

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT : Seismic Refraction Survey on the Germansen Property

TOTAL COST: \$21,140.63

AUTHOR(S) Alex Smith, Russell Hillman, Fran Macpherson

SIGNATURE(S): "Signed and Sealed"

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): P-13-101; May 20- June 3, 2010

STATEMENT OF WORK EVENT NUMBER(S)/DATE(S) 4771791; 2010/JULY/26

YEAR OF WORK: 2010

PROPERTY NAME: Germansen

CLAIM NAME(S) (on which work was done): Placer Tenures 521504, 541285-6, 541601-3, 543672, 567402

COMMODITIES SOUGHT: Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 093N 054, 093N 055

MINING DIVISION : Omineca

BCGS: 093N.077

LATITUDE 55 ° 45 ' 0 "

LONGITUDE -124 ° 40 ' 58 " (at centre of work)

UTM Zone 10N EASTING 394400 NORTHING 6181400

OWNER(S): W.A.M. Claim Service Inc.

MAILING ADDRESS: 479 – 4th Street, Courtenay, BC, V9N 1G9

OPERATOR(S) [who paid for the work] : Westwing Enterprises Ltd.

MAILING ADDRESS: #260 - 1990 South Ogilvie Street, Prince George, BC, V2N 1X1

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

Resistivity, Seismic refraction, Gold, Alluvial, Phyllites, Takla Group, Quesnel Terrane, Nina Creek Group, Cassiar Terrane, glacial, post-glacial

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT

REPORT NUMBERS: 16933, 17900, 18467, 24349, 25471

**BC Geological Survey
Assessment Report
32314**

**SEISMIC REFRACTION SURVEY
ON THE GERMANSEN PROPERTY**

by
Alex Smith, M.Sc. and Russell Hillman P.Eng.
of
Frontier Geoscience Inc.

On

Placer Tenures 521504, 541285-6, 541601-3, 543672, 567402

Latitude: 55° 45'0" Longitude: -124°40'58"

NAD83, Zone 10N UTM: 394400E, 6181400N

Omineca Mining District

For Property Operator

Westwing Enterprises Ltd.

Property Owner: W.A.M. Claim Service Inc.

02 July, 2011

Report Prepared by

Fran Macpherson, M.A.
Accurate Mining Services Ltd.
1282 March Road, Quesnel B.C.
Phone: (250) 992-2801
Email: fmacpherson@accurateminig.com

TABLE OF CONTENTS

LIST OF TABLES.....	1
LIST OF FIGURES.....	1
SUMMARY.....	2
INTRODUCTION.....	2
PROPERTY DESCRIPTION AND LOCATION.....	2
PROPERTY OWNERSHIP.....	2
HISTORY.....	7
REGIONAL GEOLOGY.....	7
LOCAL GEOLOGY.....	8
2010 WORK PROGRAM.....	10
RESULTS.....	10
RECOMMENDATIONS.....	10
BIBLIOGRAPHY.....	12

LIST OF TABLES

Table 1: Property Listing.....	3
--------------------------------	---

LIST OF FIGURES

Figure 1: Property Location.....	4
Figure 2: Property Detail.....	5
Figure 3: Seismic Detail.....	6
Figure 4: Regional Geology.....	8

Appendix A: Statement of Qualifications

Appendix B: Cost Statement

Appendix C: Relevant data regarding the Germansen placer properties from the Frontier Geosciences Inc. *Report on Seismic Refraction Investigation Placer Gold Exploration Germansen Landing Project* by Alex Smith and Russell Hillman.

SUMMARY

The purpose of this report is to present the seismic refraction data pertaining to placer holdings in the Germansen Landing area obtained by Frontier Geoscience Inc for Westwing Enterprises Ltd. in a format acceptable for assessment credit. The Frontier Geoscience report, with applicable plans is appended.

INTRODUCTION

Richard Glasier of Westwing Enterprises Ltd. requested that Fran Macpherson of Accurate Mining Services Ltd. submit the Frontier Geoscience report for assessment credit on the placer tenures held in the Germansen Landing area. Westwing Enterprises Ltd. has optioned 15 placer tenures from W.A.M. Claim Service Inc. and one placer tenure from Richard Glasier, comprising the claim group.

PROPERTY DESCRIPTION AND LOCATION

The Germansen placer property consists of 16 placer tenures covering an approximate area of 10.7 square kilometres (1074.06 hectares). The properties straddle approximately 10 lineal kilometres of the Germansen River, south from its confluence with the Omineca River, and lie south and southeast of the unincorporated village of Germansen Landing and northwest of the unincorporated village of Manson Creek. The claim group is bounded its north and north western boundaries by Omineca Park.

The contiguous claim group is located in the Omineca Mining Division, in the central portion of the Germansen River/Manson Creek gold camp in north central British Columbia, approximately 400km northwest of Prince George.

The properties are located on BCGS map sheet 09N.077 at 55° 46' 37.2" N, 124° 41' 9.6" W; NAD83, Zone 10N 394248E, 6182550N. Access to the properties is either by gravel road from Fort St. James on the Germansen FSR (226km), or by a series of logging roads from McKenzie (160 km to the southeast), as well as via light aircraft to an air strip located on and adjacent to District Lot 3249 which is private property belonging to W.A.M. Claim Services Inc. A network of local roads provide access on the claims.

With approval of this report the 16 tenures listed in Table 1 will maintain a good to date of December 3 2011.

PROPERTY OWNERSHIP

Fifteen of the 16 placer tenures are 100% owned by W.A.M. Claim Service Inc. and have been optioned to Westwing Enterprises Ltd. One tenure, Placertown Tenure 606233 is 100% owned by Westwing principal Richard Glasier and has also been optioned to Westwing.

Table 1: Property Listing

Tenure Number	Claim Name	Tenure Type	Tenure Sub Type	Map Number	Issue Date	Good To Date	Area (ha)
503654		Placer	Claim	093N	2005/jan/15	2011/dec/03	91.07
521504		Placer	Claim	093N	2005/oct/26	2011/dec/03	18.20
541285	GERMANSEN PLACER	Placer	Claim	093N	2006/sep/14	2011/dec/03	72.80
541286	GERMAN 2	Placer	Claim	093N	2006/sep/14	2011/dec/03	18.20
541601		Placer	Claim	093N	2006/sep/18	2011/dec/03	72.80
541602		Placer	Claim	093N	2006/sep/18	2011/dec/03	163.74
541603		Placer	Claim	093N	2006/sep/18	2011/dec/03	109.22
541604		Placer	Claim	093N	2006/sep/18	2011/dec/03	18.21
543671		Placer	Claim	093N	2006/oct/19	2011/dec/03	91.05
547536		Placer	Claim	093N	2006/dec/16	2011/dec/03	18.20
567402		Placer	Claim	093N	2007/oct/03	2011/dec/03	18.20
571631		Placer	Claim	093N	2007/dec/11	2011/dec/03	109.31
595378		Placer	Claim	093N	2008/dec/02	2011/dec/03	109.33
602803		Placer	Claim	093N	2009/apr/17	2011/dec/03	36.39
604870		Placer	Claim	093N	2009/may/22	2011/dec/03	18.20
606233	PLACERTOWN	Placer	Claim	093N	2009/jun/17	2011/dec/03	109.14

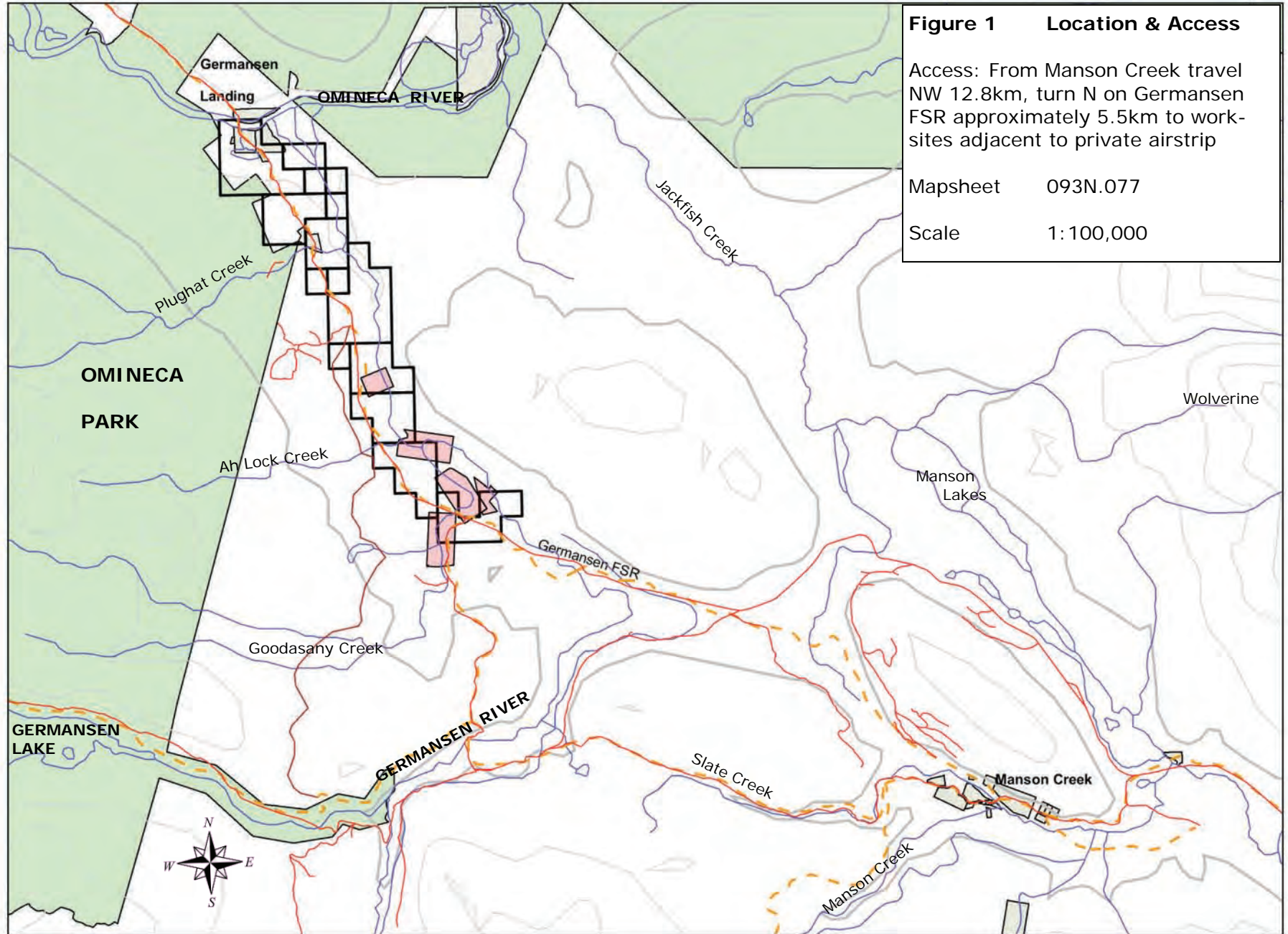


Figure 1 Location & Access

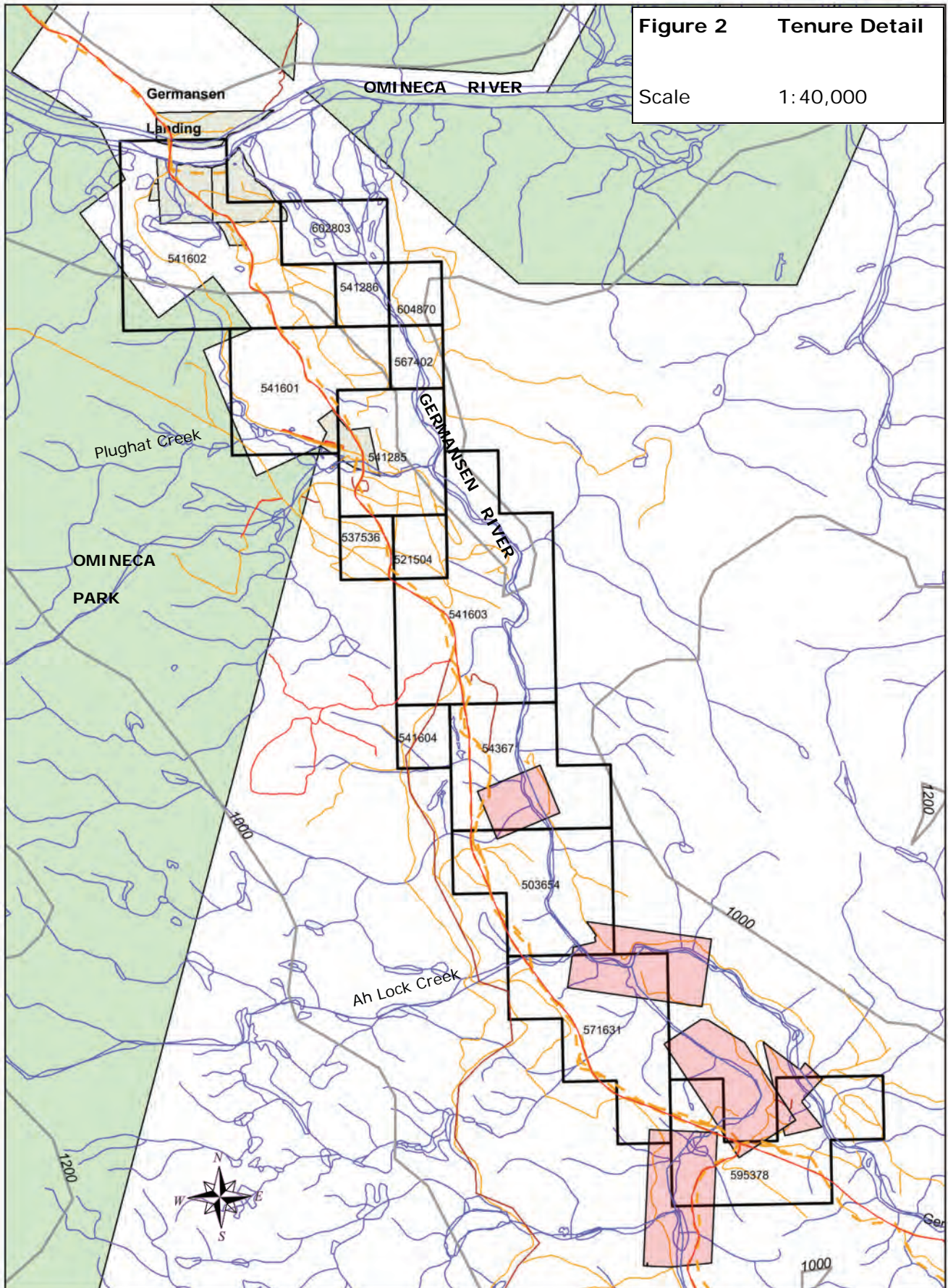
Access: From Manson Creek travel NW 12.8km, turn N on Germansen FSR approximately 5.5km to work-sites adjacent to private airstrip

Mapsheet 093N.077

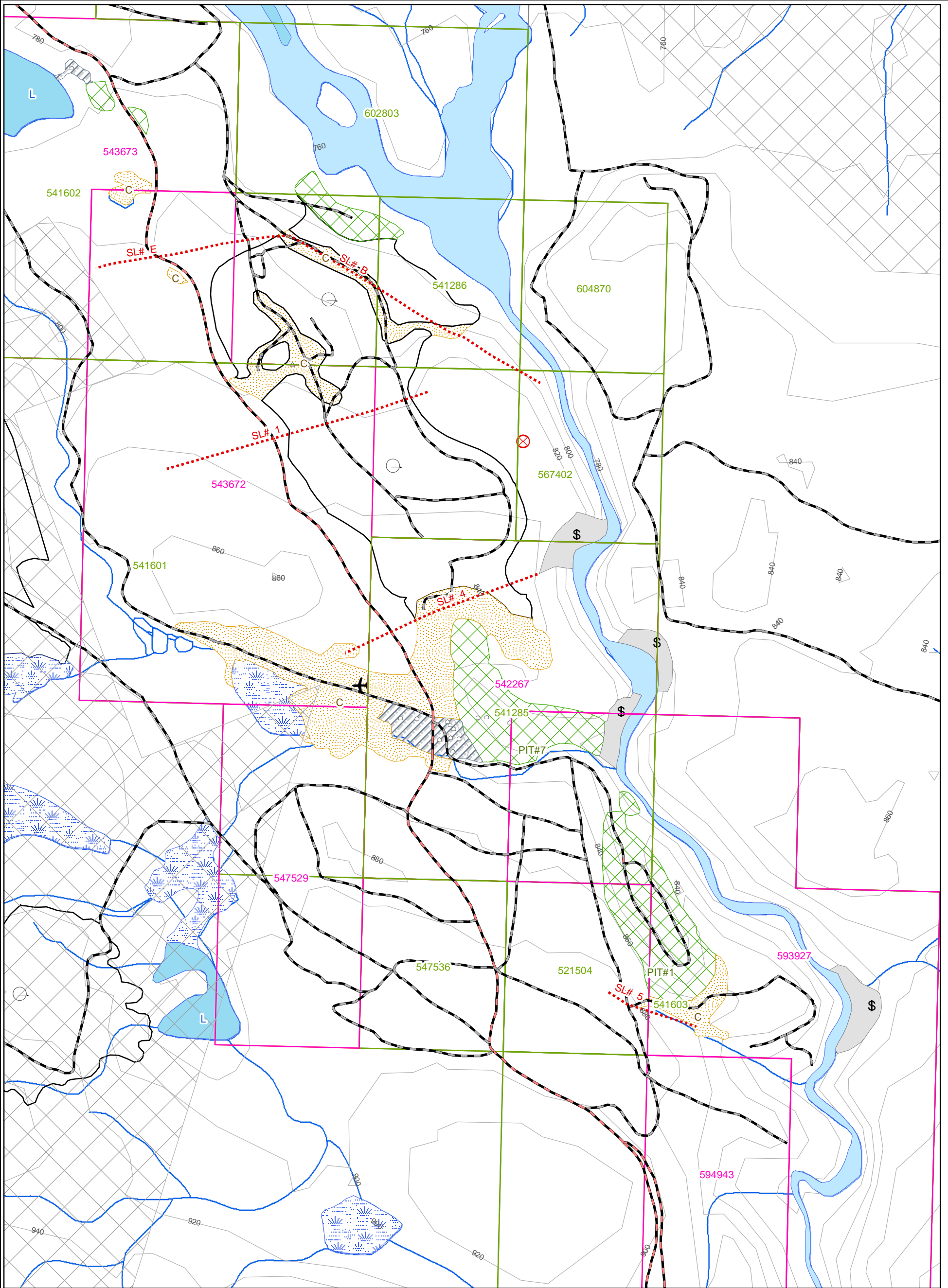
Scale 1:100,000

Figure 2 Tenure Detail

Scale 1:40,000



Westwing Mineral and Placer Claims - Germansen Landing Area



BCGS Mapsheet 93N077



Drawn By: A.Tarry

Friday, June 4, 2010 10:16:41 AM
West_Wing_FC_Map

- BC Park
- Airstrip
- River/Stream Channel
- Clearing
- Gravel Pit
- Lake
- Logged

- Pit Location
- Non Productive
- Non Productive Brush
- Slide
- Swamp
- Urban Development
- Stream
- Contour

- Seismic Line
- Trail
- Main Gravel Road
- Rough Gravel Road
- Westline Mineral Claim
- Westline Placer Claim
- Other Mineral Claim
- Other Placer Claim

- Building Symbol
- Slide Symbol
- Logged Symbol
- Airstrip Symbol
- Rock Outcrop Symbol



Scale: 1:10,000

HISTORY

Placer gold was discovered on the Germansen River (referred to in earlier reports as Germansen Creek) in 1870 and on the nearby Manson River (Creek) in 1871. Subsequent production from the Germansen area has been almost continuous and totalled a recorded 24,138 ounces of gold up to 1949. Actual production was probably two to three times this amount as reporting on placer production has typically been poor.

The early prospectors and miners worked the near-surface post –glacial gravels along the present day course of the river, and then moved on to the Cassiar district after taking out their richer "pay". Through their efforts it became known that rich pre-glacial channels were buried under the glacial deposits that mantle much of the area.

The first recorded attempt to mine these channels, by large scale hydraulic methods, occurred around 1901 when an extensive system of ditches was constructed to bring a head of water to a buried channel lying in the right bank of the Germansen River near its confluence with Plughat Creek. In the 1930s a flume system was constructed to bring water from Germansen lake to the "big bend" on the Germansen River and to areas downstream where a series of hydraulic pits were profitably mined from 1932 to 1941.

In 1942 operations were shut down due to a wartime shortage of manpower. Rapidly escalating post-war mining costs and a diminishing real price for gold prolonged this hiatus in activity. The rise in precious metal prices in the last and current decade has sparked a renewal of interest in the camp's placer deposits.

REGIONAL GEOLOGY

The Germansen River/Manson River gold camp is located along a major northwest trending crustal suture that marks the boundary between a displaced crustal segment (Cassiar terrane) of ancestral North America and obducted oceanic crust (Nina Creek Group) of the Slide Mountain terrane to the northeast and accreted volcanic and volcanic-sedimentary rocks of the Takla Group (Quesnel Terrane) of the Intermontane superterrane to the southwest. The zone has a complex evolutionary and structural history extending at least from the Late Proterozoic to the present. A thorough description of the stratigraphy of the region is included in B.C. Geological Survey Bulletin 91.

Previous geological mapping indicates that much of the area is covered by recent alluvial deposits, high above the present levels of the Germansen and Omineca Rivers (Fox, 1987). These deposits were probably derived mainly from glacial deposits, although rocks constituting the alluvium are representative of lithologies which are exposed upstream along the Germansen River. Only along the 60 metre (200 foot) escarpment that marks the southern limit of the

Germansen delta are rock types seen that correlate with lithologies known to occur in an “up-ice” direction, that is porphyritic volcanic of the Takla Group.

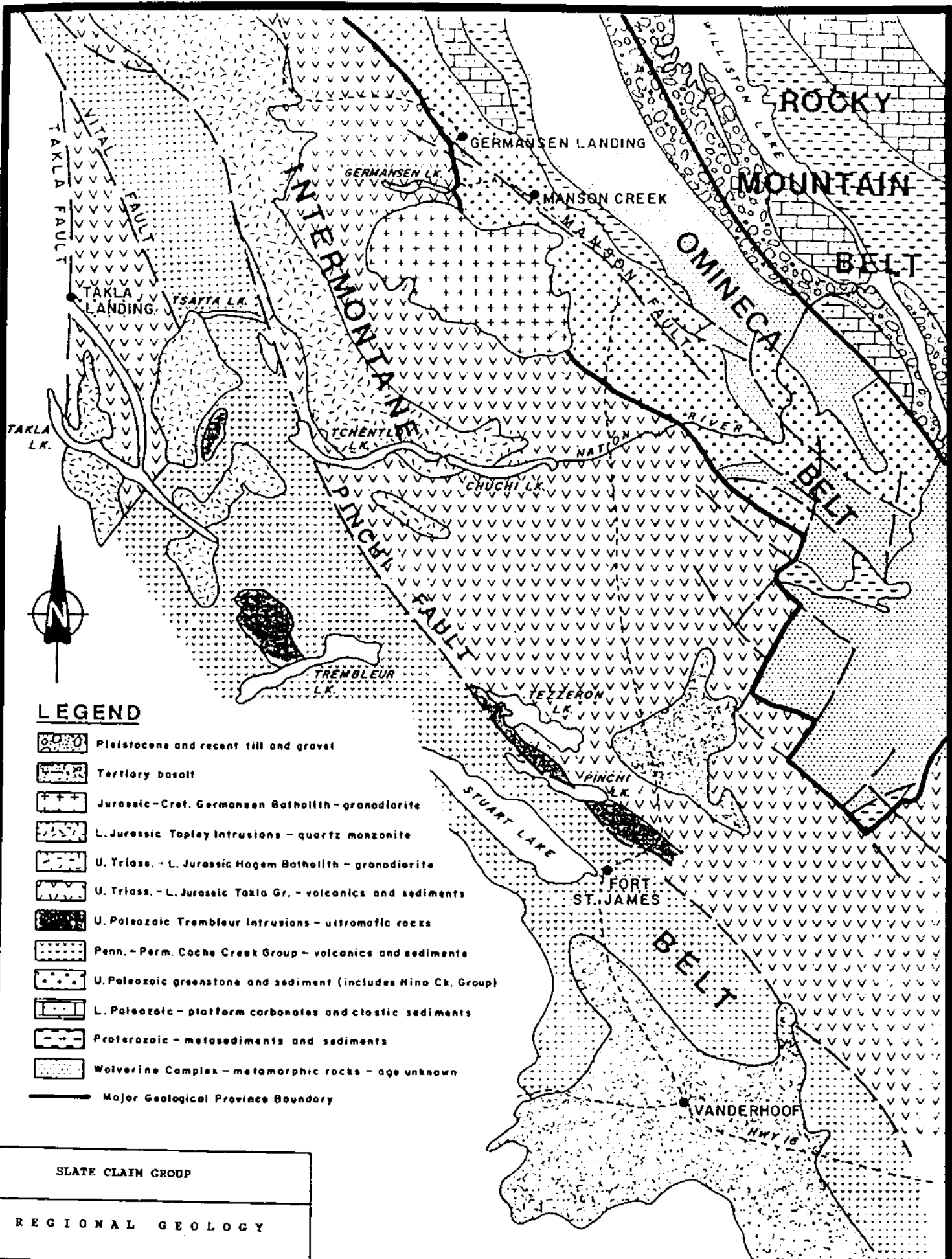
LOCAL GEOLOGY

A series of terrace-like river benches have been mapped on the east side of the Germansen River, ranging from approximately 24 metres (80 feet) to 60 metres (200 feet) above the present river level. These benches have been interpreted as post-glacial features related to the progressive down cutting of the river along its post-glacial channel. Similar benches occur on the river's western flanks and have been placer mined into the 21st century.

There is minimal bedrock exposure but bedrock that is exposed along the lower section of the Germansen River canyon consist predominantly of black graphitic schist interbedded with a more siliceous dark grey schist. Metamorphic grade is lower greenschist facies. Prominent orange weathering (oxidation) zones of silicification and carbonate alteration for resistant “reefs” in the section and have influenced the course of the post-glacial river channel.

The auriferous gravels are approximately 4.5 metres thick and lie on rock benches which lie approximately 15 metres above the river. The gold is concentrated near the bedrock which in this area is represented by phillites, argillites, and felsic tuffs belonging to the Mississippian (?) to Lower Permian Cooper Ridge Group. The overburden at the Germansen River North Minfile occurrence 093N 054 varies from approximately 30 to 42 metres in thickness. The glacial overburden consists of boulder clay, silt and gravel.

Prior to 1950, reported gold production for the entire Germansen River varies from 515,851 grams (Geological Services Bulletin 28, page 43) to 750,776 grams (Geological Survey of Canada. Memoir 252, page 145).



LEGEND

- Pleistocene and recent fill and gravel
- Tertiary basalt
- Jurassic-Cret. Germanesen Batholith - granodiorite
- L. Jurassic Topley Intrusions - quartz monzonite
- U. Triass. - L. Jurassic Hogem Batholith - granodiorite
- U. Triass. - L. Jurassic Takla Gr. - volcanics and sediments
- U. Paleozoic Trembleur Intrusions - ultramafic rocks
- Penn. - Perm. Cache Creek Group - volcanics and sediments
- U. Paleozoic greenstones and sediment (includes Mina Ck. Group)
- L. Paleozoic - platform carbonates and clastic sediments
- Proterozoic - metasediments and sediments
- Wolverine Complex - metamorphic rocks - age unknown
- Major Geological Province Boundary

SLATE CLAIM GROUP

REGIONAL GEOLOGY

DRWN BY: DMC	DATE: OCT./88	FIGURE
SCALE: AS SHOWN	NTS: 93 N 9/10	3
GEOLOGY BY: MA		



2010 WORK PROGRAM

The 2010 seismic refraction survey was conducted between May 29 and June 3 2010 by Frontier Geosciences Inc. The purpose of the survey was to profile the bedrock surface and determine the location of a paleo-channel with potential for placer gold reserves.

The 2010 program consisted of five separate seismic traverses all surveyed on benches along the west side of the Germansen River. A total of 2970 lineal metres of seismic refraction survey was carried out on 25 separate seismic spreads (see Appendix C).

RESULTS

The results of the seismic investigation(see Appendix C for complete details) indicate the SL-1 to SL-3 survey area is underlain by four distinct velocity layers. There is a thin surficial layer underlying the area that ranges up to 6.5 metres in thickness and is likely composed of loose silt, sand, gravel, cobbles and interspersed with occasional boulders. Underlying the surficial layer is a thicker intermediate layer that has been interpreted as containing denser sand, gravel, interspersed with cobbles and boulders. A final thicker intermediate layer underlies the area contained in SL-1 to SL-3 and has been interpreted to be very dense, bedded, silt, sand, gravel and cobble layers or possibly glacial till. The thicknesses of this dense layer have been interpreted to vary from 2.5 to 37 metres. The western edge of a paleo-channel may have been detected on line SL-1 with the rapid thickness change. An accompanying eastern boundary was not apparent in the seismic data. The western edge of a second bedrock anomaly may have been identified near station 270ENE on Line SL-2, with the eastern edge located at approximately 380ENE.

The SL-4 and SL-5 seismic investigation area differs greatly from conditions in the central and southern areas. The results of the data interpretations indicate the area is underlain by three distinct velocity layers. On surface there is a thin surficial layer underlying the area that is likely composed of loose silt, sand, gravel, cobbles and occasional boulders. A thick intermediate layer underlies both lines with a thickness of up to 45 metres which is believed to be consistent with loose to moderately dense sand, gravel and cobbles. Bedrock was profiled in the basal layer and was interpreted to be either flat-lying or gently undulating with no depressions indicative of an incised bedrock channel.

RECOMMENDATIONS

Based on the possibility of an identified buried paleo-channel additional seismic refraction surveys should be carried out to determine the east-west, north-south extent and possible viability of undertaking mining operations in the area identified along SL-1 and SL-2.

Additionally, in preparation for further investigation, lease application should be submitted for those areas where mining activity might occur to facilitate permit issuance for large-scale mining operations. Some reconfiguration of current claim boundaries will be necessary in order to accomplish relevant lease boundaries and claim reductions and re-acquisitions may be required.

BIBLIOGRAPHY

- 093N 054 Minfile Report: Germansen River North
- 093N 055 Minfile Report Germansen River South
- ARIS 16933 Exploration Report, Bedrock and Surficial Geology; Fox, M., 1987
- ARIS 17900 Geological and Geochemical Report on the Jim Claim Group, Forbes, J.R., 1988
- ARIS 18467 Geophysical Report on a Seismic Refraction Survey on Placer Lease #3497, Mark, D.G., 1989
- ARIS 24349 Geological Report Au Claims Germansen River-Manson River Gold Camp, Fox, M., 1996
- ARIS 25471 Structural Geological Report Au 1-12 Claims, Fox, M., 1998
- Appendix C Report on Seismic Refraction Investigation Placer Gold Exploration Germansen Landing Project, Smith A. And Hillman, R, 2010

APPENDIX A

Statement of Qualifications

Fran Macpherson
1282 Marsh Road
Quesnel, BC, Canada, V2J 6H3
Phone: (250) 992-2801 Fax: 888-515-9204
Email: fmacpherson@accurateminig.com

Statement of Qualifications

I, Frances J. (Fran) Macpherson currently residing at 1282 Marsh Road, Quesnel, British Columbia, V2J 6H3, Canada, do hereby certify that:

1. I graduated with a B.A. (Psychology) from McGill University, P.Q. in 1972.
2. I graduated with an M.A. (Clinical Psychology) from the University of New Brunswick, Fredericton in 1975.
3. I have been employed in the mining industry since 1993.
4. I was employed as mine manager on a large mineral exploration and bulk sample project in Wells, B.C. from 2000 to 2005 during which period I was involved in the drafting and compilation of numerous technical reports.
5. I have owned and operated an independent consulting firm "Accurate Mining Services Ltd." since 2005.
6. I have consulted on property management for W.A.M. Claim Service Inc. and Westwing Enterprises Ltd. for the past two years.
7. I am not an employee, partner or shareholder in Westwing Enterprises Ltd.

Dated at Quesnel B.C. this 2nd day of July 2011



Fran Macpherson

APPENDIX B

Statement of Costs

**2010 Statement of Costs
Westwing Enterprises Ltd.
Germansen River Placer Project**

<u>Item</u>	<u>Total</u>
Frontier Geosciences Inc.	
- 5 line seismic refraction survey	\$16,395.63
- (includes mob/demob costs)	
Camp costs	
- 3 person crew @ \$75/day for 14 days	\$ 3,150.00
Jo-Anne Lang	
- Seismic line layout	\$ 500.00
- Mob/demob to site from Prince George	\$ 375.00
Accurate Mining Services Ltd.	
- Report drafting & compilation	<u>\$ 720.00</u>
Total cost	\$21,140.63

Total person days: 43

APPENDIX C

Relevant data regarding the Germansen placer properties from the Frontier Geosciences Inc.
***Report on Seismic Refraction Investigation Placer Gold Exploration
Germansen Landing Project***

by Alex Smith and Russell Hillman

WESTWING ENTERPRISES LTD.
REPORT ON
SEISMIC REFRACTION INVESTIGATION
PLACER GOLD EXPLORATION
GERMANSEN LANDING PROJECT
GERMANSEN LANDING, B.C.

By

Alex Smith, M.Sc.

Russell A. Hillman, P.Eng.

June, 2010

PROJECT FGI-1135

CONTENTS

	<u>page</u>
1. INTRODUCTION	1
2. THE SEISMIC REFRACTION SURVEY METHOD	3
2.1 Equipment	3
2.2 Survey Procedure	3
2.3 Interpretive Method	3
3. GEOPHYSICAL RESULTS	4
3.1 General	4
3.2 Discussion	4
3.2.1 Central and Southern Area	4
3.2.2 Seismic Lines SL-4 and SL-5	5
4. SUMMARY AND RECOMMENDATIONS	6
5. LIMITATIONS	7

ILLUSTRATIONS

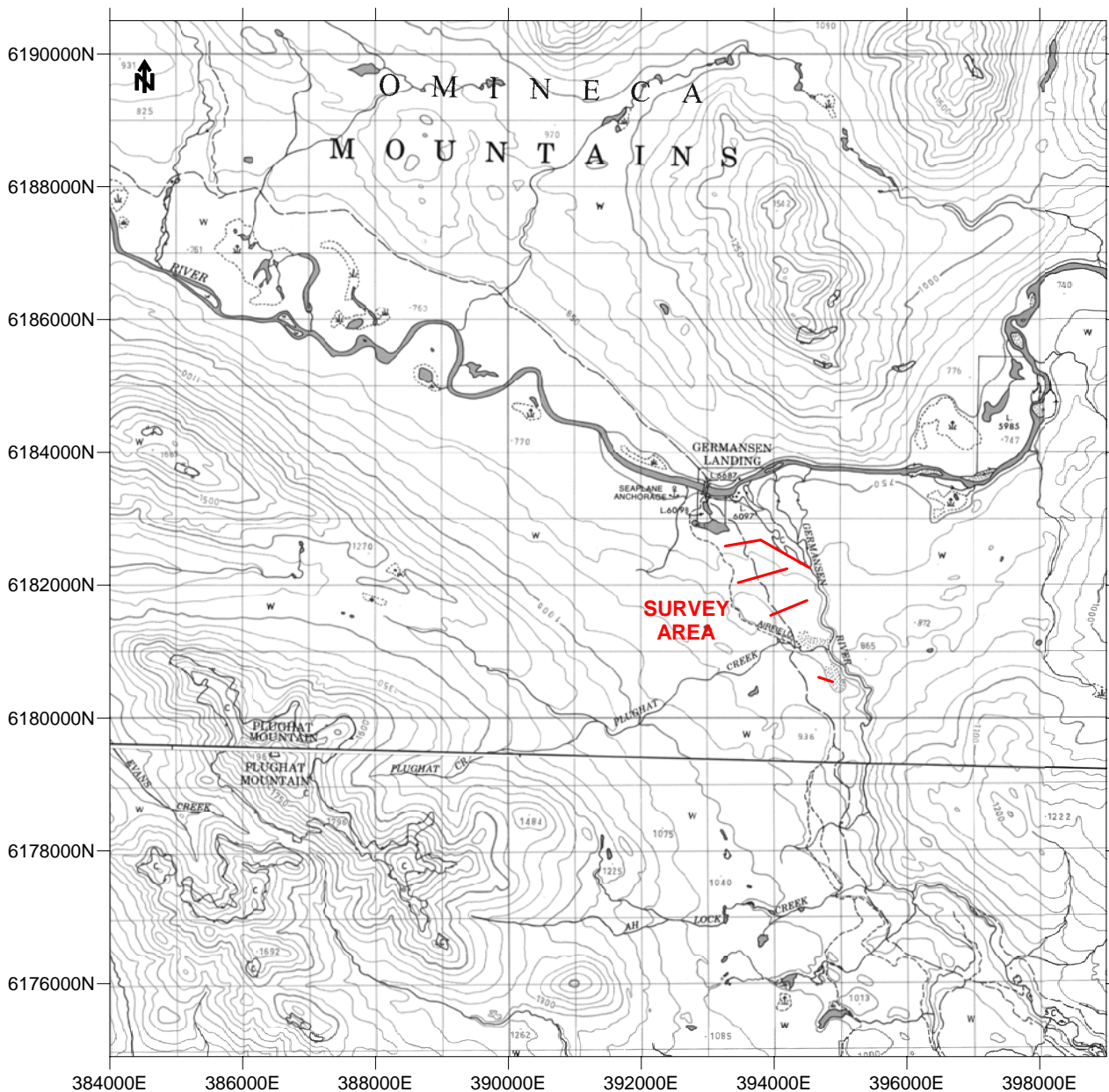
	<u>location</u>
Figure 1 Survey Location Plan	Page 2
Figure 2 Site Plan	Appendix
Figure 3 Interpreted Depth Section SL-1A	Appendix
Figure 4 Interpreted Depth Section SL-1B	Appendix
Figure 5 Interpreted Depth Section SL-1C	Appendix
Figure 6 Interpreted Depth Section SL-2A	Appendix
Figure 7 Interpreted Depth Section SL-2B	Appendix
Figure 8 Interpreted Depth Section SL-3	Appendix
Figure 9 Interpreted Depth Section SL-4A	Appendix
Figure 10 Interpreted Depth Section SL-4B	Appendix
Figure 11 Interpreted Depth Section SL-5A	Appendix
Figure 12 Interpreted Depth Section SL-5B	Appendix
Figure 13 Interpreted Depth Section SL-5C	Appendix
Figure 14 Bedrock Contour Plan	Appendix

1. INTRODUCTION

In the period May 29 to June 3, 2010, Frontier Geosciences Inc. carried out a seismic refraction investigation for Westwing Enterprises Ltd. at Germansen Landing in northern British Columbia. A Survey Location Plan of the area is shown at a scale of 1:100,000 in Figure 1.

The purpose of the seismic refraction survey was to profile the bedrock surface and determine the location of a paleo-channel with potential for placer gold reserves. The survey information would also be utilised to focus further investigations.

In all, five separate seismic traverses were surveyed on the west side of the Germansen River. A total of approximately 2970 metres of detailed seismic refraction surveying was carried out in the investigation, on 25 separate seismic spreads. A Site Plan of the survey area showing the relative positions of the seismic traverses is shown at 1:20,000 scale in Figure 2.



WESTWING ENTERPRISES LTD. GERMANSEN LANDING PROJECT		
GEOFYSICAL SURVEY		
SURVEY LOCATION PLAN		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:100,000	FIG. 1

2. THE SEISMIC REFRACTION SURVEY METHOD

2.1 Equipment

The seismic refraction investigation was carried out using a Geometrics, Geode, 24 channel, signal enhancement seismograph and Oyo Geo Space, 10 Hz geophones. Geophone intervals along the multicored seismic cables were maintained at 5 metres along seismic lines SL-1, SL-2, SL-3, and SL-4 and 7.5 metres along SL-5. These relatively tight phone spacings provided high resolution data on overburden velocities and layer thicknesses, together with detailed information on the frequently deep bedrock surface. The zero delay or instantaneous blasting caps in the small explosive charges used for energy input, were detonated electrically with an E.I.T. Scorpion, HB-SBS, solid-state electronic blasting unit.

2.2 Survey Procedure

For each spread, the seismic cable was stretched out in a straight line and the geophones implanted. Six separate 'shots' were then initiated: one at either end of the geophone array, two at intermediate locations along the seismic cable, and one off each end of the line to ensure adequate coverage of the basal layer. The shots were detonated individually and arrival times for each geophone were recorded digitally in the seismograph.

Throughout the survey, notes were recorded regarding seismic line positions in relation to topography, geological features, and survey stations in the area. Relative elevations on the seismic lines were recorded by chain and inclinometer. Positioning information for each geophone was recorded with a Garmin 60Cx handheld unit.

2.3 Interpretive Method

The final interpretation of the seismic data was arrived at using the method of differences technique. This method utilises the time taken to travel to a geophone from shotpoints located to either side of the geophone. Using the total time, a small vertical time is computed which represents the time taken to travel from the refractor up to the ground surface. This time is then multiplied by the velocity of each overburden layer to obtain the thickness of each layer at that point.

3. GEOPHYSICAL RESULTS

3.1 General

The results of the five seismic refraction traverses in the area are shown at a scale of 1:500 in Figures 3 to 13 in the Appendix. The ground surface topography on the seismic lines was produced from chain and inclinometer measurements and is approximate. Based on the dissimilarity of seismic results, the site can be readily divided into the central and southern area, and the region of seismic lines SL-4 and SL-5.

3.2 Discussion

3.2.1 Central and Southern Area

This broad area encompasses seismic lines SL-1, SL-2 and SL-3. The results of the interpretations of the data indicate the area is underlain by four distinct velocity layers. There is a thin surficial layer underlying the area with velocities in the range of 245 m/s to 500 m/s. This layer which ranges up to 6.5 m in thickness, is likely composed of loose silt, sand, gravel, cobbles and occasional boulders.

Underlying the surficial layer, is a thicker intermediate layer with velocities of 400 m/s to 1250 m/s. This layer is interpreted as denser sand and gravel with cobbles and boulders. A thicker intermediate layer with velocities of 2000 m/s to 2520 m/s underlies all three seismic lines and is interpreted to be very dense, bedded, silt, sand, gravel and cobble layers or possibly glacial till. Coarse, gold-bearing gravels, cobbles and boulders layering if present, would go undetected in the 2000 m/s to 2520 m/s overburden layering due to the similarity in velocities between the very dense bedded, sand, gravel and cobbles, glacial till and coarse, gold-bearing gravels. The relatively high velocities determined for this layer may also in part be due to cementation of the materials. The interpreted thicknesses for this layer vary from 2.5 metres to 37 metres. A rapid thickness change occurs at approximate station 500ENE on line SL-1, which may indicate the presence of the western edge of a paleo-channel. An accompanying eastern edge to the channel is not apparent in the seismic data. The western edge of a second bedrock anomaly was identified near station 270ENE on line SL-2, with the eastern edge located at approximately 380ENE. The western edge may be faulted, with a very low basal bedrock velocity zone of 2500 m/s centred on station 300ENE.

The southernmost line SL-3, has gradually increasing depth to bedrock from approximately 10 m at the northwest end of the line to roughly 20 metres at the southeastern end. There is a noticeable decrease in bedrock velocities at the southeastern end, with basal velocities decreasing from 4700 m/s to 2850 m/s. The lower basal velocities in this area may indicate the edge of a paleo-channel. The 2850 m/s velocity zone may indicate very steeply-dipping bedrock, with the bedrock dip too severe to be profiled with the seismic refraction method.

3.2.2 Seismic Lines SL-4 and SL-5

The seismic data for lines SL-4 and SL-5 indicates the geological conditions underlying SL-4 and SL-5 are very different to conditions in the central and southern area. The results of the interpretations of the data indicate the area is underlain by three distinct velocity layers. There is a thin surficial layer underlying the area with velocities in the narrow range of 300 m/s to 400 m/s. This layer which ranges up to 6.5 m in thickness, is likely composed of loose silt, sand, gravel, cobbles and occasional boulders.

A thick intermediate layer with velocities of 465 m/s to 600 m/s underlies both seismic lines. This layer, which attains thicknesses of up to 45.5 m at approximate station 110ENE on SL-4, is believed to be consistent with loose to moderately dense sand, gravel and cobbles. The intermediate layer with velocities of 2000 m/s to 2520 m/s observed in the central and southern area is absent in the data for seismic lines SL-4 and SL-5

The basal layer having velocities ranging from 3475 m/s to 5400 m/s is the interpreted competent bedrock surface. The interpreted bedrock surface on seismic lines SL-4 and SL-5 is either flat-lying or gently undulating. No depressions indicative of an incised bedrock channel were identified in the interpretations for these lines.

4. SUMMARY AND RECOMMENDATIONS

Illustrated in Figure 14 in the Appendix, are the interpreted bedrock elevation contours. Also indicated in red on the plan are the interpreted rims or edges of a postulated channel, with the east side of the channel on seismic line SL-1 not apparent in the seismic data. A green dashed line indicates the inferred western edge of the paleo-channel near line SL-3. The apparent northwest-southeast strike of the features identified on seismic lines SL-1 and SL-2 is consistent in strike with the known, extensive pit (pit No. 2) immediately north of seismic line SL-3. Based on the seismic refraction data, the paleo-channel may be eroded to the northeast, with the termination point between seismic lines SL-1 and SL-2. To the southeast, the channel appears to bypass seismic line SL-3 and extend an unknown distance.

Based on the seismic refraction data and channel position established by mining operations, additional seismic refraction or drilling operations should be carried out in the region between seismic lines SL-1 and SL-2. Seismic refraction surveying if undertaken, should be a maximum of five lines spaced at 100 metre intervals. To the southeast, two lines should be surveyed immediately southeast of Pit No. 2. If the seismic data confirms a channel-like feature, further lines should be completed further to the southeast at 100 metre intervals.

5. LIMITATIONS

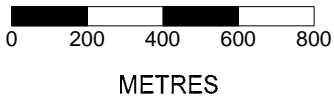
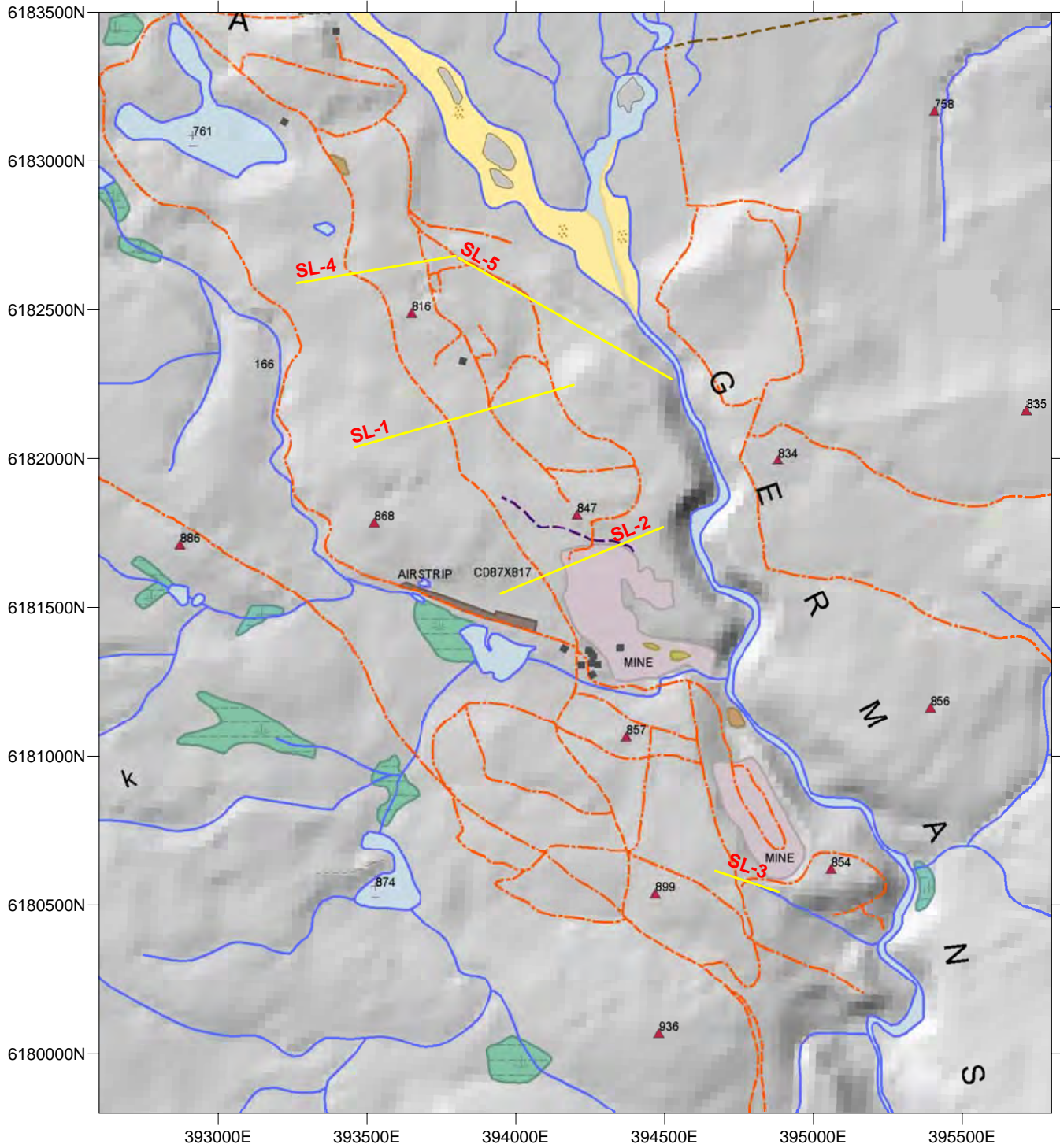
The depths to subsurface boundaries derived from seismic refraction surveys are generally accepted as accurate to within fifteen percent of the true depths to the boundaries. In some cases, unusual geological conditions may produce false or misleading data points with the result that computed depths to subsurface boundaries may be less accurate. In seismic refraction surveying difficulties with a 'hidden layer' or a velocity inversion may produce erroneous depths. The first condition is caused by the inability to detect the existence of a layer because of insufficient velocity contrasts or layer thicknesses. A velocity inversion exists when an underlying layer has a lower velocity than the layer directly above it. The interpreted depths shown on drawings are to the closest interface location, which may not be vertically below the measurement point if the refractor dip direction departs significantly from the survey line location.

The results are interpretive in nature and are considered to be a reasonably accurate representation of existing subsurface conditions within the limitations of the seismic refraction method.

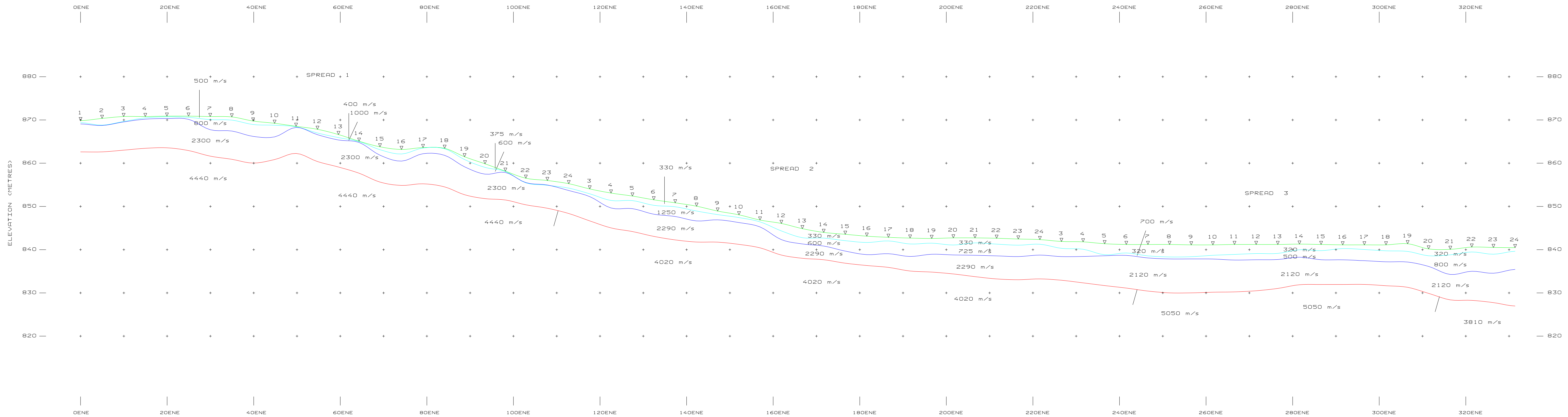
For: Frontier Geosciences Inc.

Alex Smith, M.Sc.

Russell A. Hillman, P.Eng.



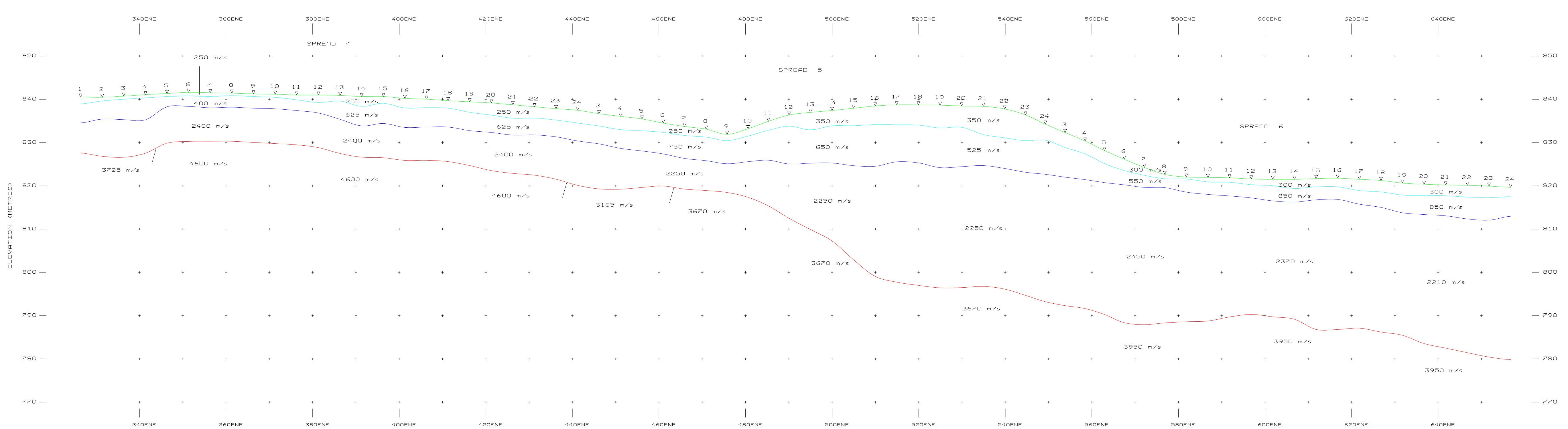
WESTWING ENTERPRISES LTD. GERMANSEN LANDING PROJECT		
GEOPHYSICAL SURVEY		
SITE PLAN		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:20,000	FIG. 2



SEISMIC LINE SL-1A

INSTRUMENT: GEOMETRICS GEODE

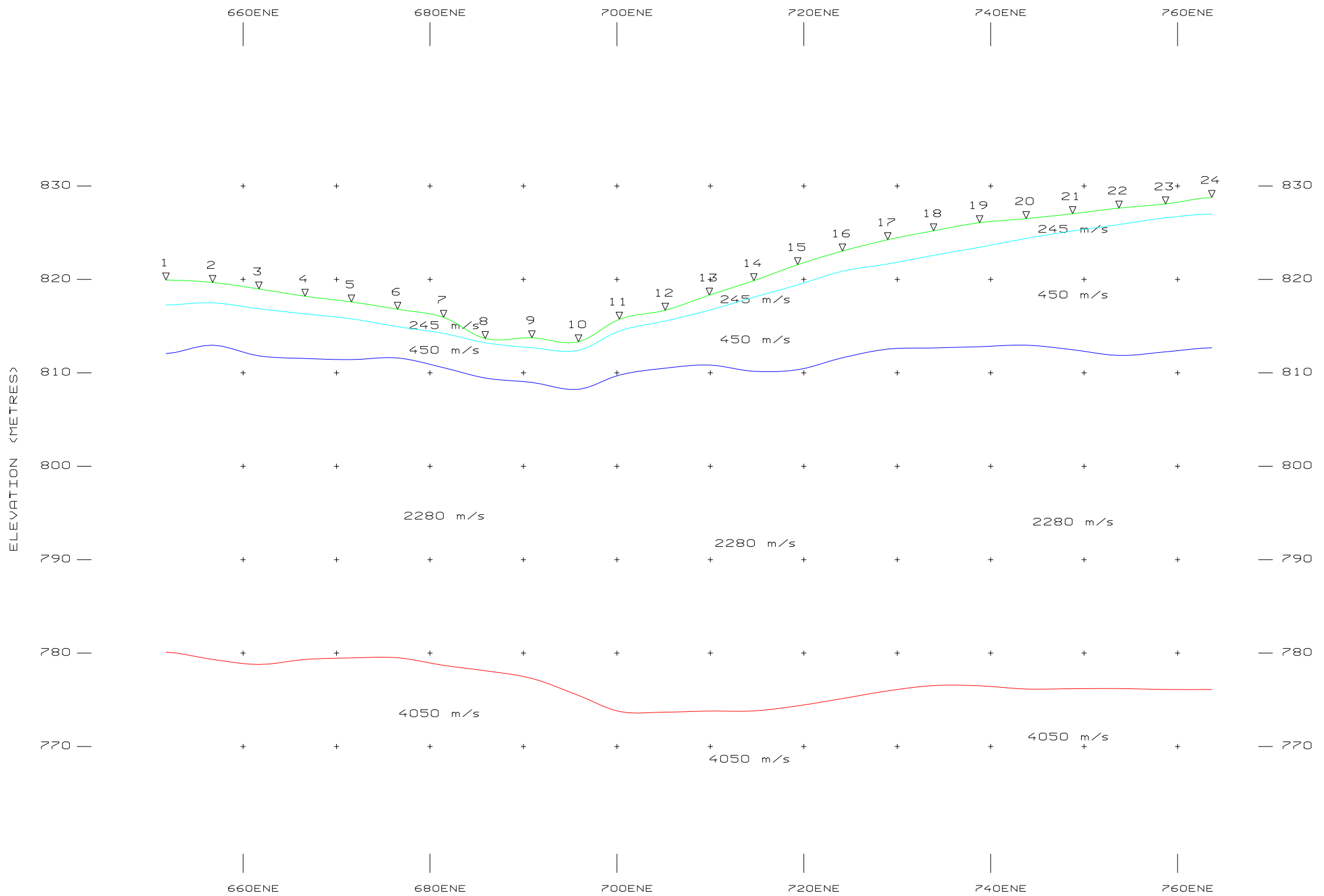
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-1A		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE: 1:500	FIG. 3



SEISMIC LINE SL-1B

INSTRUMENT: GEOMETRICS GEODE

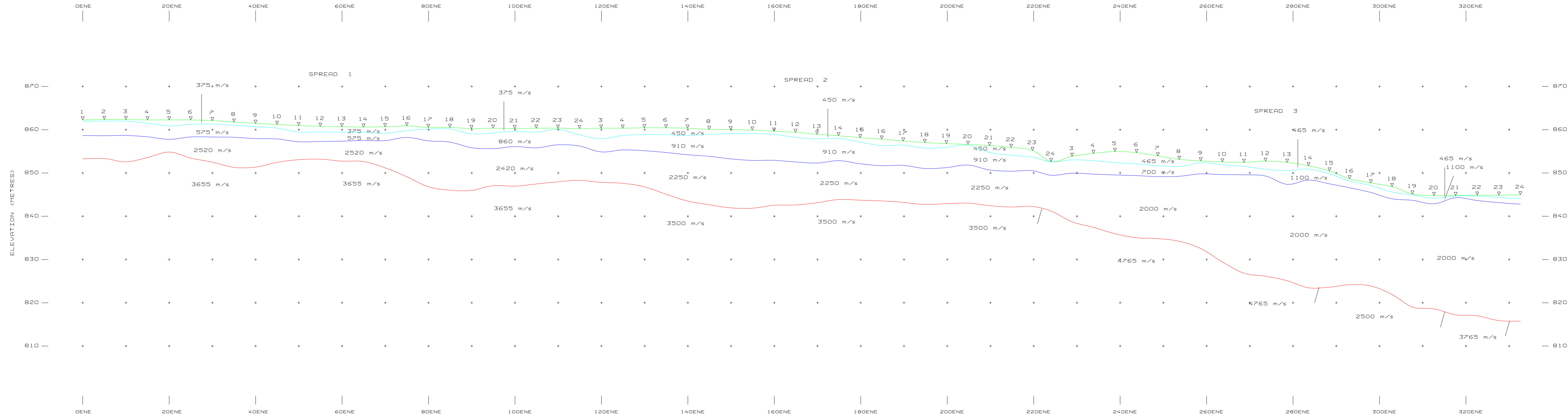
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-1B		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE: 1:500	FIG. 4



SEISMIC LINE SL-1C

INSTRUMENT: GEOMETRICS GEODE

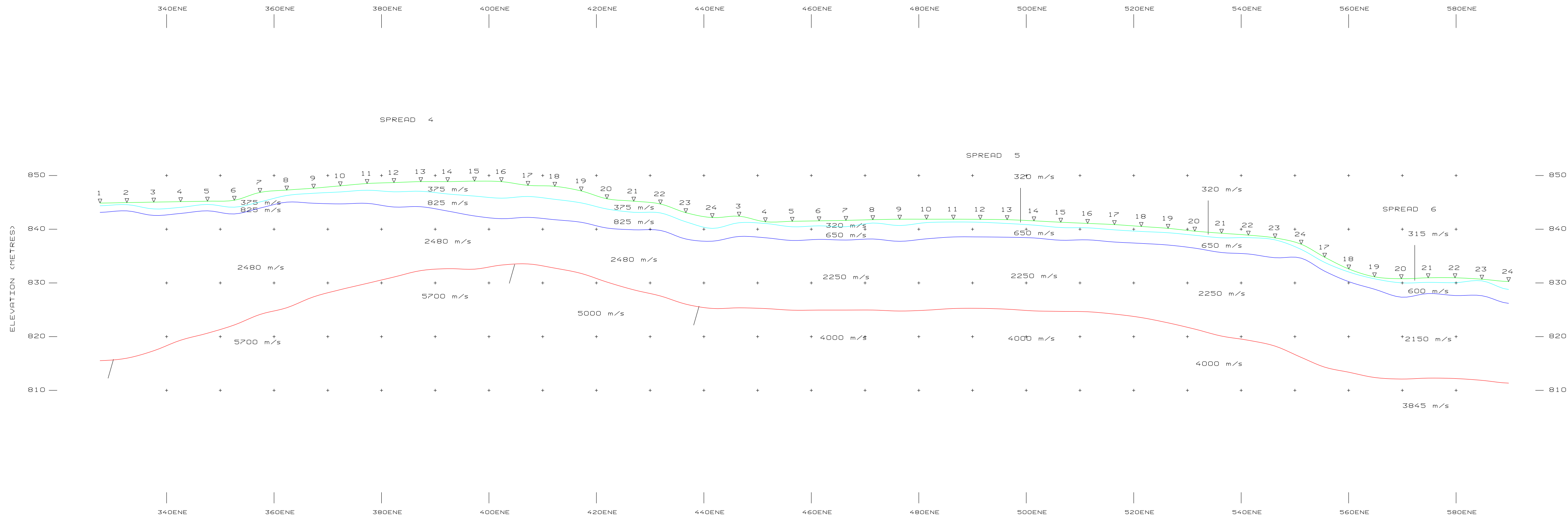
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-1C		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 5



SEISMIC LINE SL-2A

INSTRUMENT: GEOMETRICS GEODE

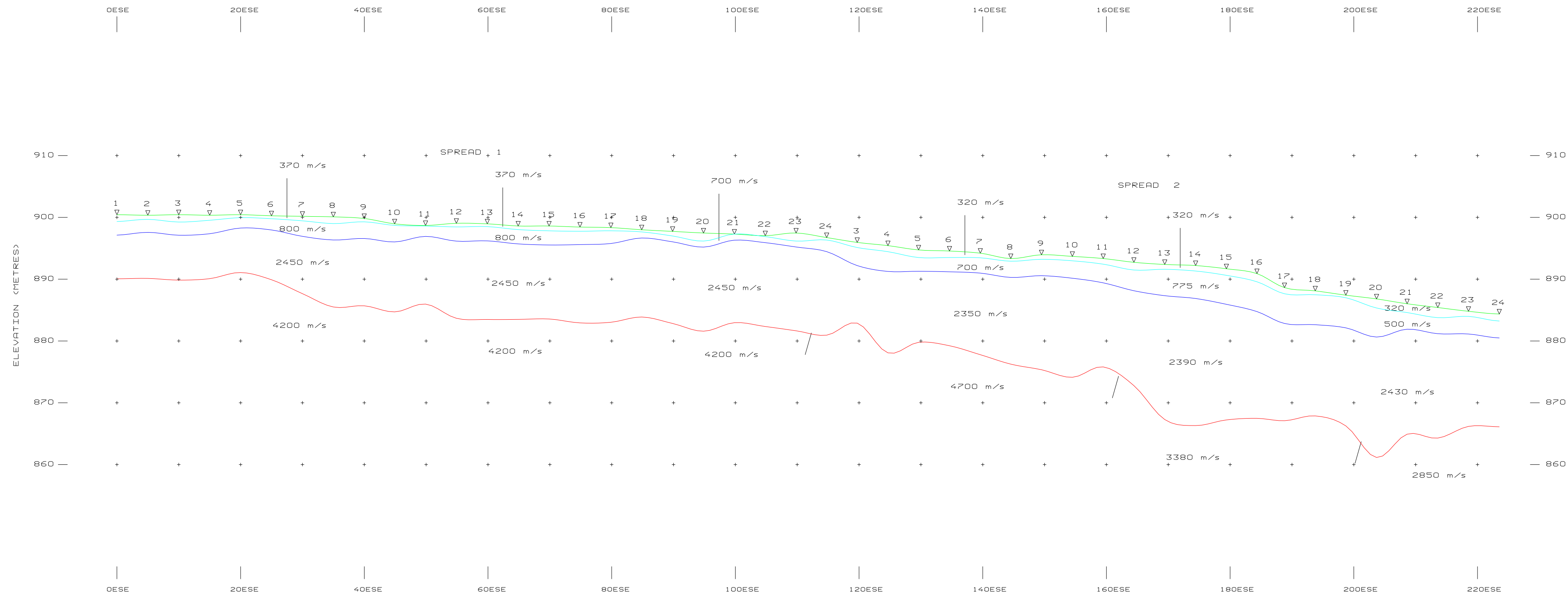
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-2A		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 6



SEISMIC LINE SL-2B

INSTRUMENT: GEOMETRICS GEODE

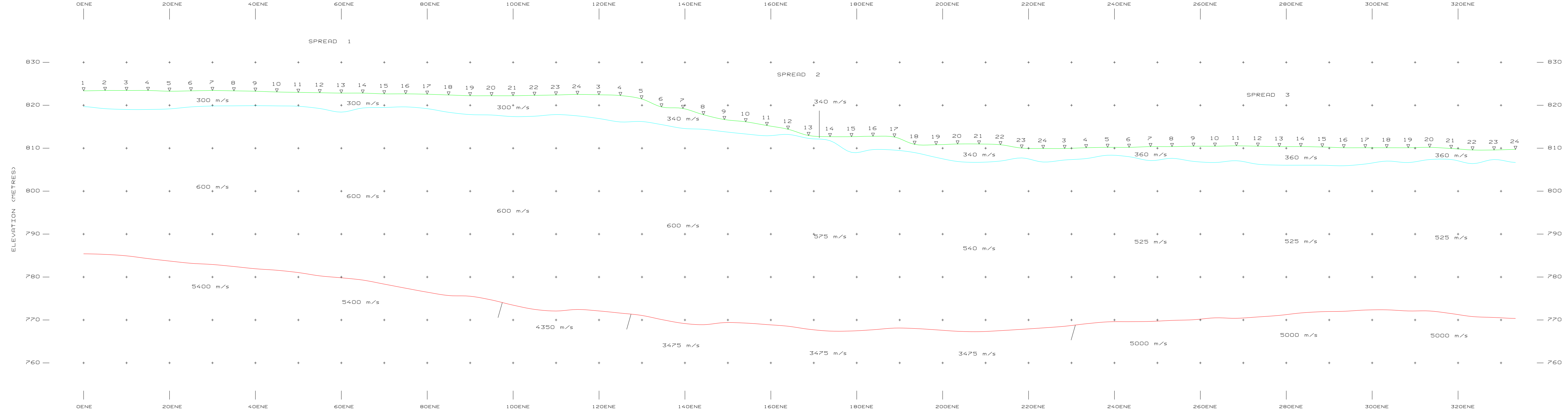
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-2B		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE: 1:500	FIG. 7



SEISMIC LINE SL-3

INSTRUMENT: GEOMETRICS 6E0DE

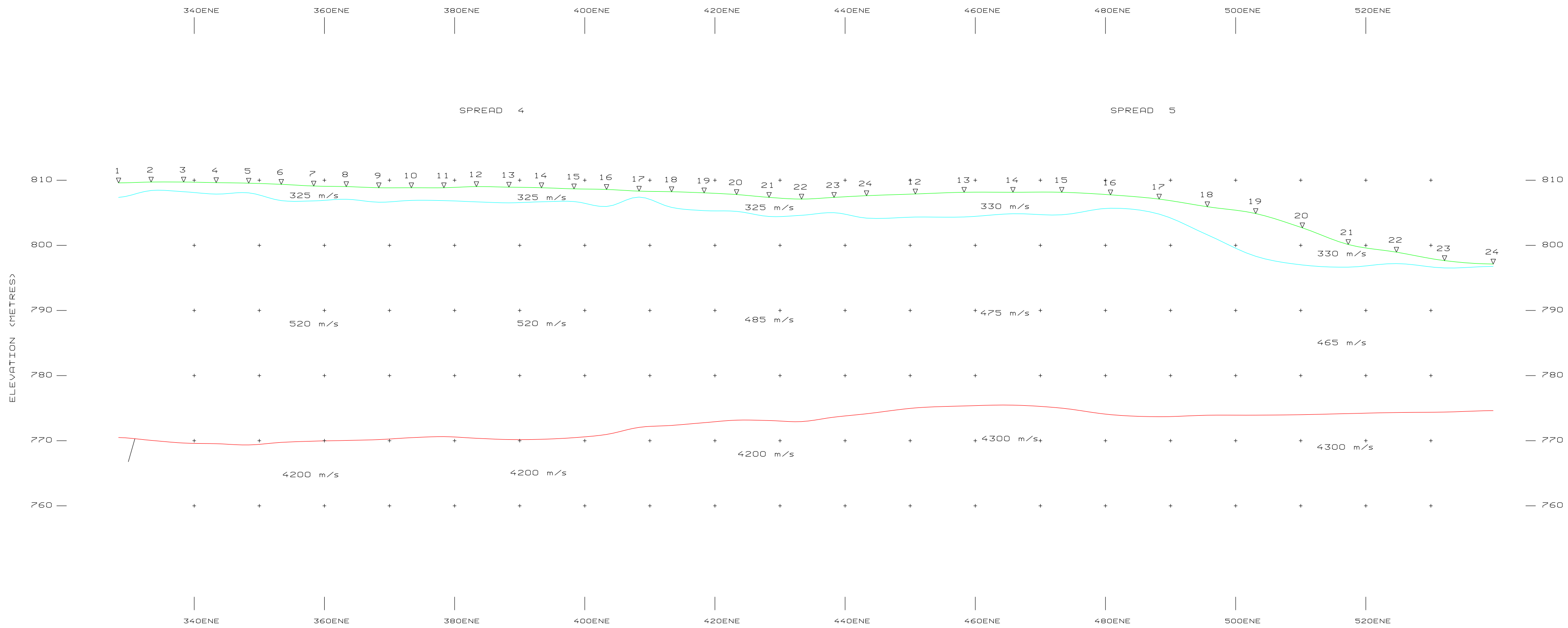
WESTWING ENTERPRISES LTD. GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-3		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 8



SEISMIC LINE SL-4A

INSTRUMENT: GEOMETRICS GEODE

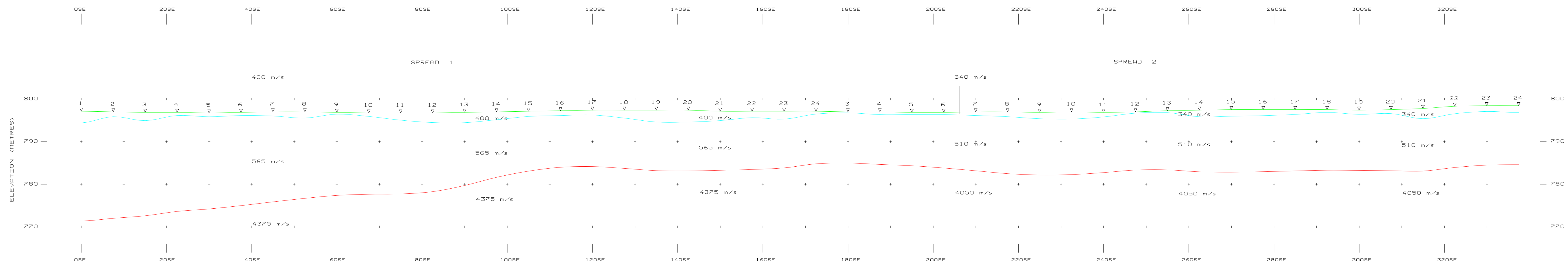
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-4A		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE: 1:500	FIG. 9



SEISMIC LINE SL-4B

INSTRUMENT: GEOMETRICS GEODE

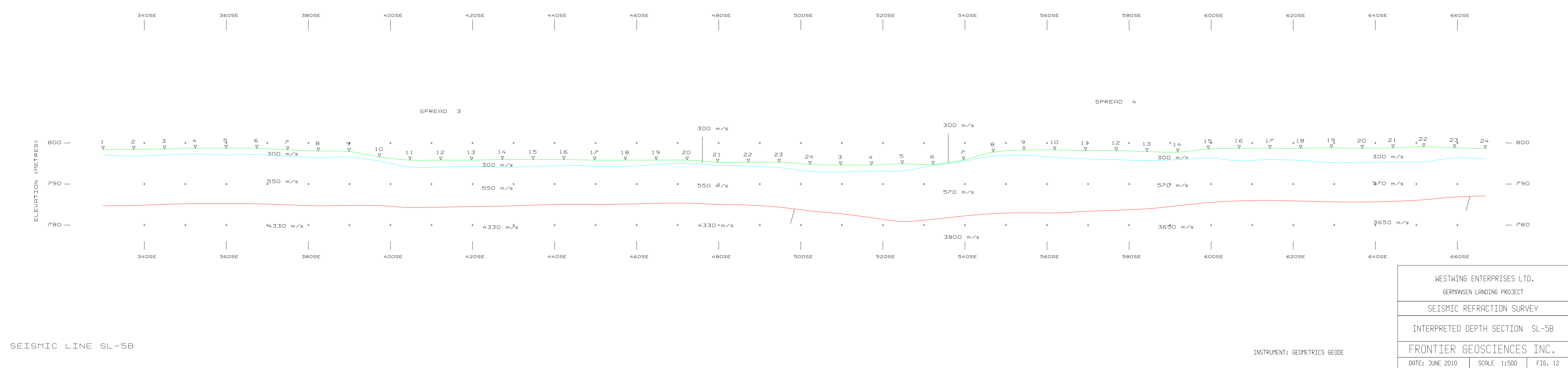
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-4B		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 10



SEISMIC LINE SL-5A

INSTRUMENT: GEOMETRICS GEODE

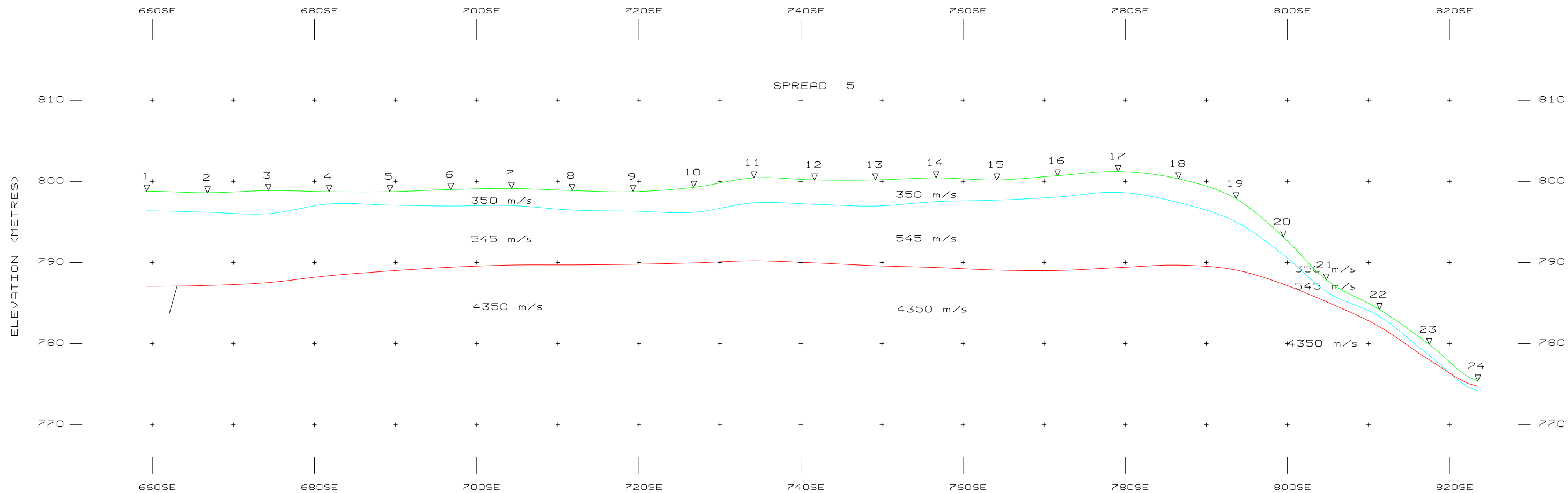
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-5A		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 11



SEISMIC LINE SL-5B

INSTRUMENT: GEOMETRICS GEODE

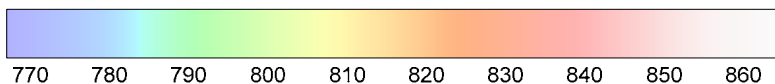
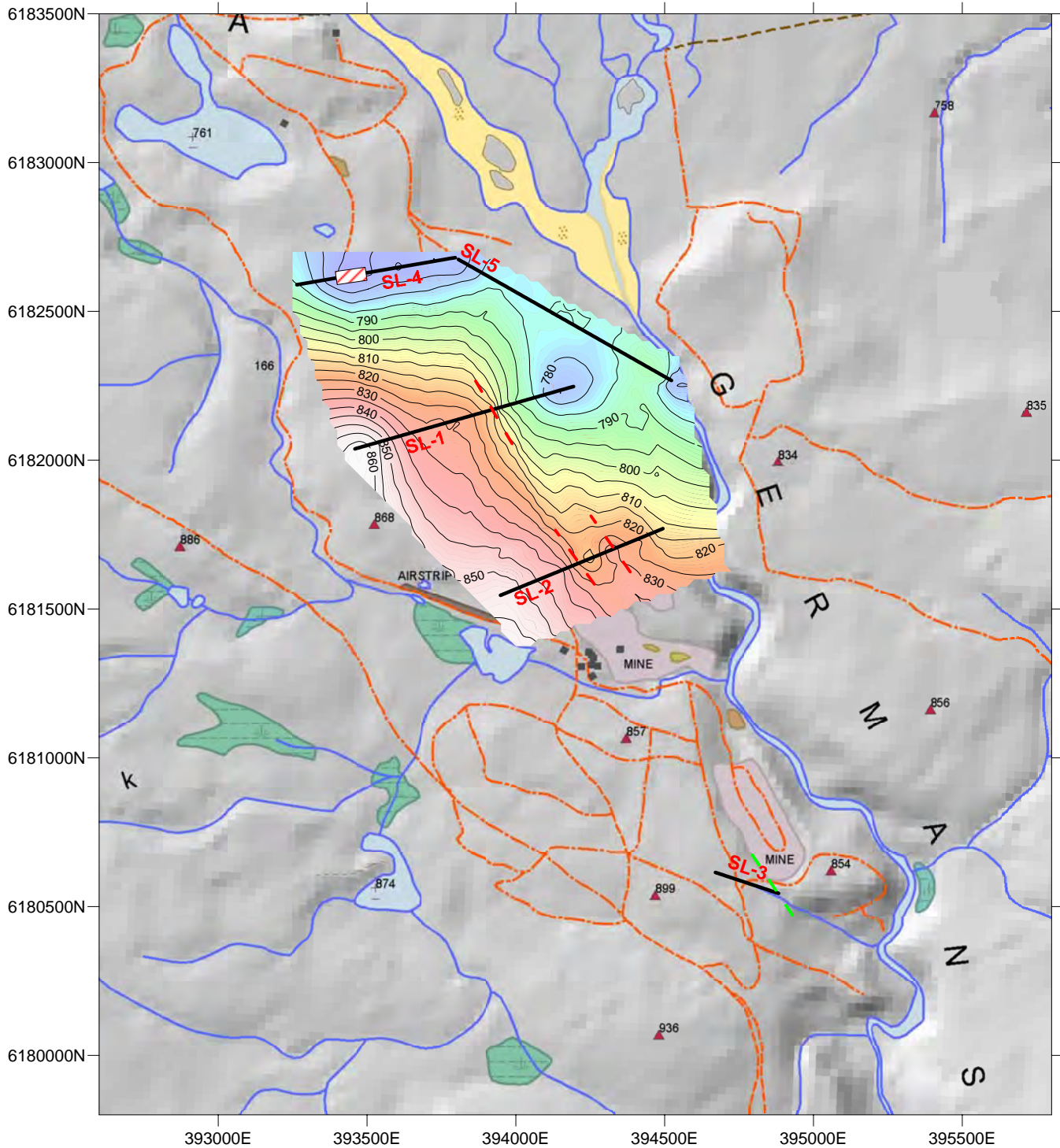
WESTWING ENTERPRISES LTD.		
GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-5B		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 12



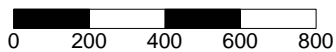
SEISMIC LINE SL-5C

INSTRUMENT: GEOMETRICS GEODE

WESTWING ENTERPRISES LTD. GERMANSEN LANDING PROJECT		
SEISMIC REFRACTION SURVEY		
INTERPRETED DEPTH SECTION SL-5C		
FRONTIER GEOSCIENCES INC.		
DATE: JUNE 2010	SCALE 1:500	FIG. 13



BEDROCK ELEVATION (m)



METRES

WESTWING ENTERPRISES LTD.
GERMANSEN LANDING PROJECT

GEOPHYSICAL SURVEY

BEDROCK CONTOUR PLAN

FRONTIER GEOSCIENCES INC.

DATE: JUNE 2010

SCALE 1:20,000

FIG. 14