

LOG NO:	JAN 10	RD.
ACTION:	DASH FROM ANALYST	
FILE NO:		

GEOCHEMICAL REPORT

on the

KWAN CLAIMS

(Kwan 5: 11840)

Omineca M.D.

NTS 93N-11W

Latitude: 55 36 N

Longitude: 125 17 W

for

operator:

PACIFIC RIM MINING CORP.
618-522 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B-1L8

owner:

HENK VANALPHEN
P.O. BOX 754
SMITHERS, B.C.
V0J-2N0

by

P. REYNOLDS, B.Sc.
JULY 3, 1991

21,567

LOG NO	AUG 12 1991	RD.
ACTION:		
FILE NO:		

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**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,567

SUMMARY

The Kwan claims are located approximately 150 kilometres north of Fort St. James, B.C., on NTS mapsheet 93N/11. The claims are underlain by pink-white syenodiorite of the Hogem Batholith. Work by Noranda, in the early 1970's delineated several north-south trending copper soil anomalies. This area was inaccessible, in May 1991, due to deep snow. A total of 60 soil samples and five stream sediment samples were collected from the ridge to the south and west of the Noranda work. Gold values ranged from 5-30 ppb in soils and 5-15 ppb in stream sediments.

INTRODUCTION

During the period April 30 to May 9, 1991 a three man crew spent two days prospecting, soil sampling and silt sampling on the Kwan mineral claims. The Kwan claims, comprising 80 units, are located approximately 150 kilometres north of Fort St. James, B.C. on mapsheet 93N/11.

The purpose of this work program was to verify and extend copper soil anomalies located by Noranda Exploration in the early 1970's. Due to deep snow, work was confined to the ridges separating Groundhog and Kwanika Creeks and to a few open streams. As a result of this work, 60 soil samples and five stream sediment samples were collected.

This report has been prepared to satisfy requirements for assessment credit.

LOCATION, ACCESS AND PHYSIOGRAPHY

The Kwan claims are located approximately 150 kilometres north of Fort St. James, in the Omineca River area of B.C. The claims are centred at 55 36 N latitude and 125 17 W longitude on mapsheet 93N/11 in the Omineca mining division.

Access to the claims is via helicopter based at Fort St. James or Tchentlo Lodge, at the western end of Tchentlo Lake.

The claims straddle moderately rugged mountainous terrain. They are bounded by Groundhog Creek to the north and by the Kwanika Creek valley to the south. Elevations range from 1175 metres in the Kwanika Creek valley to 1800 metres at the height of land.



FIGURE 1

CLAIM STATUS

The Kwan group of claims comprise 80 units in four contiguous claims. The registered owner of the Kwan claims is Mr. H. VanAlphen. Any legal aspects of claim ownership is beyond the scope of this report. Complete claim information is as follows:

CLAIM NAME	RECORD NO.	UNITS	* EXPIRY DATE
Kwan 5	11840	20	May 12, 1992
Kwan 6	11841	20	May 11, 1992
Kwan 7	11842	20	May 12, 1992
Kwan 8	11843	20	May 12, 1992

* Includes assessment currently being applied.

HISTORY

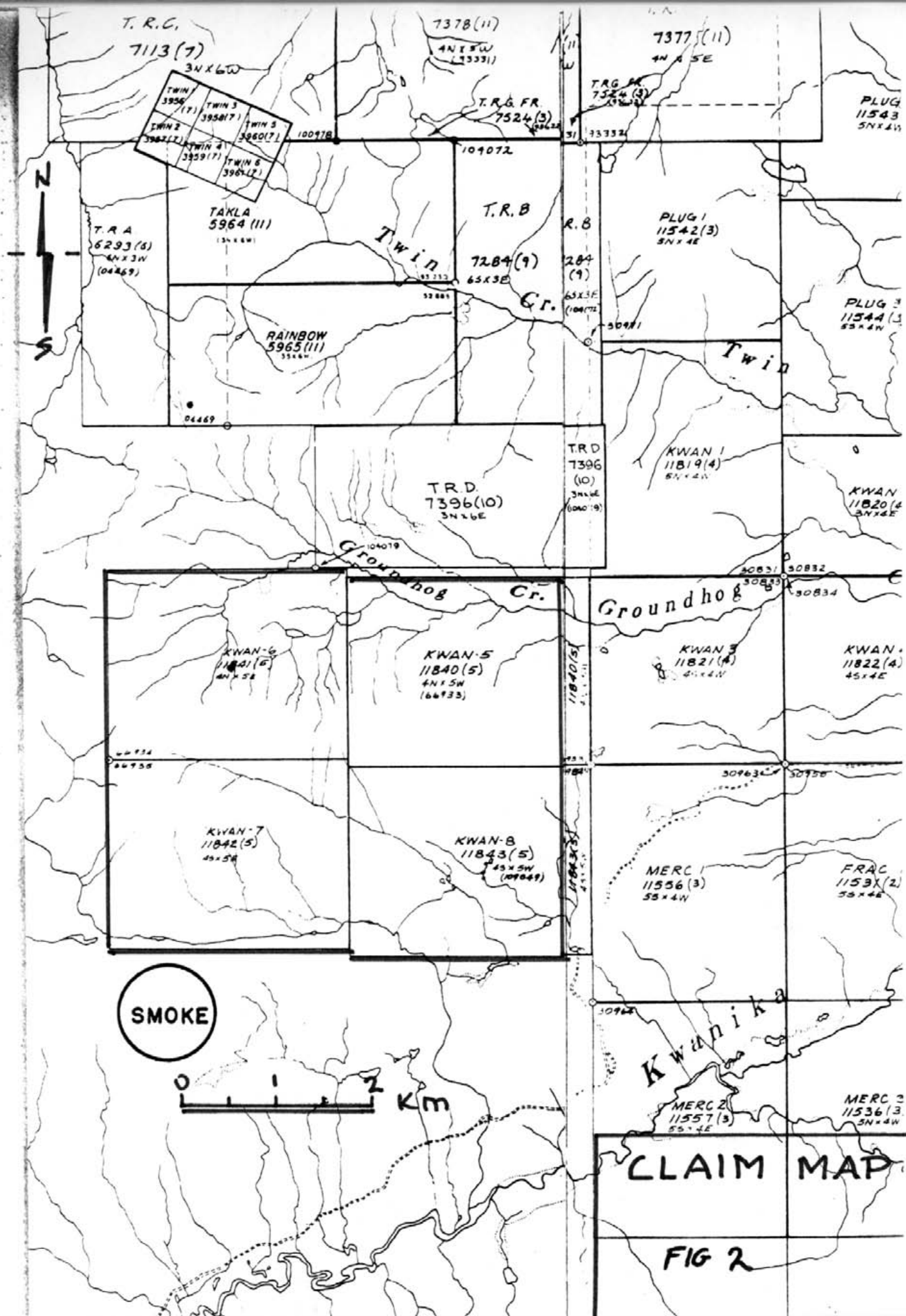
The Omineca River area has a long history of mineral exploration. The area now covered by the Kwan claims was explored by Noranda, in the early seventies, for copper and molybdenum. Base metal exploration all but ceased in the mid-seventies due to low metal prices. With the discovery of the Mount Milligan deposit in 1988, exploration for low grade, large tonnage copper-gold porphyry deposits boomed once again.

REGIONAL GEOLOGY

The Kwan claims lie within the Intermontane Belt of the Canadian Cordillera. The area is underlain predominately by Early Mesozoic Takla Group rocks. The Takla Group is Late Triassic to Early Jurassic in age. It is characterized by volcanic, pyroclastic and epiclastic rocks. The volcanic rocks are mainly augite phyric, although plagioclase and hornblende phenocrysts are abundant.

The Takla Group is intruded by coeval acid intrusive rocks of the Hogen Batholith. These intrusives are up to Early Jurassic in age.

To the west, a thick assemblage of inter-bedded sedimentary and volcanic rocks of the Permian Cache Creek Group are in contact with the Takla Group volcanics along the Pinchi fault zone. The Cache Creek Group is characterized by limestone and ribbon chert.



PROPERTY GEOLOGY

The Kwan claims are underlain by acid intrusive rocks of the Hogem Batholith. Locally these rocks are comprised of pink to white, medium grained syeno-diorite with trace to two percent related magnetite.

The contact with the Takla Group volcanics lies approximately two kilometres east of the Kwan property.

GEOCHEMICAL SURVEY

During the period April 30 to May 9, 1991 a total of 60 soil samples and five stream sediment samples were collected from the Kwan claims. Soil sampling was restricted to the ridges due to deep snow in the valleys. All sample sites are plotted on figure three.

Soil samples were collected from the B-horizon at a depth of approximately six centimetres. Poor soil development was characteristic of several sample sites, thus the organic A-horizon was sampled. All soils were put in kraft "wet-strength" bags, air dried and shipped to Min En Labs in North Vancouver, B.C. for analysis. Analysis consisted of 30 element ICP plus geochemical gold analysis (A.A.).

Sediments were collected from several streams draining the property. Approximately five kilograms of fine (10mm) material was collected from sandy pools and gravel bar tails. All samples were collected from below the waterline. Samples were allowed to drain and were then shipped to Min En Labs in North Vancouver, B.C. for analysis. Sample preparation consisted of heavy mineral separation. Analysis consisted of 30 element ICP plus geochemical gold (A.A.). Exact analytical procedures are listed in appendix 1.

RESULTS AND CONCLUSION

Several soils showed above average values of gold and silver (fig. 4). Background gold values were extremely low at 5 ppb. Anomalous values range from 15 to 30 ppb.

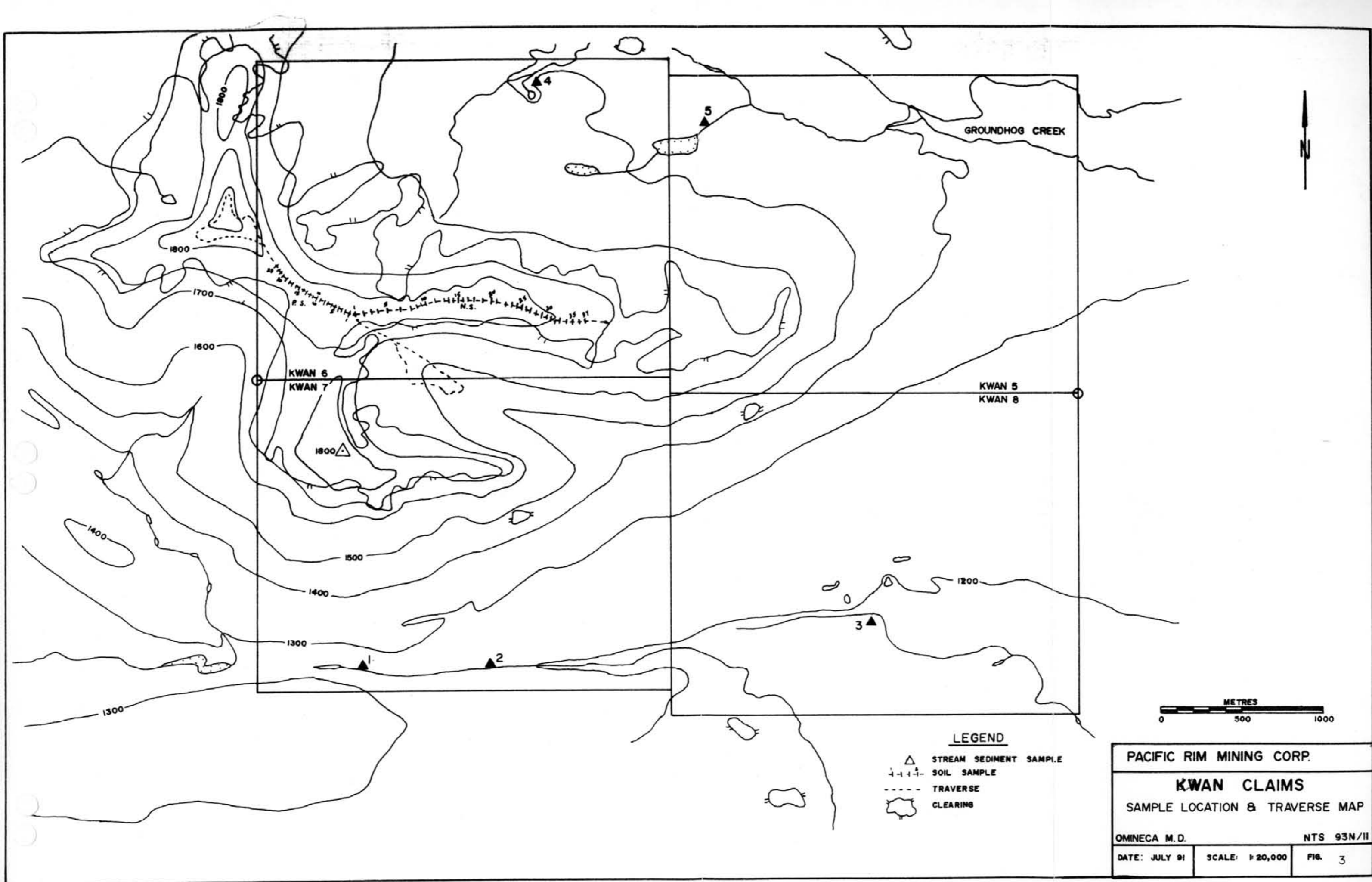
Stream sediment samples returned gold values ranging from 5 to 15 ppb. Interestingly, the sample that returned the highest gold value also returned extremely anomalous values of chromium, cobalt, vanadium and nickel suggesting the presence of platinum group elements (fig. 3).

Stream sediment samples may be returning somewhat depressed gold concentrations due to seasonal variations. Sampling should be done immediately after the spring flood so that light material is washed away and the gold is concentrated. Sampling at the Kwan claims was done before flood conditions even started, thus light material had been depositing on top of the heavy minerals for the last eleven months. The probability of picking up a grain of gold in a small sample (5 Kg) is greatly reduced by sampling at this time of year.

RECOMMENDATIONS

Work by Norranda, in the early 1970's, delineated several north-south trending zones with anomalous values of copper, molybdenum and zinc. No work was done in this area, in 1991, due to deep snow. It is recommended that a grid be established over this area and that it be soil sampled. Soils should be collected on east-west lines spaced 100 metres apart. Sample spacing should be 50 metres.

The extensive talus development to the south of the Norranda grid will prohibit soil sampling, however detailed prospecting and rock sampling will be helpful in this area.



LEGEND

- △ STREAM SEDIMENT SAMPLE
- +--+ soil SAMPLE
- - - TRAVERSE
- ☁ CLEARING

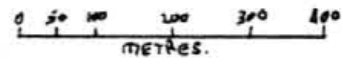
PACIFIC RIM MINING CORP.		
KWAN CLAIMS		
SAMPLE LOCATION & TRAVERSE MAP		
OMINECA M.D.		NTS 93N/11
DATE: JULY 91	SCALE: 1:20,000	FIG. 3



5 15 10 5 5 15 5 5 25 5 5 5 5 20 5 5 15 10 10 10 5 5 10 5 10 5 30 10 5 10 5 15 5 5 5 5 5 5 20 10 5 5 5 5 5 10 5 5 5 5 10 5 5 5 5 10 5 5 5 5 10 5 5

13 10 12 12 8 10 9 8 9 4 8 8 9 8 7 12 11 12 24 14 16 24 16 28 30 14 29 26 14 18 19 10 20 22 25 7 15 27 18 19 25 13 16 29 29 19 18 16 23 23 31 38 10 22 22 15 20 12 22 12

PS series ← || → NS series



LEGEND

5 Au (PPB)
1 SAMPLE SITE
20 Cu (PPM)

PACIFIC RIM MINING CORP
KWAN CLAIMS
SOIL GEOCHEMISTRY
SCALE 1:10 000
DATE: JULY '91

KWAN CLAIMS
STATEMENT OF COSTS
APRIL 30 TO MAY 9, 1991

Wages:		
Geologist: P. Reynolds	2 days @ \$350.00	\$700.00
Geologist: N. Swift	2 days @ \$275.00	\$550.00
Assistant: H. VanAlphen	2 days @ \$250.00	\$500.00
Helicopter	2.6 hrs @ \$715.00	\$1859.00
Room & board	2 * 3 @ \$65.00	\$390.00
Assays	60 @ \$15.00	\$900.00
	5 @ \$30.00	\$150.00
Shipping		\$90.00
Mob/demob		\$1500.00
Report writing: P. Reynolds	2 days @ \$350.00	\$700.00
Drafting		\$300.00
Truck rental	1/2 of \$910.00	\$455.00
Field supplies	Flagging, bags, maps, etc.	\$75.00
<hr/>		
TOTAL		\$8169.00

BIBLIOGRAPHY

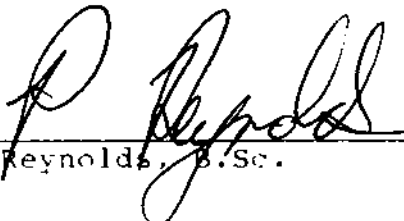
Dirom, Gavin E. and Howell, W.A. Assesment report #3858, 1971.

CERTIFICATE

I, Paul Reynolds, of the city of Vancouver in the province of British Columbia do hereby certify that:

- 1) I am a graduate of the University of British Columbia with a B.Sc. degree in geology.
- 2) I have practiced my profession as exploration geologist since graduation in 1987.
- 3) This report is based on field work performed by the author.
- 4) I have no interest in the property or in Pacific Rim Mining Corp.

Dated this 3rd day of July, 1991.



P. Reynolds, B.Sc.

APPENDIX 1
ASSAY CERTIFICATES

COMP: PACIFIC RIM MINING CORP.
 PROJ: DWAN
 ATTN: PAUL REYNOLDS

MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: 1V-0403-SJ1+2
 DATE: 91/05/16
 * SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPM
NS1	2.6	15290	1	1	74	.3	1	2090	.1	4	28	17300	660	8	1570	131	1	340	13	1540	12	1	10	1	1	37.4	38	1	1	1	6	15
NS2	1.4	15250	1	1	76	.3	1	3140	.1	6	30	22640	700	11	3460	226	1	410	22	880	13	1	7	1	1	46.3	42	1	1	1	20	10
NS3	1.8	14820	1	1	73	.2	1	2440	.1	5	14	21140	1120	6	1890	335	1	320	5	1280	10	1	11	1	1	47.8	38	1	1	1	10	5
NS4	.9	17390	1	1	67	.2	1	1860	.1	5	29	22760	760	5	1600	145	2	710	3	1340	10	1	9	1	1	51.3	40	1	1	1	9	30
NS5	.9	16340	1	1	73	.2	2	4470	.1	8	26	24990	750	9	4160	360	1	70	15	910	8	1	11	1	1	50.9	41	1	1	2	27	10
NS6	.9	15390	1	1	77	.2	1	1860	.1	5	14	27270	690	3	810	320	1	410	4	1310	7	1	9	1	1	64.2	33	1	1	1	9	5
NS7	1.8	16070	1	1	72	.2	1	1380	.1	4	14	17420	740	5	1030	195	1	360	4	1200	9	1	7	1	1	41.6	34	1	1	1	6	10
NS8	1.2	16850	1	1	68	.2	1	1990	.1	5	19	19960	680	6	1930	182	1	450	17	1050	9	1	8	1	1	48.0	46	1	1	1	12	5
NS9	.7	16710	1	1	77	.3	1	1710	.1	3	10	14490	450	5	1320	80	1	380	12	1210	7	1	7	1	1	54.2	30	1	1	1	7	15
NS10	1.2	19090	1	1	69	.3	1	2050	.1	5	20	25050	690	5	1880	136	1	400	57	1290	9	1	10	1	1	33.3	38	1	1	1	10	5
NS11	.7	19460	1	1	66	.3	1	2050	.1	5	22	23080	620	5	1920	173	1	50	15	1090	7	1	9	1	1	52.4	39	1	1	1	10	5
NS12	.9	19720	1	1	68	.3	1	2710	.1	5	25	24380	450	5	1760	243	1	280	7	1380	7	1	7	1	1	46.3	31	1	1	1	5	5
NS13	.9	16190	1	1	65	.2	1	1130	.1	3	7	15450	410	4	880	45	1	50	7	680	6	1	6	1	1	44.2	23	1	1	1	2	5
NS14	.9	17940	1	1	138	.3	1	1580	.1	2	15	9710	450	5	960	268	1	330	6	1580	8	1	8	1	1	29.0	26	1	1	1	4	5
NS15	1.0	19550	1	1	80	.3	1	1760	.1	5	27	20410	540	6	1990	219	2	250	4	1630	10	1	9	1	1	38.2	47	1	1	1	6	5
NS16	1.3	17930	1	1	65	.3	1	2470	.1	5	18	21030	440	9	3120	157	1	430	30	930	11	1	7	1	1	43.9	37	1	1	1	13	20
NS17	.6	14760	1	1	85	.3	1	1550	.1	3	19	14700	520	4	1420	208	3	340	15	1060	8	1	8	1	1	34.1	34	1	1	1	4	10
NS18	1.1	17440	1	1	77	.2	1	1700	.1	4	25	18120	770	5	1380	122	5	260	16	1130	9	1	10	1	1	43.2	34	1	1	1	3	5
NS19	.4	15670	1	1	149	.3	1	2300	.1	3	13	10300	670	3	1010	539	1	330	125	2320	9	1	14	1	1	29.0	41	1	1	1	8	5
NS20	.9	13080	1	1	74	.2	1	2620	.1	3	16	11390	800	5	1000	114	1	340	12	1140	8	1	12	1	1	34.2	32	2	1	1	7	5
NS21	.5	17480	1	1	64	.3	1	2590	.1	3	29	15400	670	5	1240	98	2	500	8	1070	7	1	15	1	1	38.8	38	2	1	1	7	5
NS22	.6	17430	1	1	68	.2	1	2370	.1	4	29	16550	770	6	1520	119	1	380	5	1280	9	1	14	1	1	44.6	35	3	1	1	7	10
NS23	.7	16320	1	1	68	.2	1	2590	.1	2	19	11300	560	5	1070	127	1	410	6	1070	6	1	14	1	1	34.5	30	3	1	1	6	5
NS24	.9	16040	1	1	118	.2	1	3060	.1	3	18	13000	920	6	1620	628	1	450	8	2000	9	1	16	1	1	34.6	45	1	1	1	12	5
NS25	.4	16740	1	1	91	.1	1	2340	.1	3	16	13400	570	6	1910	146	1	360	7	740	9	1	11	1	1	45.8	34	3	1	1	13	10
NS26	1.0	16710	1	1	84	.3	1	2470	.1	4	23	16840	810	6	1580	224	1	290	4	1310	8	1	14	1	1	44.9	38	1	1	1	8	5
NS27	1.0	20140	1	1	79	.3	1	2970	.1	6	23	21660	580	12	3480	175	1	210	21	1000	9	1	12	1	1	48.8	44	1	1	1	15	5
NS28	.7	18400	1	1	57	.2	1	2530	.1	5	31	21490	580	7	2420	150	2	330	26	1000	9	1	14	1	1	46.4	37	1	1	1	7	5
NS29	.2	18190	1	1	69	.3	1	2480	.1	5	38	20260	710	6	2770	178	2	400	14	1260	12	1	11	1	1	41.4	33	1	1	1	3	5
NS30	.9	11610	1	1	54	.1	1	1660	.1	2	10	9750	390	5	830	53	1	240	1	770	7	1	10	1	1	27.5	15	2	1	1	3	10
NS31	.3	22800	1	1	95	.4	1	3560	.1	6	32	22520	1190	7	3620	218	2	380	1	1300	11	1	15	1	1	43.7	38	1	1	1	4	5
NS32	.4	18130	1	1	83	.3	2	2940	.1	4	22	14590	920	5	2700	148	1	380	1	890	10	1	15	1	1	39.0	28	2	1	1	5	5
NS33	.2	19230	1	1	90	.2	2	3030	.1	4	15	17140	610	7	2410	145	1	290	2	980	7	1	14	1	1	48.8	34	1	1	1	9	5
NS34	.7	21030	1	1	69	.4	2	4020	.1	6	20	20540	830	11	4110	194	1	350	6	770	9	1	19	1	1	52.6	45	1	1	1	15	5
NS35	.1	13230	1	1	72	.1	1	1810	.1	2	12	9110	600	2	860	81	1	390	1	910	8	1	11	1	1	30.7	19	1	1	1	4	10
NS36	.4	21430	1	1	70	.4	1	2590	.1	5	32	21140	920	5	2690	210	2	350	1	880	9	1	14	1	1	50.6	33	1	1	1	5	5
NS37	.2	13070	1	1	60	.3	1	1920	.1	2	12	12510	670	3	820	180	1	280	1	990	6	1	9	1	1	34.5	29	1	1	1	4	5
PS1	.7	14270	1	1	79	.4	1	1990	.1	5	16	24100	720	6	1570	239	1	250	1	1890	8	1	10	1	1	43.0	43	1	1	1	7	10
PS2	.9	10560	1	1	174	.4	1	3880	.1	7	24	20590	940	4	1860	1659	1	410	6	2400	11	1	14	1	1	45.1	54	1	1	1	9	5
PS3	.6	16480	1	1	145	.4	1	3640	.1	6	16	22500	630	8	2370	789	1	350	5	1990	10	1	13	1	1	46.0	53	1	1	1	13	5
PS4	1.2	10210	1	1	311	.2	1	2960	.1	7	14	22210	840	3	1020	3710	1	230	4	1770	16	1	11	1	1	43.7	58	1	1	2	3	10
PS5	.6	12170	1	1	68	.3	1	1130	.1	4	21	15670	770	5	990	110	1	330	1	1270	9	1	6	1	1	26.2	30	1	1	1	5	10
PS6	.3	16080	1	1	98	.3	1	2230	.1	5	12	20860	980	7	1970	464	1	380	3	1810	9	1	11	1	1	39.0	50	1	1	1	10	10
PS7	.7	15790	1	1	109	.4	1	2520	.1	8	11	28870	750	11	3220	471	1	270	5	1170	12	1	7	1	1	37.9	53	1	1	1	13	15
PS8	2.0	14900	1	1	114	.5	1	2920	.1	9	12	26330	830	11	3220	491	1	410	8	1430	13	3	6	1	1	37.8	60	1	1	1	15	5
PS9	1.6	9130	1	1	184	.3	1	2020	.1	4	7	11340	830	3	630	876	1	270	5	2640	11	3	10	1	1	18.2	44	1	1	1	3	5
PS10	2.1	9930	1	1	244	.2	2	2200	.1	2	8	7830	600	4	540	204	1	260	1	2070	10	3	9	1	1	15.9	31	1	1	1	3	20
PS11	1.5	14040	1	1	82	.2	1	1450	.1	3	9	14530	850	4	780	191	1	280	1	1470	8	3	11	1	1	33.4	32	1	1	1	6	5
PS12	.1	13180	1	1	82	.2	2	2550	.1	3	8	11110	720	5	1010	103	1	390	1	1060	8	1	14	1	1	30.9	27	1	1	1	5	5
PS13	.4	11210	1	1	296	.3	1	4370	.1	4	8	13730	1520	3	1030	1132	4	320	4	2950	11	1	15	1	1	26.8	73	1	1			