

Geo-sense Deployment Record Sheet

Completed By: Rebecca Englert

Set-up

Date: Feb 2, 2026

Parameter	Comments
Sampling frequency	40 000 Hz RF offset: 1/3 ping rate
Gauge length	6-33m
Channel spacing	6-33m
Number of channels	166 channels
Cable type	1st Indecon cable.
Cable length	~1km
File storage location	mnt/md01 Feb 2026 Raw Feb 2026 HDF5
Data formats	sensor data (HDF5), sensor data 32bit
Data preprocessing	• decimator: 1/2 filter, to 1000 Hz • leaky cutoff: 0.001 Hz ↳ changed to 0.01 Hz Feb 3 @ 2:45pm PST
Configuration file used	Feb2026-config

OTDR

Date: Feb 2, 2026

Attenuation level: ~ -17 dB

Comments: consistent along cable except for higher loss in first few channels.

Length of fibre: 1050m

Measure Noise Floor

Date: Feb 2, 2026

Noise floor level: -78.1 dB

Comments: _____

Deployment

Date: Feb 3 2026

Deployment vessel and type: Elevator deployment from the Carson.
ROV Ventura used to pick up spool and lay cable. End of cable
(black hole) in spool so spool is left on seafloor.

nsfy
scipy
obspy

frequency = 156.67500 MHz

Releases, beacons instruments: Novatech RF-700A (S/N: W03-134), Novatech SF400A (S/N: N05-042), hydrophone ST600HF (S/N: 8610), homer beacon: 96 RT6-3000 Sonadyne release (S/N: 312700-001) address: 2013, TAT: 240 UID: 0066 F4 battery voltage: 5.6V

Deployment Location (Instrument)

Latitude: 36°47.5961 Longitude: 121°53.056 Depth: 378mwd. USBL Location

Deployment Location (Cable end)

Latitude: 36°47.3188 Longitude: 121°53.6077 Depth: _____ INS Location

ROV Dive # 4718.

Date/Time (UTC) local	Latitude, Longitude	Event Log (deployment begun, frame on seafloor, cable laying etc.)
8:17	36°47.5904 121°53.1388	Elevator dropped 100m - 3 min 160m - 4 min 214m - 6 min 286 in 8 min
8:28	drifted 80m @ heading 70° - took 11 min to drop	Elevator landed @ 378mwd. 350 in 10 min 378 in 11 min
8:37		ROV going down
8:57		ROV @ bottom.
9:01	36°47.5961 121 53.056?	@ elevator - checked comp. 24, 3.75 (2)
9:14	36°47.5962 121 53.06	toast plugged in. communicating w instrument. load looks good, checked noise floor
9:32		disengaged deep sea connect.
9:47		start to cable laying.
10:00 → off	seafloor? for cleaning?	
10:21		Starting to unspool maybe not in the right direction yet.

load normal

slightly higher
↑
optical setup recorders, RF + sequencing

elevator
→
ROV path pulling cable.

10:32 Set down spool 36°47.571 ?
follow cable 121°53.07
back to elevator.

took off briefly to remove mud from ROV.

10:35 → one loop not on seafloor.
 10:39 → fibre is wrapped around elevator
 10:42 → clearing.

10:46 → back to trying to look at
 cable on elevator. → strong current
 and poor visibility.
 10:52 → clearing

11:16 → heading back to spool

11:21 → picked up spool and
 starting to lay cable.

↳ some kinks in cable on spool
 ↳ wound too loose so not pretty
 watching it unspool

11:49 → changed direction from 130°
 $36^\circ 47.4121$ heading to 148°
 $121 53^\circ.33$.

12:13 → put down spool

$36^\circ 47.3238$ ↳ pulled
 $121 53.60$ tight @ end.
 — placed
 marker.

12:19 → surveying cable back to elevator.
 ↳ ROV directly above cable.

↳ cable is all straight and all on seafloor.

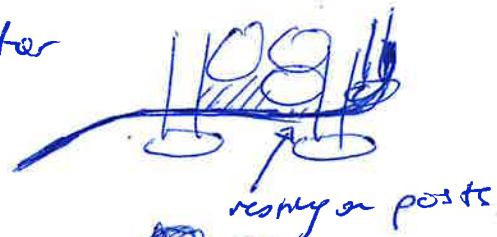
12:49 @ elevator checking out cable.

12:55 deep sea connect

— 60dB noise floor. — 40dB spike
 at very start of cable.

OTDR → cable length is 21.5m; lost all
 signal passed flat part.

↳ Pinkela says due to macro bend in cable
 not break.



cable
 is making
 a "6" around
 elevator
 frame.



ROV dive 4718



updated.
 cable
 wrapped
 around
 3 legs

VARIS

Date/Time (UTC)	Latitude, Longitude	Event Log (deployment begun, frame on seafloor, cable laying etc.)
1:12 pm		Going to try to spin elevator to loosen/unwind cable.
2:16 pm		going to connect to deep sea connect.
	Andri's stops	① OTDR ② Noise test test
		③ turn on recorders ^{change leaky to 1Hz then back.}
2:42 pm		changed leaky to 0.01 Hz
		↳ to compensate for high noise level.
3 pm		ROV ramp recovered.
		
Downloaded files		
* 22:28:36 ⇒ 14:28:36		After adjustments
* 19:06:19 ⇒ 11:06:19		ROV not around, cable wound
22:32:29 ⇒ 14:32:29		After adjustments.
18:03:42 ⇒ 10:03:42		@ seafloor
* 17:38:39 ⇒ 9:38:39		@ seafloor to ROV around.
mm 11	12.52 mm	

17:51:10

Feb 4
ROV
dive #
4719

all
previous
were
USBL
(not as
accurate)

Date/Time (UTC) PST	Latitude, Longitude	Event Log (deployment begun, frame on seafloor, cable laying etc.)
8:00 am	Ship → 36°47.5962 121 53.0814	launching ROV
8:24		at elevator checking comps. Lo look good, out ^{pulls and}
8:36	36 47.5723 121 53.076 (USBL)	dropped weight to NW of cable ~ 1 ft away. ~ 50m along cable.
8:41	36°47.5774 121 53.0757 (INS position)	~ 30m along cable. ~ 1.5 ft away NW of cable NW of cable.
8:45:08	36°47.5823 121 53.0726	~ 20m along cable - 1 ft away NW of cable.
8:48:24	36°47.5804 121 53.0702	10m along cable. → actually more like 17m away. - 1.5 ft NW of cable. - zoomed in cable.
8:52:13	36 47.5925 121 53.0679	On along (10m more along cable) - farther away
8:54:39	36 47.5931 121 53.0684	- 3m along from start of basically at elevator. NW of cable, ROV did not turn around
9:05		- discuss removing loop in cable, decide to pull out strain release
9:15		- connecting to instrument

arcNav
is USBL
position

turn
around
due to
close
prox
to elevator.

12/18/95
36 47 53
Boman



- download logs
- download file before

02.03 18.03.42
12.03 19.06.19

9:51 $\Rightarrow$ unplugging from deepsee connect

*Intel suggests noisy channel is propeller noise or cable flapping.

9:53 $\Rightarrow$ trying to remove loop. $\rightarrow$ abandoned due to poor visibility.

9:59 $\Rightarrow$ going to resume drops

100m drop - 36° 47.5538 } not able to complete
due to poor vis ad current.

10:15 $\Rightarrow$ heading to 121 53.1089
end of cable to see if conditions improve.

10:35:57 250m drop 36° 47.5042
121 53.1932

10:39:45 300m drop 36 47.4850
121 53.2190

10:43:36 350m 36 47.4659
121 53.2415

10:47:34 400m 36 47.4486
121 53.2680

10:50:50 450m 36 47.4301
121 53.2925

10:54:56 500m 36 47.4134
121 53.3173

10:59:40 550m 36 47.4006
121 53.3489

11:03:38 600m 36 47.3911
121 53.3809

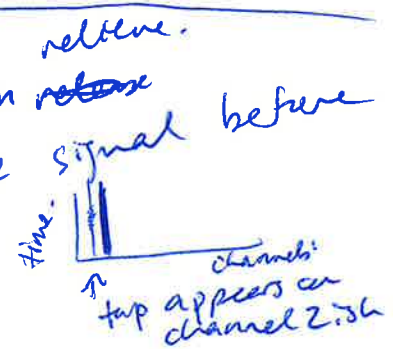
11:06:49 650m 36 47.3788
121 53.4117

~1 inch (between layers)
drop NW of cable.

ROV coordinates
log $\Rightarrow$ USBL $\pm 10m$
INS $\Rightarrow$ drift per hour $\times$
to couple meters.
to use other adels

9:24 -7 -58.9 dB (hot fit)
9:26 -6 -58.9

9:44 $\rightarrow$ tapped strain ~~release~~
on waterfall see signal before
refraction
9:46 -59dB
time



Feb 4 Dive 4719

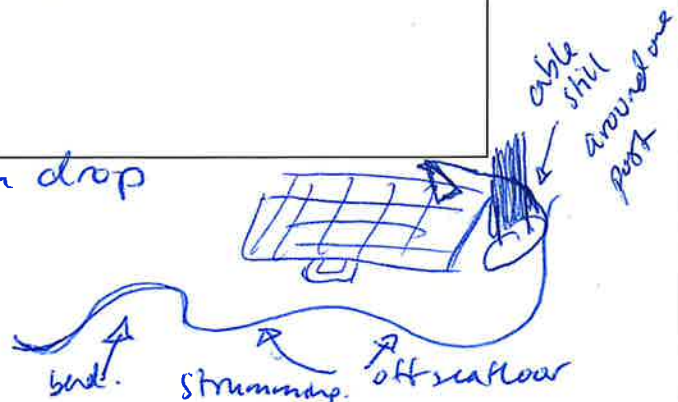
*distances are approximate, will need to measure.

Date/Time (UTC)	Latitude, Longitude	Event Log (deployment begun, frame on seafloor, cable laying etc.)
11:09:10:01	36 47.3687 121 53.4429	700m weight drop. 2 kink between drop locations
11:13:19	36 47.3629 121 53.4767	750m drop.
11:16:45	36 47.3531 121 53.5077	800m drop. (fish hit right before).
11:20:05	36 47.3407 121 53.5390	850m drop
11:24:02	36 47.3302 121 53.5701	900m drop.
11:28:24	36 47.3196 121 53.6040	950m drop.
11:29:40	36 47.3188 121 53.6072	drop at end of cable/spool 955m drop.
11:32		heading back to get missed drops.
11:47:31	36 47.5225 121 53.1675	200m drop.
11:50:11	36 47.5392 121 53.1371	150m drop.

11:53:02 36 47.5532 100m drop
121 53.1086

11:59 → @ elevator to fix loop.

*need to get take fast + rod on return.



12:14 → heading to Gene elevator.

12:38 @ Jim's elevator

1:13 done at elevator