

Water Depth 44 cm

RAD 7 1051

Started purging: 15:30

Seafloor to the dock: 138 cm

Water surface to dock: ~95 cm

Dock to RAD Aqua connection to
hose: 44 cm

~~RAD Aqua~~ Floor of dock to
inlet tubing: 75 cm

↖ inlet tubing tied up dock
railing to prevent water
from entering

²⁸⁶
Photo 286 + 287 pictures of bilge
pump set up

288 action packer set up

289 seascape looking S

290 " " E

291 " " N

292 " "

Test started: 16:20

Photos

293 + 294 RAD Aqua + Action
packer

EGN

5/22/17

Near-shore mooring

0658 LTC for near shore
mooring

started purging: 17:33

Unit 1222

Test started at: 18:00

5/23/17 Barge

LTCs started @ 8:00

thBDS started @ 8:00

5/23/17

7:30 am

Nearshore	mooring	EGN
water	flooded	drierite
and inlet	feeding	also
evidence	of	water in
chamber	of	1222

Nearshore mooring
 start time: 10:16 local time
 Mode switched from Sniff to
 auto for both nearshore
 mooring and the dock mooring

Started purging 9:10

USGS 1 consists of:
 USGS RAD7s (w/o 2531)
 HOBO A/Blue (7730)
 Blue taped probe

USGS 2 consists of:
 UF RAD7s
 HOBO B/Green (7728)
 Green taped probe

USGS 1 Test Start: 10:13
 :17:36

USGS 2 Test Start: 10:17
 :17:36

Generator ON: 10:11
 :17:36

Pumps ON: 10:12
 :17:36

YSI started: 9:51 Stop: 17:56

We are w/o 2531 due to near-shore mooring RAD7 1222 from ~~DOO~~ Santa Cruz office encountering water/flooding issues.

USGS 1 will only have 2 RAD7s (2528 and 2265).

10:55 - Start CRP
 am

TIA: Wind direction consistently S-SW with variable speeds — 10 knots with gusts up to 18 knots
 Lots of crab traps along T1 route

TIA + EGN501 will be wavy due to crab traps

12 PM TIB We are drifting @ 2 knots and there is no way to go slower

Electrodes popping out of water when trough of wave passes during TIB — possibly due to wind @ our back

Transect	Direction	Start time	Stop time
T1A	N-S	10:56	11:39
T1B	S-N	11:48	12:10
T1C	N-S	12:20	12:55
T5A	S-N	13:36	14:12
T5B	N-S	14:28	15:00
T5C	S-N	15:10	15:33
T6A	N-S	15:50	16:21
T6B	S-N	16:30	16:53
T6C	N-S	17:04	17:34

Transect	Direction	Start time	Stop time	corresponds
EGN501	N-S	10:55	11:46	T1A
EGN502	S-N	11:48	12:14	T1B
EGN503	N-S	12:18	13:04	T1C
EGN504	S-N	13:33	14:19	T5A
EGN505	N-S	14:27	15:05	T5B
EGN506	S-N	15:10	15:37	T5C
EGN507	N-S	15:50	16:28	T6A
EGN508	S-N	16:30	17:00	T6B
EGN509	N-S	17:04	17:27	T6C

TIB + EGN502 TXOVL error reading — likely due to previously mentioned electrode jumping up problem

CRP settings for ALL lines 5/23

- Electrode spacing 5m
- GPS Electrode offset -10 m
- Survey info > X as -10 m
- Using 5m pigtail

More notifications of TXOVL on TIC + EGN503

Consistently less choppy on all T1 runs for southern portion

@ 13:30

Due to variable and increasing wind conditions we retreated in closer to shore to T5 in hopes the wind will be less of an issue

On T5A lowrance reading depths ≥ 2 m at some areas along transect (2-4 m readings)
DO NOT RELY ON T5 DEPTH

Rough measurement — 40 cm

Trouble w/ T5A electrodes still bouncing out of water and TXOVL error so put out entire line before T5B and no more TXOVL error and all electrodes visually underwater

At 15:03 turned generator off for 1 min after T5B

Turned generator off for 2 min after T5C ~ 15:35

Lowrance depth readings are not to be trusted for T6/EGN507 +

Reporting depths 1.2 - 4 m
in EGN 507 where depth is
 ≤ 40 cm

CRP Settings for T5B/EGN505
and on:

- Survey info > X as -60 m
- All other settings same as
lines before (see page 68)

Started purging: 7:59

USGS 1 consists of:
USGS RAD7s (ALL)
HOBOA/blue (77305)
Blue taped probe

USGS 2 consists of:
UF RAD7s
HOBO B/Green (7728)
Green taped probe

USGS 1 Test Start: 9:08
Stop: 9:26

USGS 2 Test Start: 9:11
Stop: 9:26

Generator ON: 8:44

Pumps ON: 8:45 9:02

YSI started: 8:42

Project / Client

[illegible]

Project / Client

Scale

Due to wind conditions —
stopped Radon

Persistent white capping and strong winds → high evasion potential

Main battery low reading on Super Sting — Batteries 5+6 hooked up to it

Battery switched to 3+2
brown EGN510 + EGN511 but
still reading main battery low

Nearshore mooring battery swap 7:20 am

- Activity really high
- Modified bilge intake to increase distance from cinder block
- ~~Drierite~~ Drierite column swapped

^{15:00 out} Potential for battery charge low ~~on~~ due slower flow rate observed w/ RAD Aqua

5/25/17

EGN Nearshore mooring Batteries and desiccant swapped out @ 7:50 am local time

EGN Dock mooring Swapped drierite column @ 8:20 am

EGN Dock mooring Battery switch - 10:15 am

Started purging: 10:00

^{SP} USGS 1 consists of:

USGS RAD7s w/o 2531
HDOB A/Blue (7730)
Blue tapped probe

USGS 2 consists of:

VF RAD7s
HDOB B/Green
Green taped probe

USGS 1 Test start: 10:36

USGS 2 Test start: 10:40

Generator on: 10:34 OFF: 18:17

Pumps on: 10:36

YSI started: 10:33

Transect	Direction	Start time	Stop time
T2A	N-S	10:55	11:16
T2B	S-N	11:27	12:13
T2C	N-S	12:23	12:46
T3A	S-N	13:02	13:41
T3B	N-S	13:49	14:14
T3C	S-N	14:28	15:01
T4A	N-S	15:05	15:32
T4B	S-N	15:37	16:02
T4C	N-S	16:06	16:34

Transect	Direction	Start	Stop	Corresponding
EGN512	N-S	10:58	11:19	T2A
EGN513	S-N	11:25	12:18	T2B
EGN514	N-S	12:21	12:50	T2C
EGN515	S-N	12:58	13:45	T3A
EGN516	N-S	13:48	14:22	T3B
EGN517	S-N	14:27	15:02	T3C
EGN518	N-S	15:05	15:34	T4A
EGN519	S-N	15:36	16:03	T4B
EGN520	N-S	16:07	16:38	T4C
EGN521	see notes	16:56		Not recorded

CRP Settings for T2A/EGN512:

- Survey info as $X = -15$ m due to extra cable being cut to try and keep electrodes in the water

- GPS offset -10 m
- Electrode spacing 5 m
- Using 5 m pigtail

Wind out of NW but variable ~10 knots during T2A

Line T2 will be wavy due to crab traps (EGN512 - EGN514)

Wind shifted more W @ end of T2A/EGN512

When wind was at our back on T2A/EGN512, traveling @ 2 knots in idle

@ 11:40 am N52 noted cable sticking, had to re-tie to higher pivot point to keep out of water. Switched off CRP at meas. 208 retracted @ 11:45 1st meas - 208

*11:50 Langmuir currents /
observed forming parallel to
wind coming out of the north
(This is during T2B)

12:03 Wind from N-NW blowing
15-18 Knots

EGN

N-S CRP lines will be much
cleaner

At beginning of T2C, Langmuir
currents disappeared — condition
were much calmer

Start of T3A wind shifted to
coming out of the west

Supersting @ 11.42V on batteries
3+5 — main battery low error
occurred @ beginning of T3A/EGN
515

15:02 stopped generator to
refuel and restarted @
15:05

T4A/EGN518 near measurement
277/278 Lowrance started
reporting incorrect depth
values ≥ 2 m and at times
depth > 1 m ~~retransmission~~

Measurement 320 → back to
reading 1 m (probably real)
on EGN518/T4A

T4C/EGN520 near measurement
222 Lowrance was showing
depth of > 2 m ($\sim 2.3 - 2.5$ m)
water is much more shallow

From #222 onward the Lowrance
~~retransmission~~ reported incorrect depths

EGN521 will be the shore \perp
transects for CRP

EGN 521 Shore 1:

- Started E-W @ 16:56 at the Southern most 1
- Depth started being incorrectly reported @ measurement #200
- Start turn @ #212 17:15
- End turn @ #240 17:14 (straight)
- Start turn to E @ #279 17:17
- End turn #313 17:20
- Straight @ next 1 going W-E @ #318 17:20
- Start turn @ #501 17:34
- End turn @ #519 17:36
- Start turn to W @ #527 17:37
- End turn #539 17:38
- Straight @ next 1 going E-W @ #539 17:38
- Noticed "Main battery low" message @ 17:48 so will swap Odyssey out for #3 (#3 previously on boost) 11.29V
- Start turn @ #765 17:57
- Turned off to switch batteries @ 765
- Water depth reporting incorrect values 17:59 End turn 766

- Start turn to E @ #802 18:01 Water depth wrong on turn
- End turn and straight on E-W shore 1 @ #822 18:03
- ~~Water~~ Hit crab trap around 18:12 — not sure what measurement #
- This last E-W shore 1 (most northern) has many crab traps so this line is wavy and pretty off track

Location EGN Date 5/26/17
 Project / Client Mooring Notes

- 9:20 batteries changed @ dock
- 9:40 batteries changed @ nearshore mooring
- * ~~MM~~ 13:23 realized bilge pump
- Around cycle 713 on RAD7 Pumped stopped and let RAD7 continue w/ no pumping
- Stopped RAD7 @ cycle #715
- Purge for 10 minutes
- Hooked set up back up and restarted @ 14:54 beginning @ Cycle 801 on RAD7

FIXING BILGE PUMP

- Trimmed wires and connected them w/ the butt ~~ends~~ connectors and then Krimped the connection
- Added vacuum grease to the ends of the butt connector to keep water out
- Then put electrical tape over the ends of butt connector that were

Location EGN Date 5/26/17⁸³
 Project / Client Mooring Notes
 Scale

greased

- 4 sites ~~along~~ along the EGN Martin transect
- Each site will have 6 samples — 1 surface water and the rest will be a pore water depth profile
- Transect will consist of the following distances from shore: 5 m (essentially zero), 15 m, 17.5 m and 20 m

~~MS~~

MS are @ 0, 5, 10, 15, 17.5, 20, 22.5, 30 m offshore

5-SW A, B, C put in scint vials btwn 3:53 + 3:56

- Unable to get crap from water before

Location EGN

Date 5/26/17

Project / Client porewater Sampling

Distance	Depth	Sal	Rn	MAJORS	Notes →
5	SW	39	15:55	✓	Rn unfiltered, particulates in water
10 5	10	6	?	✓	Tons of sed. coming up —
5	20	4	17:24	✓	RnB had large bubble in glass syringe; lots of bubbles in 60 ml syringe
5	30	4	18:15	✓	Small bubble in 60 ml syringe; small bubble introduced Rn C
5	40	4	18:43	✓	
5	50	5	19:03	✓	

Portable Garmin
Waypoint 026 5/26 is 5 m
site off shore

Location EGN

Date 5/26/17

Project / Client

Scale

Location EGN Date 5/27/17
 Project / Client Porewater sampling

Distance	Depth	Sal	Rn	Majors	NOTES
10	SW	39	8:48	✓	
10	10	13	9:13	✓	
10	20	6	9:48	✓	
10	30	6	10:14	✓	
10	40	8	10:53	✓	
10	50	10	11:22	✓	
20	50	22	12:10	✓	
20	SW	40	12:50	✓	
20	40	22	13:23	✓	
20	30	26	14:11	✓	
20	20	25	14:57	✓	
20	10	35	15:31	✓	
22.5	SW	35	15:55	✓	
22.5	50	30	16:22	✓	
22.5	40	32	16:52	✓	
22.5	30	34	17:17	✓	
22.5	20	33	17:48	✓	
22.5	10	36	18:15	✓	

Location EGN Date 5/27/17
 Project / Client _____

Scale

→ Much less particulates in camp to yesterday

Small bubble A

Small bubble Rn B+C; post sample sal 10

Majors porewater very cloudy; post sample sal 7+11 reading

cloudy @ this depth — very fine sed?

Flushed filter using new syringe w/ DI

post sample sal 21

post sample sal 25

post sample sal 21

post sample sal 32; cloudy possibly i

Portable Garmin GPS points

Site | Waypoint

20 | 029

10 | 031

22.5 | 030

Distance in m offshore

Location EGNDate 5/27/17Project / Client Mooring Notes

• Turned off nearshore mooring @ 15:30 and tore down setup

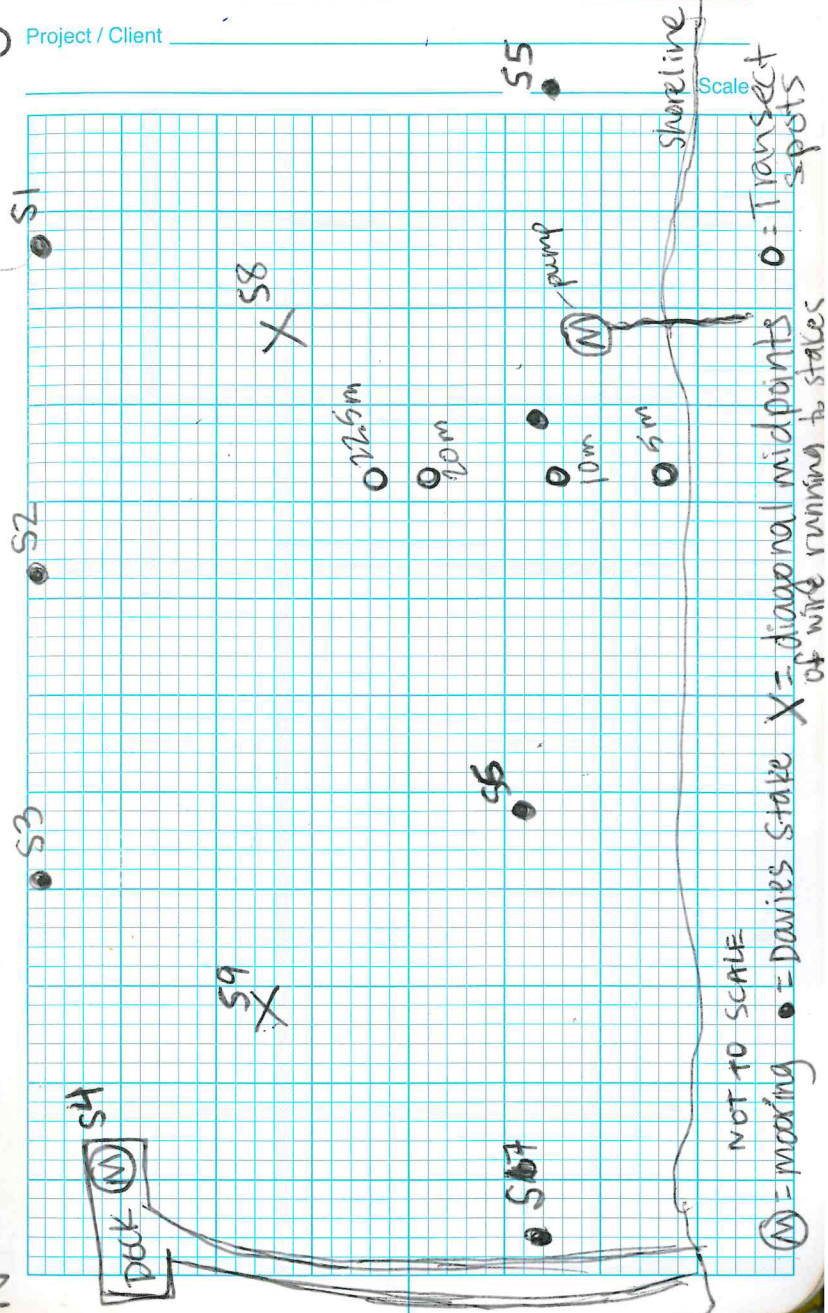
Location _____

Date _____

Project / Client _____

EGN site Aerial View

N



Site/stake	Depth	Sal	Rn	Majors	Waypoint
S1	50	41	8:51	✓	032
S2	50	42	9:20	✓	033
S3	50	43	9:55	✓	034
S4	50	45	10:30	✓	035
S5	50	12	10:54	✓	036
S6	50	10	11:32	✓	039
S7	50	6	*	✓	040
5	50	13	13:20	✓	
5	SW	43	15:26	✓	15:26
S4	50	40	16:22	✓	
S4	SW	39	17:09	✓	
S8	50	40	17:48	✓	
S9	50	41	18:04	✓	

* Time not recorded

S1, S2, S3, S4, S8, S9, S5, S6, S7

NOTES

OFFSHORE stake starting from South
 OFFSHORE stake next
 OFFSHORE stake most north — closest to dock
 DOCK that had mooning; more particulate
 Southern most stake in nearshore zone
 Northern most nearshore stake
 Lots of quartz grains got thru to glass
 syringe — could hear scraping

5m Distance

Start Ra: 14:16 Stop Ra: 14:23

Volume: 2 L

Smart Water Bottle Collected

13:20

Salinity after Rn bottle was 20
 so waited ~ 10 min from 13:18
 for the freshwater to return

Sal @ Ra start: 14

Sal @ Ra stop: 10

SW 5m Distance

Start: 14:51 Rn stop: 13:00

Binge pump ~ 1 ft away
 from cement block

Location EGNDate 5/28/17

Project / Client _____

Photos 360 - 366 on camera
are ~~per~~ pump setup @ 5m
distance offshore parallel to
Martin transect — same site
~~as~~ as 5/26/17 5m site
SW 5-m Distance
Rn bottle collected

— S4/Dock 50cm depth —

Rn bottle 16:22
Ra Start: 16:31 Ra Stop: 16:35
Note disconnected from pump
Volume: 2L for 5 seconds

SW Dock
Ra Start: 16:49 Ra Stop: 17:03
Volume: 5 gal

S8 is ~~along~~ midway following
the Davies wire (southern most)

Location RWPDate 5/28/17Project / Client Mooring Notes

Scale _____

Nearshore mooring setup
by C.G. Smith
RADT started @ 7:25pm
local time

Location EGNDate 5/28/17

Project / Client _____

Photos 360-366 on camera
are ~~per~~ pump setup @ 5m
distance offshore parallel to
Martin transect — same site
~~as~~ as 5/26/17 5m site
SW 5-m Distance
Rn bottle collected

— S4/Dock 50cm depth —

Rn bottle 16:22
Ra Start: 16:31 Ra Stop: 16:35
Note disconnected from pump
Volume: 2L for 5 seconds

SW Dock
Ra Start: 16:49 Ra Stop: 17:03
Volume: 5 gal

S8 is ~~aligned~~ midway following
the Davies wire (southern most)

Location RWPDate 5/28/17Project / Client Mooring Notes

Scale _____

Nearshore mooring setup
by C.G. Smith
RADT started @ 7:25pm
local time

Distance	Depth	Sal	Rn	Majors	Waypoint
shore	SW	35	8:49	✓	044
shore	50	27	9:15	✓	044
shore	40	27	10:14	✓	044
shore	30	35	11:08	✓	044
shore	20	40	11:48	✓	044
shore	10	40	*	✓	044
10	SW	40	12:40	✓	046
10	50	31	13:35	✓	046
10	40	32	14:16	✓	046
10	30	34	14:50	✓	046
10	20	35	15:19	✓	046
10	10	37	16:07	✓	046
20	50	33	16:51	✓	047
20	40	36	17:25	✓	047
20	30	30	18:19	✓	047
20	20	36	18:00	✓	047
20	10				047
20	SW				

* Time not recorded

NOTES

sal ~~33~~ for shore = SH

sal 30 post samples

post samples sal ~~33~~ 34

post sample sal 37

due to large amt of resistance @ depth 30cm —
potentially ~~resistant~~ finer grained layer
creating difficulty in establishing good pressure
gradient and sampler tubing filled w/ tiny
bubbles — be cautious about Rn concentration
post sample sal 33

20-20 cm post sample sal 34

EGN

5/29/17

Porewater sampling

Refractometer salinity very sensitive to salt build up if not rinsed w/ DI after measurement. Yesterday (3/28) this rinsing did not happen so be ~~wary~~ wary of high sal values (~45).

Note that cleaned 60 ml plastic syringes still have striations inside causing nearly an unacceptable amt of bubbling and @ times ~~am~~ way too much

EGN + RWP

5/30/17 99

Waypoints for porewater Sampling

026	N 28.11562	W 80.62025
029	N 28.11566	W 80.62010
030	N 28.11567	W 80.62009
031	N 28.11563	W 80.62020
032	N 28.11561	W 80.62030
033	N 28.11573	W 80.61913
034	N 28.11609	W 80.61922
035	N 28.11669	W 80.61961
036	N 28.11514	W 80.62003
039	N 28.11596	W 80.62021
040	N 28.11640	W 80.62026
044	N 28.26795	W 80.68729
046	N 28.26795	W 80.68723
047	N 28.26801	W 80.68713
RWP 502	N 28.26836	W 80.68662

Distance	Depth	Sal	Rn	Majors	Waypoint
20	20	35	—	✓	0
20	10	36	8:31	✓	0
20	SW	35	9:04	✓	0
35	SW	35	10:10	✓	049
35	30	36	10:35	✓	049
35	40	40	11:00	✓	049
35	50	35	11:36	✓	049
35	20	35	12:06	✓	049
35	10	35	12:25	✓	049
100	100	30			049
S10	50	26	11:55	✓	010 RWP Temp
S10	SW	36	12:37	—	010 RWP Temp
S02	50	29	1		
S02	SW		14:09		
		PH			
S02	50	6.64	→ 7.18		
S02	SW				

NOTES

Just to check sal to compare to
post yesterday
sal 34-35

post sample sal 39

post sample sal 37

post sample sal 34

post sal 36

A few bubbles in 60 mL syringe

S02 50 cm

Rn Start: 6 Rn Stop:

Rn Collected:

Vials: 14:35

Sal 30 post majors/

S02 SW

Rn Start: 14:01 Rn Stop: 14:12

Rn Collected: 14:09

channel
offshorenear
mooringnear channel
close shore8, ~~9~~ 2, 108, 9, 10, 12 GPS points for
offshore RWP → RWP Temp

With 6 remaining vials do
2 @ offshore mooring for
Radon and then 2 other
vials @ offshore sites

Take pH of these — use
hard YSI cup
To see if changing as pump

Note: Went out of order on
accident for 35 — started @
30cm due to tape confusion
BUT ~~labels~~ labels are fixed
and sipper properly flushed

For site 35 (35 m from shore) —
we encountered a ~~unit~~ resistant
unit/layer ~30-35 cm

— 810 site —

SW Radon bottle collected: 12:37
50m depth — 2 vials

RWP

5/30/17 103

Mooring Notes

Nearshore mooring
Took out old diethylene column 10%
and refreshed
A few measurements before
changing RH @ 23%. so those
measurements ~~were~~ were
compromised and @ few
measurements after 10:40
will be disturbed

Offshore mooring batteries
changed @ 8:32 am

Location RWP Date 5/31/17
 Project / Client Rn + CRP mapping

Started purging: 8:54

USGS 1 consists of:
 USGS RADTS 2265 + 2528 +
 Durridge borrowed 4217
 HOB0 A/Blue (7730)
 Blue taped probe

USGS 2 consists of:
 UF RADTS
 HOB0 B/Green
 Green taped probe

USGS 1 Test Start: 10:30 9
 Stop: 16:10

USGS 2 Test Start: 10:42
 Stop: 16:10

YSI started: 10:09

Generator: 10:37
 OFF: 16:10

Pumps started: 10:37
 Pumps off: 16:10

Location RWP Date 5/31/17
 Project / Client Mooring Notes

Scale

Offshore mooring battery +
 drierite column changed
 @ 9:20 am

NEARSHORE MOORING

- Bilge dead upon arriving @
7:30 PM
- Drierite column expended @
7:30 PM
- Activity in mooring started
dropping @ 15:30 PM — not
sure if that's due to increase
in RH or pump failure
- Chris wired new bilge @ 8:00 PM
- Let RAD7 continue to run
during downtime
- Changed out drierite column @
8 PM
- Left setup running @ 8:30 PM

Transect	Direction	Start time	Stop time
T1A	S-N	10:45	11:08
T1B	N-S	11:19	11:57
T1C	S-N	12:01	12:24
T2A	N-S	12:36	13:08
T2B	S-N	13:15	13:36
T2C	N-S	13:41	14:07
T5A	S-N	14:48	15:06
T5B	N-S	15:12	15:45
T5C	S-N	15:51	16:09

Transect	Direction	Start	Stop	Corresponding Rn line
RWP501	S-N	10:43	11:10	T1A
RWP502	N-S	11:18	11:58	T1B
RWP503	N-S	12:34	13:12	T2A
RWP504	S-N	13:16	13:46	T2B
RWP505	S-N	14:46	15:09	T5A
RWP506	N-S	15:12	15:48	T5B
RWP507	N-S	16:13	16:47	on T6
RWP508	S-N	16:50	*	on T6

* Not recorded

CRP Settings for lines:

- Electrode spacing 5m
- GPS Electrode offset -10m
- Survey info X as -15m
- Using 5m pigtail

Black battery #13 is low and was causing "Main battery low" message during RWP501

Did not have correct DC power hook up for RAD7 ~~4217~~ 4217 so will continue to map and check on battery - Voltage started @ 6.33 V when USGS 1 Test began

Wind from S-SW @ 10-12 Knots ~~for~~ for T1A+B / RWP501-502

4217 battery 6.21V @ 11:44

13, 8, 11, 7 batteries are not holding full charge

Main battery low issues during T2A/RWP503 → 11.42V

In btwn last time conditions were recorded, wind dropped to 0 knots and then @ around 13:08 has picked up to 15 knots out of the S-SE

switched batteries again before T2B/RWP504

As of 13:40 langmuir currents occurring;

Lawrance had stopped logging bc Chris disconnected it from battery but as of 13:40 it is logging again

→ Wind and wave conditions continue to pick up - be cautious about these Radon lines T2A/B/C

Due to increasing wind conditions we are moving in shore to T5 to try and avoid evasion of Rn ~~data~~

14:32

Generator¹ off to refuel —
Started again @ 14:42

Issues w/ transducer needing
to be straightened out by
~~the~~ raising mount to adjust
around 14:23

TXOVL errors around 14:53
on RWP505

Still ~~borderline~~ borderline too windy
with ~~sizeable waves~~ small
waves that increase potential
for evasion on T5A/B/C

Wind ~18 knots from South
TXOVL during RWP506 —
increase in wave action
Main battery low again 15:17
during RWP 506 (11.42V)

~~the~~ Generous amount of white
capping occurring @ T5B 15:30

Depth file will need to
come from Lowrance &
not CRP

Stopped ~~Rn~~ @ ~~16:10~~ 16:10
after finishing T5 due
to unfavorable wind &
wave conditions but continued
with CRP

CRP on line for T6 @ 16:15

During T5 Lowrance ^{was} not logging
depth

16:38 Range changed from 15 m to
5 m on Lowrance and it has
stabilized the depth measurement
RWP507 will be offline due to
wind and Chris driving

Offshore mooring batteries
changed @ 9:05 am
Drierite column switched @
9:10 am
Water depth @ 9:13 = 5 ft 3 in

Started purging: 9:00

USGS 1 consists of:
USGS RAD7s 2265 + 2528
AND 4217 borrowed
HOB0 A / Blue (7730)
Blue taped probe

USGS 2 consists of:
UF RAD7s
HOB0 B / Green
Green taped probe

USGS 1 Test start: 9:49:50
stop: 14:43

USGS 2 Test stop: 9:53
14:43

YSI started: 9:46 off: 14:51

Generator ON: 9:47
OFF: 14:42

Pumps ON: 9:47
OFF: 14:42

Transect	Direction	Start time	Stop time
T3A	S-N	10:07	10:29
T3B	N-S	10:37	11:13
T3C	S-N	11:22	11:43
T4A	N-S	11:55	12:32
T4B	S-N	12:37	12:59
T4C	N-S	13:00	13:44
T6A	S-N	14:02	14:24
T6B	N-S	14:30	
T6C	S-N		

Transect	Direction	Start	Stop	Corresponding
RWP509	S-N	10:07	10:32	T3A
RWP510	N-S	10:35	11:18	T3B
RWP511	S-N	11:22	*	T3C
RWP512	N-S	11:50	12:34	T4A
RWP513	S-N	12:37	13:00	T4B
RWP514	N-S	13:00	13:49	T4C
RWP515	S-N	14:03	14:25	T6A
RWP516	N-S			T6B

Wind out of the South @ ~3-5 knots @ start of T3A

RAD4217's DC and AC power cables do not work - so 4217 will likely die today. Battery starts @ 6.21 V for beginning of run T3A

CRP setting for 6/1/17 lines: see page 108

May be 2 RWP509 files but the 6/1/17 is the correct file

"Main battery low" message during RWP510 w/ 11.42 V

For RWP511, changed max current from 2000 mA to 1000 mA. Also disconnected boost battery and only ran using a main battery (8). At start of RWP511 saw 12.53V

* = Not recorded

- At 11:32 noticed preferential flow path in drierite column for USGS 1; RAD7s RH @ 11-12%.
- Switched to fresh drierite column @ 11:34
- RH humidity back down to 9-10% in USGS 1 @ 11:38
- At 11:38 restarted as RWP511B w/ max current back @ 2000 mA and w/ addition of boost battery (just cont of RWP511)
- After T3 A/B/C, 4217 has dropped to 6.18 V
- At 12:36 switched out drierite column for fresh one @ for USGS 2
- Began logging sonar again @ 13:02 after noticing it had not been logging for a while
- RWP514 — testing using Garmin transducer @ same time as Lowrance

During T4C/RWP514, wind conditions have picked up to 12-13 knots out of the south — more white capping visible but not quite an unacceptable amt yet (still small amt.)

Generator off @ 13:503 to refuel btwn T4 + T6 → Started again @ 13:56

Beginning of RWP515 was not on T6 as it should have been. So all measurements after #6 should be on T6

RWP515/516/5 are more CRP lines for T6 even though we did T6 yesterday — during these we will have Garmin transducer going to record depth RAD7 4217 @ 6.15V @ start of T6A

Started purging: 8:23

USGS 1 consists of:

USGS RAD7s 2265 + 2528,
AND RAD7 4217 (borrowed)

HOB0 A/Blue (7730)

Blue taped probe

USGS 2 consists of:

UF RAD7s

HOB0 B/Green ()

Green taped probe

USGS 1 TEST start: 8:44
stop: 11:18

USGS 2 TEST start: 8:48
stop: 11:18

YTI started: 8:35

Generator on: 8:42
off: 11:18

pumps on: 8:43
off: 11:18

Offshore mooring batteries +
drierite column changed
@ 8:25 am

Nearshore

- Chris checked RWP nearshore mooring @ 14:20 during moderate shore
- Bilge pump, RAD7, and drierite (w 2/3 spent) were in good shape
- Nearshore activity was around 1000 Bq/m³ in air

Transect	Direction	Start time	Stop time
T6A	N-S	8:51 8:56	9:18
T6B	S-N	9:19	9:38
T6C	N-S	9:40	10:01
T7A	S-N	10:08	10:25
T7B	N-S	10:34	10:52
T7C	S-N	10:58	11:15

0.12 V today's starting voltage for 4217 — still no power cable

Returning to T6 to redo Radon due to rain/storm yesterday causing us to head south and cut the day short

004 Waypoint is start of T6 Radon line

Putting Garmin waypoints into Lowrance to be able to navigate T7 because Garmin has low battery

07N — T7 North point

07S — T7 South point

008W — western end of most southern transect (L)

008E — eastern end of most southern transect (L)

009E — eastern end of 2nd most southern transect (L)

N28.16.139 W80.40.552

009W — western end of 2nd
most southern \perp

N28, 15.944 W80, 41.124

010E — eastern end of 2nd
most northern \perp

N28 16.098 W80 41.200

010W — western end of 2nd
most northern

N28 16.295 W80, 40.613

011W — western end of the
northern most \perp

N28 16.251 W80, 41.266

011E — eastern end of the
northern most \perp

N28 16.439 W80 40.709

Note: Very little sprinkles
of rain during T6 + T7

At start of T7B seems to be
no sprinkles of rain

Wind conditions slightly picked
up to 1-3 knots @ end of
T7B — previously conditions
were extremely calm w/ 0
knot wind @ start of today

Transect	Direction	Start	Stop	Corresponding
RWP517	N-S	10:33	10:52	T7A B
RWP518	S-N	10:58		T7C
RWP519	W-E	11:21		

Start Radon Line 10:34
~~I7A~~ T7B

- Starting RWP519 for northern most \perp going W-E
- MEA #29 W-E fully straight
- MEA #305 11:44 marks end of this Northern \perp
- Started turn #315
- #342 turn ends
- ~~start of next \perp going E-W~~
- ~~Straight @ #~~
- #408 ^{11:52} start turn towards next \perp
- straight @ start of next \perp going E-W MEA #447 11:56
- #470 11:57 on line
- #722 start of turn

Dismantling offshore
mooring — water depth
160 cm

Begin tow in @ 8:53

Nearshore Porewater @ 50 cm

Restart: 8:15

Ra stop: 8:24

pkn collected: 8:31

smart bottle

Collected majors using Geotech
filter