

TECHNICAL ASSESSMENT REPORT

FOR

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS
DATE RECEIVED
OCT 1 0 1995

FORERUNNER RESOURCES INC.

ON THE

MINERAL CLAIMS

DAM 1 AND DAM 2

TENURE NUMBERS 326450 AND 326451

LOCATED NEAR LIKELY, B. C.

N T S 093 A 11W

52 DEGREES 35' NORTH, 121 DEGREES 27' WEST

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FILMED

SEPTEMBER 17, 1996

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT

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1.0 INTRODUCTION

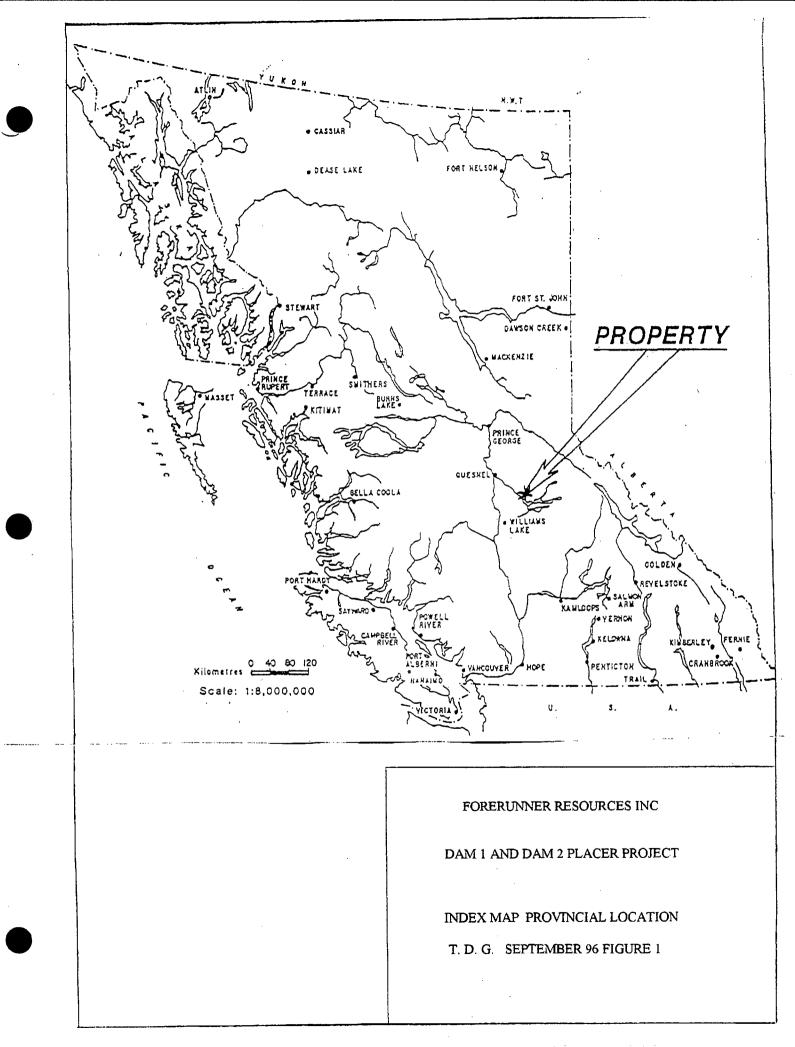
1.1 PROPERTY LOCATION

THE DAM 1 AND DAM 2 PLACER PROJECT AND PLACER CLAIMS 326450 AND 326451 ARE LOCATED ON THE NORTH SIDE OF SPANISH MOUNTAIN, 0.5 KILOMETERS WEST OF SPANISH LAKE AND ON BOTH SIDES OF SPANISH CREEK. THESE CLAIMS ARE APPROXIMATELY 7 KILOMETERS EAST OF LIKELY, B. C. ON THE 1300 LOGGING ROAD. LIKELY IS A SMALL TOWN 70 KILOMETERS NORTH EAST OF WILLIAMS LAKE, WHICH IS APPROXIMATELY 700 KILOMETERS NORTH OF VANCOUVER.

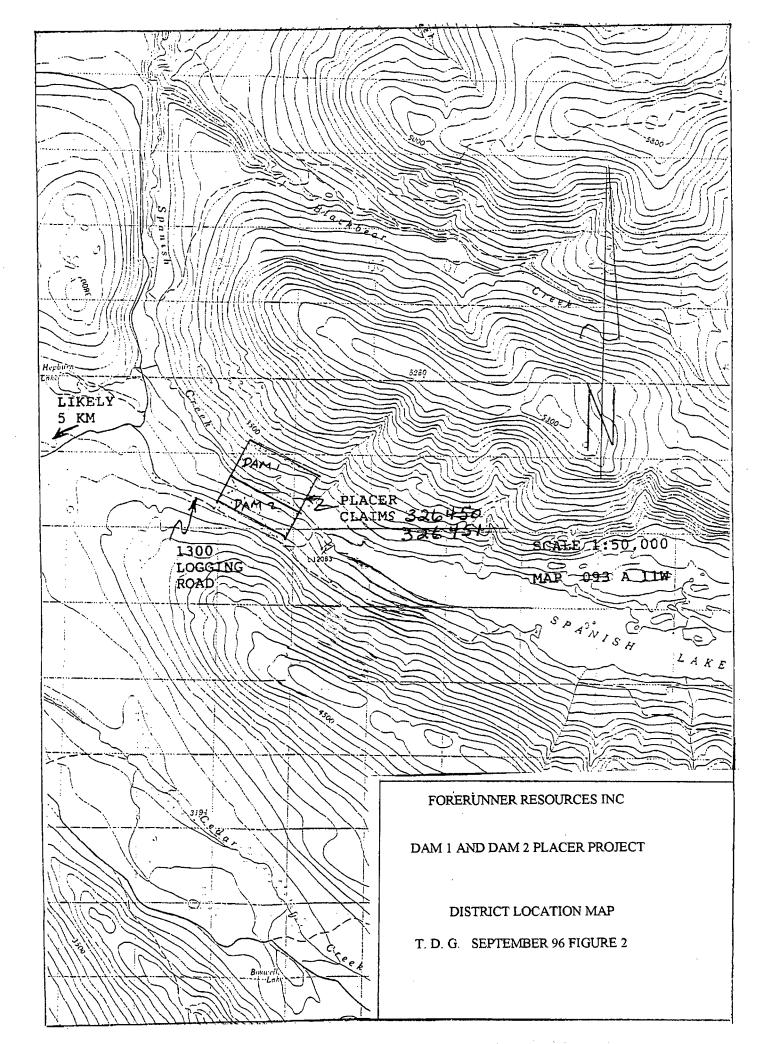
GEOGRAPHICALLY, THE PROPERTY IS LOCATED ON THE SPANISH LAKE MAP SHEET, 93 A /11, SCALE 1:50,000, IN THE CARIBOO LAND DISTRICT. THE LATITUDE AND LONGITUDE COORDINATES ARE 52 DEGREES 35 MINUTES NORTH AND 121 DEGREES 27 MINUTES WEST. THE AVERAGE PROPERTY ELEVATION IS 945 METERS ABOVE SEA LEVEL.

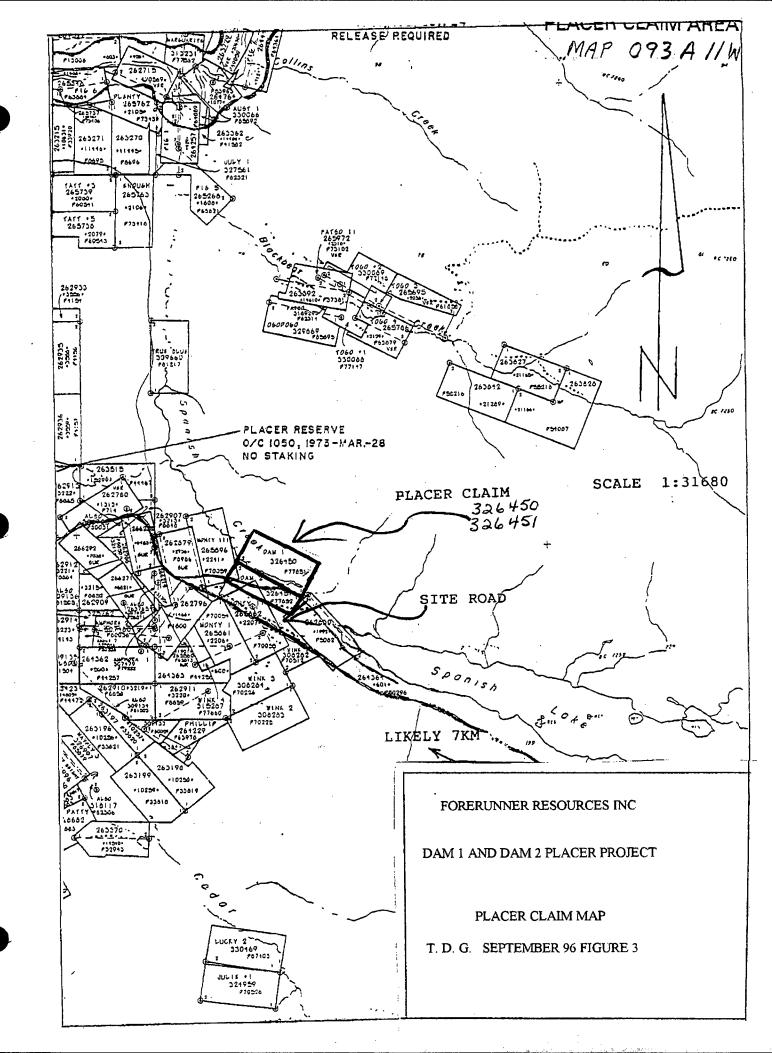
1.2 ACCESS

ACCESS TO THIS PROPERTY IS BY PAVED ROAD TO LIKELY FROM WILLIAMS LAKE, THEN ALL WEATHER GRAVEL LOGGING ROAD TO THE EDGE OF THE SITE AND 4 X 4 DIRT ROADS AROUND THE SITE. A 400 METER LONG GRAVEL AIRSTRIP, MAINTAINED BY THE MINISTRY OF TRANSPORT IS LOCATED 3 KILOMETERS WEST OF THE PROPERTY.



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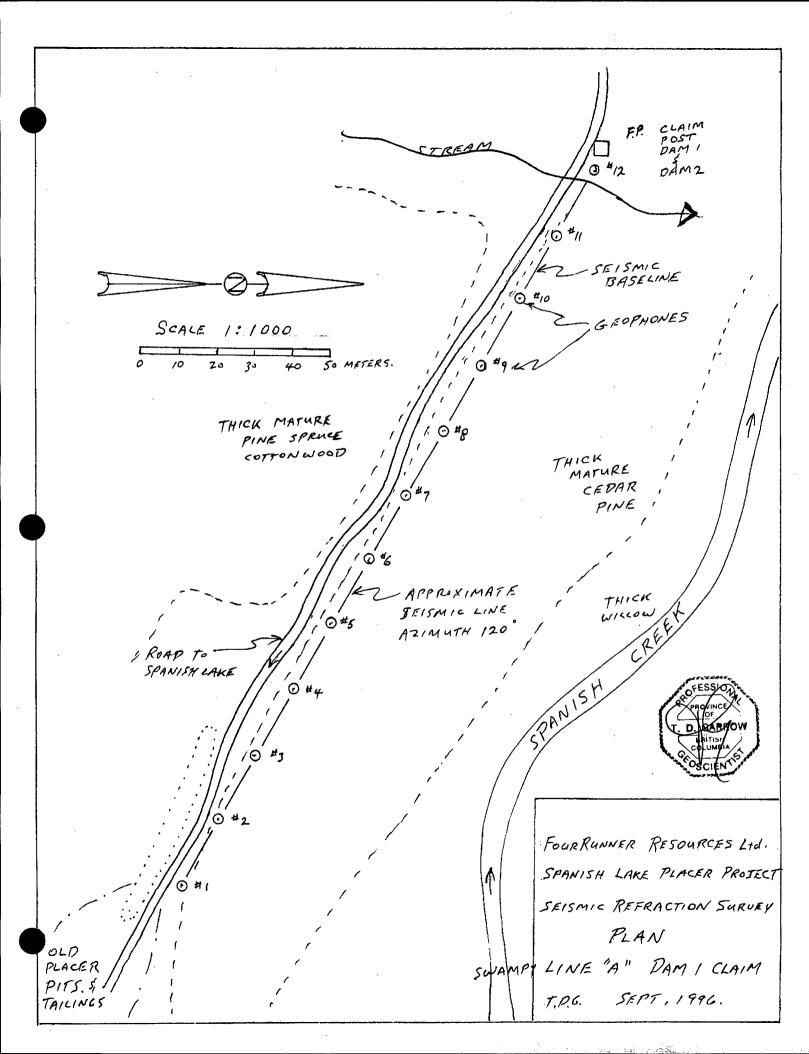
1.3 HISTORY AND ECONOMIC ASSESSMENT

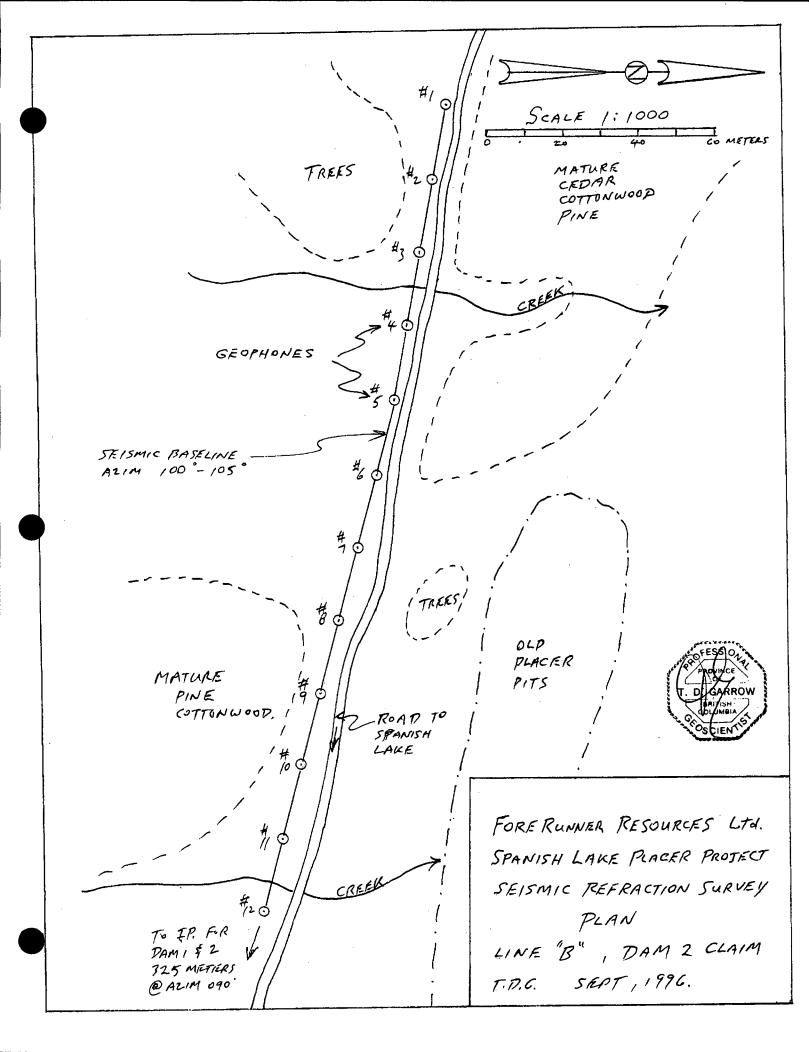
PLACER CLAIMS 326450 AND 326451 HAVE HAD NO RECORDED HISTORY OF SUCCESSFUL PLACER GOLD MINING, HOWEVER, THERE ARE A FEW SMALL BULK TESTING PITS LOCATED ON THE WEST END OF THE PROPERTY. THE SPANISH MOUNTAIN AREA HAS BEEN A FOCAL POINT OF GOLD PRODUCTION AND PROSPECTING FOR MANY YEARS AND THESE CLAIMS ON THE NORTH SIDE OF THE MOUNTAIN APPEARS TO HAVE SUITABLE GEOLOGY AND SHALLOW BENCH GRAVELS TO CONTAIN SMALL HIGH GRADE ALLUVIAL GOLD DEPOSITS IN AREAS NOT SCOURED TO BEDROCK BY THE PLEISTOCENE GLACIERS.

2.0 OBJECTIVE AND SCOPE OF THIS TECHNICAL STUDY

PAST ECONOMIC EVALUATIONS BY THE AUTHOR ON SEVERAL LARGE PLACER GOLD PRODUCERS IN THE IMMEDIATE AREA HAVE SHOWN THAT THE MOST SIGNIFICANT HIGHER GRADE PLACER CHANNELS ARE CONTROLLED IN DIRECTION AND DEPTH BY FLUVIAL EROSION ALONG FAULTS AND SHEAR ZONES IN THE BEDROCK. A BRIEF RECONNAISSANCE GEOLOGICAL TRAVERSE ACROSS THE BEDROCK EXPOSED ON THE DAM 1 AND DAM 2 CLAIMS INDICATES APPROPRIATE FAULTING AND SHEARING DIRECTIONS TRANSVERSE TO LOCAL GLACIAL SCOURING. SECONDLY, THERE ARE ABUNDANT BOULDERS SCATTERED IN THE OLD PLACER WORKINGS WITH QUARTZ VEINS CONTAINING SULPHIDES AND VERY FINE PLACER GOLD CAN BE PANNED ALONG SEVERAL OF THE SMALL CREEKS WHERE THESE SEISMIC SURVEYS ARE BEING DONE.

THIS TECHNICAL REPORT OUTLINES A VERY PRELIMINARY STUDY OF BEDROCK FAULT ZONES WITH CORRESPONDING BEDROCK RIVER CHANNELS FILLED WITH POTENTIAL GOLD BEARING GRAVELS. THE TWO SEISMIC LINES WERE LOCATED TO INVESTIGATE FIRSTLY A LOW GRAVEL BENCH PARALLEL TO SPANISH CREEK AND SECONDLY A HIGHER GRAVEL BENCH PARALLEL AND DUE SOUTH OF THE FIRST LINE. THE FIRST LINE IS ON DAM 1 CLAIM, WHILE THE SECOND LINE IS ON DAM 2 CLAIM. IF THESE TWO SEISMIC LINES LOCATE BEDROCK CHANNELS CONTAINING POTENTIAL GOLD BEARING GRAVELS, THEN ADDITIONAL SEISMIC LINES WILL BE PLANNED, FOLLOWED BY EXCAVATOR TEST PITTING TO TEST THE GRADE OF GOLD IN THE GRAVELS.





3.0 SEISMIC REFRACTION SURVEY METHOD

3.1 SEISMIC EQUIPMENT UTILIZED

THIS GEOPHYSICAL SURVEY WAS COMPLETED ON PLACER CLAIM 326450 AND 326451 UTILIZING A GEOMETRICS NIMBUS ES-1210 MULTICHANNEL SIGNAL ENHANCEMENT SEISMOGRAPH. A 240 METER MULTICORD CABLE WITH 12 GEOPHONE TAKEOUTS SPACED AT 20 METERS EACH, WAS USED FOR SEISMIC LINE COVERAGE. A 5 KILO SLEDGE HAMMER EQUIPPED WITH AN ELECTRONIC HAMMER SWITCH CONNECTED BY CABLE TO THE SEISMOGRAPH, WAS POUNDED UPON A STEEL STRIKER PLATE TO INITIATE THE ACOUSTIC ENERGY SIGNAL THAT WAS SENSED BY EACH GEOPHONE AND RECORDED BY THE SEISMOGRAPH.

3.2 SURVEY PROCEDURES

FOR THIS SURVEY, THE 250 METER MULTICORD CABLE WAS STRETCHED OUT IN A STRAIT LINE WITH AN AZIMUTH OF 120 DEGREES ON LINE A AND AN AZIMUTH OF 100 TO 105 DEGREES ON LINE B, THAT APPROXIMATELY FOLLOWED ACCESS ROADS ON EACH CLAIM. THE 12 PIN TYPE GEOPHONES WERE IMPLANTED IN SOLID SUBSOIL AT 20 METER INTERVALS AND CONNECTED TO THE MULTICORD CABLE. THE STRIKER PLATE WAS PLACED SECURELY ON SOLID SOIL BELOW ANY LOOSE DETRITUS AND WAS STRUCK WITH THE SLEDGE HAMMER AT FOUR EQUALLY SPACED LOCATIONS BETWEEN EACH GEOPHONE AND THE **RESULTANT FIRST ARRIVAL OF ENERGY AT EACH GEOPHONE WAS** RECORDED. A TIME DISTANCE GRAPH WAS DRAWN IN THE FIELD, USING THE FIRST ENERGY ARRIVAL DATA FOR EACH GEOPHONE. LATER IN THE OFFICE, THE VELOCITIES OF THE ENERGY PROPAGATED IN EACH LAYER AND THE DEPTH OF EACH LAYER TO BEDROCK WERE CALCULATED FROM THE TIME DISTANCE GRAPH. A CLINOMETER SURVEY RECORDED THE CHANGE OF SURFACE ELEVATION FOR EACH GEOPHONE.

4.0 SEISMIC REFRACTION ANALYSIS

4.1 INTERPRETATION

THIS SEISMIC REFRACTION SURVEY COMPLETED ON PLACER CLAIM 326450 AND 326451 IS THE FIRST SURVEY OF ITS TYPE TO BE DONE ON THIS PROPERTY. THIS TYPE OF EQUIPMENT HAS BEEN VERY SUCCESSFUL IN OUTLINING RIVER LIKE DEPRESSIONS ERODED INTO THE BEDROCK OF THESE CLAIMS. THESE DEPRESSIONS CONTAIN DENSELY PACKED SANDY GRAVELS WHICH EXPERIENCE HAS SHOWN ARE THE HOST FOR PLACER GOLD OF ECONOMIC VALUE IN THIS AREA.

INTERPRETATION OF THE VERTICAL SEISMIC SECTION INDICATES THAT TWO DISTINCT UNCONSOLIDATED SEDIMENT LAYERS HAVE BEEN DEPOSITED OVER A STRONGLY ERODED AND UNEVEN BEDROCK. THE TOP LAYER (FROM 0.0 TO 6.23 METERS THICK) CONSISTS OF A WEATHERED SANDY TOPSOIL WITH ROOTS AND ORGANIC DEBRIS WITH AN AVERAGE VELOCITY OF 630 - 650 MPS. THE SECOND LAYER REACHING DEPTHS FROM 4.8 TO 11.0 METERS) CONSISTS OF SATURATED OR UNSATURATED DENSELY PACKED SANDY GRAVELS WITH BOULDERS RESTING DIRECTLY ON BEDROCK. THIS SANDY GRAVEL HAS AN AVERAGE VELOCITY OF 1070 -1090 MPS WITH A LOW READING OF 620 MPS AND A HIGH READING OF 1530 MPS. THE BEDROCK VELOCITIES ARE TYPICAL FOR FRACTURED ARGILLITES AND ANDESITES IN THE LIKELY AREA, WITH AVERAGE VELOCITIES OF 3380 - 3390 MPS., HIGH READINGS OF 5080 MPS. AND LOW READINGS OF 2050 MPS (METERS PER SECOND).

IT IS INTERESTING TO NOTE THAT NO OBVIOUS LAYERS OF GLACIAL BOULDER CLAY WERE OUTLINED ON THIS SECTION WHICH REDUCES PROJECTED MINING COSTS.

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ŝ 0 24 5 8 31. 20 -200 140 180 044 N t 3 EAST WEST - 950 *4*₁ #7 #3 47 #R Ħq #11 #12 WEATHERED SOIL AUG VELOCITY . 650 MPS. - 940 1090 MPS SANPY GRAVEL 1090 MPS AVC. VELOCITY SANDY AVG, VELOCITY GRAVEL -930 BEDROCK BEDROCK 3380 MPS 3380 MPS AVG. VELOCITY AVG VELOCITY -920 -900 SECTION LOOKING 5W AZIMUTH OF SEISMIC LINE 120° FORERUNNER RESOURCES Ltd. - 890 HORIZONTAL SCALE 1:1000 SPANISH LAKE PLACER PROJECT 20 4 ° M VERTICAL SCALE 1:500 SEISMIC REFRACTION SURVEY -880 METERS 10 ZOM VERTICAL SECTION - LOOKINGSW ABOVE SEA LELEL LINE "A", DAM I CLAIM T.D.G. SEPT, 1996

- 60 Ś -180 Ŕ Ż Ř 00 160 F F WEST. EAST -1010 **#**6 SOIL 630 MPS #1 -1000 1070 MPS SANPY GRAVEL #10 UEL ₩G_ H12 630 MPS SOIC - 990 SANDY 1070 MPS BEDROCK BEPROCK GRAVEL AUG. VECOCITY 3390 MPS AVG VELOCIT 3390 MPS -980. AUC. VELOCITY -970 SECTION LOOKING SW AZIMUTH OF SEISMIC LINE 100-105 FORE RUNNER RESOURCES LTP. -960 HORIZONTAL SCALE 1:1000 = SPANISH LAKE PLACER PROJECT 10 20 30 40 M VERTICAL SCALE 1:500 SEISMIC REFRACTION SURVEY 10 ZOM -950 METERS VERTICAL SECTION -LOOKING SW ABOUE LINE "B" PAM 2 CLAIM SEA. LEVEL. T.D.C. SEPT. 1996

4.2 INTERPRETIVE METHOD

WHEN A SEISMIC REFRACTION SURVEY IS DONE, THE SEISMOGRAPH RECORDS THE TIME BETWEEN THE INITIATION OF THE SHOCK WAVE BY THE HAMMER BLOW ON THE STRIKER PLATE AND ITS FIRST ARRIVAL (SHORTEST TIME PATH) AT EACH GEOPHONE LOCATED AT MEASURED DISTANCES FROM THE HAMMER BLOW. A TIME DISTANCE GRAPH CAN BE CONSTRUCTED TO OUTLINE THE CHANGES OF VELOCITY OF THE SHOCK WAVES AS THEY TRAVERSE LAYERS OF DIFFERENT DENSITY.

THE FIELD DATA CONSISTING OF TIMES RECORDED IN MILLISECONDS AND DISTANCES MEASURED FROM THE HAMMER POINT TO EACH GEOPHONE ARE PLOTTED ON A GRAPH, VELOCITIES ARE CALCULATED BY; VELOCITY=DISTANCE/TIME. THE THICKNESS OF THE LAYER IS CALCULATED BY;

THICKNESS=1/2 THE DISTANCE BETWEEN VELOCITY CHANGES X SQUARE ROOT OF [(VELOCITY 2-VEOCITY 1) / (VELOCITY 2 + VELOCITY 1)]

SHOCK WAVES TRAVEL THROUGH EARTH MATERIALS WITH SPECIFIC AND KNOWN VELOCITIES.

IN GENERAL, THE VELOCITY CONTRAST BETWEEN REFRACTIVE LAYERS WAS MORE THAN ADEQUATE FOR A GOOD INTERPRETATION FROM THE DATA OF THIS SURVEY.

4.3 LIMITATIONS

THE DEPTHS TO SUBSURFACE BOUNDARIES DERIVED FROM SEISMIC REFRACTION SURVEYS ARE GENERALLY ACCEPTED AS ACCURATE TO WITHIN TEN PERCENT OF THE TRUE DEPTHS TO THE BOUNDARIES. IN SOME CASES, UNUSUAL GEOLOGICAL CONDITIONS MAY PRODUCE FALSE OR MISLEADING SEISMIC ARRIVALS. BECAUSE THIS IS THE FIRST SEISMIC REFRACTION SURVEY DONE ON CLAIMS 326450 AND 326451, THERE IS NOTHING TO COMPARE THE RESULTS TO. AN ON SITE INVESTIGATION CONFIRMED THAT BEDROCK APPEARS TO BE VERY CLOSE TO SURFACE BETWEEN GEOPHONES 3 AND 4 ON LINE A, AND GEOPHONES 5 AND 7 ON LINE B AS INDICATED BY THE SEISMIC.

5.0 GEOPHYSICAL RESULTS RELATIVE TO PROPERTY GEOLOGY

THE RESULTS OF THE SEISMIC REFRACTION SURVEY ARE PRESENTED ON THE BASELINE VERTICAL SECTION AT THE HORIZONTAL SCALE OF 1:1000 AND THE VERTICAL SCALE OF 1:500. THE GEOPHYSICAL INTERPRETATION APPEARS TO AGREE WITH BRIEF SURFACE INSPECTION; HOWEVER, NO DRILLING OR EXCAVATION HAS BEEN DONE TO CONFIRM ANY SUBSURFACE INTERPRETATION. INSPECTION OF LOCAL BEDROCK OUTCROPS CONFIRM THAT THERE ARE HIGHLY SHEARED SULFIDE RICH ANDESITES ON THIS PROPERTY AS THE SEISMIC OUTLINES. GEOLOGICAL SURVEY MAPPING OF THIS AREA SUGGESTS THAT THERE IS A REGIONAL FAULT STRIKING AT APPROX. 110 DEGREES PASSING THROUGH SPANISH LAKE, WITH LESS SIGNIFICANT FAULT DIRECTIONS AT 50 AND 170 DEGREES. THE BEDROCK DEPRESSIONS OUTLINED ON THE BASELINE SECTION WOULD APPEAR TO RELATE TO THE 50 DEGREE FAULTING DIRECTION.

6.0 CONCLUSIONS

THIS PRELIMINARY SEISMIC SURVEY HAS BEEN AN INEXPENSIVE AND SUCCESSFUL METHOD OF PREDICTING THE SUBSURFACE GEOLOGY OF THE TEST AREA, AND TO ULTIMATEY LOCATE POTENTIALLY ECONOMIC GOLD BEARING GRAVELS JUST THIS PRELIMINARY TWO LINE SURVEY OUTLINES MULTIPLE BEDROCK DEPRESSIONS FILLED TO A DEPTH OF 11 METERS WITH POTENTIAL GOLD BEARING GRAVEL

THE INFORMATION FROM THIS SURVEY SHOULD BE TESTED BY EXCAVATION TO CONFIRM THE RESULTS, AND ADDITIONAL SEISMIC LINES SHOULD BE COMPLETED PARALLEL AND PERPENDICULAR TO THE PRELIMINARY BASELINE SURVEYS TO DEVELOP A THREE DIMENTIONAL PATTERN OF POTENTIAL GOLD GRAVELS TO BE EVALUATED ON THE PROPERTY.

7.0 **RECOMMENDATIONS**

PRELIMINARY TESTING UTILIZING SEISMIC SURVEYS HAS BEEN SUCCESSFUL, THEREFORE, I RECOMMEND ADDITIONAL SEISMIC SURVEYS AND BULK TESTING OF GRAVELS TO FURTHER EVALUATE THE PLACER GOLD POTENTIAL.

-EXTEND BOTH LINES A & B TO 1000 MTERS IN LENGTH TO COVER THE LENGTH OF THE PLACER CLAIMS

-COMPLETE THREE SEISMIC LINES, EACH 500 METERS LONG EQUALLY SPACED AND AT 90 DEGREES TO LINES A & B.

EXCAVATE SEVERAL BULK TESTS OF SEVERAL HUNDRED CUBIC METERS EACH IN THE AREAS OF BEST POTENTIAL FOR PLACER GOLD.

STATEMENT OF QUALIFICATIONS

I, TERRY DAVID GARROW, OF LIKELY IN THE PROVINCE OF BRITISH COLUMBIA, DO HEREBY CERTIFY;

- 1. THAT I AM A CONSULTING MINING GEOLOGIST WITH OFFICES AT SPANISH CREEK ROAD, BOX 197, LIKELY, BRITISH COLUMBIA.
- 2. THAT I AM A GRADUATE OF SIR WILFRED LAURIER UNIVERSITY-1966, AND THE UNIVERSITY OF SASKATCHEWAN-1969, WITH AN ADVANCED DEGREE IN GEOLOGY.
- 3 THAT I AM REGISTERED AS A PROFESSIONAL GEOSCIENTIST IN THE ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF BRITISH COLUMBIA.
- 4. THAT MY 25 YEARS OF CONTINUOUS GEOLOGICAL EXPERIENCE HAVE EXPOSED ME TO A WIDE RANGE OF SUPERVISORY, ENVIRONMENTAL AND GEOLOGICAL SITUATIONS, AND HAVE ALLOWED CONSIDERABLE FAMILIARIATION WITH THE EXPLORATION AND PRODUCTION OF BOTH LODE AND PLACER DEPOSITS.
- THAT THIS REPORT IS WRITTEN WITH THE KNOWLEDGE GAINED FROM MY ASSOCIATION WITH GALLERY RESOURCES OVER THE LAST 4 YEARS AND MY CURRENT EMPLOYMENT AS A TECHNICAL CONSULTANT ON SITE.
- 6 THAT I HAVE NO INTEREST, DIRECT OR INDIRECT, IN THE PROPERTIES OR SECURITIES OF GALLERY RESOURCES LTD

DATED AT VANCOUVER, B.C., THIS 27 th DAY OF Senten 1996

TERRY DAVID GARROW, P. GEO



9.0 STATEMENT OF COSTS

1.5 DAYS SEISMIC REFRACTION SURVEY ON PLACER CLAIMS 326450 & 326451

TOTAL COSTS OF SEISMIC SURVEY	\$2350
OFFICE REPORT & DRAFTING	\$600
FOOD & ACCOMMODATION	\$300
FIELD ASSISTANT	\$300
FIELD EQUIPMENT & OPERATOR CHARGE	\$950
MOBILIZATION - DEMOBILIZATION VANCOUVER TO LIKELY	\$200

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