

**BC Geological Survey  
Assessment Report  
39675**



## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT: GEOPHYSICAL REPORT on Canyon Creek Claims**

**TOTAL COST: \$57,012.42**

AUTHOR(S): Nicholas Gust  
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):  
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): **PUT EVENT # HERE**

YEAR OF WORK: 2021

PROPERTY NAME: Canyon Creek

CLAIM NAME(S) (on which work was done):  
1077715 and 897913

COMMODITIES SOUGHT: Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION:

NTS / BCGS: 093A073

LATITUDE:  $52^{\circ} 37' 31.225''$

LONGITUDE:  $121^{\circ} 48' 53.311''$  (at centre of work)

UTM Zone: 10 EASTING: 580440 NORTHING: 5831158

OWNER(S): 1271923 B.C. LTD.

MAILING ADDRESS:

13775 - 31 Ave  
Surrey, BC  
V4P 2B7

OPERATOR(S) [who paid for the work]:

1271923 B.C. LTD.

MAILING ADDRESS:

13775 - 31 Ave  
Surrey, BC  
V4P 2B7

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

Quesnel Terrane, mafic tuffaceous beds, black shale, siltstone and sandstone of Middle Triassic age, olivine-bearing, pyroxene-phyric basaltic pillow lava, breccia and tuff of Karnian to Norian age Intrusive rocks comprise small stocks and high-level dykes of diorite, monzonite and syenite compositions. Plutonism was contemporaneous with Lower Jurassic volcanism as evidenced by the presence of clasts of plutonic rocks within volcanic

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

ARIS 39340

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic	11,040 meters	1077715 and 897913	\$57,012.42
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		<b>TOTAL COST</b>	<b>\$57,012.42</b>

# GEOPHYSICAL REPORT on Canyon Creek Claims

Tenure # 897913, 1018449, 1012350,  
1011386, 1079630, 1077715, 1081669

Cariboo Mining Division  
Map 093A

DATE OF REPORT  
November 9, 2021

REPORT PREPARED BY  
Nicholas Gust

CENTER OF WORK  
Lat. 52°37'31.225"N , Long. 121°48'53.311"W

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# Introduction

From June 3rd till June 16th, 2021 a geophysical survey was conducted on the Canyon Creek Property.

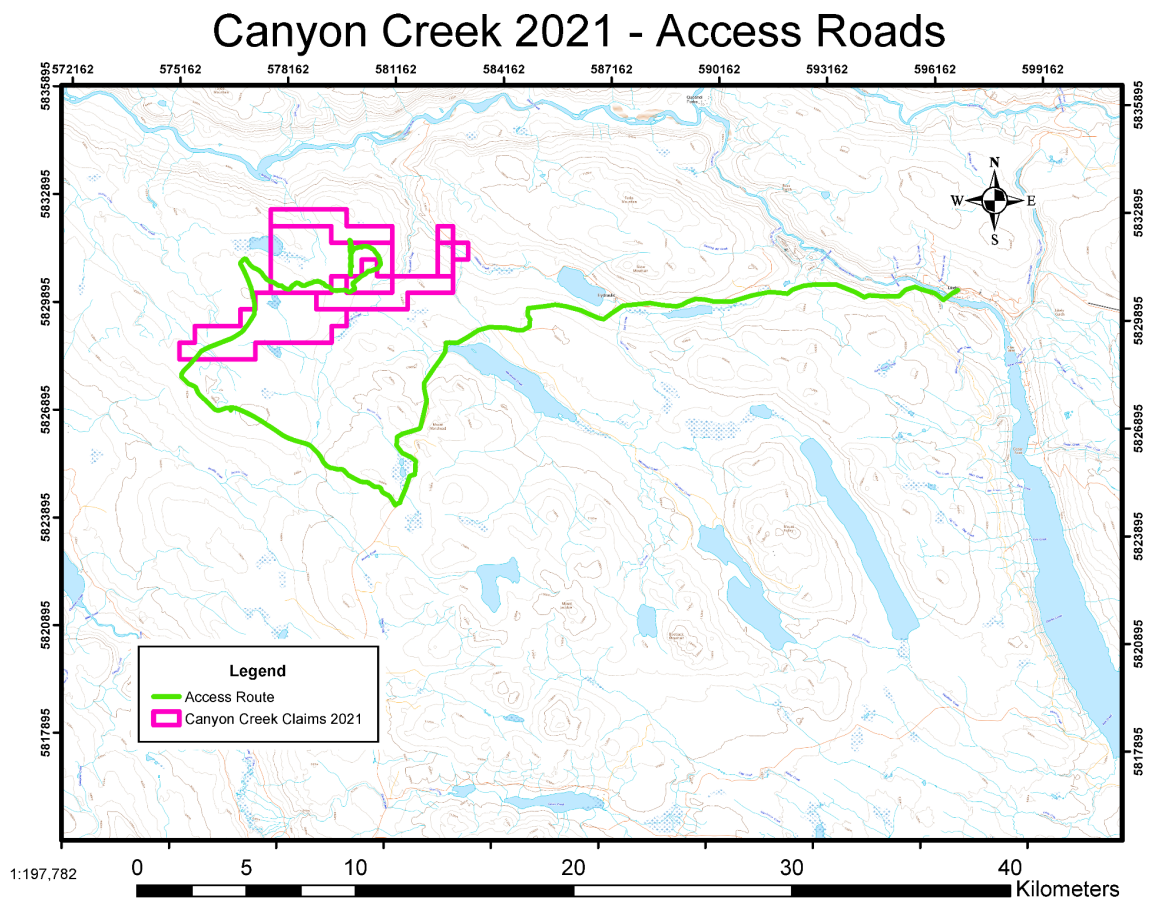
The purpose of the survey was to map bedrock and subsurface layers to aid in placer exploration. The main goal was to provide further evidence for a potential paleochannel that was identified in 2020.

A passive seismic system was utilized in this survey. The instrument that we used records ambient seismic noise and does not require a source. In processing, we used the Horizontal-to-Vertical Spectral Ratio (HVSR) technique to identify bedrock depth over the survey area. The results of the survey provided clear evidence of the paleochannel and provided new targets for future exploration and mining.

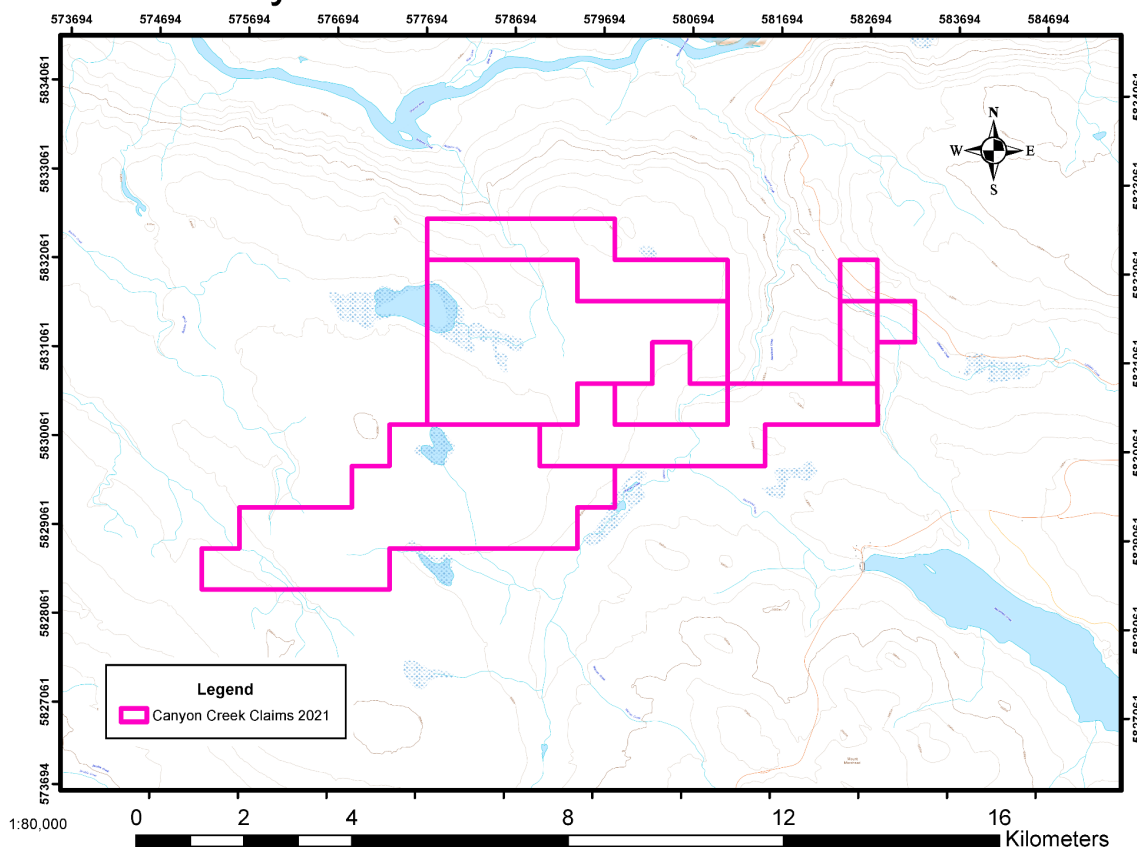
The survey was conducted by a four person team led by Nicholas Gust, who is trained in the application and interpretation of this technique. The HVSR seismic technique is new to placer exploration and part of this program was to assess the effectiveness and value of this technique.

# Location and Access

The Canyon Creek placer claims are located in the province of British Columbia, Canada, in the Cariboo regional district. The Canyon Creek claims are located 13 kilometers west of Likely, B.C. There are unnamed dirt roads and Forest Service Roads that provide access to the survey area off of Likely Road.



## Canyon Creek 2021 - Claims Overview



## Property Description

The property consists of five placer MTO claims (897913, 1018449, 1012350, 1011386, 1079630, 1077715, and 1081669). The total workable area is 1276 hectares.

This area of the cariboo is within the Quesnel Highland region in east central, British Columbia, which lies between the Cariboo Plateau and the Cariboo Mountains. The ground elevation gradually rises in an easterly direction across the width of the highland area from 1,500 m to over 2,000 m ASL. The Cariboo Plateau is deeply incised by the Quesnel Lake and Quesnel River valley where elevations are 300 to 500 m lower than the Plateau. At the confluence of the Quesnel and Cariboo Rivers the elevation is about 640 m ASL.

Local vegetation consists of pine, spruce, birch, and poplar forests with thick alder and willow swamps in areas of low relief. This area is underlain primarily by folded schistose rocks with infolds of volcanic and sedimentary rocks

## Previous Work

Records of gold mining in the Quesnel River area date back to the earliest history of placer mining in British Columbia. There is mention as early as 1852 of First Nations trading gold nuggets from unknown sources at the Hudson's Bay Company trading post at Kamloops. The Cariboo Gold Rush began in 1859 and the entire Cariboo region experienced a large influx of miners and prospectors.

In 1859 placer gold was discovered on the banks of the Quesnel River in that area that soon became the settlement of Quesnel Forks. That same year placer gold was found in the Horsefly River where early miners were reported to be pulling out 101 ounces per week.

The following year prospectors worked their way up to Keithly and Antler creeks and were rewarded with very rich placer deposits. Between 1874 and 1945, a recorded 827,741 ounces of gold, valued at \$14,898,601, was recovered from the Cariboo goldfields (Holland, 1950). Gold exploration and production has been continuous in the area since the beginning of the Cariboo Gold Rush.

In 1964, copper mineralization was discovered at Mount Polley to the south of the Canyon Creek claims, the mine was originally called the Cariboo Bell and later re-named Mount Polley. The Mount Polley copper-gold porphyry initial pit reserves are stated to be 48.8 million tonnes of material with an average grade of 0.38% copper and 0.56 g/t gold (Nikic et al., 1995).

In 1859 Thomas "Dancing Bill" Lather discovered placer gold in what is now referred to as Dancing Bill Gulch. The deposit was later named China Pit and later changed again to the Bullion Pit. The Bullion Pit was one of the largest placer mines in the world at the time. The greatest amount of production was through the periods 1894 to 1905 and 1934 to 1941. Approximately 171,000 ounces (5320 kg) was recovered up to 1942 (Panteleyev, et al, 1997).

The Bullion Pit lies 15km due East of the Canyon Creek property. An elaborate system of dams and ditches were emplaced in order to bring water to the Bullion Pit Mine where the principal mining method was hydraulic mining. Ditches connected both Polley Lake and Morehead Lake to the Bullion Pit. Most of these ditches are still present although some have been bulldozed flat and used as roadways.

The bullion channel (the paleochannel that was mined at the Bullion Pit) is speculated to continue immediately to the East of the current Canyon Creek claims. There is another paleochannel called the Morehead Channel that is speculated to

pass through the claim area.

Production from the Morehead workings was recorded in 1950 and stated to be 1,538 ounces of gold valued at \$30,166 (Holland, 1950).

A refraction seismic survey (ARIS# 15000) was carried out in the vicinity of the Canyon Creek claims in 1986 in the area South of Prior Lake. Three lines were surveyed and showed some evidence for the Morehead Channel. Line 2 of the survey had good results. According to the 1986 report "The bedrock low in the center of the line suggests a classical erosion channel."

A more comprehensive seismic survey took place in 1994 in the area between the Canyon Creek claims around Morehead Creek. The 1994 refraction seismic survey was successful in proving the existence and location of a paleochannel called the Priority Channel. The channel was mapped for approximately 500 meters from the site of the Priority workings on the edge of Morehead Creek in an Easterly direction. A magnetometer survey was conducted at the same time with inconclusive results.

A passive seismic survey was conducted in 2020 by the current claim owners which identified parts of a paleochannel system.

## Regional Geology

The regional geology has been mapped and described by a variety of writers, including Bailey (1976, 1978, 1988, 1989 & 1990), Bloodgood (1988), Campbell (1978), Morton (1976), Panteleyev (1987, 1988 & 1989), Rees (1987), Struik (1983 & 1987) and Tipper (1978). The following is an excerpt taken from the 2006 assessment report by Dave Bailey:

“The Property occurs within the Central Quesnel Terrane of the Canadian Cordillera, an island arc volcanic and sedimentary assemblage that developed to the west of the North American plate during Middle Triassic to Lower Jurassic times. The Quesnel island arc was transported eastward and collided with the North American plate during late Lower Jurassic or Middle Jurassic. The geology of the Central Quesnel Terrane has been described by Bailey (1988, 1989, and 1990), Bloodgood (1988, 1989), Panteleyev, 1987, 1988) and Rees (1987), work which was summarized and compiled by Panteleyev et al (1996). Mineral deposits related to Lower Jurassic volcanism of Quesnellia have been summarised by Barr et al (1975). The regional geological setting of the Lloyd-Nordik-Glengarry area claim is shown in Figure 4 (after Bailey, 1990).

Oldest strata within Quesnellia are black shale, siltstone and sandstone of Middle Triassic age and which are well exposed along the eastern margin of Quesnellia and less so in the western part of the belt. Uppermost strata of this unit contain mafic tuffaceous beds and which mark the onset of basaltic volcanism within the developing arc. Overlying these rocks are olivine-bearing, pyroxene-phyric basaltic pillow lava, breccia and tuff of Karnian to Norian age and which, in turn, are overlain by basaltic breccia and tuff that lacks olivine but often contains hornblende as well as diopsidic augite. The top of the basaltic unit is often marked by analcitic and feldsparphyric basalt or basaltic andesite, tuffaceous and calcareous sandstone and lenses of limestone. Upper Triassic volcanism was probably along extensional faults that developed along the central axis of the Quesnel island arc and was mainly submarine in nature.

Basaltic volcanism ceased during the Norian Stage and, after a depositional hiatus during the Early Jurassic Hettangian Stage, renewed volcanism began, this time from central vents arranged along the arc axis. Jurassic volcanic products consist of volcanic breccia and tuff and their reworked products, conglomerate and tuffaceous sandstone. The degree of reworking increases away from a central vent area. Breccias proximal to vents are commonly monomictic and are characterized by felsic clasts of trachytic composition. In places clasts of syenite or monzonite are also

common. Distal breccias, on the other hand, are polymictic and contain clasts of underlying basalt as well as clasts of felsic composition.

Following felsic volcanism, a basaltic unit was deposited in a shallow marine and subaerial environment and epiclastic sedimentary strata. These younger strata are probably of Pliensbachian to Bajocian age and represent the final depositional events before the collision of Quesnellia with ancestral North America.

Intrusive rocks comprise small stocks and high-level dykes of diorite, monzonite and syenite compositions and commonly, although not always, occupy central volcanic vent areas. Plutonism was contemporaneous with Lower Jurassic volcanism as evidenced by the presence of clasts of plutonic rocks within volcanic breccia. A later group of intrusions are of quartz monzonite to granite composition and are probably of Cretaceous age.

Except along the eastern margin of Quesnellia where thrust faulting and strong penetrative deformation occurs within the lowermost, mainly phyllitic, strata, deformation within the Quesnel Terrane is marked by high angle extensional faulting both parallel to, and oblique to, the terrane margins. The eastern margin of the central Quesnel Terrane is marked by a thrust fault known as the Eureka Thrust while the western margin is probably a high angle fault between Quesnellia to the east and the older Cache Creek Terrane to the west.”

# Survey Method and Theory

The passive seismic HVSR method consists of recording ambient or natural seismic energy vibrations using a seismometer. The seismometer must be able to record ground motion in three axes (XYZ), over a broad range of frequencies (0-128 Hz), and over a long time period (1 min to 60 min, usually 20 min).

Traditional seismic surveys use an energy source such as dynamite, or a dropped weight. The HVSR method is very different in that it utilizes ambient vibrations in the surface of the earth. These are considered noise in traditional surveys but in this case, provides the source vibrations.

The ambient signal consists primarily of surface Rayleigh and Love waves, which are generated from natural sources. Sources of ambient vibration are ongoing crustal microtremors, rain, and wind. In more populated areas sources can come from human activities such as traffic movement, construction and factories.

The ambient seismic energy creates seismic resonance within the near-surface strata and regolith. This resonance is a function of the thickness and the shear-wave velocity of the subsurface layers, and is particularly amplified when layers have a strong and sharp acoustic impedance contrast boundary. Acoustic impedance is a function of the density multiplied by the shear wave velocity of a layer. That impedance is how we can identify different layers and their depth.

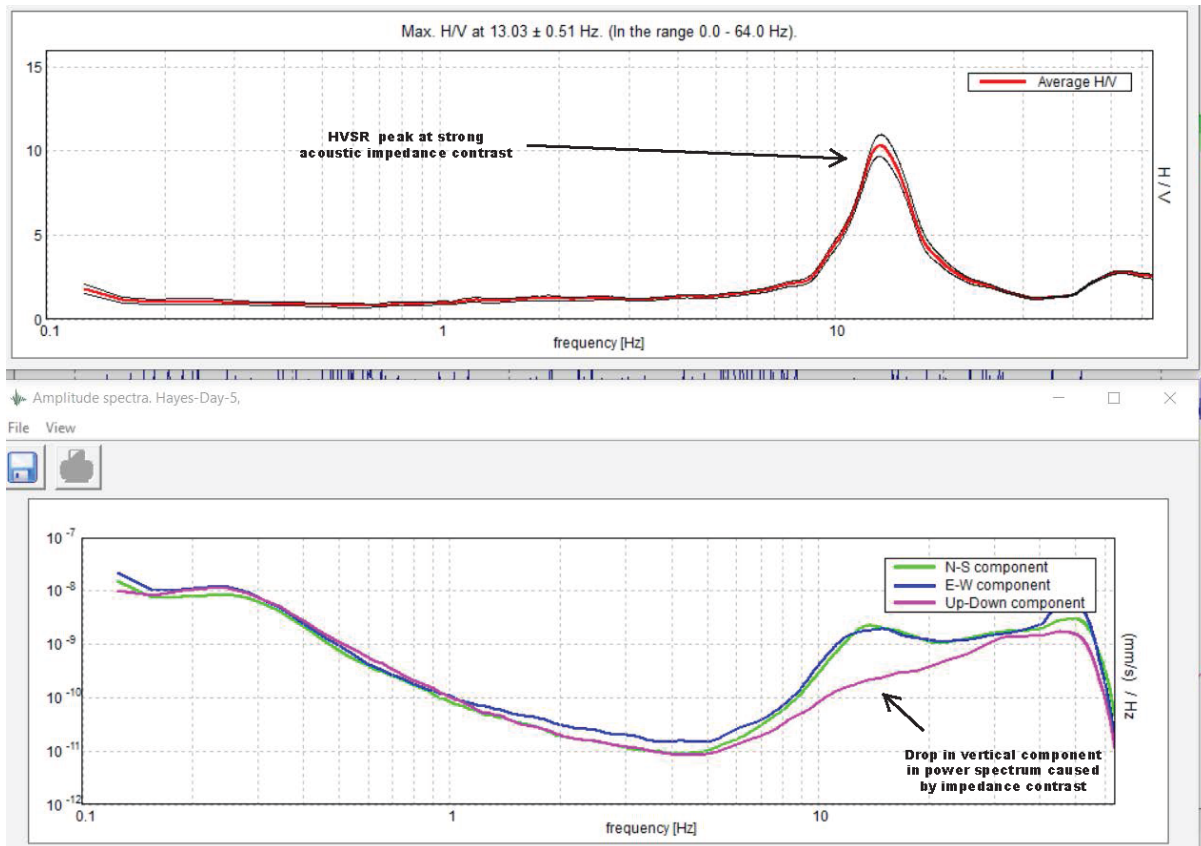
In processing with proprietary software the recorded time-series data (X, Y and Z) is converted to the frequency domain using a Fast Fourier Transform (FFT), and the two components are displayed as a power spectrum.

After the inversion, the horizontal components are usually very similar unless there is strong anisotropy in the near-surface. The Vertical component dips where resonance occurs from trapping by underlying layers. Where the vertical component deviates from the two horizontal components a H/V peak is interpreted. The frequency at which the peak occurs can be used to calculate the depth from surface.

This resonant frequency is related to the thickness and shear wave velocity of the resonant layer by the following equation from Nakamura (2000):

$$f_0 = V_s/4h$$

where  $f_0$  = peak resonant frequency (Hz),  $V_s$  = shear wave velocity (m/s), and  $h$  = layer thickness (m). In a two-layered earth model, resonance frequency ( $f_0$ ) can be used in estimating the overburden thickness ( $h$ ) using the equation



From processing the data we know the peak resonant frequency but there are still two unknowns.  $V_s$  and the thickness ( $h$ ). In order to accurately calculate the thickness for each location, we need to know the shear wave velocity of the overburden layers. That can be acquired by running a test station at an area of known depth such as a drill hole. Once the velocity is known it is simple to calculate the thickness.

# Equipment

The Tromino 3G BLU Seismograph, manufactured by MoHo Science & Technology from Italy was used on this survey. The Tromino works on the HVSR principle, is a very light and portable instrument that records seismic noise in the frequency range of 0.1 to 1024 Hz.

The Tromino is a small (1 dm<sup>3</sup>, < 1 kg) all-in-one instrument, equipped with:

- 3 velocimetric channels (adjustable dynamic range)
- 3 accelerometric channels
- 1 analog channel
- GPS receiver

The Tromino does not require cables or a source and acts as a standalone geophysical instrument.

A Reach RS2 multi-band RTK GNSS receiver, manufactured by Emlid was used to record spatial information for computer mapping. Some of the specs are here below:

- Dimensions: 126x126x142 mm
- Weight: 950 gram
- Ingress protection: IP67
- Corrections: NTRIP, VRS, RTCM3
- Position output: NMEA, LLH/XYZ
- Positioning kinematic horizontal: 7 mm + 1 ppm
- Positioning kinematic vertical: 14 mm + 1 ppm
- GNSS signals tracked: GPS/QZSS L1C/A, L2C, GLONASS L1OF, L2OF, BeiDou B1I, B2I, Galileo E1-B/C, E5b

Number of channels: 184

# Survey Procedure

Station spacing was set at 30m for the survey lines. A chain was used to layout the survey lines using two people. Line locations were chosen in advance in GIS software and laid out in the field using a handheld GPS. Each station was marked with a pin flag and recorded on the GPS for processing.

Each reading takes 20 minutes, which allows for sufficient data collection to be modeled in the interpretation software. It is important for the seismometer to have good contact with the ground. At most stations, it was necessary to remove the vegetative mat and expose soil/subsoil that the instrument can be planted into.

The seismometer used in this survey is extremely sensitive since it's designed for picking up faint, ambient energy in the earth. The trade-off is that it is also sensitive to sources of noise.

Station data is stored on the device and downloaded each day to check for data quality. Initial processing was completed in the evening each day. To estimate the shear wave velocities seismic data was recorded at several of the drill hole locations that were completed in previous years. Those velocities were used to satisfy the equation above and calculate the layer thicknesses.

There were several stations that were recorded outside of the claim block. Stations L13S5 - L13S8, L14S1 - L14S5, and L15S7-L15S16. The field crew and associated costs were billed at a day rate so these additional stations did not have a material impact on the daily costs therefore no costs were deducted for the purposes of assessment.

## Processing Technique

Each station is processed independently using proprietary software that utilizes the HVSR method described above. Each trace is analyzed for quality and if necessary noisy sections can be removed using a windowing technique. There were two stations that had too much noise and had to be repeated but most were below the noise threshold or able to be cleaned up.

The coordinates and calculated bedrock depth are populated into a CSV file to be gridded. Surfer software was used for gridding the data and the resulting vector data can be used in GIS software such as ArcMap.

The final data is presented as a topographical map showing the difference between surface and bedrock elevations.

## Interpretation

### Cross Sections

Line 4 showed anomalous deep bedrock on 3 stations from L4S7 to L4S9. The bedrock in that section is much deeper than the rest of the line and is a clear indication of a deep paleochannel. The last station to the north (L4S16) was also deep.

Line 5 is situated to the West of Line 4. Line 5 also showed a section with deep bedrock in the middle of the line from stations L5S6 to L5S10. The deep bedrock section is interpreted as a paleochannel.

Line 6 is situated to the West of Line 5 and is a longer line consisting of 32 stations. There is deep bedrock from stations L6S15 to L6S20 that is interpreted as a paleochannel. The bedrock depth is much more shallow on both sides of the deep section. The beginning of the line shows deeper bedrock too from stations L6S1 to L6S3, that deep section could be part of a second paleochannel but requires further investigation.

Line 7 consists of 30 stations. The middle portion of the line has a very shallow bedrock depth with much deeper bedrock to the north and south.

Line 8 had similar characteristics to Line 7. The first three stations showed shallow bedrock then dropped steeply from about 6m to over 30m deep. This appears to be the southern edge of a major paleochannel. The middle portion of the line showed relatively shallow bedrock.

Line 13 lies to the east and perpendicular to Line 4. This line is oriented east-west. Line 13 didn't show any clear bedrock features that would be interpreted as parts of a paleochannel.

Line 14 is directly south of Line 13. The first two stations, L14S1 and L14S2 showed deep bedrock (approximately 30m deep) while the rest of the line was between 4 and 8 meters deep.

Line 15 is directly south of Line 14. This line shows a very clear bedrock depth anomaly that is consistent with a paleochannel. The anomaly is on stations L15S7 to L15S11 with very shallow bedrock on both sides.

Line 16 is on the far western edge of the survey area, oriented north - south. Thick overburden was present throughout the line with a high point in the bedrock at stations L16S13 and L16S14.

Line 17 lies to the west of Line 7 and is oriented north - south. Bedrock was deep throughout the line but especially so on stations L17S9 and L17S10. The deep bedrock section is interpreted a part of a large paleochannel.

Line 18 is to the east of Line 7 at a 45 degree angle. There were deep sections at the start of the line separated by high points in the bedrock. This is interpreted as several paleochannels that are separated by ridges in the bedrock.

Line 19 lies to the north of Line 18 at the opposite angle. Deep bedrock sections are observed as well as anomalous high points in the bedrock. Similar to Line 18 this is interpreted as several paleochannels that are separated by ridges in the bedrock.

Line 20 is in the southern portion of the survey area near Morehead Creek. There was a section of anomalous deep bedrock on stations L20S8 to L20S10. This deep section is interpreted as a paleochannel cut into bedrock.

Line 21 is directly north of Line 20, oriented east to west. There's a bedrock high point on the east end of line on stations L21S14 and L21S15. In the middle of the line there is deep bedrock from stations L21S4 to L21S9 that appears to be the continuation of a paleochannel.

Line 23 is to the west of Line 21 on the other side of Morehead Creek. There is a broad section of deep bedrock that could be part of a paleochannel from stations L23S5 to L23S12. L23S9 looks to be a bedrock high point that interrupts the potential channel.

Line 24 lies directly south of Line 23 and in line with Line 20. The line starts close to Morehead Creek travelling to the west. Bedrock depth was shallow at the beginning with large changes in surface elevation. Deep bedrock was present from station L24S13 to L24S18 which could be part of a large paleochannel.

## **Bedrock Depth Maps**

Contour maps were created showing the bedrock depth and calculated bedrock elevation. The bedrock depth maps show the bedrock depth from surface and the bedrock elevation maps shows the bedrock elevation derived from subtracting the bedrock depth from the surface elevation measurements recorded during the survey.

From the bedrock depth map, it's clear that there are areas of thick overburden that match up with the deep parts in the cross sections. The bedrock elevation map is made by subtracting the overburden thickness from the surface elevation. This map shows the bedrock surface as derived from the seismic data in meters above sea level.

## **Interpreted Channel**

When the data is presented in map form trends can be identified. There is evidence for two main paleochannel systems within the survey area. There are clear bedrock lows along the survey lines, with some exhibiting clear characteristics of a paleochannel. The channel closer to Morehead Creek has a general SW-NE direction and sits at a lower elevation. The channel that is further west has a main branch that runs parallel to the one near Morehead Creek.

There are some areas on the map identified as "possible channels". These areas show characteristics of a buried paleochannel but aren't as well defined.

## **Conclusion**

The seismic survey was successful in highlighting deep areas in the bedrock that are consistent with the shape of a bedrock paleochannel. There were anomalous bedrock low areas on several of the survey lines that indicate the presence of two buried paleochannels. As well as other potential channel areas.

The survey was successful in providing a better understanding of the buried paleochannels in this area. It is recommended to conduct further seismic exploration to map more of the channels and test the deep areas for gold values with a sonic or RC drill.

# Costs

Personnel	Days/QTY	Rate	Subtotal
Geophysical Technician - Nicholas Gust	12	\$900.00	\$10,800.00
Equipment Costs	12	\$600.00	\$7,200.00
Field Assistant - Joseph Gutman	12	\$500.00	\$6000.00
Field Assistant - Richard Doucette	12	\$500.00	\$6000.00
Field Assistant - Roger Doucette	12	\$500.00	\$6000.00
Field Assistant - Micky Mcintosh	12	\$500.00	\$6000.00
Transportation (2 trucks)	12	\$270.00	\$3,240.00
Food	12	\$500.00	\$6000.00
Data Processing and Interpretation	1	\$600.00	\$600.00
Report Writing	1	\$250.00	\$250.00
Accommodation	12	\$360.61	\$3,967.36
Mob/Demob Costs	1,082	\$0.55	\$595.10
Fuel Costs			\$1,671.59
Consumables			\$829.63
<b>Total</b>			<b>\$57,012.42</b>

# References

Nakamura, Y., 2000, Clear identification of fundamental idea of Nakamura's technique and its applications, Proc. 12WCEE, No. 2656, 177–402.

Holland, S.S., 1950, Placer gold production of British Columbia: British Columbia Geological Survey, Bulletin 28, 89 p.

Panteleyev, A., Bailey, D.G., Bloodgood, M.A., & Hancock, K.D., 1996, Geology and mineral deposits of the Quesnel River – Horsefly map area, central Quesnel Trough, British Columbia. NTS map sheets 93A/5, 6, 7, 11, 12, 13; 93B/9, 16; 93G/1; 93H/4. BC Geological Survey Branch, Bulletin 97.

Bailey, D., 2005: Assessment Report – Geological Exploration on the October West Claim. Valley High Ventures Ltd AR 28001.

Cooker, G., 1986: Assessment Report – Geophysical Report on Six Placer Leases. Strata Energy Corporation AR 28001.

Javorsky, D., 1996: Assessment Report – Geophysical Prospecting Report on the Priority Placer Mine. AR 28001.

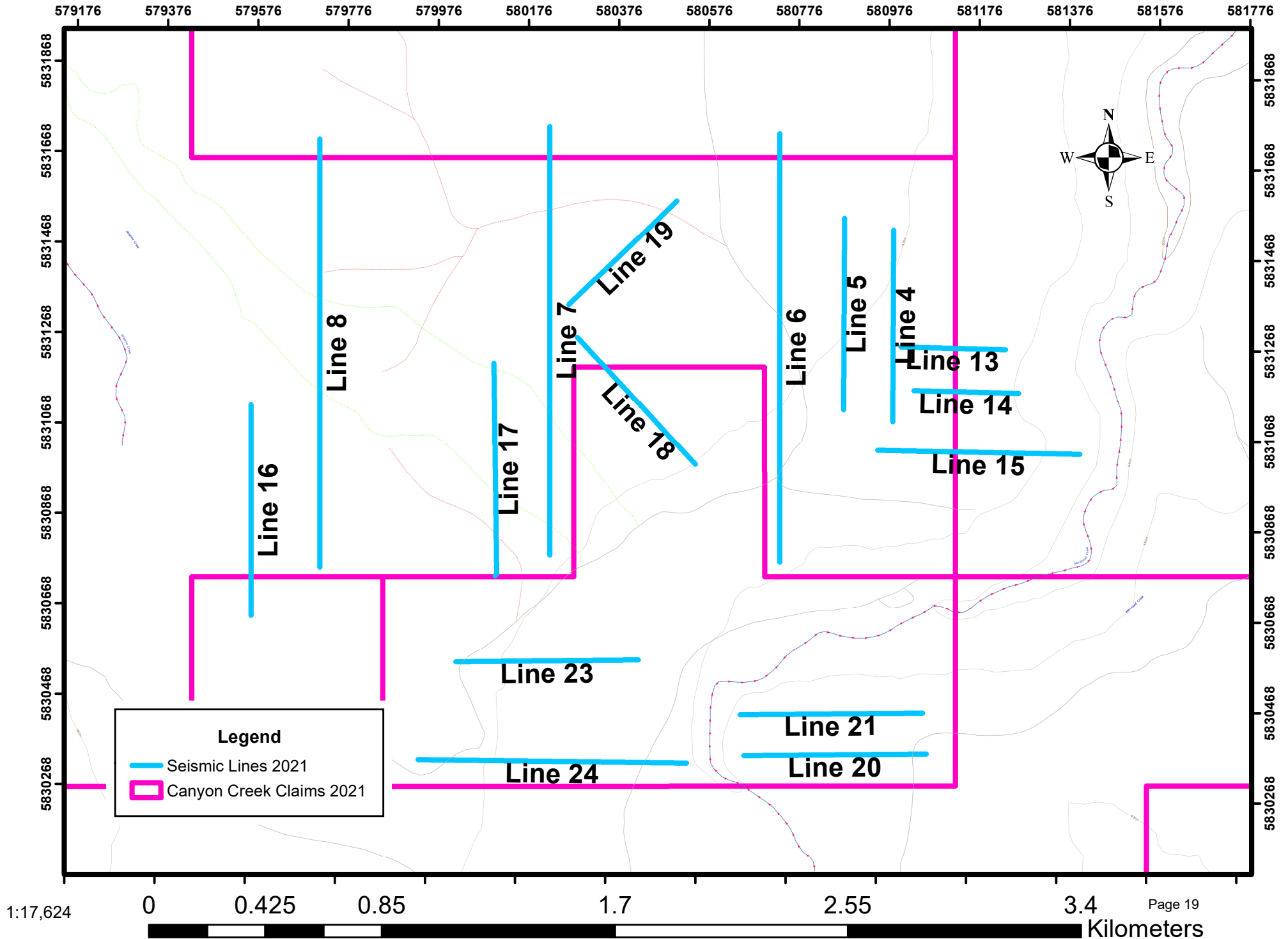
# Statement of Qualifications

I, Nicholas Gust, of the city of Mission, in the province of British Columbia do hereby certify that:

1. I am a graduate of the University of Calgary with a B.Sc.in Geophysics. I am also a graduate of the Southern Alberta Institute of Technology and hold a diploma in Exploration Technology.
2. I have received training from the manufacturer of the instrument used in this survey in the application of field techniques and interpretation.
3. I have worked in the exploration industry and have been conducting geophysical surveys since 2008.
4. This report is compiled and interpreted from data obtained from a passive seismic survey carried out under my field supervision.
5. I have based conclusions and recommendations contained in this report on my knowledge of geophysics, my previous experience and the results of the field work conducted on the property.

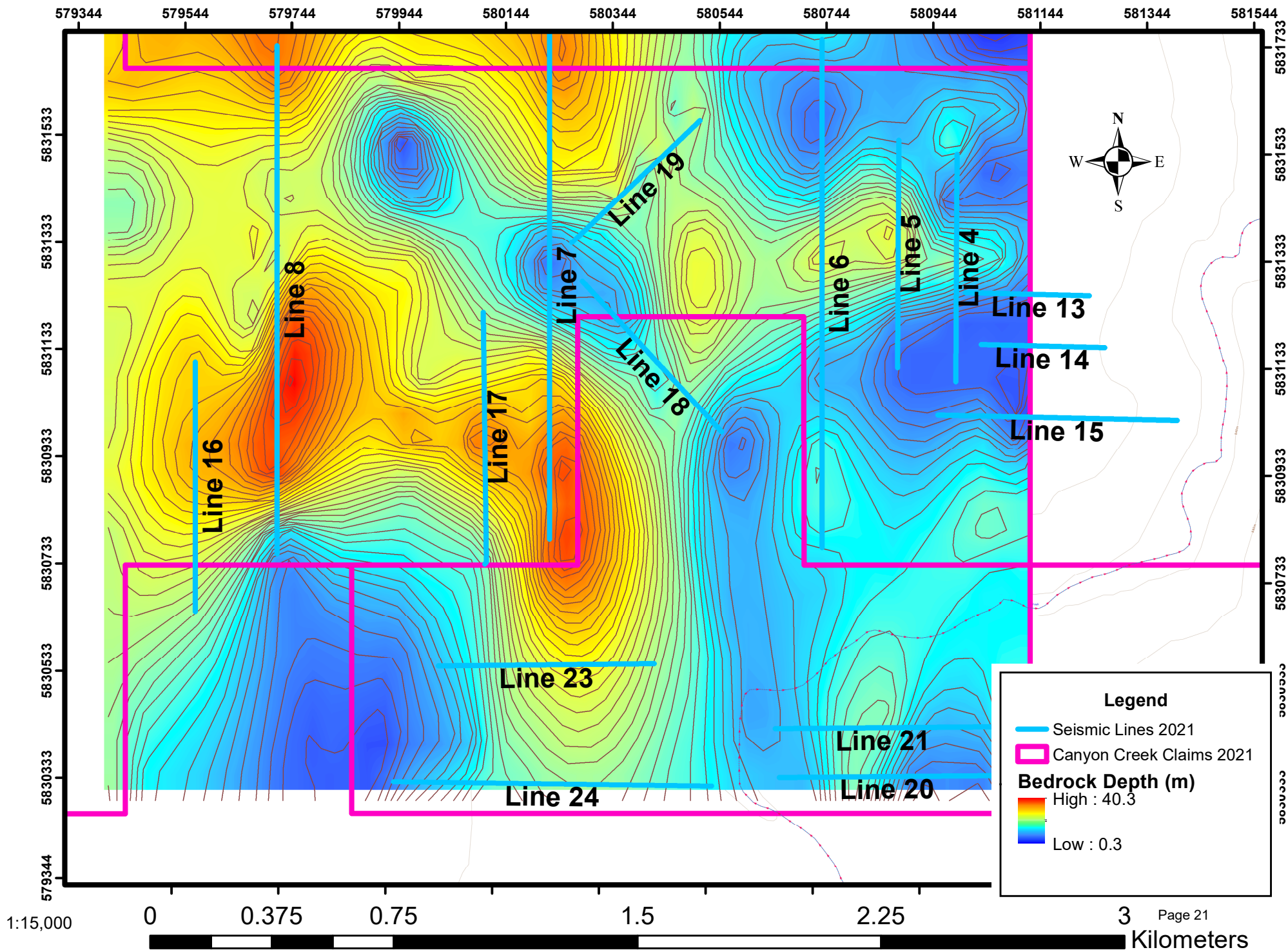
# Appendix I: Maps and Data

# Canyon Creek 2021 - Seismic Lines

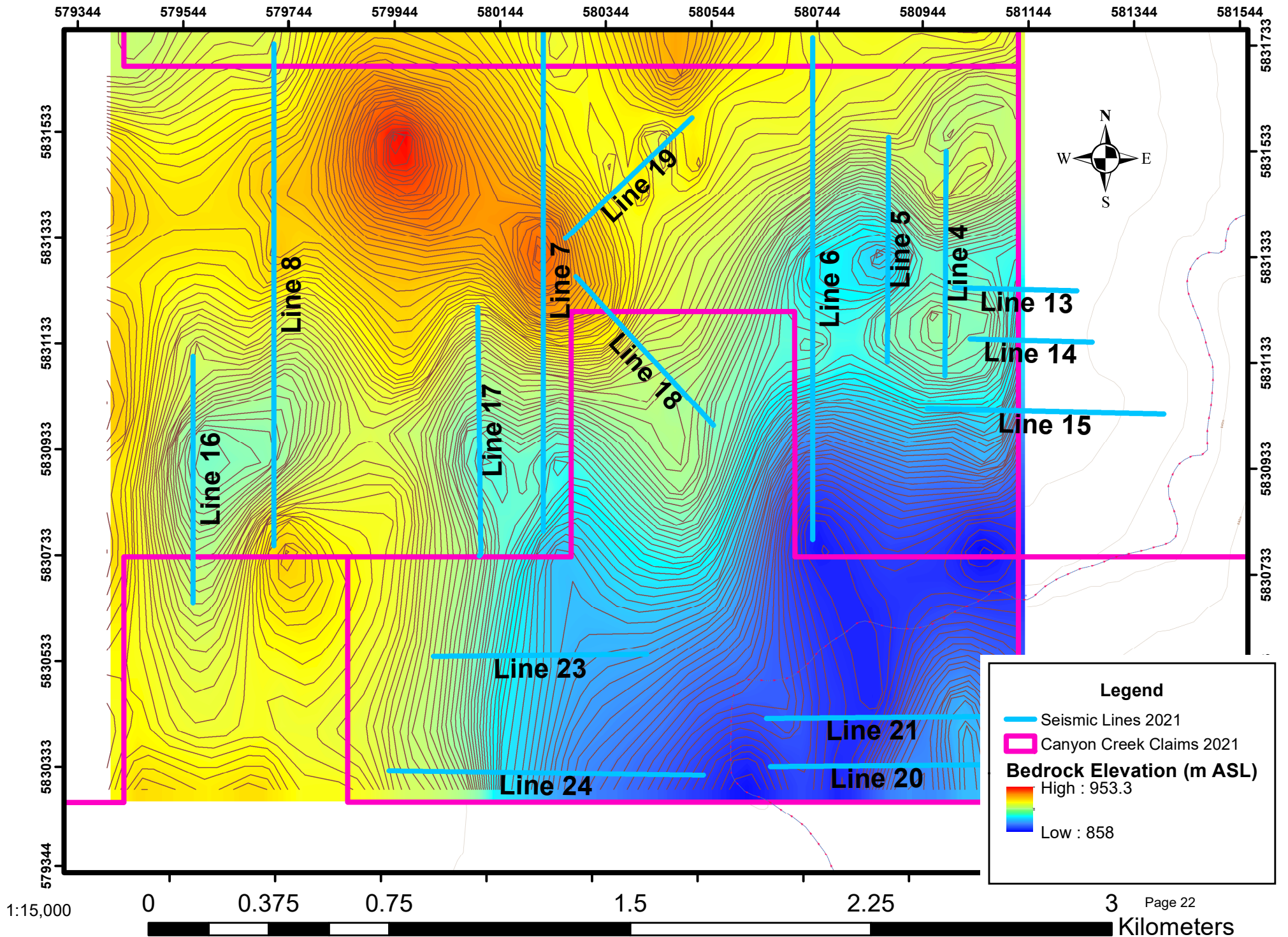




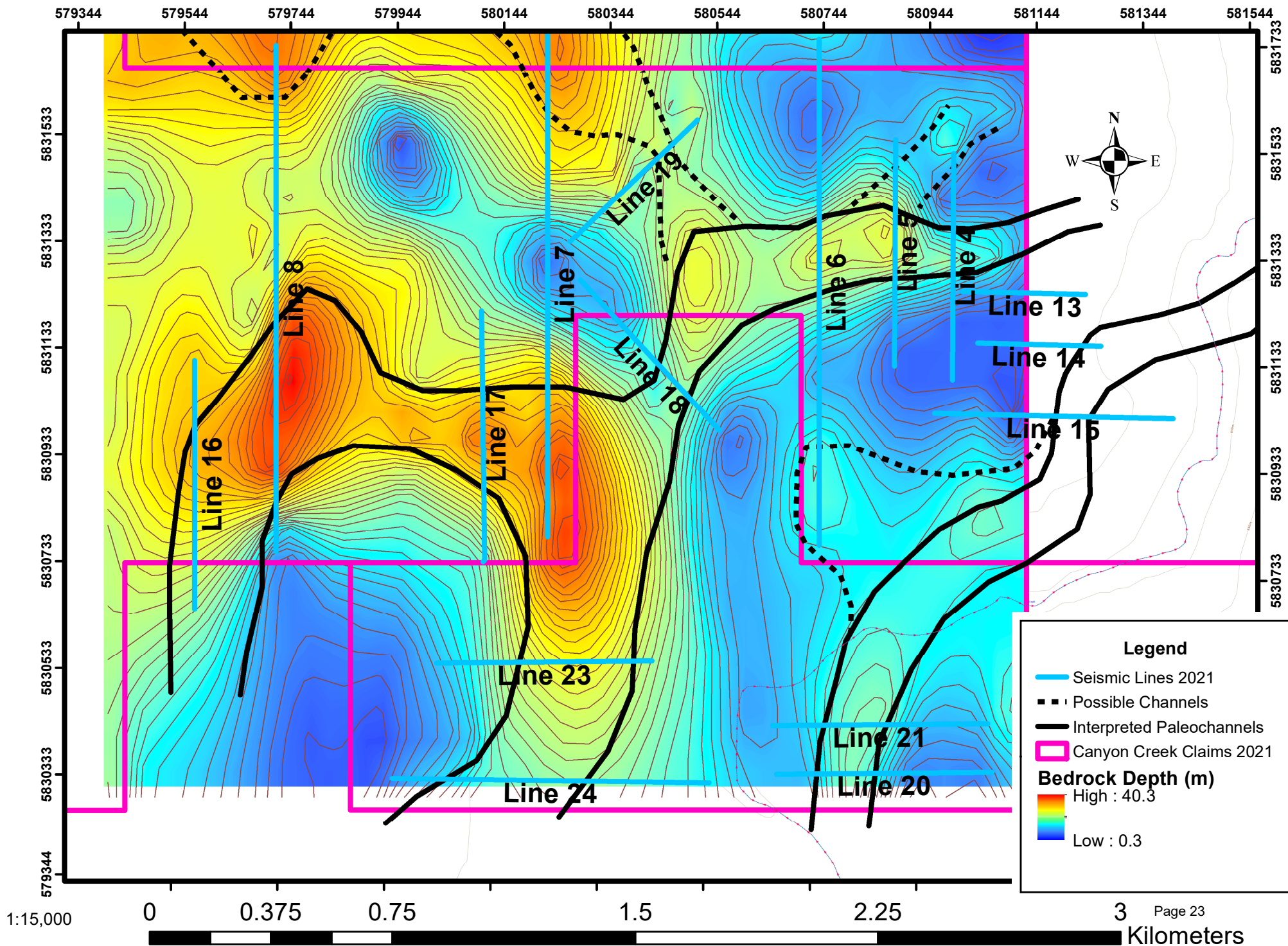
# Canyon Creek 2021 - Bedrock Depth



# Canyon Creek 2021 - Bedrock Elevation



# Canyon Creek 2021 - Interpreted Channels



# Appendix II: Cross Sections

# Canyon Creek

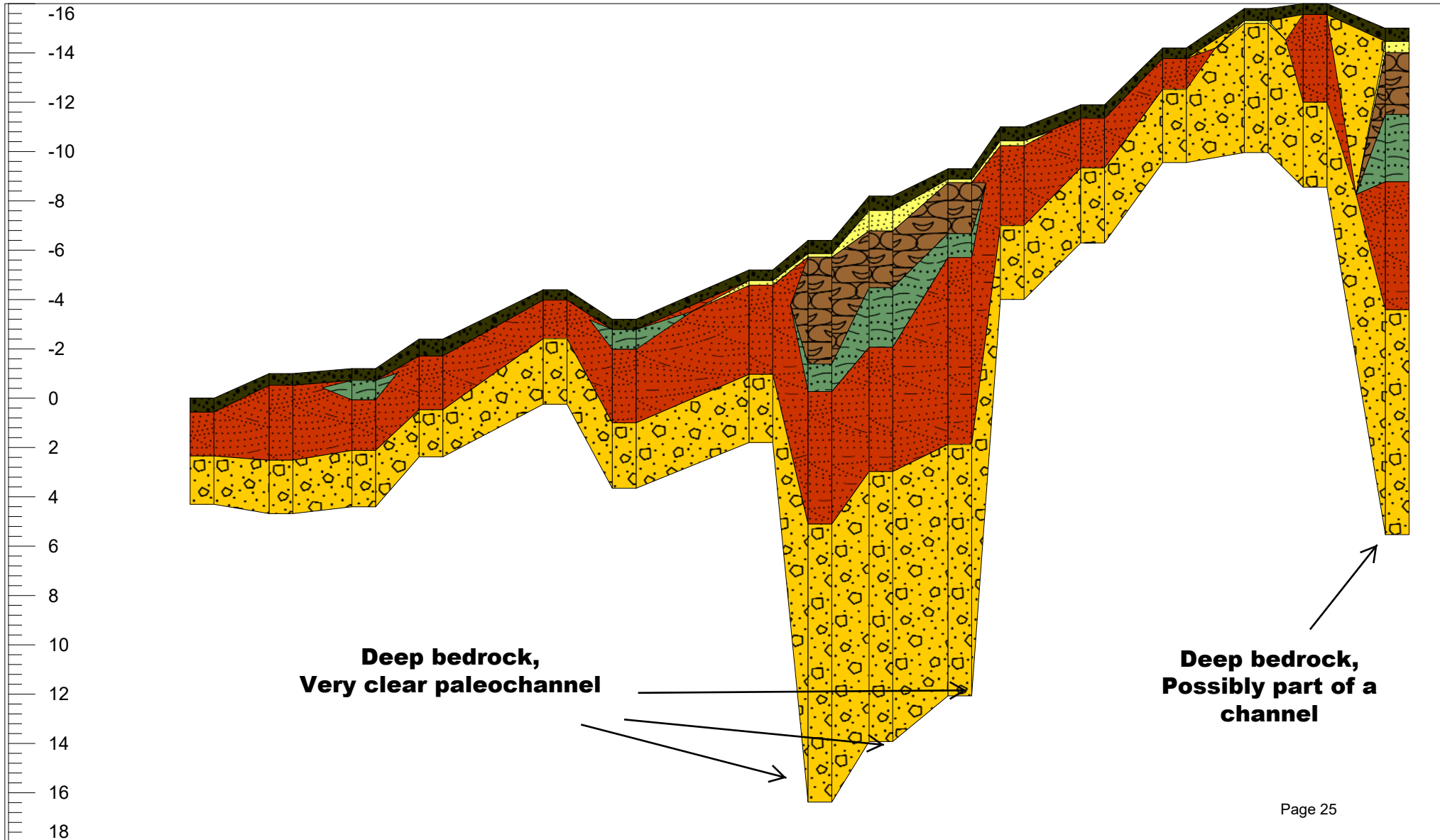
## Passive Seismic 2021

### Line 4

#### Legend

- Layer 1
- Layer 2
- Layer 3
- Layer 4
- Layer 5
- Layer 6
- Layer 7

depth in meters L4S1 L4S2 L4S3 L4S4 L4S5 L4S6 L4S7 L4S8 L4S9 L4S10 L4S11 L4S12 L4S13 L4S14 L4S15 L4S16










# Canyon Creek

## Passive Seismic 2021

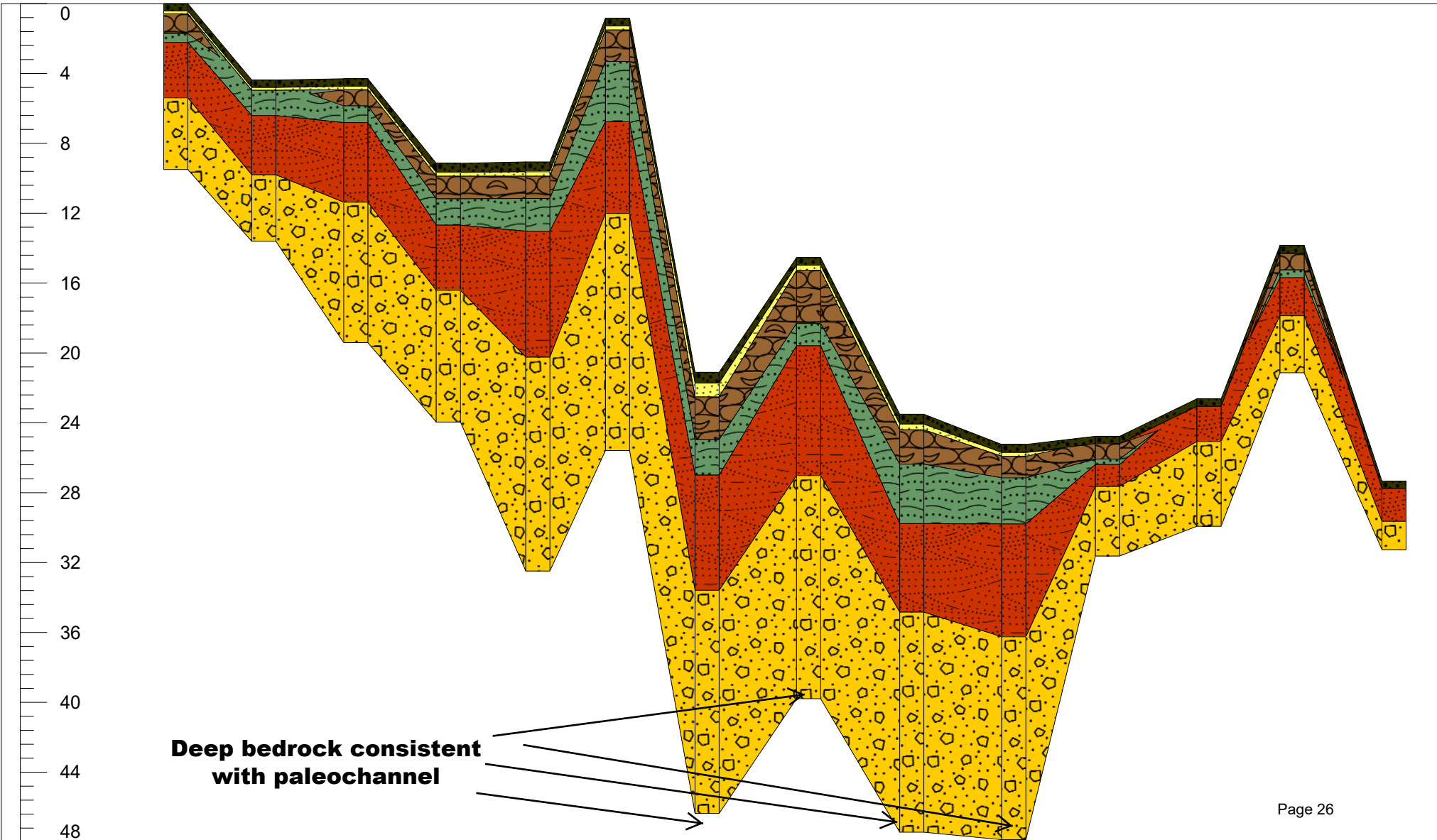
### Line 5

#### Legend

- |   |         |   |         |
|---|---------|---|---------|
|  | Layer 1 |  | Layer 5 |
|  | Layer 2 |  | Layer 6 |
|  | Layer 3 |  | Layer 7 |
|  | Layer 4 |   |         |

depth in meters

L5S1      L5S2      L5S3      L5S4      L5S5      L5S6      L5S7      L5S8      L5S9      L5S10      L5S11      L5S12      L5S13      L5S14

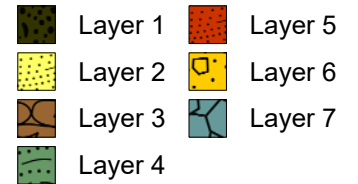


# Canyon Creek

## Passive Seismic 2021

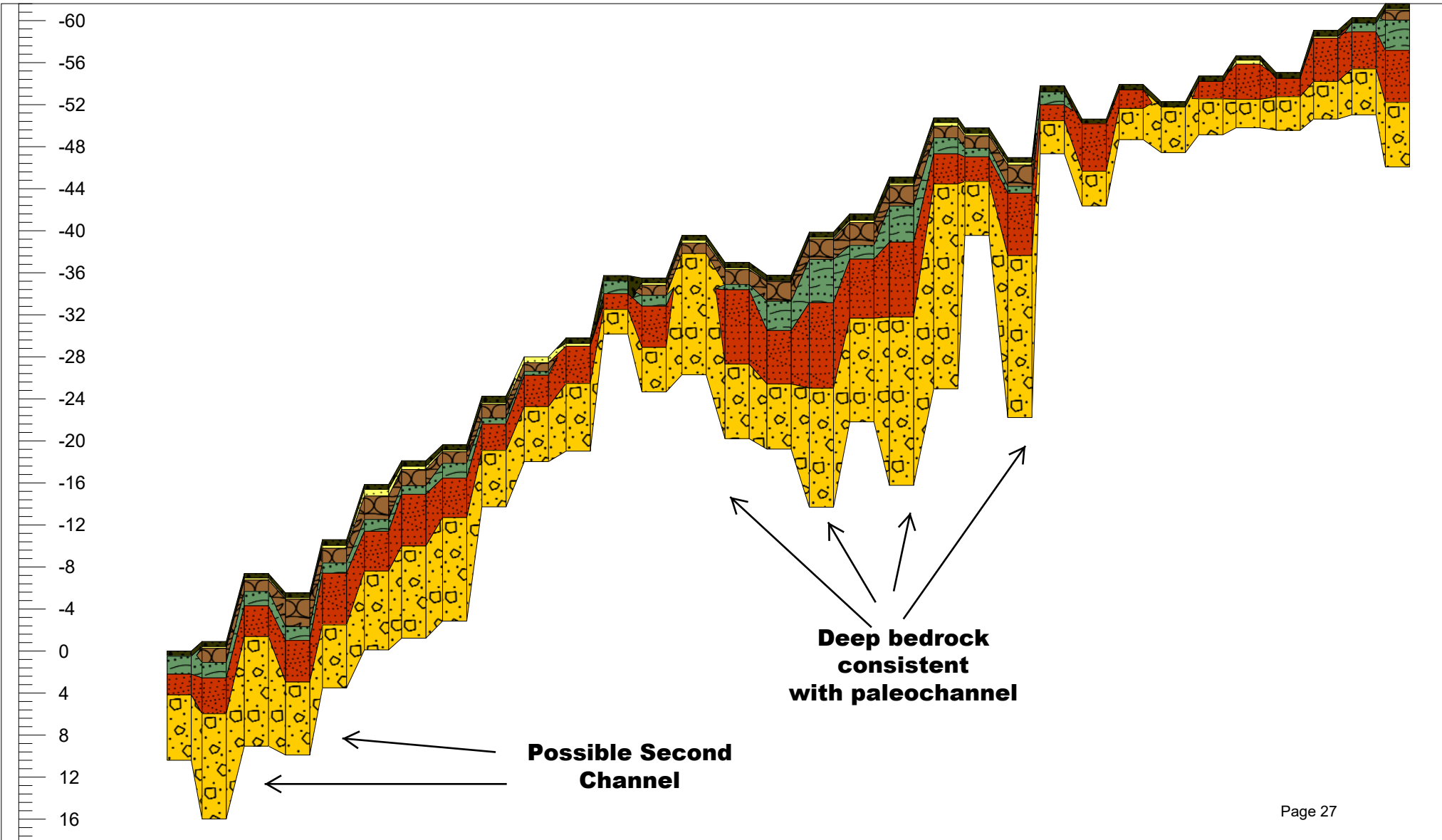
### Line 6

#### Legend



depth in meters

L6S1 L6S2 L6S3 L6S4 L6S5 L6S6 L6S7 L6S8 L6S9 L6S10 L6S11 L6S12 L6S13 L6S14 L6S15 L6S16 L6S17 L6S18 L6S19 L6S20 L6S21 L6S22 L6S23 L6S24 L6S25 L6S26 L6S27 L6S28 L6S29 L6S30 L6S31 L6S32

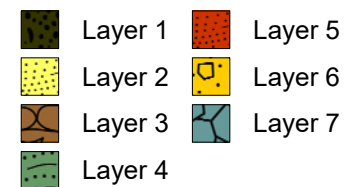


# Canyon Creek

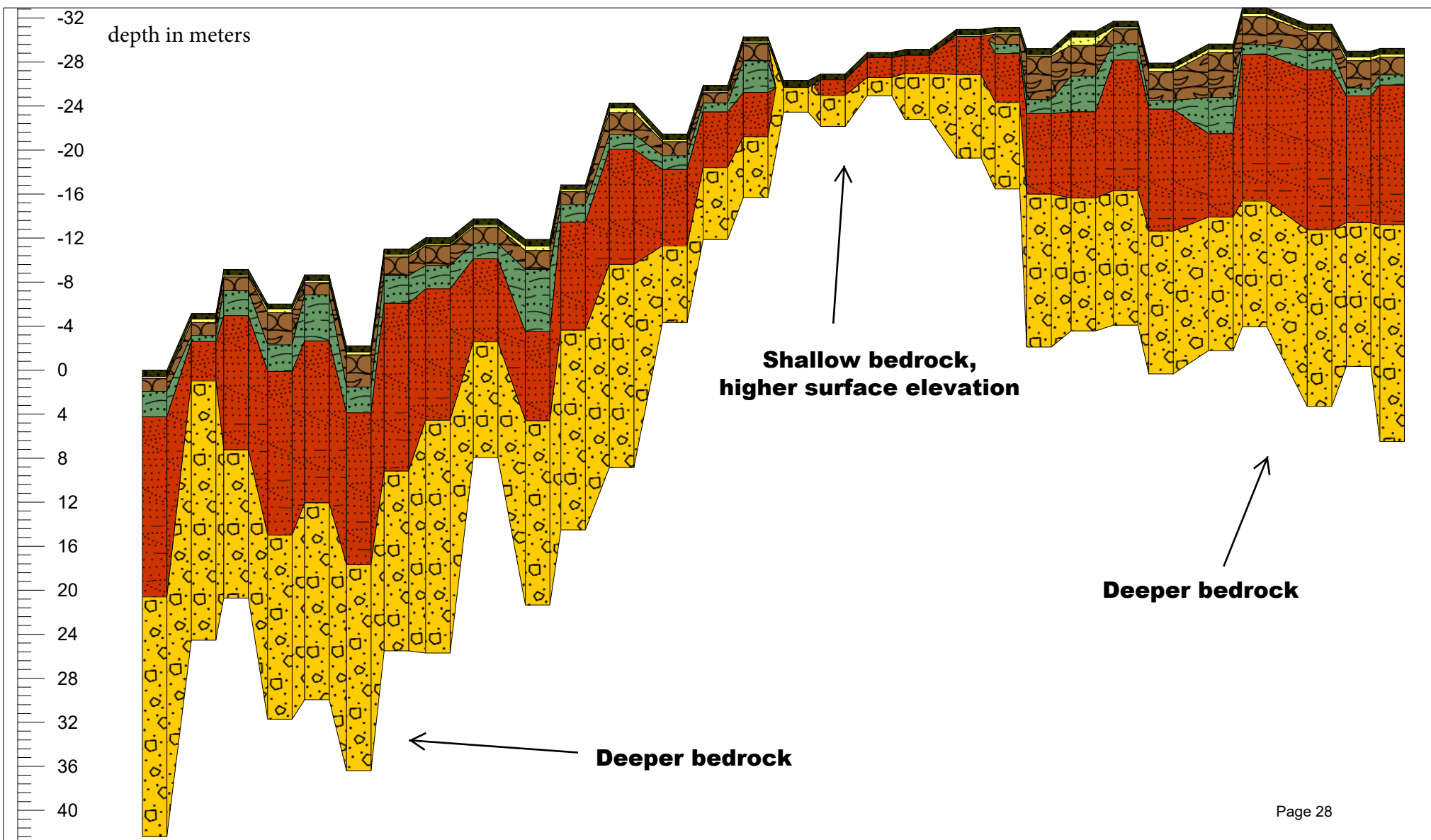
## Passive Seismic 2021

### Line 7

Legend



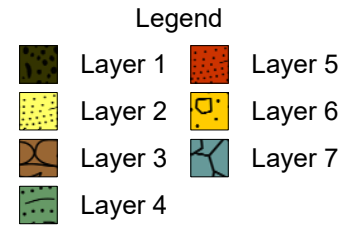
L7S1 L7S2 L7S3 L7S4 L7S5 L7S6 L7S7 L7S8 L7S9 L7S10 L7S11 L7S12 L7S13 L7S14 L7S15 L7S16 L7S17 L7S18 L7S19 L7S20 L7S21 L7S22 L7S23 L7S24 L7S25 L7S26 L7S27 L7S28 L7S29 L7S30



# Canyon Creek

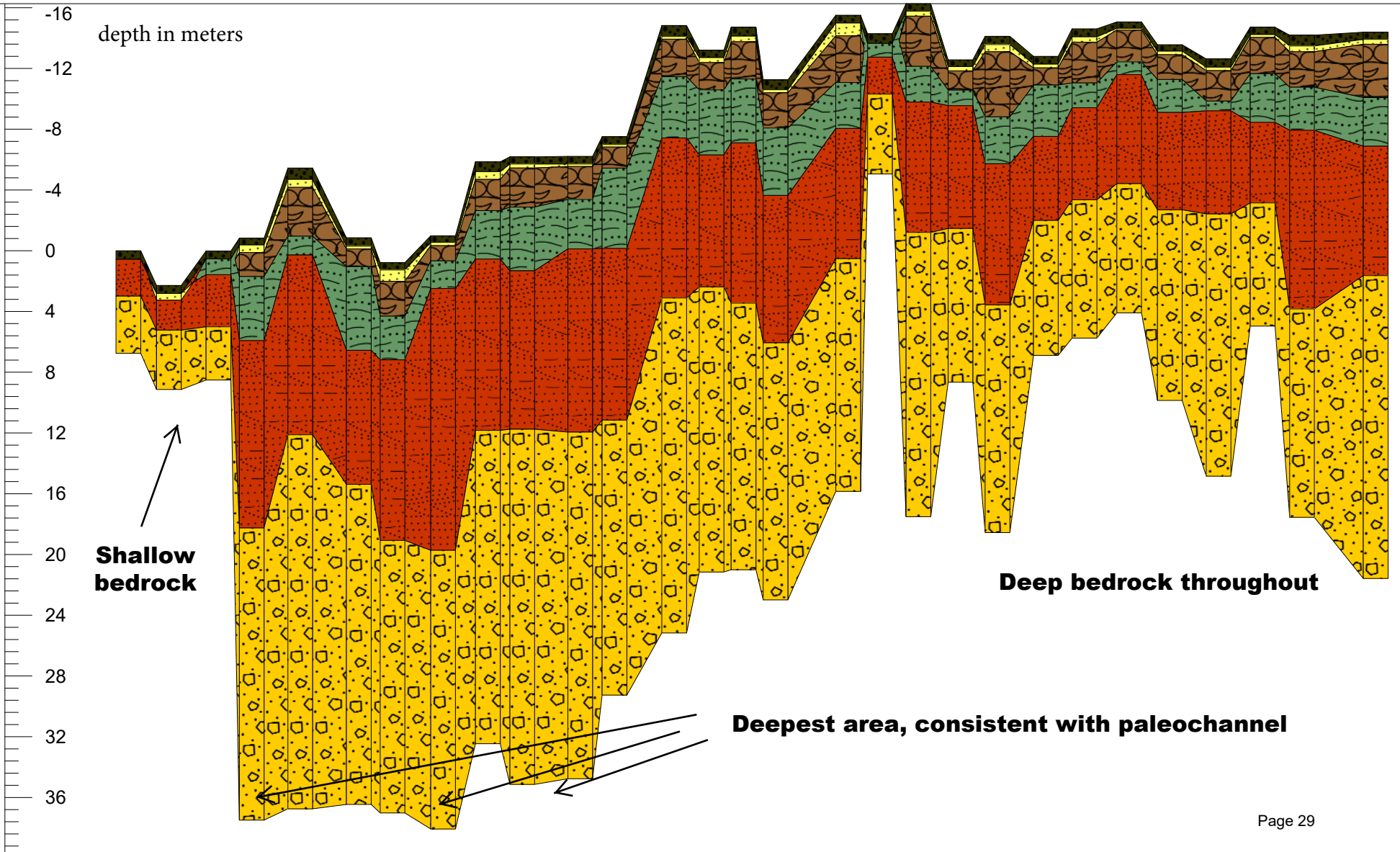
## Passive Seismic 2021

### Line 8



L8S1 L8S2 L8S3 L8S4 L8S5 L8S6 L8S7 L8S8 L8S9 L8S10 L8S11 L8S12 L8S13 L8S14 L8S15 L8S16 L8S17 L8S18 L8S19 L8S20 L8S21 L8S22 L8S23 L8S24 L8S25 L8S26 L8S27 L8S28 L8S29

depth in meters



**Shallow bedrock**

**Deep bedrock throughout**

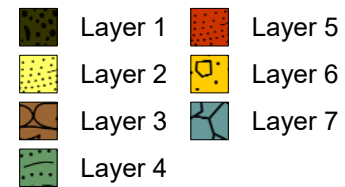
**Deepest area, consistent with paleochannel**

# Canyon Creek

## Passive Seismic 2021

### Line 13

#### Legend



L13S1

L13S2

L13S3

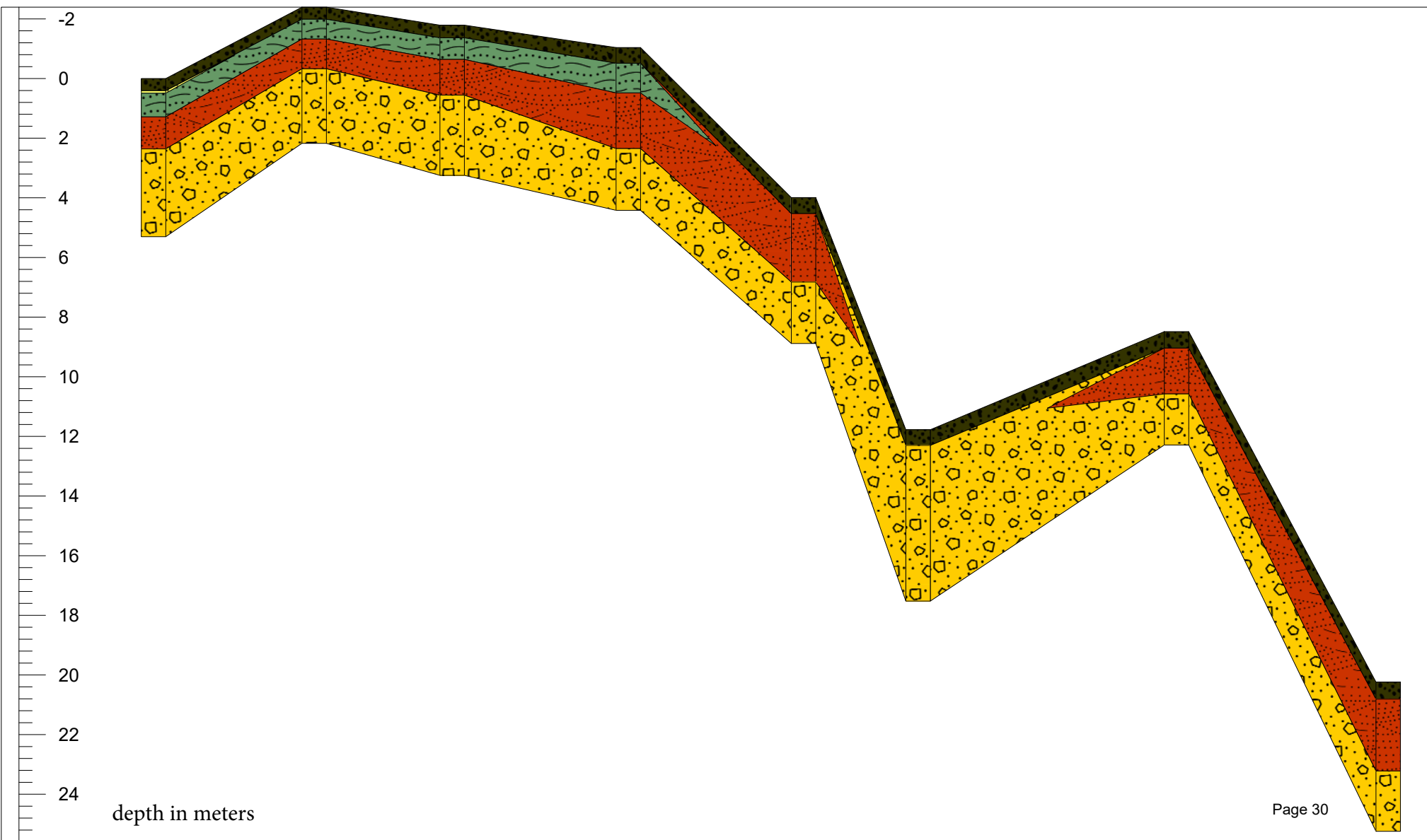
L13S4

L13S5

L13S6

L13S7

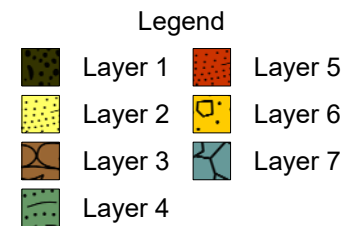
L13S8



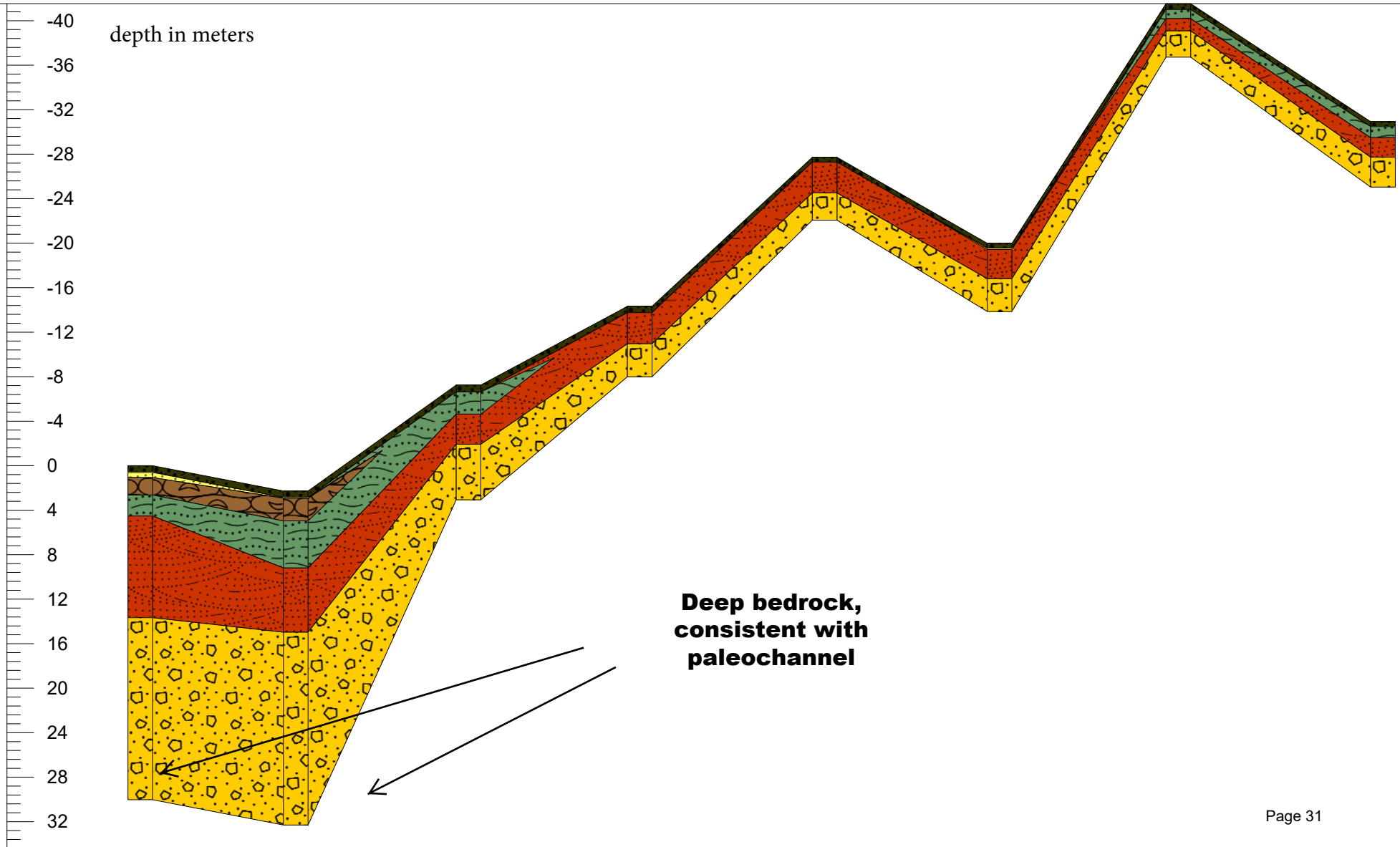
# Canyon Creek

## Passive Seismic 2021

### Line 14



L14S1      L14S2      L14S3      L14S4      L14S5      L14S6      L14S7      L14S8










# Canyon Creek

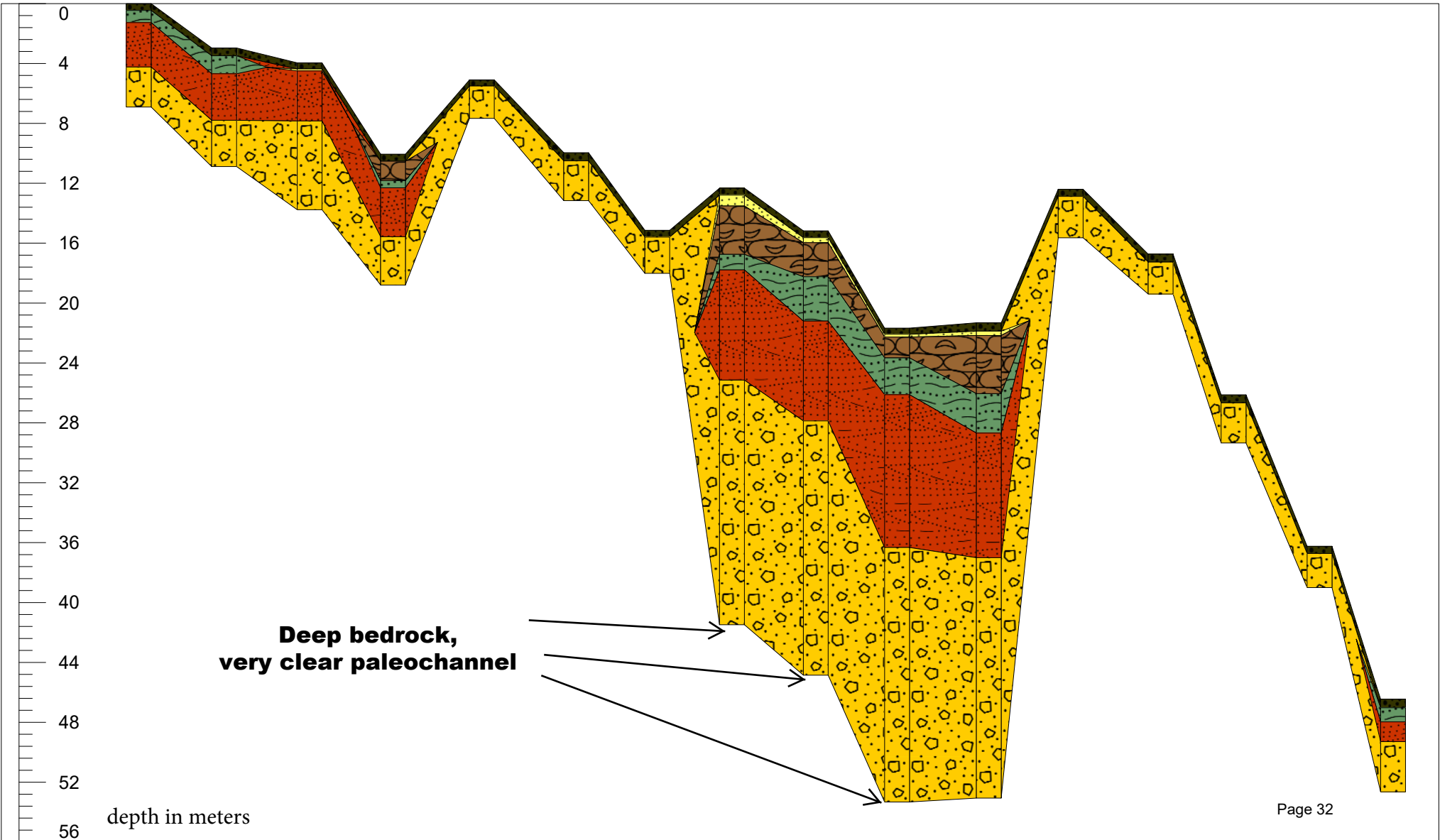
## Passive Seismic 2021

### Line 15

#### Legend

- |   |         |   |         |
|---|---------|---|---------|
|  | Layer 1 |  | Layer 5 |
|  | Layer 2 |  | Layer 6 |
|  | Layer 3 |  | Layer 7 |
|  | Layer 4 |   |         |

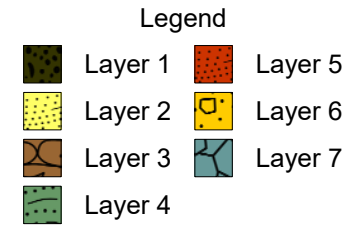
L15S1 L15S2 L15S3 L15S4 L15S5 L15S6 L15S7 L15S8 L15S9 L15S10 L15S11 L15S12 L15S13 L15S14 L15S15 L15S16



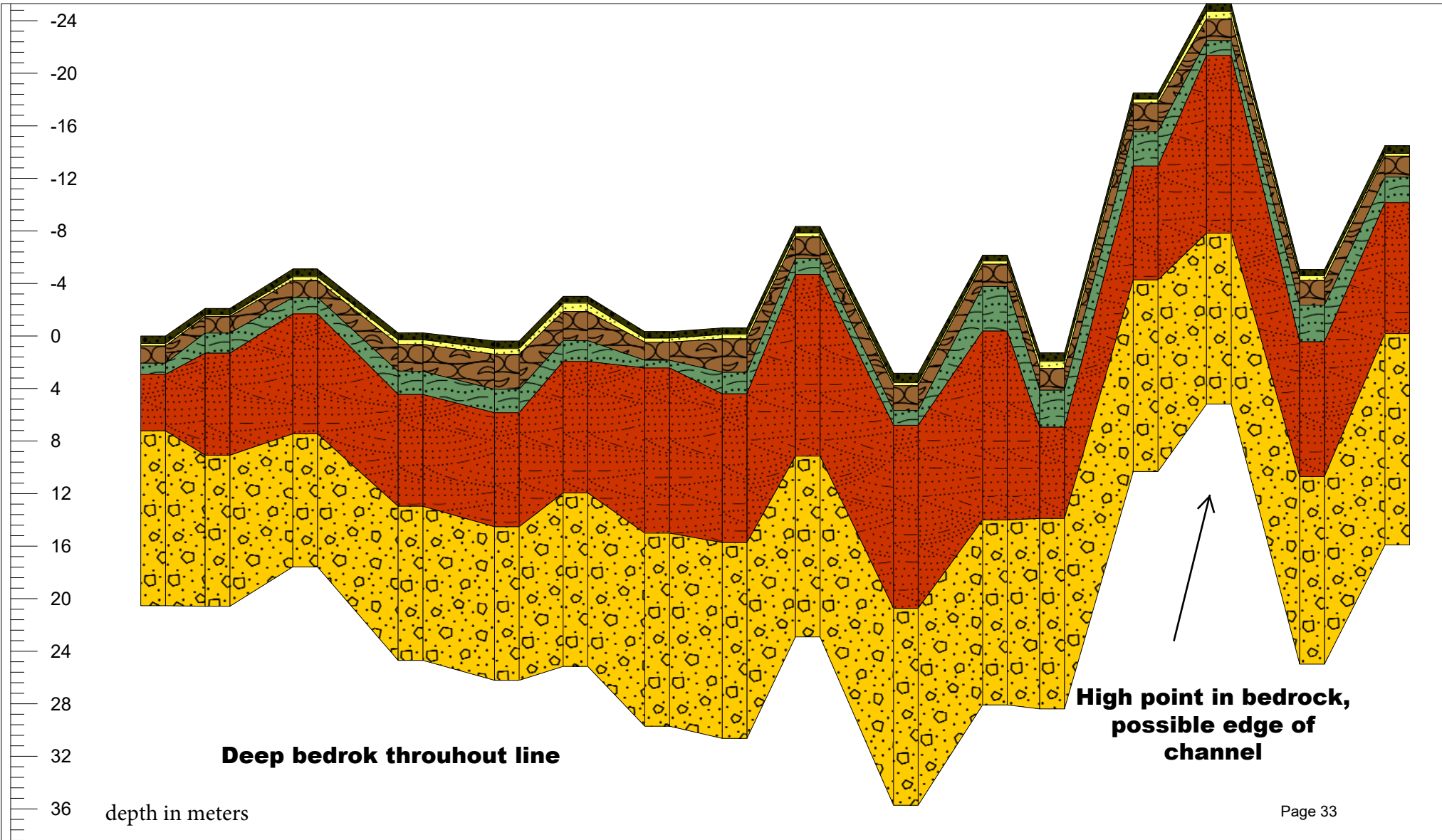
# Canyon Creek

## Passive Seismic 2021

### Line 16



L16S1 L16S2 L16S3 L16S4 L16S5 L16S6 L16S7 L16S8 L16S9 L16S10 L16S11 L16S12 L16S13 L16S14 L16S15 L16S16

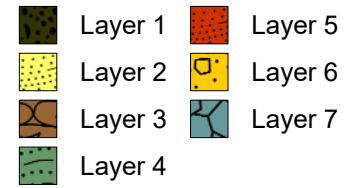


# Canyon Creek

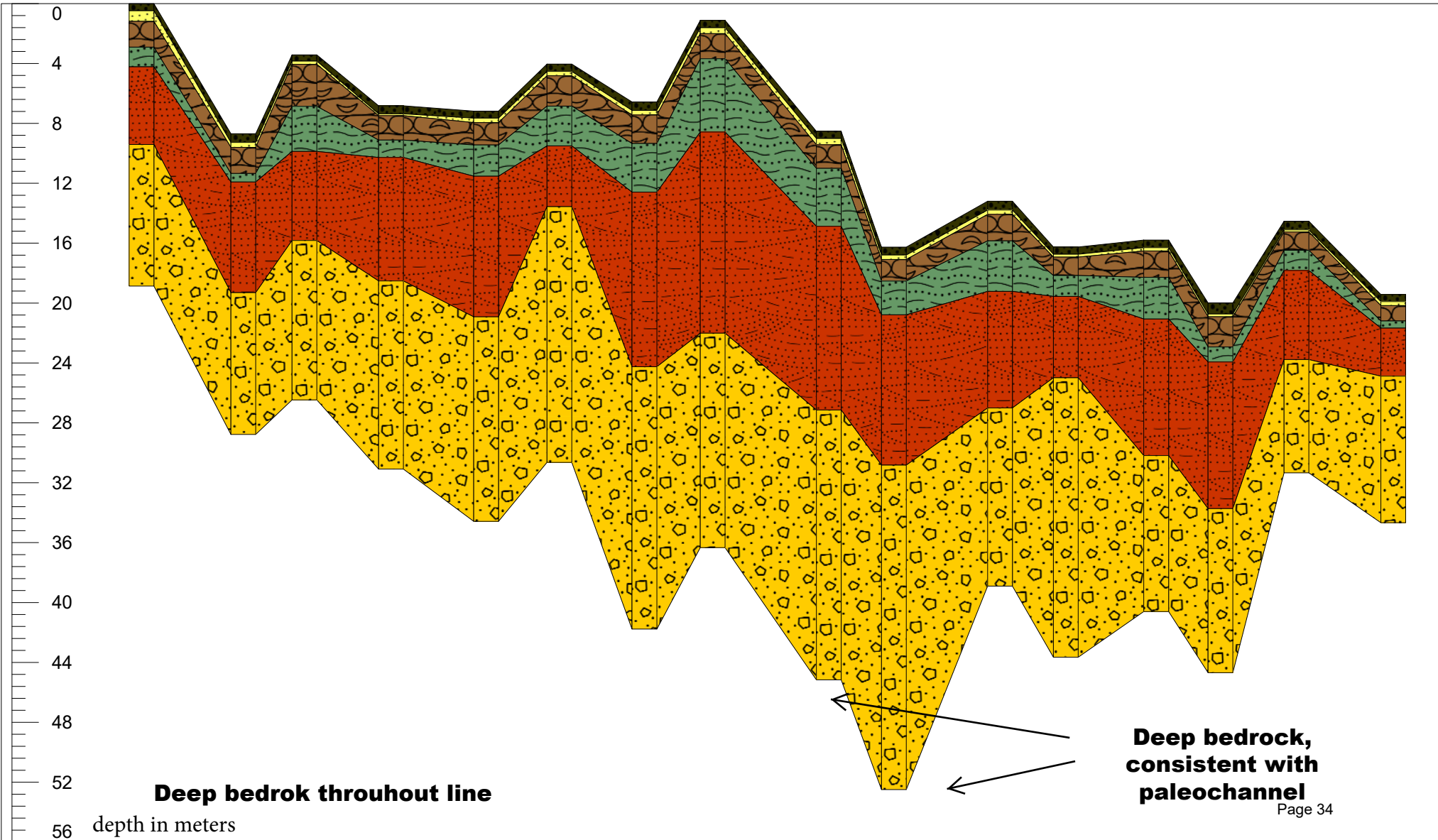
Passive Seismic 2021

Line 17

Legend



L17S1 L17S2 L17S3 L17S4 L17S5 L17S6 L17S7 L17S8 L17S9 L17S10 L17S11 L17S12 L17S13 L17S14 L17S15 L17S16

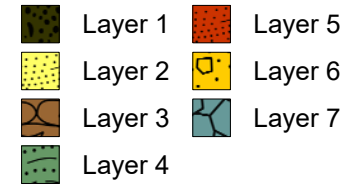


# Canyon Creek

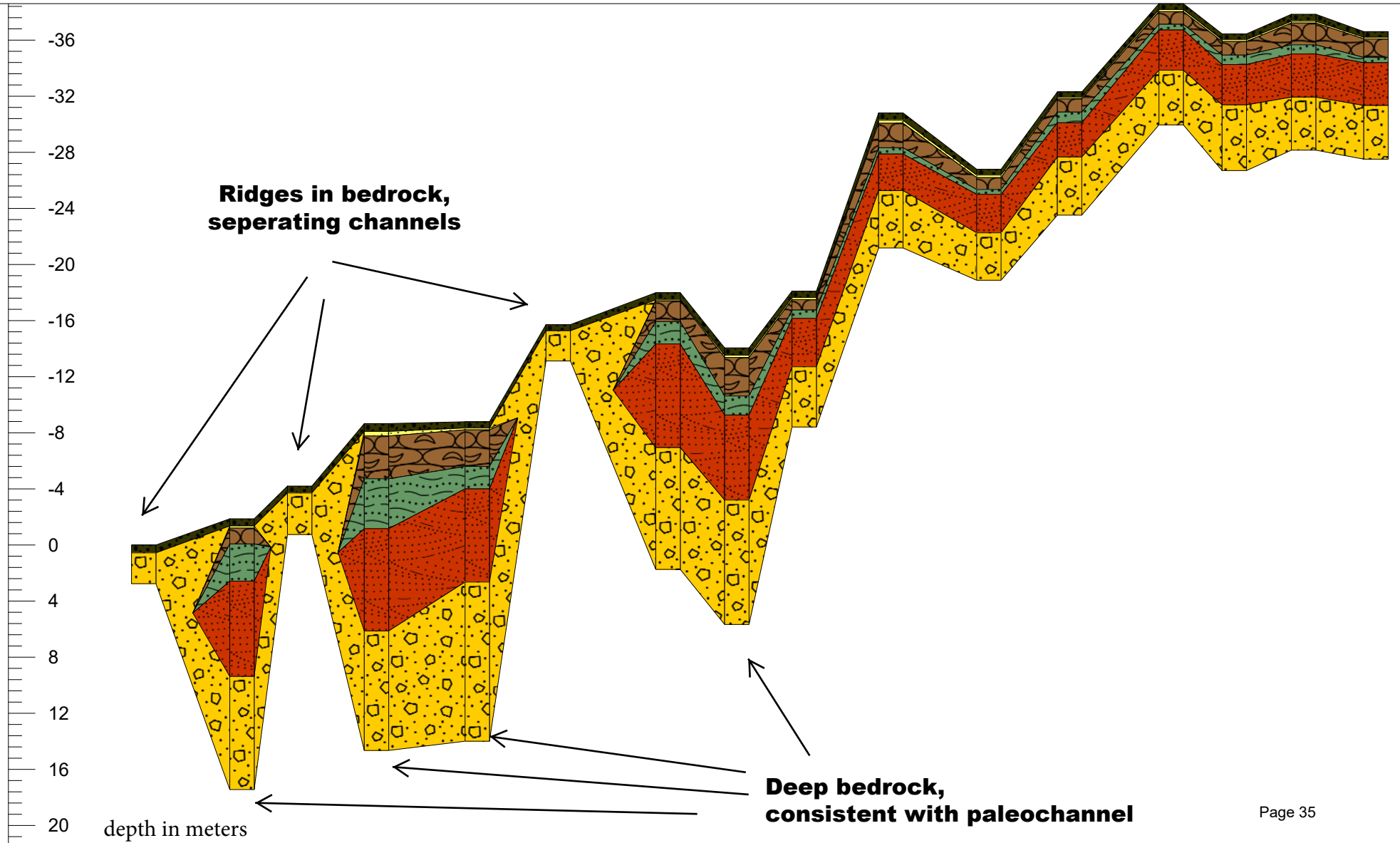
Passive Seismic 2021

Line 18

Legend



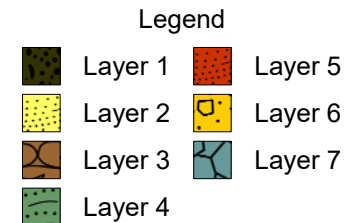
L18S1 L18S2 L18S3 L18S4 L18S5 L18S6 L18S7 L18S8 L18S9 L18S10 L18S11 L18S12 L18S13 L18S14 L18S15 L18S16



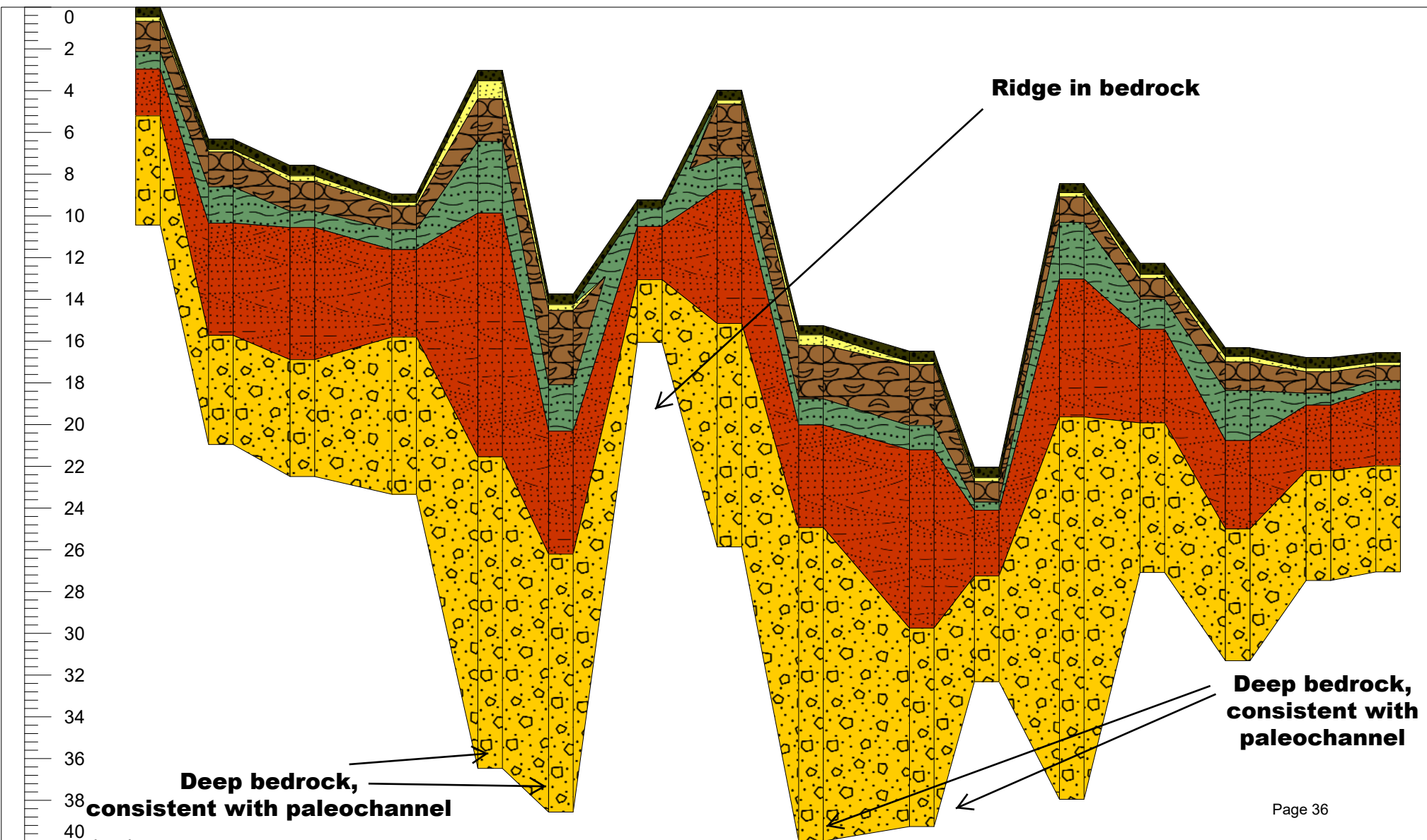
# Canyon Creek

## Passive Seismic 2021

### Line 19



L19S1 L19S2 L19S3 L19S4 L19S5 L19S6 L19S7 L19S8 L19S9 L19S10 L19S11 L19S12 L19S13 L19S14 L19S15 L19S16

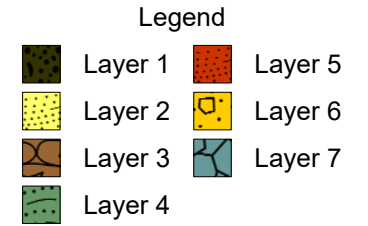


depth in meters

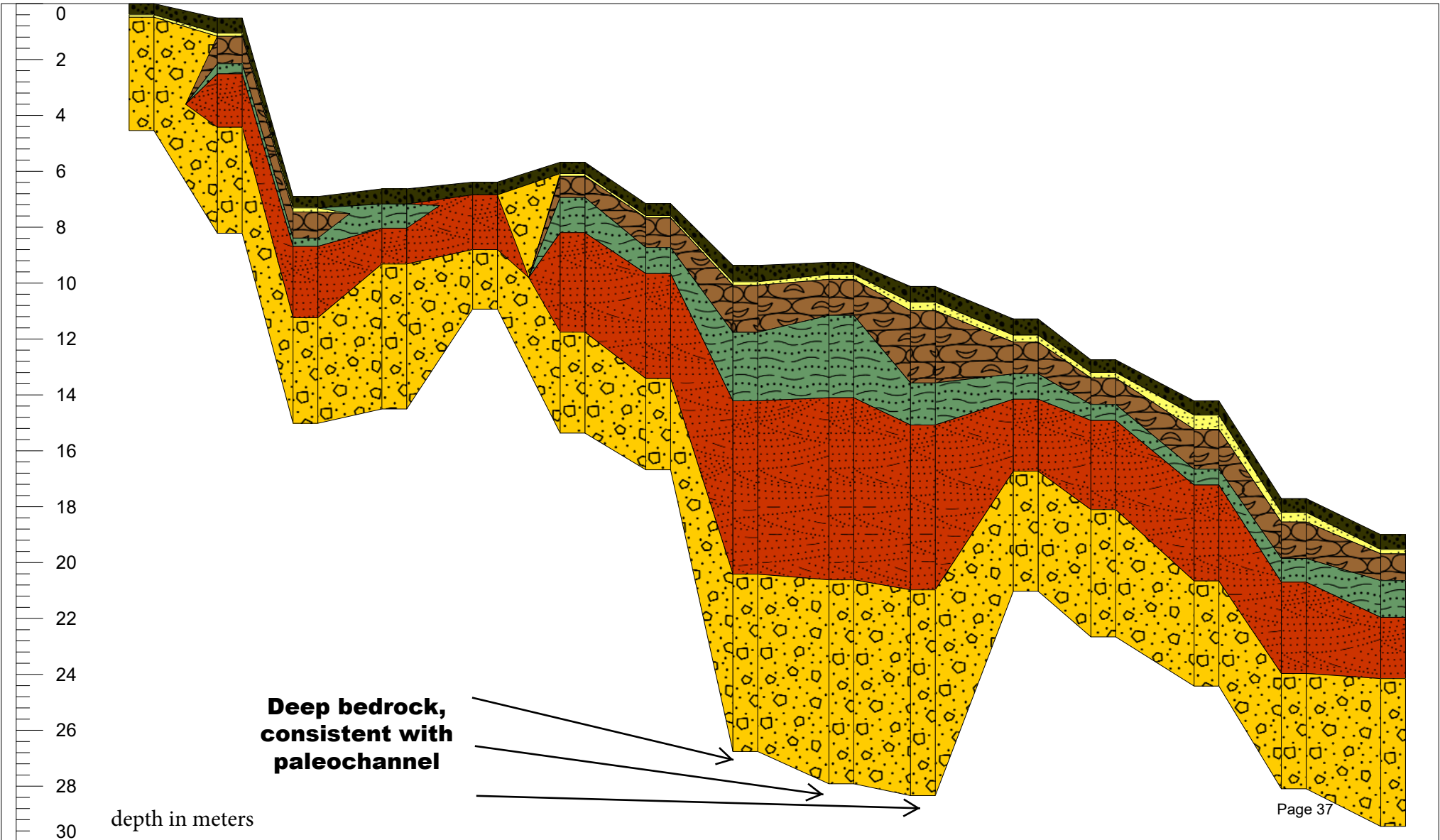
# Canyon Creek

## Passive Seismic 2021

### Line 20



L20S1 L20S2 L20S3 L20S4 L20S5 L20S6 L20S7 L20S8 L20S9 L20S10 L20S11 L20S12 L20S13 L20S14 L20S15



# Canyon Creek

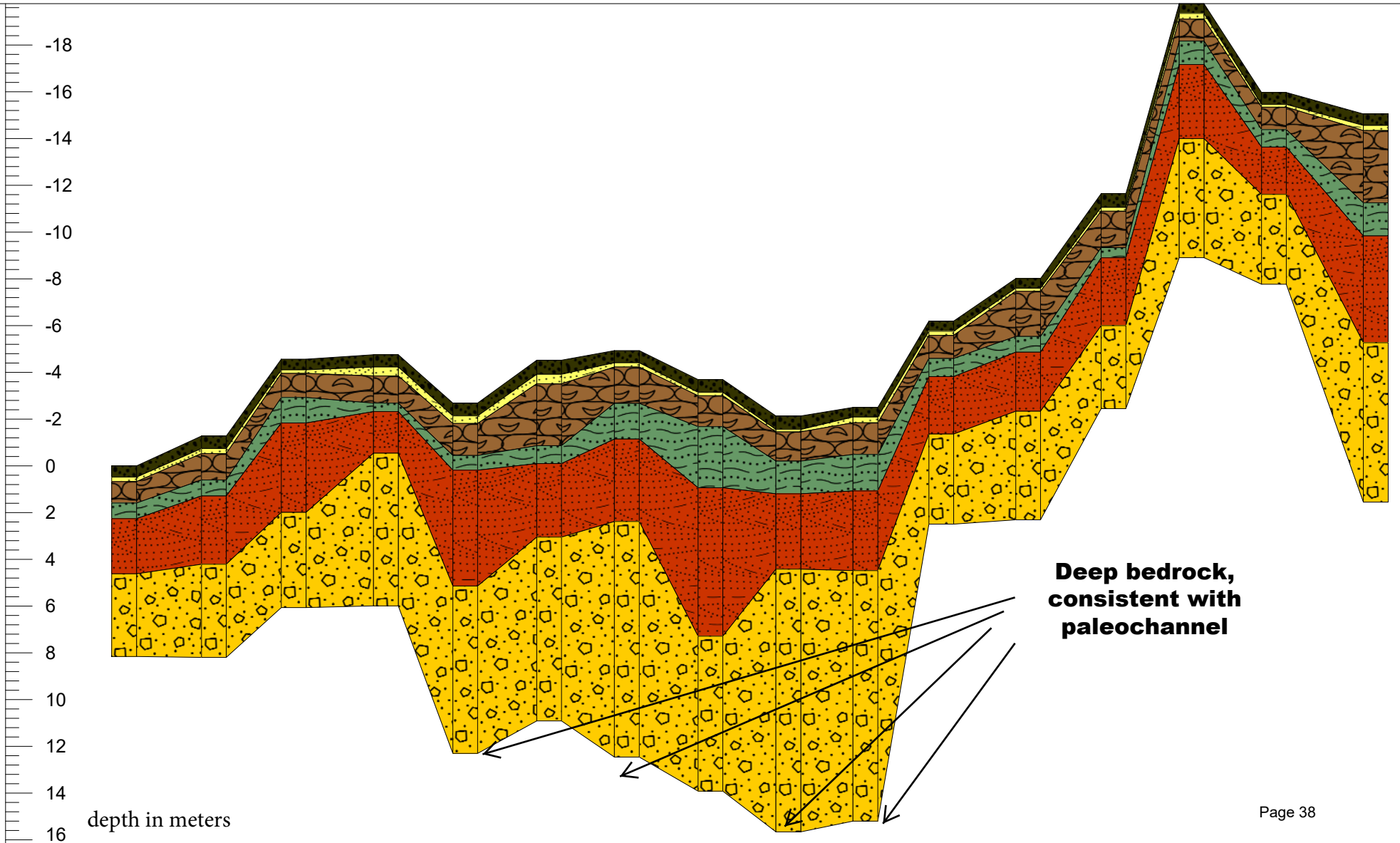
## Passive Seismic 2021

### Line 21

Legend

- Layer 1
- Layer 2
- Layer 3
- Layer 4
- Layer 5
- Layer 6
- Layer 7

L21S1 L21S2 L21S3 L21S4 L21S5 L21S6 L21S7 L21S8 L21S9 L21S10 L21S11 L21S12 L21S13 L21S14 L21S15 L21S16



# Canyon Creek

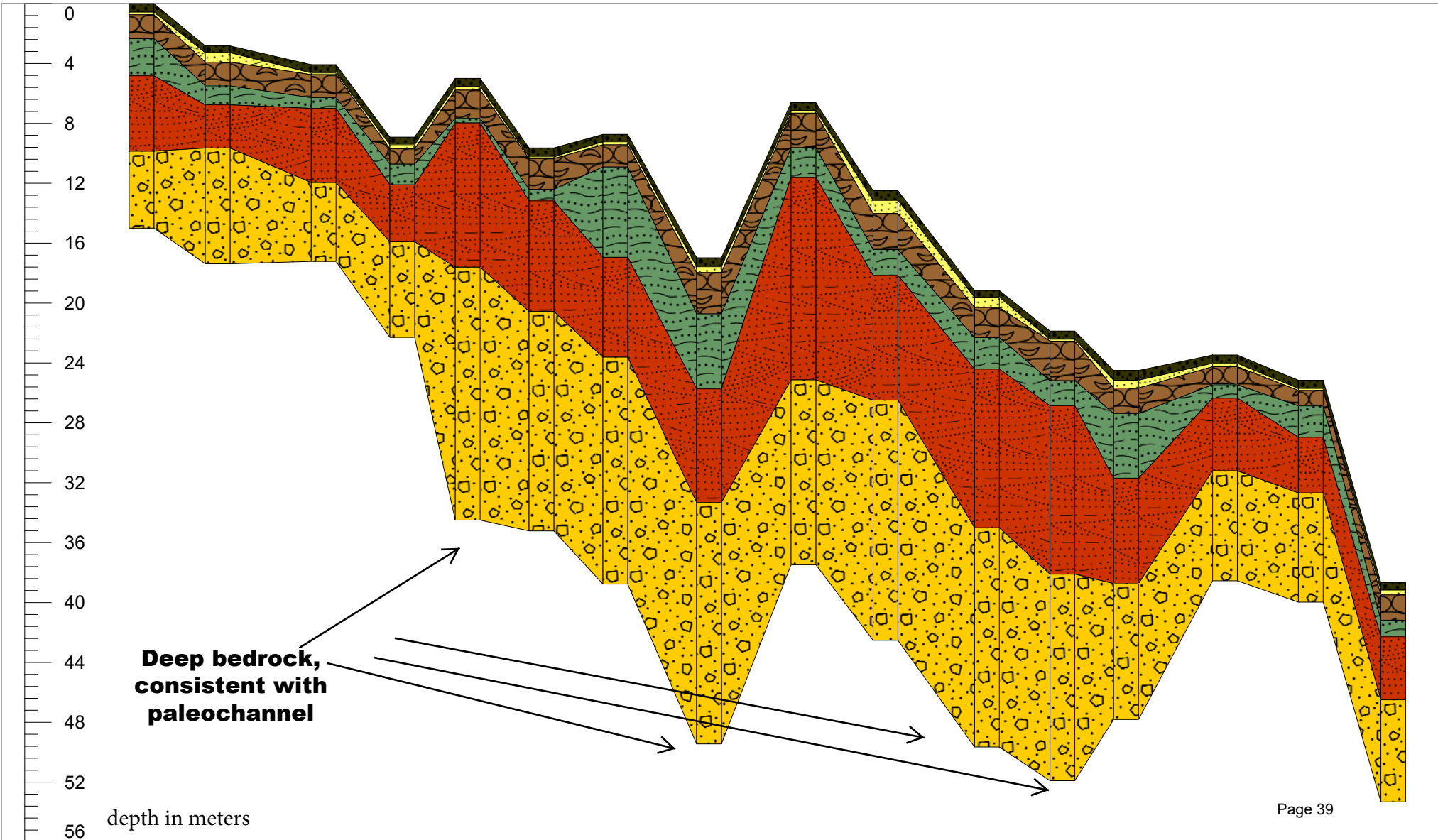
## Passive Seismic 2021

### Line 23

Legend

- Layer 1
- Layer 2
- Layer 3
- Layer 4
- Layer 5
- Layer 6
- Layer 7

L23S1 L23S2 L23S3 L23S4 L23S5 L23S6 L23S7 L23S8 L23S9 L23S10 L23S11 L23S12 L23S13 L23S14 L23S15 L23S16

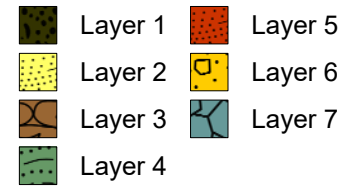


# Canyon Creek

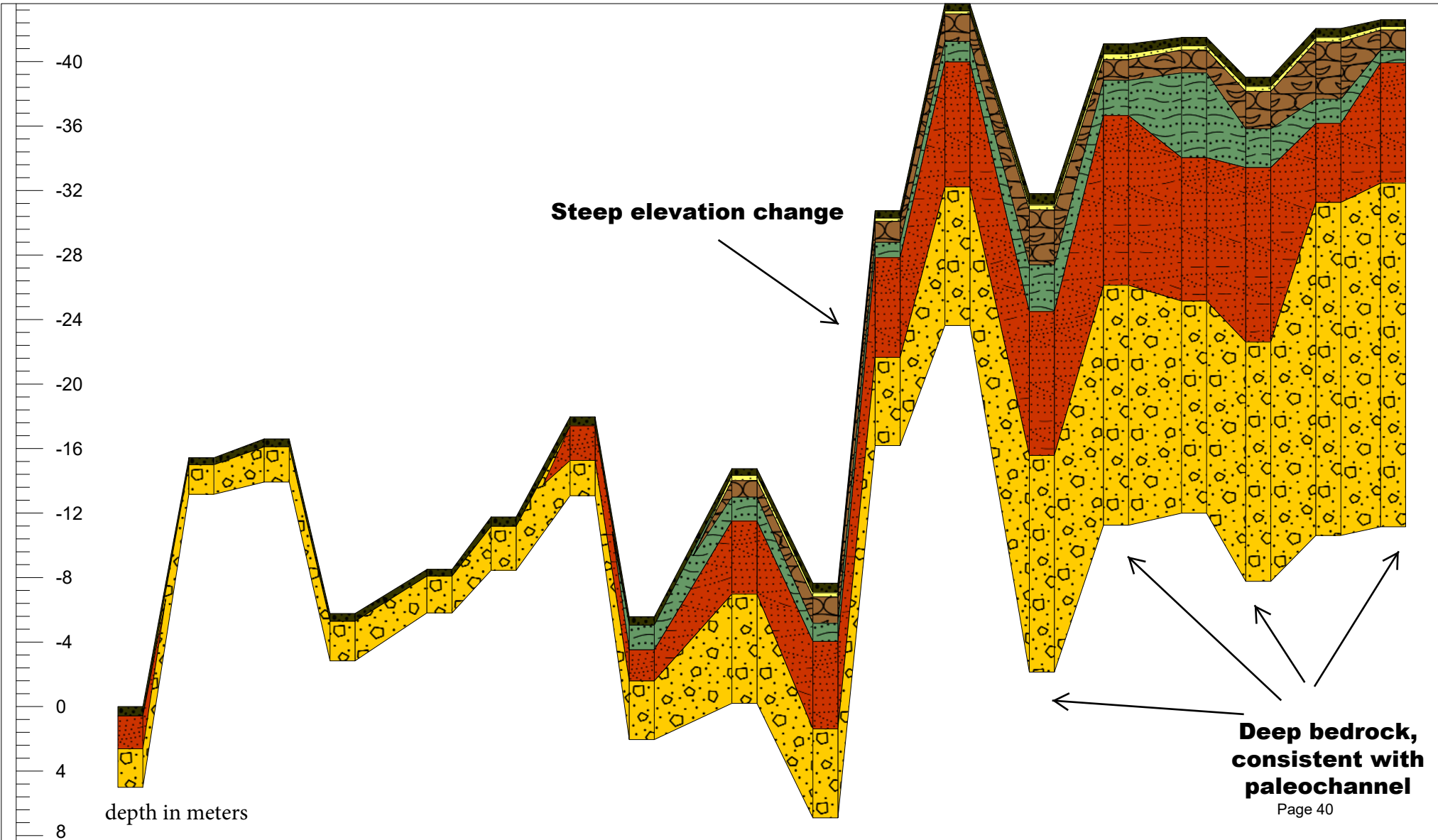
Passive Seismic 2021

Line 24

Legend



L24S1 L24S2 L24S3 L24S4 L24S5 L24S6 L24S7 L24S8 L24S9 L24S10 L24S11 L24S12 L24S13 L24S14 L24S15 L24S16 L24S17 L24S18



Deep bedrock,  
consistent with  
paleochannel