ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT:
Seismic Refraction Survey on the Quesnel River Property
TOTAL COST: $21,395.49

AUTHOR(S): Stephen P. Kocsis, P.Geo.
SIGNATURE(S): “signed”
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): 08-1640454-0528
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 4264265; 2009/02/16

YEAR OF WORK: 2008
PROPERTY NAME: Lost Swede
CLAIM NAME(S) (on which work was done): 507370

COMMODITIES SOUGHT: Au

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN
MINING DIVISION: CARIBOO
BCGS: 093A.091, 093B.100
LATITUDE : 52.93144757
LONGITUDE -122.0127011 (at centre of work)
UTM Zone EASTING 0566362 NORTHING 5865101

OWNER(S): Leslie V. Sleeva
MAILING ADDRESS: P.O. Box 4009, Quesnel, BC, V2J 3J2

OPERATOR(S) [who paid for the work]: as above
MAILING ADDRESS

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude **do not use abbreviations or codes**)

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS

BC Geological Survey
Assessment Report
31033

Seismic Refraction Survey On the Lost Swede Property

Tenure Numbers 504168, 507314, 507360, 507370, 507378, 568587, 568589
(2084.9 Hectares)

UTM NAD (83) Central Location Coordinates - 5865101N, 0566362E
Latitude 52.93144757 Longitude -122.0127011
BCGS Map No. 093A.091, 093B.100

Swift River Area
Barkerville/Wells Designated Area
Cariboo Mining District, Central British Columbia

Property Owner and Operator:

Leslie V. Sleeva

Exploration Supervision and Report completed by:

Stephen Kocsis, P.Geo

July 30, 2009

Table of Contents

Table of Figures

Index of Tables

1.0 Seismic Summary

1.1 Introduction

The Lost Swede Property (the Property) covers a large 1 to 2 km wide area that extends 7.5 km along the east side of the Swift River valley near the confluence of Victoria Creek. A total of 6 refraction seismic lines (LS2-7) totaling 8,280 feet was surveyed by Brental Resources Limited on the Property to investigate the underlying sediments and to determine depths to bedrock. All of the surveyed seismic lines are located within Tenure 507370.

Line LS2 was surveyed for a distance of 3680 feet across the east side of the Swift River valley in attempt to locate bedrock depressions or buried paleochannels that parallel the present day river and occupies a 1 to 2 km wide valley-bottom terrace. Lines LS3-7 were surveyed over and adjacent to a 2007 drill-hole (ADH18) to investigate the relationship between an identified 6-foot thick highly auriferous older gravel[1] layer (39-45 feet) and the underlying bedrock. This area consists of a gently-sloping valley-side terrace that reaches up to 350 m wide and is elevated about 180 feet above the neighboring valley-bottom terrace.

[1] "Older gravel" is term used throughout this report and refers to a gravel layer that predates the last glacial period (Late Wisconsin) that commenced 30,000 ybp. "Older gravel" or "older alluvium" layers were deposited during one of the interglacial ice-free periods that occurred intermittently throughout the Pleistocene (2.5 Ma to 10,000 ypb) or were deposited during the preglacial Tertiary period (> 2.5 Ma ybp).

1.2 Property Description and Access

The Lost Swede Property is made up of 8 placer Tenures and covers 2,084.9 hectares of land (see Table 1). The Property is located along the east side of the Swift River near its confluence with Victoria Creek in the Barkerville/Wells Designated Area of the Cariboo Mining District, Central British Columbia (Figure 1). The central part of the Property is located at UTM NAD (83) coordinates 5865101N and 0566362E on BCGS map sheet numbers 093A.091, 093B.100 (Figure 2). The Property is 100% owned and operated by Leslie V. Sleeva.

The northern property boundary can be accessed by driving 3 km south along the 1300 Road, 7 km west and south along the 13A Road, and 2 km south along the 13A Branch 10 Road. The 1300 Road is located 33 km east along the Barkerville Highway (Hwy 26) from Hwy 97 in Quesnel. The Branch 10 Road provides access for an additional 10 km to the southern-most portion of the Property. Several recently constructed branch roads provide 2-wheel and 4-wheel drive access to most parts of the Property.

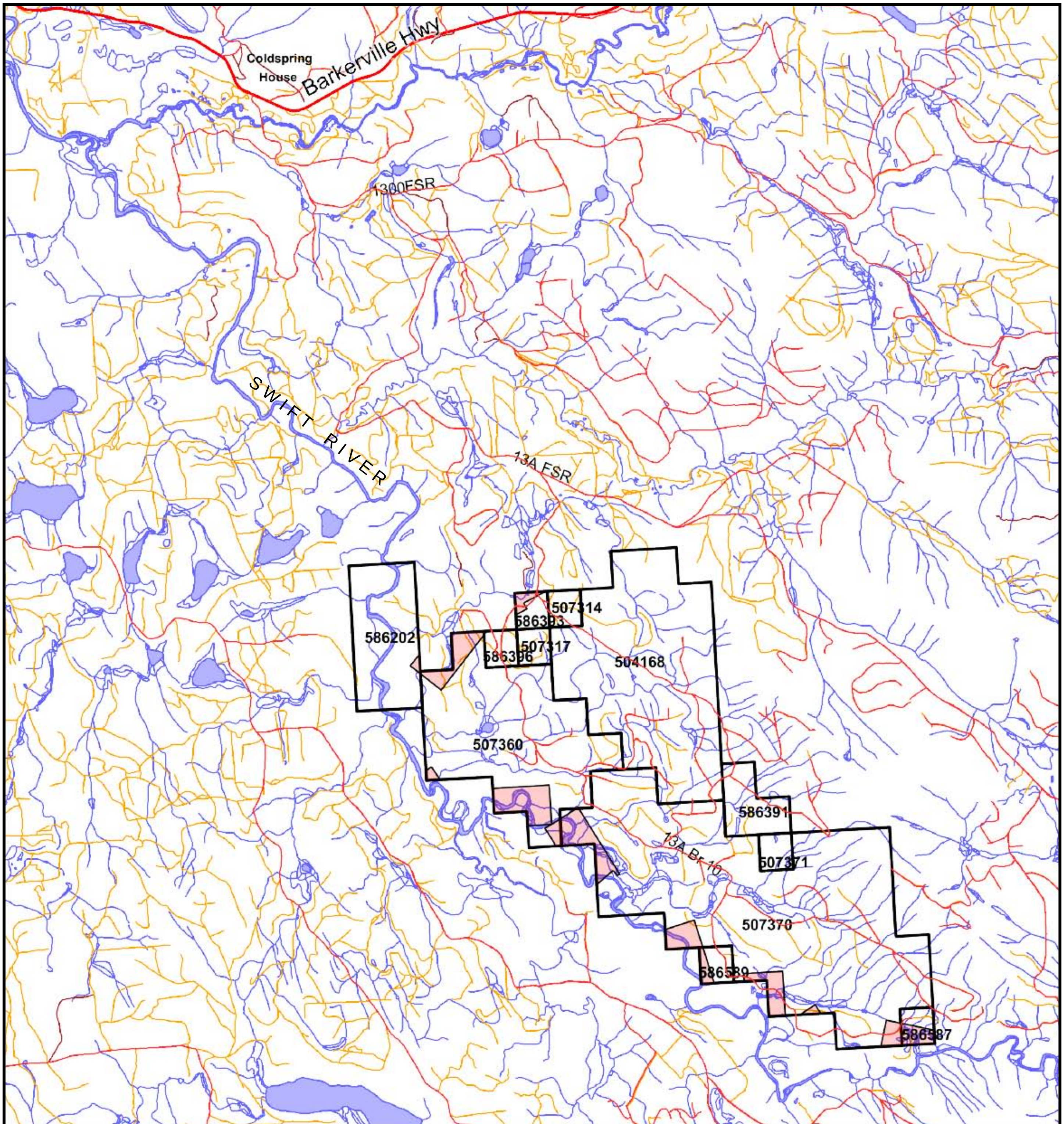

Figure 1 Location & Access

The property is located approximately 36km East of Quesnel, northeast of the Swift River and North of the confluence of Victoria Creek

Scale 1:75,000

Mapsheets BCGS 093A.091
093B.080

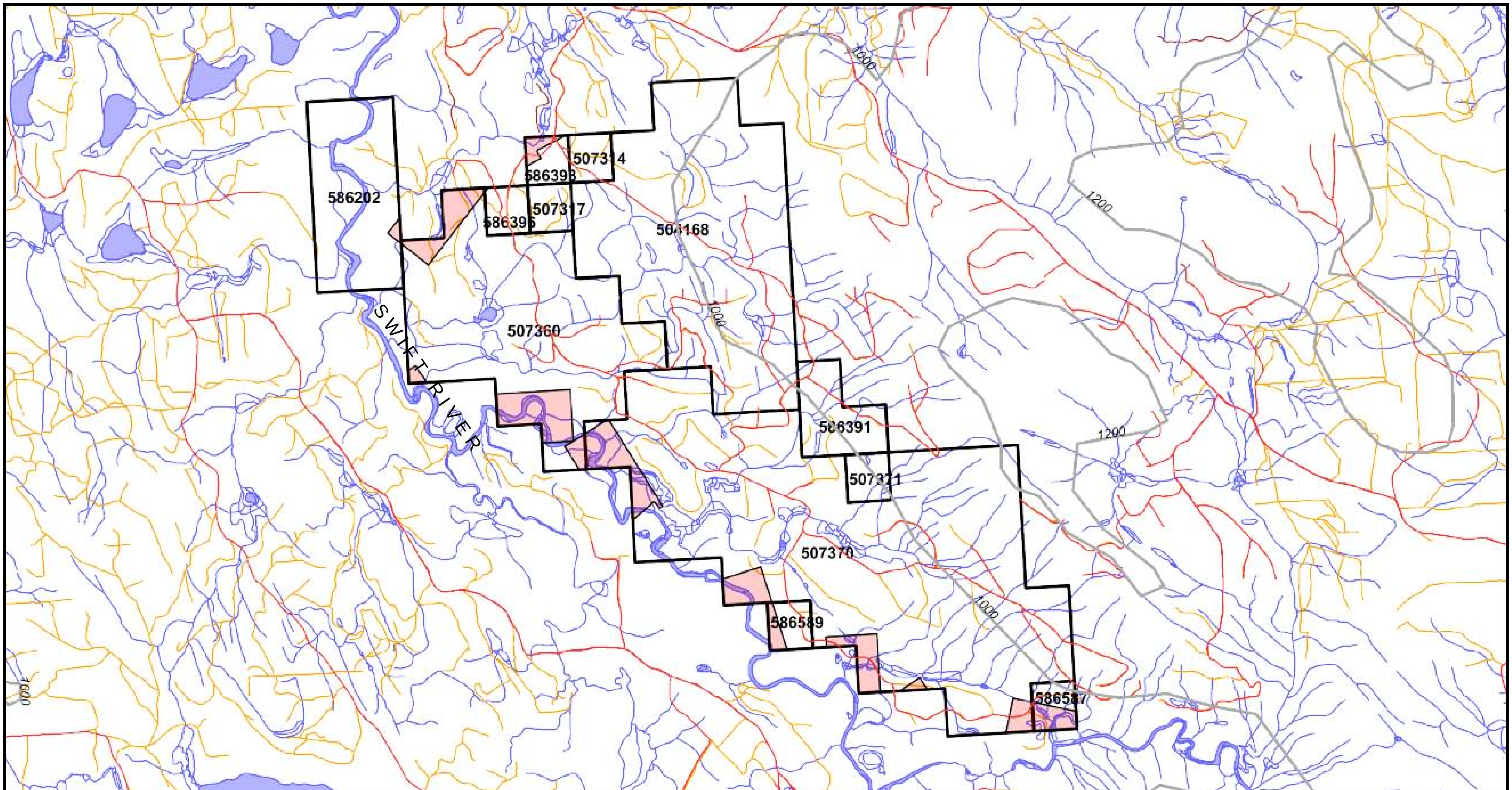

Figure 2 Tenure Detail & Topography

Scale 1:60,000

Table 1: List of Lost Swede Property tenures

Tenure Number	Claim Name	Good to Date	Area (hectares)
504168	KISS	2010/feb/17	486.984
507314	KISS 2	2010/feb/17	19.476
507317	KISS 3	2010/feb/17	19.478
507360		2010/feb/17	389.646
507370		2010/feb/17	857.623
507378	KISS 4	2010/feb/17	19.489
568587	LS-EXT 1	2010/feb/17	19.498
568589	LS-EXT 2	2010/feb/17	19.495
586202	LS NW	2010/feb/17	155.814
586391	LSNE	2010/feb/17	58.459
586393	LS NW 2	2010/feb/17	19.476
586396	LS NW 3	2010/feb/17	19.478
Total Area			**2084.916**

1.3 Regional Bedrock Geology

The Lost Swede Property is located across bedrock belonging to the Quesnel Terrane that is made up of Triassic and Jurassic volcanic, volcaniclastic and fine-grained clastic rocks (Struik, 1988). Mafic rocks, mainly basalt and andesite agglomerate and tuff, dominate the volcaniclastic component that is distinguished from similar rocks in the neighboring Barkerville Terrane by the coarse clastic detritus. The Eureka Thrust Fault defines the tectonic boundary between the Quesnel Terrane and older Paleozoic rocks of the Barkerville Terrane at a location about 12 km east of the Property. This boundary appears to represent a convergent zone between the arc-related Quesnel Terrane and the parautochthonous Barkerville Terrane of the Omineca Belt (Bloodgood, 1987).

1.4 Local Bedrock Geology

Bedrock exposures are rare across Tenure 507370 where a thick sequence of postglacial alluvium and glacial sediment layers blanket the central portion of the Swift River Valley. Bedrock exposures are completely absent along all seismic lines surveyed. Lower elevations proximal to the Swift River consist of scattered grey to black colored siltstone and very fine-grained quartzite exposures that are mapped as Unit 1 by Bailey in 1988 (Figure 3). Conodonts collected by Bloodgood (1988) and macrofossils identified by Bailey (1988) in areas to the southeast suggests that the age of this rock unit is somewhere between middle and upper Triassic (Anisian-Carnian). Weak foliation in Unit 1 rocks commonly parallels bedding in a northwesterly to northerly direction and dips moderately to steeply anywhere from 60 to 80 degrees to the west.

Pelite beds in Unit 1 range from a few centimeters to a meter thick and occasionally contain small coarser-grained scour and fill structures. Some of the thin mudstone layers that exhibit a greenish grey color are believed to be a psammatic basaltic tuff component (Bailey, 1988). Rare lighter colored gritty calcareous mudstone in places north of the Property contain semi-massive very fine-grained pyrite laminations that are controlled along scattered discontinuous stress fractures that parallel bedding (Kocsis, 2007a).

A sequence of light grey mudstones and fine-grained sandstone beds are mapped as Unit 9a by Bailey (1988) in a confined area proximal to the confluence of the Swift River and Victoria Creek. Bedding in Unit 9a dips gently to the east as apposed to steeply dipping beds in underlying Mesozoic rocks mapped in Unit 1. The mudstone component is believed to be a lithological equivalent to similar pelites exposed along the Horsefly River where middle Eocene fish fossils have been identified (Panteleyev, 1988).

Unit 9a was not examined in the field, although a local miner provided a beige colored sandstone bedrock sample that was collected from an area along the Swift River located approximately 2.8 km upstream from the confluence with Victoria Creek. The sample contains weakly cemented, non-lithofied, angular to sub-angular, equigranular, fine-grained, nearly monolithological felsic mineral particles. Grains are interlocked in most part and in places thinly separated by a non-calcareous finer-grained white-colored microcrystalline matrix. The sandstone is peppered with 5% black colored mafic grains and in general the sample exhibits a very low density and is easily scratched with a fingernail. The sample resembles younger volcanic-derived sandstone that could be inferred as a coarse-grained felsic tuff affected and modified by stream transport and floodplain deposition in an area that represents a Pliocene drainage remnant of the Swift River.

Dark olive colored serpentine schist with an aphanitic molted-scaly texture was identified in a bedrock sample retrieved from a 2007 auger drill hole ADH 19 (Kocsis, 2007b). Hole 19 is located 270 m southeast of the northwest part or start of seismic line LS2 (see Figure 4). A small bedrock exposure at the same elevation and located about 2 km northwest from hole 19 contains a similar mineralogical component. The exposure is made up of dark olive fine-grained mafic intrusive rocks with a serpentine-alteration component. Moderate to strong foliation along the exposure strike 365 degrees and dip 72 degrees to the east. These rocks may be equivalent to Late Triassic (Norian) mafic volcanic rocks mapped by Bailey (1988) in Unit 2.
Unit 2 mafic rocks identified on the Property extend along a southeast trend and more than likely underlie surficial sediments located along the extreme northeast portions of seismic lines LS2-3 and LS5-6. Bedrock underlying line LS4, the southwest portions of lines LS3,5-6, and the central and southwest part of line LS2 is probably dominated by Unit 1 siltstone layers.

1.5 Surficial Geology

Important older gravel units and potential paleochannel targets have been identified in two paralleling geomorphic landscape settings along the east side of the Swift River during the 2007 fieldwork program (Kocsis, 2007b). The fieldwork consisted of the examination of sediment exposures over a wide area and sampling of deeply buried sediment layers. Buried sediment layers were sampled by 20 open-flight auger drill holes ranging from 9 to 118 feet deep.

The first and most extensive landscape setting on the Property is made up of a valley-bottom terrace that is deeply incised by the Swift River along its western margin. Neighboring to the east and elevated 180 feet higher is a second landscape setting consisting of a valley-side terrace. Both terraces extend longitudinally in a northwest direction that parallels the Swift River valley. The longitudinal extent of both terraces coincides with a Late Wisconsin northwest trending down-ice flow direction and more than likely also coincides with older ice sheet flow directions.

A thick sequence of glacial sediments is the main component in both terraces that overly deeply buried older alluvial sediments and prospective paleochannel locations. A weathered older alluvium layer ranging from 10 to 45 feet thick was identified along the valley-bottom terrace at two 2007 drill locations (holes 9 and 10) near the west end of seismic line LS2 at depths ranging from 58 to 72 feet. Neither hole reached bedrock, although an older glacial till layer was identified below the older alluvium unit in one hole and for this reason the alluvium is believed to be interglacial. One 2007 location (hole 18) drilled along the valley-side terrace and over the intersection of seismic lines LS3 and LS4 penetrated a 6-foot thick older gravel layer (39-45 feet) that is highly auriferous at its base (5.9 g/yd^3 over 3.5 feet). The type of material underlying this older gravel layer is unknown.

Glacial sediments across both terraces are overlain by 3 to 16 feet of drill-identified mud-rich postglacial alluvium. Meltwater channels across both terraces form complex wide and narrow incision patterns that are partly controlled by medial-ridged lateral moraine structures paralleling the length of the Swift River valley floor.

The valley-side terrace is examined in this report along seismic lines LS3-6 and across an area measuring 1380 feet wide. From west to east seismic line SL2 examines a 1500-foot wide portion of the valley-bottom terrace, a 1200-foot wide lateral moraine structure, and a 1000-foot wide section of the adjacent valley-side terrace.

2.0 Seismic Line Locations

Details of the 6 refraction seismic lines surveyed on the Property are given in Table 2. All lines were surveyed on placer Tenure 507370 (Figure 4). All of the lines, with exception to line LS4, are made up of multiple Spreads each consisting of 24 Stations spaced along 20-foot increments. The number of Spreads included along each line is given in brackets below the “Spread Number” column. The final Station along each Spread corresponds or overlaps with the first Station of a preceding Spread throughout each line.

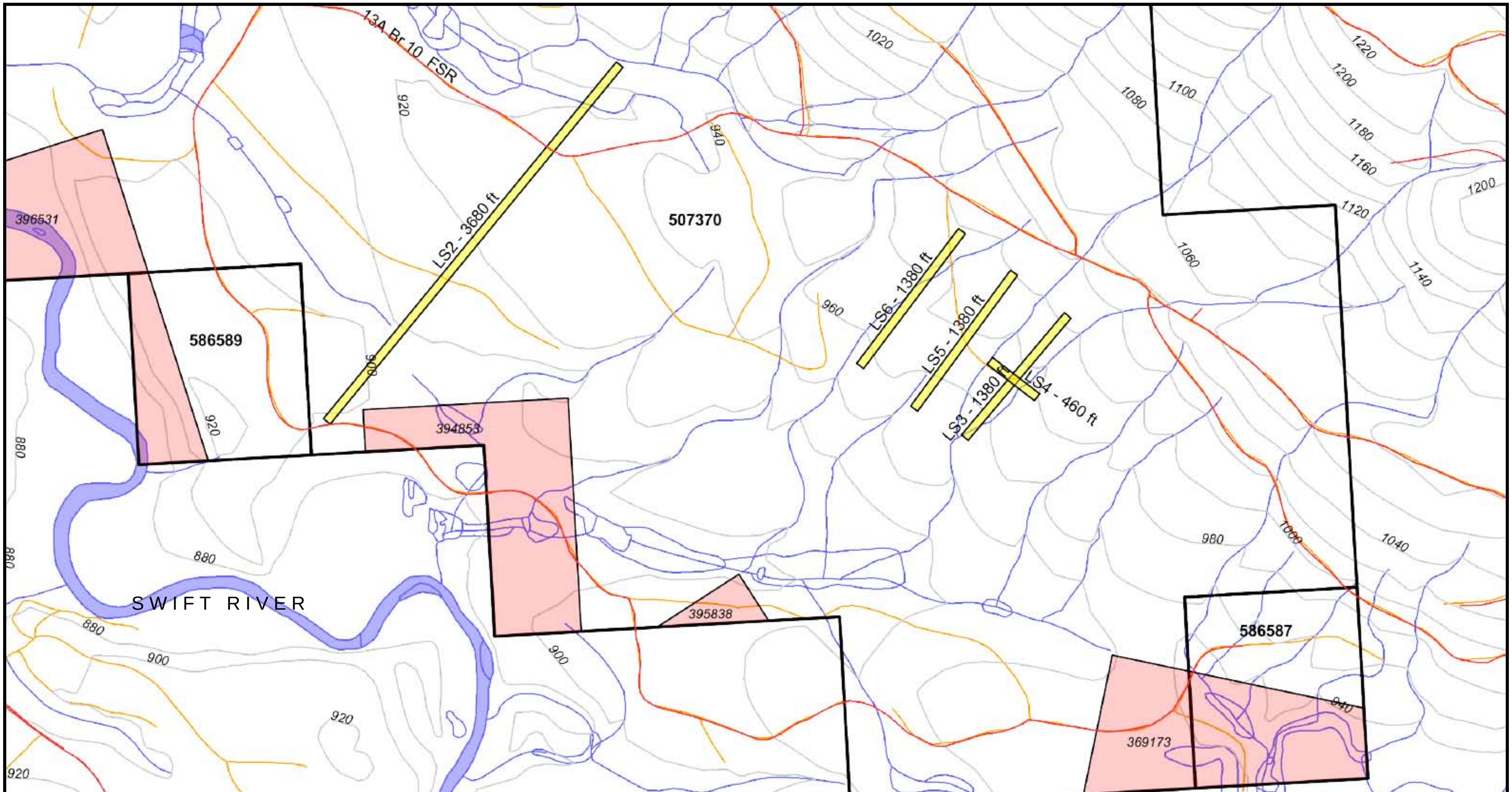

Figure 3	Seismic Locations

Scale 1:15,000

Legend

- Claim Boundary
- Seismic Line
- Road
- Creek/River
- Contour (20m)

Table 2: Summary of refraction seismic survey lines produced on the Lost Swede Property
Ground elevations (feet asl) and corresponding station numbers (in brackets) for start and end points along each line are listed in the third column. Total spread numbers are given in brackets in the sixth column.

Line	Coordinates Start / End	Elev. Start / End	Bearing	Line Length (feet)	Spread Numbers	Channels Per Spread	Geophone Spacing (feet)	Spread Length (feet)
LS2	0567932E 5864371N	3053 (190)	220º	3680	2A-2H (8)	24	20	460
	0567184E 5863540N	2958 (374)						
LS3	0568995E 5863718N	3306 (78)	220º	1380	3A-3-3B (3)	24	20	460
	0568735E 5863433N	3140 (143)						
LS4	0568801E 5863619N	3212 (101)	310º	460	4A (1)	24	20	460
	0568915E 5863526N	3216 (124)						
LS5	0568869E 5863827N	3287 (89)	220º	1380	5A-5C (3)	24	20	460
	0568612E 5863511N	3152 (158)						
LS6	0568744E 5863936N	3284 (89)	220º	1380	6A-6C (3)	24	20	460
	0568485E 5863617N	3151 (158)						
Accumulative Length				**8280**				

3.0 Seismic Method

3.1 Equipment

The seismic refraction measurements were made with a Bison 9000 digital recording system capable of recording up to 24 channels at a 1 millisecond sample rate. Single Mark Products 14 Hz geophones mounted in marsh cases and dampened to 60% were clipped to a 24 channel analog cable complimented with 20-foot take-out connection terminals. A 5-foot pin bar was used to drill 2 to 4-foot deep shot holes. A wired Input/Output encoder-decoder blaster was used to electrically detonate the explosives in a safe and compliant manner by a B.C. MOEMPR certified blaster and without the use of radio devises. A software package called Viewseis was used to process the field data and to generate the longitudinal chart sections.

3.2 Explosives

Two inert components were mixed in plastic tubes measuring 1.375 X 8 inches long to create the high energy explosives used in the seismic survey. The components consist of a Helix aluminum powder or oxidizer containing 0.1 to 5% stearic acid by weight and a flammable nitromethane liquid accelerator. When mixed the components become a cap sensitive explosive with a detonation velocity amounting to 21000 fps. A single tube, equivalent to an estimated 50 grams of conventional nitroglycerin-based explosives, was used for each shot location.

3.3 Survey Procedure

The seismic cable was laid out in a straight line along a predetermined bearing for each spread. The geophones were firmly affixed to the ground with a planting pole at 20-foot spaced intervals and clipped to the seismic cable. Ground elevation reference points were selected from Google Earth. All seismic lines were surveyed and tied-in with a Suunto inclinometer to generate relatively accurate surface profiles. Five different shot holes were drilled, loaded and fired individually along each spread. The shot holes were located in the middle, at the ends, and 200 feet or more off the ends of the spread. Arrival times were recorded at each geophone after detonation and hardcopy backup records were produced in the field on a roll of electrically sensitive recording film.

4.0 Seismic Analyses

4.1 Seismic Theory

The identification of sediment exposures and results from past drill sampling (Kocsis, 2007b) in the area investigated on the Lost Swede Property indicates the presence of a thick glacial sediment unit dominated by glaciolacustrine mud and dense lodgement till layers. The glacial unit is overlain by a 3 to 16-foot mud-rich gravel layer and in some places underlain by an older water-saturated alluvium unit.

Interpreted boundaries between sediment layers with varying velocities are presented by a continuous line in the seismic profile sections where applicable. The basal line in all recorded profiles with exception to the western part of line LS2 (stations 282 to 374) represents the interpreted competent bedrock surface.

The boundary between two sediment layers can be identified by the seismic refraction method only if the underlying horizon consists of material containing a significantly higher P-wave velocity. In some cases a dense lodgement till layer may overly a highly compressed water-saturated older alluvium layer both containing similar or inverted velocity signatures. The boundary between the two sediment layers in this case would not consist of a reliable refractor necessary to record the boundary.

Examples of known P-wave velocity signatures in various sediment and bedrock layers are given in Table 3 for comparison purposes. This information was gathered from other seismic refraction surveys that were carried out in local areas. Competent bedrock sources normally contain velocities that exceed 9185 fps (2800 mps) and lower velocities usually depict unconsolidated sediment horizons. In some unusual cases deeply-weathered, highly-porous or fractured (faulted) bedrock will comprise of lower velocities ranging from 7875 to 9185 fps. Deeply buried gold-bearing targets are usually confined to tightly-packed or compressed water-saturated coarse-grained gravel layers that exhibit velocities ranging from 4790 to 7545 fps. The velocity in these gravel layers may reach up to 9185 fps when weakly cemented.

Table 3: Velocity Signatures
The following velocity signatures were gathered from other mining properties in the Barkerville area where seismic refraction survey results were correlated with pit excavation and drill information. Velocities are given in meters per second (mps) and feet per second (fps).

Velocity Range		Material
mps	**fps**	
300-400	985-1315	Loose and porous sediments that include soils, fine-grained alluvium, and fine to coarse-grained mine tailings.
750-1365	2460-4480	Slightly compressed dry surface alluvium, diamicton including mud-rich gravel and loosely packed till, or weathered till surface.
1160	3805	Mainly dry and loose surface gravel with thin basal water tables.
1497	4910	Fresh water at 25ºC.
1460-1700	4790-5580	Dense water-saturated lacustrine silt, moderately compressed water-saturated sand and gravel layers (auriferous postglacial boulder-rich gravel target).
1800-2300	5905-7545	Moderately to highly compressed water-saturated gravel (auriferous interglacial and/or preglacial gravel target).
1935-2250	6350-7380	Compressed lodgement till (underlying occurrences of older alluvium undetectable in most cases).
2400	7875	Highly compressed gravel or fractured bedrock (fault).
2800	9185	Very highly compressed or cemented gravel or weathered bedrock.
2750-3300	9225-10825	Pelite (mudstone or siltstone) phyllite-schist bedrock.
3700-4500	12140-14765	Quartzite or quartz-rich schist bedrock.
5000-5900	16405-19355	Dense crystalline limestone bedrock.
6000-7200	19685-23620	Silicified limestone (marble) bedrock.

Increases in P-wave velocities are directly proportional to the physical and mechanical properties of a sediment or bedrock layer that include increases in incompressibility, rigidity (tensile strength) and density, and decreases in porosity. Of these four properties, changes in density have the least effect on the magnitude of P-waves. Table 3 contains controlled laboratory measurements made by Kahraman (2007) and provides examples of P-wave velocities in a variety of competent rock samples. The lower range of velocities given in the far right column of Table 4 consists of measurements made in the same samples after they were artificially subjected to various degrees of fracturing. All fractured rock measurements were made in dry conditions and the results do not take into account the effects of water saturation.

Table 4: P-Wave Velocities
This table provides examples of physical and mechanical properties and measured P-wave velocities (mps) in various non-fractured (competent) and fractured rock types.

Rock Type	Rock Class	Density (g/cm3)	Porousity (percent)	Uniaxial Compressive Strength (MPa)	Brazilian Tensile Strength (MPa)	P-wave Velocity (Non-fractured)	P-wave Velocity (Fractured)
Basalt	Igneous	2.58	5.50	202.9	17.0	3240	2600-3190
Andesite	Igneous	2.53	7.19	150.4	13.3	3120	2520-3040
Granodiorite	Igneous	2.54	2.51	109.2	12.1	2550	1900-2380
Limestone	Sedimentary	2.56-2.62	0.69-0.93	128.8-175.0	5.6-7.4	4890-5160	3530-4860
Dolomitic Limestone	Sedimentary	2.52	0.31	136.7	10.2	4520	3100-4240
Migmatite	Metamorphic	2.81	1.32	203.7	17.5	6890	3220-6250
Marble	Metamorphic	2.69	0.37	69.8	9.9	5560	2340-5110
Serpentine	Metamorphic	2.60	0.93	210.7	28.4	5480	1640-4650

4.2 Interpretive Method

The final interpretation of the seismic data was generated by a software program called Viewseis. The program is based on the "method of difference" principle. This method uses the time taken for individual generated shock waves to travel to each geophone from two converging shot-point directions. The first-arrival time measured in milliseconds along each geophone is computed and represents the vertical travel-time between a buried boundary refractor and the ground surface. The Viewseis software incorporates the picked first-arrival travel time and velocity of each identified layer to calculate its thickness beneath each geophone.

4.3 Limitations

Subsurface boundary depths derived from seismic refraction surveys are generally accepted to be accurate within 10 to 15 percent of the true depths. Unusual geological conditions may produce false or misleading seismic arrivals that lead to less accurate computed depths to subsurface refractors. One of these conditions is created by a "velocity inversion" where a low-velocity layer is hidden and undetectable beneath a high-velocity layer. The velocity contrast between refractive layers are difficult or impossible to define when the layers are thin or when stacked sediment layers of varying composition contain similar or lower velocities in descending order. Measurements of refractive boundaries at extreme depths (>150 feet) may be incomplete when this subsurface condition is not anticipated and offset shot locations are placed at insufficient or unattainable distances.

Offset shots along the western portion of line LS2 that include spreads 2A to 2D (stations 282 to 374) were not extended to a sufficient distance required to record the deeply buried bedrock refractor horizon. The actual shallow refractor horizon computed by Viewseis across these stations represents the boundary between surface alluvium with a seismic-indicated thickness reaching up to 45 feet and an underlying diamicton. The diamicton is made up of a compressed lodgement till layer that contains a high velocity signature (6900 fps) and was mistaken as bedrock during the early part of the seismic survey. The offset shot distance used for spreads 2A to 2D amounted to 200 feet and the absence of the bedrock refractor record across this area indicates that actual bedrock depths in all probability exceed 150 feet.

Records across the eastern part of line LS2 that include spreads 2E to 2H (stations 190 to 282) and the entire parts of lines LS3 to LS7 are considered to be a reasonably accurate presentation of true subsurface bedrock conditions that are within the limitation of the seismic refraction method. Multi-layered sediment horizons are absent in most part across the generated seismic profiles, although other undetectable or hidden low-velocity layers may exist at depth.

5.0 Geophysical Results

The seismic refraction profiles for lines LS2 to LS6 are given in Appendix C. All lines are parallel and oriented along a 40º bearing with exception to line LS4 that extends along a right-angle bearing equivalent to 130º.

5.1 Line LS2 west (stations 282 to 374)

The shallow subsurface boundary shown along the western portion of Line LS2 (stations 282 to 374) represents the contact between an upper postglacial alluvium unit (1800-3100 fps) that reaches up to 45 feet thick, and an underlying high velocity layer (6700-7200 fps) comprised of compressed Late Wisconsin lodgement till. The offset shots along this portion of line LS2 were placed at insufficient distances and for this reason bedrock was not recorded (see 4.3 Limitations). The assumed subsurface bedrock horizon at locations between stations 282 and 374 has been estimated and believed to extend more than 150 feet deep.

The irregular surface of the buried lodgement till unit (6900 fps) between stations 282 to 374 probably resulted in most part from selective processes of meltwater erosion during the ablation of the Late Wisconsin ice sheet. The most prominent erosional feature is located between stations 325 to 334 where meltwaters have incised and removed up to 30 feet of underlying till across a 180-foot wide area. Some of these highly eroded subsurface areas may be significantly auriferous where scattered gold particles within the underlying till have been remobilized and concentrated in overlying boulder-rich lag horizons.

Upper parts of the postglacial alluvium unit (2500 fps) were exposed in all shot holes produced along the west part of line LS2. The mud and sand content varies laterally throughout the alluvium unit and clast size range from pebbles to cobbles with occasional boulders. Clasts are mainly sub-rounded to rounded and probably derived in most part from the underlying fluvial-incised till unit. Occurrences of clustered boulder-rich lag accumulations are common throughout the gravel layers at shallow depths. The presence of angular boulders in some areas proximal to the surface suggests that some of large clasts are englacial or supraglacial derivatives that have been plucked from elevated up-ice (southeast) bedrock sources.

5.2 Line LS2 east (stations 191 to 282)

The buried high velocity lodgement till layer (6700-7200 fps) that extends easterly from the end of line LS2 pinches out and terminates at station 264. Sediments overlying bedrock across the remaining part of line LS2-east (stations 264-195) consists of lower velocities that range from 3100 to 5100 fps. This range of velocities is equivalent to signatures found in a variety of sediments that include both wet and dry moderately-compressed alluvium, and loosely-packed till. Thin layers of loose sand and cobble gravel and an underlying diamicton were exposed at various shot-hole locations between Stations 191 to 282. It appears that the alluvium layer was too thin and its contact with the underlying diamicton could not be differentiated as a refractive boundary.

The erosional process that formed the identified subsurface depressions and other neighboring bedrock patterns beneath line LS2-east is poorly understood at this time. The recorded velocity (14,000 fps) in bedrock throughout spreads F to H is consistent. It is improbable that the patterns along the bedrock surface formed in whole by subglacial ice erosion processes involving selective over-deepening along longitudinal layers of softer bedrock. The subsurface bedrock depression located between stations 228 and 241 (spreads F and G) has a fluvial-dissected appearance and resembles a valley-side paleochannel measuring 260 feet wide. Paleochannels in other parts of the Cariboo District's glaciated terrain have been modified and scoured in places to some degree by ice erosion during one or more glacial event. It is uncertain if older gravel remnants occupy the floor of the bedrock depression since the velocity layer (5000 fps) recorded in the underlying sediments correlate with both till and gravel signatures.

The recorded bedrock velocity (14,000 fps) beneath Spreads F-H correlates with signatures found in competent rock types that include quartzite and limestone. Less competent bedrock (12,500 fps) beneath Spread E may be a similar rock type that is fractured or weathered, or may consist of siltstone. The subsurface bedrock horizon drastically slopes downwards to the southwest at this location where it appears to have been more susceptible to glacial and/or fluvial erosional processes.

5.3 Lines LS3-6

Lines LS3-6 are located in an area proximal to and directly overlying the auger drill-hole 18 location where a high-grade auriferous gravel (5.9 g/yd^3) was intersected at depth interval 41.5 to 45 feet. Hole 18 drilled through 8.5 feet of loose surface gravels, 30.5 feet of glacial sediments (lacustrine mud and till), and a 6-foot thick water-saturated older gravel layer. This hole was abandoned at 45 feet where impenetrable material believed to be either bedrock or a hard boulder was encountered.

Lines LS3-4 were placed in a cross configuration over Hole 18 to determine if a relationship exists between the high-grade drill intercept and underlying bedrock slope patterns. Results show that bedrock slopes gently downward towards the northwest along line LS4 and slopes moderately downward towards the southwest along line LS3 both at angles conformable to the ground surface. Results from two parallel step-out lines (LS5-6) indicate that bedrock conforms to a similar pattern or trend over a subsurface area extending 300 m to the northwest.

The seismic results show that bedrock over Hole 18 is situated 80 feet below the surface and for this reason it is concluded that drilling terminated on a hard boulder at 45 feet. Two sediment horizons were identified along lines LS3-4 where they are divided along a 60-foot deep refractor boundary. The 60-foot thick upper horizon consists of a velocity range that extends from 3360 to 5100 fps. This range is equivalent to velocities normally found in a variety of materials that include moist lacustrine sediments, loosely-packed till, and water-saturated alluvium. The lower horizon, ranging from 5 to 58 feet thick, contains higher velocities that range from 6600 to 7200 fps. This range is equivalent to velocities that are associated with compressed water-saturated gravel (interglacial or preglacial) layers or highly-compressed older (pre-Late Wisconsin) lodgement till layers. Some of the highest velocity material (7200 fps) to the southwest along spread 3B may consist of a weathered or fractured bedrock horizon.

The velocity range (3100-5100 fps) recorded in sediments underlying lines LS3-6 is equivalent to the range measured across the east portion of line LS2. This correlation suggests that a similar sequence of buried sediments may extend laterally for a distance of 1,220 meters in a northwest direction from line LS3 to line LS2.

6.0 Conclusions

The two landscape settings across the Lost Swede Property, or the area covering the east side of the Swift River, are made up of 1 to 2 km wide valley-bottom terrace and an easterly neighboring 350 m wide gently-sloping valley-side terrace. The central part of the dome-shaped lateral moraine structure located along the east-central part of line LS2 (Station 255) defines the boundary between the two terraces. Underlying bedrock at this location commences to slope dramatically downwards towards deep ground that is categorized as part of the valley-bottom terrace.

Past drill results show that both terraces are dominated by a thick sequence of glacial sediments that are overlain by up to 16 feet of postglacial alluvium and underlain by 6 to 52 feet of older alluvium in places. The presence of a deeply buried older glacial sediment horizon indicates that some of the overlying older alluvium layers within the valley-bottom terrace were deposited during an interglacial period of unknown age. There is insufficient evidence at this time to prove or dismiss the possibility that other drill-identified older alluvium layers along both terraces are Tertiary channel remnants.

Seismic results show that the valley-bottom terrace is comprised of a sediment sequence that reaches more than 150 feet thick. The deepest hole drilled along the terrace reached 118 feet where sediments from top to bottom consisted of 2 feet of postglacial alluvium, 58 feet of Late Wisconsin glacial sediments, 45 feet of older alluvium, and 13 feet of older glacial sediments. The seismic survey failed to provide detailed bedrock depths in this area due to the insufficient application of off-set shot distances along seismic line LS2. The P-wave velocity study given in this report and results from the survey show that most of the drill-identified older alluvium layers across the Property will be difficult or impossible to detect by the seismic refraction method. This limitation is caused by a velocity inversion that is defined by situations where older alluvium layers are overlain by compressed lodgement till layers that exhibit higher P-wave velocities.

Results from the detailed seismic survey along the valley-side terrace (lines LS3-6) provide accurate bedrock profiles in an area surrounding drill-hole 18. Bedrock depths in this area average 80 feet deep and its subsurface slopes gently to the north and west in a manner conformable to the surface of the terrace. The absence of bedrock depressions in seismic record near drill-hole 18 suggests that the 6-foot thick drill-identified gold-bearing older gravel layer is not confined to a narrow paleochannel. The gravels may occur in a widespread manner along a bench-type deposit with controls that are poorly understood at this time. The bench appears to trend over a distance of 1.2 km towards the northeast end of line LS2 and presents a widespread target that will be subject to the unknown type or types of sediments that extend below 45 feet. If the older gravel layer overlies an eroded older glacial sediment layer, then the gravels may be interglacial and the distribution of gold will be controlled along selective areas that have been subjected to excessive erosion or fluvial incision. Seismic results along line LS2 shows that the bench appears to blend northwesterly into a 150 meter wide bedrock depression or possible paleochannel with bedrock depths ranging from 30 to 55 feet.

7.0 Recommendations

The bedrock depths along the valley-bottom terrace are at extreme depths (>150 feet) where possible basal Tertiary gravel occurrences may be unfeasible to mine unless thick high-grade auriferous layers can be identified. The 2007 open-flight auger drill sampling method used in areas across this terrace was unable to provide accurate gold grades. Shallower targets made up of interglacial gravel layers at depths ranging from 31 to 80 feet were water-saturated and samples could not be efficiently retained and recovered on the open-flight stems. The southwest part of seismic line LS2 (Spreads A to D) should be resurveyed with the application of longer offset shots to obtain an accurate bedrock profile. Buried older gravel layers will probably continue to remain hidden or invisible within the seismic results. A minimum of three holes should be drilled along the resurveyed seismic line with a reliable sampling method such as a hollow-stem auger-core system. The drilling of additional holes in this area should be subject to favorable initial drill results.

The 2007 drill-hole 18 should be twinned with a hollow-stem auger-core drill method and 5 more holes should be drilled in a 25 meter spaced northwest-extending grid. Additional holes should be drilled in an area extending further northwest towards seismic line LS2 if the initial drill results are favorable. The spacing within the extended grid will depend on the gathered sedimentological interpretations and on the determination of the gold distribution patterns. Two holes should be drilled over the bedrock depression identified along the northeast end of seismic line LS2; one hole at Station 216 (30 feet deep) and the other at Station 229 (55 feet deep).

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2008 Statement of Costs
Lost Swede Properties
Seismic Refraction Survey

Item	**Contractor**	**Cost**
Seismic Survey Invoice 2008-03	Brental Resources Limited	$9,900.00
Geological Invoice 25/05/08	Stephen Kocsis, P.Geo. 7.5 days @ $425/day	$3,187.50
Geology Helper	Klaus Maak 4.5 days @ $200/day	$ 900.00
Labor	Joel Hately 14.25 days @ $200/day	$2,850.00
Interpretation/Report Invoice 14/12/08	Stephen Kocsis, P.Geo. 2 days @ $425/day	$ 850.00
Powder Mag Rental	A.L. Sims & Son Ltd.	$ 450.00
Powder Mag Freight (overweight, return)	A.L. Sims & Son Ltd.	$2,162.99
Mob/Demob		$ 600.00
Drafting	Accurate Mining Services 4.5 hours @ $60/hr	$ 270.00
Report Assembly	Accurate Mining Services 2.5 hours @ $90/hr	$ 225.00
Total:		**$21,395.49**

Statement of Qualifications

I Stephen P. Kocsis currently residing at 301-776 Vaughan Street, Quesnel, British Columbia, do hereby certify that:

I studied Earth Sciences at the University of Waterloo and graduated with a B.Sc. degree in 1983.

I am registered with the Professional Engineers and Geoscientists in the Province of British Columbia as a Professional Geoscientist (License No. 20451).

I have practiced my profession continuously for a period of 25 years since graduation.

My experience related to the content of the Technical Report includes:

- Employment as an Associate Research Personal with the Glaciated Basin Research Center, University of Toronto, involving 2 years of field work and three co-authored paper publications focussed on the study of placer gold deposits in the Cariboo Mining District, central British Columbia.
- Continuous work over the past 18 years involving Placer Gold Exploration throughout British Columbia, Yukon Territory, Central America, and Colombia.

I prepared the Technical Report titled "Placer Gold Exploration (Seismic Refraction Survey) on the Lost Swede Property" and dated July 30, 2009. I directed and supervised all of the exploration work described in this report on behalf of the Property owner/operator Leslie V. Sleeva.

My prior involvement with the Property involves 19 days of geological fieldwork, research and technical report preparation titled "Auger Drill Placer Gold Exploration on the Lost Swede Property", all completed in year 2007.

In my opinion of all relevant facts, there are no circumstances that could have interfered with my judgment regarding the preparation of the Technical Report. Hence, I can be considered a qualified person who is independent of the Property Owner according to section 1.4 of NI 43-101.

Dated this 30th day of July, 2009 in Quesnel, B.C.

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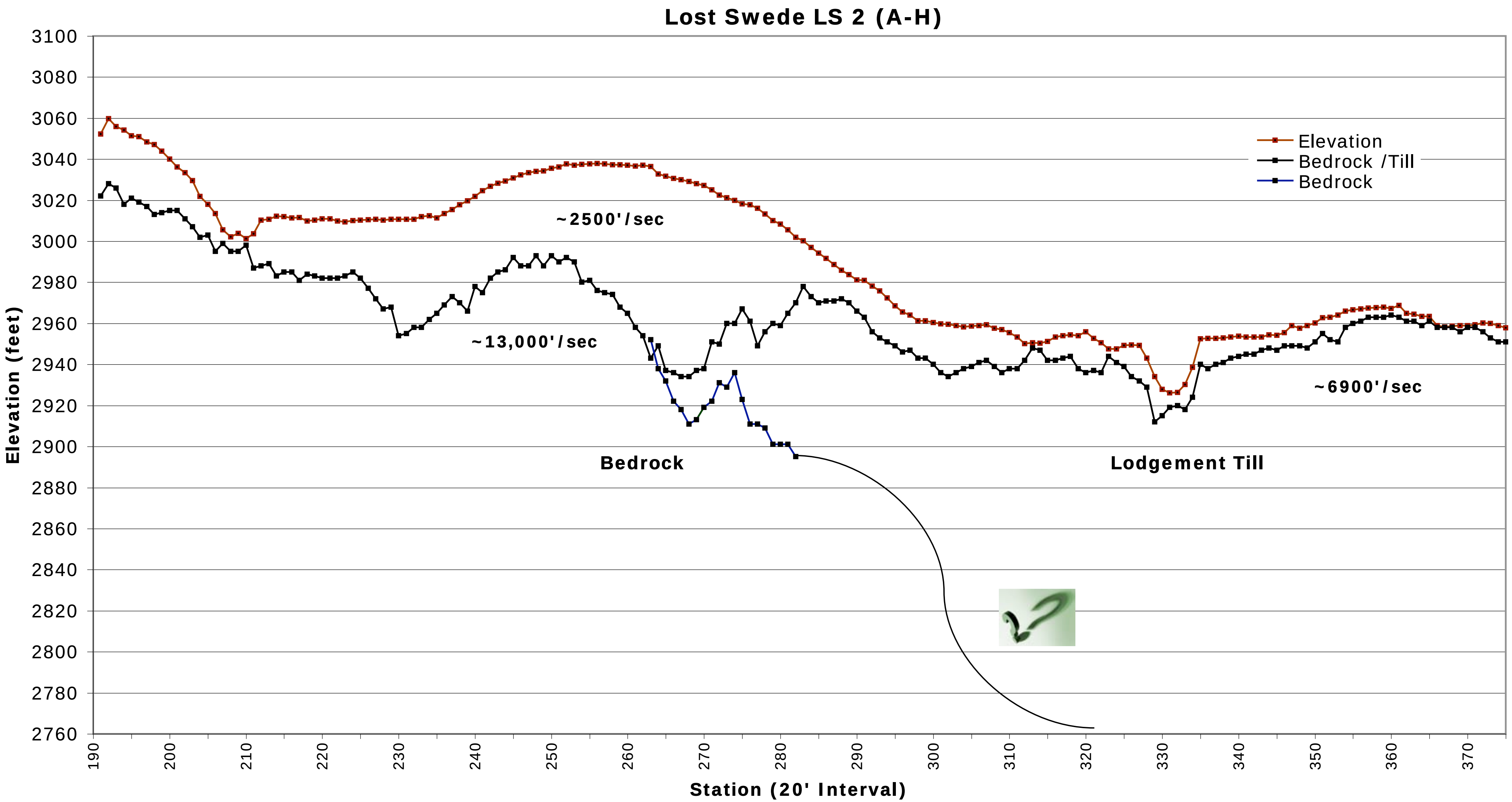
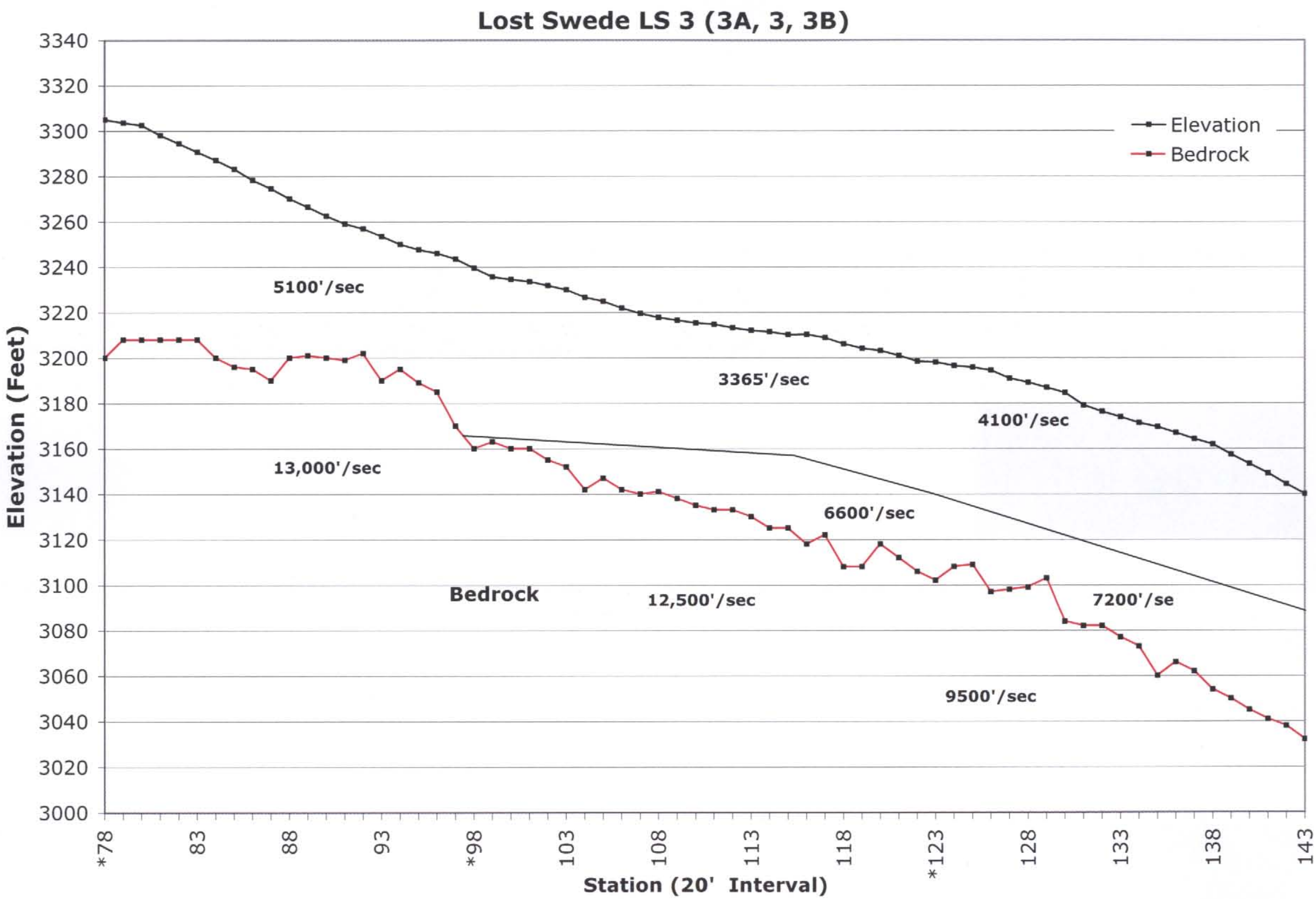
Stephen P. Kocsis, P.Geo

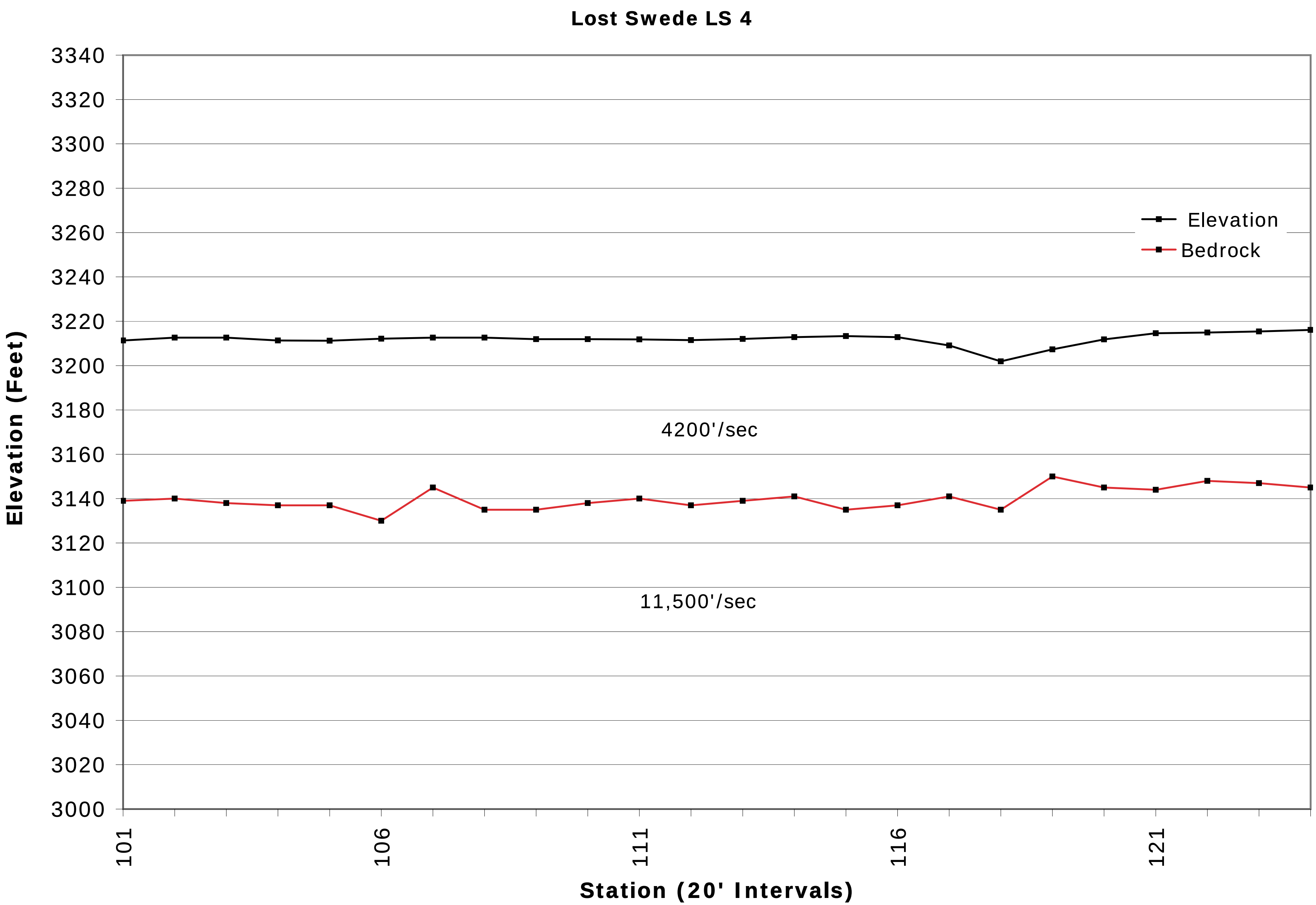
Appendix A
Seismic Profiles

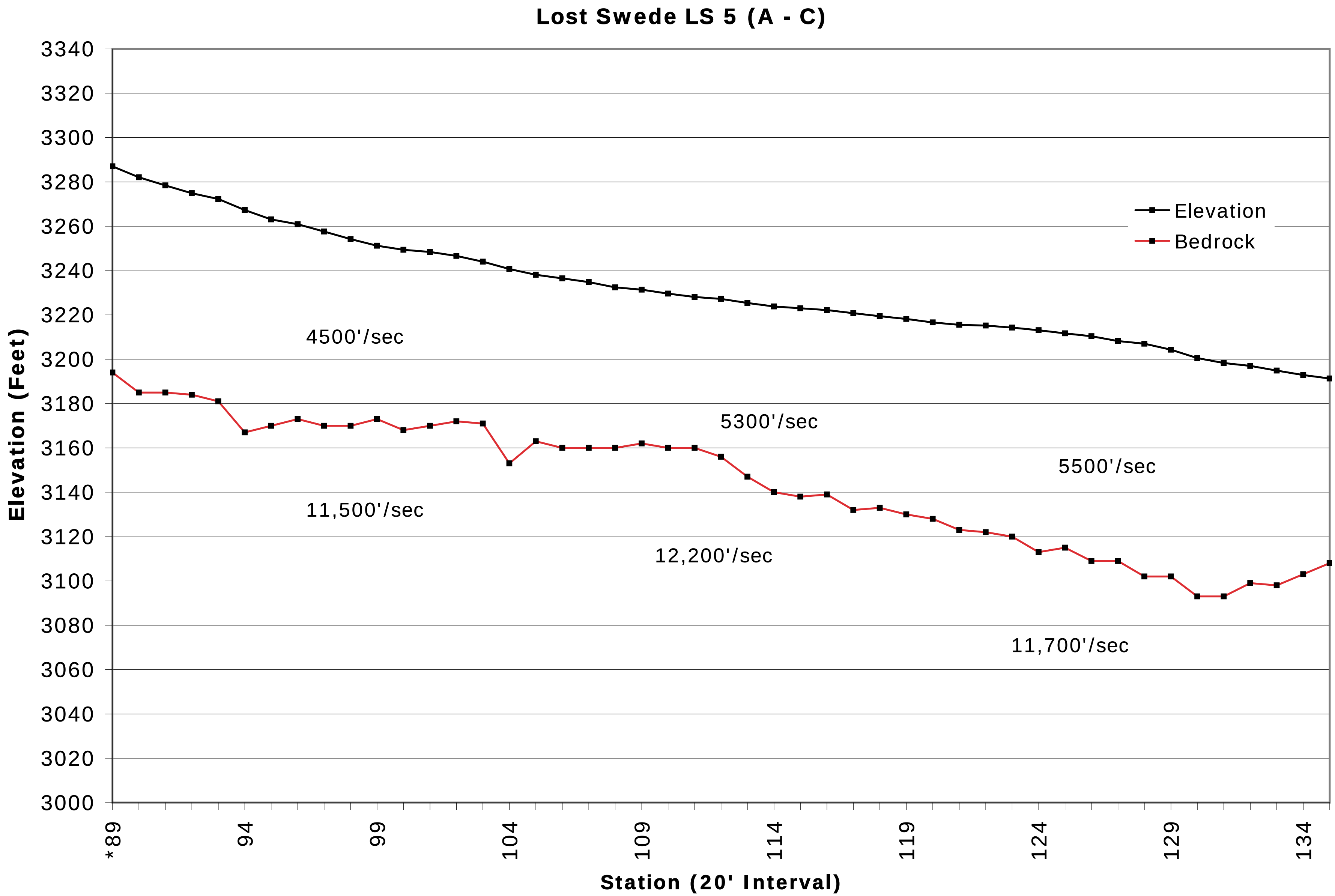


Lost Swede LS 2 (A-H)
Elevation (feet)
3100
3080
3060
3040
3020
3000
2980
2960
2940
2920
2900
2880
2860
2840
2820
2800
2780
2760
190
200
210
220
230
240
250
260
270
280
290
300
310
320
330
340
350
360
370
Station (20' Interval)
Elevation
Bedrock /Till
Bedrock
~2500'/sec
~13,000'/sec
~6900'/sec
Bedrock
Lodgement Till

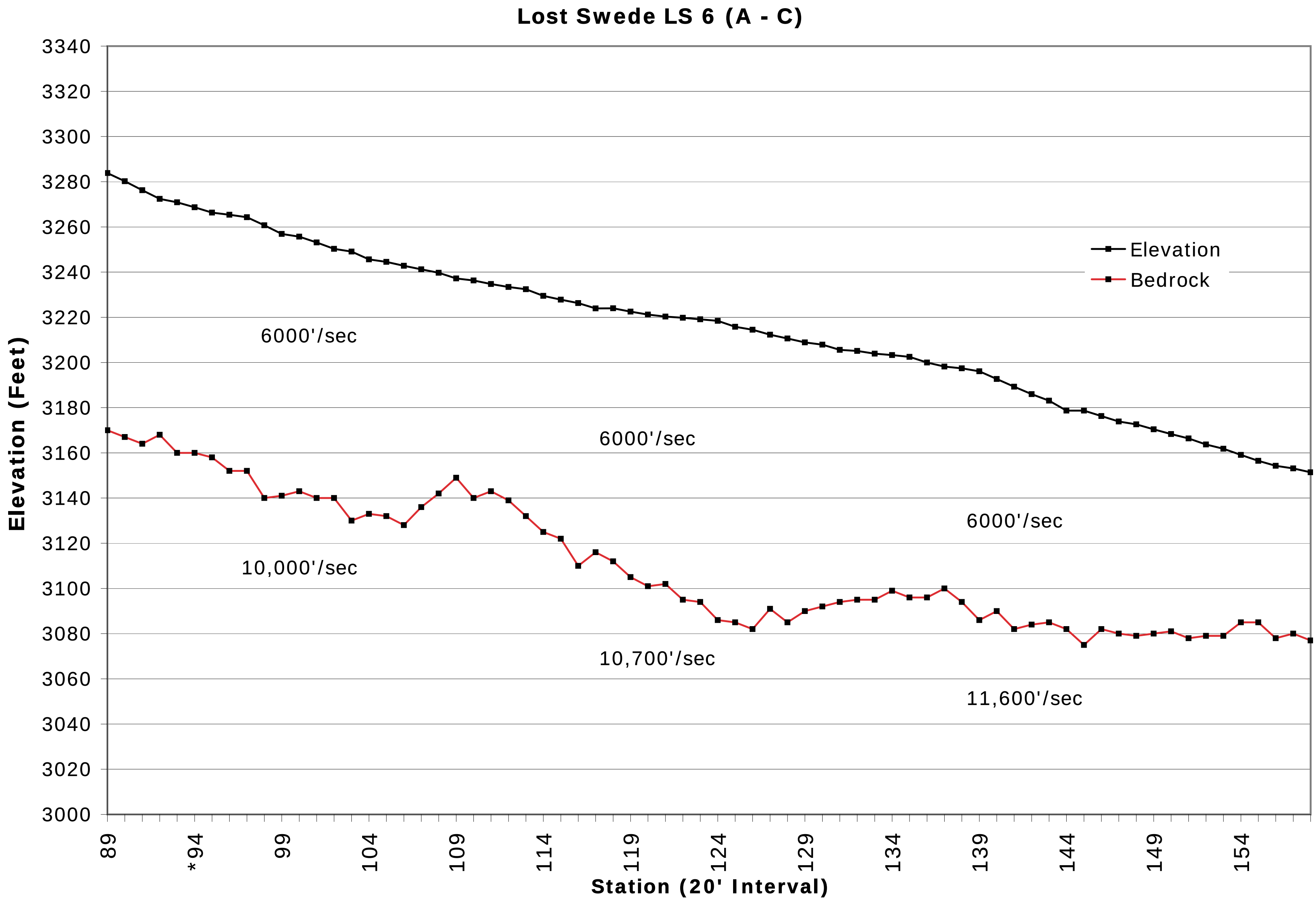


Lost Swede LS 3 (3A, 3, 3B)
Elevation
Bedrock
5100'/sec
3365'/sec
4100'/sec
13,000'/sec
6600'/sec
Bedrock
12,500'/sec
7200'/se
9500'/sec
Elevation (Feet)
3340
3320
3300
3280
3260
3240
3220
3200
3180
3160
3140
3120
3100
3080
3060
3040
3020
3000
*78
83
88
93
*98
103
108
113
118
*123
128
133
138
143
Station (20' Interval)


Lost Swede LS 4
Elevation (Feet)
3340
3320
3300
3280
3260
3240
3220
3200
3180
3160
3140
3120
3100
3080
3060
3040
3020
3000
Elevation
Bedrock
4200'/sec
11,500'/sec
101
106
111
116
121
Station (20' Intervals)



Lost Swede LS 5 (A - C)
Elevation (Feet)
3340
3320
3300
3280
3260
3240
3220
3200
3180
3160
3140
3120
3100
3080
3060
3040
3020
3000
Elevation
Bedrock
4500'/sec
5300'/sec
5500'/sec
11,500'/sec
12,200'/sec
11,700'/sec
*89
94
99
104
109
114
119
124
129
134
Station (20' Interval)



Lost Swede LS 6 (A - C)
Elevation (Feet)
3340
3320
3300
3280
3260
3240
3220
3200
3180
3160
3140
3120
3100
3080
3060
3040
3020
3000
Elevation
Bedrock
6000'/sec
6000'/sec
6000'/sec
10,000'/sec
10,700'/sec
11,600'/sec
89
*94
99
104
109
114
119
124
129
134
139
144
149
154
Station (20' Interval)