

Survey type: Zero-offset VSP, Offset VSP and Walkaway VSP survey

Company: CO2CRC Pilot Project Ltd.

Well: Naylor 1

Field: Naylor

Country: Australia

Run: 4

Date: 5/14/2006

Recorded by: S. Nakanishi

Witnessed by: Kevin Dodds, Brian Evans

## Report Contents

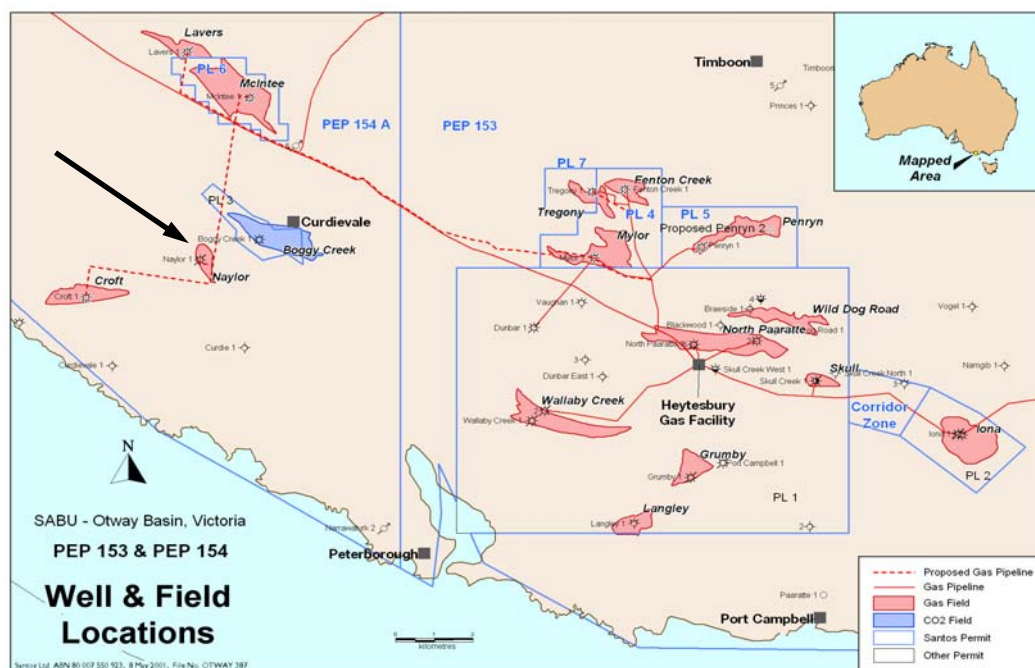
Section	Page Number
Introduction / Survey Overview	4
Well Information	7
Well Sketch	8
Well Inclination List	9
Tool Sketch	10
Tool Configuration	11
Operating Time Summary	12
<b>Zero-Offset VSP report</b>	<b>17</b>
Source Information	19
Geometry Information (X-Y)	22
Geometry Information (X-Z)	23
Geometry Information (Y-Z)	24
Time/Depth Plot	25
Velocity Plot	26
Stack Summary Listing	27
Shot Summary Listing	35
Field Processing Report	
Process flow and parameter	44
Process Parameter	45
Raw Stack (Z) plot	48
Raw Stack (X) plot	49
Raw Stack (Y) plot	50
Raw Stack (TRY) plot	51
Raw Stack (HMX) plot	52
HMX angle plot	53
TRY angle plot	54
VSP Raw Stack (Z) FK	55
VSP Raw Stack (Z) FZ	56
VSP Downgoing plot	57
VSP Upgoing plot	58
VSP Waveshape Decon Downgoing plot	59
VSP Waveshape Decon Upgoing plot	60
VSP Waveshape Decon Upgoing FK plot	61
VSP Corridor Stack Input plot	62
VSP Corridor Stack Output plot	63
Source Signature QC Report	64
Amplitude QC Report	67
Observers Report	74
Tool Evaluation Test Report	79

<b>Offset-VSP Report</b>	<b>91</b>
Source Information	93
Geometry Information (X-Y)	95
Shot Summary Listing	96
Raw Stack (Z) plot	102
Raw Stack (X) plot	103
Raw Stack (Y) plot	104
Raw Stack (TRY) plot	105
Raw Stack (HMX) plot	106
Raw Stack (NRY) plot	107
Raw Stack (HMN) plot	108
HMX angle plot	109
TRY angle plot	110
Source Signature QC Report	111
Amplitude QC Report	114
Observers Report	121
Tool Evaluation Test Report	126
<b>Walkaway VSP Line-A Report</b>	<b>138</b>
Source Information	140
Geometry Information (X-Y)	142
Raw Stack (VSI-8) Receiver gather plot	143
Raw Stack (VSI-7) Receiver gather plot	151
Raw Stack (VSI-6) Receiver gather plot	157
Raw Stack (VSI-5) Receiver gather plot	163
Raw Stack (VSI-4) Receiver gather plot	169
Raw Stack (VSI-3) Receiver gather plot	175
Raw Stack (VSI-2) Receiver gather plot	181
Raw Stack (VSI-1) Receiver gather plot	187
Source Signature QC Report	193
Observers Report	196
VP Station UTM Coordinate (GPS survey) List	206
Tool Evaluation Test Report	208
<b>Walkaway VSP Line-B Report</b>	<b>238</b>
Source Information	240
Geometry Information (X-Y)	242
Raw Stack (VSI-8) Receiver gather plot	243
Raw Stack (VSI-7) Receiver gather plot	249
Raw Stack (VSI-6) Receiver gather plot	255
Raw Stack (VSI-5) Receiver gather plot	261
Raw Stack (VSI-4) Receiver gather plot	267
Raw Stack (VSI-3) Receiver gather plot	273
Raw Stack (VSI-2) Receiver gather plot	279
Raw Stack (VSI-1) Receiver gather plot	285
Source Signature QC Report	291
Observers Report	294
VP Station UTM Coordinate List	299
Tool Evaluation Test Report	300
<b>Walkaway VSP S-Wave Line-A Report</b>	<b>320</b>
Source Information	322
Geometry Information (X-Y)	324
Raw Stack InLine -S (VSI-8) Receiver gather plot	325
Raw Stack InLine -S (VSI-5) Receiver gather plot	331
Raw Stack InLine -S (VSI-2) Receiver gather plot	337
Raw Stack Cross -S (VSI-8) Receiver gather plot	343
Raw Stack Cross -S (VSI-5) Receiver gather plot	349
Raw Stack Cross -S (VSI-2) Receiver gather plot	355
Source Signature QC Report	361
Observers Report	364
Tool Evaluation Test Report	371

## Introduction

A borehole seismic survey was recorded in the vertical (max. 8 deg deviation) well, Naylor-1 in period of 14 to 18 May 2006. The survey was conducted by configuring Zero-offset VSP, Offset VSP and Walkaway VSP. The data were acquired using 8 shuttles VSIT-C (10 m spacing) downhole Tool. Single IVI T-1500 6,000 lb mini-vibroseis truck (P-wave mode / S-wave mode) was used for VSP source.

Naylor-1 was drilled (May 2001) as an Otway basin gas exploration well to be located in the PEP 154 licence, approximately 10 km North West of the town of Peterborough, 1.6 km south west of the Boggy Creek CO2 field. The VSP survey is a part of the Otway Basin Pilot Project, which provides a means to demonstrate and test ability to detect the presence and distribution of CO2.



Objectives of the survey are

- Establish the suitability of the mini-vibrator as a source for VSP surveys
- Assess quality of data from system of source, receiver and coupling environment
- To provide a high resolution velocity profile and assess imaging of reservoir, gas and water contact (VSP)
- To establish working protocols for acquiring a walkaway (WVSP) with minivibrator to optimise future potential multiple surveys.
- To establish data quality limits with distance from well for a WVSP data acquisition.
- Assess data quality with distance for 9 component data acquisition
- To compare data quality from intersection of WVSP line with surface multi-component line.
- To image structural elements, fault, seal, trap.
- Assessment of potential for direct detection and extent of water gas contact.
- Evaluate potential of 9 component WVSP data to provide AVO signature of water gas contact

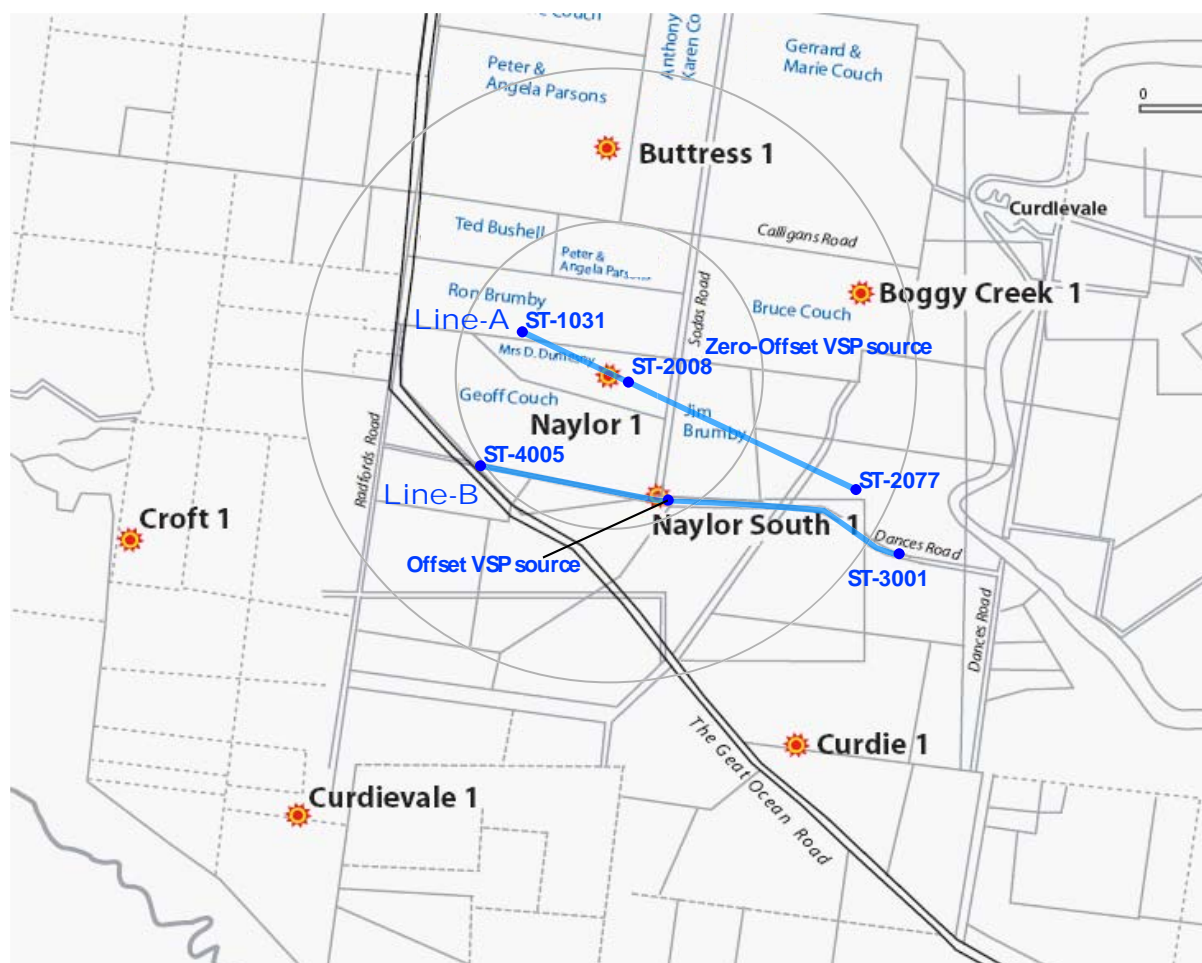
## Survey overview

Prior to the VSP survey, Owen Bride Plug was set at 2016 m MD to kill gas leakage from the casing patch 2020 mMD. Entire VSP surveys used pressure control equipment (flow tube with BOP) at well head for safety precaution. 15-ton mobile crane was used for rig-up. The survey was conducted in day-time only. The sensor shuttle (VSIS) of the downhole tool was customized for slim-mode (2.992 Inch ID casing 3 ½" 13Cr95 9.2#) in order to optimize the quality of horizontal signal (X and Y).

Min-vibrator was set for 15 seconds sweep length from 10 Hz to 150 Hz (linear sweep) for P-wave mode and 10 – 80 Hz (linear sweep) for S-wave mode.

Overall of the data quality is considerably good including horizontal signal (X and Y channel). However, strong 120Hz harmonic noise was observed particularly at the top receiver in all surveys. The noise was seen in the background measurement. It is caused by the 60Hz power transformer of the top tools (electronics – VSCC/VSPC / telemetry cartridge - STGC). The vibration is transmitted through the borehole fluid or the casing. The noise is seems to be stronger in the small casing.

Field Cross-correlation is done by using Filtered Ground Force signal through MinVib T-1500 and Downhole X, Y and Z- GAC (accelerometer) without Geophone transformation.



**14 May 2006, Offset-VSP**

Min-Vibrator (P-wave mode) was position at 657883E, 57331139N on Dances Rd near Naylor South 1 wellhead. The data was recorded from 2010 mMD to 660 mMD. At least 5 sweeps were recorded at each VSP level. 5 meters spacing of the receivers from 2010 m MD to 1800 mMD was recorded. Top two receivers (VSIS ENP35 and VSIS-8077) were overlapped by bottom two receivers at each station depth in order to ensure data quality. VSIS-8077 ( 2'nd top receiver) had cross-talk noise on X-channel below 1000 mMD. The VSIS was replaced after the Offset-VSP survey. Gammer Ray Log was recorded (up log) while main VSP survey. Depth offset – 1.0 meter is observed. The depth offset is not corrected in this report.

**15/16 May 2006, Walkaway VSP Line-A**

VSIS receivers were set at 1800, 1790, 1780, 1770, 1760, 1750, 1740 and 1730 mMD during the Walkaway survey line-A. Min-vibrator (P-wave mode) ran from Station No. 2001 to 2046 (East side) and from 1061 to 1031 (West side). The survey was resumed next day (16 May 2006) after re-anchoring the receiver at same depth. Station No. 2048 to 2077 (Far East end) was obtained. At least 3 to 7 sweeps were recorded at each station depending on the SNR. Depth was correlated with Gammer Ray Log.

**16 May 2006, Walkaway VSP Line-B**

VSIS receivers were set at 2000, 1990, 1980, 1970, 1960, 1950, 1940 and 1930 mMD during the Walkaway survey line-B. Min-vibrator (P-wave mode) ran from Station No. 3001 to 4005 along Dances Rd. From station No 3001 to 3020 took every 20 meters interval. From 3020 to 3048 and from 4001 to 4005 took every 40 meters interval.

**17 May 2006, Zero-Offset VSP**

Min-Vibrator (P-wave mode) was position at station No 2008 on line-A. The data was recorded from 2010 mMD to 120 mMD. At least 5 sweeps were recorded at each VSP level. 5 meters spacing of the receivers from 2010 m MD to 1730 mMD was recorded. Top receiver was overlapped by bottom receiver at each station depth in order to ensure data quality and repeatability.

The location (ST-2008) of the source (187 meters offset) was chosen avoiding the noise from the tube-wave for imaging processing.

The survey depth from 190mMD to 50 mMD was obtained by moving the Min-Vibrator at Station No 2002, in order to obtain weather zone velocity (SRD depth 51.1 m).

Gammer Ray Log was recorded (up log) while main VSP survey. Depth offset – 1.0 meter is observed. The depth offset is not corrected in this report.

**18 May 2006, Walkaway VSP (S-wave mode) Line-A**

VSIS receivers were set at 1800, 1790, 1780, 1770, 1760, 1750, 1740 and 1730 mMD during the Walkaway survey line-A. Min-vibrator (S-wave mode, sweep length 15 seconds 10 – 80 Hz linear sweep) ran from Station No. 2002 to 2046 (East) with Inline-S (S1) facing vibrator truck to East and from 2046 to 2002 (East) with Cross-S (S2) facing vibrator truck to West. The reverse polarity check was conducted at ST-2046 with S1 mode and ST-2020 with S2 mode. Depth was correlated with Gammer Ray Log.

**Well Information**

<b>Company</b>	<b>CO2CRC Pilot Project Ltd.</b>
<b>Well</b>	<b>Naylor 1</b>
<b>Field</b>	<b>Naylor</b>
<b>Country</b>	Australia
<b>State</b>	Victoria
<b>Logging Date</b>	5/14/2006
<b>Run Number</b>	4
<b>Service Order</b>	AUSL06273144
<b>Well Head (Latitude)</b>	38*31' 47.26"S
<b>Well Head (Longitude)</b>	142*48' 30.43"E
<b>Well Head (X Coordinate)</b>	657634.3 UTM
<b>Well Head (Y Coordinate)</b>	5733850.5 UTM
<b>Total Depth - Driller</b>	2157.0 m
<b>Total Depth - Logger</b>	2055.3 m
<b>Maximum Hole Deviation</b>	8.0 deg
<b>Azimuth of Maximum Deviation</b>	125.0 deg
<b>Program Version</b>	14C0-302
<b>Bit Size</b>	6.750 in
<b>Recorded by</b>	S. Nakanishi
<b>Witnessed by</b>	Kevin Dodds, Brian Evans

**Elevation Information**

<b>Permanent Datum</b>	Mean Sea Level
<b>Elevation Permanent Datum</b>	0.0 m
<b>Above Permanent Datum</b>	51.1 m
<b>Drilling Measured From</b>	Rotary Table
<b>Derrick Floor</b>	51.1 m
<b>Ground Level</b>	46.4 m
<b>Kelly Bush</b>	51.1 m
<b>Log Measured From</b>	Rotary Table
<b>Elevation Log Zero</b>	51.1 m

**Depth Corrected Information**

<b>Water Velocity</b>	1750.0 m/s
<b>Seismic Reference Datum</b>	0.0 m

**Remarks**

Correlated to "DLL SLL MLL LCS GR CAL" (16-May-2001) logged by REEVES.

# Well Sketch

Drilling Rig:- Rig-less							
Production String	(in)		(ft)	Well Schematic	(ft)	(in)	
	OD	ID	MD		MD	OD	ID
Derrick Floor Elevation GL			51.1 4.7				
					485	9.875	
					2016		
					2020		
					2056		
					2100		
				2152	3.5		
				2157	6.75		

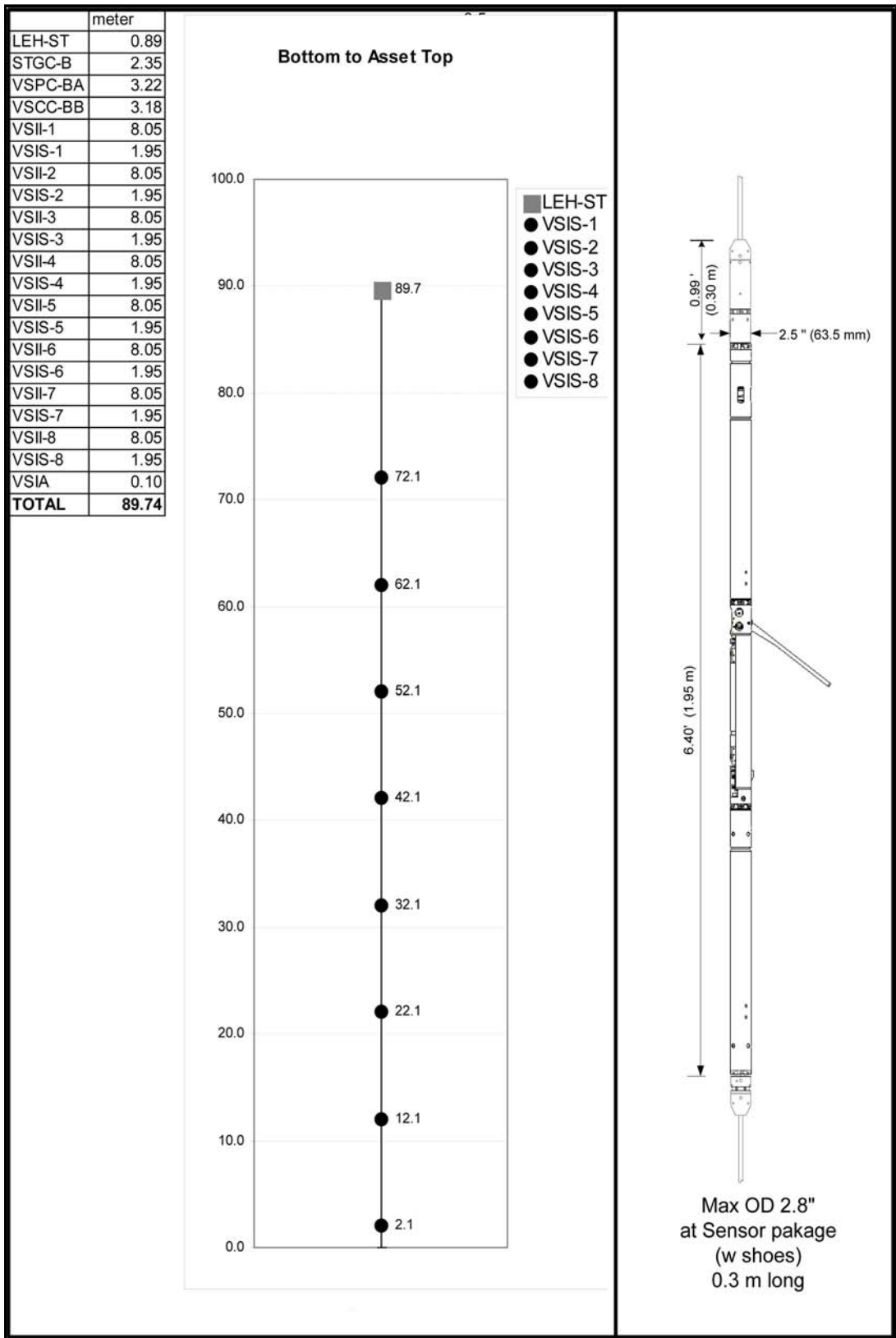


## Well Inclinery List

Meas. Tie Depth 0 m  
 True Vert. Tie Depth 0 m

Measured Depth (m)	Deviation (deg)	Azimuth (deg)	True Vertical Depth (m)
0	0	322	
70	0	322	70
80	0.2	322	80
174	0.2	92	174
377	0.2	335	377
473	0.12	327	473
635	1.25	97	634.98
787	0.3	32	786.97
934	0.7	298	933.96
1099	0.5	7	1098.95
1254	0.7	247	1253.94
1420	0.5	190	1419.93
1553	0.5	169	1552.93
1695	2	159	1694.89
1848	4.75	149	1847.61
2014	8	137	2012.56
2070	6.9	122	2068.09
2150	5	119	2147.65

# Tool Sketch



**Downhole Equipment Information**

<b>Tool Type</b>	VSIT-C
<b>Surface Equipment</b>	WASM-AB 758, WSI-A 1742
<b>Combined Tool</b>	SGTC-B 8097
<b>Number of Shuttles</b>	8
<b>Nominal Receiver Spacing</b>	10 m
<b>Gimbaled (Y/N)</b>	No
<b>Downhole Geophone Type</b>	GAC-D 3-axis orthogonal
<b>Sensitivity</b>	0.5 V/G 3%
<b>Natural Frequency</b>	20 Hz
<b>Damping Factor</b>	N/A
<b>DC Resistance</b>	1500 Ohms 3% @25 degC
<b>Measurement Specification</b>	
<b>Dynamic range</b>	> 105 dB at 36 dB
<b>Distortion</b>	< -90 dB
<b>Analog Low-Cut filter</b>	0.3 Hz, -6 dB/Oct
<b>Digital Low-Cut filter</b>	None
<b>DC Offset removal</b>	Averaging by surface software
<b>Digital High-Cut filter</b>	Linear phase at down hole
<b>Pass band ripple</b>	+/- 0.01 dB
<b>Stop band attenuation</b>	< -130 dB
<b>Bandwidth</b>	80% of Nyquist frequency
<b>Test Signal harmonic distortion</b>	< -110 dB
<b>Tool SN</b>	
<b>VSPC-BA</b>	8096
<b>VSCC-BB</b>	8095
<b>VSII-AB</b>	8140
<b>Receiver #1 (VSIS-CA)</b>	8138
<b>VSII-AB</b>	8403
<b>Receiver #2 (VSIS-CA)</b>	8091
<b>VSII-AB</b>	8445
<b>Receiver #3 (VSIS-CA)</b>	8119
<b>VSII-AB</b>	8443
<b>Receiver #4 (VSIS-CA)</b>	8128
<b>VSII-AB</b>	8133
<b>Receiver #5 (VSIS-CA)</b>	8136
<b>VSII-AB</b>	8134
<b>Receiver #6 (VSIS-CA)</b>	8417
<b>VSII-AB</b>	8402
<b>Receiver #7 (VSIS-CA)</b>	8419
<b>VSII-AB</b>	8444
<b>Receiver #8 (VSIS-CA)</b>	8420
<b>VSIA</b>	ENP-14

**Remarks**

Offset VSP used Receiver-1 ENP35 and Receiver-2 8077.  
 VSIS-CA 8077 suffer cross-talk noise on Y-channels.

## Offset-VSP Operation Time Summary - 1

DATE	Time Start	Time Taken Hr : min	OPERATION
14-May-06	12:00	1:10	Rig Up VSI
	13:10	0:10	RIH in hole to 32 m
	13:20	0:30	Surface check the tool at 32 m
	13:50	0:30	RIH
	14:20	0:10	GR correlation log at 1040 m add 2.2 m
	14:30	0:05	RIH
	14:35	0:10	Repeat check station at 1051m
	14:45	0:40	RIH
	15:25	4:55	Start Offset VSP from 2010 m
	20:20	0:00	End the survey at 581 m
	20:20	0:10	POOH
	20:30	0:10	at 100 m stop
	20:40		Shut down the tool for next survey
			<b>8:40</b>

### Remarks:

14 May 2006 Offset VSP survey.  
Rig-up used BOP and flow-tube for pressure control.

## WVSP line-A Operation Time Summary - 2

DATE	Time Start	Time Taken Hr : min	OPERATION
15-May-06	7:00	0:55	POOH from 100 m to change 2 x VSIS.
	7:55	0:35	RIH in hole to 1060 m
	8:30	0:10	GR correlation log on-depth
	8:40	0:20	Tool test at 1750 m
	9:00	0:45	RIH
	9:45	0:20	Sweep test at 1721 m ST-2001
	10:05	0:25	Swweep test at 1750 m ST 2001
	10:30	1:05	Start WVSP line-A at 1721 (1800m) from ST-2001
	11:35	0:21	VIB bogged at ST-2017
	11:56	1:49	Resume at ST-2018
	13:45	0:15	End of Line-A East at ST-2046
	14:00	1:45	Resume Line-A west from ST-1061
	15:45	0:10	End of Line-A West at ST-2031
	15:55		Shut down the tool at 1721 m for next survey
			<b>8:55</b>

### Remarks:

15 May 2006 Walkaway VSP survey line-A  
Rig-up used BOP and flow-tube for pressure control.

## WVSP Line-A/B Operation Time Summary - 3

DATE	Time Start	Time Taken Hr : min	OPERATION
16-May-06	7:25	0:15	Power-up Tool and Test Tool at 1721 m
	7:40	0:30	Move VIB to Line-A far East end
	8:10	1:00	Start WVSP line-A at 1721 (1800m) from ST-2048
	9:10	0:40	VIB bogged at ST-2060
	9:50	0:23	Resume at ST-2061
	10:13	0:04	VIB bogged at ST-2064
	10:17	0:07	Resume at ST-2065
	10:24	0:03	VIB bogged at ST-2066
	10:27	1:02	Resume at ST-2067
	11:29	0:06	complete Line-A at ST-2077 and Test Tool
	11:35	0:15	RIH 2000 m
	11:50	0:05	Test tool at 2000m
	11:55	0:05	Start WVSP line-B from ST-2077
	12:00	1:44	VIB bogged at ST 2077
	13:44	0:36	Abandon Line-A WVAP AVO survey
	14:20	0:40	Meeting Plan-B
	15:00	1:30	Strat Line-B for AVO WVSP from ST-3001
	16:30	0:41	at ST 3020
	17:11	0:19	st ST 3048
	17:30	0:20	complete Line-B at ST-4005 and Test Tool
17:50		Shut down the tool at 1721 m for next survey	
		<b>10:25</b>	<b>HRS –TOTAL OPERATING TIME</b>

### Remarks:

16 May 2006 Walkaway VSP survey line-A and Line-B  
Rig-up used BOP and flow-tube for pressure control.

# ZVSP

## Operation Time Summary - 4

DATE	Time Start	Time Taken Hr : min	OPERATION
17-May-06	7:30	0:15	Power-up Tool and RIH to 1931 m
	7:45	0:15	set tool at 1931(2010m) and Test Tool
	8:00	0:15	Test sweep at ST 2006 and ST 2008
	8:15	2:45	Start ZVSP at ST-2008 ( 5 sweep per station)
	11:00	1:25	at 741 strats 3 sweeps per station.
	12:25	0:20	at 111 m, check surface velocity VIB locate at ST 2002
	12:45	0:05	End of ZVSP survey
	12:50	0:50	RIH to 1800 m for Next survey, configure VIB for S-mode
	13:40	1:50	set Tool at 1800 m for stand-by
	15:30	1:00	Check S-sweep
	16:30		Shut down the tool at 1800 m for next survey
			<b>9:00</b>

### Remarks:

17 May 2006 Zero-offset VSP survey and test S-mode sweep  
Rig-up used BOP and flow-tube for pressure control.

## WVSP S-wave Line-A Operation Time Summary - 5

DATE	Time Start	Time Taken Hr : min	OPERATION
18-May-06	7:30	0:20	Power up Tool and Test Tool at 1800 m
	7:50	0:32	Start WVSP S1-mode from ST-2002
	8:22	0:43	at ST 2013
	9:05	0:10	at ST 2032, move to next ST 2034
	9:15	0:35	resume at ST 2034
	9:50	0:10	at ST-2046 conduct polarity check of S1 mode
	10:00	0:10	End WVSP S1 mode survey at ST-2046,m change plate to S2 mode
	10:10	0:35	stat WVSP S2 mode from ST-2046
	10:45	0:10	at ST-2034
	10:55	0:45	at ST-2032
	11:40	0:05	at ST-2020 conduct polarity check of S2 mode
	11:45	0:10	at ST-2018 (reverse polarity only acquired due to restriced space)
	11:55	0:35	at ST-2013
	12:30	0:05	End WVSP S2 mode survey at ST-2002 and Test Tool
	12:35	0:40	POOH
	13:15	0:45	Tool at surface
	14:00		Complete Rig down, the well is free.
		<b>6:30</b>	<b>HRS –TOTAL OPERATING TIME</b>

### Remarks:

18 May 2006 Walkaway VSP survey S-mode  
Rig-up used BOP and flow-tube for pressure control.



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# Zero-Offset VSP Report

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**General Information**

<b>Survey Type</b>	Zero Offset VSP
<b>Surface Recording Length</b>	15500.0 ms
<b>Surface Sampling Rate</b>	2.0 ms
<b>Downhole Recording Length</b>	20500.0 ms
<b>Downhole Sampling Rate</b>	2.0 ms
<b>Top of Survey</b>	50.0 m
<b>Bottom of Survey</b>	2010.0 m
<b>Number of Shots</b>	168
<b>Number of Downhole Traces</b>	1344
<b>Number of Downhole Traces used for Processing</b>	993

**Borehole Seismic Source Information - Source 1**

Engineer: S. Nakanishi

Well Name: Naylor-1

Date: 17-May-2006

Rig: Rigless/ 15Ton Crane

Geometrical Coordinates

Longitude: 142 48' 30.43" E

Latitude: 38 31' 47.26" S

UTM Coordinates

Easting: 657634.25 m E

Northing: 5733850.49 m N

Permanent Datum: MSL

Log Measured From: DF

Elev. 51.1

Unit: m

Ground Elev. at Well Head 46.4

SRD (Seismic Reference Datum): MSL

Elev. 0.0

from SLB zero: 51.1

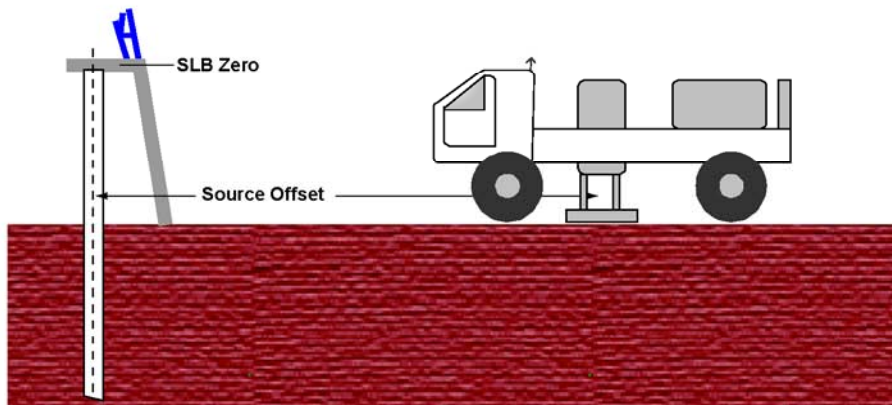
(SRDS)

Source UTM Coordinates

Easting: 657802.6 mE

Northing: 5733769.2 mN

Ground Elev. at VP: 45.2



Gun Depth from SLB : 5.9 (GDSZ)

Gun Depth from SRD : -45.2

Gun Depth from GL (WH): 1.2

Ground Condition: Clay soil  
Flat terrain

Ground Water Level from GL: 1.0

Gun Azimuth (Grid North): 115.8 deg (GAZI)

Gun Offset: 186.9 (GOFF)

Vibrator: IVI MinVib T1500

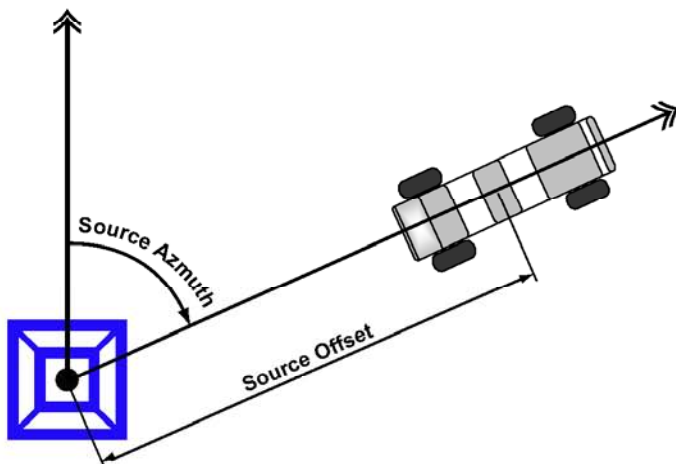
Controller - Encoder: RTS-100

Decoder: SIB-100

Version: ANSIR

Mass Weight 311 lbs  
BasePlate Weight 370 lbs  
HoldDown Weight 10,000 lbs

Zero Time Adjust N/A  
Radio Reference Delay N/A



**Sweep Parameters**

Start Frequency 10 Hz  
End Frequency 150 Hz  
Sweep Length 15 sec  
Start Taper 0.2 sec  
End Taper 0.2 sec  
Sweep Type Linear  
VIB Sweep Phase N/A  
ESG Sweep Phase N/A  
Phase Lock Mode N/A  
Force Mode N/A

**Surface Velocity Survey (Rig Source only)**

Tool Measured Depth: 130.0

Measured Transit Time: 119.8 ms

Measured Surface Velocity: 1,878.6 m/sec (SVEL)

Provided Surface Velocity by Client: 1,750.0 m/sec

## Borehole Seismic Source Information

### Surface Sensor Channels

**WSAM (WSI)**
sn: **WSAM:-AB 910****WSI: 1742**

Pilot Signal

SSPS

<b>S1 (WSI-SS2)</b>	none	<input type="checkbox"/>
<b>S2 (WSI-SS3)</b>	Filtered Ground For	<input checked="" type="checkbox"/>
<b>S3 (WSI-SS4)</b>	none	<input type="checkbox"/>
<b>S4 (WSI-SS5)</b>		<input type="checkbox"/>
<b>S5 (WSI-SS6)</b>		<input type="checkbox"/>
<b>S6 (WSI-SS7)</b>		<input type="checkbox"/>

### Quality Check Surface Signals

	S1 Time Break / PP		S2 TT(ms) / PP		S3 TT(ms) / PP		S4 TT(ms) / PP		S5 TT(ms) / PP		S6 TT(ms) / PP	
Shot-1	0.0 /	0	0.0 /	19081	0.0 /	0	0.0 /	0	0.0 /	0	0.0 /	0
Shot-2	0.0 /	0	0.0 /	19013	1.0 /	0	0.0 /	0	0.0 /	0	0.0 /	0
Shot-3	0.0 /	0	0.0 /	19287	0.0 /	0	0.0 /	0	0.0 /	0	0.0 /	0
Shot-4	0.0 /	0	0.0 /	19342	0.0 /	0	0.0 /	0	0.0 /	0	0.0 /	0
Shot-5	0.0 /	0	0.0 /	19244	0.0 /	0	0.0 /	0	0.0 /	0	0.0 /	0

## Other Logs Information

<b>Sonic Log:</b>	<b>Interval:</b>	<b>from</b>	<b>to</b>	<b>Date:</b>
<b>Density Log:</b>	<b>Interval:</b>	<b>from</b>	<b>to</b>	<b>Date:</b>

### Remarks

MinVib T1500 used 10Hz to 150Hz linear sweep for 15 seconds. Baseplate used the shearwave plate for P-wave mode. PSS or QC signal is not available in the RTS-100 system.

Contact Closure pin-F and G of RTS-100 is used for triggering MinVib through WSI-A (30 msec period). Start Delay sets 0.1 s.

SIB-100 can provide three reference pilot signals (Synthetic, Ground Force and Filtered Ground force). Only one of them can be transmitted through UHF radio. The Filtered Ground Force signal is recommended for correlation by the IVI. Pilot signal ( Filtered Ground Force signal ) is recorded for correlation. FGF signal is generated in the SIB-100 box in real time by combining the baseplate accelerometer and the mass accelerometer signals during each sweep. This signal is then filtered with a tracking high cut filter. The frequency of this tracking filter is set to remove all higher order harmonics. . FGF signals is 180 degree phase different to GF signal according to Elmo Christensen / IVI.

FGF signal is recorded in reversed polarity ( RTS-100 pin-D to WSI pin-A, RTS-100 pin-N to WSI pin-B) in order to obtain positive peak correlation. Downhole receiver (GAC) has SEG reverse polarity (1975).

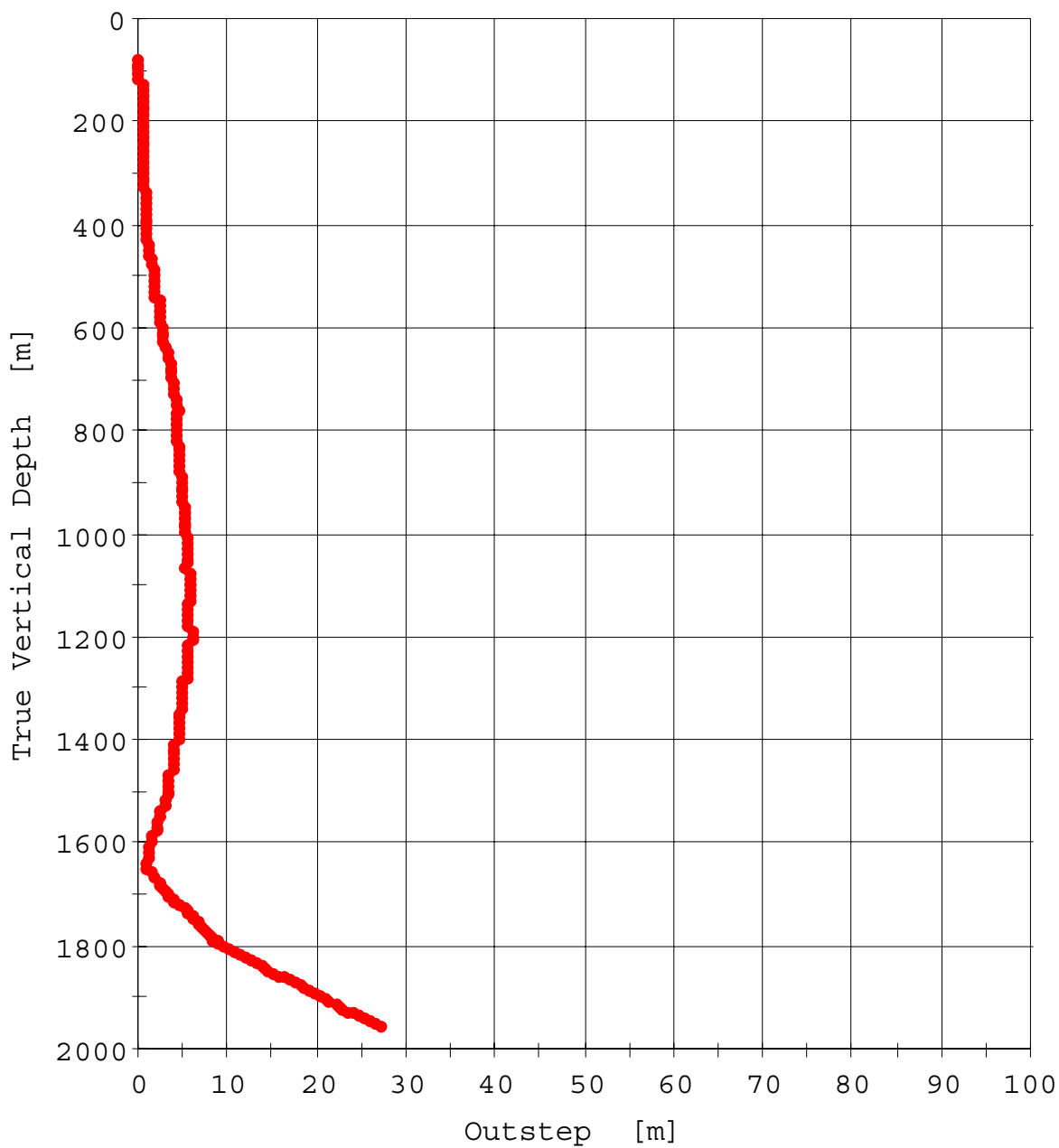
Recording surface signals (WSAM) S1 - No input. S2 - FGF (15500 msec @ 2 msec sampling with TOFS 500 ms to avoid transit noise). Correlation Length 5000 msec. Downhole listening time is 20500 msec @ 2 msec sampling). Input impedance of the channel SS3 (S2) of WSAM-AB was changed from 462-ohm to 10K-ohm in order to obtain better dynamic range.

#### Detail T-1500 MinVib specification

Max. Theoretical Peak Force: 6,000 Pounds  
 Mass Piston Area: 1.50 Inches<sup>2</sup>  
 Reaction Mass Weight: 311 Pounds  
 Reaction Mass Stroke: 1.88 Inches  
 Servovalve; 5 GPM  
 Servovalve Pilot Filter: 3 Micron  
 Baseplate Area: 1,018 Inches<sup>2</sup>  
 Baseplate Assembly Weight: 370 Pounds  
 Lift System Stroke: 38 Inches  
 Lift Cylinder Diameter: 2.5 Inches  
 Lift Synchronization: Mechanical Crossbeam  
 Vibrator Pump Flow: 15 GPM @ 2100 RPM  
 Holddown Weight: 10,000 Pounds

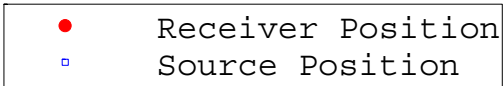
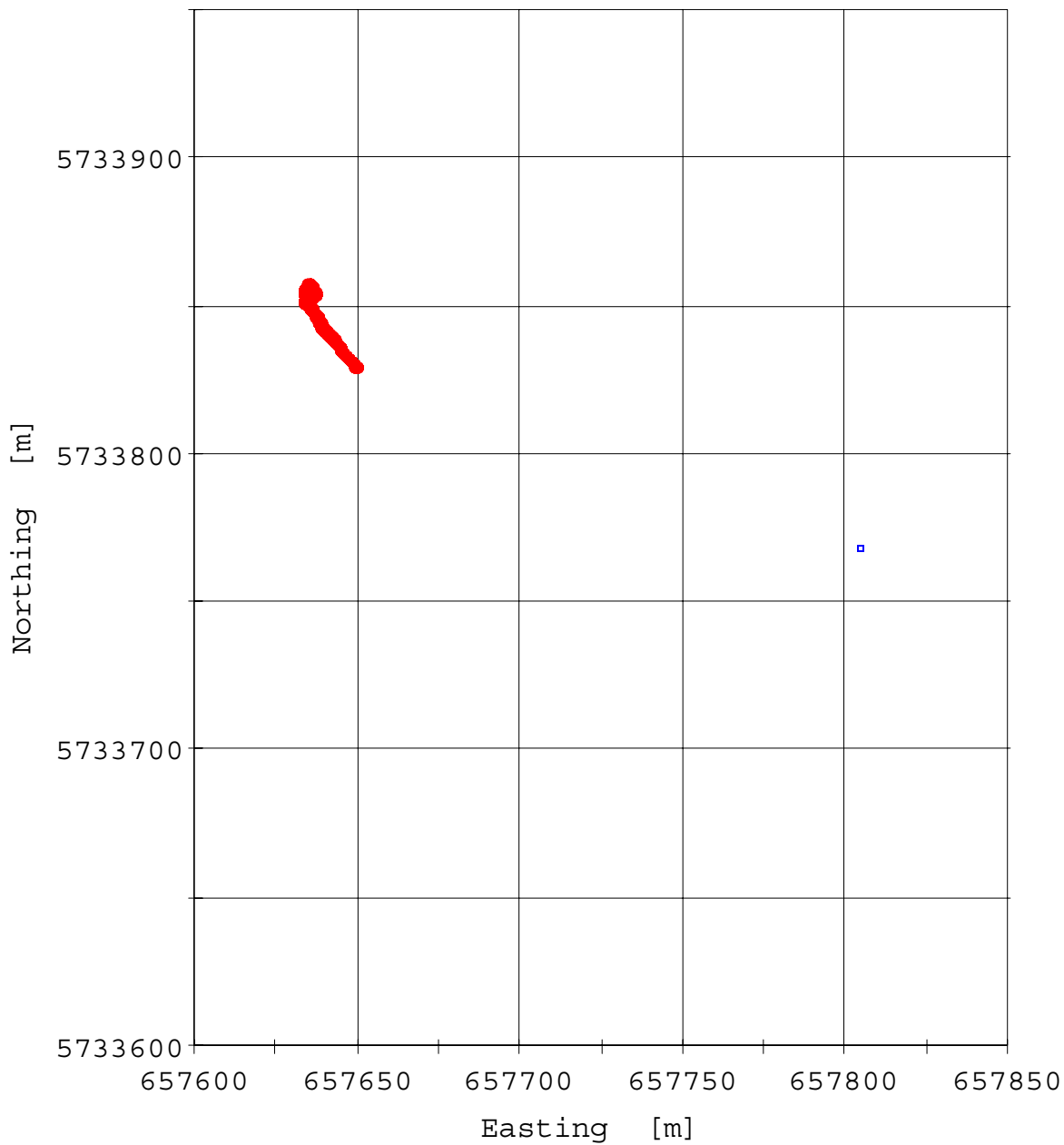


### Well Profile

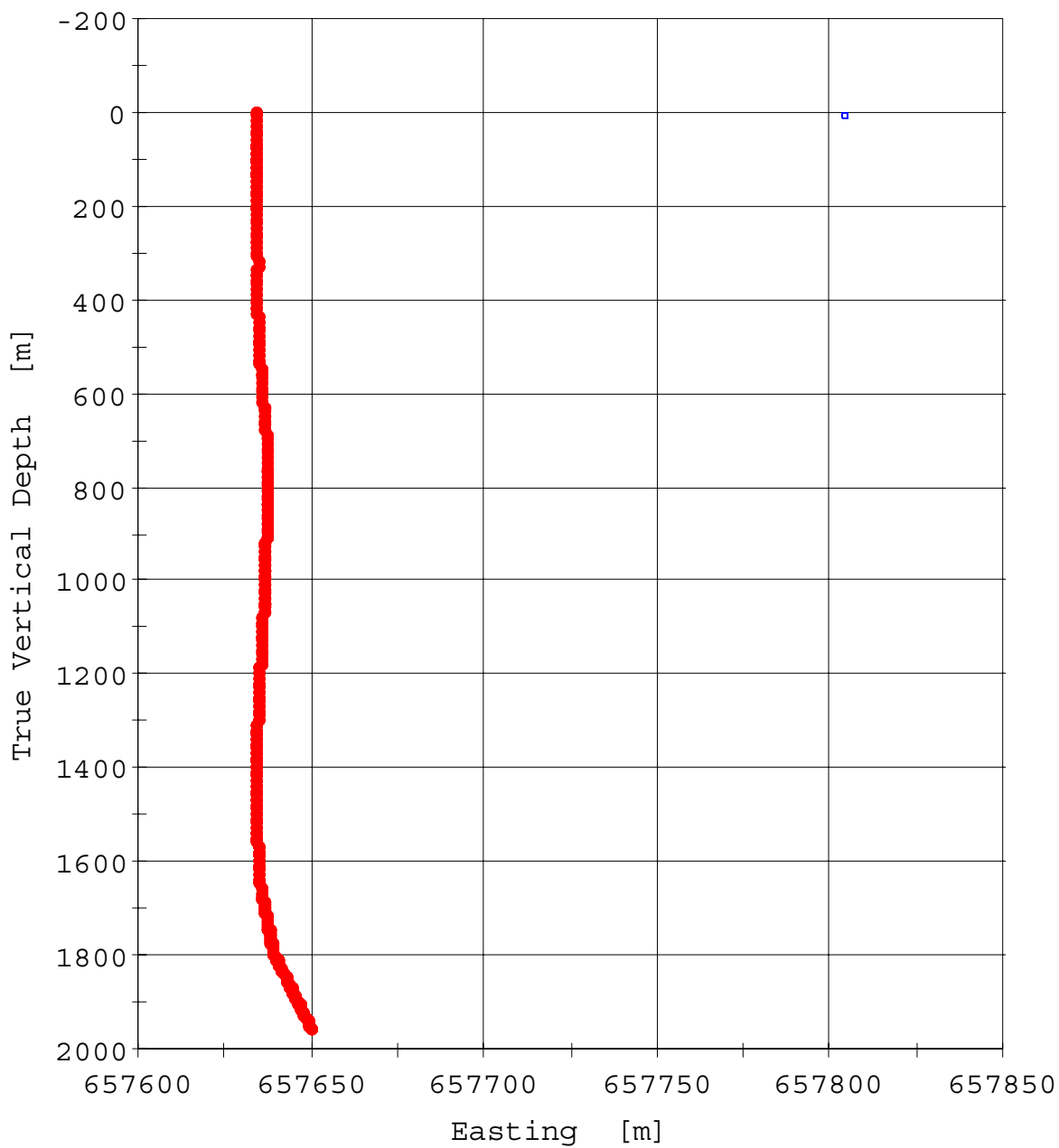


• Receiver Position

Geometry Information Page (X-Y)

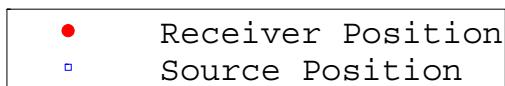
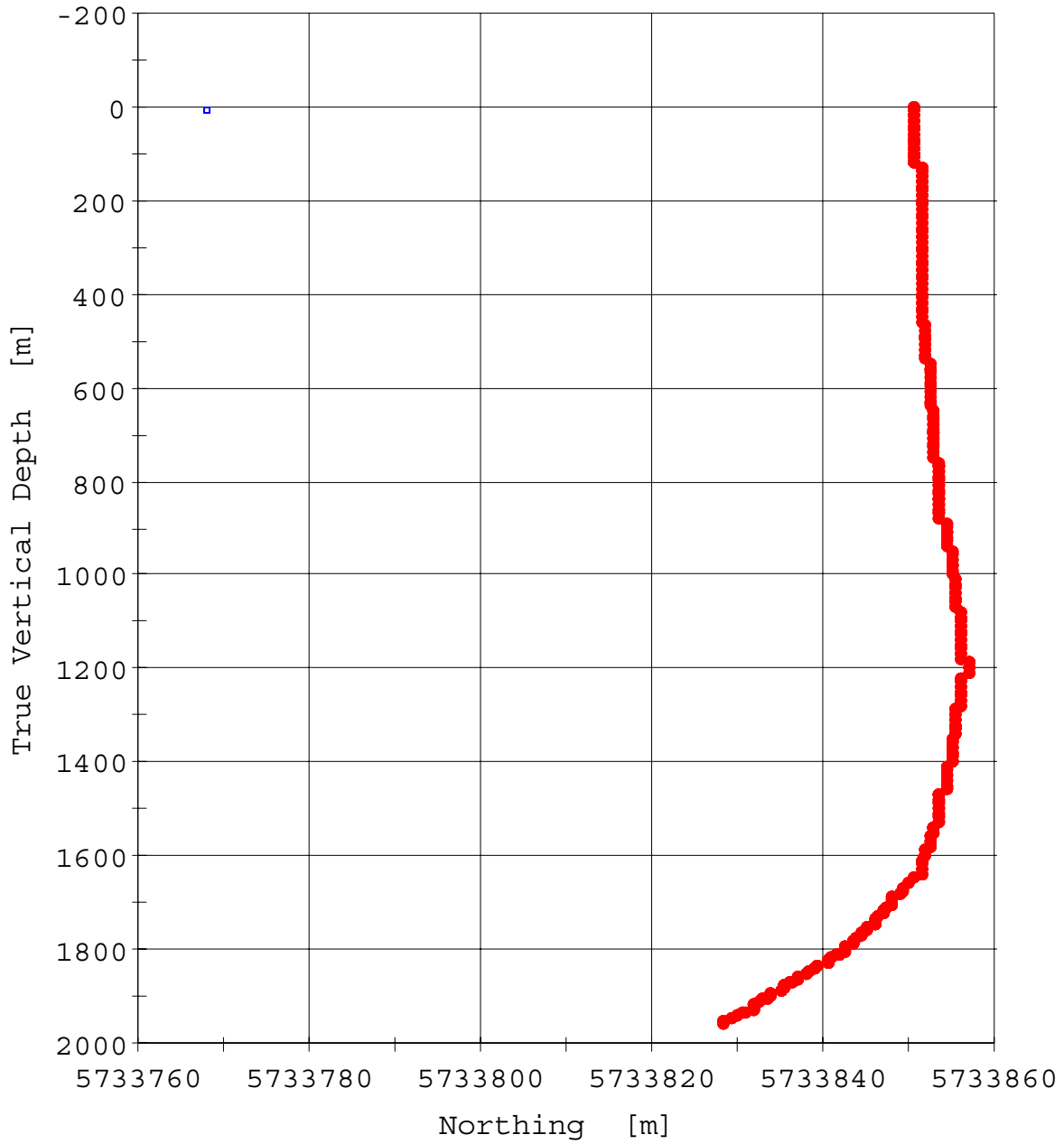


Geometry Information Page (X-Z)



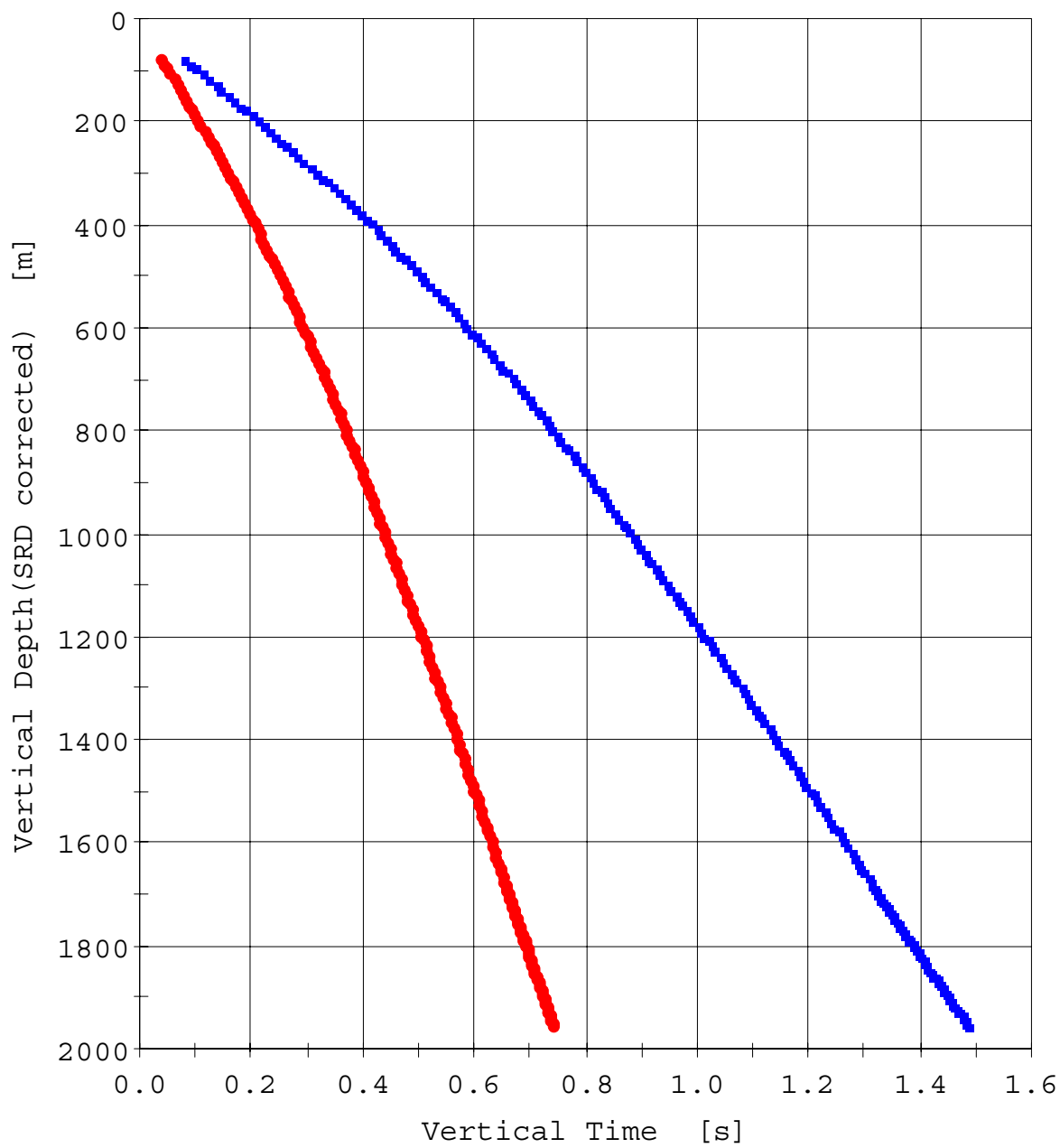
● Receiver Position  
□ Source Position

Geometry Information Page (Y-Z)



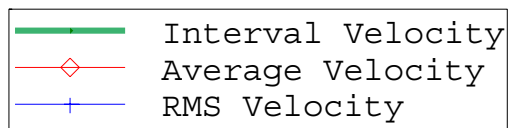
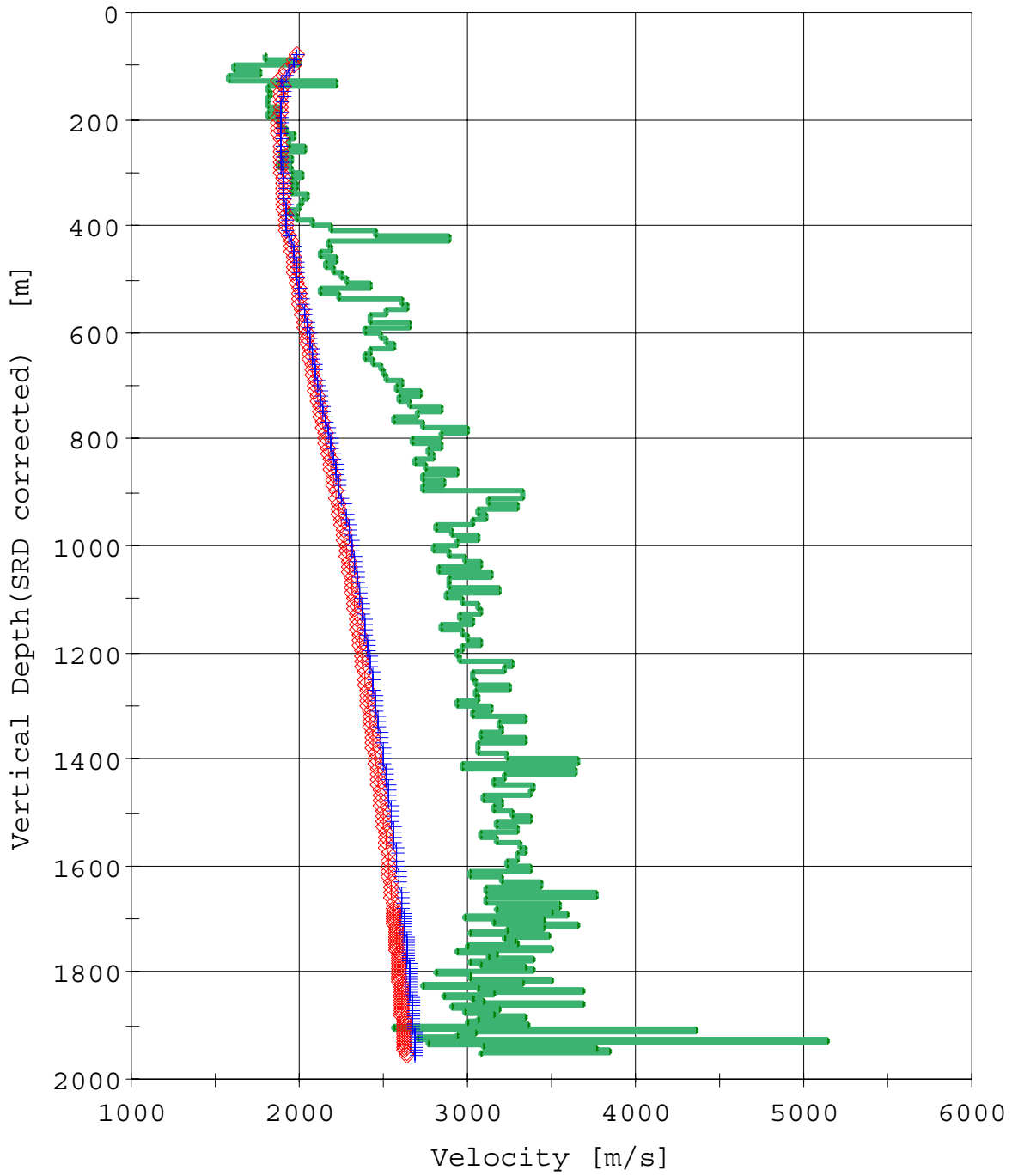


Time Depth Plot Page



• One-way Vertical Time  
■ Two-way Vertical Time

Velocity Plot Page



## Stack Summary Listing (1/8) from VSI\_007\_A\_gac\_wavefield\_z.ldr

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
	0	0	0	0	0			
						1988.3		
31	130.0	78.9	0.1198	0.0397	0.0794		1988.3	1988.3
						1791.3		
31	140.0	88.9	0.1233	0.0453	0.0905		1964.0	1965.1
						1998.1		
31	150.0	98.9	0.1260	0.0503	0.1005		1967.4	1968.4
						1612.3		
31	160.0	108.9	0.1307	0.0565	0.1130		1928.4	1932.5
						1761.8		
31	170.0	118.9	0.1347	0.0622	0.1243		1913.2	1917.6
						1581.4		
31	180.0	128.9	0.1398	0.0685	0.1369		1882.6	1889.0
						2212.8		
31	190.0	138.9	0.1423	0.0730	0.1460		1903.0	1910.7
						1811.9		
30	200.0	148.9	0.1463	0.0785	0.1570		1896.6	1903.9
						1830.1		
30	210.0	158.9	0.1503	0.0840	0.1680		1892.3	1899.2
						1810.2		
30	220.0	168.9	0.1545	0.0895	0.1790		1887.2	1893.8
						1812.0		
30	230.0	178.9	0.1587	0.0950	0.1901		1882.8	1889.1
						1882.9		
30	240.0	188.9	0.1628	0.1003	0.2007		1882.8	1888.8
						1812.2		
30	250.0	198.9	0.1672	0.1059	0.2117		1879.2	1884.9
						1880.0		
30	260.0	208.9	0.1714	0.1112	0.2223		1879.2	1884.7
						1889.0		
29	270.0	218.9	0.1756	0.1165	0.2329		1879.6	1884.8
						1927.8		
29	280.0	228.9	0.1798	0.1216	0.2433		1881.7	1886.7
						1964.6		
29	290.0	238.9	0.1839	0.1267	0.2535		1885.0	1889.9
						1944.2		
29	300.0	248.9	0.1881	0.1319	0.2638		1887.3	1892.0
						2024.3		
29	310.0	258.9	0.1921	0.1368	0.2736		1892.3	1897.0
						1896.3		
29	320.0	268.9	0.1966	0.1421	0.2842		1892.4	1896.9
						1946.1		
29	330.0	278.9	0.2010	0.1472	0.2945		1894.3	1898.7
						1880.0		
28	340.0	288.9	0.2056	0.1526	0.3051		1893.8	1898.0
						1960.8		
28	350.0	298.9	0.2100	0.1577	0.3153		1896.0	1900.1
						2008.1		
28	360.0	308.9	0.2143	0.1626	0.3253		1899.4	1903.5
						1959.9		
28	370.0	318.9	0.2187	0.1677	0.3355		1901.2	1905.2
						1990.8		
28	380.0	328.9	0.2231	0.1728	0.3455		1903.8	1907.8
						1953.4		
28	390.0	338.9	0.2277	0.1779	0.3558		1905.3	1909.1
						2039.3		

## Stack Summary Listing (2/8) from VSI\_007\_A\_gac\_wavefield\_z.ldr

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
28	400.0	348.9	0.2320	0.1828	0.3656		1908.9	1912.7
						2011.4		
27	410.0	358.9	0.2365	0.1878	0.3755		1911.6	1915.4
						1994.6		
27	420.0	368.9	0.2410	0.1928	0.3856		1913.7	1917.5
						1934.5		
27	430.0	378.9	0.2457	0.1979	0.3959		1914.3	1917.9
						1983.1		
27	440.0	388.9	0.2502	0.2030	0.4060		1916.0	1919.6
						2074.4		
27	450.0	398.9	0.2546	0.2078	0.4156		1919.7	1923.3
						2185.6		
27	460.0	408.9	0.2587	0.2124	0.4248		1925.4	1929.3
						2452.2		
27	470.0	418.9	0.2623	0.2165	0.4329		1935.3	1940.5
						2894.5		
26	480.0	428.9	0.2652	0.2199	0.4398		1950.4	1959.1
						2173.5		
26	490.0	438.9	0.2694	0.2245	0.4490		1955.0	1963.7
						2184.0		
26	500.0	448.9	0.2736	0.2291	0.4582		1959.5	1968.3
						2126.1		
26	510.0	458.9	0.2779	0.2338	0.4676		1962.9	1971.6
						2224.1		
26	520.0	468.9	0.2821	0.2383	0.4766		1967.8	1976.7
						2155.3		
26	530.0	478.9	0.2864	0.2429	0.4859		1971.4	1980.3
						2195.4		
26	540.0	488.9	0.2906	0.2475	0.4950		1975.5	1984.4
						2250.0		
25	550.0	498.9	0.2947	0.2519	0.5039		1980.4	1989.4
						2288.2		
25	560.0	508.9	0.2987	0.2563	0.5126		1985.6	1994.9
						2419.7		
25	570.0	518.9	0.3025	0.2604	0.5209		1992.5	2002.3
						2122.1		
25	580.0	528.9	0.3069	0.2651	0.5303		1994.8	2004.5
						2232.2		
25	590.0	538.9	0.3111	0.2696	0.5393		1998.7	2008.5
						2613.6		
25	600.0	548.9	0.3147	0.2735	0.5469		2007.3	2018.2
						2641.3		
25	610.0	558.9	0.3182	0.2772	0.5545		2016.0	2028.0
						2515.6		
24	620.0	568.9	0.3219	0.2812	0.5624		2023.1	2035.7
						2423.3		
24	630.0	578.9	0.3257	0.2853	0.5707		2028.8	2041.9
						2651.7		
24	640.0	588.9	0.3292	0.2891	0.5782		2037.0	2051.0
						2389.4		
24	650.0	598.9	0.3331	0.2933	0.5866		2042.0	2056.2
						2481.1		
24	660.0	608.9	0.3369	0.2973	0.5946		2047.9	2062.6
						2516.1		
24	670.0	618.9	0.3407	0.3013	0.6026		2054.1	2069.2
						2568.4		

## Stack Summary Listing (3/8) from VSI\_007\_A\_gac\_wavefield\_z.ldr

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
24	680.0	628.9	0.3443	0.3052	0.6104		2060.7	2076.3
						2425.7		
23	690.0	638.9	0.3482	0.3093	0.6186		2065.6	2081.4
						2387.6		
23	700.0	648.9	0.3522	0.3135	0.6270		2069.9	2085.7
						2430.0		
23	710.0	658.9	0.3561	0.3176	0.6352		2074.5	2090.6
						2485.1		
23	720.0	668.9	0.3600	0.3216	0.6433		2079.7	2096.0
						2506.7		
23	730.0	678.9	0.3637	0.3256	0.6513		2084.9	2101.5
						2523.0		
23	740.0	688.9	0.3675	0.3296	0.6592		2090.2	2107.1
						2604.1		
23	750.0	698.9	0.3712	0.3334	0.6669		2096.1	2113.4
						2571.2		
22	760.0	708.9	0.3749	0.3373	0.6746		2101.5	2119.3
						2716.8		
22	770.0	718.9	0.3784	0.3410	0.6820		2108.2	2126.6
						2590.1		
22	780.0	728.9	0.3820	0.3449	0.6897		2113.6	2132.4
						2655.3		
22	790.0	738.9	0.3856	0.3486	0.6972		2119.4	2138.7
						2840.2		
22	800.0	748.9	0.3890	0.3521	0.7043		2126.6	2146.8
						2703.5		
22	810.0	758.9	0.3926	0.3558	0.7117		2132.6	2153.4
						2566.3		
22	820.0	768.9	0.3963	0.3597	0.7195		2137.3	2158.3
						2741.5		
21	830.0	778.9	0.3998	0.3634	0.7268		2143.4	2164.9
						2998.5		
21	840.0	788.9	0.4030	0.3667	0.7335		2151.2	2173.9
						2847.3		
21	850.0	798.9	0.4064	0.3702	0.7405		2157.8	2181.3
						2671.8		
21	860.0	808.9	0.4100	0.3740	0.7480		2162.9	2186.7
						2843.4		
21	870.0	818.9	0.4134	0.3775	0.7550		2169.3	2193.8
						2761.0		
21	880.0	828.9	0.4169	0.3811	0.7622		2174.9	2199.8
						2800.1		
21	890.0	838.9	0.4203	0.3847	0.7694		2180.7	2206.2
						2689.0		
20	900.0	848.9	0.4239	0.3884	0.7768		2185.5	2211.3
						2749.1		
20	910.0	858.9	0.4274	0.3920	0.7841		2190.8	2216.9
						2942.0		
20	920.0	868.9	0.4307	0.3954	0.7909		2197.2	2224.1
						2739.2		
20	930.0	878.9	0.4343	0.3991	0.7982		2202.2	2229.4
						2865.6		
20	940.0	888.9	0.4377	0.4026	0.8052		2207.9	2235.7
						2734.7		
20	950.0	898.9	0.4412	0.4062	0.8125		2212.7	2240.6
						3334.7		

## Stack Summary Listing (4/8) from VSI\_007\_A\_gac\_wavefield\_z.ldr

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
20	960.0	908.9	0.4441	0.4092	0.8185		2220.9	2250.6
						3131.5		
19	970.0	918.9	0.4472	0.4124	0.8249		2228.0	2258.7
						3296.8		
19	980.0	928.9	0.4501	0.4155	0.8309		2235.8	2268.0
						3056.3		
19	990.0	938.9	0.4533	0.4187	0.8375		2242.2	2275.3
						3112.0		
19	1000.0	948.9	0.4564	0.4219	0.8439		2248.8	2282.8
						3032.7		
19	1010.0	958.9	0.4596	0.4252	0.8505		2254.9	2289.5
						2809.7		
19	1020.0	968.9	0.4631	0.4288	0.8576		2259.5	2294.3
						2908.1		
19	1030.0	978.9	0.4665	0.4322	0.8645		2264.6	2299.9
						3070.2		
18	1040.0	988.9	0.4696	0.4355	0.8710		2270.7	2306.6
						2934.6		
18	1050.0	998.9	0.4730	0.4389	0.8778		2275.8	2312.1
						2792.3		
18	1060.0	1008.9	0.4765	0.4425	0.8850		2280.0	2316.4
						2897.3		
18	1070.0	1018.9	0.4798	0.4459	0.8919		2284.8	2321.5
						2984.2		
18	1080.0	1028.9	0.4831	0.4493	0.8986		2290.0	2327.1
						3078.0		
18	1090.0	1038.9	0.4863	0.4525	0.9051		2295.7	2333.4
						2835.5		
18	1100.0	1048.9	0.4897	0.4561	0.9121		2299.8	2337.7
						3133.6		
17	1110.0	1058.8	0.4928	0.4592	0.9185		2305.6	2344.1
						2884.5		
17	1120.0	1068.8	0.4962	0.4627	0.9254		2309.9	2348.6
						2897.9		
17	1130.0	1078.8	0.4996	0.4662	0.9323		2314.3	2353.2
						3184.1		
17	1140.0	1088.8	0.5027	0.4693	0.9386		2320.1	2359.7
						2876.9		
17	1150.0	1098.8	0.5061	0.4728	0.9456		2324.2	2363.9
						2961.9		
17	1160.0	1108.8	0.5094	0.4762	0.9523		2328.7	2368.7
						3061.2		
17	1170.0	1118.8	0.5126	0.4794	0.9588		2333.7	2374.1
						3072.1		
16	1180.0	1128.9	0.5158	0.4827	0.9654		2338.7	2379.5
						2959.4		
16	1190.0	1138.9	0.5191	0.4861	0.9721		2343.0	2384.0
						3024.9		
16	1200.0	1148.8	0.5224	0.4894	0.9787		2347.6	2388.9
						2850.5		
16	1210.0	1158.8	0.5258	0.4929	0.9857		2351.2	2392.5
						2972.1		
16	1220.0	1168.8	0.5291	0.4962	0.9925		2355.4	2396.9
						2995.1		
16	1230.0	1178.8	0.5324	0.4996	0.9992		2359.7	2401.4
						3079.4		

## Stack Summary Listing (5/8) from VSI\_007\_A\_gac\_wavefield\_z.ldb

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
16	1240.0	1188.8	0.5356	0.5028	1.0056	2970.6	2364.3	2406.4
15	1250.0	1198.8	0.5389	0.5062	1.0124	2930.3	2368.4	2410.6
15	1260.0	1208.8	0.5423	0.5096	1.0192	2960.9	2372.1	2414.4
15	1270.0	1218.8	0.5456	0.5130	1.0260	3266.6	2376.0	2418.4
15	1280.0	1228.8	0.5486	0.5160	1.0321	3222.1	2381.3	2424.3
15	1290.0	1238.8	0.5516	0.5191	1.0383	3029.7	2386.3	2429.9
15	1300.0	1248.8	0.5549	0.5224	1.0449	3048.2	2390.4	2434.1
15	1310.0	1258.8	0.5581	0.5257	1.0514	3245.1	2394.5	2438.4
14	1320.0	1268.9	0.5611	0.5288	1.0576	3049.1	2399.5	2443.9
14	1330.0	1278.9	0.5644	0.5321	1.0642	3066.0	2403.5	2448.1
14	1340.0	1288.9	0.5676	0.5354	1.0707	2938.3	2407.5	2452.4
14	1350.0	1298.9	0.5709	0.5388	1.0775	3134.3	2410.8	2455.7
14	1360.0	1308.9	0.5741	0.5419	1.0839	3024.1	2415.1	2460.3
14	1370.0	1318.9	0.5773	0.5453	1.0905	3349.7	2418.8	2464.1
14	1380.0	1328.9	0.5803	0.5482	1.0965	3195.1	2423.9	2469.8
13	1390.0	1338.9	0.5834	0.5514	1.1027	3200.4	2428.2	2474.5
13	1400.0	1348.9	0.5864	0.5545	1.1090	3084.9	2432.6	2479.2
13	1410.0	1358.9	0.5896	0.5577	1.1155	3339.6	2436.4	2483.1
13	1420.0	1368.9	0.5926	0.5607	1.1215	3067.1	2441.2	2488.5
13	1430.0	1378.9	0.5958	0.5640	1.1280	3061.6	2444.8	2492.2
13	1440.0	1388.9	0.5990	0.5673	1.1345	3229.1	2448.4	2495.8
13	1450.0	1398.9	0.6021	0.5704	1.1407	3651.2	2452.6	2500.4
12	1460.0	1408.8	0.6047	0.5731	1.1462	2963.9	2458.3	2507.1
12	1470.0	1418.8	0.6081	0.5765	1.1529	3641.0	2461.3	2510.1
12	1480.0	1428.8	0.6108	0.5792	1.1584	3218.4	2466.9	2516.6
12	1490.0	1438.8	0.6138	0.5823	1.1646	3150.3	2470.9	2520.9
12	1500.0	1448.8	0.6170	0.5855	1.1710	3385.8	2474.6	2524.7
12	1510.0	1458.8	0.6199	0.5884	1.1769	3374.3	2479.1	2529.8

## Stack Summary Listing (6/8) from VSI\_007\_A\_gac\_wavefield\_z.ldr

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
12	1520.0	1468.8	0.6228	0.5914	1.1828		2483.6	2534.7
						3091.3		
11	1530.0	1478.8	0.6260	0.5946	1.1893		2486.9	2538.1
						3201.1		
11	1540.0	1488.8	0.6291	0.5978	1.1955		2490.7	2542.0
						3156.6		
11	1550.0	1498.8	0.6322	0.6009	1.2019		2494.2	2545.6
						3264.5		
11	1560.0	1508.8	0.6352	0.6040	1.2080		2498.1	2549.8
						3370.6		
11	1570.0	1518.8	0.6381	0.6070	1.2139		2502.4	2554.4
						3165.2		
11	1580.0	1528.8	0.6413	0.6101	1.2202		2505.8	2558.0
						3290.1		
11	1590.0	1538.8	0.6442	0.6132	1.2263		2509.7	2562.1
						3082.8		
10	1600.0	1548.8	0.6474	0.6164	1.2328		2512.7	2565.1
						3176.6		
10	1610.0	1558.8	0.6505	0.6195	1.2391		2516.1	2568.6
						3317.6		
10	1620.0	1568.8	0.6535	0.6226	1.2451		2519.9	2572.7
						3341.7		
10	1630.0	1578.8	0.6565	0.6255	1.2511		2523.9	2577.0
						3302.4		
10	1640.0	1588.8	0.6595	0.6286	1.2572		2527.6	2580.9
						3230.0		
10	1650.0	1598.8	0.6625	0.6317	1.2633		2531.1	2584.5
						3369.1		
10	1660.0	1608.8	0.6654	0.6346	1.2693		2535.0	2588.7
						3018.6		
9	1670.0	1618.8	0.6687	0.6380	1.2759		2537.5	2591.2
						3200.4		
9	1680.0	1628.8	0.6718	0.6411	1.2822		2540.7	2594.5
						3434.8		
9	1690.0	1638.8	0.6747	0.6440	1.2880		2544.8	2598.9
						3112.0		
9	1700.0	1648.8	0.6779	0.6472	1.2944		2547.6	2601.7
						3763.6		
9	1710.0	1658.8	0.6804	0.6499	1.2997		2552.5	2607.5
						3108.2		
9	1720.0	1668.8	0.6836	0.6531	1.3061		2555.3	2610.2
						3545.2		
9	1730.0	1678.7	0.6864	0.6559	1.3118		2559.5	2614.9
						3170.6		
8	1735.0	1683.7	0.6879	0.6575	1.3149		2561.0	2616.4
						3498.2		
7	1740.0	1688.7	0.6893	0.6589	1.3178		2563.0	2618.6
						3593.8		
8	1745.0	1693.7	0.6907	0.6603	1.3205		2565.2	2621.0
						2992.1		
7	1750.0	1698.7	0.6923	0.6619	1.3239		2566.3	2622.0
						3450.0		
8	1755.0	1703.7	0.6938	0.6634	1.3268		2568.2	2624.1
						3162.5		
7	1760.0	1708.7	0.6953	0.6650	1.3299		2569.6	2625.5
						3658.4		



## Stack Summary Listing (7/8) from VSI\_007\_A\_gac\_wavefield\_z.ldb

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
8	1765.0	1713.7	0.6967	0.6663	1.3327		2571.8	2628.1
						3448.3		
7	1770.0	1718.7	0.6981	0.6678	1.3356		2573.7	2630.1
						3236.3		
8	1775.0	1723.7	0.6996	0.6693	1.3386		2575.2	2631.7
						3019.3		
7	1780.0	1728.7	0.7012	0.6710	1.3419		2576.3	2632.7
						3479.1		
8	1785.0	1733.6	0.7026	0.6724	1.3448		2578.3	2634.8
						3223.1		
7	1790.0	1738.6	0.7042	0.6740	1.3479		2579.8	2636.3
						3279.9		
8	1795.0	1743.6	0.7057	0.6755	1.3510		2581.3	2637.9
						3303.7		
7	1800.0	1748.6	0.7072	0.6770	1.3540		2582.9	2639.6
						3006.3		
6	1805.0	1753.6	0.7088	0.6786	1.3573		2584.0	2640.6
						3495.5		
5	1810.0	1758.6	0.7102	0.6801	1.3602		2585.9	2642.6
						2937.1		
6	1815.0	1763.6	0.7119	0.6818	1.3635		2586.8	2643.4
						3176.8		
5	1820.0	1768.6	0.7134	0.6833	1.3667		2588.1	2644.8
						3117.6		
6	1825.0	1773.6	0.7150	0.6849	1.3699		2589.4	2646.0
						3388.7		
5	1830.0	1778.6	0.7165	0.6864	1.3728		2591.1	2647.8
						3013.8		
6	1835.0	1783.6	0.7181	0.6881	1.3761		2592.1	2648.7
						3082.0		
5	1840.0	1788.5	0.7197	0.6897	1.3794		2593.2	2649.8
						3349.4		
6	1845.0	1793.5	0.7212	0.6912	1.3824		2594.9	2651.5
						3387.7		
5	1850.0	1798.5	0.7226	0.6927	1.3853		2596.6	2653.3
						2812.5		
6	1855.0	1803.5	0.7244	0.6944	1.3888		2597.1	2653.7
						3017.0		
5	1860.0	1808.5	0.7260	0.6961	1.3921		2598.1	2654.7
						3021.0		
6	1865.0	1813.4	0.7276	0.6977	1.3954		2599.1	2655.6
						3499.9		
5	1870.0	1818.4	0.7290	0.6991	1.3983		2600.9	2657.6
						3328.8		
4	1875.0	1823.3	0.7304	0.7006	1.4012		2602.5	2659.2
						2728.3		
3	1880.0	1828.3	0.7323	0.7024	1.4049		2602.8	2659.4
						3058.9		
4	1885.0	1833.3	0.7338	0.7041	1.4081		2603.9	2660.3
						3689.9		
3	1890.0	1838.3	0.7352	0.7054	1.4108		2605.9	2662.7
						3156.1		
4	1895.0	1843.2	0.7367	0.7070	1.4140		2607.2	2663.9
						2853.5		
3	1900.0	1848.2	0.7384	0.7087	1.4175		2607.8	2664.4
						3030.8		

## Stack Summary Listing (8/8) from VSI\_007\_A\_gac\_wavefield\_z.ldr

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
4	1905.0	1853.2	0.7400	0.7104	1.4207		2608.7	2665.3
						3091.0		
3	1910.0	1858.1	0.7416	0.7120	1.4240		2609.8	2666.3
						3690.5		
4	1915.0	1863.1	0.7429	0.7133	1.4266		2611.9	2668.6
						2903.9		
3	1920.0	1868.1	0.7446	0.7150	1.4301		2612.6	2669.2
						3184.9		
4	1925.0	1873.0	0.7461	0.7166	1.4332		2613.8	2670.4
						2985.6		
3	1930.0	1878.0	0.7478	0.7183	1.4365		2614.7	2671.2
						3149.9		
4	1935.0	1883.0	0.7493	0.7198	1.4397		2615.8	2672.3
						3346.2		
3	1940.0	1888.0	0.7508	0.7213	1.4426		2617.3	2673.9
						3061.4		
2	1945.0	1892.9	0.7524	0.7229	1.4459		2618.3	2674.8
						2999.3		
1	1950.0	1897.9	0.7540	0.7246	1.4492		2619.2	2675.6
						3361.7		
2	1955.0	1902.9	0.7555	0.7261	1.4522		2620.7	2677.2
						2569.0		
1	1960.0	1907.8	0.7574	0.7280	1.4560		2620.6	2676.9
						4366.2		
2	1965.0	1912.8	0.7585	0.7292	1.4583		2623.3	2680.4
						3052.4		
1	1970.0	1917.8	0.7601	0.7308	1.4616		2624.3	2681.3
						2934.7		
2	1975.0	1922.7	0.7618	0.7325	1.4650		2625.0	2681.9
						2710.6		
1	1980.0	1927.7	0.7636	0.7343	1.4686		2625.2	2681.9
						5136.4		
2	1985.0	1932.7	0.7645	0.7353	1.4706		2628.5	2686.6
						2764.4		
1	1990.0	1937.7	0.7663	0.7371	1.4742		2628.8	2686.8
						3099.3		
2	1995.0	1942.6	0.7679	0.7387	1.4774		2629.8	2687.8
						3764.1		
1	2000.0	1947.6	0.7692	0.7400	1.4800		2631.9	2690.1
						3846.6		
2	2005.0	1952.6	0.7704	0.7413	1.4826		2634.0	2692.5
						3077.5		
1	2010.0	1957.5	0.7721	0.7429	1.4858		2634.9	2693.4

**Shot Summary Listing (1/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
130.0	2	31	-12.1	3.1	877.9	169, 170, 171, 172
140.0	3	31	-10.2	3.0	849.1	169, 170, 171, 172
150.0	4	31	-12.8	3.2	952.5	169, 170, 171, 172
160.0	5	31	-16.3	3.3	810.4	169, 170, 171, 172
170.0	6	31	23.4	3.2	839.9	169, 170, 171, 172
180.0	7	31	13.0	3.2	848.1	169, 170, 171, 172
190.0	8	31	-21.8	3.2	868.3	169, 170, 171, 172
200.0	2	30	-14.2	3.1	865.9	166, 167, 168
210.0	3	30	-10.1	3.0	829.4	166, 167, 168
220.0	4	30	-12.4	3.2	950.3	166, 167, 168
230.0	5	30	-16.1	3.3	820.6	166, 167, 168
240.0	6	30	23.1	3.2	852.2	166, 167, 168
250.0	7	30	16.2	3.2	844.3	166, 167, 168
260.0	8	30	-15.2	3.2	841.4	166, 167, 168
270.0	2	29	-8.4	3.1	844.8	163, 164, 165
280.0	3	29	-9.5	3.0	845.8	163, 164, 165
290.0	4	29	-12.4	3.2	932.9	163, 164, 165
300.0	5	29	-15.7	3.3	755.4	163, 164, 165
310.0	6	29	24.0	3.2	842.3	163, 164, 165
320.0	7	29	12.1	3.2	826.1	163, 164, 165
330.0	8	29	-15.3	3.2	852.9	163, 164, 165
340.0	2	28	-8.6	3.1	850.7	160, 161, 162
350.0	3	28	-8.1	3.0	800.2	160, 161, 162
360.0	4	28	-13.6	3.2	938.4	160, 161, 162
370.0	5	28	-16.3	3.3	780.1	160, 161, 162
380.0	6	28	22.3	3.2	835.3	160, 161, 162
390.0	7	28	15.9	3.2	824.9	160, 161, 162
400.0	8	28	-16.0	3.2	842.9	160, 161, 162

**Shot Summary Listing (2/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
410.0	2	27	-7.7	3.1	837.2	157, 158, 159
420.0	3	27	-18.9	3.0	809.8	157, 158, 159
430.0	4	27	-13.9	3.2	924.7	157, 158, 159
440.0	5	27	-16.0	3.3	778.7	157, 158, 159
450.0	6	27	19.5	3.2	844.4	157, 158, 159
460.0	7	27	5.9	3.2	821.8	157, 158, 159
470.0	8	27	-18.5	3.2	845.0	157, 158, 159
480.0	2	26	-1.7	3.1	829.3	153, 154, 155
490.0	3	26	-16.4	3.0	806.1	153, 154, 155
500.0	4	26	-15.7	3.2	912.1	153, 154, 155
510.0	5	26	-17.7	3.3	785.3	153, 154, 155
520.0	6	26	22.0	3.2	833.5	153, 154, 155
530.0	7	26	8.6	3.2	823.3	153, 154, 155
540.0	8	26	-1.6	3.2	819.5	153, 154, 155
550.0	2	25	-11.2	3.1	814.4	150, 151, 152
560.0	3	25	-7.6	3.0	787.2	150, 151, 152
570.0	4	25	-13.9	3.2	887.6	150, 151, 152
580.0	5	25	-15.6	3.3	778.0	150, 151, 152
590.0	6	25	22.0	3.2	830.3	150, 151, 152
600.0	7	25	14.0	3.2	815.0	150, 151, 152
610.0	8	25	-16.2	3.2	821.5	150, 151, 152
620.0	2	24	0.3	3.1	818.7	146, 147, 148
630.0	3	24	-4.7	3.0	780.7	146, 147, 148
640.0	4	24	-13.5	3.2	917.1	146, 147, 148
650.0	5	24	-16.4	3.3	766.1	146, 147, 148
660.0	6	24	20.8	3.2	815.8	146, 147, 148
670.0	7	24	18.0	3.2	815.2	146, 147, 148
680.0	8	24	-0.3	3.2	815.9	146, 147, 148

**Shot Summary Listing (3/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
690.0	2	23	3.2	3.1	807.8	143, 144, 145
700.0	3	23	-8.9	3.0	770.6	143, 144, 145
710.0	4	23	-13.3	3.2	905.4	143, 144, 145
720.0	5	23	-15.3	3.3	772.9	143, 144, 145
730.0	6	23	15.8	3.2	821.9	143, 144, 145
740.0	7	23	18.7	3.2	807.1	143, 144, 145
750.0	8	23	-5.3	3.2	822.2	143, 144, 145
760.0	2	22	-3.5	3.1	802.8	140, 141, 142
770.0	3	22	-4.7	3.0	786.5	140, 141, 142
780.0	4	22	-12.1	3.2	889.9	140, 141, 142
790.0	5	22	-16.3	3.3	775.9	140, 141, 142
800.0	6	22	11.0	3.2	819.1	140, 141, 142
810.0	7	22	11.2	3.2	804.6	140, 141, 142
820.0	8	22	-11.2	3.2	813.5	140, 141, 142
830.0	2	21	-2.2	3.1	803.0	135, 136, 137, 138, 139
840.0	3	21	-14.4	3.0	742.0	135, 136, 137, 138, 139
850.0	4	21	-13.5	3.2	890.8	135, 136, 137, 138, 139
860.0	5	21	-13.8	3.3	772.9	135, 136, 137, 138, 139
870.0	6	21	15.0	3.2	807.5	135, 136, 137, 138, 139
880.0	7	21	14.1	3.2	783.6	135, 136, 137, 138, 139
890.0	8	21	-8.0	3.1	802.2	135, 136, 137, 138, 139
900.0	2	20	-0.8	3.1	792.4	130, 131, 132, 133, 134
910.0	3	20	-9.0	3.0	770.6	130, 131, 132, 133, 134
920.0	4	20	-14.8	3.2	872.4	130, 131, 132, 133, 134
930.0	5	20	-16.1	3.3	758.0	130, 131, 132, 133, 134
940.0	6	20	13.7	3.1	787.1	130, 131, 132, 133, 134
950.0	7	20	16.8	3.2	785.6	130, 131, 132, 133, 134
960.0	8	20	-9.0	3.1	802.2	130, 131, 132, 133, 134

**Shot Summary Listing (4/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
970.0	2	19	-4.5	3.1	791.2	125, 126, 127, 128, 129
980.0	3	19	-5.8	3.0	759.0	125, 126, 127, 128, 129
990.0	4	19	-18.6	3.2	862.1	125, 126, 127, 128, 129
1000.0	5	19	-17.5	3.3	753.2	125, 126, 127, 128, 129
1010.0	6	19	24.5	3.2	802.9	125, 126, 127, 128, 129
1020.0	7	19	8.3	3.2	778.8	125, 126, 127, 128, 129
1030.0	8	19	-11.7	3.1	786.9	125, 126, 127, 128, 129
1040.0	2	18	-9.6	3.1	785.9	119, 120, 121, 122, 123
1050.0	3	18	-6.0	3.0	757.0	119, 120, 121, 122, 123
1060.0	4	18	-16.0	3.2	855.4	119, 120, 121, 122, 123
1070.0	5	18	-16.2	3.3	737.4	119, 120, 121, 122, 123
1080.0	6	18	25.7	3.2	801.8	119, 120, 121, 122, 123
1090.0	7	18	13.8	3.2	765.9	119, 120, 121, 122, 123
1100.0	8	18	-16.3	3.1	778.7	119, 120, 121, 122, 123
1110.0	2	17	-1.0	3.1	784.8	113, 114, 115, 116, 117, 118
1120.0	3	17	-11.1	3.0	751.4	113, 114, 115, 116, 117, 118
1130.0	4	17	-16.8	3.2	846.0	113, 114, 115, 116, 117, 118
1140.0	5	17	-12.7	3.2	737.4	113, 114, 115, 116, 117, 118
1150.0	6	17	21.3	3.1	792.9	113, 114, 115, 117, 118
1160.0	7	17	15.6	3.2	763.6	113, 114, 115, 116, 117, 118
1170.0	8	17	-6.6	3.1	779.1	113, 114, 115, 116, 117, 118
1180.0	2	16	-7.0	3.1	771.8	108, 109, 110, 111, 112
1190.0	3	16	-21.6	3.0	733.9	108, 109, 110, 111, 112
1200.0	4	16	-17.3	3.1	853.5	108, 109, 110, 111, 112
1210.0	5	16	-16.6	3.2	704.7	108, 109, 110, 111, 112
1220.0	6	16	15.0	3.1	798.3	108, 109, 110, 111, 112
1230.0	7	16	17.8	3.2	770.5	108, 109, 110, 111, 112
1240.0	8	16	7.1	3.1	786.7	108, 109, 110, 111, 112

**Shot Summary Listing (5/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1250.0	2	15	-10.3	3.0	758.1	103, 104, 105, 106, 107
1260.0	3	15	-14.4	3.0	717.7	103, 104, 105, 106, 107
1270.0	4	15	-15.5	3.2	841.6	103, 104, 105, 106, 107
1280.0	5	15	-18.9	3.3	730.4	103, 104, 105, 106, 107
1290.0	6	15	13.7	3.2	784.8	103, 104, 105, 106, 107
1300.0	7	15	8.5	3.2	747.0	103, 104, 105, 106, 107
1310.0	8	15	-15.9	3.1	761.2	103, 104, 105, 106, 107
1320.0	2	14	-9.5	3.0	756.6	96, 97, 98, 99, 100, 101
1330.0	3	14	-20.9	3.0	735.2	96, 97, 98, 99, 100, 101
1340.0	4	14	-14.8	3.2	828.3	96, 97, 98, 99, 100, 101
1350.0	5	14	-19.2	3.3	718.0	96, 97, 98, 99, 100, 101
1360.0	6	14	11.9	3.2	786.8	96, 97, 98, 99, 100, 101
1370.0	7	14	13.0	3.2	751.7	96, 97, 98, 99, 100, 101
1380.0	8	14	-8.8	3.1	762.1	96, 97, 98, 99, 100, 101
1390.0	2	13	-2.8	3.1	750.8	88, 90, 91, 92, 93, 94, 95
1400.0	3	13	-18.8	3.0	733.6	88, 89, 90, 91, 92, 93, 94, 95
1410.0	4	13	-13.8	3.2	815.5	88, 90, 91, 92, 94, 95
1420.0	5	13	-6.2	3.3	732.9	88, 90, 91, 92, 94, 95
1430.0	6	13	10.3	3.2	783.9	88, 89, 90, 91, 92, 93, 94, 95
1440.0	7	13	8.6	3.2	737.6	88, 89, 90, 91, 92, 93, 94, 95
1450.0	8	13	-12.9	3.1	778.3	88, 89, 90, 92, 93, 94, 95
1460.0	2	12	10.8	3.0	748.3	82, 83, 84, 85, 86, 87
1470.0	3	12	-4.8	3.0	724.1	82, 83, 84, 85, 86, 87
1480.0	4	12	-11.3	3.1	801.7	82, 83, 84, 85, 86, 87
1490.0	5	12	-6.1	3.3	720.4	82, 83, 84, 85, 86, 87
1500.0	6	12	7.2	3.2	768.7	82, 83, 84, 85, 86, 87
1510.0	7	12	5.3	3.2	731.1	82, 83, 84, 85, 86, 87
1520.0	8	12	-5.8	3.1	773.9	82, 83, 84, 85, 86, 87

**Shot Summary Listing (6/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1530.0	2	11	-1.1	3.0	734.3	77, 78, 79, 80, 81
1540.0	3	11	-3.0	3.0	703.0	77, 78, 79, 80, 81
1550.0	4	11	-8.9	3.2	795.1	77, 78, 79, 80, 81
1560.0	5	11	-17.3	3.2	700.6	77, 78, 79, 80, 81
1570.0	6	11	4.1	3.1	774.1	77, 78, 79, 80, 81
1580.0	7	11	7.5	3.2	730.7	77, 78, 79, 80, 81
1590.0	8	11	-3.6	3.1	766.0	77, 78, 79, 80, 81
1600.0	2	10	7.1	3.0	726.9	71, 72, 74, 75, 76
1610.0	3	10	7.6	3.0	688.2	71, 72, 74, 75, 76
1620.0	4	10	-11.4	3.1	808.8	71, 72, 74, 75, 76
1630.0	5	10	-12.9	3.2	621.9	71, 72, 74, 75, 76
1640.0	6	10	12.7	3.2	770.0	71, 72, 74, 75, 76
1650.0	7	10	4.9	3.2	723.3	71, 72, 74, 75, 76
1660.0	8	10	-17.8	3.1	750.1	71, 72, 74, 75, 76
1670.0	2	9	-19.2	3.0	721.4	65, 66, 67, 68, 69
1680.0	3	9	11.4	3.0	686.1	65, 66, 67, 68, 69
1690.0	4	9	-8.0	3.1	802.4	65, 66, 67, 68, 69
1700.0	5	9	-20.4	3.2	691.8	65, 66, 67, 68, 69
1710.0	6	9	6.9	3.1	752.3	65, 66, 67, 68, 69
1720.0	7	9	1.8	3.2	694.7	65, 66, 67, 68, 69
1730.0	8	9	17.7	3.1	741.6	65, 66, 67, 68, 69
1735.0	2	8	42.9	3.0	716.0	60, 61, 62, 63, 64
1740.0	2	7	42.6	3.0	714.2	54, 55, 56, 57, 59
1745.0	3	8	66.5	3.0	682.3	60, 61, 62, 63, 64
1750.0	3	7	65.4	3.0	685.2	54, 55, 56, 57, 59
1755.0	4	8	4.9	3.1	788.8	60, 61, 62, 63, 64
1760.0	4	7	3.5	3.1	764.7	54, 55, 56, 57, 59
1765.0	5	8	44.3	3.2	692.4	60, 61, 62, 63, 64



**Shot Summary Listing (7/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1770.0	5	7	41.2	3.2	666.1	54, 55, 56, 57, 59
1775.0	6	8	42.8	3.1	757.1	60, 61, 62, 63, 64
1780.0	6	7	42.8	3.1	756.4	54, 55, 56, 57, 59
1785.0	7	8	16.4	3.2	693.9	60, 61, 62, 63, 64
1790.0	7	7	16.4	3.2	695.0	54, 55, 56, 57, 59
1795.0	8	8	-39.8	3.1	737.0	60, 61, 62, 63, 64
1800.0	8	7	-39.9	3.1	734.7	54, 55, 56, 57, 59
1805.0	2	6	14.9	3.0	708.5	49, 50, 51, 52, 53
1810.0	2	5	10.8	3.0	698.6	43, 44, 45, 46, 47, 48
1815.0	3	6	29.0	3.0	661.7	49, 50, 51, 52, 53
1820.0	3	5	4.0	3.0	663.5	43, 44, 45, 46, 47, 48
1825.0	4	6	-20.4	3.2	769.9	49, 50, 51, 52, 53
1830.0	4	5	-20.5	3.1	763.6	43, 44, 45, 46, 47, 48
1835.0	5	6	3.9	3.2	653.0	49, 50, 51, 52, 53
1840.0	5	5	3.9	3.2	658.9	43, 44, 45, 46, 47, 48
1845.0	6	6	-4.7	3.1	757.3	49, 50, 51, 52, 53
1850.0	6	5	-4.8	3.1	741.6	43, 44, 45, 46, 47, 48
1855.0	7	6	-23.7	3.2	687.0	49, 50, 51, 52, 53
1860.0	7	5	-32.3	3.2	683.9	43, 44, 45, 46, 47, 48
1865.0	8	6	-85.2	3.1	733.0	49, 50, 51, 52, 53
1870.0	8	5	-92.8	3.1	723.5	43, 44, 45, 46, 47, 48
1875.0	2	4	-50.1	3.0	689.0	35, 36, 40, 41, 42
1880.0	2	3	-50.0	3.0	682.5	29, 30, 31, 32, 34
1885.0	3	4	-18.0	2.9	659.3	35, 36, 40, 41, 42
1890.0	3	3	-18.0	3.0	655.8	29, 30, 31, 32, 34
1895.0	4	4	-48.4	3.1	743.2	35, 36, 40, 41, 42
1900.0	4	3	-48.4	3.2	749.0	29, 30, 31, 32, 34
1905.0	5	4	-64.0	3.2	658.1	35, 36, 40, 41, 42

**Shot Summary Listing (8/8)**

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1910.0	5	3	-64.2	3.2	638.7	29, 30, 31, 32, 34
1915.0	6	4	-51.5	3.1	746.9	35, 36, 40, 41, 42
1920.0	6	3	-51.5	3.1	722.0	29, 30, 31, 32, 34
1925.0	7	4	-98.3	3.2	700.2	35, 36, 40, 41, 42
1930.0	7	3	-98.3	3.2	680.0	29, 30, 31, 32, 34
1935.0	8	4	174.6	3.1	713.7	35, 36, 40, 41, 42
1940.0	8	3	174.7	3.1	700.9	29, 30, 31, 32, 34
1945.0	2	2	-162.7	3.0	682.5	24, 25, 26, 27, 28
1950.0	2	1	139.8	3.0	682.5	19, 20, 21, 22, 23
1955.0	3	2	-124.2	3.0	657.3	24, 25, 26, 27, 28
1960.0	3	1	-177.2	2.9	648.8	19, 20, 21, 22, 23
1965.0	4	2	-82.1	3.1	625.2	24, 25, 26, 27, 28
1970.0	4	1	-82.2	3.1	683.1	19, 20, 21, 22, 23
1975.0	5	2	176.9	3.2	563.1	24, 25, 26, 27, 28
1980.0	5	1	137.3	3.2	631.3	19, 20, 21, 22, 23
1985.0	6	2	174.4	3.1	647.4	24, 25, 26, 27, 28
1990.0	6	1	123.0	3.1	722.2	19, 20, 21, 22, 23
1995.0	7	2	129.3	3.2	672.1	24, 25, 26, 27, 28
2000.0	7	1	88.5	3.2	637.4	19, 20, 21, 22, 23
2005.0	8	2	37.0	3.1	703.8	24, 25, 27, 28
2010.0	8	1	-0.4	3.1	687.5	19, 20, 21, 22, 23

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# Field Processing Report Zero-Offset VSP

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Process Flow	Parameter
	<p><b>[LoadLdf]</b>                  Input 1: VSI_007_A_gac_wavefield_x.ldf                  Input 2: VSI_007_A_gac_wavefield_y.ldf                  Input 3: VSI_007_A_gac_wavefield_z.ldf</p> <p><b>[Frequency2]</b>                  Apply FZ</p> <p><b>[BPFilte]</b>                  Phase: Zero                  Band Width: 5.0 - 160.0Hz</p> <p><b>[GenVel]</b>                  Apply internal Normalization/Denormalization                  Mean Filter 11 Traces</p> <p><b>[WaveDecon]</b>                  Waveshape Deconvolution                  Design Filter trace                  Input start at TRANSIT_TIME                  wavelet: 8.0 - 100.0 Hz zero-phase                  Polarity: Positive</p> <p><b>[Frequency1]</b>                  Apply FK</p> <p><b>[BPFilte1]</b>                  Phase: Zero                  Band Width: 8.0 - 110.0Hz</p> <p><b>[TVG(TAR)]</b>                  Travel time exponent = 1.20</p> <p><b>[Frequency3]</b>                  Apply FK</p> <p><b>[GenVel1]</b>                  Median Filter 7 Traces</p> <p><b>[Corridor]</b>                  Window Start: TRANSIT_TIME - 0.000 (s)                  Window End: TRANSIT_TIME - -0.200 (s)                  (Deepest 10 traces remain)                  Mean Stack                  BPF 5.0 - 90.0Hz</p> <p><b>[Frequency]</b>                  Apply FK</p>

[LoadLdf]

FileLoadLdf Parameters

Input 1: VSI\_007\_A\_gac\_wavefield\_x.ldf  
Input 2: VSI\_007\_A\_gac\_wavefield\_y.ldf  
Input 3: VSI\_007\_A\_gac\_wavefield\_z.ldf

[3CPolarization]

Polarizations Parameters

Compute polarization from TRANSIT\_TIME - 0.015 s for 0.015 s using threshold  
Apply rotation on traces  
2D rotation  
save Hmn/Hmx angle in POLARIZATION\_1 and rectilinearity in USER\_KEY\_1  
save Try/Nry angle in POLARIZATION\_2 and rectilinearity in USER\_KEY\_2  
Reference to Z

[TraceRange]

Trace Range Set Manual Parameters

Trace Range Set Parameters  
Remove Bad Trace

[Shft]

Shift Parameters

Shift: + TRANSIT\_TIME\_ACCURACY - 0 s  
Update selected headers

[Frequency2]

Spectral Analyser Parameters

Process from TRANSIT\_TIME - 0.020 s  
Gate Length = 3.000 s = (samples) 1501  
= (F Max = 200 Hz  
= (Apply F Max)  
Trace range from 1 to 178  
Depth/Offset header = RECEIVER\_POSITION\_Z  
Output is Frequency Domain  
Compute Amplitude spectrum in dB

[BPFfilter]

BPF Parameters

Butterworth Filter, Zero Phase  
Characteristic: 5.000 Hz to 160.000 Hz Order 3

[GenVelfil]

Mean/Median Generalized Velocity Filter Parameters

Align events using times of TRANSIT\_TIME x 1.000  
Compute both enhanced and residual output  
Apply internal Normalization/Denormalization based on RMS of time window  
From TRANSIT\_TIME - 0.020 s  
Window length = 0.100 s

Mean Stacking

Stacking window (traces): 11  
Stacking window (samples): 1

Source and receiver coordinates Parameters

Source Offset: SOURCE\_LINE\_POSITION\_RHO  
Source Depth: SOURCE\_LINE\_POSITION\_Z  
Receiver Offset: RECEIVER\_LINE\_POSITION\_RHO  
Receiver Depth: RECEIVER\_LINE\_POSITION\_Z

## [WaveDecon]

## Waveshaping deconvolution Parameters

Design Filter trace by trace  
Filter input start at TRANSIT\_TIME - 0.080 s  
Filter input window: 0.800 s  
Filter Length is filter input window  
Desired wavelet created by filtered unit impulse from 8.000 Hz to 100.000  
Positive wavelet polarity  
Wavelet delay time = Filter Length / 2  
White noise (%): 5.000  
Waveshaping optimization Parameters

## [Frequency1]

## Spectral Analyser Parameters

Process from TRANSIT\_TIME - 0.020 s  
Gate Length = 3.000 s = (samples) 1501  
= (F Max = 200 Hz  
= (Apply F Max)  
Trace range from 1 to 178  
Depth/Offset header = RECEIVER\_POSITION\_Z  
Output is FK Domain  
Compute Amplitude spectrum in dB

## [BPFfilter1]

## BPF Parameters

Butterworth Filter, Zero Phase  
Characteristic: 8.000 Hz to 110.000 Hz Order 3

## [TVG(TAR)]

## Time-Varying Gain Parameters

Window start at TRANSIT\_TIME - 0.000000  
Window length = 3.000000  
Travel time exponent = 1.200000  
Exponential Weighting = 0.000000

## [Frequency3]

## Spectral Analyser Parameters

Process from TRANSIT\_TIME - 0.020 s  
Gate Length = 3.000 s = (samples) 1501  
= (F Max = 200 Hz  
= (Apply F Max)  
Trace range from 1 to 178  
Depth/Offset header = RECEIVER\_POSITION\_Z  
Output is FK Domain  
Compute Amplitude spectrum in dB

## [GenVelfill1]

## Mean/Median Generalized Velocity Filter Parameters

Align events using times of TRANSIT\_TIME x -1.000  
Compute both enhanced and residual output  
Median Stacking  
Stacking window (traces): 7  
Stacking window (samples): 1  
Source and receiver coordinates Parameters  
Source Offset: SOURCE\_LINE\_POSITION\_RHO  
Source Depth: SOURCE\_LINE\_POSITION\_Z  
Receiver Offset: RECEIVER\_LINE\_POSITION\_RHO  
Receiver Depth: RECEIVER\_LINE\_POSITION\_Z

[Corridor]


Corridor stack Parameters

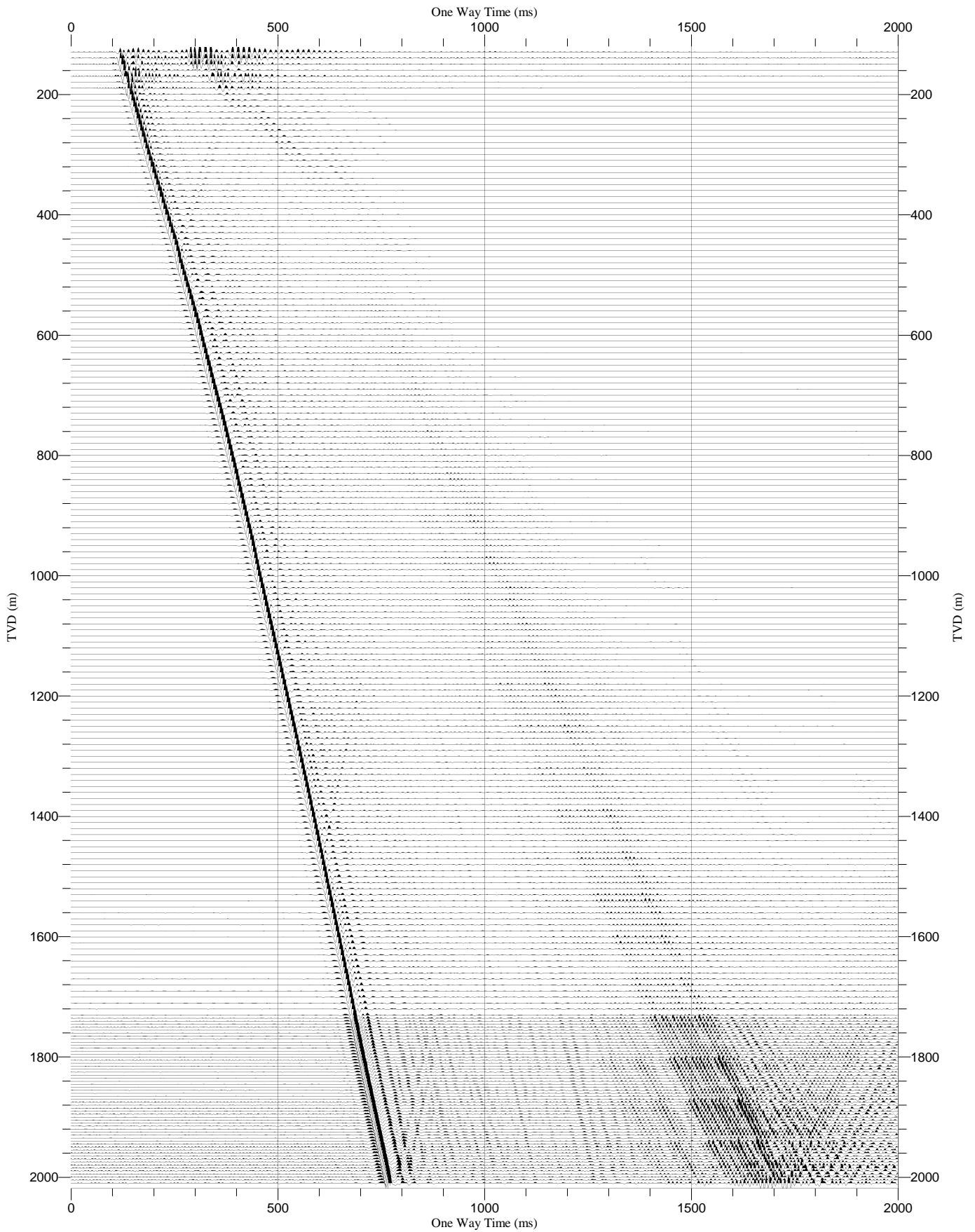
Mute before TRANSIT\_TIME - 0 s  
Mute after TRANSIT\_TIME - -0.200 s  
All traces except the deepest (traces): 10  
Depth header: RECEIVER\_POSITION\_Z  
Mean stack  
Apply +TT with TRANSIT\_TIME  
Replicate corridor stack x 10  
Apply BPF on resulting corridor stack  
BPF Parameters  
Butterworth Filter, Zero Phase  
Characteristic: 5.000 Hz to 90.000 Hz Order 3

[Frequency]

Spectral Analyser Parameters

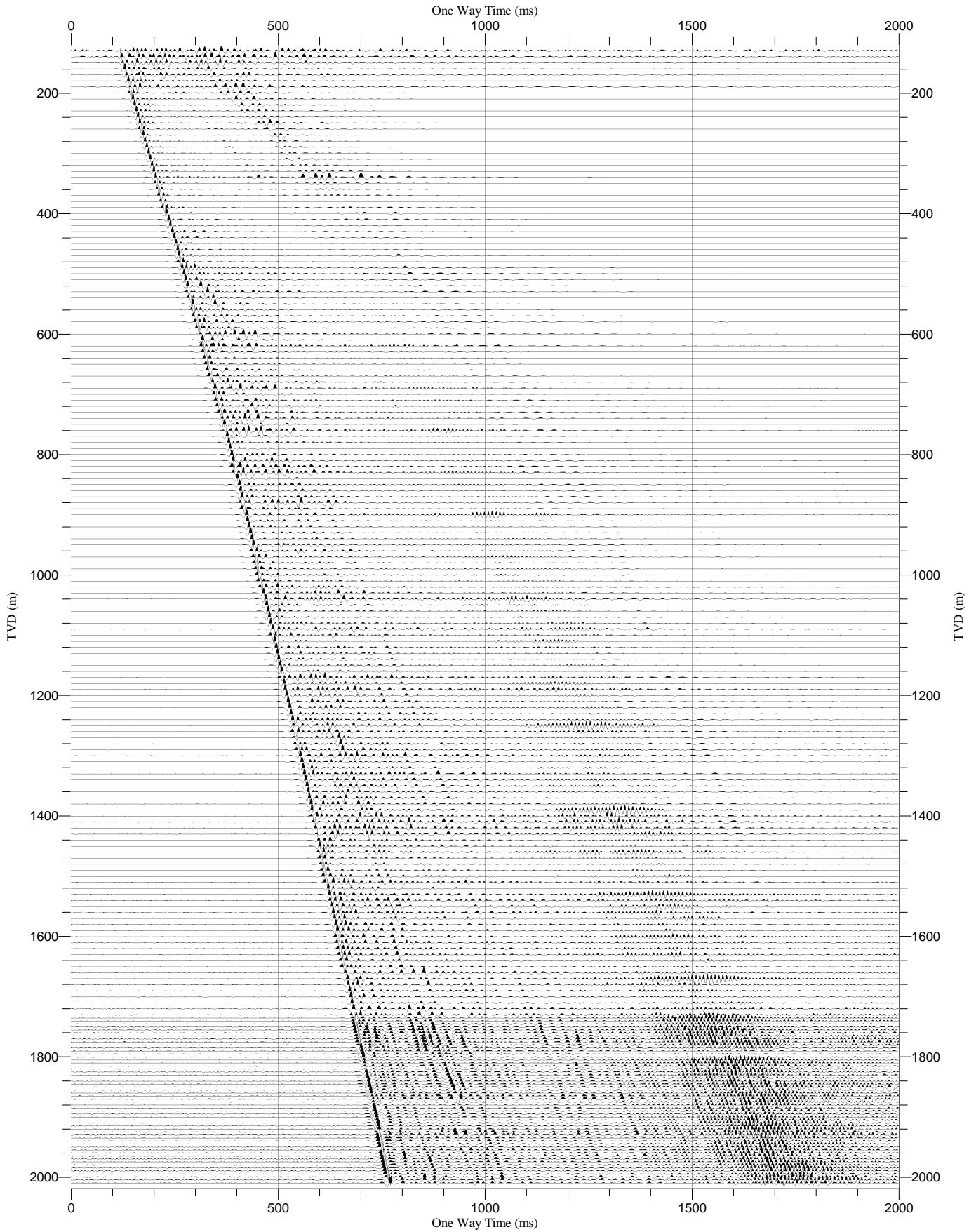
Process from TRANSIT\_TIME - 0 s  
Gate Length = 3.000 s = (samples) 1501  
= (F Max = 200 Hz  
= (Apply F Max)  
Trace range from 1 to 178  
Depth/Offset header = RECEIVER\_POSITION\_Z  
Output is FK Domain  
Compute Amplitude spectrum in dB


Raw Stack (Z)	Normalization Trace by Trace (200%) Polarity Normal One Way Time (ms) Scaling 7.8 cm/sec, 1/8810	
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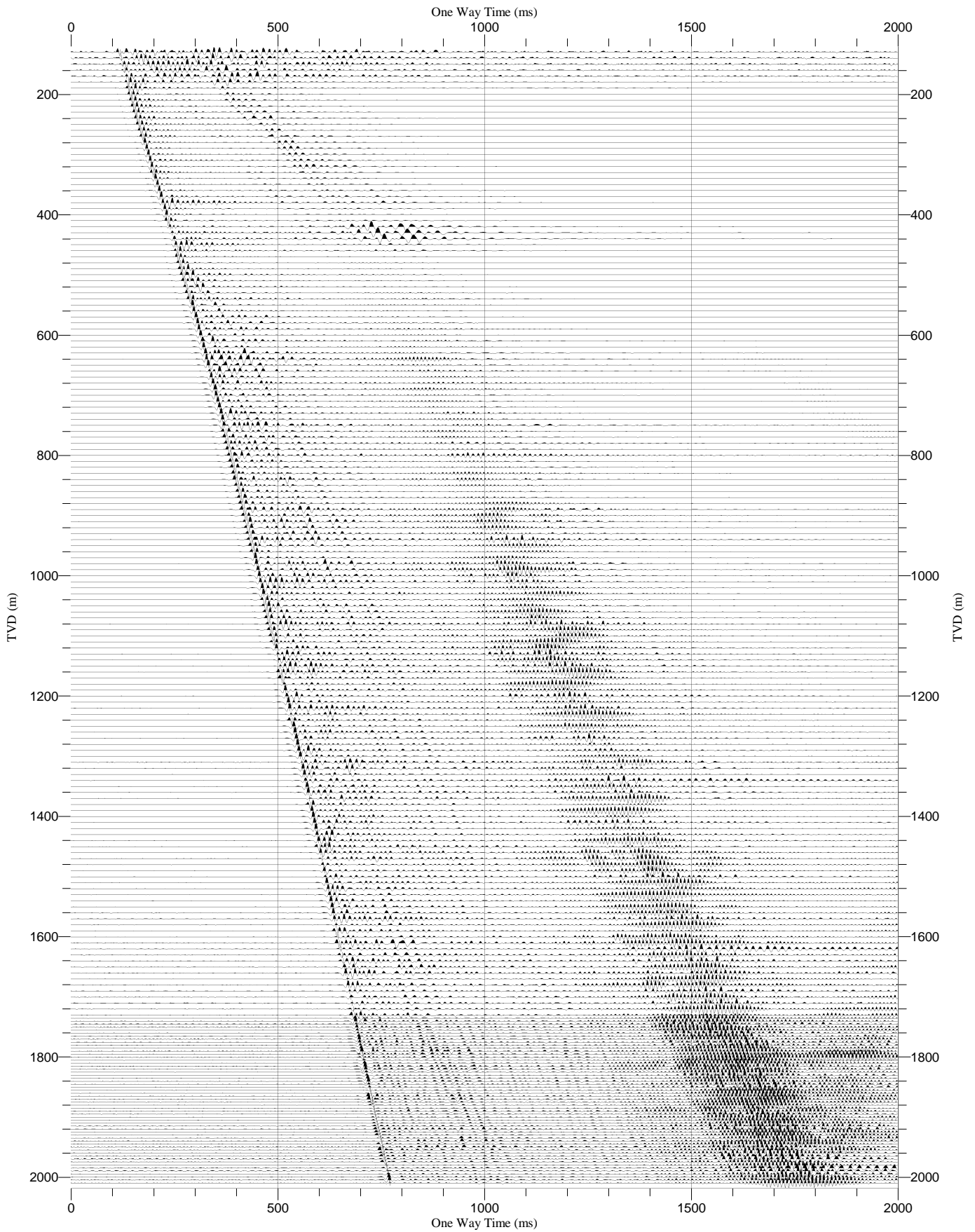





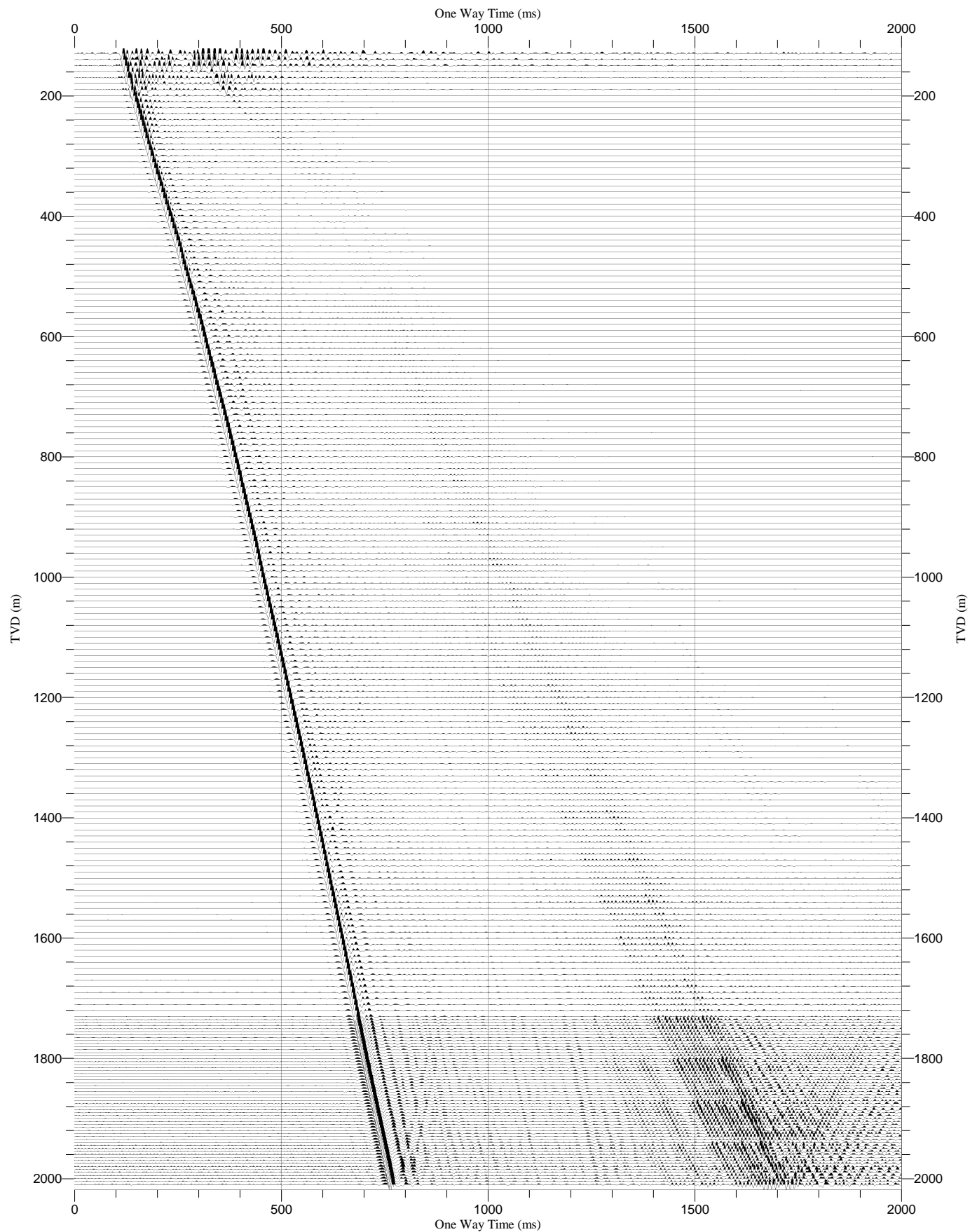
Raw Stack (X)      Normalization Trace by Trace (100%)  
Polarity Normal  
One Way Time (ms)  
Scaling 7.8 cm/sec, 1/8810




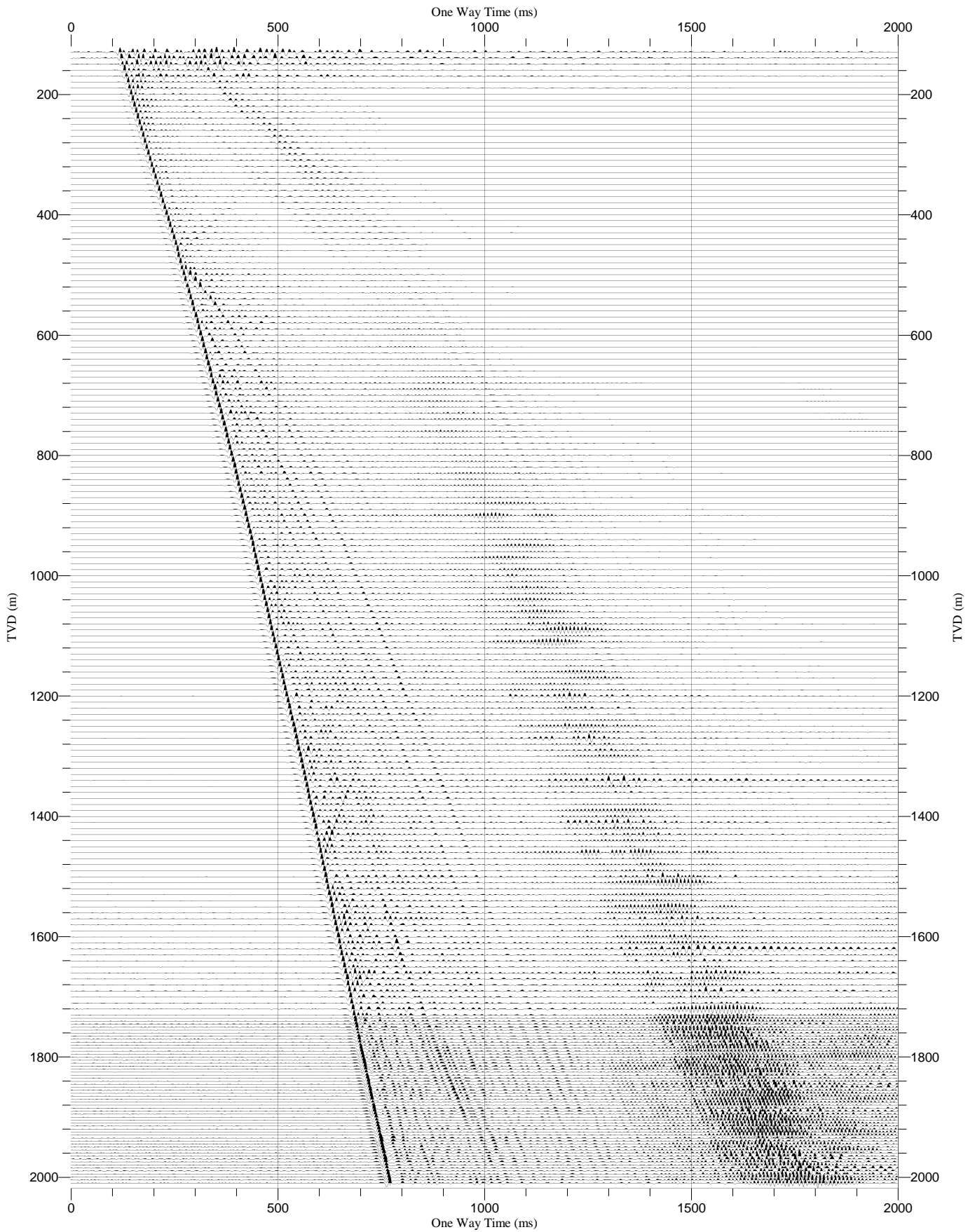
Raw Stack (Y)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.8 cm/sec, 1/8810	
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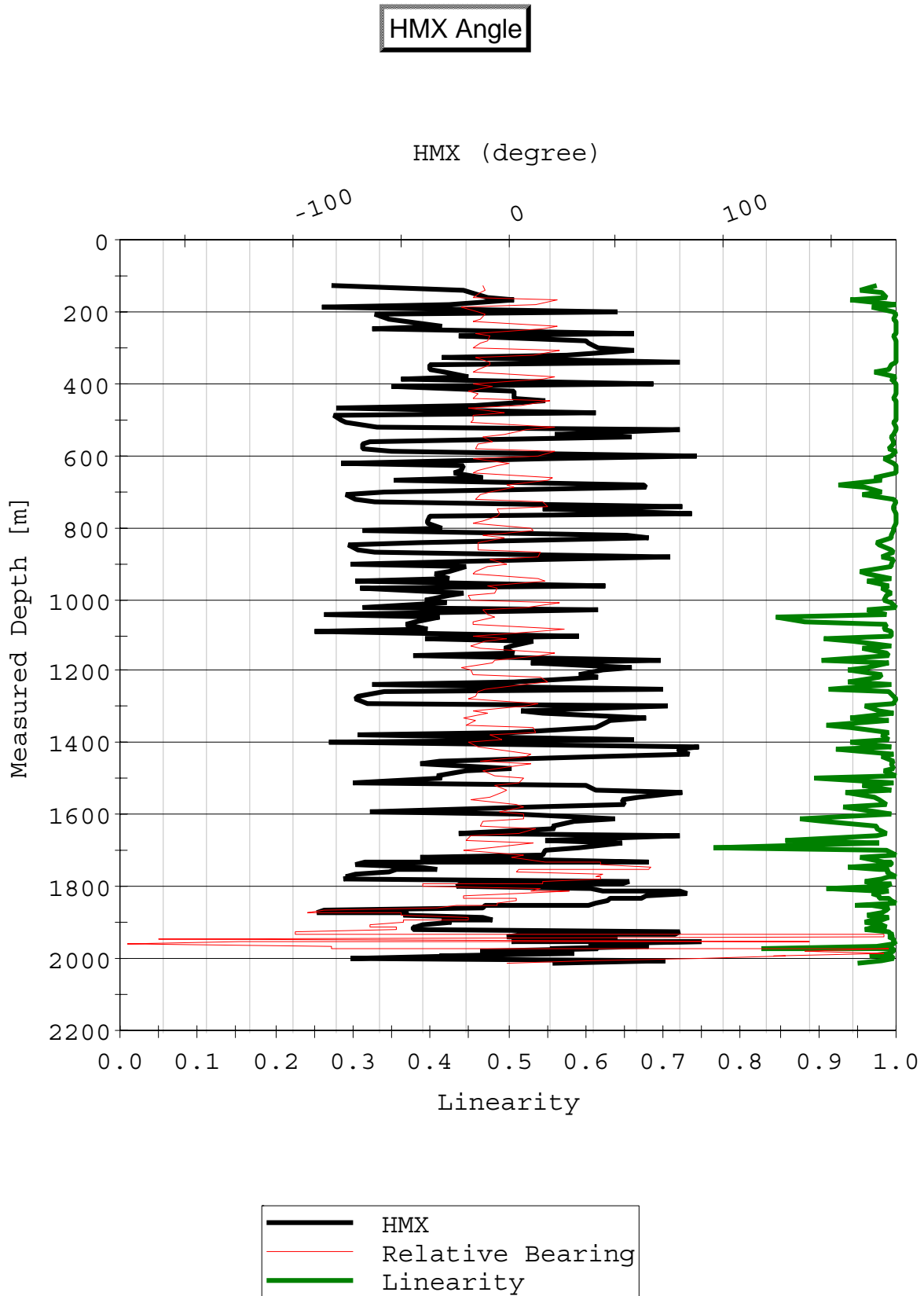


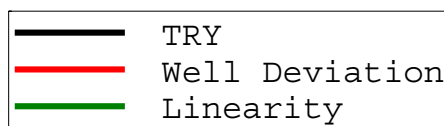
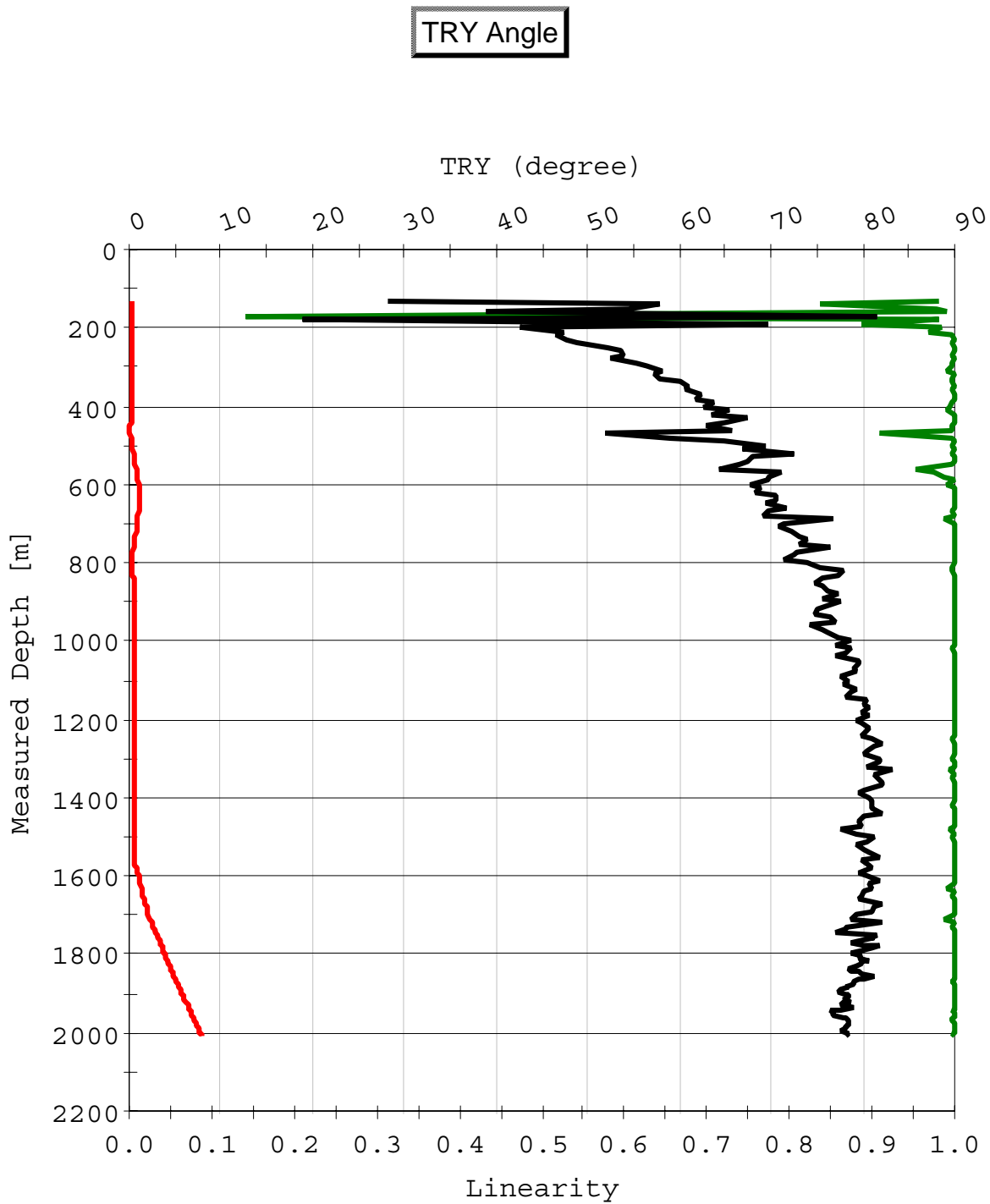
Raw Stack (TRY)	Normalization Trace by Trace (200%) Polarity Normal One Way Time (ms) Scaling 7.8 cm/sec, 1/8810	
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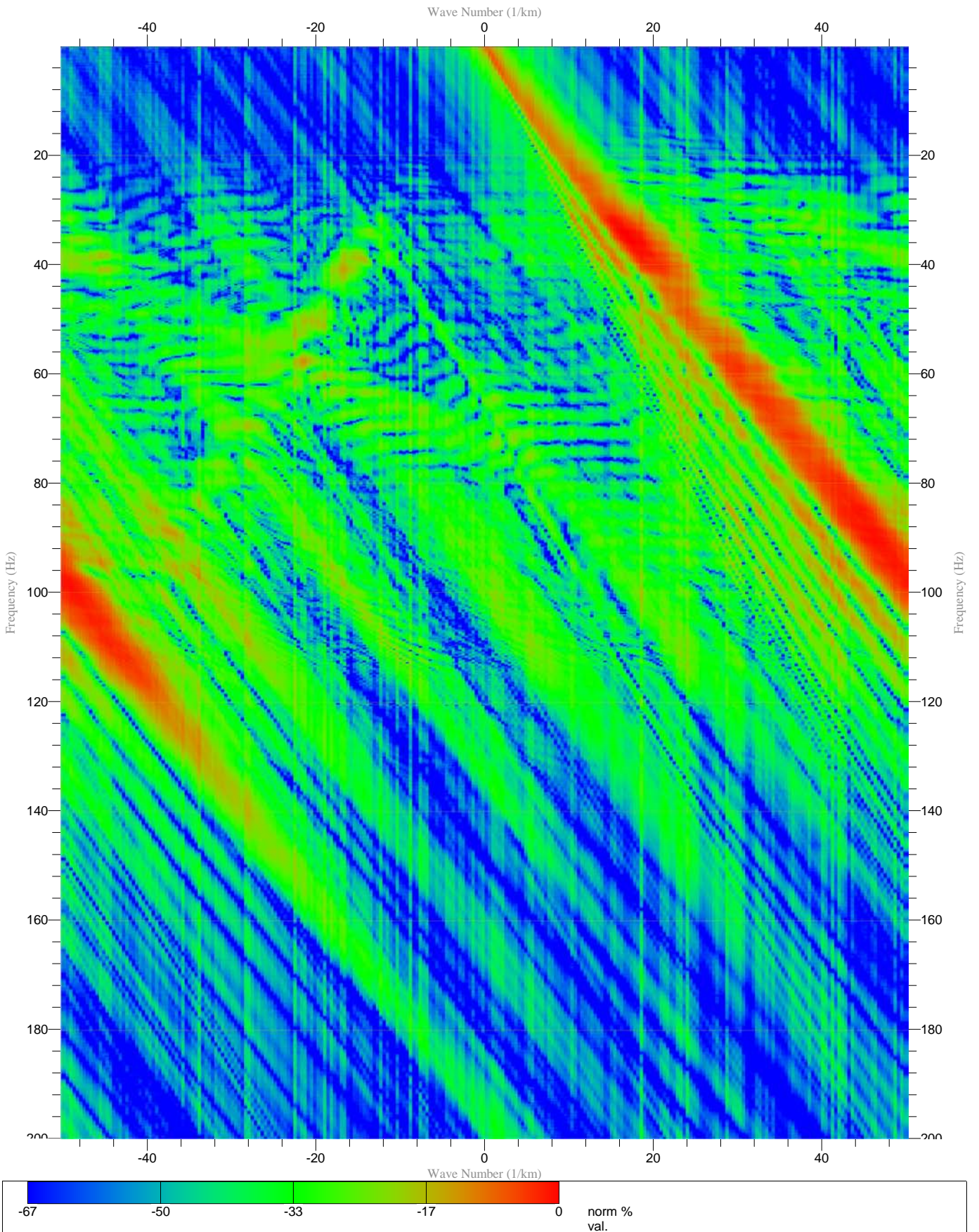
Raw Stack (HMX)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.8 cm/sec, 1/8810	
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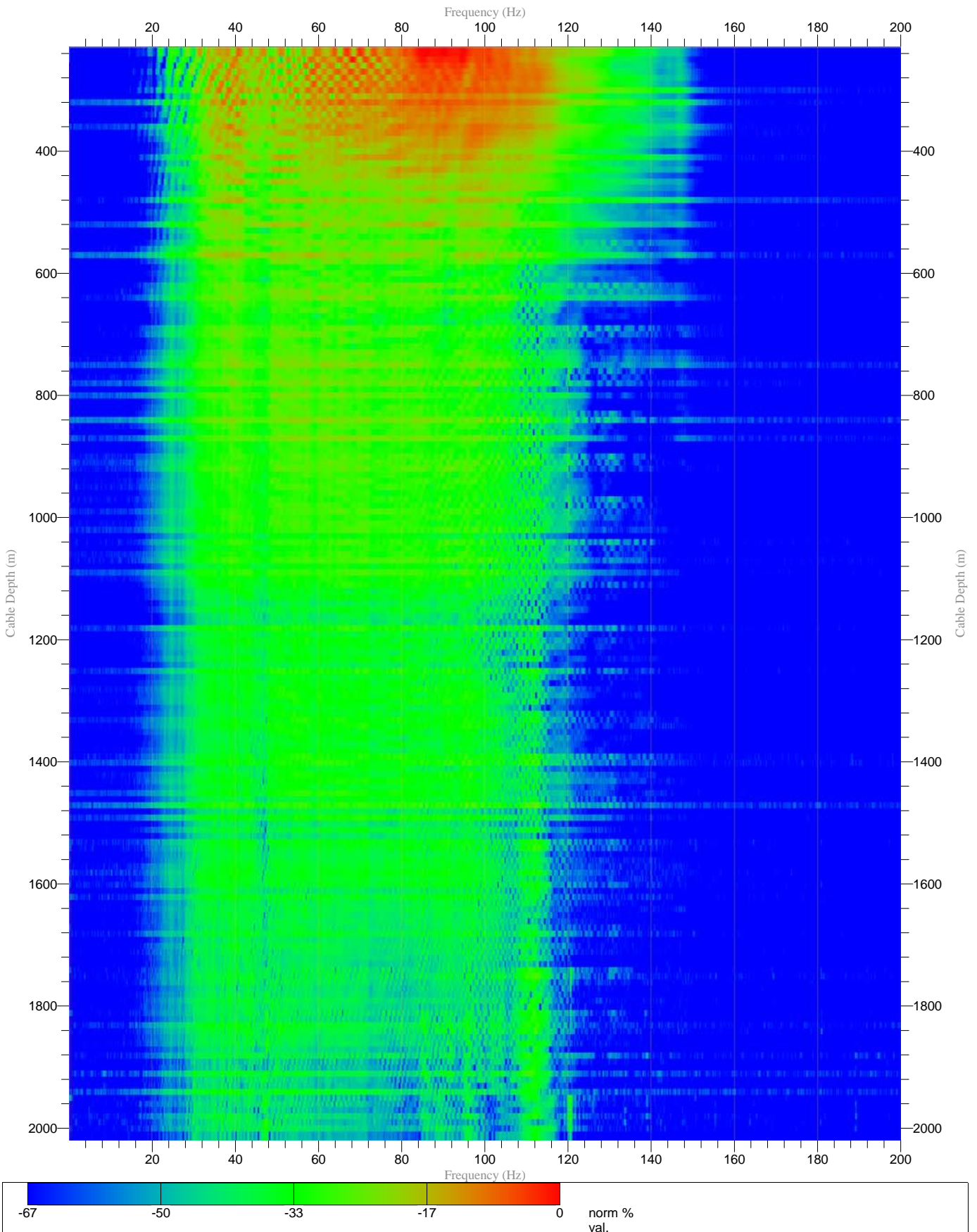





VSP Raw Stack (Z) FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.11 cm/Hz, 6.30(1/km)/cm	
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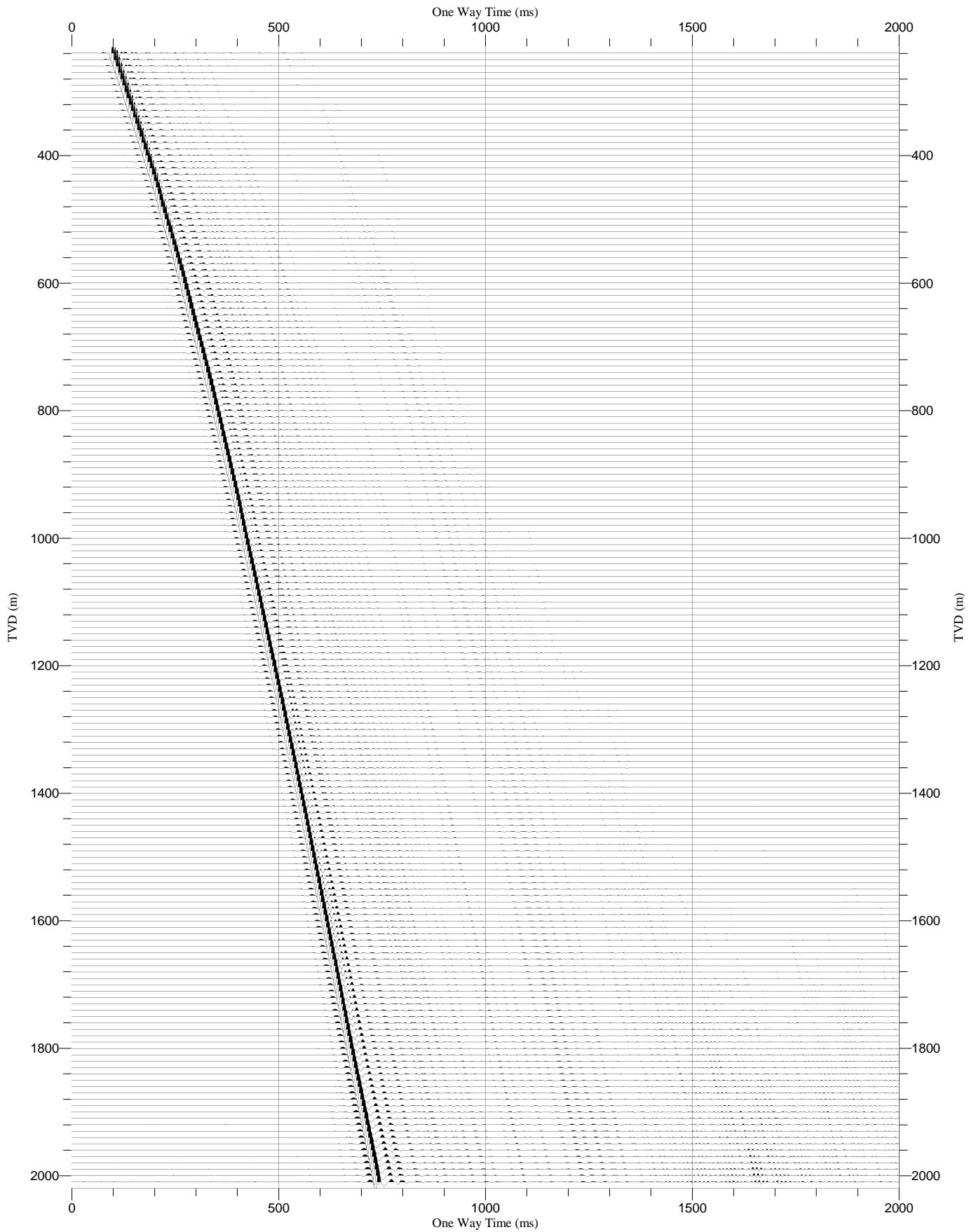


VSP Raw Stack (Z) FZ Apply FZ	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.1 cm/Hz, 1/8340	
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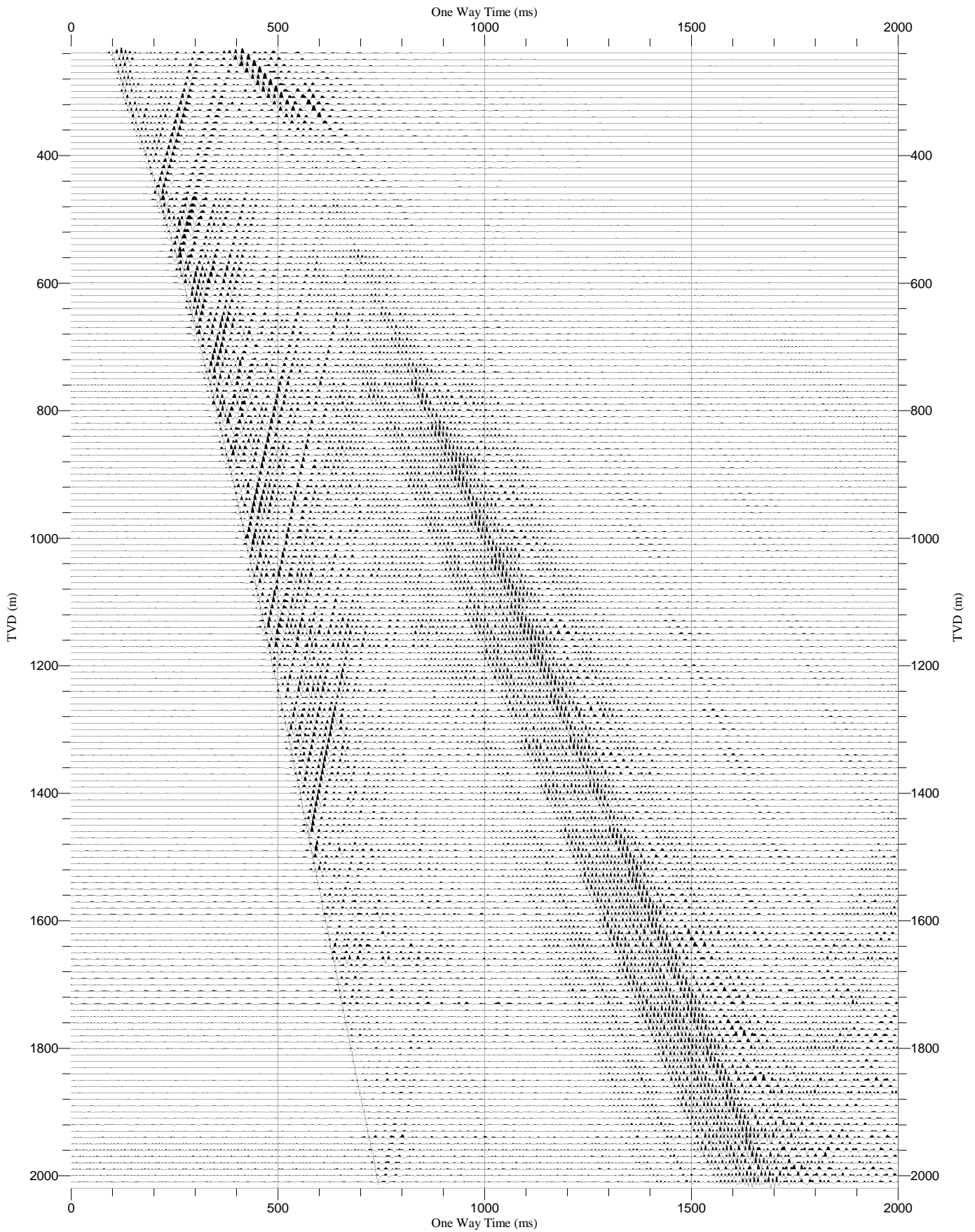


VSP Downgoing BPF 5.0 - 160.0Hz Mean Filter 11 Traces	Normalization Trace by Trace (200%) Polarity Normal One Way Time (ms) Scaling 7.8 cm/sec, 1/8310	
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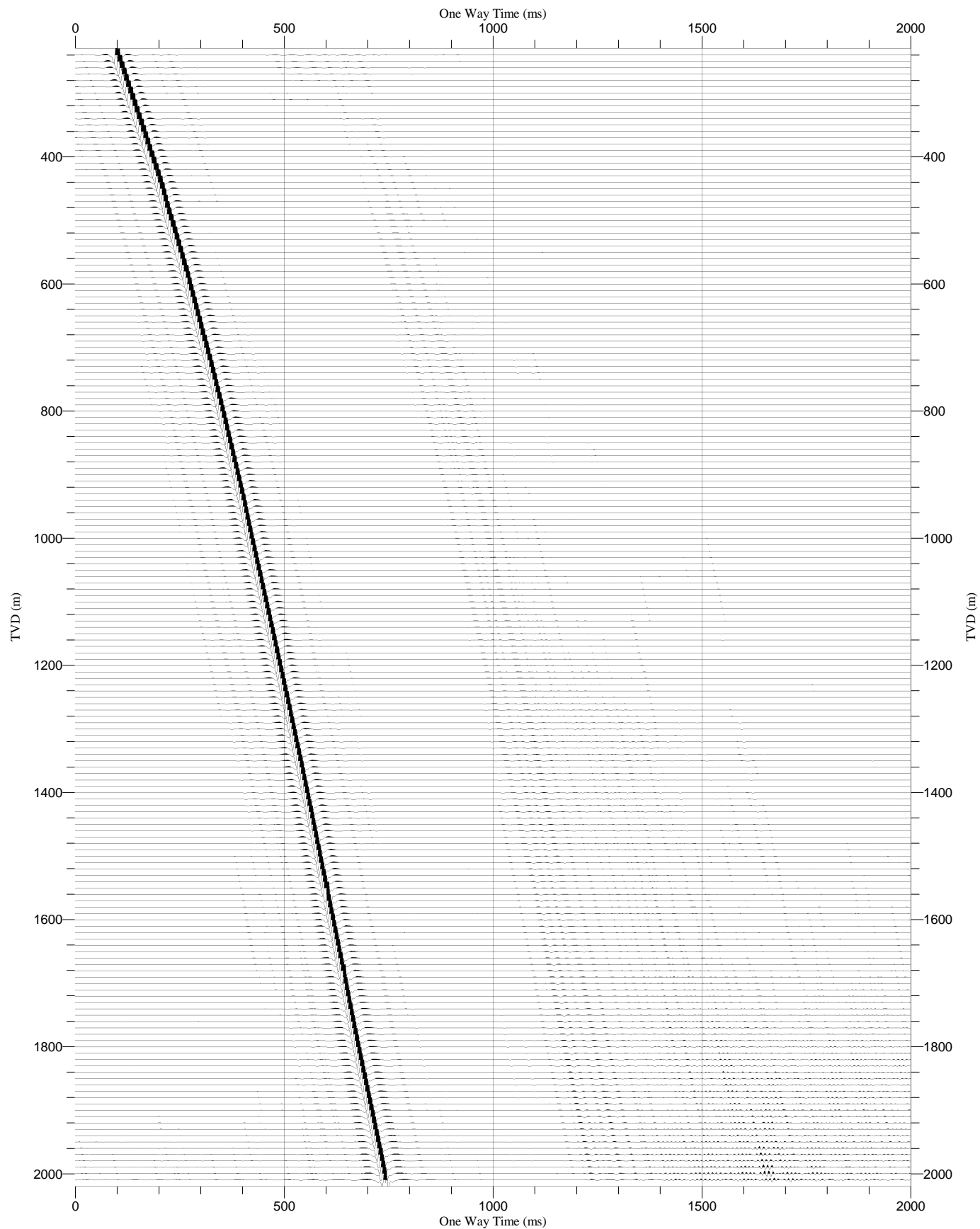
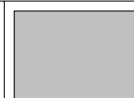
VSP Upgoing  
BPF 5.0 - 160.0Hz  
Mean Filter 11 Traces

Normalization Trace by Trace (100%)  
Polarity Normal  
One Way Time (ms)  
Scaling 7.8 cm/sec, 1/8310



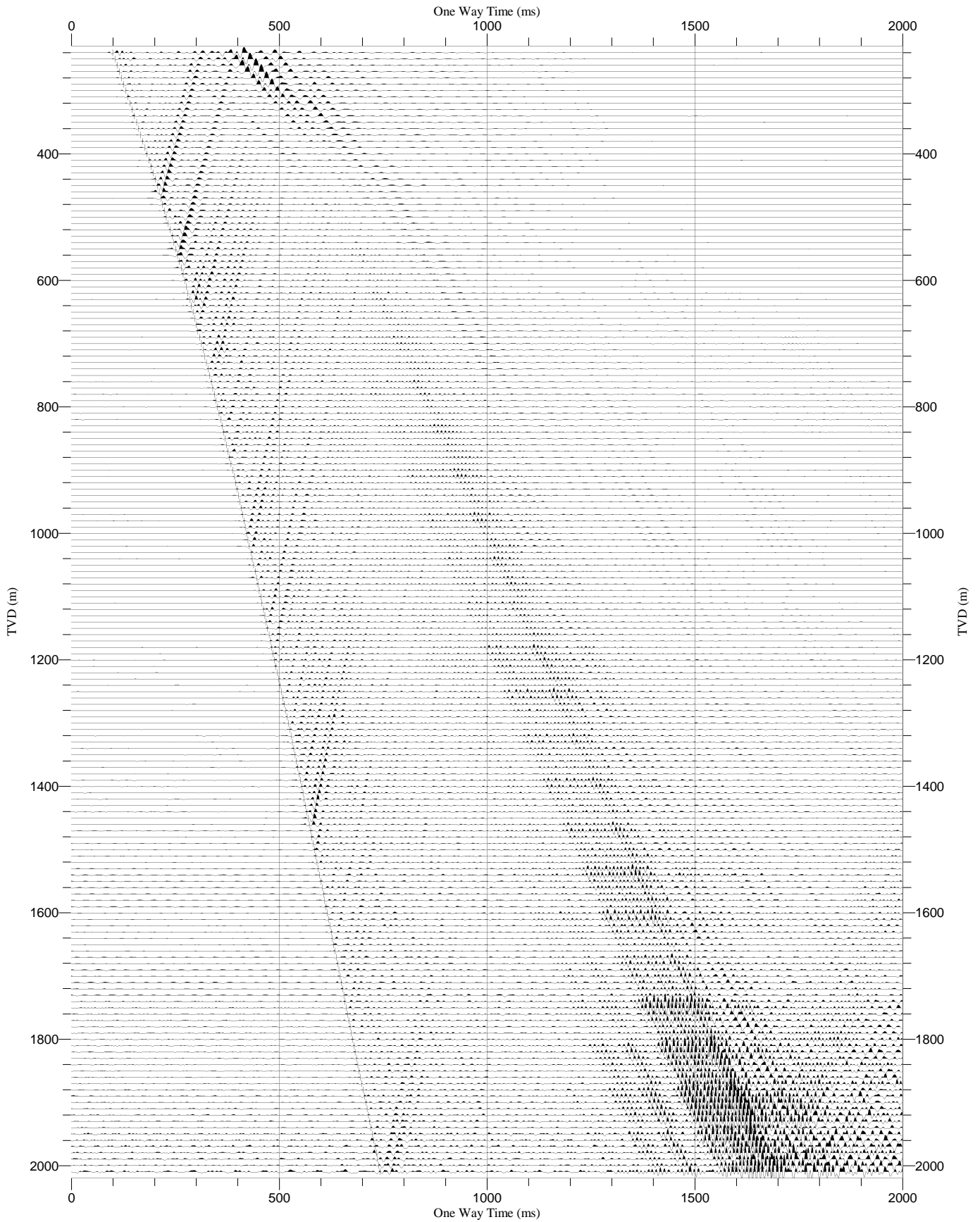
VSP Waveshape decon downgoing  
BPF 5.0 - 160.0Hz  
Mean Filter 11 Traces  
Waveshape Decon.(wavelet: 8.0 - 100.0 Hz zero-phase)


Normalization Largest Trace in Gather (300%)  
Polarity Normal  
One Way Time (ms)  
Scaling 7.8 cm/sec, 1/8420

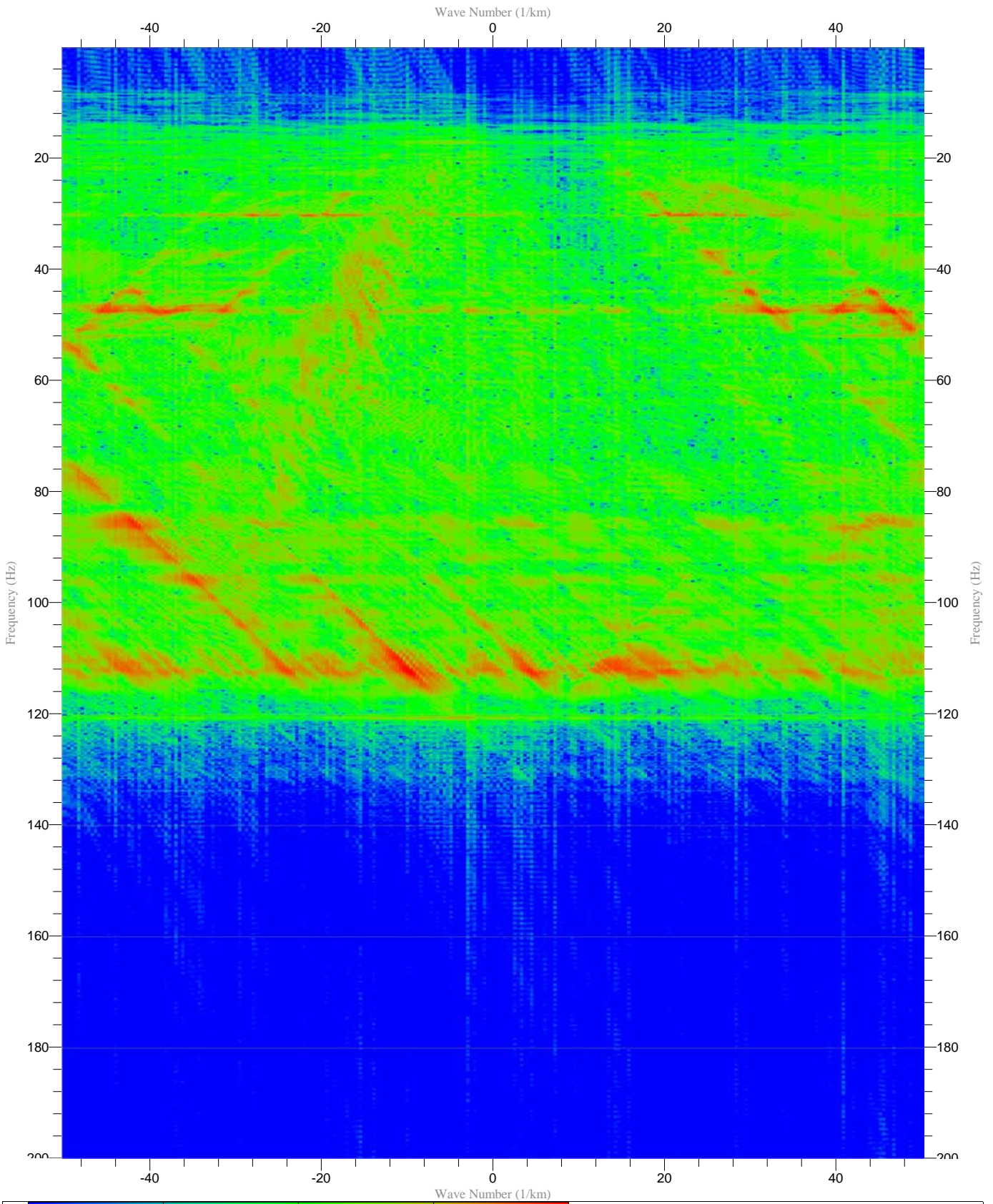



VSP Waveshape decon upgoing  
BPF 5.0 - 160.0Hz  
Mean Filter 11 Traces  
Waveshape Decon.(wavelet: 8.0 - 100.0 Hz zero-phase)

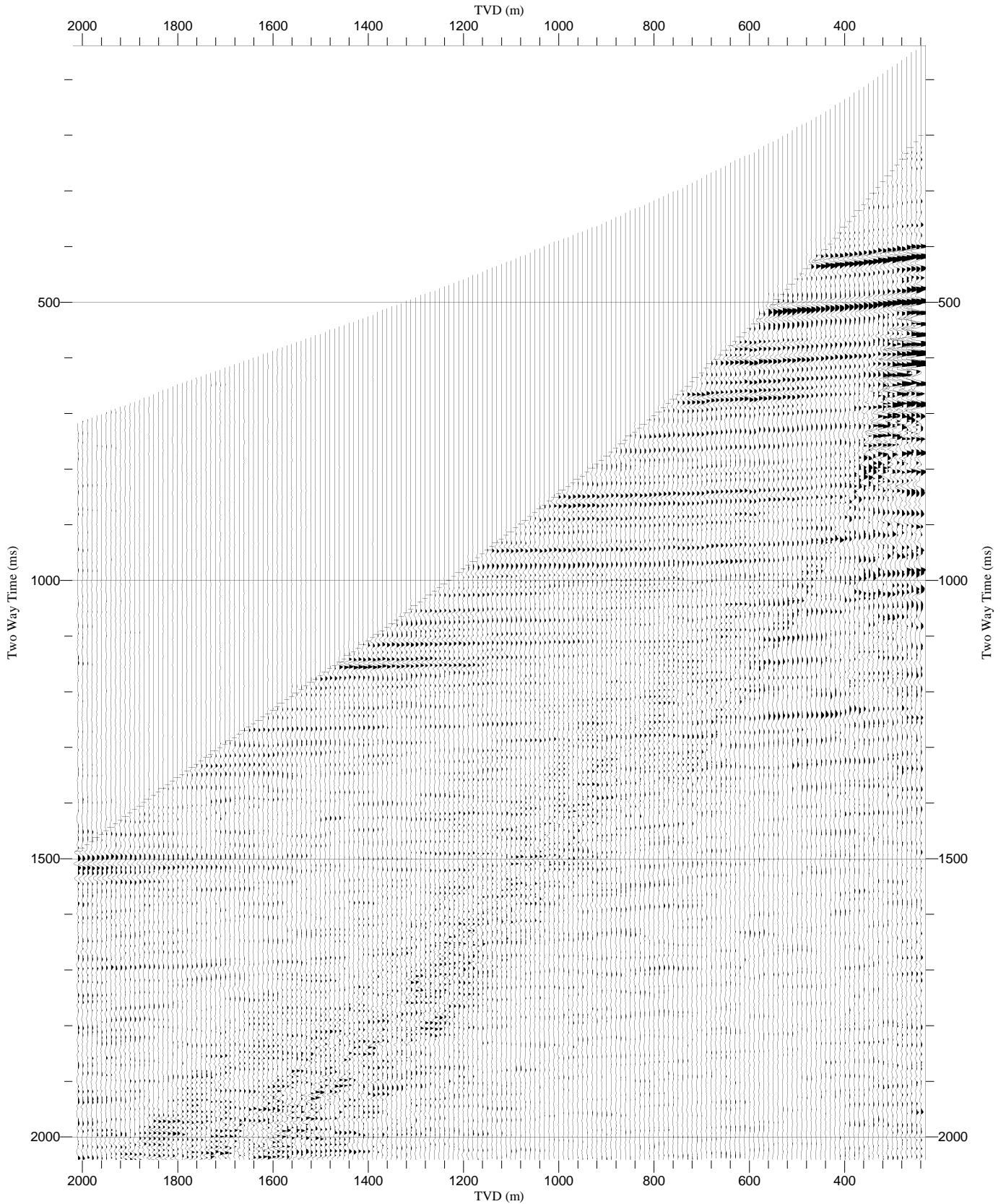
Normalization Largest Trace in Gather (300%)  
Polarity Normal  
One Way Time (ms)  
Scaling 7.8 cm/sec, 1/8420




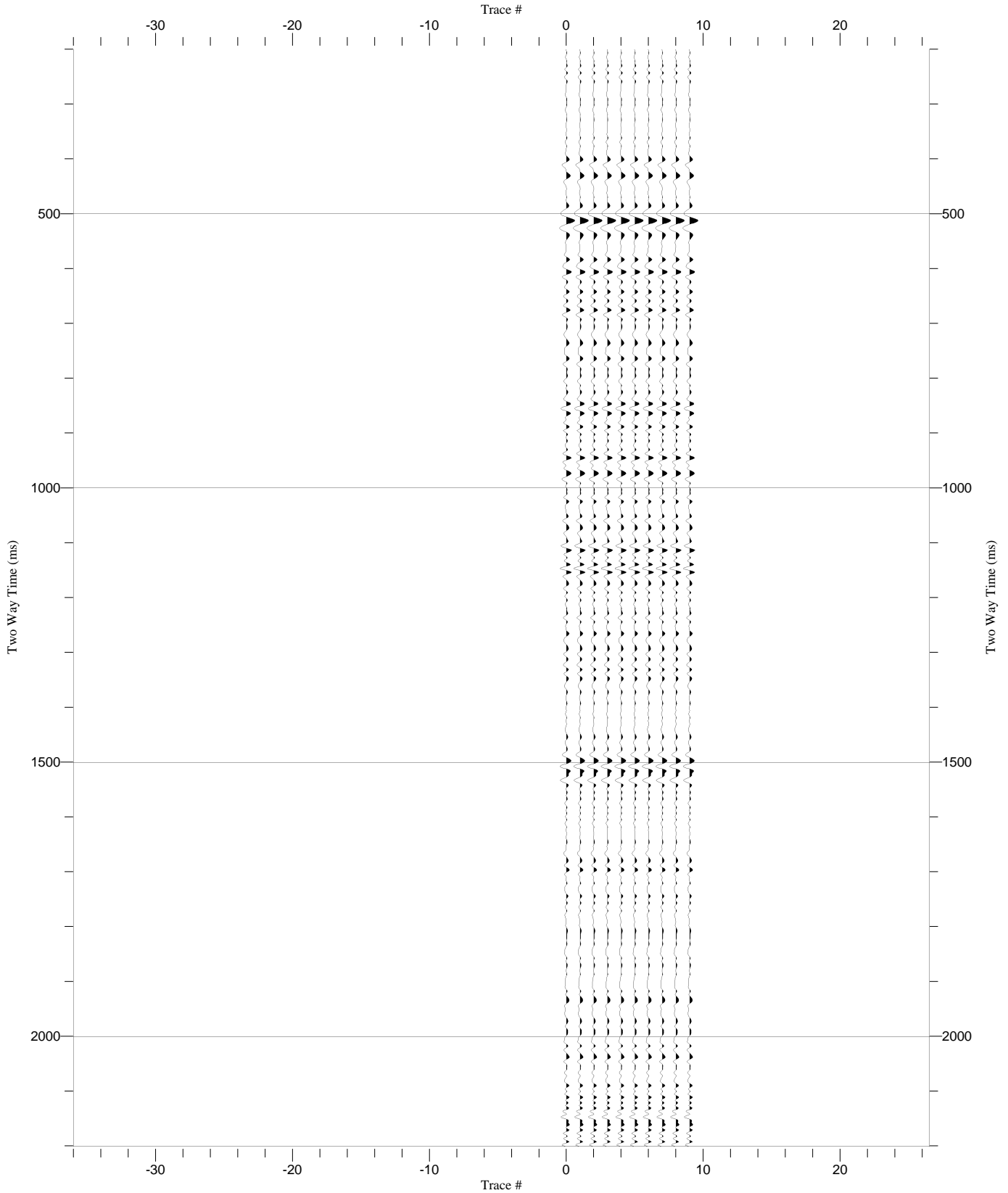
VSP Waveshape decon upgoing FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.11 cm/Hz, 6.30(1/km)/cm	
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VSP Corridor Stack (Input) BPF 5.0 - 160.0Hz Mean Filter 11 Traces Waveshape Decon.(wavelet: 8.0 - 100.0 Hz zero-phase) BPF 8.0 - 110.0Hz Travel time exponent = 1.20 Median Filter 7 Traces	Normalization Largest Trace in Gather (500%) Polarity Normal Two Way Time (ms) Scaling 10.2 cm/sec, 1/11460	
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VSP Corridor Stack (output) BPF 5.0 - 160.0Hz Mean Filter 11 Traces Waveshape Decon.(wavelet: 8.0 - 100.0 Hz zero-phase) BPF 8.0 - 110.0Hz Travel time exponent = 1.20 Median Filter 7 Traces Corridor Stack (Mean): BPF 5.0 - 90.0Hz	Normalization Trace by Trace (100%) Polarity Normal Two Way Time (ms) Scaling 10.00 cm/sec, 4.00/cm	
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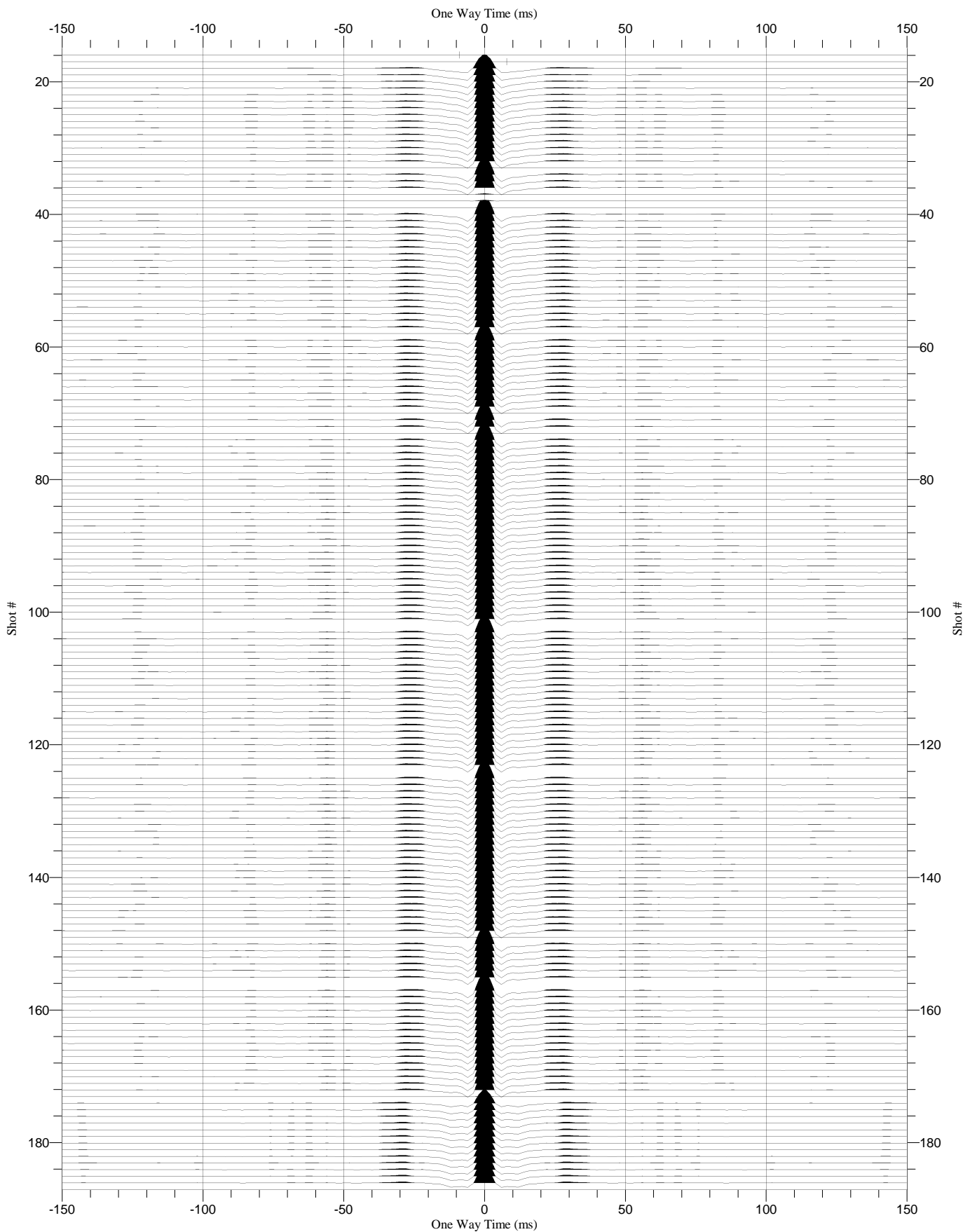
---

# Source Signature QC Report Zero-Offset VSP

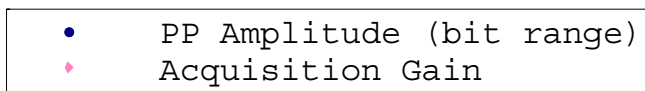
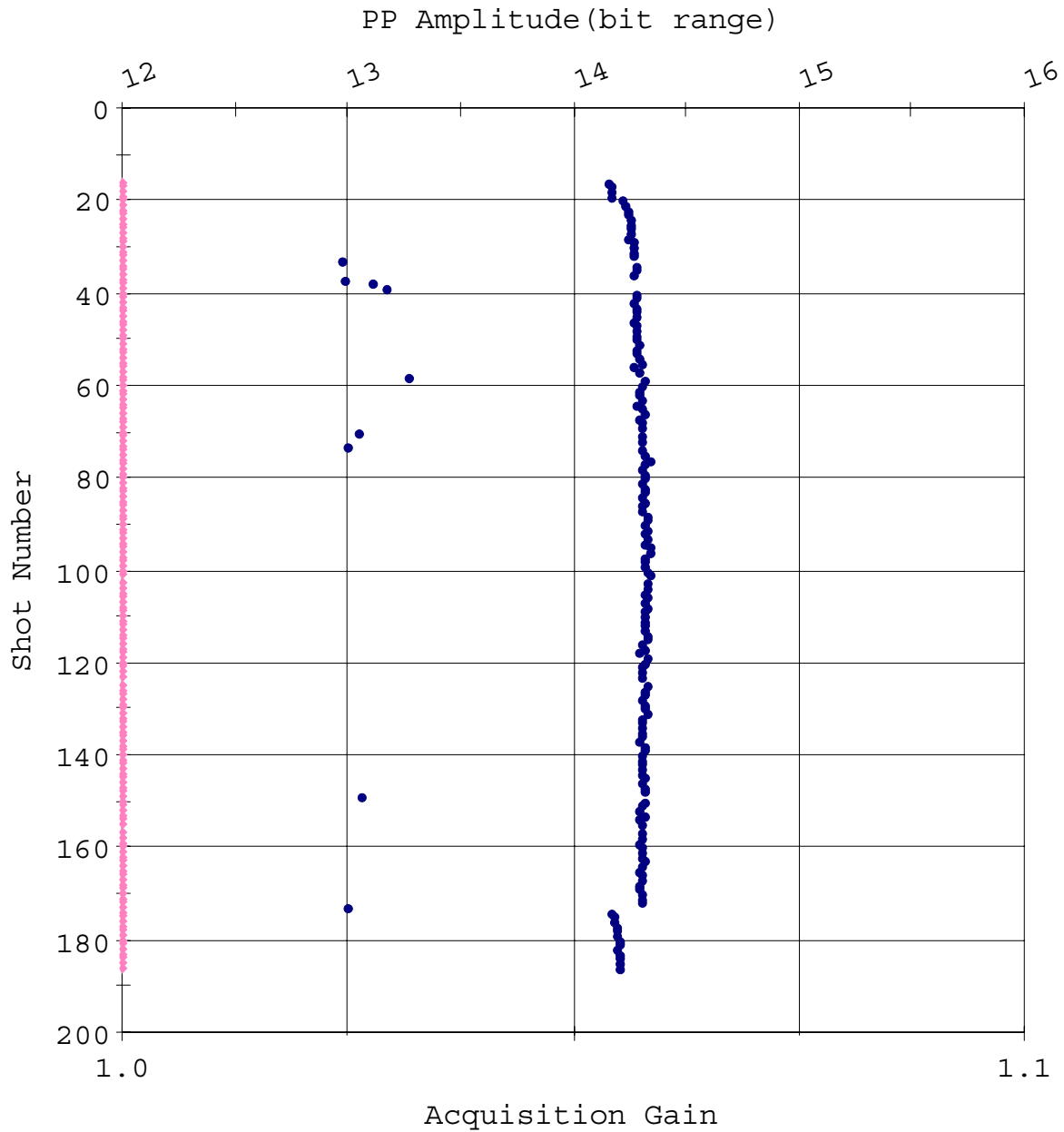
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Source Sensor Signature	Normalization Largest Trace in Gather (300%) Polarity Normal One Way Time (ms) Scaling 53.14 cm/sec, 7.99/cm	
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Amplitude QC Plot (Surface)

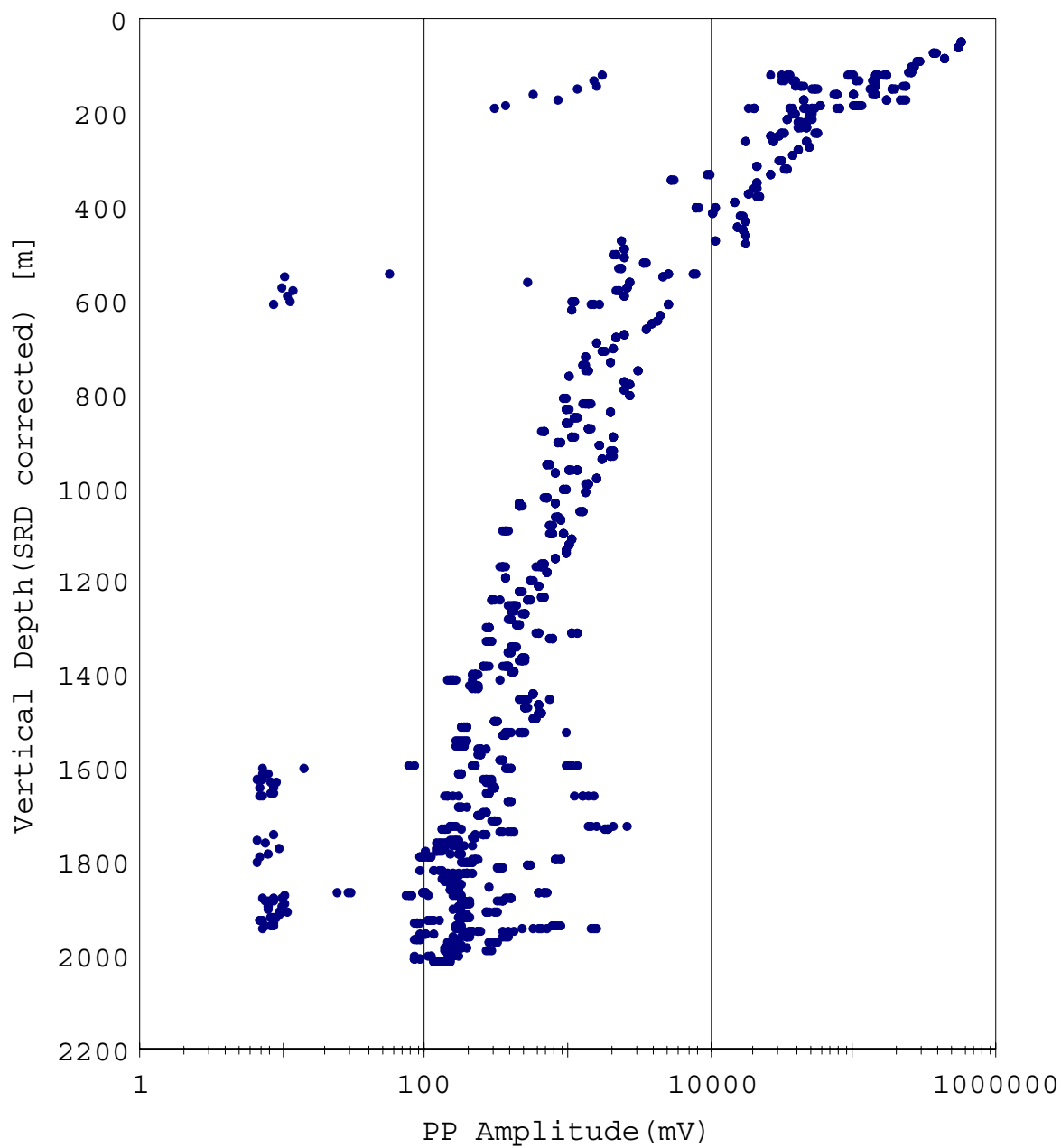


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# **Amplitude QC Report Zero-Offset VSP**

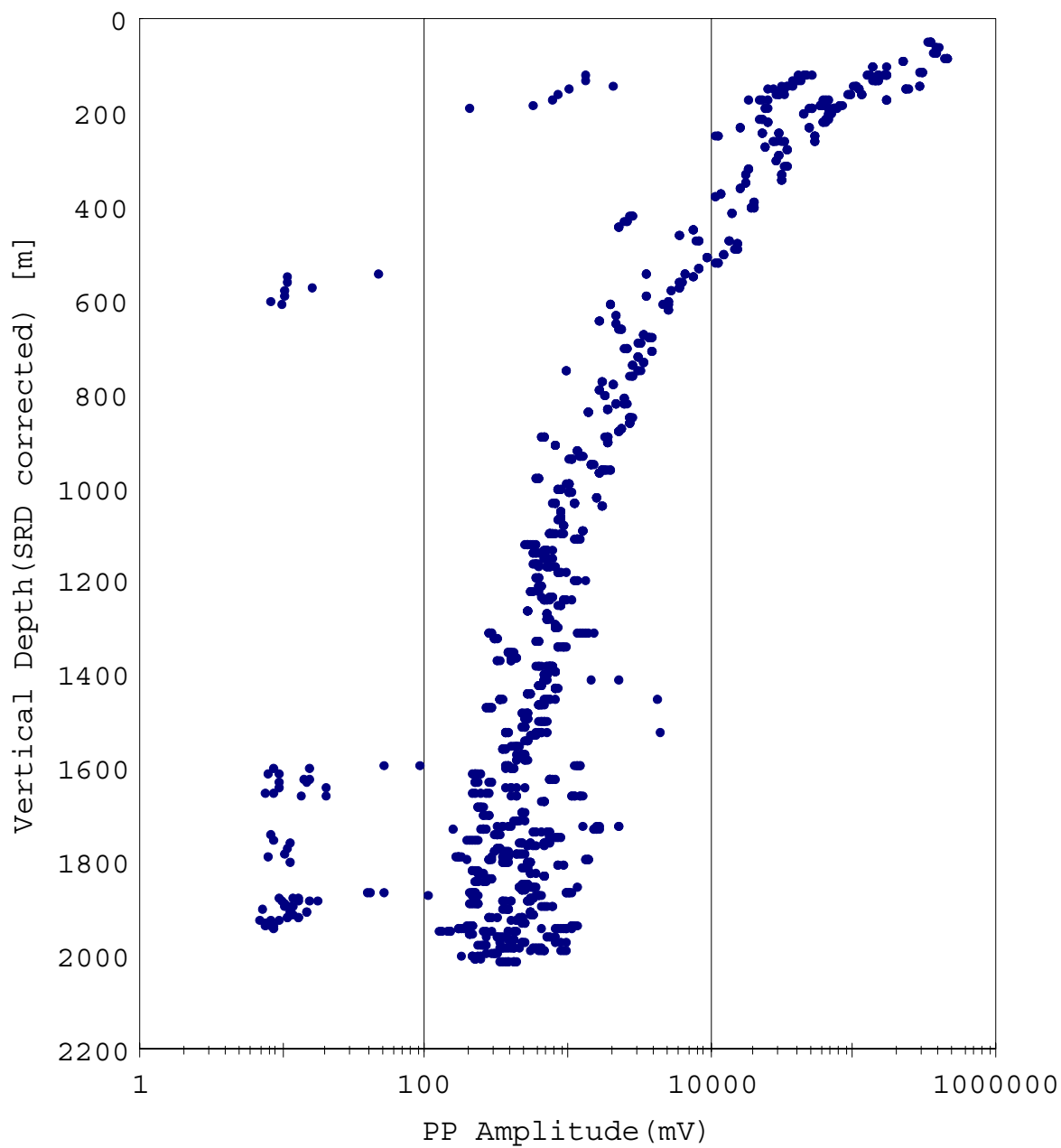
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Peak To Peak Plot (X)



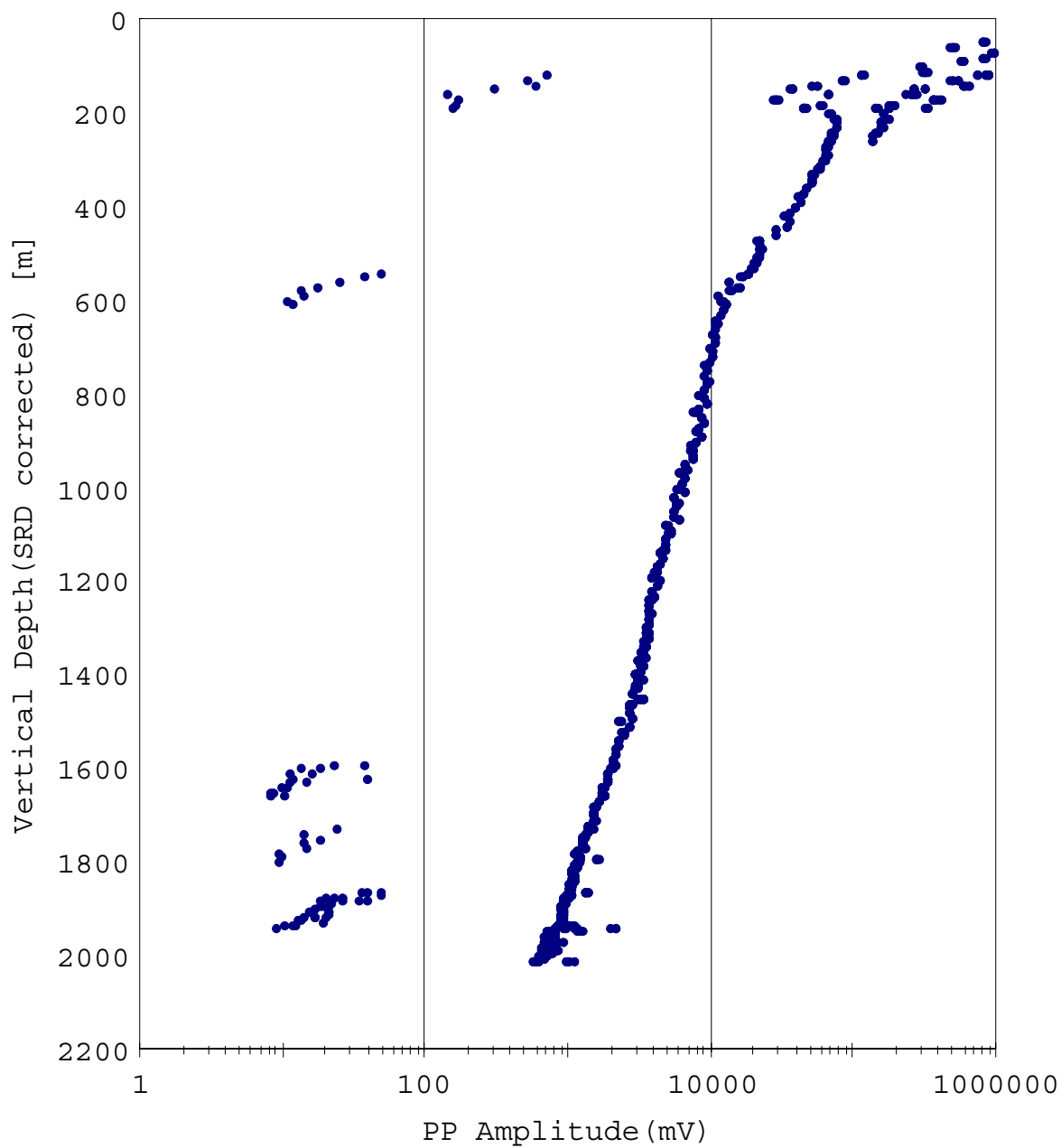
• PP Amplitude (mV)

Peak To Peak Plot (Y)



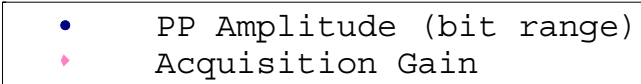
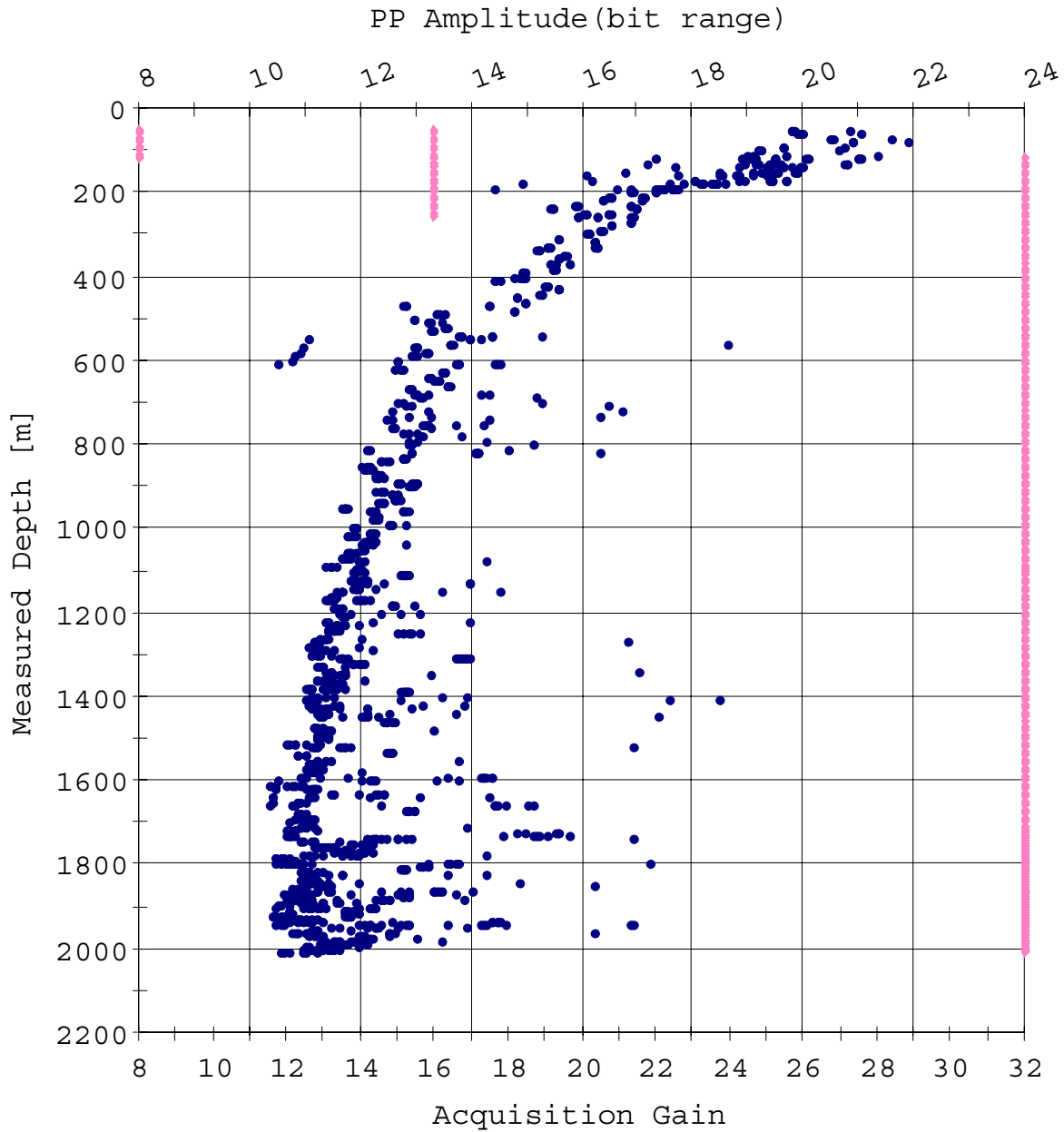
• PP Amplitude (mV)

Peak To Peak Plot (Z)

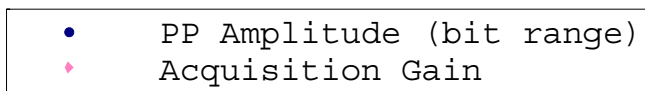
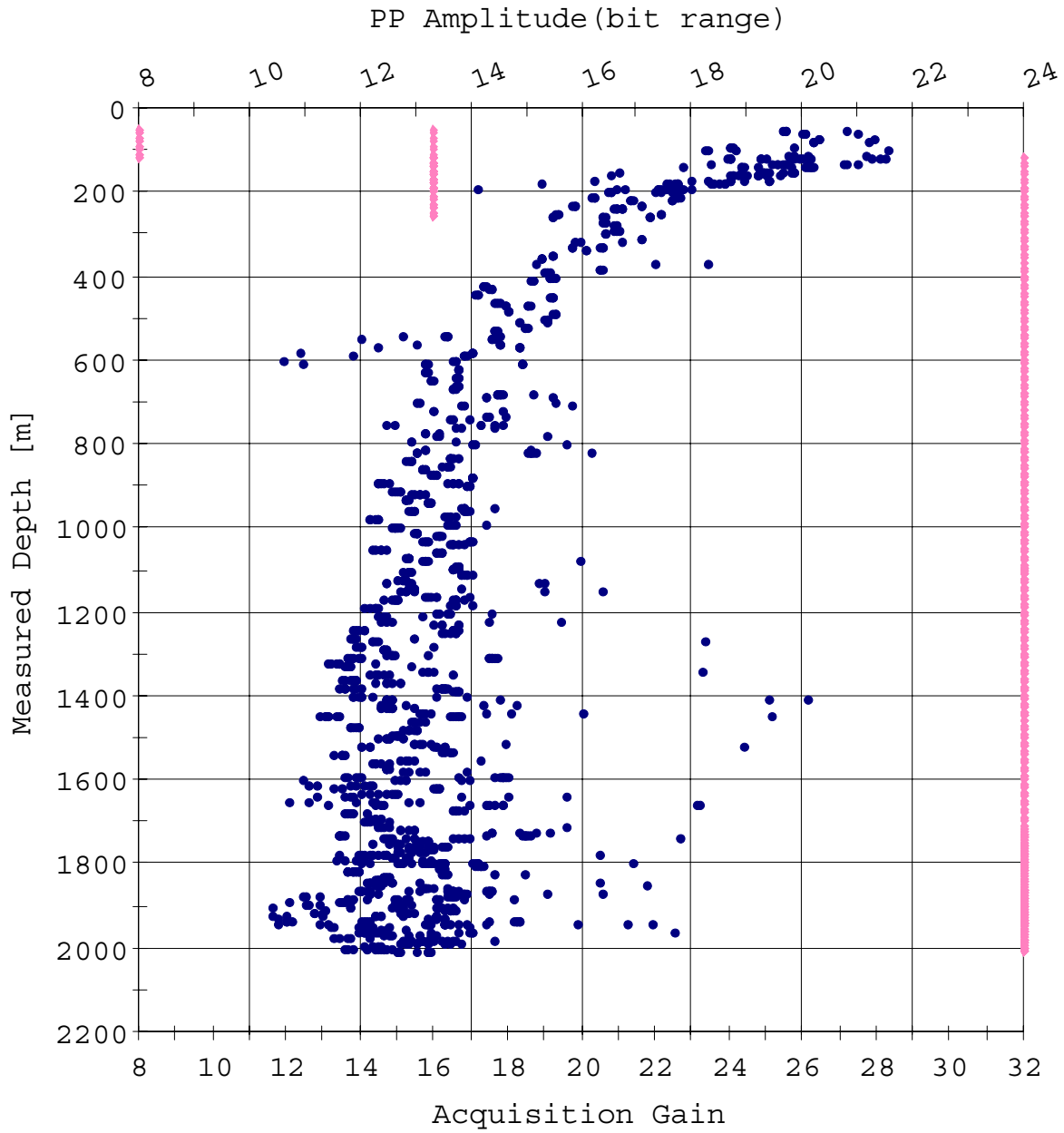


• PP Amplitude (mV)

### Amplitude QC Plot (X)

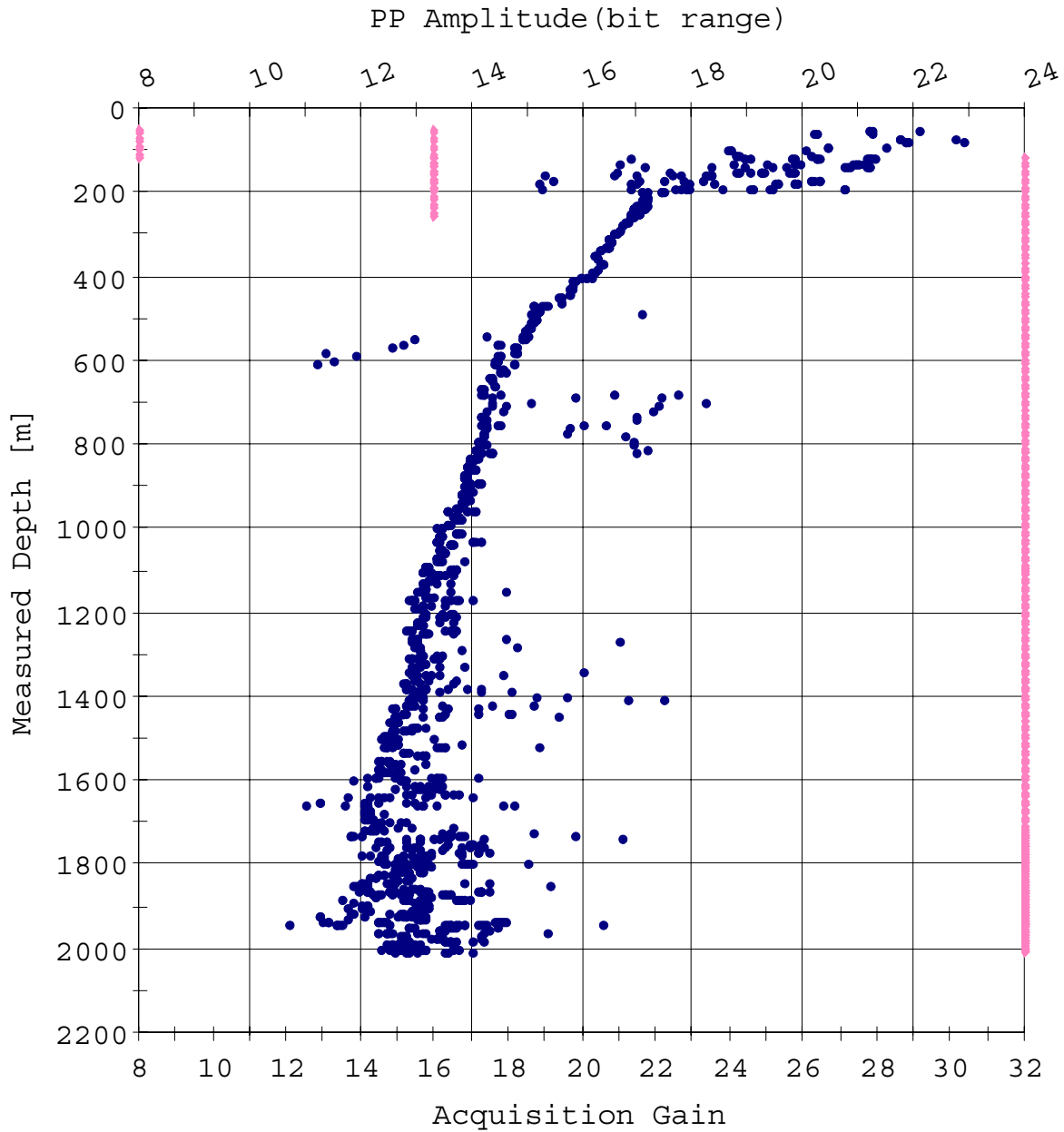


### Amplitude QC Plot (Y)





### Amplitude QC Plot (Z)



- PP Amplitude (bit range)
- ◆ Acquisition Gain

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# **Shot and Observer Report Zero-Offset VSP**

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**Observer's Note (1/4)**

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
2010.0	06:18:43	SHAK	1			
2010.0	06:19:39	BKGD	2			
2010.0	06:20:27	ENLO	3			
2010.0	06:21:07	ENHI	4			
2010.0	06:21:33	ETHD	5			
2010.0	06:22:04	DRNG	6			
2010.0	06:22:36	GA02	7			
2010.0	06:22:52	GA04	8			
2010.0	06:23:08	GA08	9			
2010.0	06:23:25	GA16	10			
2010.0	06:23:41	GA32	11			
2010.0	06:24:13	XTLK	12			
2010.0	06:24:49	XTLK	13			
2010.0	06:25:26	XTLK	14			
2010.0	06:26:01	EIMP	15			
2010.0	06:26:56	SHOT	16	1	A	st 2006
2010.0	06:28:03	SHOT	17	1	A	st 2006
2010.0	06:29:12	SHOT	18	1	A	st 2006
2010.0	06:31:21	SHOT	19	1	A	st 2008 for ZVSP
2010.0	06:33:54	SHOT	20	1	A	st 2008
2010.0	06:34:34	SHOT	21	1	A	
2010.0	06:38:58	SHOT	22	1	A	
2010.0	06:39:38	SHOT	23	1	A	
2005.0	06:43:40	SHOT	24	2	A	
2005.0	06:44:18	SHOT	25	2	A	
2005.0	06:44:54	SHOT	26	2	A	
2005.0	06:45:31	SHOT	27	2	A	
2005.0	06:46:05	SHOT	28	2	A	
1940.0	06:51:29	SHOT	29	3	A	
1940.0	06:52:09	SHOT	30	3	A	
1940.0	06:52:46	SHOT	31	3	A	
1940.0	06:53:21	SHOT	32	3	A	
1940.0	06:53:55	SHOT	33	3	A	miss fire
1940.0	06:54:44	SHOT	34	3	A	
1935.0	06:58:22	SHOT	35	4	A	
1935.0	06:58:59	SHOT	36	4	A	
1935.0	06:59:32	SHOT	37	4	A	missfire
1935.0	07:00:10	SHOT	38	4	A	miss fire
1935.0	07:01:14	SHOT	39	4	A	missfire
1935.0	07:02:24	SHOT	40	4	A	
1935.0	07:03:01	SHOT	41	4	A	
1935.0	07:03:37	SHOT	42	4	A	
1870.0	07:08:50	SHOT	43	5	A	
1870.0	07:09:27	SHOT	44	5	A	
1870.0	07:10:11	SHOT	45	5	A	
1870.0	07:10:46	SHOT	46	5	A	
1870.0	07:11:22	SHOT	47	5	A	
1870.0	07:11:57	SHOT	48	5	A	
1865.0	07:15:17	SHOT	49	6	A	
1865.0	07:15:54	SHOT	50	6	A	
1865.0	07:16:36	SHOT	51	6	A	
1865.0	07:17:11	SHOT	52	6	A	
1865.0	07:17:47	SHOT	53	6	A	
1800.0	07:23:50	SHOT	54	7	A	
1800.0	07:24:35	SHOT	55	7	A	
1800.0	07:25:11	SHOT	56	7	A	
1800.0	07:25:48	SHOT	57	7	A	
1800.0	07:26:26	SHOT	58	7	A	missfire
1800.0	07:27:04	SHOT	59	7	A	

**Observer's Note (2/4)**

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
1795.0	07:30:35	SHOT	60	8	A	
1795.0	07:31:13	SHOT	61	8	A	
1795.0	07:31:54	SHOT	62	8	A	
1795.0	07:32:30	SHOT	63	8	A	
1795.0	07:33:26	SHOT	64	8	A	
1730.0	07:39:18	SHOT	65	9	A	
1730.0	07:39:59	SHOT	66	9	A	
1730.0	07:40:35	SHOT	67	9	A	
1730.0	07:41:08	SHOT	68	9	A	
1730.0	07:41:45	SHOT	69	9	A	
1660.0	07:46:53	SHOT	70	10	A	missfire
1660.0	07:47:31	SHOT	71	10	A	
1660.0	07:48:32	SHOT	72	10	A	
1660.0	07:49:09	SHOT	73	10	A	missfire
1660.0	07:49:48	SHOT	74	10	A	
1660.0	07:50:24	SHOT	75	10	A	
1660.0	07:51:01	SHOT	76	10	A	
1590.0	07:56:00	SHOT	77	11	A	
1590.0	07:56:37	SHOT	78	11	A	
1590.0	07:57:11	SHOT	79	11	A	
1590.0	07:57:47	SHOT	80	11	A	
1590.0	07:58:23	SHOT	81	11	A	
1520.0	08:03:41	SHOT	82	12	A	
1520.0	08:04:18	SHOT	83	12	A	reject sp noise
1520.0	08:04:57	SHOT	84	12	A	
1520.0	08:05:30	SHOT	85	12	A	
1520.0	08:06:05	SHOT	86	12	A	
1520.0	08:06:40	SHOT	87	12	A	
1450.0	08:11:46	SHOT	88	13	A	
1450.0	08:12:23	SHOT	89	13	A	vsi-4 sp noise
1450.0	08:13:13	SHOT	90	13	A	
1450.0	08:13:50	SHOT	91	13	A	vsi-8 sp noise
1450.0	08:14:26	SHOT	92	13	A	
1450.0	08:15:07	SHOT	93	13	A	vsi-4 noise
1450.0	08:15:45	SHOT	94	13	A	
1450.0	08:16:27	SHOT	95	13	A	
1380.0	08:21:46	SHOT	96	14	A	
1380.0	08:22:39	SHOT	97	14	A	
1380.0	08:23:17	SHOT	98	14	A	
1380.0	08:23:58	SHOT	99	14	A	
1380.0	08:24:39	SHOT	100	14	A	
1380.0	08:25:13	SHOT	101	14	A	
1310.0	08:30:26	SHAK	102			
1310.0	08:31:41	SHOT	103	15	A	
1310.0	08:32:17	SHOT	104	15	A	
1310.0	08:32:52	SHOT	105	15	A	
1310.0	08:33:28	SHOT	106	15	A	
1310.0	08:34:03	SHOT	107	15	A	
1240.0	08:39:43	SHOT	108	16	A	
1240.0	08:40:22	SHOT	109	16	A	
1240.0	08:40:57	SHOT	110	16	A	
1240.0	08:41:32	SHOT	111	16	A	
1240.0	08:42:07	SHOT	112	16	A	
1170.0	08:47:36	SHOT	113	17	A	
1170.0	08:48:14	SHOT	114	17	A	
1170.0	08:48:49	SHOT	115	17	A	
1170.0	08:49:23	SHOT	116	17	A	vsi-6 y moise
1170.0	08:49:58	SHOT	117	17	A	
1170.0	08:50:33	SHOT	118	17	A	

**Observer's Note (3/4)**

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
1100.0	08:55:24	SHOT	119	18	A	
1100.0	08:56:02	SHOT	120	18	A	
1100.0	08:56:39	SHOT	121	18	A	
1100.0	08:57:13	SHOT	122	18	A	
1100.0	08:57:48	SHOT	123	18	A	
1030.0	09:02:44	BKGD	124			
1030.0	09:03:07	SHOT	125	19	A	
1030.0	09:03:44	SHOT	126	19	A	
1030.0	09:04:24	SHOT	127	19	A	
1030.0	09:05:01	SHOT	128	19	A	
1030.0	09:05:38	SHOT	129	19	A	
960.0	09:10:58	SHOT	130	20	A	
960.0	09:11:36	SHOT	131	20	A	
960.0	09:12:13	SHOT	132	20	A	
960.0	09:12:49	SHOT	133	20	A	
960.0	09:13:28	SHOT	134	20	A	
890.0	09:19:32	SHOT	135	21	A	
890.0	09:20:17	SHOT	136	21	A	
890.0	09:21:02	SHOT	137	21	A	
890.0	09:21:49	SHOT	138	21	A	
890.0	09:22:30	SHOT	139	21	A	
820.0	09:27:50	SHOT	140	22	A	
820.0	09:28:29	SHOT	141	22	A	
820.0	09:29:06	SHOT	142	22	A	
750.0	09:34:09	SHOT	143	23	A	
750.0	09:34:47	SHOT	144	23	A	
750.0	09:35:22	SHOT	145	23	A	
680.0	09:40:39	SHOT	146	24	A	
680.0	09:41:19	SHOT	147	24	A	
680.0	09:41:54	SHOT	148	24	A	
610.0	09:47:19	SHOT	149	25	A	missfire
610.0	09:48:02	SHOT	150	25	A	
610.0	09:48:40	SHOT	151	25	A	
610.0	09:49:17	SHOT	152	25	A	
540.0	09:54:07	SHOT	153	26	A	
540.0	09:54:45	SHOT	154	26	A	
540.0	09:55:21	SHOT	155	26	A	
540.0	09:56:05	BKGD	156			
470.0	10:00:57	SHOT	157	27	A	
470.0	10:01:42	SHOT	158	27	A	
470.0	10:02:16	SHOT	159	27	A	
400.0	10:07:07	SHOT	160	28	A	
400.0	10:07:49	SHOT	161	28	A	
400.0	10:08:24	SHOT	162	28	A	
330.0	10:13:14	SHOT	163	29	A	
330.0	10:13:52	SHOT	164	29	A	
330.0	10:14:26	SHOT	165	29	A	
260.0	10:19:13	SHOT	166	30	A	
260.0	10:19:55	SHOT	167	30	A	
260.0	10:20:33	SHOT	168	30	A	
190.0	10:25:47	SHOT	169	31	A	st 2008
190.0	10:26:32	SHOT	170	31	A	
190.0	10:27:47	SHOT	171	31	A	
190.0	10:28:43	SHOT	172	31	A	
190.0	10:38:47	SHOT	173	32	A	st 2002 miss fire
190.0	10:39:26	SHOT	174	32	A	st 2002
190.0	10:40:09	SHOT	175	32	A	st2002
190.0	10:40:59	SHOT	176	32	A	st 2002
260.0	10:54:33	SHOT	177	33	A	st 2002

**Observer's Note (4/4)**

Well depth[m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
260.0	10:55:14	SHOT	178	33	A	st 2002
260.0	10:55:52	SHOT	179	33	A	st 2002
190.0	11:00:56	SHOT	180	34	A	st 2002
190.0	11:01:36	SHOT	181	34	A	st 2002
190.0	11:02:16	SHOT	182	34	A	st 2002
120.0	11:09:01	SHOT	183	35	A	st 2002
120.0	11:09:55	SHOT	184	35	A	st2002
120.0	11:10:31	SHOT	185	35	A	st 2002
120.0	11:11:06	SHOT	186	35	A	st 2002

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# **VSI Tool Evaluation Test Report Zero-Offset VSP**

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VSI Seismic Evaluation Report							
ELECTRICAL NOISE LOW TEST							
2006/05/17 07:50:27							
Shot No: 3				Station Depth: 2010.04 m			
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.4275	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1307	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4506	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.3659	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1385	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.5520	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.3837	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1351	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4820	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2294	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1314	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4360	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.0906	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1323	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4898	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.3829	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1322	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4977	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3883	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1333	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4711	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.2974	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1395	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.5050	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.3684	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1359	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4809	micro V	-	2.0000	PASS
DC Offset	4	X	-25.2986	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1364	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4907	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.3395	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1373	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.5267	micro V	-	2.0000	PASS
DC Offset	4	Z	-25.2933	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1388	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.6483	micro V	-	2.0000	PASS
DC Offset	5	X	-25.2679	milli V	-100.0000	100.0000	PASS
RMS Noise Level	5	X	0.1338	micro V	-	0.5000	PASS
Noise Peak	5	X	0.4682	micro V	-	2.0000	PASS
DC Offset	5	Y	-25.3480	milli V	-100.0000	100.0000	PASS
RMS Noise Level	5	Y	0.1343	micro V	-	0.5000	PASS
Noise Peak	5	Y	0.4927	micro V	-	2.0000	PASS
DC Offset	5	Z	-25.3287	milli V	-100.0000	100.0000	PASS
RMS Noise Level	5	Z	0.1319	micro V	-	0.5000	PASS
Noise Peak	5	Z	0.5070	micro V	-	2.0000	PASS
DC Offset	6	X	-25.4077	milli V	-100.0000	100.0000	PASS
RMS Noise Level	6	X	0.1354	micro V	-	0.5000	PASS
Noise Peak	6	X	0.5213	micro V	-	2.0000	PASS
DC Offset	6	Y	-25.3329	milli V	-100.0000	100.0000	PASS
RMS Noise Level	6	Y	0.1352	micro V	-	0.5000	PASS
Noise Peak	6	Y	0.4397	micro V	-	2.0000	PASS
DC Offset	6	Z	-25.3428	milli V	-100.0000	100.0000	PASS
RMS Noise Level	6	Z	0.1346	micro V	-	0.5000	PASS
Noise Peak	6	Z	0.5012	micro V	-	2.0000	PASS
DC Offset	7	X	-25.3194	milli V	-100.0000	100.0000	PASS
RMS Noise Level	7	X	0.1369	micro V	-	0.5000	PASS
Noise Peak	7	X	0.5891	micro V	-	2.0000	PASS
DC Offset	7	Y	-25.2818	milli V	-100.0000	100.0000	PASS
RMS Noise Level	7	Y	0.1392	micro V	-	0.5000	PASS
Noise Peak	7	Y	0.5108	micro V	-	2.0000	PASS
DC Offset	7	Z	-25.3319	milli V	-100.0000	100.0000	PASS
RMS Noise Level	7	Z	0.1367	micro V	-	0.5000	PASS



Noise Peak	7	Z	0.5755	micro V	-	2.0000	PASS
DC Offset	8	X	-25.4163	milli V	-100.0000	100.0000	PASS
RMS Noise Level	8	X	0.1294	micro V	-	0.5000	PASS
Noise Peak	8	X	0.4589	micro V	-	2.0000	PASS
DC Offset	8	Y	-25.2812	milli V	-100.0000	100.0000	PASS
RMS Noise Level	8	Y	0.1384	micro V	-	0.5000	PASS
Noise Peak	8	Y	0.5232	micro V	-	2.0000	PASS
DC Offset	8	Z	-25.4420	milli V	-100.0000	100.0000	PASS
RMS Noise Level	8	Z	0.1356	micro V	-	0.5000	PASS
Noise Peak	8	Z	0.5133	micro V	-	2.0000	PASS

**ELECTRICAL NOISE HIGH TEST**

2006/05/17 07:51:07

Shot No: 4

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.3355	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1284	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4647	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.4685	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1356	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.5495	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.2379	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1346	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4668	micro V	-	2.0000	PASS
DC Offset	2	X	-24.9991	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1295	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4313	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.7965	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1323	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.5713	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.2340	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1291	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4838	micro V	-	2.0000	PASS
DC Offset	3	X	-25.1186	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1338	micro V	-	0.5000	PASS
Noise Peak	3	X	0.6144	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.4852	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1393	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4717	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.2808	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1353	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4810	micro V	-	2.0000	PASS
DC Offset	4	X	-25.2378	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1358	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4652	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.1297	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1325	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.5260	micro V	-	2.0000	PASS
DC Offset	4	Z	-25.1763	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1377	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.5364	micro V	-	2.0000	PASS
DC Offset	5	X	-25.0406	milli V	-100.0000	100.0000	PASS
RMS Noise Level	5	X	0.1325	micro V	-	0.5000	PASS
Noise Peak	5	X	0.4836	micro V	-	2.0000	PASS
DC Offset	5	Y	-25.3562	milli V	-100.0000	100.0000	PASS
RMS Noise Level	5	Y	0.1333	micro V	-	0.5000	PASS
Noise Peak	5	Y	0.4693	micro V	-	2.0000	PASS
DC Offset	5	Z	-25.3246	milli V	-100.0000	100.0000	PASS
RMS Noise Level	5	Z	0.1398	micro V	-	0.5000	PASS
Noise Peak	5	Z	0.5382	micro V	-	2.0000	PASS
DC Offset	6	X	-25.3412	milli V	-100.0000	100.0000	PASS
RMS Noise Level	6	X	0.1333	micro V	-	0.5000	PASS
Noise Peak	6	X	0.4960	micro V	-	2.0000	PASS
DC Offset	6	Y	-25.0049	milli V	-100.0000	100.0000	PASS
RMS Noise Level	6	Y	0.1346	micro V	-	0.5000	PASS
Noise Peak	6	Y	0.5505	micro V	-	2.0000	PASS
DC Offset	6	Z	-24.8892	milli V	-100.0000	100.0000	PASS
RMS Noise Level	6	Z	0.1324	micro V	-	0.5000	PASS

Noise Peak	6	Z	0.4171	micro V	-	2.0000	PASS
DC Offset	7	X	-25.1660	milli V	-100.0000	100.0000	PASS
RMS Noise Level	7	X	0.1367	micro V	-	0.5000	PASS
Noise Peak	7	X	0.5225	micro V	-	2.0000	PASS
DC Offset	7	Y	-24.9760	milli V	-100.0000	100.0000	PASS
RMS Noise Level	7	Y	0.1379	micro V	-	0.5000	PASS
Noise Peak	7	Y	0.4876	micro V	-	2.0000	PASS
DC Offset	7	Z	-25.1359	milli V	-100.0000	100.0000	PASS
RMS Noise Level	7	Z	0.1349	micro V	-	0.5000	PASS
Noise Peak	7	Z	0.4580	micro V	-	2.0000	PASS
DC Offset	8	X	-25.1840	milli V	-100.0000	100.0000	PASS
RMS Noise Level	8	X	0.1323	micro V	-	0.5000	PASS
Noise Peak	8	X	0.4262	micro V	-	2.0000	PASS
DC Offset	8	Y	-25.0113	milli V	-100.0000	100.0000	PASS
RMS Noise Level	8	Y	0.1351	micro V	-	0.5000	PASS
Noise Peak	8	Y	0.5085	micro V	-	2.0000	PASS
DC Offset	8	Z	-25.0909	milli V	-100.0000	100.0000	PASS
RMS Noise Level	8	Z	0.1357	micro V	-	0.5000	PASS
Noise Peak	8	Z	0.4907	micro V	-	2.0000	PASS

**ELECTRICAL DISTORTION TEST**

2006/05/17 07:51:33

Shot No: 5

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Total Harmonic Distortion	1	X	-96.8279	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-97.3085	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-96.8608	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	X	-93.4648	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Y	-94.3492	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Z	-96.9343	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	X	-99.3203	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Y	-98.8934	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Z	-100.2839	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	X	-98.7060	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	Y	-99.1916	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	Z	-97.4836	dB	-	-90.0000	PASS
Total Harmonic Distortion	5	X	-94.6538	dB	-	-90.0000	PASS
Total Harmonic Distortion	5	Y	-95.6945	dB	-	-90.0000	PASS
Total Harmonic Distortion	5	Z	-95.1758	dB	-	-90.0000	PASS
Total Harmonic Distortion	6	X	-96.7716	dB	-	-90.0000	PASS
Total Harmonic Distortion	6	Y	-99.6054	dB	-	-90.0000	PASS
Total Harmonic Distortion	6	Z	-96.7426	dB	-	-90.0000	PASS
Total Harmonic Distortion	7	X	-98.3104	dB	-	-90.0000	PASS
Total Harmonic Distortion	7	Y	-97.6489	dB	-	-90.0000	PASS
Total Harmonic Distortion	7	Z	-96.6049	dB	-	-90.0000	PASS
Total Harmonic Distortion	8	X	-97.4828	dB	-	-90.0000	PASS
Total Harmonic Distortion	8	Y	-96.5518	dB	-	-90.0000	PASS
Total Harmonic Distortion	8	Z	-97.9817	dB	-	-90.0000	PASS

**SYSTEM DYNAMIC RANGE TEST**

2006/05/17 07:52:04

Shot No: 6

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
System Dynamic Range	1	X	107.8435	dB	103.0000	-	PASS
System Dynamic Range	1	Y	107.7530	dB	103.0000	-	PASS
System Dynamic Range	1	Z	107.7419	dB	103.0000	-	PASS
System Dynamic Range	2	X	106.2375	dB	103.0000	-	PASS
System Dynamic Range	2	Y	106.6364	dB	103.0000	-	PASS
System Dynamic Range	2	Z	106.3219	dB	103.0000	-	PASS
System Dynamic Range	3	X	106.7121	dB	103.0000	-	PASS
System Dynamic Range	3	Y	106.4039	dB	103.0000	-	PASS
System Dynamic Range	3	Z	106.3425	dB	103.0000	-	PASS
System Dynamic Range	4	X	106.6708	dB	103.0000	-	PASS
System Dynamic Range	4	Y	106.7382	dB	103.0000	-	PASS
System Dynamic Range	4	Z	106.5784	dB	103.0000	-	PASS
System Dynamic Range	5	X	106.6870	dB	103.0000	-	PASS
System Dynamic Range	5	Y	106.8784	dB	103.0000	-	PASS
System Dynamic Range	5	Z	106.5591	dB	103.0000	-	PASS

System Dynamic Range	6	X	106.3334	dB	103.0000	-	PASS
System Dynamic Range	6	Y	106.2334	dB	103.0000	-	PASS
System Dynamic Range	6	Z	106.4254	dB	103.0000	-	PASS
System Dynamic Range	7	X	107.4087	dB	103.0000	-	PASS
System Dynamic Range	7	Y	107.3140	dB	103.0000	-	PASS
System Dynamic Range	7	Z	107.2495	dB	103.0000	-	PASS
System Dynamic Range	8	X	107.1634	dB	103.0000	-	PASS
System Dynamic Range	8	Y	107.3012	dB	103.0000	-	PASS
System Dynamic Range	8	Z	107.2666	dB	103.0000	-	PASS

**AMPLIFIER GAIN 2 TEST****2006/05/17 07:52:36****Shot No: 7****Station Depth: 2010.04 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1165	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1292	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1136	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1205	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1164	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1426	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1197	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1304	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1299	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1194	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	X	0.1141	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Y	0.1194	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Z	0.1185	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	X	0.1082	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Y	0.1029	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Z	0.1095	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	X	0.1023	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Y	0.1133	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Z	0.1216	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	X	0.1061	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Y	0.1144	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Z	0.1048	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Z	0.0000	dB	-0.5000	0.5000	PASS

**AMPLIFIER GAIN 4 TEST****2006/05/17 07:52:52****Shot No: 8****Station Depth: 2010.04 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1043	dB	-0.5000	0.5000	PASS

Gain Step Accuracy	1	X	0.0122	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1251	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0042	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.0979	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0157	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1188	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0017	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1123	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0041	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1413	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1186	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0011	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1293	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0010	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1328	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	-0.0042	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1293	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0006	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1162	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0032	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1257	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	X	0.1121	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	X	0.0020	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Y	0.1200	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Y	-0.0006	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Z	0.1138	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Z	0.0047	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	X	0.1055	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	X	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Y	0.1016	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Y	0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Z	0.1081	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Z	0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	X	0.0996	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	X	0.0026	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Y	0.1112	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Y	0.0021	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Z	0.1203	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Z	0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	X	0.1046	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	X	0.0015	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Y	0.1143	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Y	0.0002	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Z	0.1008	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Z	0.0040	dB	-0.5000	0.5000	PASS

**AMPLIFIER GAIN 8 TEST**

2006/05/17 07:53:08

Shot No: 9

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1008	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0157	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1242	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0051	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.0943	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0194	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1203	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0002	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1124	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0040	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1413	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1187	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0010	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1315	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0012	dB	-0.5000	0.5000	PASS

Gain Accuracy	3	Z	0.1367	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	-0.0082	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1318	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	-0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1185	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0008	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1262	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	X	0.1126	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	X	0.0015	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Y	0.1207	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Y	-0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Z	0.1152	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Z	0.0033	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	X	0.1055	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	X	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Y	0.1038	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Y	-0.0008	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Z	0.1063	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Z	0.0032	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	X	0.0992	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	X	0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Y	0.1107	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Y	0.0026	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Z	0.1215	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Z	0.0001	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	X	0.1049	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	X	0.0011	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Y	0.1130	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Y	0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Z	0.1036	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Z	0.0011	dB	-0.5000	0.5000	PASS

**AMPLIFIER GAIN 2 TEST**

2006/05/17 07:52:36

Shot No: 7

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1165	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1292	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1136	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1205	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1164	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1426	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1197	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1304	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1299	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1194	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	X	0.1141	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Y	0.1194	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Z	0.1185	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	X	0.1082	dB	-0.5000	0.5000	PASS

Gain Step Accuracy	6	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Y	0.1029	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Z	0.1095	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	X	0.1023	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Y	0.1133	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Z	0.1216	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	X	0.1061	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Y	0.1144	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Z	0.1048	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Z	0.0000	dB	-0.5000	0.5000	PASS

**AMPLIFIER GAIN 16 TEST**

2006/05/17 07:53:25

Shot No: 10

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.0936	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0229	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1186	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0106	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.0919	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0217	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1151	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0054	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1081	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0082	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1377	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0050	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1153	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0044	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1284	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0020	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1368	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	-0.0082	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1279	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0020	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1162	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0032	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1222	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0065	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	X	0.1072	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	X	0.0070	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Y	0.1177	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Y	0.0017	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Z	0.1113	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Z	0.0072	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	X	0.0984	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	X	0.0098	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Y	0.0991	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Y	0.0038	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Z	0.1025	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Z	0.0070	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	X	0.0946	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	X	0.0076	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Y	0.1077	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Y	0.0056	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Z	0.1172	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Z	0.0044	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	X	0.1016	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	X	0.0044	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Y	0.1094	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Y	0.0051	dB	-0.5000	0.5000	PASS

Gain Accuracy	8	Z	0.1015	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Z	0.0033	dB	-0.5000	0.5000	PASS
<b>AMPLIFIER GAIN 32 TEST</b>							
<b>2006/05/17 07:53:41</b>							
<b>Shot No: 11</b>				<b>Station Depth: 2010.04 m</b>			
<b>Evaluation Item</b>	<b>Shuttle</b>	<b>Channel</b>	<b>Value</b>	<b>Unit</b>	<b>Lower Limit</b>	<b>Upper Limit</b>	<b>Result</b>
Gain Accuracy	1	X	0.0933	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0232	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1230	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0063	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.0947	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0190	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1164	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0041	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1107	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0057	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1393	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0033	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1197	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1332	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0028	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1386	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	-0.0101	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1291	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0008	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1163	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1252	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	X	0.1083	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	X	0.0058	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Y	0.1224	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Y	-0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	5	Z	0.1142	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	5	Z	0.0043	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	X	0.1032	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	X	0.0051	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Y	0.0989	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Y	0.0040	dB	-0.5000	0.5000	PASS
Gain Accuracy	6	Z	0.1068	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	6	Z	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	X	0.0965	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	X	0.0057	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Y	0.1107	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Y	0.0026	dB	-0.5000	0.5000	PASS
Gain Accuracy	7	Z	0.1188	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	7	Z	0.0028	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	X	0.1094	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	X	-0.0034	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Y	0.1122	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Y	0.0022	dB	-0.5000	0.5000	PASS
Gain Accuracy	8	Z	0.0938	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	8	Z	0.0110	dB	-0.5000	0.5000	PASS
<b>CROSS TALK X TEST</b>							
<b>2006/05/17 07:54:13</b>							
<b>Shot No: 12</b>				<b>Station Depth: 2010.04 m</b>			
<b>Evaluation Item</b>	<b>Shuttle</b>	<b>Channel</b>	<b>Value</b>	<b>Unit</b>	<b>Lower Limit</b>	<b>Upper Limit</b>	<b>Result</b>
Cross Talk X-Y	1	-	-99.2942	dB	-	-90.0000	PASS
Cross Talk X-Z	1	-	-97.8593	dB	-	-90.0000	PASS
Cross Talk X-Y	2	-	-99.6450	dB	-	-90.0000	PASS
Cross Talk X-Z	2	-	-98.0704	dB	-	-90.0000	PASS
Cross Talk X-Y	3	-	-99.0609	dB	-	-90.0000	PASS
Cross Talk X-Z	3	-	-97.6727	dB	-	-90.0000	PASS
Cross Talk X-Y	4	-	-99.2741	dB	-	-90.0000	PASS
Cross Talk X-Z	4	-	-97.4382	dB	-	-90.0000	PASS

Cross Talk X-Y	5	-	-99.4623	dB	-	-90.0000	PASS
Cross Talk X-Z	5	-	-98.3050	dB	-	-90.0000	PASS
Cross Talk X-Y	6	-	-99.4278	dB	-	-90.0000	PASS
Cross Talk X-Z	6	-	-98.1521	dB	-	-90.0000	PASS
Cross Talk X-Y	7	-	-99.3157	dB	-	-90.0000	PASS
Cross Talk X-Z	7	-	-98.2289	dB	-	-90.0000	PASS
Cross Talk X-Y	8	-	-99.0691	dB	-	-90.0000	PASS
Cross Talk X-Z	8	-	-98.3060	dB	-	-90.0000	PASS

**CROSS TALK Y TEST**

2006/05/17 07:54:49

Shot No: 13

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Y-Z	1	-	-97.5423	dB	-	-90.0000	PASS
Cross Talk Y-X	1	-	-99.0283	dB	-	-90.0000	PASS
Cross Talk Y-Z	2	-	-97.5351	dB	-	-90.0000	PASS
Cross Talk Y-X	2	-	-99.0021	dB	-	-90.0000	PASS
Cross Talk Y-Z	3	-	-97.3402	dB	-	-90.0000	PASS
Cross Talk Y-X	3	-	-99.0408	dB	-	-90.0000	PASS
Cross Talk Y-Z	4	-	-96.9600	dB	-	-90.0000	PASS
Cross Talk Y-X	4	-	-98.9049	dB	-	-90.0000	PASS
Cross Talk Y-Z	5	-	-97.6962	dB	-	-90.0000	PASS
Cross Talk Y-X	5	-	-99.2355	dB	-	-90.0000	PASS
Cross Talk Y-Z	6	-	-97.9866	dB	-	-90.0000	PASS
Cross Talk Y-X	6	-	-99.0932	dB	-	-90.0000	PASS
Cross Talk Y-Z	7	-	-97.9941	dB	-	-90.0000	PASS
Cross Talk Y-X	7	-	-98.9031	dB	-	-90.0000	PASS
Cross Talk Y-Z	8	-	-97.8390	dB	-	-90.0000	PASS
Cross Talk Y-X	8	-	-98.9516	dB	-	-90.0000	PASS

**CROSS TALK Z TEST**

2006/05/17 07:55:26

Shot No: 14

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Z-X	1	-	-96.2253	dB	-	-90.0000	PASS
Cross Talk Z-Y	1	-	-95.7376	dB	-	-90.0000	PASS
Cross Talk Z-X	2	-	-96.9212	dB	-	-90.0000	PASS
Cross Talk Z-Y	2	-	-96.8125	dB	-	-90.0000	PASS
Cross Talk Z-X	3	-	-96.4643	dB	-	-90.0000	PASS
Cross Talk Z-Y	3	-	-96.0255	dB	-	-90.0000	PASS
Cross Talk Z-X	4	-	-96.2251	dB	-	-90.0000	PASS
Cross Talk Z-Y	4	-	-95.4971	dB	-	-90.0000	PASS
Cross Talk Z-X	5	-	-96.9498	dB	-	-90.0000	PASS
Cross Talk Z-Y	5	-	-96.7195	dB	-	-90.0000	PASS
Cross Talk Z-X	6	-	-96.5417	dB	-	-90.0000	PASS
Cross Talk Z-Y	6	-	-96.1465	dB	-	-90.0000	PASS
Cross Talk Z-X	7	-	-96.7059	dB	-	-90.0000	PASS
Cross Talk Z-Y	7	-	-96.2932	dB	-	-90.0000	PASS
Cross Talk Z-X	8	-	-97.4310	dB	-	-90.0000	PASS
Cross Talk Z-Y	8	-	-96.9884	dB	-	-90.0000	PASS

**IMPULSE RESPONSE TEST**

2006/05/17 07:56:01

Shot No: 15

Station Depth: 2010.04 m

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Amplitude (0.3Hz)	1	X	-1.5098	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	X	-3.5765	dB	-5.0000	-	PASS
Impulse Amplitude	1	X	571.8320	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	X	0.0000	degree	-	-	-
Amplitude (0.3Hz)	1	Y	-1.4286	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Y	-3.5757	dB	-5.0000	-	PASS
Impulse Amplitude	1	Y	572.6945	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Y	-0.7713	degree	-	-	-
Amplitude (0.3Hz)	1	Z	-1.4736	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Z	-3.5760	dB	-5.0000	-	PASS
Impulse Amplitude	1	Z	571.6537	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Z	-0.4676	degree	-	-	-
Amplitude (0.3Hz)	2	X	-1.4338	dB	-5.0000	-	PASS



Amplitude (400Hz)	2	X	-3.5738	dB	-5.0000	-	PASS
Impulse Amplitude	2	X	571.5952	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	X	-0.3930	degree	-	-	-
Amplitude (0.3Hz)	2	Y	-1.5723	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Y	-3.5739	dB	-5.0000	-	PASS
Impulse Amplitude	2	Y	571.4036	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Y	0.9601	degree	-	-	-
Amplitude (0.3Hz)	2	Z	-1.6007	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Z	-3.5749	dB	-5.0000	-	PASS
Impulse Amplitude	2	Z	572.9417	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Z	1.2960	degree	-	-	-
Amplitude (0.3Hz)	3	X	-1.4466	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	X	-3.5705	dB	-5.0000	-	PASS
Impulse Amplitude	3	X	571.3315	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	X	-0.3797	degree	-	-	-
Amplitude (0.3Hz)	3	Y	-1.4485	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Y	-3.5713	dB	-5.0000	-	PASS
Impulse Amplitude	3	Y	572.1791	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Y	-0.6042	degree	-	-	-
Amplitude (0.3Hz)	3	Z	-1.4949	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Z	-3.5708	dB	-5.0000	-	PASS
Impulse Amplitude	3	Z	572.2122	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Z	0.0711	degree	-	-	-
Amplitude (0.3Hz)	4	X	-1.6622	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	X	-3.5741	dB	-5.0000	-	PASS
Impulse Amplitude	4	X	572.7161	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	X	1.8381	degree	-	-	-
Amplitude (0.3Hz)	4	Y	-1.5545	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	Y	-3.5781	dB	-5.0000	-	PASS
Impulse Amplitude	4	Y	571.6810	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	Y	0.7215	degree	-	-	-
Amplitude (0.3Hz)	4	Z	-1.5342	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	Z	-3.5764	dB	-5.0000	-	PASS
Impulse Amplitude	4	Z	572.6318	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	Z	0.4077	degree	-	-	-
Amplitude (0.3Hz)	5	X	-1.5721	dB	-5.0000	-	PASS
Amplitude (400Hz)	5	X	-3.5788	dB	-5.0000	-	PASS
Impulse Amplitude	5	X	571.6209	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	5	X	0.7570	degree	-	-	-
Amplitude (0.3Hz)	5	Y	-1.4931	dB	-5.0000	-	PASS
Amplitude (400Hz)	5	Y	-3.5810	dB	-5.0000	-	PASS
Impulse Amplitude	5	Y	572.0507	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	5	Y	-0.1330	degree	-	-	-
Amplitude (0.3Hz)	5	Z	-1.6493	dB	-5.0000	-	PASS
Amplitude (400Hz)	5	Z	-3.5784	dB	-5.0000	-	PASS
Impulse Amplitude	5	Z	572.0528	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	5	Z	1.4627	degree	-	-	-
Amplitude (0.3Hz)	6	X	-1.6132	dB	-5.0000	-	PASS
Amplitude (400Hz)	6	X	-3.5799	dB	-5.0000	-	PASS
Impulse Amplitude	6	X	570.7907	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	6	X	1.3430	degree	-	-	-
Amplitude (0.3Hz)	6	Y	-1.5121	dB	-5.0000	-	PASS
Amplitude (400Hz)	6	Y	-3.5802	dB	-5.0000	-	PASS
Impulse Amplitude	6	Y	570.8729	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	6	Y	0.1581	degree	-	-	-
Amplitude (0.3Hz)	6	Z	-1.5773	dB	-5.0000	-	PASS
Amplitude (400Hz)	6	Z	-3.5757	dB	-5.0000	-	PASS
Impulse Amplitude	6	Z	571.3984	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	6	Z	0.8349	degree	-	-	-
Amplitude (0.3Hz)	7	X	-1.5672	dB	-5.0000	-	PASS
Amplitude (400Hz)	7	X	-3.5772	dB	-5.0000	-	PASS
Impulse Amplitude	7	X	570.0336	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	7	X	1.1968	degree	-	-	-
Amplitude (0.3Hz)	7	Y	-1.5526	dB	-5.0000	-	PASS
Amplitude (400Hz)	7	Y	-3.5751	dB	-5.0000	-	PASS
Impulse Amplitude	7	Y	571.1105	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	7	Y	1.1057	degree	-	-	-
Amplitude (0.3Hz)	7	Z	-1.4994	dB	-5.0000	-	PASS

Amplitude (400Hz)	7	Z	-3.5764	dB	-5.0000	-	PASS
Impulse Amplitude	7	Z	571.6436	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	7	Z	0.4001	degree	-	-	-
Amplitude (0.3Hz)	8	X	-1.5642	dB	-5.0000	-	PASS
Amplitude (400Hz)	8	X	-3.5762	dB	-5.0000	-	PASS
Impulse Amplitude	8	X	570.6410	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	8	X	1.5482	degree	-	-	-
Amplitude (0.3Hz)	8	Y	-1.6039	dB	-5.0000	-	PASS
Amplitude (400Hz)	8	Y	-3.5753	dB	-5.0000	-	PASS
Impulse Amplitude	8	Y	571.8102	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	8	Y	1.5218	degree	-	-	-
Amplitude (0.3Hz)	8	Z	-1.6662	dB	-5.0000	-	PASS
Amplitude (400Hz)	8	Z	-3.5757	dB	-5.0000	-	PASS
Impulse Amplitude	8	Z	570.8191	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	8	Z	2.3230	degree	-	-	-