.19	402.2	+16.65	529.43	521.04
6-35	11.50	74.96	409.4	+16.75	522.26	520.89
6-36	11.58	75.01	406.4	+16.83	529.20	520.82
6-37	12.04	75.05	403.4	+16.90	529.11	520.72
6-38	12.09	74.52	406.8	+16.95	528.8	520.48
6-39	12.14	74.19	407.8	+17.05	528.65	520.28
6-40	12.20	74.36	404.5	+17.14	528.70	520.22
R. B. 'B'	12.32	80.52	211.4			Lake - Approx but on ground
R. B. 40	1.00	74.35	404.5	+17.14	528.69	520.31

SHEET NO. 11

OVERLAND EXPLORATION SERVICES LTD.

GRAVITY METER CALCULATION SHEET

Job. NOVIR Inst. No. 149 Density

Date 20 APR 69 Meter Const. 1.04950 Comb. Free Air-Corr. Const. 0.055

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	Topog. anomaly
6-41	1.05	74.45	401.7	-17.20	528.67	530.28
6-42	1.10	74.43	401.7	-17.26	528.71	530.32
6-43	1.15	74.33	400.9	+7.32	528.61	530.21
6-44	1.20	74.325	399.4	+7.40	528.59	530.19
6-45	1.25	74.75	390.6	+7.47	528.54	530.10
6-46	1.31	75.46	374.9	+7.55	528.34	529.84
6-47	1.37	73.64	395.6	+7.62	527.54	529.43
6-48	1.42	70.82	405.6	+7.70	527.71	529.34
6-49	1.47	71.61	423.3	+7.78	527.67	529.37
6-50	1.55	69.42	460.2	+7.85	527.84	529.62
6-51	2.01	68.39	475.4	+7.92	527.80	529.70
6-52	2.07	68.52	466.7	+7.99	527.19	529.65
6-53	2.13	69.51	472.3	+8.04	527.61	529.70
6-54	2.20	67.25	483.7	+8.10	527.34	529.28
R 6-55	2.27	67.124	477.5	+8.15	527.39	529.30
R. Bo. 'B'	2.35	92.52	211.4	+		
6-62	2.41	83.28	195.4	+8.60	TC = .13 526.33	527.11 526.21
6-63	2.46	80.16	200.2	+8.65	527.5	corr? 526.27
6-64	2.50	82.51	200.6	+8.72	TC = .22 525.81	526.61 526.29
6-65	2.54	83.225	185.7	+8.74	TC = .36 525.75	526.41 526.13
6-66	3.00	84.85	157.4	+8.74	TC = .30 525.60	526.23 525.92
6-67	3.06	85.77	143.7	+8.84	TC = .28 525.70	526.28 526.00
6-68	3.11	87.175	122.4	+8.89	TC = .19 525.76	526.25 526.06

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OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 12

Job. 100vite Inst. No. 149 Density

Date 21 APRIL 19 Meter Const. _____ Comb. Free Air-Corr. Const. _____

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
P 3-44	1.48	97.14	227.5			
3-45	1.57	97.57	55.4	+2.25	525.63	525.85
3-46	2.05	98.315	40.4	+2.39	525.4	525.6
3-47	2.12	97.85	39.5	+2.45	525.4	525.6
3-48	2.18	96.28	40.2	+2.44	525.01	525.31
3-49	2.19	95.815	57.0	+2.42	524.77	525.1
3-50	2.23	95.815	58.9	+2.45	524.41	524.69
3-51	2.28	95.90	56.2	+2.50	524.20	524.51
3-52	2.32	95.59	57.9	+2.52	524.25	524.49
3-53	2.37	96.18	47.9	+2.55	524.0	524.41
3-54	2.40	96.01	47.9	+2.52	524.16	524.5
3-55	2.48	95.95	47.8	+3.00	524.12	524.12
3-56	2.51	95.45	55.6	+3.05	524.19	524.5
3-57	3.01	95.025	56.9	+3.15	523.9	
3-58	3.07	94.91	57.3	+3.11	523.7	15' UP DIRT OF PIER
3-59			45.3			"
3-60			45.1			"
3-61	3.20	94.24	54.8	+3.44	523.51	523.45
3-62	3.25	93.91	57.9	+3.60	523.29	523.41
3-63	3.30	94.75	45.4	+3.51	523.20	523.41
3-64	3.35	94.75	43.3	+3.15	523.25	523.45
3-65	3.40	94.69	43.0	+3.12	523.14	523.41
P 3-51	3.50	87.165	227.5			

[illegible]

Line 11 is River From Line 5 To N.W. End of Line 1 Still Bend on Waters Edge. C. Zell

SHEET NO. 13 OVERLAND EXPLORATION SERVICES LTD. TERRAIN COLLECTION - HEIGHT OF RIVER
GRAVITY METER CALCULATION SHEET BANK WILL FOLLOW.

Job. INUVIK Inst. No. 149 Density

Date 22 April 69 Meter Const. Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
BS3-56	10.27	95.10	56.9	+3.15	523.93	524.16
11-48	10.32	95.125	43.0	+3.17	524.13	524.27
M-49	10.43	95.93	43.0	+3.10	523.85	524.02
11-50	10.48	95.91	43.0	+3.22	523.71	523.87
11-51	10.57	95.88	43.0	+3.21	523.61	523.78
11-52	11.04	95.85	42.9	+3.21	523.53	523.65
M-53	11.11	95.00	42.9	+3.24	523.55	523.72
M-54	11.21	95.88	42.9	+3.65	523.74	523.51
11-55	11.29	95.81	42.9	+3.59	523.24	523.27
M-56	11.36	95.78	42.9	+3.52	523.10	523.21
11-57	11.43	95.715	42.9	+3.45	523.03	523.20
BS3-56	11.53	95.10	56.9	+3.15	523.93	524.16
RM-57	12.02	95.715	42.9	+2.45	523.03	523.50
M-58	12.07	95.87	42.8	+2.55	523.02	523.14
11-59	12.13	95.95	42.9	+2.25	523.24	523.18
11-60	12.16	96.08	42.6	+2.14	523.04	523.70
11-61	12.29	96.26	42.8	+2.05	522.93	523.04
11-62	12.36	96.51	42.7	+1.97	523.19	523.25
11-63	12.42	96.57	42.7	+1.70	523.31	523.47
M-64	12.55	96.63	42.7	+1.52	523.37	523.46
11-65	1.01	96.78	42.7	+1.45	523.38	523.55
M-66	1.14	97.01	42.7	+1.65	523.53	523.70
M-67	1.20	97.06	42.7	+1.55	523.48	523.65

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
11-68	1.32	97.30	42.7	+1.44	523.62	523.79
11-69	1.40	97.40	42.6	+1.30	523.57	523.74
11-70	1.47	97.46	42.6	+1.25	523.57	523.86
11-71	1.55	97.805	42.6	+1.07	523.82	523.99
BS3-51	2.06	95.09	56.9	+3.15	523.93	524.16
BS3-51	3.03	95.08	56.9	+3.15	523.93	524.16
M-47	3.10	96.23	43.0	+3.25	523.34	524.51
M-46	3.20	96.30	43.1	+3.34	524.50	524.67
11-45	3.23	96.39	43.1	+3.40	524.65	524.82
11-44	3.37	96.43	43.1	+3.49	524.70	524.97
M-43	3.45	96.64	43.1	+3.55	525.08	525.25
M-42	3.54	96.66	43.2	+3.62	525.18	525.35
11-41	4.04	96.59	43.2	+3.71	525.20	525.37
11-40	4.12	96.45	43.2	+3.72	525.16	525.33
11-39	4.22	96.28	43.2	+3.87	525.15	525.22
11-38	4.30	96.17	43.2	+3.94	524.98	525.15
M-37	4.37	96.26	43.3	+3.99	524.73	525.11
M-36	4.45	95.89	43.3	+4.11	524.81	525.05
11-35	4.50	95.91	43.3	+4.20	524.87	525.05
BS3-51	5.02	95.06	56.9	+3.15	523.93	524.16

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 4

Job. NOVIK

Inst. No. 149

Density _____

Date 23 APRIL 69

Meter Const. _____

Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
Bs E	7.50	87.20	224.5			
R3-64	8.03	94.78	43.0	+3.72	523.37	EXACT NORTH OF P ₃₀
R3-64	8.07	94.78	43.0	+3.72	523.37	LOCATION VIA P ₃₀
3-65	8.13	94.69	43.0	+3.79	523.78	523.115
3-66	8.22	94.56	42.6	+3.55	523.17	523.34
3-67	8.28	94.53	40.2	+3.90	522.03	523.19
3-68	8.34	93.99	43.4	+3.19	522.71	522.94
3-69(1)	8.43	92.84	57.3	+4.06	522.23	522.16
3-70	8.48	92.78	54.1	+4.14	522.35	522.56
3-71	8.55	93.36	41.0	+4.20	522.15	LAKE OPTION WITH GOOD 521.82 521.99
3-72	9.02	92.54	47.9	+4.25	521.79	521.99
3-73	9.07	92.61	45.0	+4.32	521.76	521.93
3-74	9.13	91.69	53.2	+4.40	521.40	521.61
3-75	9.20	92.20	42.2	+4.45	521.27	LAKE LOCATION 521.44
3-76	9.27	91.99	41.1	+4.54	521.07	521.24
3-77	9.33	91.80	41.5	+4.60	520.96	521.11
3-78	9.37	91.68	40.7	+4.67	520.87	521.02
3-79	9.45	91.59	40.7	+4.75	520.79	520.90
3-80	9.51	91.45	41.0	+4.82	520.71	520.82
3-81	9.57	91.30	42.1	+4.80	520.67	520.95
3-82	10.02	91.79	47.9	+4.87	521.64	521.87
3-83	10.08	89.99	54.4	+5.04	520.54	520.94
3-84	10.13	89.94	52.3	+5.08	520.19	520.31

71 523.48

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SHEET NO. 15

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job. 100010 Inst. No. 149 Density

Date 23 April 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____[illegible][illegible]

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OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

SHEET NO. 16

Job. INUVIK Inst. No. 149 Density

Date 24 APRIL 69 Meter Const. Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	
Bs b-1	8.04	82.86	355.9	+3.15	531.14	532.57
7-1	8.10	82.01	370.9	+3.85	531.13	532.61
7-2	8.17	83.04	353.8	+3.75	531.27	532.41
7-3	8.23	82.32	365.0	+3.68	530.40	532.36
7-4	8.28	81.89	373.3	+3.59	531.29	532.39
7-5	8.34	81.83	376.7	+3.50	531.17	532.47
7-6	8.41	81.775	378.9	+3.41	531.17	532.43
7-7	8.47	82.73	367.6	+3.34	531.15	532.62
7-8	8.54	83.355	360.0	+3.25	531.23	532.67
7-9	9.00	83.50	359.5	+3.20	531.20	532.74
7-10	9.05	83.53	359.3	+3.07	531.19	532.62
7-11	9.13	82.14	378.7	+2.99	531.93	532.42
7-12	9.22	81.88	384.7	+2.95	530.70	532.43
7-13	9.27	81.525	389.4	+2.70	532.74	532.30
7-14	9.35	81.575	392.0	+2.65	532.52	532.43
7-15	9.50	81.24	398.0	+2.54	532.74	532.31
7-16	9.54	81.15	401.5	+2.44	532.74	532.42
7-17	9.59	81.09	401.5	+2.35	532.66	532.42
7-18	10.04	80.875	405.8	+2.24	532.51	532.35
7-19	10.08	80.70	411.4	+2.14	532.52	532.33
RBs b-1	10.19	82.85	355.9	+3.75	531.14	532.57
7-20	10.31	80.50	417.9	+2.64	532.79	532.47
Rs-4	10.37	80.07	422.8	+1.90	530.52	532.21
7-21	10.45	79.935	424.6	+1.97	530.58	532.28

STN	TIME	INST. READING	ELEVA-TION	LAT. CORR.	BOUGER VALUE	
7-22	10.50	80.57	417.2	+1.85	530.64	532.31
7-23	10.56	80.62	416.2	+1.78	530.55	532.22
7-24	11.01	80.85	412.6	+1.70	530.48	532.13
7-25	11.07	80.41	415.8	+1.65	530.18	531.84
7-26	11.12	80.15	411.1	+1.68	530.15	531.80
7-27	11.18	82.32	387.1	+1.50	532.16	531.71
7-28	11.24	82.20	388.5	+1.44	532.07	531.63
7-29	11.29	81.52	395.8	+1.40	531.20	531.38
7-30	11.35	80.80	404.3	+1.30	531.47	531.11
7-31	11.40	81.205	398.7	+1.25	531.51	531.10
7-32	11.46	81.87	389.0	+1.18	531.52	531.05
7-33	11.52	81.41	395.3	+1.11	531.35	530.94
7-34	11.59	83.35	368.9	+1.07	529.63	531.10
7-35	12.05	83.45	368.1	+1.01	529.61	531.08
7-36	12.10	83.36	368.6	+1.05	529.51	530.98
7-37	12.14	83.72	368.5	+1.25	529.71	530.79
7-38	12.19	83.76	361.9	+1.80	529.34	530.60
7-39	12.24	81.285	398.3	+1.70	531.21	530.60
7-40	12.28	81.12	411.1	+1.65	531.11	530.76
R-4-6	12.37	82.995	385.4	+1.65	529.91	531.45
RP-6-1	12.54	80.815	355.9	+3.95	531.14	532.57
Bs 'B'	1.05	82.575	211.4			
RBs b-1	1.16	82.81	355.9	+3.95		

CH2OH

SHEET NO. 17

Date 25 April 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

[illegible][illegible]

SHEET NO. 18

Date 26 April 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

[illegible]

SHEET NO.

19

OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEET

Job.

NOVIK

Inst. No.

149

Density

Date _____

27 APRIL 69

Meter Const.

Comb. Free Air-Corr. Const.

STN	TIME	INST. READING	ELEVA- TION	LAT. CORR.	BOUGER VALUE	
Bs3-56	11.45	95.06	56.9	+3.15	523.45	524.16
R M26	12.00	95.32	43.3	+5.10	525.26	525.44
M25	12.07	95.15	43.5	+5.20	525.19	525.30
M24	12.15	94.95	43.5	+5.21	525.07	525.24
M23	12.23	94.83	43.5	+5.31	525.05	525.22
M22	12.31	94.84	43.6	+5.51	525.17	525.35
M21	12.39	95.12	43.6	+5.61	525.22	525.74
M20	12.46	95.23	43.6	+5.70	525.71	525.95
M19	12.53	95.28	43.6	+5.83	525.85	526.13
M18	12.59	95.26	43.6	+5.95	525.85	526.23
M17	1.04	95.20	43.7	+6.05	525.82	526.28
M16	1.11	95.01	43.7	+6.15	525.70	526.18
M15	1.17	95.13	43.7	+6.26	526.22	526.41
M14	1.24	95.16	43.7	+6.35	526.25	526.53
M13	1.29	95.10	43.7	+6.49	526.25	526.60
M12	1.35	94.99	43.8	+6.55	526.25	526.55
M11	1.41	95.03	43.8	+6.65	526.54	526.69
M10	1.48	95.02	43.8	+6.71	526.57	526.74
M9	1.58	94.63	43.8	+6.77	526.57	526.87
M8	2.07	94.38	43.9	+6.85	526.50	526.70
RBs3-56	2.24	95.10	56.9	+3.15	523.45	524.16
R M8	2.39	94.38	43.9	+6.85	526.52	526.20
M7	2.46	94.34	43.9	+6.95	526.08	526.26

[illegible]

Chell

SHEET NO. 20

Date 27 April 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

[illegible]

SHEET NO. 21OVERLAND EXPLORATION SERVICES LTD.
GRAVITY METER CALCULATION SHEETJob. INUVIK Inst. No. 149 Density _____Date 28 APRIL 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
Bs3-56	10.08	95.07	56.9	+3.15	523.93	524.16
PM1	10.26	93.11	44.0	+7.65	525.93	525.71
M79	10.32	92.74	44.0	+7.74	525.23	525.41
M80	10.38	92.43	44.0	+7.85	525.02	525.20
M81	10.43	92.25	44.1	+7.95	524.94	525.11
M82	10.48	92.00	44.1	+8.05	524.73	524.95
M83	10.52	91.78	44.1	+8.14	524.64	524.81
M84	10.56	91.47	44.1	+8.24	524.40	524.57
M85	11.00	91.335	44.1	+8.32	524.34	524.51
M86	11.04	91.275	44.2	+8.42	524.39	524.57
M87	11.07	91.20	44.2	+8.52	524.40	524.58
M88	11.13	91.48	44.2	+8.60	524.71	524.95
M89	11.17	91.66	44.2	+8.70	525.01	525.24
M90	11.23	91.67	44.2	+8.79	525.16	525.34
BS3-56	11.43	95.08	56.9	+3.15	523.93	524.16

STN	TIME	INST. READING	ELEVATION	LAT. CORR.	BOUGER VALUE	
new standard	repeat	SE	1	1		*
Bs 'A'	7.19	78.95	232.0	+12.16	1	528.58
83	7.44	80.75	232.0	+12.33	529.30	530.73
85	7.55	80.31	239.0	+12.57	529.54	530.49
82	8.05	77.025	287.0	+12.95	529.59	530.73
86	8.13	81.03	239.0	+13.00	530.72	531.67
88	8.22	80.51	233.0	+13.24	530.03	530.87
San A	8.35	83.05	45.0	+14.15	526.63	526.81
San B.	8.47	83.61	45.0	+14.65	527.72	527.90
BS 'A'	9.01	78.95	232.0	+12.16		528.58

New station in 'field' project marked A.B.C. etc. Do NOT CONFUSE WITH Base's A.B.C. etc.

CRB

SHEET NO. 22

Date 29 April 69. Meter Const. _____ Comb. Free Air-Corr. Const. _____

[illegible][illegible]

Ch Ball

SHEET NO. 23

Date 30 APRIL 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

[illegible]

CP Bell

SHEET NO. 24

Date 1 MAY 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

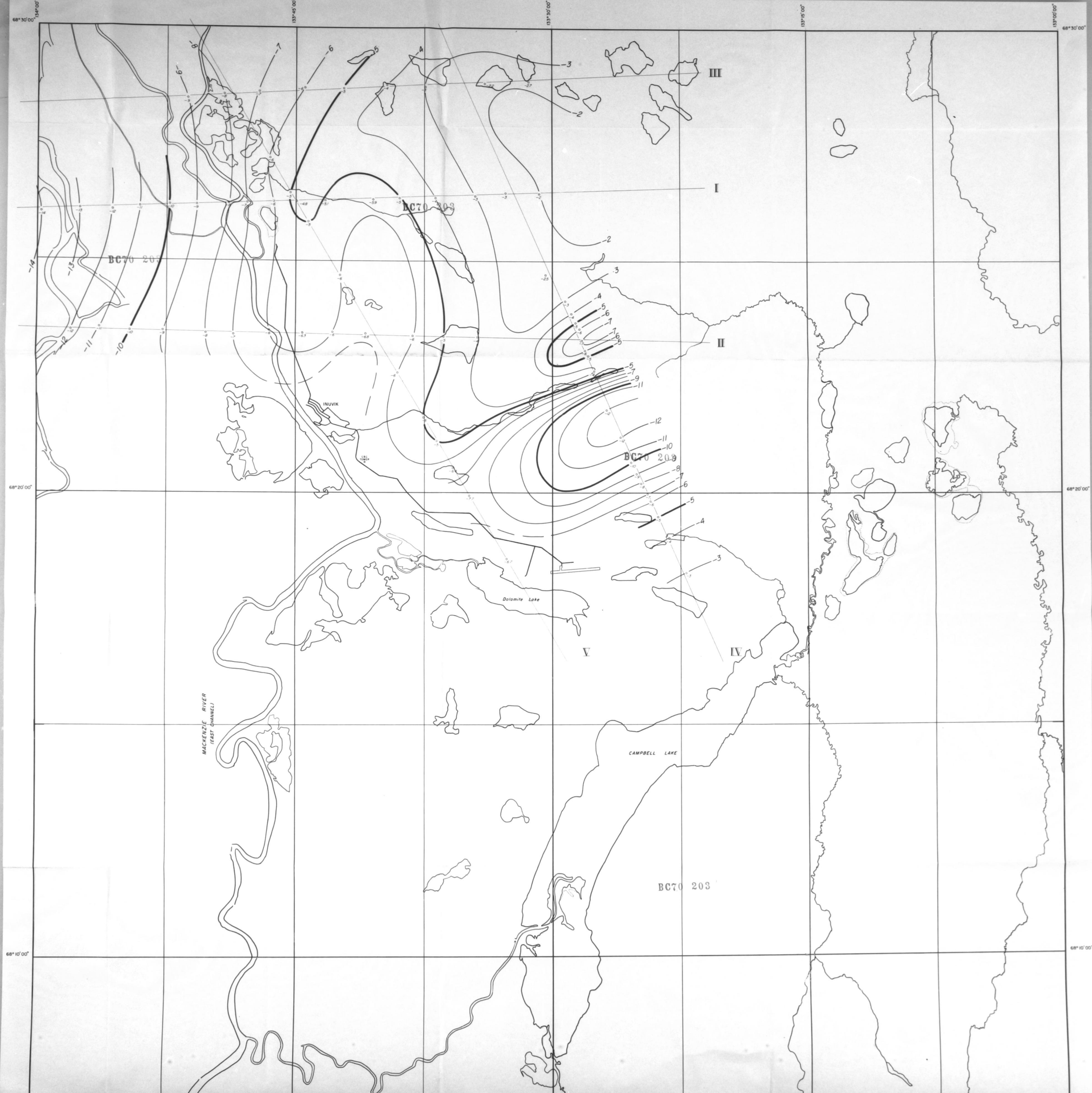
[illegible][illegible]

CPB44

SHEET NO. 25

Date 2 MAY 69 Meter Const. _____ Comb. Free Air-Corr. Const. _____

[illegible]





MAP EVALUATION	
Qualification: consider type of map or plan, amount of relief considered, criteria, quality of data and density of control, (geophysical or geopotential).	
CONTOUR LEGEND	
— — — — —	Seismologic Date
— — — — —	Parabolic Geophysical Date
— — — — —	Qualitatively Reliable Geophysical Date
— — — — —	Unreliable Geophysical Date
Remarks:	

[illegible][illegible][illegible]

PAN AMERICAN PETROLEUM CORPORATION
CALGARY DIVISION

AREA Iruvik GRID: CU - 8/SW, SE
PROVINCE: N.W.T. SCALE: 1" = 4000
HORIZON _____
TYPE OF MAP: CALCULATED ~~BORDER~~ CONTOUR INT 1 MG.
SHOT BY: _____ FOR: _____
INC. DATES: _____ CO. AFFIL.: _____
INTER. BY: _____ DATE: _____
REPORT NO. (ENC' 3)
REMARKS:

60° - E B670 203

GEOLOGICAL INT DATE
FROM SCOP. REPORT No(s) DATED:

REMARKS:

CLASS I





MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological).

CONTOUR LEGEND

— — — — —	Geological Data
=====	Reliable Geophysical Data
— — — — —	Qualitatively Reliable Geophysical Data
- - - - -	Unreliable Geophysical Data

Remarks

SHOOTING HISTORY (Not in detail)

[illegible]

INTERPRETIVE HISTORY

[illegible]

This map replaces/supplements Registration No. _____
which is to be destroyed/exp. _____
(Refer transmittal dated _____)

This map checked by _____
Pan Am Geophysicist.

All geological and geophysical data, including the interpretation is the private and confidential property of Pan American Petroleum Corporation and shall remain the property of said Corporation. No reproduction thereof without the written permission of said Corporation.

VELOCITY PLAT AND EFFECT OF REF. PLANE ANGLE

LEGEND

- Conventional S
- C.V.L.
- ⊙ Synthetic Resin

PAN AMERICAN PETROLEUM CORPORATION
CALGARY DIVISION

AREA	Inuvik	GRID:	CU-8/SW,SE
PROVINCE:	N.W.T.	SCALE:	1" = 4000'
HORIZON:	DEV. LIMESTONE and/or ORDOV. SIL.		
TYPE OF MAP:	SCM	CONTOUR INT	400 ft.
SHOT BY:		FOR:	

SHOT BY:	FOR:
INCL DATES:	
INTERP BY:	CO AFFIL:
REPORT NO:	DATE:
REMARKS: <i>DEPTH FROM GRAVITY INTERPRETATION</i>	

REMARKS: DEPTH FROM GRAVITY INTERPRETATION
 1050 207'

BC70 207

GEOLOGICAL INT	DATE
FROM GEOPH. REPORT No.(s):	DATED:
REMARKS:	

REMARKS:

CLASS I

