

Appendix C

Site Photos and Field Notes

NWP

PSG SAMPLE
PG 50a UTILITY LOCATE PREP

3/9/21

TASK: MARK OUT PSG UTILITY LOCATES ~~QUESTIONED~~
FOR THIRD PARTY LOCATES.

PERSONNEL: L. TOUCHO + PAT TERHUNE

WEATHER: 54°F / 37°F, ~~so~~ OVERCAST / PARTLY CLOUDY

SAFETY: NEW PERSON ON SITE, PIPES @ NWP ARE 9 FT DIAMETER
WATCH OUT FOR VEHICLES / CONW

0900 MEET UP OUT NWP LOT. HTS TAILGATE

0930 CHECK IN W/ NWP W/ TIM. INSPECT WELL LOCATIONS
FOR ACCESSIBILITY ISSUES. MW 03 + MW 04 ARE ACCESSIBLE
BUT WILL REQUIRE ASPHALT CUTTING FOR PSG INSTALLATION

1000 CHECK IN @ PORT SECURITY AND REQUEST GATE 405
BE UNLOCKED

1010 BEGIN MARKING OUT PSG SAMPLE LOCATIONS.
NOTE THE 2 LOCATIONS @ NWP + 4 ON PORT
PROPERTY @ AT ASPHALT. 5 ~~LOCATIONS~~ LOCATIONS ON PORT
IN GRAVEL LOT. 2 LOCATIONS ON PORT POTENTIALLY
IN GRAVEL / ASPHALT. MAY POSE ISSUE W/ HAMMER

1400 DRILL
OFFSITE

Jawon Toucho 3/9/21

NWP

PSG

PSG @ UTILITY LOCATE

3/11/21

TASK: 3RD PARTY LOCATE OF PSG SAMPLERS WITH APS

PERSONNEL: LAURA TOCHKO / JAMES
BILL PATTERSON / APS

WEATHER: MOSTLY CLEAR, CALM, 34°F / 61°F

SAFETY: ORIENT APS TO SITE, LOW, LARGE PIPES @ NWP

0900: CHECK IN W/ TIM @ NWP, MEET B. PATTERSON / APS
CONDUCT H+S TAILGATE

0920 BEGIN LOCATES @ NWP

METROTECH + RADIO DETECTION - APS EQUIPMENT

0935 FINISH LOCATES @ NWP. ALL CLEAR. CHECK OUT W/ TIM

0940 CHECK IN W/ PORT SECURITY @ GATE. BEGIN PORT
LOCATION UTILITY LOCATES:

3 LOCATIONS MOVED DUE TO PROXIMITY TO SEWER
LINE. SEWER LINE ESTIMATED 5 FT BGS

ONE LOCATION MOVED DUE TO PROXIMITY TO SILT FENCE / CONSTRUCTION
AREA.

1120 ALL LOCATIONS CLEARED FOR UTILITIES WITHIN 6 FT OF

MARKED LOCATIONS

1130 OFFSITE

Laura Tochko
3/11/21

PSG Sampler Install

3/24/2021

- 0800 Arrived on site at Port of Portland Employees on site: Pat Terhune, Brandon Jones - Stanley. Objective: Install passive soil gas samplers. Weather: 45°F, cloudy/rain
- 0830 Met with Mike Shields (POP) who informed us he moved some of our locations due to utility conflicts.
- 0915 Set up at NWP-PSG08
- 0930 Installed NWP-PSG08-03242021. Hole drilled to 3' bgs. Sampler deployed at ~~1 foot bgs~~ ^{PT} ~6" bgs
- 0940 Began install at NWP-PSG07
- 0946 Installed NWP-PSG07-03242021 Hole drilled to 3' bgs. Sampler deployed at ~~1 foot bgs~~ ^{PT} ~6" bgs
- 0955 Began install at NWP-PSG06
- 1005 Installed NWP-PSG06-03242021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs.
- 1015 Began install at NWP-PSG05
- 1022 Installed NWP-PSG05-03242021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs
- 1030 Began install at NWP-PSG04
- 1042 Installed NWP-PSG04-03242021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs.
- 1103 Began install at NWP-PSG03
- 1110 Installed NWP-PSG03-03242021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs
- 1218 Began install at NWP-PSG12
- 1227 Installed NWP-PSG12-03242021 Hole drilled to 3' bgs. Sampler deployed at ~6" bgs.
- 1236 Began install at NWP-PSG13
- 1246 Installed NWP-PSG13-03242021 Hole drilled to 3' bgs. Sampler deployed at ~6" bgs
- 1253 Began install at NWP-PSG14-~~03242021~~ ^{PT}
- 1302 Installed NWP-PSG14-03242021 Hole drilled to 3' bgs. ^{PT} Sampler deployed to ~6" bgs.
- 1309 Began install at NWP-PSG15
- 1317 Installed NWP-PSG15-03242021 Hole drilled to 3' bgs. Sampler deployed to 6" bgs.
- 1325 Began installing ~~PT~~ NWP-PSG16
- 1334 Installed NWP-PSG16-03242021 Hole drilled to 3' bgs. Sampler deployed at ~6" bgs.
- 1337 NWP-PSG17 - Began install
- 1346 Installed NWP-PSG17-03242021 Hole drilled to 3' bgs. Sampler deployed at ~6" bgs.

03/24/2021

1355
1400

Began install at ~~NWP-PS618~~
Installed NWP-PS618-03242021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs.

1408
1420

Began installing ~~NWP-PS6189~~
Installed NWP-PS619-03242021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs

1430

Began install at ~~PT~~ NWP-PS620. Ground is covered in 2" gravel, and PS6 Port is in a low point where water is pooling. need to move ~40' east to get out of pooling water. Called Kris to get approval. Skipping point until we can get utility clearance. Port as Portland will clear point tomorrow.

1455
1519

Began install at NWP-PS621
Installed NWP-PS621-03242021 Hole advanced to 3' bgs. Could only advance 1 1/2" bit to ~8" bgs. Cut pipe sleeve to 8" and deployed sampler to ~4" bgs.

1521
1538

Began install at NWP-PS611
Installed ~~NWP~~ NWP-PS611-03242021. Hole drilled to 3' bgs. Could only advance 1 1/2" bit to ~9". Cut pipe liner to 9" and deployed sampler to ~4".

1615

Offsite for day.

3/24/2021

PS6 Sampler Install

3/25/2021

- 0800 Pat Terhune on site.
- 0830 Brandon Jones - stanley on site. Objective: Install Passive Soil gas Samplers. Weather: 45°F Overcast. N/S Top: stuck hammer drill.
- 0858 Began install at NWP-PS610
- 0915 Installed NWP-PS610-03252021 Had trouble with drilling through gravel and hole collapsing. Hole drilled to ~2.5' bgs. could only advance 1 1/2" bit to ~8". Sampler deployed to ~4" bgs.
- 0925 Began install at NWP-PS609.
- 0933 Installed NWP-PS609-03252021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs. Note: PS609 and PS610 are located on a gravel pad with 2" gravel. Difficulty drilling, hole collapse. Seemed to be gravel to ~3' bgs.
- 0945 Began install at NWP-PS629
- 0950 Installed NWP-PS629-03252021. Hole drilled to 3' bgs. Sampler deployed to 6". Easy drilling. Port of Portland locator on site to clear PS620 moved. Location for utilities
- 0959 Began install at NWP-PS628. Note: PS629 had to be moved ~3' North to avoid a utility
- 1005 Installed NWP-PS628-03252021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs. Easy drilling.
- 1020 Began installing NWP-PS627
- 1028 Installed NWP-PS627-03252021 Hole drilled to 3' bgs. Sampler deployed to 3' bgs. Easy drilling.
- 1037 Began install at NWP-PS626
- 1044 Installed NWP-PS626-03252021. Hole drilled to 3' bgs. Sampler installed to 6" bgs. Easy drilling.
- 1050 Began install at NWP-PS625
- 1057 Installed NWP-PS625-03252021. Hole drilled to 3' bgs. Sampler installed to 6" bgs. Easy drilling.
- 1102 Began install at NWP-PS624
- 1110 Installed NWP-PS624-03252021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs. Easy drilling.
- 1116 Began install at NWP-PS623.
- 1122 Installed NWP-PS623-03252021. Hole drilled to 3' bgs. Sampler deployed to ~6" bgs. Easy drilling.
- 1126 Began install at NWP-PS622
- 1130 Installed NWP-PS622-03252021 Hole drilled to 3' bgs. Sampler deployed to ~6" bgs. Easy drilling.
- 1208 Began install at NWP-PS620, moved ~40' to the east

PSG Install

3/25/2021

1230

Installed [NWP-PSG 20-03282021]. Hole drilled to 5' bgs. Could only advance 1 1/2" bit to ~4", and hole collapsed because of gravel + loose material. Installed pipe liner ~~to~~ to ~8" and deployed sampler to ~4".

1340

Began install at NWP-PSG31

1351

Installed [NWP-PSG31-03252021]. Hole drilled to 3' bgs. Advanced 1 1/2" bit to ~8". Pipe sleeve inserted to ~8". Sampler deployed to ~5' bgs.

1357

Began install at NWP-PSG32

1415

Installed [NWP-PSG32-03252021]. Hole drilled to 3' bgs. ~~Steel pipe~~ Pipe sleeve inserted to 8". Sampler deployed to ~4' bgs. Hard drilling.

1421

Began install at NWP-PSG34

1436

Installed [NWP-PSG34-03252021]. Hole drilled to ~~2.5'~~ 2.5' bgs. Pipe liner installed to ~~9'~~ 10' bgs. Sampler deployed to 4' bgs.

1445

Began install at NWP-PSG35

1500

Installed [NWP-PSG35-03252021]. Hole drilled to 2.5' bgs. Pipe liner inserted to ~10' bgs. Sampler deployed to ~5' bgs.

1515

left Pop property. Disposed of IDW Decon water in drum at NWP.

1540

collected Equipment Blank [NWP-PSG-EB]. Brandon taking

1615

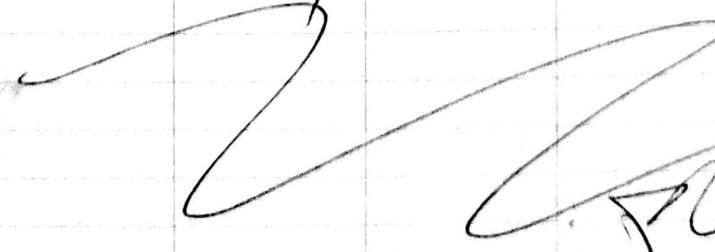
to Fedex for shipping. offsite for day

[Large handwritten signature]
3/25/2021

PSG Sampler Install

3/26/2021

- 0800 Pat Terhune and Brandon James-Stanley arrived on site. Objective: Install PSG Samplers. Weather, 45°F overcast. Hrs Tailgate Topic: Utilities.
- 0815 Mike Shields with POP utilities on site to clear utilities for a moved point.
- 0848 Began install at NWP-PS630. Moved point ~20-30' east to avoid utilities.
- 0902 Installed NWP-PS630-03262021. Hole drilled to 3' bgs. Sampler deployed to ~5". Lots of gravel/coarse material.
- 0910 Began install at NWP-PS633. Moved point ~15' north to avoid utilities.
- 0922 Installed NWP-PS633-03262021. Hole drilled to 3' bgs. Pipe liner installed to 10". Sampler deployed to ~4" coarse material/gravel.
- 0930 Began install at NWP-PS636
- 0951 Installed NWP-PS636-03262021. Hole drilled to 3' bgs. Pipe liner installed to ~10" bgs. Sampler deployed to ~4" bgs. Patched with concrete.
- 1005 Began install at NWP-PS637
- 1016 Installed NWP-PS637-03262021. Hole drilled to 3' bgs. Pipe liner installed to 10". Sampler deployed to ~4" bgs.
- 1030 left POP property for NWP
- 1039 Began install at NWP-PS602. Notified Tim with NWP that we are onsite.
- 1047 Installed NWP-PS602-03262021. Hole drilled to 3' bgs ~~through asphalt~~. Through asphalt. Pipe liner installed to 10". Sampler deployed to ~4". Concrete patched.
- 1100 Began install at NWP-PS601
- 1112 Installed NWP-PS601-03262021. Hole drilled to 3' bgs. ~~through asphalt~~. Pipe liner installed to 10" bgs. Sampler deployed to ~4" bgs. Note: GPS accuracy for sample point was poor because location was behind metal pipes.
- 1130 Disposed of IBW Decon water in drum at NWP.
- 1145 offsite for decon.



 3/26/2021

PSG REMOVAL

4/7/2021

TASK: RETRIEVE PSG SAMPLERS

PERSONNEL: LAURA TOCITKO / JACOBS

BRANDON JONES - STANLEY / JACOBS

WEATHER: CLOUDY 54°F / 39°F

H+S TOPIC: BIOLOGICAL HAZARDS, BIRD POOP

0800 MET ON SITE H+S TAILGATE.

0835 BEGIN RETRIEVING PSG SAMPLERS

0847	RETRIEVE	NWP - PSG 08 - 03242021
0851	RETRIEVE	NWP - PSG 07 - 03242021
0855	RETRIEVE	NWP - PSG 06 - 03242021
0859	RETRIEVE	NWP - PSG 05 - 03242021
0902	RETRIEVE	NWP - PSG 04 - 03242021
0904	RETRIEVE	NWP - PSG 03 - 03242021
0912	RETRIEVE	NWP - PSG 12 - 03242021
0914	RETRIEVE	NWP - PSG 13 - 03242021
0916	RETRIEVE	NWP - PSG 14 - 03242021
0918	RETRIEVE	NWP - PSG 15 - 03242021
0920	RETRIEVE	NWP - PSG 16 - 03242021
0922	RETRIEVE	NWP - PSG 17 - 03242021
0926	RETRIEVE	NWP - PSG 18 - 03242021
0929	RETRIEVE	NWP - PSG 19 - 03242021
0934	RETRIEVE	NWP - PSG 20 NWP - PSG 21 - 03242021
0942	RETRIEVE	NWP - PSG 11 - 03242021
0945	RETRIEVE	NWP - PSG 10 - 03252021
0948	RETRIEVE	NWP - PSG 09 - 03252021
0954	RETRIEVE	NWP - PSG 20 - 03252021
0957	RETRIEVE	NWP - PSG 29 - 03252021
1000	RETRIEVE	NWP - PSG 28 - 03252021
1002	RETRIEVE	NWP - PSG 27 - 03252021
1005	RETRIEVE	NWP - PSG 26 - 03252021
1007	RETRIEVE	NWP - PSG 25 - 03252021
1011	RETRIEVE	NWP - PSG 24 - 03252021
1013	RETRIEVE	NWP - PSG 23 - 03252021
1015	RETRIEVE	NWP - PSG 22 - 03252021
1041	RETRIEVE	NWP - PSG 31 - 03252021
1043	RETRIEVE	NWP - PSG 32 - 03252021
1045	RETRIEVE	NWP - PSG 33 - 03262021
1052	RETRIEVE	NWP - PSG 34 - 03252021
1057	RETRIEVE	NWP - PSG 35 - 03252021
1102	RETRIEVE	NWP - PSG 36 - 03262021

H 4/7/2021

PSG REMOVAL

4/7/2021

- 1109 RETRIEVE NWP - PSG-37 - 03262021
- 1137 RETRIEVE NWP - PSG-30 - 03262021
- 1145 FINISH RETRIEVING PSG SAMPLERS FROM PART OF FOX PROPERTY. ALL ASPHALT HOLES HAVE BEEN PATCHED.
- 1160 CHECK IN WITH MIKE @ NWP.
- 1155 RETRIEVE NWP - PSG-02 - 03262021
- 1204 RETRIEVE NWP - PSG-01 - 03262021
- 1215 FINISH RETRIEVING PSG SAMPLERS FROM NWP + PATCH HOLES WITH ASPHALT, PREP SAMPLERS FOR SHIPPING.
- 1255 OFFSITE. BRANDON JONES-STANLEY TO DROP SAMPLES OFF @ FEDEX.

Lawrence
4/7/2021

Northwest Pipe – Passive Soil Gas Sampler Installation Photos



Photo 1: Drilling of Surface Hole for Passive Soil Gas Sampler

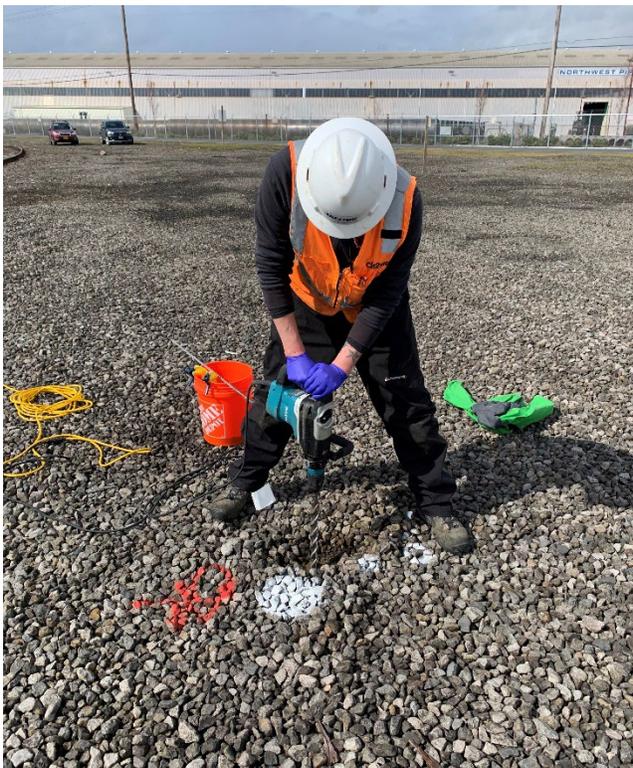


Photo 2: Drilling of Surface Hole for Passive Soil Gas Sampler

Northwest Pipe – Passive Soil Gas Sampler Installation Photos



Photo 3: Drilling of Surface Hole for Passive Soil Gas Sampler



Photo 4: Surface Patch Following Removal