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<u>**GEOPHYSICAL RESULTS**</u>
SLOCAN VALLEY GROUND PENETRATING RADAR SURVEY

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This Table of Contents is for reference only and does not constitute a part of the Report noted above

A. GENERAL INTRODUCTION

GEOPHYSICAL RESULTS
SLOCAN VALLEY GROUND PENETRATING RADAR SURVEY
conducted by Surface Search Inc. in October 2000 on Hampton Court Resources Inc. / Anglo Swiss Resources Inc. Placer Mineral Claims in the Slocan Valley of British Columbia

(a) Introduction:

Surface Search Inc. ("SSI") was commissioned by Hampton Court Resources Inc. ("Hampton") on behalf of Hampton and Hampton's joint venture partner Anglo Swiss Resources Inc. ("Anglo") to conduct a geophysical survey using ground penetrating radar ("GPR") technology on Anglo's placer claims along the Slocan Valley in British Columbia. The purpose of the GPR surveys was to evaluate the geologic potential of the alluvial deposits along the Slocan Valley with respect to containing potentially commercial deposits of gemstones; in particular garnets, iolites and sapphires.

(b) Location, Access, Physiography

The Slocan gemstone placer claims are located along the Slocan Valley of southeastern British Columbia, at the confluence of the Slocan and Little Slocan Rivers *(see Figures 1, 2 and 3)*.

The property is easily accessed via major highways from the nearby towns of Nelson and Castlegar, and virtually all amenities are readily available in the area. Castlegar airport serves the area with connections to Calgary and Vancouver and a smaller airport in Nelson serves the local fixed wing and helicopter charters.

The topography of the area varies from relatively flat terraced deposits in the valley bottom of the Slocan and Little Slocan Rivers, to rugged cliffs and dense forest in the surrounding mountain ranges. Surface elevations on the property vary from 500 metres in the valley bottom to more than 1800 metres on the surrounding mountains. Typically, snow is expected from November through to March and can accumulate more than three metres in the higher elevations. Heavy rains make for a quick snowmelt run-off, and warm, sunny weather is normal for summer and early fall.

The seasonal temperature ranges from about –25°C to +35°C and the length of the field season is usually from late April through late November. Wildlife in the area includes deer, elk, bear and cougar.

©The Property

The property comprises 15 placer claims consisting of 750 hectares (1853 acres) of placer mineral rights as outlined in the attached Table 1 and on Figure 3. The property claim titles are held by Anglo. Under the terms of a joint venture agreement, Hampton has the right to earn a majority interest in the property through development expenditures. Upon filing of this report for assessment credits, the work status expiry date will have been extended on the claims.

Prudden GeoSciences Services, Inc. is conducting surficial geologic mapping and a preliminary Mineralogical Evaluation of the Slocan River placers (alluvial claims) and these findings will be submitted in a separate report to be filed upon completion of the work.

(d) Previous Work

The Valhalla Metamorphic Complex has been subject to regional 1:250,000 scale geological mapping by H. W. Little (1960, 1985) and detailed 1:63,360 mapping by J.E. Reesor (1965) as part of a comprehensive study of the Valhalla Complex. More recently, P. Schaubs and S. Carr (1998) published a paper reviewing and updating the geological understanding of the complex.

In 1991, prospector Rod Luchansky discovered the Blu Starr sapphire deposit along the old CPR rail line near Passmore. Along with prospecting partners John Demers and Marc Goldenberg, the initial find was staked and exploration begun. In 1993, John Demers discovered the nearby Blu Moon sapphire deposit, which was subsequently staked by the partners. From 1991 to 1995, the prospectors hand-mined approximately 10 tonnes of sapphire-bearing rock containing an estimated ten kilograms (50,000 carats) of coarse rough sapphire from the Blu Starr. An additional one kilogram (5000 carats) of coarse rough sapphire was derived from about one tonne of mineralized rock at the Blu Moon. Many stones displayed a strong asterism when cut into a cabochon and a local jewelry market was developed for this product.

In 1995, Anglo Swiss Resources Inc. purchased the Blu Starr Property from the prospecting partners, and also acquired additional surrounding prospective ground. Marylou Coyle Ph. D. was contracted by Anglo Swiss in 1995 to study the Blu Starr and Blu Moon deposits and to make recommendations for development. In 1996, Guylaine Gauthier M.A.Sc. and Kathleen Dixon P.Geol. made the first organized geological studies of the sapphire deposits and pegmatite dikes, and discovered gem aquamarine beryl crystals in quartz-tourmaline pegmatite dikes.

In 1997, James Laird of Laird Exploration Ltd. was contracted by Anglo Swiss Resources Inc. to manage and perform exploration programs for the company. A 150 tonne composite bulk sample from the Blu Moon sapphire deposit was permitted, extracted and processed in 1997, and smaller hand samples were taken from the Blu Starr and other gem showings.

In May 1998, prospector Rod Luchansky located a small gem garnet deposit on the mountainside near the Blu Starr. During the summer, James Laird, John Demers and Malcolm Bullanoff extracted a 2 tonne bulk sample from the garnet site using a cobra drill and fracturing agent. In July, an extensive mineralized zone containing crystalline graphite was discovered and sampled by James Laird in the Tedesco area. Gem crystal expert A. Soregaroli Ph. D. made an examination of the sapphire, garnet and graphite occurrences in July. In September, James Laird discovered the Sapphire Hill sapphire occurrences near the Blu Moon and extracted about one tonne of sapphire mineralized rock. In October and November, James Laird discovered three zones of iolite mineralization north of the Blu Starr, and extracted two 1 tonne bulk samples containing crystal and gem iolite.

The cut gemstones from the garnet and iolite deposits were shown at the Tucson Gem Show in 1999 to great acclaim, and have been stated to be among the best in the world in colour and beauty (Danner, 2000). A detailed geological examination of the iolite zones was done in spring 1999 by George Simandl, Ph. D. of the B.C. Geological Survey, Dan Marshall Ph. D. and James Laird, which resulted in a published paper in early 2000. Minimal exploration work was done during 1999 due to financial constraints. Hampton Court Resources Inc. became involved early in 2000 and a report outlining the results of the exploration work carried out during the 2000 field season will be completed in the near future.

Very little exploration and testing work had been conducted on the placer claims held by Anglo, prior to Hampton's 2000 evaluation program. The 2000 program by Hampton comprises:

a) surficial geologic mapping and a preliminary Mineralogic Evaluation of the Slocan River placer claims; report in preparation by Prudden GeoScience Services Inc.; and

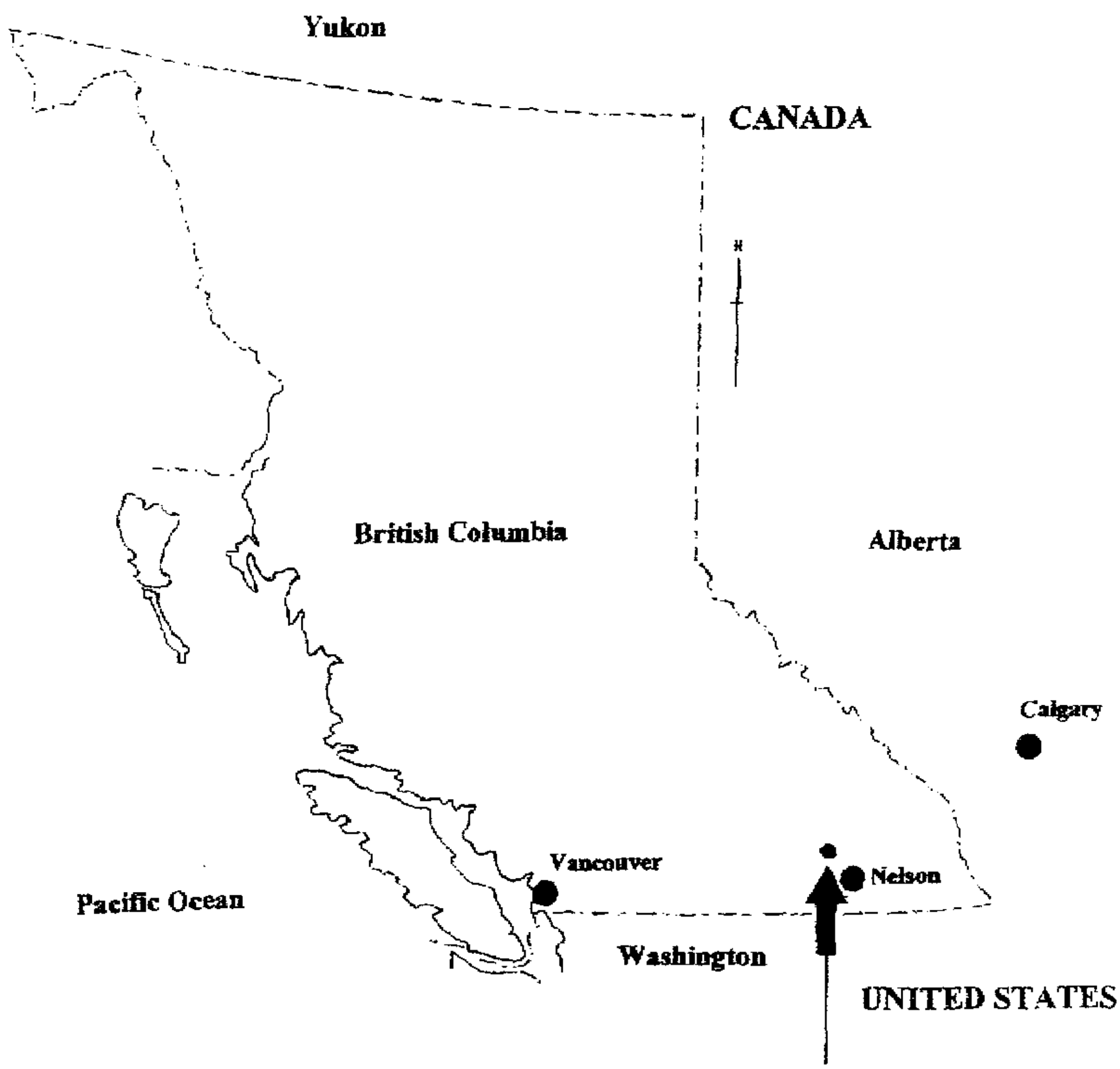
b) the Ground Penetrating Radar ("GPS") surveys comprising this report by Surface Search Inc.

The economic potential of the placer claims is unknown at this time. The work conducted by Prudden GeoScience Services Inc. and Surface Search Inc. will provide the background for subsequent mapping, drilling, and testing of the placer deposits to assess their potential for containing commercial gemstone deposits; in particular garnets, iolites and sapphires which occur in bedrock deposits adjacent to the placer claims.

TABLE 1 – PLACER CLAIMS SUMMARY

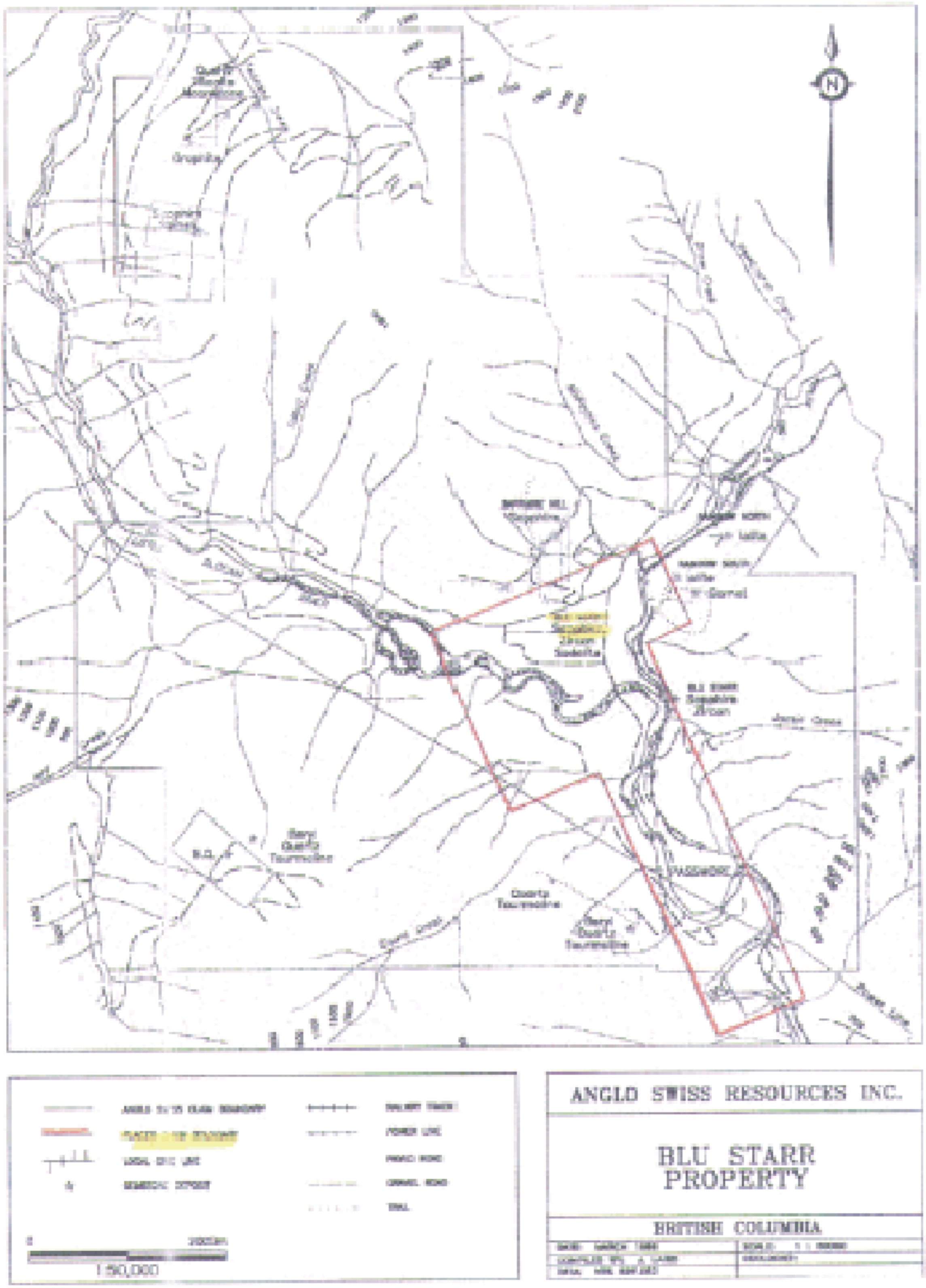
Claim Name	Tenure No.	No. of Units	Current Expiry Date
J-1	364859	1	Aug 19, 2001
J-2	364860	1	Aug 19, 2001
J-3	364861	1	Aug 19, 2001
J-4	364862	1	Aug 19, 2001
J-5	364863	1	Aug 19, 2001
J-6	364864	1	Aug 19, 2001
J-7	364865	1	Aug 19, 2001
J-8	364866	1	Aug 19, 2001
J-9	364867	1	Aug 20, 2001
J-10	364868	1	Aug 20, 2001
J-11	364869	1	Aug 20, 2001
J-12	364870	1	Aug 20, 2001
J-13	364871	1	Aug 20, 2001
J-14	364872	1	Aug 20, 2001
J-15	364873	1	Aug 20, 2001

SECTION A: FIGURE 1

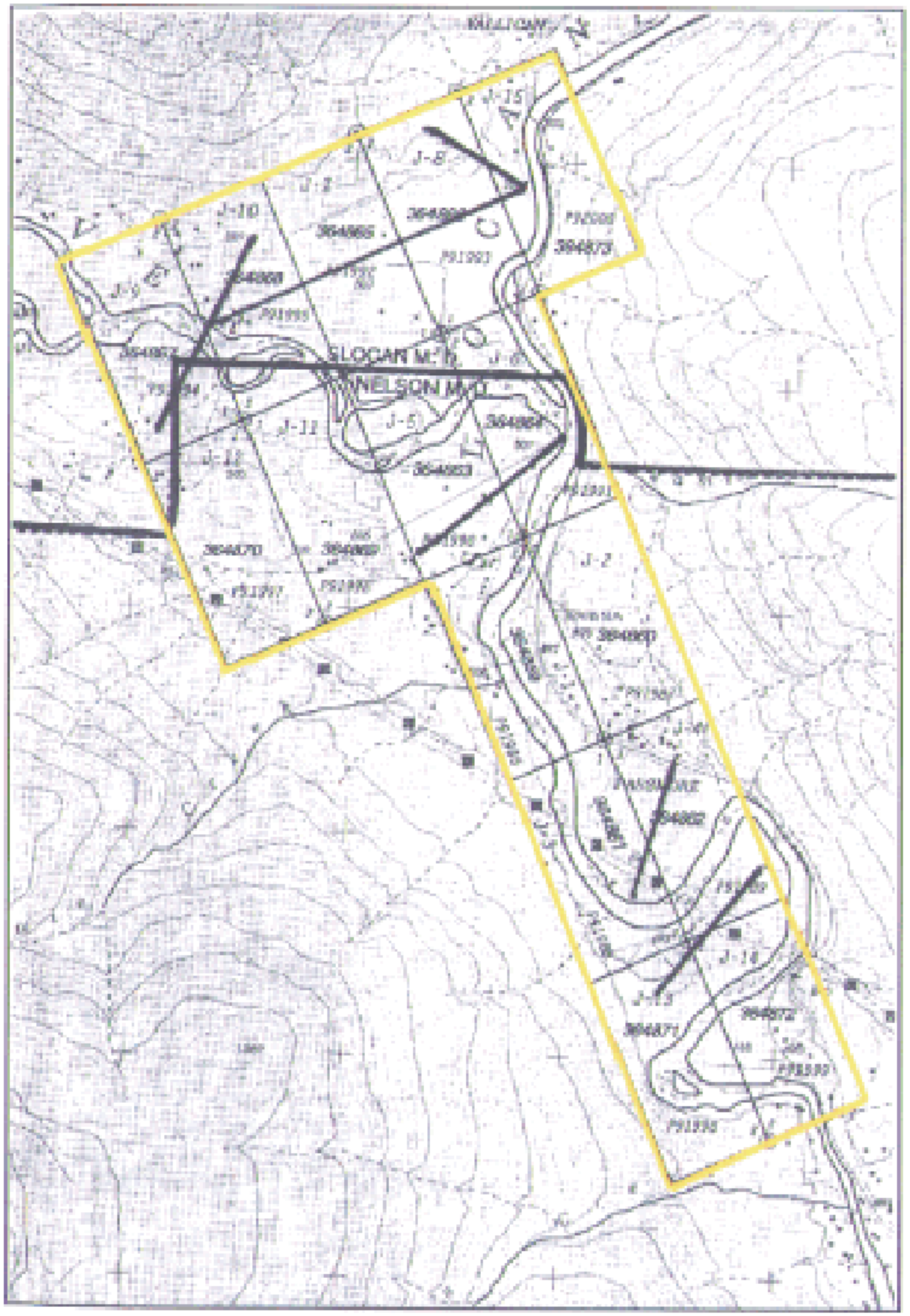


LOCATION MAP: PROVINCIAL **ANGLO SWISS RESOURCES INC. / HAMPTON COURT RESOURCES INC. SLOCAN VALLEY GEMSTONE PROJECT**

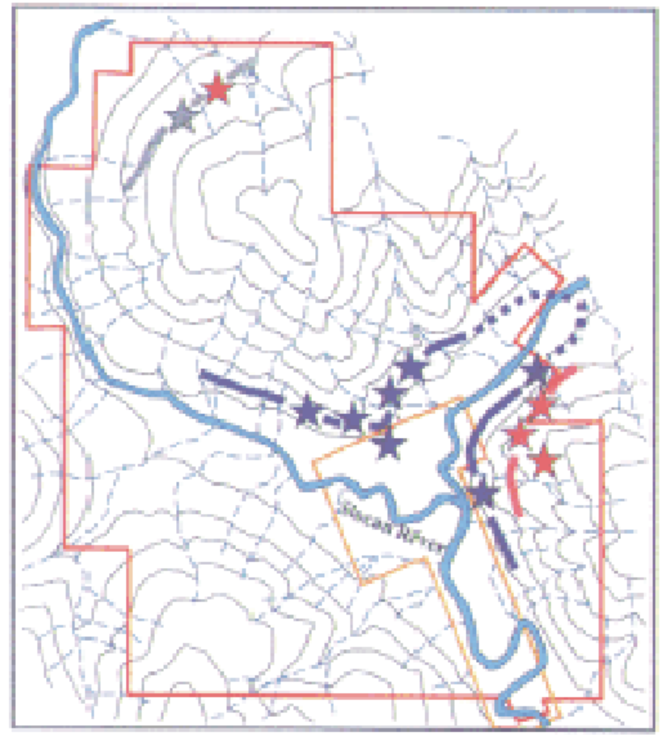
SECTION A: FIGURE 2



REGIONAL LOCATION MAP OF SLOCAN VALLEY GEMSTONE PROJECT



Slocan Valley Gemstone Project



Section A: Figure 3

DETAILED LOCATION MAP OF SLOCAN VALLEY GEMSTONE PROJECT

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Geophysical Results

Slocan Valley Ground Penetrating Radar Survey

Submitted To:

Hampton Court Resources Inc.

October 2000

Submitted by,

Surface Search Inc
Bay 7, 6325 11 Street SE
Calgary, Alberta T2H 2L6

October 24, 2000

Surface Search Inc.
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October 24, 2000

Hampton Court Resources Inc.
Suite 325, 259 Midpark Way S.E.
Calgary, Alberta T2X 1M2

Attention: Mr. Bob McPherson, President
Cc: Mr. Vern Stone, Operations Manager

Re: ***Slocan Valley, BC - Ground Penetrating Radar Survey Results***

Dear Sirs,

Please find enclosed the ground penetrating radar (GPR) survey results that were obtained by Surface Search Inc. within the Slocan Valley on behalf of Hampton Court Resources Inc. This report is intended to serve as transmittal of the geophysical findings and methodology associated with the GPR survey.

1.0 INTRODUCTION

Surface Search Inc. (SSI) was commissioned by Hampton Court Resources Inc. to conduct a geophysical survey using ground penetrating radar (GPR) technology within the Slocan Valley, B.C. Mr. Vern Stone, of Hampton Court Resources, provided the scope of work and survey objectives to Surface Search. Mr. Stone requested that ground penetrating radar data profiles were to be acquired over approximately 8.5 km of transect lines established on the ground by Hampton Court Resources field personnel.

The objectives of the GPR survey were:

1. To profile shallow sediment conditions beneath each of the transect lines established by Hampton Court Resources Inc. to maximum depth of signal penetration by the GPR.
2. To infer, based on observed GPR signal returns, the depth and distribution of fluvial deposits (e.g. silt, sand, and gravel sediments) beneath the surveyed transect lines.

3. To highlight locations where interpreted fluvial deposits show evidence of paleo-channel scouring into sub-alluvial, or intra-alluvial sediment/bedrock formations.

It is understood that the GPR survey program is to be considered as part of Hampton Court Resources placer mineral exploration program in the Slocan Valley. Further, it is understood that the interpreted results from the GPR survey are to be used by Hampton Court Resources to compliment any subsequent exploration initiatives (e.g. borehole drilling).

It should be noted that the GPR findings contained in this report infer the distribution and depth of alluvial sediment conditions below the surveyed transect lines. These interpretations are based on geophysical and field observation evidence alone, and have not been corroborated by ground-truth sampling techniques (e.g. borehole drill logs). It is possible that these deposits contain precious minerals or gems, but in no way should this report be construed, in whole or in part, to confirm or deny the presence, quality, concentration or economic feasibility of mineral or gem recovery from the areas surveyed by GPR.

2.0 SITE DESCRIPTION

The Slocan River valley is situated in the Selkirk Mountain Range in southeastern British Columbia. The GPR survey area is situated near the confluence of the Little Slocan River and the Slocan River (between Passmore and Vallican, Figure 1) and is accessible from Highway No. 6 via Highway No. 3A out of Nelson, BC.

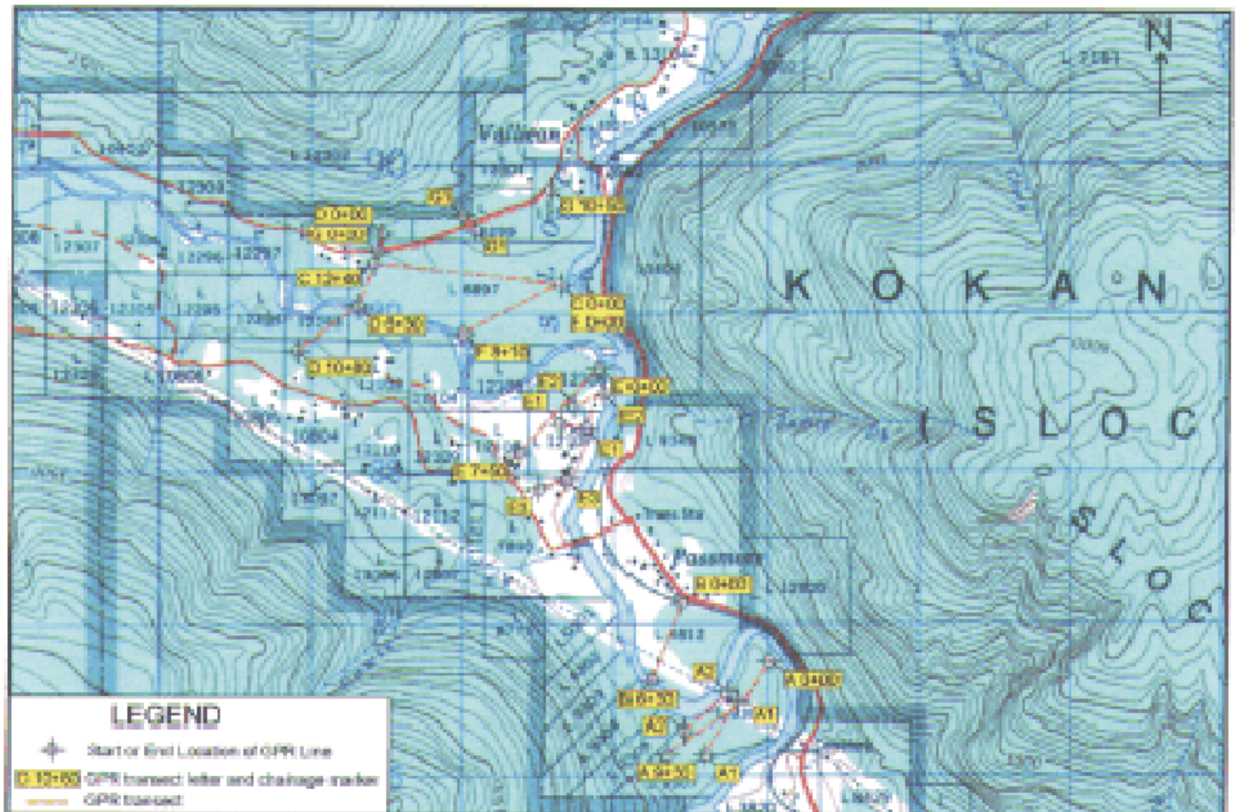
Geomorphic conditions encountered range from floodplain and point bar deposits with minimal relief to elevated terrace features draping the valley walls. GPR transect lines were collected through vegetation conditions ranging from open paddocks to densely forested areas.

Both the Slocan and Little Slocan are classified as meandering gravel bed rivers within the GPR survey area. The meanders are confined by the valley walls and exhibit varied geometric forms and sinuosities. Riverbed elevations range between 490 and 530 m. Channel width of the Slocan River ranges between approximately 100 and 200 m, whereas that of the Little Slocan River averages approximately 50 m.

3.0 GPR SURVEY METHODOLOGY

3.1 Field Program

On August 13th, 2000, a Surface Search field team mobilized to Nelson, B. C., from Calgary. The GPR survey program was started on August 14th, 2000. Access to the site was gained by 4X4 vehicle.



Section of Passmore Topographical Map 1:50,000

Figure 1: Location of GPR transect lines

All of the geophysical survey work was conducted using a Pulse-EKKO ™ digital ground penetrating radar system outfitted with modular 12.5, 25, 50, 100 & 200 MHz antennae. The system is composed of a control console, two antennae consisting of a 1000 V transmitter and a receiver, a computer laptop, fibre optic interference-free antenna cables, and a 12 V battery, which supplies power to the laptop and the console (see Figure 2).

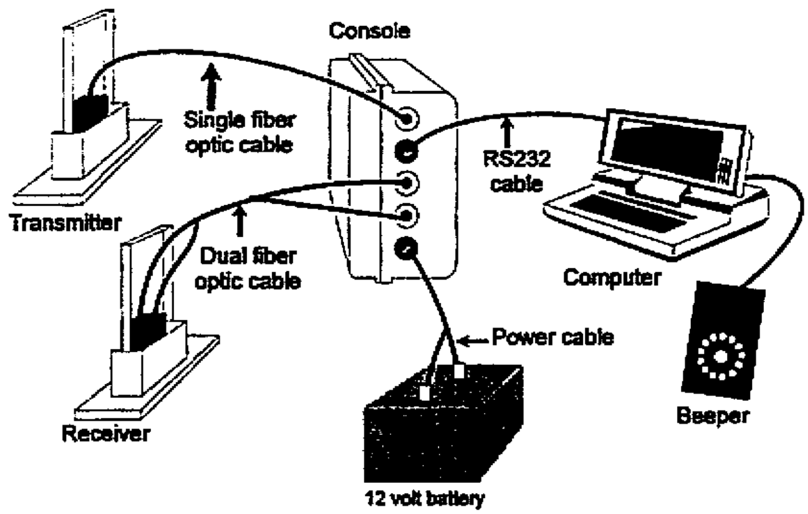


Figure 2: The essential PulseEKKO GPR components (Sensors and Software Manual, Version 4.2, 1996)

Several instrument parameter tests were completed on location to determine optimal antenna configurations required to fulfill the survey objectives. These included gathering sample data using multiple antenna frequencies at various transmitter and receiver separation distances. Antenna frequency selections were based upon field parameter tests that produced the deepest radar reflections at optimal antenna offsets as well as sufficient signal resolution required to produce intra-alluvial reflectors.

Based on observed field test results, 12.5 MHz center frequency antennae were selected for data production in order to provide optimal signal depth penetration and data resolution capabilities required to fulfill the program objectives. Also, the 12.5 MHz antennae were used because transect lines laid out by Hampton Court went through uncut forest areas. In these areas, the lowest frequency (longest wavelength) assisted in reducing noise associated with rough ground conditions. In places where more detailed internal sedimentary structure of channels, i.e. a higher data resolution, was essential, the 25 MHz antennae were utilized, which offered an increase in resolution as compared to the 12.5 MHz antennae. The antennae were transported by hand and the console, batteries and laptop by means of a backpack, which is highly effective in enhancing field mobility and reducing data collection time.

Constant offset reflection profiles (transmitter and receiver with fixed separation) were acquired over the grid area along all of the surveyed transect lines. Data was recorded every 0.5 – 1.0 meters, and survey position control was accomplished by making reference to survey lathe positioned at 30-meter increments for each of the surveyed transect locations. Additionally, start and end locations as well as intermittent locations of each transect were surveyed by GPS in order to obtain a general picture of the location of each line. The system used was a Garmin eTrex 12 channel GPS, which resulted in accuracies below 100 m.

In total, 15 reflection profiles, providing a two-dimensional cross-section of horizontally surveyed distance (m) versus vertical two-way travel time in nanoseconds (ns), were collected along transect lines, covering approximately 8610 m (Line-A to Line-G1, for locations see Figure 1). The acquired data was plotted in the field for preliminary review and provided to Hampton Court representatives.

Five common-mid-point (CMP) profiles were then collected within the grid area in order to determine the radar wave propagation velocities throughout the sediments encountered within the near subsurface of the Slocan Valley. CMP profiles involve acquiring GPR readings over a single location while transmitter and receiver antenna separation distances are increased at pre-determined interval distances (e.g. every 0.5 m; see Figures 3 and 4). CMP profiles also assisted in differentiating between real reflections and noise within the radar data.

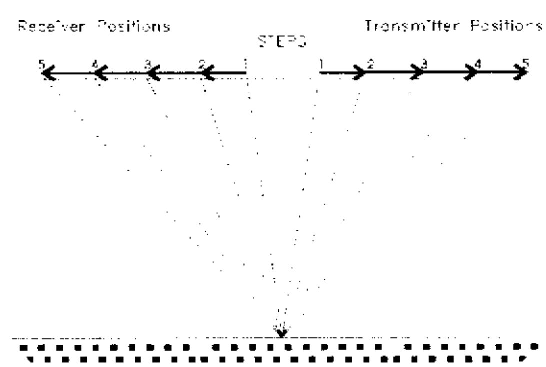
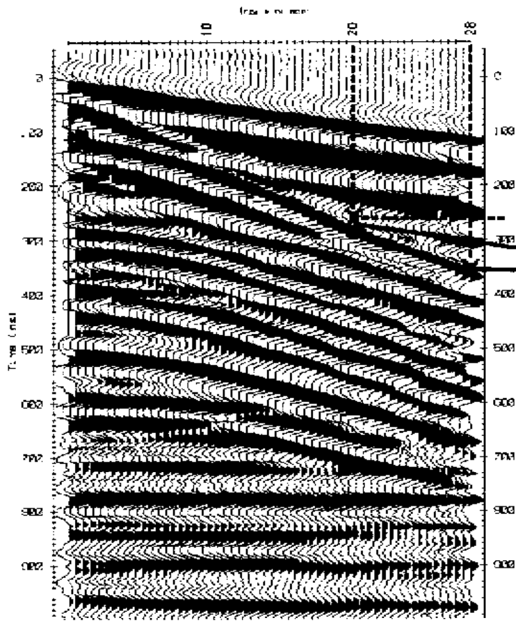


Figure 3: Schematic demonstration of the CMP technique used to determine the electromagnetic propagation velocity of the surface sediments



$$\text{Velocity} = \sqrt{\frac{X_1^2 - X_2^2}{T_1^2 - T_2^2}}$$

$$= \sqrt{\frac{20^2 - 28^2}{260^2 - 355^2}}$$

$$= 0.081 \text{ m/ns}$$

Figure 4: CMP profile 5 and velocity calculation

The Surface Search field crew mobilized back to Calgary on August 20, 2000.

3.2 GPR Data Processing

The digitally recorded GPR data was processed and analyzed using PulseEKKO GPR processing and interpretation software. Routine filters and gain controls were applied to amplify weaker signals at depth, and to improve the overall signal to noise ratio within the data profiles. The acquired GPR profiles were topographically corrected to reflect the ground surface encountered during data gathering. An arbitrary elevation base level of 100 m was assumed for each profile. Elevation changes, recorded during data acquisition in the field, were based on this elevation level. Hard copy plots of the data profiles were then generated and used for the final presentation of results.

Ground penetrating radar measures the elapsed time from which impulsed low frequency energy is transmitted into the subsurface, reflected back towards the surface, and then detected by receiver electronics. Signal propagation velocities are used to convert radar wave travel time (to and from reflected events) into depth scales.

3.3 GPR Data Interpretation

In order to understand the reasoning for SSI's interpretations, a brief background on GPR theory has to be provided. GPR technology is based on the transmission of electromagnetic waves into the ground, which generate a downward propagating wave front. Depending on the electrical properties of the penetrated soil, some of the energy will be reflected back to the surface. This reflected energy and the delay time is monitored by the receiver antenna and sent back to the control console via a fibre optic cable. The strong relationship between radar reflections and the electrical and physical properties of geologic material leads to the identification of boundaries or surfaces between different geologic units. The following context is important to understand as it provides the basis for the interpretations provided in this report. Electrical conductivity of sediments, which is a measure of the sediment's ability to conduct an electrical current, is the dominant influence on attenuation (weakening of the radar signal through adsorption). The higher the electrical conductivity of a medium, the greater is the soil's ability to absorb electromagnetic energy, and thus a high rate of signal attenuation occurs with depth. Materials with high conductivities, such as clays, tend to show higher signal attenuation and therefore less depth penetration than resistive materials, such as gravel and sand. GPR proved to be most effective in quartz-rich, dry, clean (no clay) sand and gravel, or in other words; in resistive environments.

SSI used the following subsurface model as a basis for interpreting the GPR data. Alluvial (fluvial) sediments (sand and gravel) were observed at the surface of the survey site. These materials are electrically resistive, which, according to the basic principles of GPR theory as outlined above, caused a deep signal penetration (max. 47 m). Based on the idea that geological surfaces exhibit changes in electrical properties and therefore cause radar reflections on constant offset profiles, SSI developed the interpretations presented in this report.

3.4 Limitations

Although GPR proved to be a highly effective tool for examining the shallow subsurface structure of the site, it is important to note here that the interpretations are solely based on radar signature patterns and could not be confirmed by geologic control. Should borehole information become available, more detailed interpretations of reflection events as well as increased confidence in our interpretations could be provided. It should be noted that some interpretations might have to be revised in case borehole information becomes available.

The signal to noise ratios throughout some profiles were low, which is mostly due to above ground reflections from power lines, trees, logs and the generally rough ground conditions of the particular transect. Although the application of filters proved successful in removing much of the noise, it was not possible to conduct this processing step without interfering with the real data. Consequently, interpretations lack confidence in places of low signal to noise ratio (e.g. Line-G).

4.0 RESULTS

Appendix A contains hardcopy plots of all of the GPR reflection profiles acquired within the Slocan Valley grid survey area. Analysis of the CMP profiles acquired within the survey grid area revealed the average radar signal propagation velocity through the subsurface sediments to be 0.08 meters per nano second (i.e. 10^{-9} seconds, see Figure 4).

Time scales (representing two-way travel times for GPR signal reflections at 0.08 meters per nano second) and elevation scales are posted along the vertical axis of each radar profile. Shot points (or trace numbers) are posted along the top of each profile. Chainage references taken on site are posted along the bottom of each profile. Noise within the radar data is marked as such on the profiles in order to facilitate a realistic interpretation of reflection events.

Three major geologic features have been identified:

- Paleo-channel scours and deposits;
- Alluvial deposits;
- Levee deposits.

Paleo-channel scours and deposits were identified on the radar profiles by steeply dipping reflections, interpreted as the flanks of the channels. Depth of penetration in paleo-channel areas was high, indicating that paleo-channels consist of resistive sediments (such as gravel and sand). Alluvial deposits were recognized by horizontal to hummocky, laterally continuous, parallel reflection events of a shallower penetration depth, indicating either that these sediments are less resistive or that they are directly underlain by conductive material, which would have caused signal attenuation at greater depth. Levee deposits were identified by a characteristic convex reflection pattern adjacent to paleo-channels.

Paleo-channel, alluvial and levee deposits are delineated on the profiles by transparency fills in three distinct colours. It should be noted that the interpretations do not necessarily imply maximum depths of these features but rather a maximum radar signal penetration depth. The true depth of these features should be verified through additional borehole information.

On August 30, 2000, Hampton Court Resources Inc. was also provided with a list of GPS readings for start and end locations, as well as intermittent GPS locations for each transect line (see Appendix A).

5.0 DISCUSSION OF RESULTS

On the radar profiles, paleo-channel features, levees and alluvial deposits are differentiated. The average depth of subsurface fluvial deposits, calculated from the radar data, lies at 12.0 meters. There is significant evidence of erosional channel scours (up to 47.0 meters deep, Line-A, 6+15) infilled with electrically resistive sediments (e.g. sand and gravel). Judging from the reflection geometries, a fluvial process of deposition is likely for these deposits.

Geologic conditions below the alluvial deposits remain uncertain. However, sediments are believed to be less resistive than the overlying alluvial deposits, causing signal attenuation at greater depth. A favoured assumption is that the underlying material is either clay (till) or bedrock at great depth, overlain by a thick blanket of alluvial sediments, which resulted in relatively deep overall radar signal penetration depths. An alternative explanation offered is that paleo-channels were carved into surrounding till or bedrock, which is blanketed by a thin soil layer. Borehole information would assist in determining the nature and depth of the underlying strata.

Line-A, A1 and A2

Line-A

Line-A reveals a concave-up reflection pattern between chainage 4+80 and 8+10, which is interpreted to represent a well-defined paleo-channel. Deep penetration of the radar signal between these chainage markers as well as steeply dipping reflections forming the concave-up pattern delineate this channel. Radar reflections suggest that the maximum depth of this channel is 47.0 m at the centre, with a steeper southwest slope causing its asymmetrical shape. This channel is embedded into what we interpret as alluvial deposits. Attenuation of the radar signal occurs at depths greater than 10.0 m. Dipping reflections between chainage marker 3+60 and 4+20 likely represent noise, caused by above ground reflections from nearby trees or power lines.

The southwestern edge of the paleo-channel between chainage markers 6+90 and 7+70 is marked by convex, steeply dipping reflections, which could be indicative of a levee that separated the formerly active channel from the floodplain. This levee would have formed as a result of the loss of flow competence as overbank flows breach the channel margin.

Line-A1 and Line-A2

The paleo-channel of Line-A was subject to further investigation with the aim of increasing the resolution of the data. Lines-A1 and -A2, which were both collected with the 25 MHz antennae, provided more detailed internal structure within the channel as well as increased three-dimensional coverage. The flanks of the channel are characterized by steeply dipping reflection patterns (Line-A1 between 0+150 and 0+200), which are interpreted as being produced by sediments that avalanched down the channel flank, as the channel was partly infilled from the east. Mostly horizontal, continuous to semi-continuous reflections within the paleo-channel are observed to be stacked. This stacking pattern is interpreted to represent several sets of accretionary stages of infilling. The width of the paleo-channel is found to be at least 350 m on both lines, as the channel extends over the entire length of Lines -A1 and -A2. Comparing the geometry of the slopes of the paleo-channel, a fairly similar and in both cases asymmetrical shape is identified on the radar lines. In general, an asymmetrical geometry is found to exist for most paleo-channels, which are identified by GPR (e.g. Line-C; channel from 2+10 to start of line at 0+00).

Line-B

Steeply dipping reflection events on Line-B are interpreted to reveal a paleo-channel between chainage markers 1+55 and 4+00, reaching a maximum depth of 27.0 m in the centre of the channel. The internal radar reflection patterns suggest that the infilling of this channel took place in a series of accretionary events, which produced gently curving concave reflections that truncate lower concave patterns.

SSI interprets this paleo-channel to be flanked by alluvial deposits to the north and south, which are on average 10.0 – 12.0 m deep. The alluvial deposits are typified by horizontal, semi-continuous to continuous reflection events. Stacked horizontal radar reflections are believed to represent the vertical accretion of these sediments. The underlying structures remain uncertain because of high signal attenuation below 12.0 m.

Convex reflection patterns between chainage markers 1+40 and 2+10 might indicate the presence of a levee, which separates the channel from the alluvial deposits. The channel-proximal slope appears to be steeper than the distal slope towards the alluvial deposits, which is the characteristic geometry of levees as described in the literature.

Line-C

Line-C reflects a complex structure. Steeply dipping reflections mark the flanks of a paleo-channel in the eastern part of the GPR profile. This paleo-channel feature reaches a maximum depth of 32.0 m and shows the typical concave-up radar reflection pattern. This finding suggests that the course of the Slocan River channel in this particular area has shifted toward the east over time.

These reflections are flanked by convex reflection patterns to the west, which are interpreted to represent levee deposits. The western boundary of these deposits remains uncertain because of subsurface modifications due to road construction.

Parallel, laterally continuous, horizontal reflections, interpreted as alluvial sediments, separate this interpreted levee from another buried paleo-channel to the west, which was identified by its steeply dipping reflections as well as an increased signal penetration depth. Parallel, horizontal reflections at the surface of this channel denote the infill as well as the capping of the channel near the surface, and thereby its inactivation. As the flanks of this channel are ill defined on the radar profile, this interpretation remains questionable. If borehole information becomes available, it might be subject to review.

The radar reflections SSI has interpreted as alluvial deposits along this transect are characterized by horizontal, parallel, laterally continuous reflection events. The average depth of these deposits ranges between 2.0 and 14.0 m. Below these reflections, signal attenuation is high.

Line-D, D1 and D2

Line-D

Line-D does not reveal any major channel features but exhibits gently curving, quasi-horizontal reflections throughout the length of the profile, which are interpreted as alluvial deposits. The relatively shallow maximum penetration depth of 20.0 m is due to high attenuation likely caused by conductive sediments.

Line-D1

Line-D1 was gathered across the Little Slocan River using the 25 Mhz antennae. It should be noted here that the data quality of this profile was poor and prevented us from drawing any useful interpretations from it. The lack of data quality is attributed to an abundance of logs as well as boulders around the active channel, which caused a high degree of above ground reflections. This line is therefore not presented in the Appendix.

Line-D2

Line-D2, which was gathered on the south side of the active river channel, reveals horizontal, laterally continuous reflection events between chainage markers 7+00 and 10+80, which are interpreted as alluvial deposits. Steeply dipping reflections, forming a concave up pattern, are overlying these sediments between 7+50 and 9+00, which are interpreted as a paleo-channel. The channel has well defined, steeply inclining reflections marking the walls, and horizontal reflections throughout the centre, representing the infill and vertical accretion. The relatively shallow depth of the channel (12.0 m) might indicate that it used to represent a former side-channel of the Little Slocan River. The shallow depth probably also allowed signal penetration below this feature into what we interpret as alluvial deposits.

The northern portion of the GPR profile exhibits a convex reflection pattern adjacent to the paleo-channel, which is interpreted to represent a levee.

The southernmost portion of the profile is interpreted to represent relatively older alluvial deposits, which are now forming the upper terrace slope and plateau.

Line-E, E1, E2 and E3

Line-E

Line-E displays steeply inclined reflections between the western edge of the profile and chainage marker 3+60, interpreted as the flanks of a paleo-channel. Horizontal, internal reflections are interpreted to represent the lag deposit at the bottom of the channel, the channel infill and the cap close to the surface. The interpretation of the westernmost part between 0+00 and 0+70 as a channel however, is questionable, and so is the eastern part between 3+70 and 6+60. The main part of the channel with a maximum depth of 35.0 m is located between chainage markers 1+10 and 3+60. *Laterally discontinuous, horizontal reflections are interpreted to represent the infill of* the channel. The complete assemblage of the infill reflection pattern is interpreted as a suite of complete or partial channel-fills.

The section between chainage markers 6+80 and 7+60 displays less continuous, subparallel and hummocky reflections, which exhibit a gentle southward dip and a maximum penetration of 17.0 m. These reflections are interpreted as alluvial deposits. Additionally, this raised area represents the relatively older terrace of the river.

Line-E1

Line-E1 was gathered 203 m south of Line-E using the 25 MHz antennae. Radar reflections reveal an overall eastward dip towards the Slocan River. Stacks of continuous to semi-continuous, parallel reflection patterns are interpreted to represent a channel with a well-defined flank towards the west. The width of the channel extends over the entire radar profile. Radar reflections reach a maximum depth of 37.0 m on this particular profile; however, the average depth of the channel is estimated to lie at 20.0 m. Reflections on the western part of the radar profile, marked with two question marks, most likely represent multiples. However, their general structure could indicate the eastern section of an existing levee. This interpretation is speculative.

Line-E2

Radar reflections on Line-E2 exhibit a stack of horizontal, parallel reflections in the western part of the profile at a depth range of 0.0 – 10.0 m. This reflection signal is interpreted as alluvial deposits. These deposits are also found towards the eastern edge of the profile.

Steeply dipping reflection events below the alluvial deposits to the west suggest the existence of a buried paleo-channel, which reaches a maximum depth of 15.0 m in the centre of the channel. This paleo-channel reveals an asymmetric geometry with a steeper western slope. It should be noted, however, that the signal to noise ratio on this profile is small due to the proximity of power lines along the survey transect, which decreases the degree of confidence in the interpretations. As these reflections are interpreted to represent a paleo-channel, an alternative interpretation arises for the reflections overlying these steeply inclined reflections, namely that the horizontal, laterally continuous reflection pattern above the channel could indicate the existence of a channel cap.

Line-E3

This profile reveals laterally continuous to semi-continuous, quasi-horizontal reflections, which are interpreted to represent alluvial deposits. The depth of the alluvial deposits ranges between 8.00 and 15.0 m, which does not necessarily mean that this is the maximum thickness but rather that a loss of signal penetration occurs at this depth.

Line-F

GPR Line-F starts at the top of the youngest terrace of the Slocan River and terminates at the Little Slocan River to the southwest. This radar profile shows steeply dipping radar reflections in the northeastern part of the profile, which are interpreted as paleo-channel flanks. This paleo-channel stretches from chainage markers 0+00 to 2+70. As the Slocan River is located below the northeastern margin of this line, the active river probably cut into this paleo-channel and eroded the northeastern part of the paleo-channel sediments to establish the current riverbed at a lower elevation. The maximum depth of the paleo-channel reaches 45.0 m. The centre of the channel is marked by horizontal, parallel and laterally continuous reflections, which indicate sediment infill and later inactivation. This paleo-channel corresponds to the interpreted paleo-channel on Line-C, where similar reflection patterns are evident along the eastern part of the profile.

Horizontal, laterally continuous radar reflections between chainage markers 2+70 and 4+60 are interpreted as alluvial deposits. The thickness of these deposits on the radar profile ranges between 10.0 and 17.0 m. However, the actual thickness might exceed this range as the radar signal experienced a high degree of attenuation below 17.0 m.

From 4+60 to 6+50, steeply dipping reflections mark the flanks of a smaller paleo-channel, which reaches a depth of 15.0 m at the centre. The southwestern section of the profile shows laterally continuous, horizontal reflections at the immediate subsurface, interpreted as alluvial deposits. The thickness of these sediments ranges between 5.0 and 10.0 m on the GPR profile. Reflection events below these deposits are of uncertain origin and are marked as such on the profile, but are believed to be true reflections. The question arises whether these reflections could represent a major levee, which was eventually covered by alluvial deposits. However, this interpretation remains speculative without existing borehole information.

Line-G and G1

Line-G

Line-G is characterized by mostly parallel, laterally continuous, horizontal reflection events, which penetrate to a depth of between 10.0 and 15.0 m and are interpreted as alluvial deposits. In places, these continuous events are interspersed by hummocky, discontinuous reflections, which reveal a gentle dip. These reflections are interpreted as ill-defined paleo-channel scours, which are cut into the alluvial deposits. Following this interpretation, the profile exhibits three paleo-channels that are relatively shallow (approximately 12.0 m). The inside of the paleo-channels is characterized by horizontal, parallel reflections, marking the infill of the channels. As the dip of the reflections believed to be representing the flanks of the paleo-channels is not pronounced, these interpretations should be regarded as an attempt and should be verified by borehole information. As this GPR profile was gathered parallel to power lines, the signal to noise ratio on this profile is very low, which proved to be a problem in the interpretation of this radar profile.

Line-G1

Line-G1 was gathered perpendicular to Line-G (see Figure 5) and intersected Line-G at chainage marker 5+70, which is located within an interpreted paleo-channel feature. Line-G1 reveals southward dipping reflections that are either concave-up or convex in shape. These radar patterns are interpreted to represent channel and gravel bar migration across the former floodplain. Concave up shapes are interpreted to represent paleo-channels that migrated in a general southward direction, whereas convex reflections likely embody the downstream side of a bar that migrated in the same direction (see Figure 5). This interpretation corresponds to the interpretations of Line-G, where a paleo-channel was found at the same location. However, an alternative explanation could be that the reflection events on Line-G1 represent colluvium from the nearby bedrock outcrop north of the line. Only additional geologic data could increase the confidence in these interpretations.

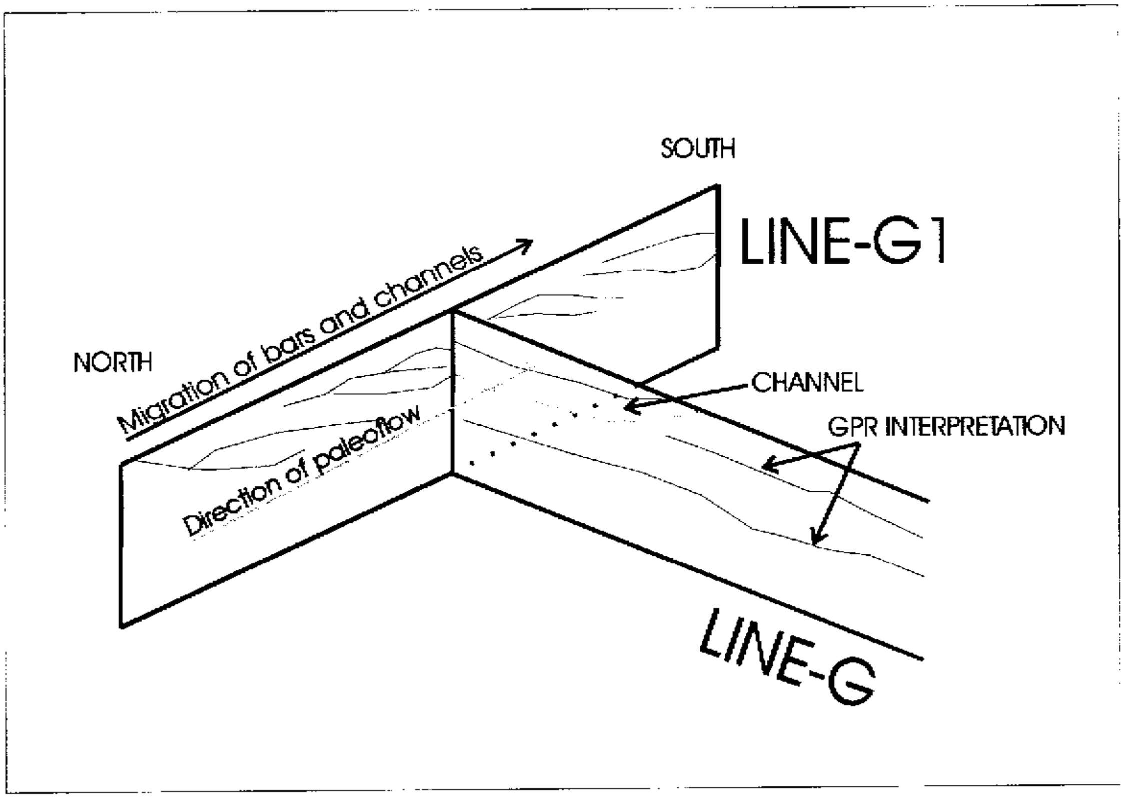


Figure 5: Fence diagram of GPR lines G and G1

5.0 CONCLUDING REMARKS

The geophysical interpretations outlined in this report are the result of analysis of the ground penetrating radar data acquired within the Slocan Valley. The results provided are based solely on electronic measurements, and are subject to review should additional field measurements and/or geologic data be taken within the surveyed area. Borehole information would be of great assistance in increasing the confidence in the interpretations of the outlined geologic conditions.

The ground penetrating radar data acquired on this project is believed to have assisted in mapping the subsurface, and specifically the occurrence of subsurface channels within the area specified by Hampton Court Resources Inc. Please contact the undersigned at (403) 531-9709 should you require any additional information or clarifications regarding this report.

Respectfully submitted,

S. Engels

Simone Engels, M.Sc.
Project Consultant
Surface Search Inc.

Surface Search Inc.
Bay 7, 6325 - 11th Street, S.E. Calgary, Alberta, Canada T2H 2L6
Tel (403) 531-9715 Fax: (403) 294-1240 email: headoffice@surfacesearch.com

Hampton Court Resources Inc.
Suite 325, 259 Midpark Way S.E.
Calgary, Alberta
T2X 1M2

November 27, 2000

Re.: Certificate of Author

To whom it may concern:

This letter serves as a statement of my qualifications as the author of Surface Search's report submitted to Hampton Court Resources Inc. on October 24, 2000.

I hold a Masters degree from University of Cologne, Germany, and a Masters of Science degree from Simon Fraser University, Burnaby, B.C., Canada. During the course of my studies, I specialized in applications of ground penetrating radar, sedimentology and geomorphology and focused my German Masters as well as my Canadian Masters thesis on these topics. Both projects involved extensive fieldwork, ground penetrating radar data processing and interpretation.

I have one year experience working as a project consultant for Surface Search Inc., a shallow geophysics company registered with APEGGA. During the last year I have successfully completed various ground penetrating radar surveys as a project and field team leader. I gathered an additional year of professional experience working for a mining company and for several environmental engineering companies as a project consultant in Germany.

Should you require any further information, please feel free to contact me at your convenience.

Sincerely,

Simone Engels

Simone Engels, M.Sc.
Project Consultant
Surface Search Inc.
Phone: 403-531-9709
Email: sengels@surfacesearch.com

HAMPTON COURT RESOURCES INC.
325, 259 MIDPARK WAY SE
CALGARY AB T2X 1M2

2000 STATEMENT OF EXPENSES
SLOCAN VALLEY GROUND PENETRATING RADAR

CONTRACT JOBS

Surface Search Inc. - ground penetrating radar survey
August 13,14,15,16

4 days @ $2,625.00 per day	$ 10,500.00

Slocan Valley GPS Locations for Ground Penetrating Radar Lines A-G1

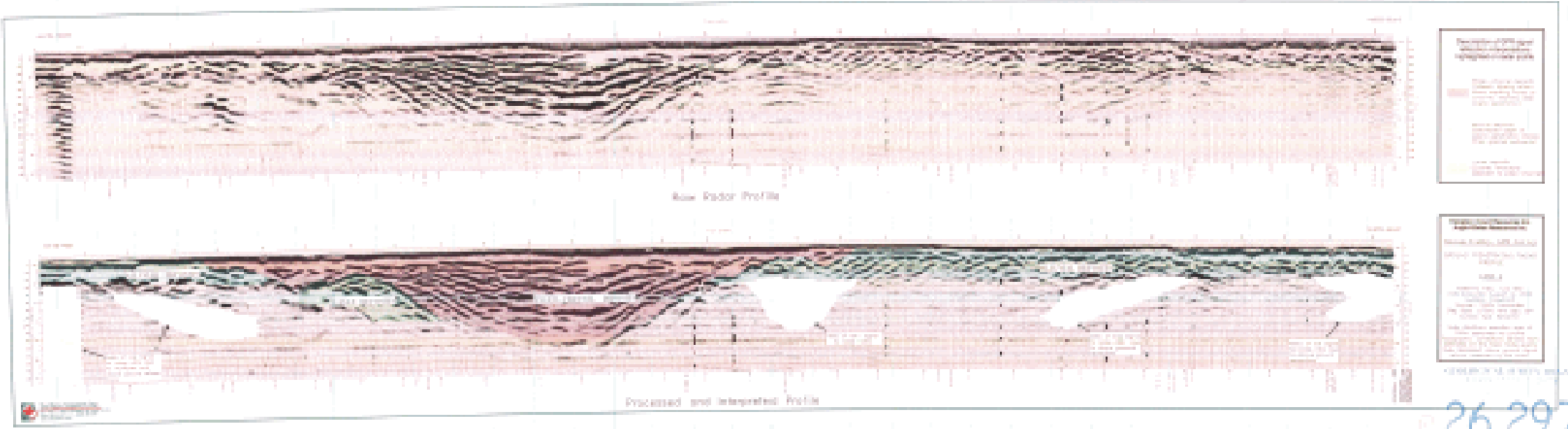
GPS Equipment used: Garmin eTrex 12 channel

GPR Line	Chainage	Latitude	Longitude
A	0+00	N 49°32'01.1"	W 117°38'08.4"
A	2+40	N 49°31'56.0"	W 117°38'16.7"
A	4+50	N 49°31'51.9"	W 117°38'25.7"
A	5+40	N 49°31'50.0"	W 117°38'28.7"
A	6+00	N 49°31'48.9"	W 117°38'27.9"
A	7+20	N 49°31'46.9"	W 117°38'35.2"
A	9+30	N 49°31'41.8"	W 117°38'41.4"
A1	0+00	N 49°31'41.4"	W 117°38'29.8"
A1	1+50	N 49°31'45.8"	W 117°38'24.9"
A1	2+00	N 49°31'46.9"	W 117°38'24.4"
A1	2+50	N 49°31'47.9"	W 117°38'24.6"
A1	3+50	N 49°31'50.1"	W 117°38'21.8"
A2	0+00	N 49°31'51.5"	W 117°38'23.6"
A2	1+50	N 49°31'48.2"	W 117°38'28.9"
A2	3+50	N 49°31'46.7"	W 117°38'36.7"
B	0+00	N 49°32'14.6"	W 117°38'38.2"
B	5+10	N 49°31'57.8"	W 117°38'45.3"
B	6+30	N 49°31'54.7"	W 117°38'47.5"
C	0+00	N 49°33'22.7"	W 117°39'17.8"
C	12+30	No GPS for end of line due to tree-cover	
D	0+00	N 49°33'30.5"	W 117°40'14.9"
D	6+30	N 49°33'15.1"	W 117°40'24.4"

D1	6+30	N 49°33'15.1"	W 117°40'24.4"
D1	6+90	N 49°33'13.8"	W 117°40'26.3"
D2	6+90	N 49°33'13.8"	W 117°40'26.3"
D2	10+80	N 49°33'06.1"	W 117°40'43.5"
E	0+00	N 49°33'02.2"	W 117°39'04.4"
E	7+50	N 49°32'45.3"	W 117°39'29.3"
E1	Start of Line	N 49°32'49.9"	W 117°39'08.8"
E1	End of Line (Line not surveyed)	N 49°32'50.2"	W 117°39'16.3"
E2	Start of Line	N 49°32'57.2"	W 117°39'02.2"
E2	End of Line (Line not surveyed)	N 49°32'54.6"	W 117°39'11.5"
E3	Start of Line	N 49°32'39.0"	W 117°39'14.8"
E3	End of Line (Line not surveyed)	N 49°32'37.6"	W 117°39'23.1"
F	0+00	N 49°33'23.3"	W 117°39'18.5"
F	2+70	N 49°33'16.9"	W 117°39'28.6"
F	4+50	N 49°33'13.7"	W 117°39'35.2"
F	8+10	N 49°33'06.5"	W 117°39'50.4"
G	0+00	N 49°33'26.3"	W 117°40'14.3"
G	5+70	N 49°33'32.1"	W 117°39'46.5"
G	10+50	N 49°33'38.8"	W 117°39'25.8"
G1	0+00	N 49°33'35.3"	W 117°39'49.4"

G1	G1 crosses G 5+70	N 49º33'32.1"	W 117º39'46.5"
G1	End of Line	No GPS due to tree cover	

Map Datum: WGS-84



Raw Radar Profile
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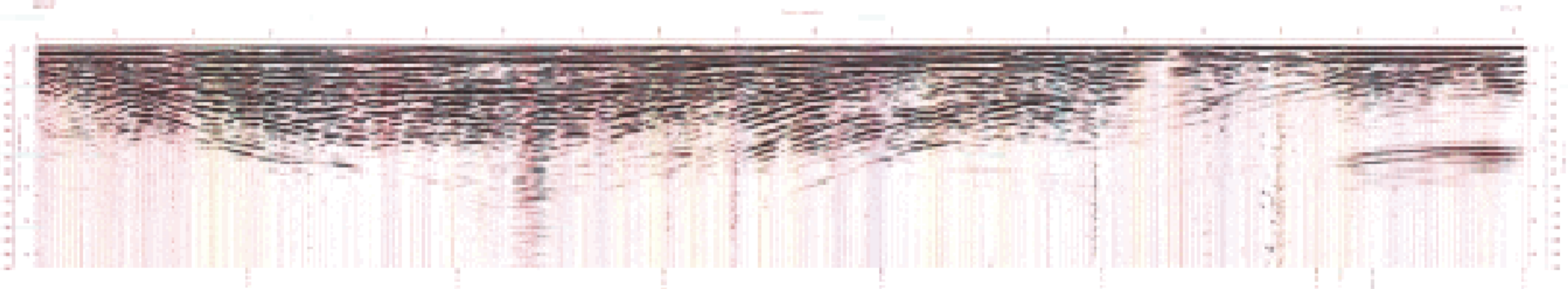

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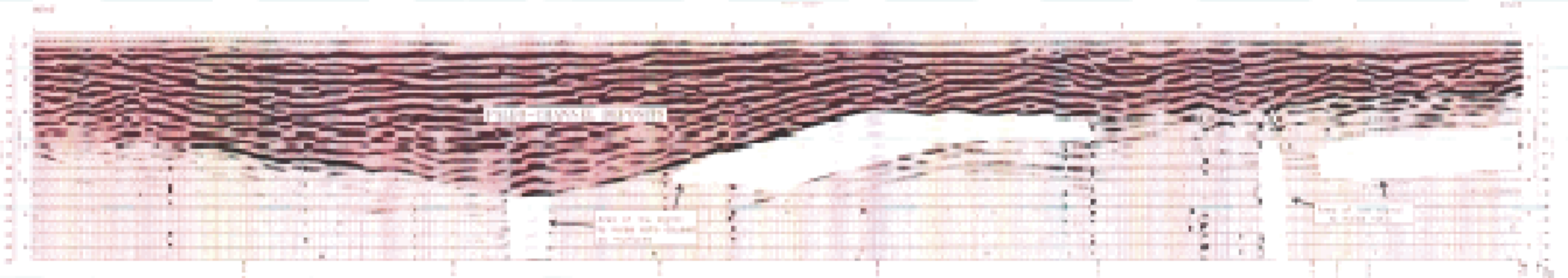


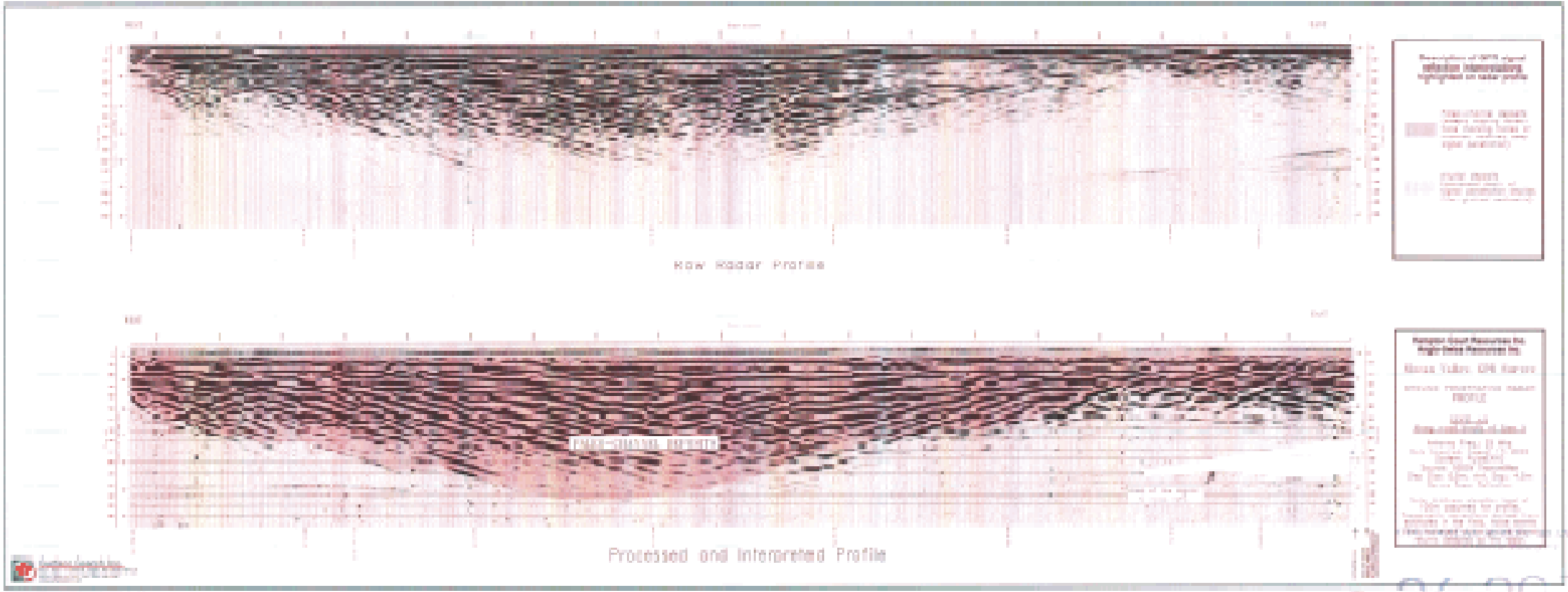
Processed and Interpreted Profile

Description of GPR signal reflection interpretations highlighted on radar profile.

GROUND PENETRATING RADAR PROFILE

Surface Search Inc.

26,297



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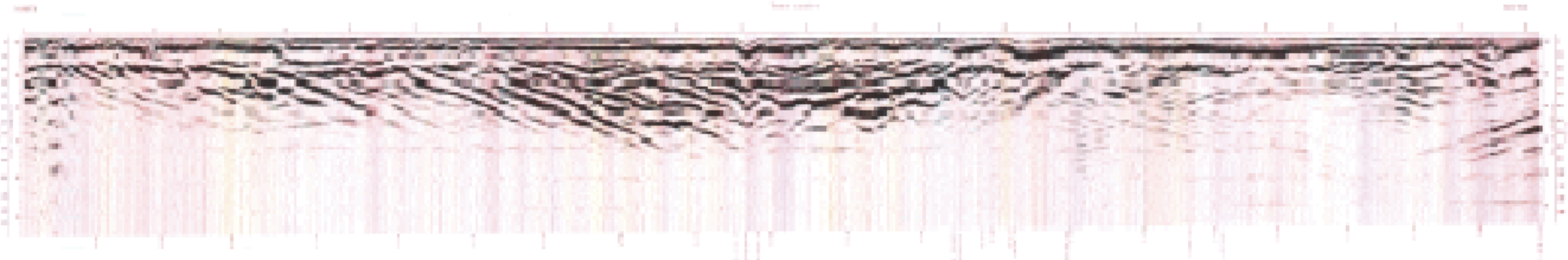

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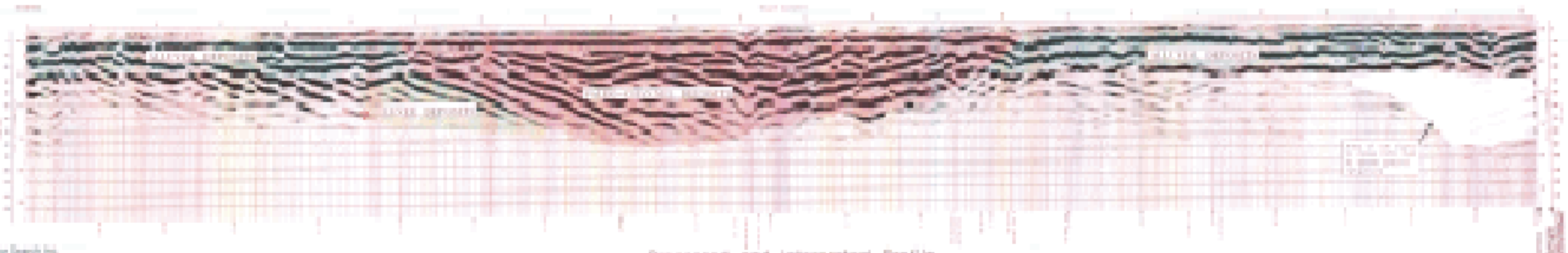

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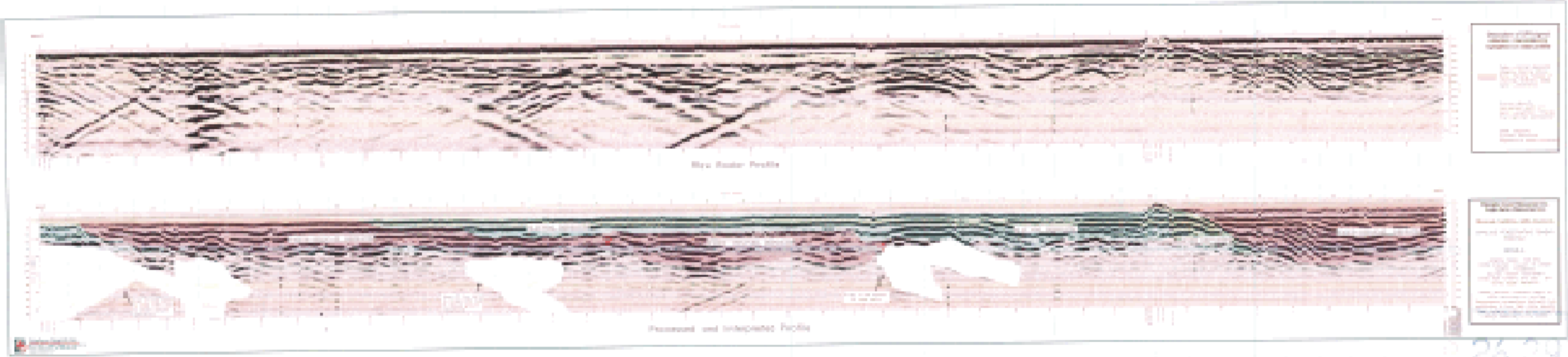

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Raw Radar Profile

Processed and Interpreted Profile

Description of GPR signal reflection interpretations highlighted on radar profile

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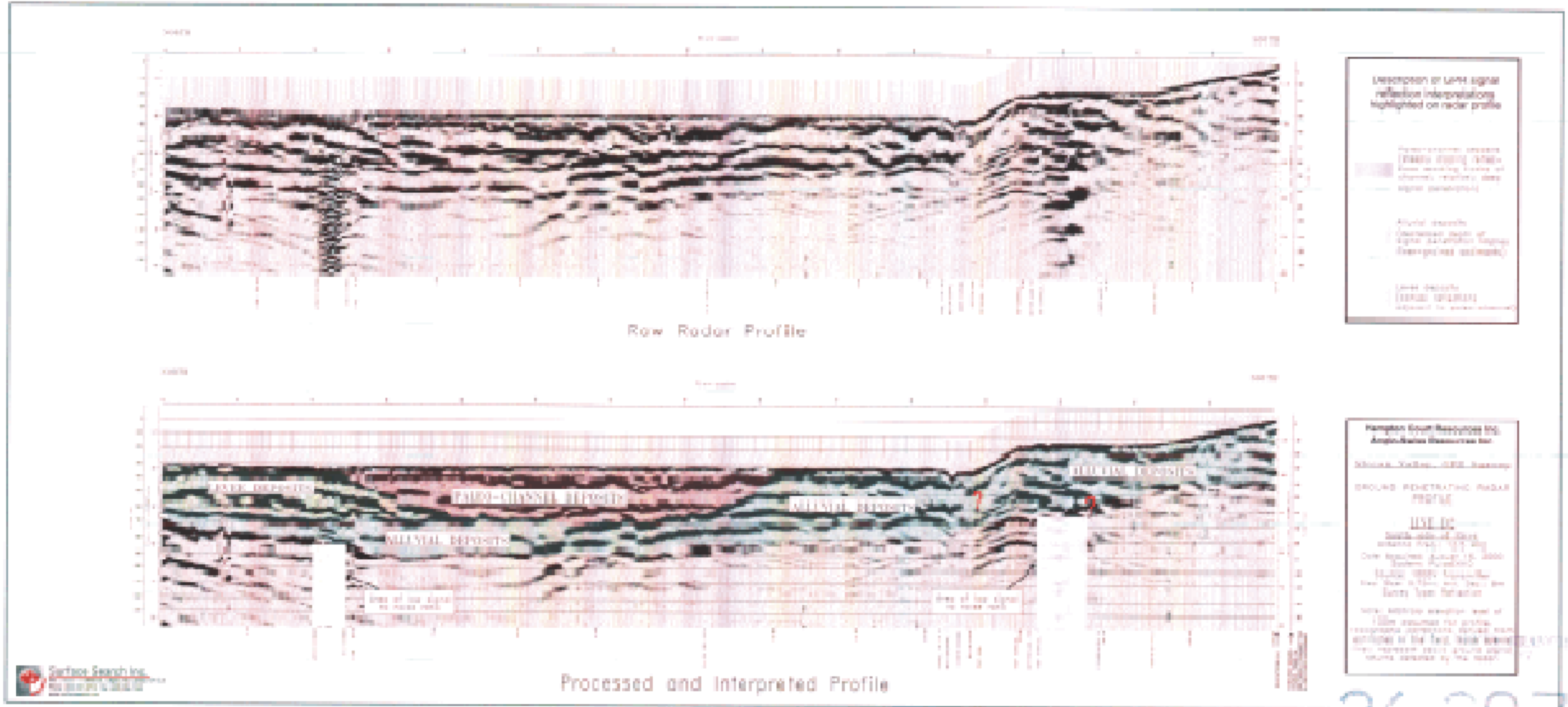
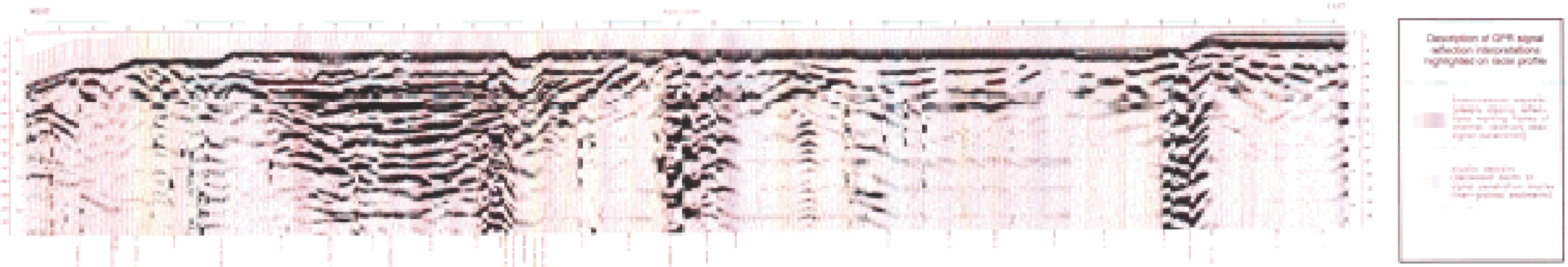

Description of GPR signal
reflection interpretations
highlighted on radar profile
Raw Radar Profile
LEVEE DEPOSITS
PALEO-CHANNEL DEPOSITS
ALLUVIAL DEPOSITS
ALLUVIAL DEPOSITS
GROUND PENETRATING RADAR
PROFILE
Surface Search Inc.
Processed and Interpreted Profile

26297



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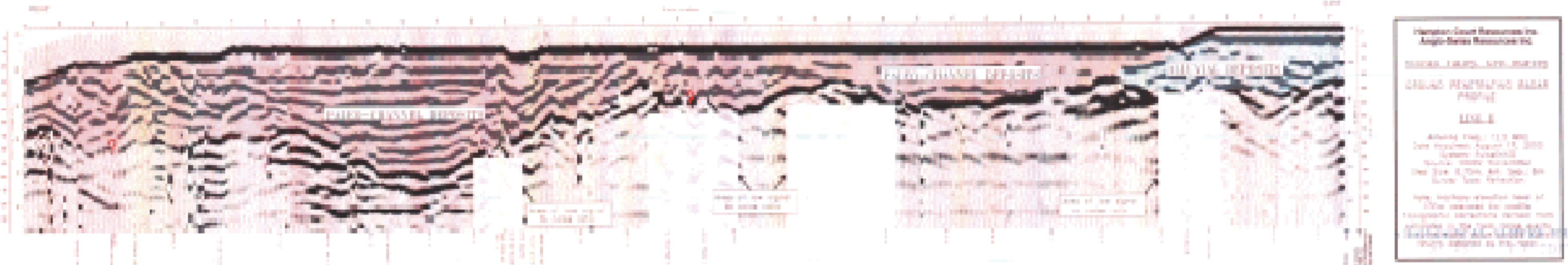

Processed and Interpreted Profile

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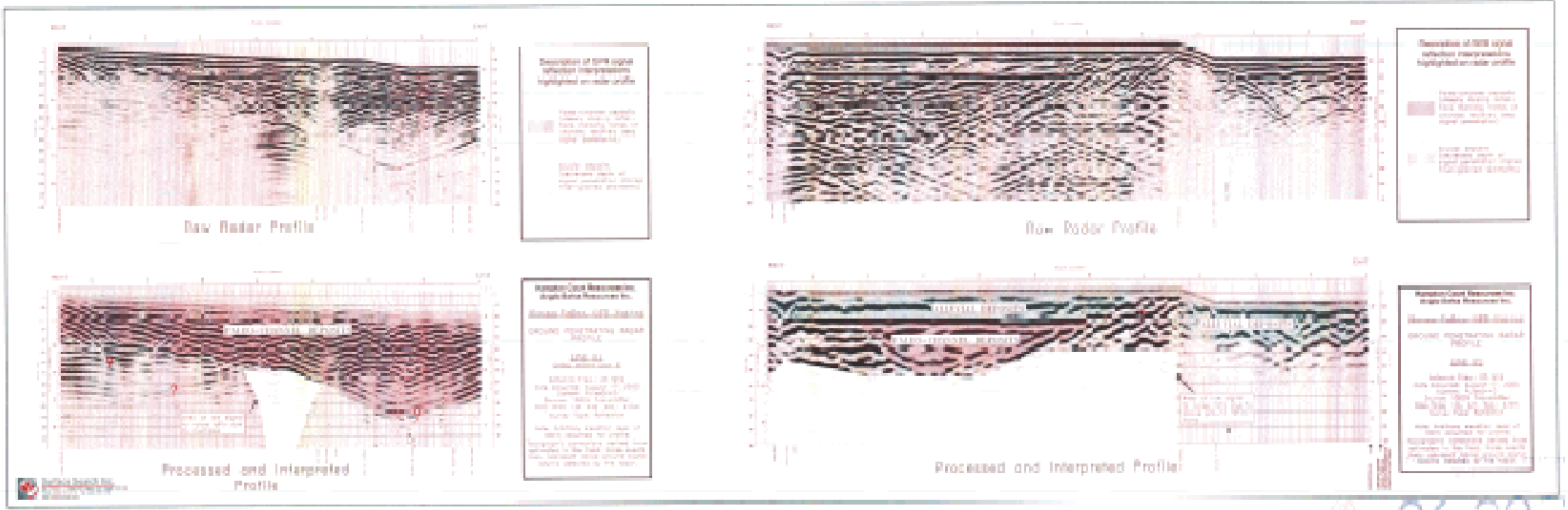
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Processed and Interpreted Profile

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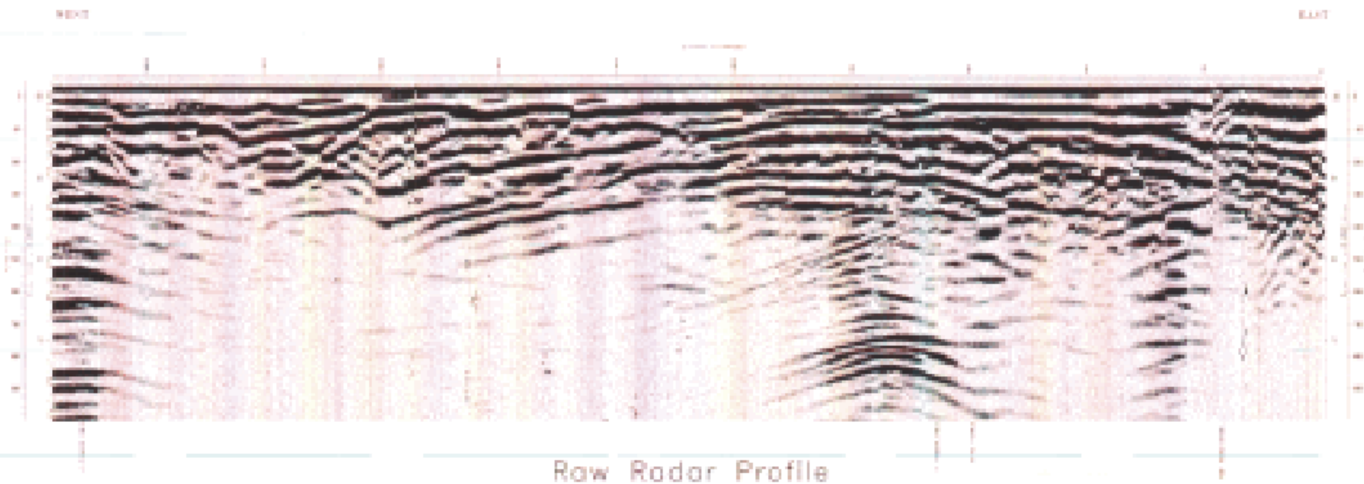

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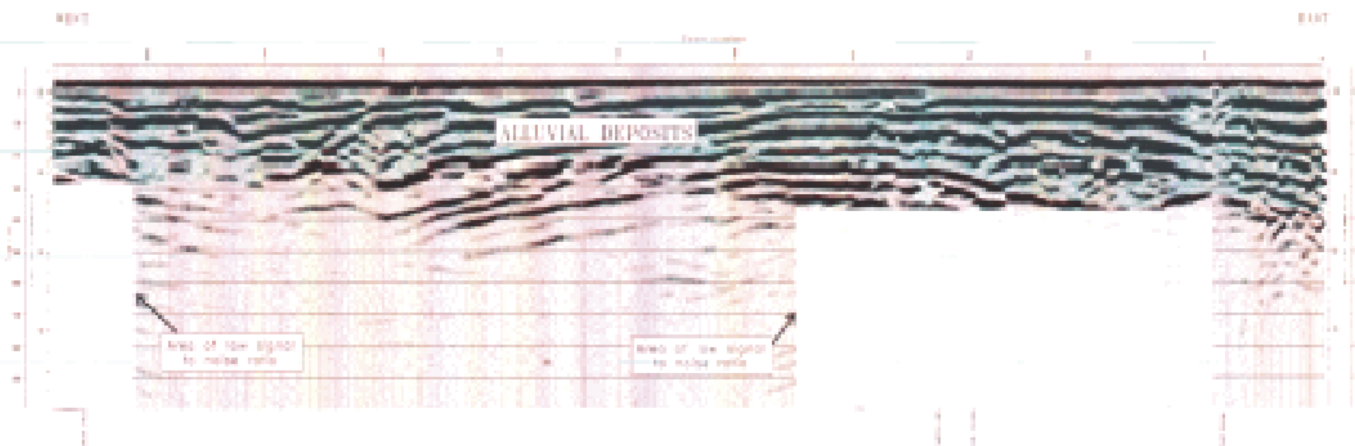

Processed and Interpreted Profile

Description of GPR signal reflection interpretations highlighted on radar profile

Paleo-channel deposits (steeply dipping reflections marking flanks of channel; relatively deep signal penetration)

Alluvial deposits (decreased depth of signal penetration implies finer-grained sediments)

Hampton Court Resources Inc.
Anglo-Swiss Resources Inc.

GROUND PENETRATING RADAR PROFILE

Antenna Freq.: 25 MHz
Date Acquired: August 17, 2000
System: PulseEKKO
Survey Type: Reflection

Surface Search Inc.

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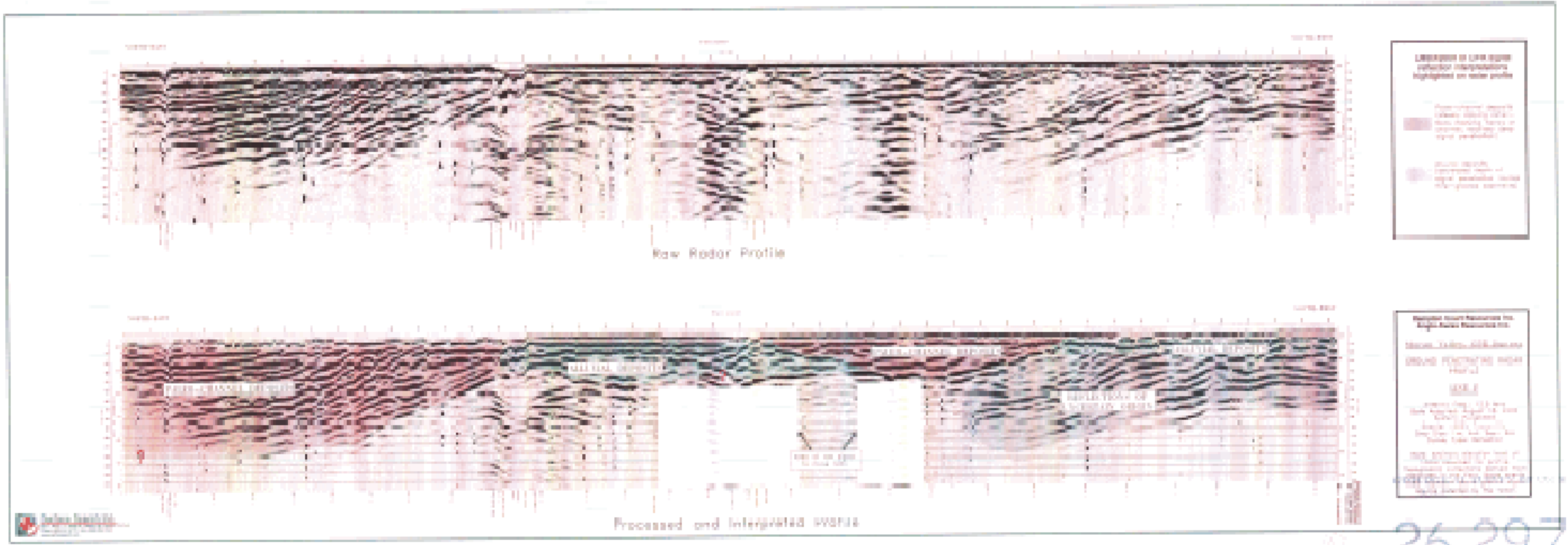
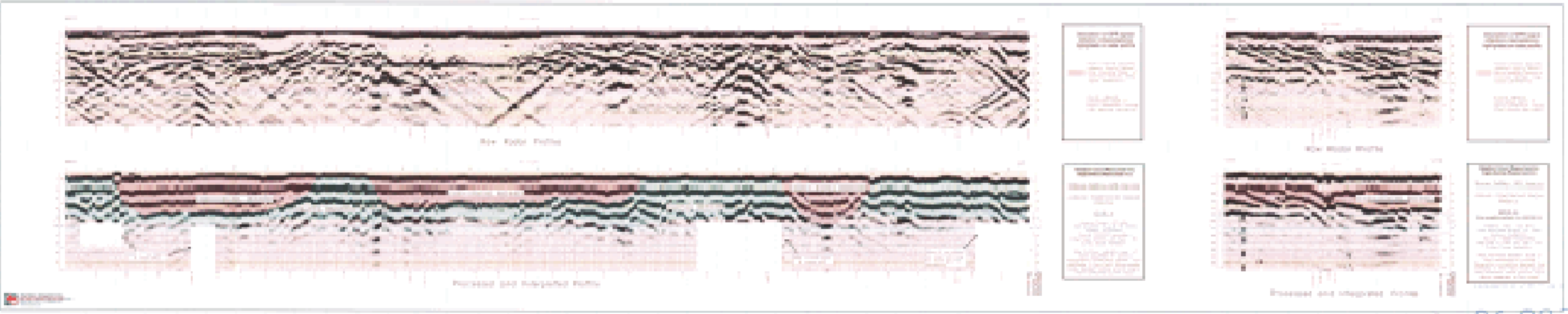


Raw Radar Profile
PALEO-CHANNEL DEPOSITS
ALLUVIAL DEPOSITS
Processed and Interpreted Profile

26,297



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