FGPSF 1.8

ecology and environment, inc.

International Specialists in the Environment

Job Number

4th & Gambell parking Lot

TDD: 12-01-0004

USEPA SF
1409882

E & E Job Number _____

Telephone Code Number _____

Site Name 4th Avenue & Gambell Parking Lot

City/State Anchorage, AK

TDD 12-01-0004

PAN _____

SSID _____

Start / Finish Date _____ / _____

Book _____ of _____

E & E Emergency Response Center: (716) 684-8940
E & E Corporate Center: (716) 684-8060
MEDTOX Hotline: (501) 370-8263
E & E Safety Director (Home): (716) 655-1260

12-01-0004 4th & Gambell 7/9/12

0700: Depart hotel

0715: Arrive at warehouse to load supplies (soil gas supplys will not be delivered until today to E&E office)

0810: Arrive at site Setup cones to block East half of site, Eric M (EM) Jake morsen (JM) Jeff Fetters (JF) Carol overpeck (CO) on site. EM & JM begin to set up for ~~soil gas~~ Sediment Sampling in Ship Creek.

0844: Call Alaska Railroad (ARR) for escorte to Ship creek

0845: Call Geotek to find out when they will be on site will be ≈ 9:30-10:00 Am

0850: ARR on site to escorte EM & JM to ship creek

0915: Call Ron Copples, will meet w/ his maintinance man, he lives in one of the homes to be sampled

0918: walk through duplexes (JF & CO). North unit has basement, South unit has crawl space, both units have vent systems in basement / crawl space, both have black plastic vapor barrier.

0925: knock on doors to lots 6a & 5a, no answer

1000: geotek on site, begin setting up grid

1015: JF & CO begin placing Soma canisters

1019: Place 1st Soma PP01IA # 95640

- Initial vac.: -27 (opened at 1019)
- Placed in basement under unit #1 (northern most unit)
- Sampler placed at lowest point (on floor)
- Basement used for wood working, no chemicals containing voc apparent
- Photo #001

1027: Place 2nd Soma PP02IA # 431

- Initial vac: -30 (opened at 10:27)
- Sampler placed under southend of northern unit on cement floor (lowest point) in area used as wood shop. no voc containing chemicals apparent (Photo #002)

7/9/12

12-01-0004 4th + Gambel 7/9/12

1033: Setup PP03IA under northern End of Southern duplex

1037: open PP03IA #
- Inital vac = -30, Photos 003 + 004
- Placed in Crawl space, Black plastic vapor barrier w/ taped Edges / Seams

1039: Begin Setup of PP04IA

1041: open PP04IA # 35163
- inital Vac = -30
- Sampler placed in Southern End of Southern duplex
- Photo # 005

1045: Prepare PP05IA # 33653 (opened at 1045)
- Placed in home East of Duplex in basement, home is vacant
- inital vac. = -29

1050: Setup PP010A # 35983
- Placed outside b/t duplexes + Vacant home under tarp to Protect it from rain
- Inital vac. -31, open at 1054

1107: meet w/ EN + Jm, will not collect Sediment Samples due to high tide, Low tide is 0630, will collect Sediment Samples tomorrow. They will insted collect Surface soil Samples not accessable by the geoprobe (All on lots north of the Site). All Surface soil Samples collected north of the Site and From properties other than the Site will be collected From 0-6" insted of 0-2' w/ geoprobe. this is because of access issues w/ geoprobe (geoprobe too large to collect Samples or to fit into tite Spaces) This is a Change From the Final SQAP.

1215: Finish collecting surface soil samples near duplex

1230: Lunch

1300: At Site, waiting to meet w/ MS. Rinkirk.

7/9/12

12-01-0004 4th and gambell 7/9/12

1310: meet w/ ms. Rinkirt and tenant of ~~Horton~~ western most Property to be sampled. discuss Sampling.

1410: Set up Suma PP06IA on western most property

1415: Open Suma PP06IA # 34244

- Placed near hole in basement Floor
- Initial vac. = -32

1434: Setup PP020A # 33660 (opened at 1434)

- Placed on Eastern Property line (~~Fa~~ Fence) of western most home
- Initial vac = -31

1437: Setup PP07IA # 34377 (opened at 1437)

- Set up in basement in bathroom, Resident stated that they would keep the door shut
- Initial vac = -32

1505: CO to call TTT Environmental to rent a metal detector to help w/ the install of Soil gas Samples, rest will collect surface soil Samples not accessable by geoprobe.

1527: begin collecting Surface Soil (SS) Samples at NW Properties.

1530: Collect PP05SS (voc only)
Photo # in Jm's logbook
GPS Point in Jm's logbook

1534: CO Returns to site w/ metal detector

1541: Setup PP08IA in crawl space (South East property west of gambell Street

1546: open PP08IA # 5653

- Initial vac = -29
- Sample Placed in ~~a~~ crawl space, no vapor barrier Present, Dirt / gravel Floor

~~1680~~ 1020: Geotek off site, Do not have all needed equipment, will return tomorrow

1631: Speak w/ driller re: drilling schedule

7/9/12

12-01-0004 4th & Gambell 7/9/12

1700: Finish collecting S.S. Samples
1718: OFF Site
1734: Arrive at warehouse, VOC Samples placed into Freezer, Supplies For tomorrow loaded
1800: Begin Entering info into Scribe For days Samples
1820: Printer not printing, will atempt to clean heads, Samples placed in double ziplock bags & custody sealed.

Samples collect 7/9/12

PP01SS,	1125	PP01IA,	1015,	-27
PP02SS,	1140	PP02IA,	1027,	-30
PP03SS,	1200	PP03IA,	1037,	-30
PP04SS,	1210	PP04IA,	1038,	-30
PP05SS,	1525	PP05IA,	1045,	-29
PP06SS,	1545	PP06IA	1413,	-32
PP07SS,	1610	PP07IA	1437,	-32
PP08SS	1625	PP10A	1045	-29
PP09SS	1630	PP020A	1434	-31
PP10SS	1640	PP08IA	1541	-29
PP11SS	1050			
PP12SS	1700			

Total hours For day = 7am - 7:15pm

* Note: health + Safety meeting conducted prior to work activities, EN NF, CO in attendance, conducted by Jim topics include slips trips & falls, safety near Ship creek, traffic safety in parking lot.

12-01-0004 4th + Gambell 7/10/12

0600: On site, EM + Jm to meet w/ Arr personell to collect sed. samples, JF + CO to collect Remaining SS Samples + Deploy Remaining Suma Canisters, will attempt to install Soil gas Samples as well

0610: CO on site, JF Placing cones to block western half of site

0640: will collect remaining SS samples in which we have access to, ~~to~~ JF Samples will be collected as 7/9/12 Samples were (0-6", not 0-2' as per SAAP). This is due to access limitations w/ the geoprobe. This is a change to sampling plan.

0615: health + safety meeting, lead by Jm, All in attendance Topics from yesterday covered, drill rig safety included as Drilling will occur today.

0719: Setup to collect PP13SS (near NW corner of PiP Printing)

0727: Collect PP13SS 61.21878901 -149.86810702

0730: Setup on PP14SS ~~across from alley~~ across alley from Church, could not obtain access to Church lot.

0737: Collect PP14SS 61.21897684 -149.86878001

0747: Collect PP15SS 61.21922032 -149.86997583

0752: Collect PP16SS 61.21909715 -149.86999336

0758: Collect PP17SS 61.21925431 -149.80701602

0804: Collect PP18SS 61.21969 -149.80701669

0806: Speak w/ Russ (GPR guy) will be on site at/about 0830

0810: Caral to hardware store to buy chain + locks to secure Suma Canisters

0852: Prepare to place / deploy Suma canisters

0900: decide not to deploy Suma Canisters due to Rain

0906: knock on Vicky Mickolich's door in Effort to place indoor Suma canisters, no answer

0915: Russ (GPR guy) on site to survey west half of site, west half of site coned off this morning. Russ provides map

7/10/12

12-01-0004 4th & Gambell 7/10/12

(Draft) of Eastern portion of lot, map shows large metalic object in NE corner of site, has yet to run GPR over site

1000: Driller on site

1007: Collect PP01IA, Final vac = -3

1008: Collect PP02IA, Final vac = -6.4

1011: Collect PP03IA, Final vac = -6

1013: Collect PP04IA, Final vac = -7.5

1016: Collect PP01OA, Final vac = -5

1018: Collect PP05IA, Final vac = -1

1135: walk borehole locations w Russ to give him an idea of what locations need to be cleared

1200: Enter Sample Date/time/sampler info into Scribe while waiting for driller to get set up.

1238: Driller begins to set up on BH01, borehole located north of site on lot w/ house foundation

1250: begin drilling at BH01

1256: Collect BH01SB05 ≈ 50% recovery

0-2': Silty loam 25% gvl, Dry, light brown

2-3': Silty sandy gravel (6m-GP)

3-5': gravelly sand; Gvl: >3cm, R; Snd: med.-coarse, Predom. med, Angular; silt: Dry, 2.5y 3/2 (Dk grayish brown.

1309: ~~1318~~: Collect BH01SB10

5-9.5': lithology same as above

9.5-10': Sand : Fine to medium, dry 2.5y 3/2 (Dk grayish brown), no gravel present.

1318: Collect BH01SB15:

10-12.5': lithology same as above w/ ↑ gravel, >1cm, R

12.5-13.5': Sandy Gravel

at 13.5' ≈ 1" thick black peaty/silty material noted.

7/10/12

12-01-0004 4th + Gambell 7/10/12

13.5-15': Sandy Gravel : gvl: >1cm, R; Snd: C-m, Predom. med. Angular, ~~moist~~ moist

1327: Collect BH01SB20

15-17': Sand w/grave(SW): Snd med, A, 2.5y 3/3

17-20': Silty sandy Gravel (SW): Gvl: <1cm, R; Snd: Fine to Coarse (grain size ↑ w/ depth; silt: moist 2.5y 3/2

1339: Collect BH01SB25

20-22': Same as above w/ Sand to coarse

22-23.5: Sand(SW): gvl: 1cm-2mm, R, Predom <5cm; Sand: coarse, Angular

23.5-24: lithology Same as above, Sand to med.

24-25: Sand (SW): Fine-medium, trace gravel, Dry, ≈ 2" charcole lense at 25' bgs

1347: Collect BH01SB30

25-27.5: Silty sandy gravel (GW-GM): gvl: <1.5cm, R; Snd: coarse-med. (Predom med.) dry

27.5-29.5: sand: Fine-med, 30% gvl

≈ 29' ≈ 1cm lense of black peat like material

29.5-29.8: gravel: 2mm-.5cm, R, Snd: coarse (10% Snd.) Redish brown in color.

29.8-30: Sand: Fine

1356: Collect BH01SB35

30-35': Sand (SW): predom: medium, 2.5y 3/3, Dry

1400: Collect BH01SB40:

35-40': Sand (SW): Fine 10% silt, Dry 2.5y 3/2

1413: Collect BH01SB45:

40-42': Same as above

42-45': Sand: Predom med., becomes Saturated at 44.5' bgs 2.5y 3/2

1430: water at ≈ 43' bgs, heaving sands, driller will try to push screen through Sand in effort to collect Sample.

7/10/12

12-01-0004 4th and Gambell 7/10/12

1453: Screen set from ~~42~~ 37' - 47' bgs, water ≈ 43' bgs
no water added durring screen install.
Will purge well (5' x .163 Ft/gal = .815 gallon / well volume) minimum purge of ≈ 3 gallons

1520: Begin purging well
temporary well constructed of 2" sch. 40 PVC.
Screen = 10' 10-slot, screen + casing are ~~three~~ threded, no sand pack around screen.

1540: Collect BH01GW: VOC only
- Approx 5 gallons purged prior to sample collection

1545: Drillers pull well screen + casing from borehole BH01, Borehole filled w/ bentonite chips.

1600: will not attempt to drill 2nd borehole due to time, will check on soil gas sampler install.

1645: Soil gas installation not working due to hole caving in (using flighted auger kit and hammer drill rented from TTI Environmental) will come up with better plan and resume tomorrow

1705: Collect Rio1wt from cutting shoe

1710: Collect Rio2wt from well screen

1650: late Entery: meet with Vicky N. will sample her home Friday at 13:00

1720: GPR on site, will Run Gpr tonight, will also clear additional boreholes.

1740: ~~All to warehouse~~ EH to warehouse to place samples in Frezzer (soils) and Fridge (waters) samples placed in ziplock bags wich are custody sealed. ~~JF~~ + JF + Jm Pick up site

1820: Jm + JF off site

1836: Arrive at hotel

7/10/12

12-01-0004 4th and gambell 7/10/12

Samples collected : BH01SB05 - BH01SB45
R101wt, R102wt, BH01GW
SC01SD - SC09SD, BK01SD
PP13SS - PP18SS

Air Samples deployed PP030A, PP040A, PP050A

Total hours : Jm & JF : 12.5
EM : 12
CO : 11

* Note * All samples (soil, sed, water) collected for VOC analysis only. Sed samples collected inplace w/ core-n-one, Soil samples collected directly from soil core imediatly after cutting open liner. TVA-1000 used to determine where to collect sample w/in core. TVA-1000 Readings only recorded if notable / significant.

17-01-0004 4th and Gambell 7/11/12

0650: Depart hotel

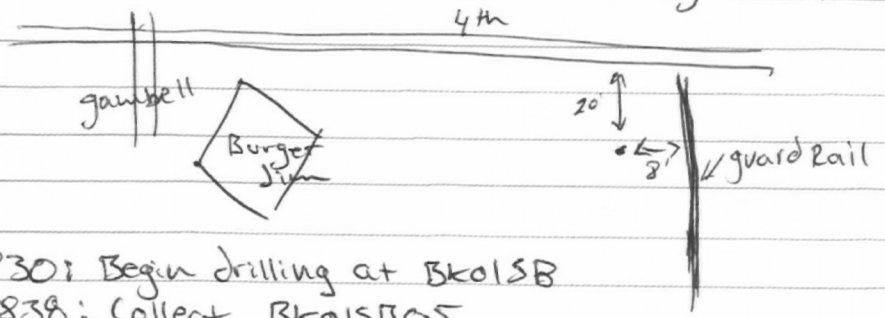
0700: Arrive on site, begin setting up cones

0722: H+S meeting

0750: Drillers on site

0800: EH+CO to BK01IA location (millie Rinkerk's home) will then to hardware store to buy soil gas sampling supplies

0815: Drillers set up on BK01SB, located at Burger Jim lot on East side ~~near~~ near guard Rail



0830: Begin drilling at BK01SB

0838: Collect BK01SB05

0-5': 50%

0-2': Silty Sandy gravel GW-GM gul: ≥ 3cm, R; snd: med, Angular; Silt: moist 10YR 4/3

2-5': Sand: w/ gravel ≈ 50% snd, 50% gul; gul: ≈ 1cm R; Snd: Predom Med, 10YR 3/3, Angular

0841: Collect BK01SB10

5-6: Sand: SP, med, Angular

6-10: Silty sand gravel: gravel: R, <3cm; Snd: Coarse to med., predom med; silt: 10YR 3/2

0852: Collect BK01SB15

10-12': Same as above

12-12.5: Sand; med, trace gravel 10YR 3/2 Dry

12.5-13.5: Silty Sandy gravel: GW-GM gravel: R, < 3cm; Snd: coarse to med, predom med; silt 10yr 3/2

13.5-14: Sand: SW med., trace gravel, Angular

14-15: Silty sandy gravel (same as 12.5-13.5)

0856: Collect BK01SB20

15-20': lithology same as above

12-01-0004 4th and Gambell 7/11/12

0908: Collect BK01SB25

20-25' - Same as above

- 23' ≈ 1" Charcoal / black peat material, gravels below coated w/ Rust red clay Material

0915: Collect BK01SB30

25-28.5' - Sandy gravel ≈ 60% gravel, R, 2mm-.5cm, Snd: med, Angular

28.5-30' - Sand : med - Fine, trace gravel, predom med 2.5y 3/3, Dry

0935: Collect BK01SB35 (ms/msD)

30-35' - Same as above, decreacing gravel w/ depth

0944: Collect BK01SB40

35-39' - Same as above, decreacing grain size

39-40' - Sand, Moist, gray 2.5y 3/2, no gravel

40' - Black Silty / Peaty material

0953: Collect BK01SB45

40-45' - Sand, same as above, grain size decreacing w/ depth

- Saturated, will install well screen

0958: begin setup for BK01gw (ms/msD) collection

1011: while Setting up for GW Sample, inner rod Snapped and dropped into casing, Driller will have to trip casing out of borehole to Remove rod and then trip back in, will use disposable point to advance borehole back to depth

0922: * Late Entery *

Call Possel w/ Geotek Re: locating for soil gas points, will mobe to site in ≈ 10 min, arrives on Site 0930 to locate, Change to Sow, will discuss w/ chris w/ geotek (Pres.) as to how to ~~handet~~ ~~handle~~ handel additional costs

1122: Screen placed into borehole, water measured at 39.5' bgs

7/11/12

17-01-0004 4th and Gambell 7/11/12

1130: Begin purging at ~~BH02~~ BH01, will purge ≈ 10 gallons, pump installed by E+E
Pump # 1533 (12 volt S.S. Monsoon)

1214: Collect BH01GW (ms/msD)

* Late Entery
EM + CO install Soil gas samplers, holes require larger 3" plug (≈ 1.5" plug provided by Gore) will need to buy 9 ≈ $7.00 Each

1220: Drillers begin removing well casing

1301: Begin set up on BH02, EM + CO continue w/ soil gas install, Jm collecting remaining surface soil samples from Vicky M. Property

1313: Begin drilling at BH02SB

1318: Collect BH02SB05
0-5' - Silty sandy loam: Dry, light gray; sud: med, A, Trace gravel: < 1cm R

1324: Collect BH02SB10
5-10' - Silty Sandy Gravel: gvl: 60%, silt 20%, sud 20%, gvl: 3cm-2mm, Sub-rounded; sud: med to Fine, A; Silt: dry 7.5y 3/2

1332: Collect BH02SB15
10-11' - Same as above
11-15' - Sand w/ gravel : gvl: .5cm-2mm, R, Sud: coarse to fine, Predom med. 7.5y 3/2

1339: Collect BH02SB20
15-17' - Same as above
17-20' - Sandy gravel : gvl 80% sud 20% gvl: 3cm-2mm, R; Sand: Predom med.
- 19.5' ≈ .5" black Peat/silty lense

1347: Collect BH02SB25
20-23' - Same as above
23-~~24~~ 25' - Sand w/ gravel 7.5y 3/2, gvl: .5cm-2mm, R; sud: coarse to Fine, trace silt

7/11/12

12-01-0004 4th & Gambell 7/11/12

1358: Collect BH02SB30

25'-29' - Same as above ↑ coarse sand

29-29.5' - Sand, Fine 10yR 3/4

29.5-30' - Black silt, dry Fid = 90 ppm, Pid = 100 ppm

1410: Collect BH02SB35

30-32' - Sand w/ gravel : gvl: 25%, R, 2mm-.5cm; Snd: coarse - Fine, predom med.

32-34' - Sand, med, A, 10yR 3/3 ; trace gvl

34-35' - Sand w/ gravel : gvl 25%, R, 2mm-.5cm; Snd: coarse - Fine, predom med.

1415: Drilling very hard since ≈ 20' bgs

40' - Fid = 40, Pid = 20

1427: Collect BH02SB40

35-40' - Sand w/ trace gravel : Snd: Fine

38.5-39.5 - Snd. med. 10yR 3/3

1430: JM to pick up suma canister deployed yesterday

1438: Collect BH02SB45

40-43' - Sand med. 10yR 3/3 (same as above)

43-~~44~~ 45' - Sand med. Rust Red in color 10yR 3/3

45-47.5' - Sand med 2.5y 3/1

47.5-48' - Clay, gray

~~Driller~~

1443: Add 1gal water to prevent sand heave, will pump added water from borehole during purge

1506: WL = 41.3' bgs (≈ 3 gallons water added)

1512: Begin purge

1615: CO to TTT Env. to Return drill

1630: Collect BH02GW, ≈ 10 gallons purged

1645: Spoke w/ driller, will not start 3rd boring today, will start tomorrow

JM + CO will deploy 3 outdoor Sumas, drillers abandon borehole

7/11/12

12-01-0004 4th and Gambell 7/11/12

1700: outdoor Air samples PP050A & PP060A (native hospital)
PP020A (Resample)

Samples collected today:
BK01SB05 - BK01SB45
BH02SB05 - BH02SB45
PP19SS - PP22SS

1728: Collect R103WT (screen)
R104WT (cutting shoe)

1713: collect TB03WT

1800: OFF site, EM + JF to warehouse, Jm to hotel

Total hours EM - 12
Jm - 11.5
JF - 12.5

12-01-0004 4th and Gambell 7/12/12

0630: Depart hotel

0640: On site, begin setup for day

0657: JM + EM to collect IA sample deployed on 7/4/12, JF builds sample packs

0740: Drillers on site

0800: Drillers has not heard from Dig Line + their geophysical guy before starting drilling

0818: begin set up on BH035B ≈ 35' from Alley

0828: begin drilling

0835: Collect BH035B05 + BH035S (6-6")

0-5': Silty sandy Gravel GM-GS
90% gvl 10% (trace) sand

0853: Collect BH035B10

5-10': gvl: 60%, 3cm-2mm, R; Snd: Coarse to Fine, Predom med. A; 30% silt, moist 10YR 3/3

0859: Collect BH035B15

10-15': lithology Same as above
@ 12.5' ≈ 1" thick lense of black silty peat material

0904: Collect BH035B20

15-18.5 - Same as above

18.5-20 - Sand (SW); med to coarse, trace gvl, A 10YR 3/3

18.5 ≈ 1" black silty layer, VF, sooty

0912: Collect BH035B25

20-21' - Same as above

21-23' - Silty sandy Gravel (GP-GM) 40% gvl, 40% snd, 20% silt
Gvl: 2cm-2mm, R; Snd: Predom Coarse to med.
Silt; moist 10YR 3/3

23-24.5 - Sand (SW) med. to coarse, trace gravel, A, 10YR 3/3

24.5-25 - Same as above 21-23'

0920: Collect BH035B30

25-25.5 - Same as above

25.5-30 - Sand (SW); Snd: coarse to med., A, Predom medium, Black Peat/silt material at 30', trace gravel 25/32

12-01-0004 4th and Gambell 7/12/12

0931: Collect BH03SB35

~~30-35' Co~~ ~~Sand~~

30-35': Sand (SW) trace gravel, Snd: Fine, A; gvl: 1cm-1mm, R; 2.5Y 3/3

* 34.5- ≈ 1" Black peaty/silty material

0936: Collect BH03SB40

35-40': Sand (SW), med. to Fine, 5Y 4/2

0947: Collect BH03SB45

40-45: Sand (SW) Same as above 5Y 3/2, Rust Red mottling at 40.5, Dk gray to black mottling at ~~44.5~~ 44'

0950: At 48' bgs, driller adds water to prevent sand heave ≈ 3 gal water added (total depth = 50' = 2' sand heave)

Begin installing screen

1002: Collect BH03SB50

45-47.5': Same as above

47.5-50: Clay 10YR 4/1, Inorganic, mod-high Plasticity

1021: While installing screen, PVC became sand locked in casing

1043: PVC screen unlocked

1104: WL = 42.2' bgs ≈ 7 gal total water added

1108: Begin purging well will Purge 20 gal.

1152: Begin drilling at BH04

1158: Collect BH04SB05

0-2: Silty loam

2-4: Sand (SW-SM) trace silt 10YR 3/2, moist, Snd. med.

4-5': gravelly sand (SW); gvl: .5cm-2mm, R; Sand: med, A, trace silt: moist 10YR 3/2

1203: Collect BH04SB10

5-10': Same as above

7/12/12

12-01-0004 4th and Gambell 7/12/12

1210: Collect BH04SB15

10-15': Silty sandy gravel 60% gvl, 30% sand, 10% silt
gvl: 3cm-2mm, R; sand: C-F, Predom med, A, silt;
moist, 2.5Y 3/2

15': Black peat/silty material, Dry

1217: Collect BH04SB20

15-16': Same as above
16-19': Sand; Fine, Angular, trace silt (SW-SM)
19-20': Silty sandy gravel (GW-GM) Same as 15-16'

1225: Collect BH04SB25

20-20.5': Same as above
20.5-21.5': Sand (SP); Fine, Angular
21.5-25': gravelly Sand (SW-SM) gvl 40%, Sand, 50%, silt 10%
gvl: 5cm-2mm, R; Sand: Coarse to med; silt: moist
2.5Y 3/2

*1215: Collect BH03GW

1232: Collect BH04SB30

25-28: Same as above
28-30: Sand (SW-SM) trace silt, sand: med, A (Fine 28-29)

1245: Collect BH04SB35

30-35: Sand Same as above, trace gravel 30-31'

1252: Collect BH04SB40

35-40: Sand same as above
- 35-36: med sand, 36-37: Fine Sand, 37-38 Fine
38-39: Med Rust Red brown mottling

1321: Collect BH04SB45:

40-45': Sand ~~SP~~ (SW): med-coarse, trace silt 2.5Y 3/1

1350: Drill to 48', Screen set at ≈ 47' bgs
Locate arrived at site, called in by driller yesterday, now being done

1358: Drillers to lower

7/12/12

12-01-0004 4th and Gambell 7/12/12

1400: Collect BH04SB50

45-46: Same as above

46-50: Clay, Gray, inorganic, med to high plasticity

≈ 7gal water added to prevent heave

1500: Pump in hole, begin purge ≈ 25 gal water purged

1508: Speak w/ Russel w/ geotek, need to send map to ksmith@geotekalaska.com

15:30: begin drilling at BH05

1540: Collect BH05SB05 + BH05SS (@6")

0-5' Silty Sandy gravel GM-GS

90% gvl 10% snd trace silt

1548: John Seibert on site, will show Jim where to drill at Eagle Street

1555: Collect BH05SB10

5-10' Gravel w/ snd, trace silt GW-GM

50% gvl, 40% snd 10% silt; gvl: 2cm-2mm, R; Snd: c-m, A Silt: moist, 10YR 2/3

1602: Collect BH05SB15

10-15 - Same as above

1608: Collect BH05SB20

15-20: gravelly sand (SW) gvl: predom 2cm-2mm, R, Few > 4cm; Snd: Angular, c-m, predom med.

black peaty material at 16'

1617: Collect BH05SB~~20~~25

20-21': Same as above

21-22': Sand (SP): med., Angular 10YR 3/3

22-25': gravelly sand (SW) gvl: predom 2cm-2mm, R, Few > 4cm; Snd: Angular, c-m, Predom med.

1625: Collect BH05SB30

25-28': Sand (SW): predom coarse, A, trace gravel; R 2cm-2mm

28-30': Sand w/ gravel (SW) 20% gvl, sand same as above; gvl: .5cm-2mm, R, Black lense = .5" @ 29.5'

7/12/12

12-01-0004 4th and Gombell 7/12/12

1635: Collect BH05SB35
30-35': Same as above, trace silt 10yr 3/3
1640: Collect BH05SB40
35-40': Same as above
1646: Collect BH05SB45
40-45': Same as above
1650: Drill to 50'
Drillers install screen 50-40' bgs. ≈ 10.5 gallons water added to prevent heave
1727: Sample pump Motor blown, Replacement does not work, Geoprobe down due to moisture in Controll box, will allow to rest + Restart
Driller states that they do not have enough water to decon at site, will decon at their shop, will Collect Rinsates (Ri05wt + Ri06wt)
1730: Collect BH05SB50
45-46': Sand, Same as above
46-48': Clay
48-50': Sand (sm) sand Fine, trace silt
1753: Geoprobe running, moved off BH05, Will Sample BH04 + BH05 for ground water w/ new pump tomorrow, BH04 + BH05 secured w/ Custody Seals Covering well casing,
Packing trailer for departing site
1836: Depart site, drillers off site 1800
Jm to hotel, EM + JF to warehouse to place Samples in Frezzer
1900: Return to hotel
Total hours: Jm - 12
EM + JF - 12.5

7/12/12

12-01-0004 4th and Gambell 7/13/12

0700: Depart hotel

0715: on site

Days plan: 1 Borehole (BH) in SW corner of lot
1 BH at 3rd + Hyder
1 BH SE portion of lot
1 Deploy Sumas at Vicky M. House

0720: Jake to get Ice EM + JF build sample packs

0800: Drillers on site

0830: Driller state that his boss is making him work Sunday, will charge 1 day stand by time if E+E does not want to work Sunday.

0835: Collect Ri05 + Ri06

Ri05 - Cutting Shoe

Ri06 - well screen

0845: Collect BH06SB05 + BH06 SS (0-6")

0-3': Silty Sandy Gravel (GW-GM): gvl: 1cm-2mm, R; Snd: Predom, med, Angular, Stiff moist, gray

3-4': Sand (SW): medium, Angular, trace silt

4-5': Silty sandy gravel (as above)

0853: Collect BH06SB10

5-9.5': Same as above

9.5-10': Sand (SW) medium, A, Trace gravel, 1cm-2mm, R, trace silt 10YR 2/2, moist

0856: Collect BH06SB15

10-15': Silty sandy gravel (GW-GM): gvl: 2cm-2mm, R; Snd: C-m, Predom. medium, A; Silt: Moist 10YR 2/2

* 14' ≈ 1" thick black silty/peat material

0902: Collect BH06SB20

15-20': Same as above

0909: Collect BH06SB25

20-25: Same as above, ↓ gvl size (.5cm-2mm), 1" silt layer at 21' bgs moist 10YR 3/3

7/13/12

12-01-0004 4th and Gambell 7/13/12

0915: Collect BH06SB30

25-25.5': Same as above

25.5-29': Sand w/ gravel (SW) ≈ 40% gvl 1cm-2mm, R

0923: Collect BH06SB35

30-31': Sand (SP) med-coarse, A

31-34.5': Sand w/ gravel (SW) ≈ 40% gvl, 1cm-2mm, R

34.5-35': sand (SW) trace silt, snd. Fine

0933: Still no working pump on site

0935: Collect BH06SB40

35-40': Sand (SW) med-coarse, A, trace silt, moist

2.5Y 3/3

0953: Collect BH06SB45

40-45': Sand (SW) trace silt: snd: med-Fine, saturated

2.5Y 3/3

0955: Water Encountered at ~~8~~ 47', Will drill to 50' to prevent Sluff + heave

1003: Well set ≈ 7 gal water added

1021: Begin purging well, will Remove added water + 3 well Volume ≈ 15 gallons

1026: Collect BH06SB50

45-45.5': Sand as above

45.5-50': Clay

1037: Borehole dry, Allow to Recharge + continue purging

1040: Purge borehole dry again

1108: begin drilling at BH08 (Corner of 4th + Gamble), BH out of order due to BH07 being a a MS/MSD

1112: Collect BH08SB05 + BH08SS

0-6": Silty gravel

6"-2': Clay/Silt layer

2'-5': Silty Sandy Gravel (GW-GM): gvl: 3cm-2mm, R

Snd: Fine-med, A, Silt: Dry Lt. brown

7/13/12

12-01-0004 4th & Gaumbell 7/13/12

1123: Collect BH08SB10

5-9': Sand w/ gravel (SW): 15% gvl, 3cm-2mm, R; Snd as above

9-10': Sandy gravel (GW) 75% gvl, 1cm-2mm, R, Snd: Fine, 10YR 2/2

1128: Collect BH08SB15

10-15': Same as above

1132: Collect BH08SB20

15-20: Same as above

1138: Collect BH08SB25

20-25': gravelly sand (SW) 20% gvl, 1.5cm-2mm, predom. 5cm, R; Snd: med-Fine, trace silt, 10YR 4/3 Dry

1143: Collect BH08SB30

25-26': Sand (SW) 10% gvl, 2cm-2mm, R

≈ 2" thick black peaty/silty material at 26'

26-30': Same as above, Fine sand ≈ 27.5-28, thin black silt lense ≈ 29'

1149: Collect BH08SB35

30-31': Same as above

31-35': Sand w/ gravel (SW) gravel trace,

31-32' - Dark Reddish brown silt, Dry

1159: Collect BH08SB40

35-40 - Sand Same as above

Coarse 35-36, Fine 36-40, 10YR 3/3

1204: Add water to prevent heave, ≈ 10 gal added

1212: Collect BH08SB45

40-45: Same as above

Will Drill to 50'

1219: TD = 50', begin running in well screen (New Screen)

~~1227~~

*1215: Collect BH06GW

1239: All casing removed, bottom of screen at 48' bgs

7/13/12

12-01-0004 4th and gambell 7/13/12

1241: Collect BH05SB50
45-50 - clay
1300: Drillers to lunch, EN to get lunch
1330: Drillers Return
1333: WL in BH06 = 40.9' bgs
~~1349~~: Collect BH04GW
1359 - 20 gallons purged prior to sample collection

1352: Set up on BH07
1400: Begin drilling at BH07
1409: Collect BH07SB05 & BH07SS (0-6")
Same as bH08
1400: Jake m. ~~to~~ lunch
1415: Collect Ri07Wt From cutting shoE
1420: Collect BH07SB10 (MS/MSD)
5-10: Silty Sandy gravel
1430: Collect BH07SB15
10-15: gravelly Sand (SW): gvl R-SR, 1.5cm-2mm, Snd: M-F, trace silt 10yR 3/2 Dry
1438: Collect BH07SB20 (MS/MSD)
15-20': Sandy gravel (GW) 60% gvl 35% snd 5% silt; gvl: 3cm-2mm, R, Snd: F-m, trace silt 10yR 3/3
1445: Collect BH07SB25
20-21: Same as above
21-22: Sand med. trace silt
22-25: Sandy gravel (same as 15-20'
1445: Jake Return From lunch (out of CaR 1500)
1457: Collect BH07SB30 (MS/MSD)
25-26: Same as above
26-27: Sand, med. trace silt
27-28: like 25-26, 25.5 1.5" thick black silt/peat material
28-30: Sand (SW): trace gvl. Snd med 10yR 3/4
[illegible] 7/13/12

12-04-0001 4th + Gambell 7/13/12

1504: Collect BH07SB35

30-35': Same as above

1513: Collect BH07SB40 (MS/MSD)

35-40: Same as above

1516: add water to prevent heave

1527: Collect BH07SB45

40-45: Sand (SW) Same as above

1537: Begin purge at BH08SB

1546: meet w/ ML+P (Anchorage power), will clear BH on corner of 3rd + Hyder and condo, bottom of hole, will clear Hospital (no conflict)

1556: Collect BH07SB50

45-48: Sand as above

48-48.5: Clay

48.5-50: Sand (SW-SM) trace silt Sand Fine 10YR 3/1

screen installed w/ bottom at 48' bgs ≈ 10 gal water added

will purge 20 gal (added water + 3 well volumes)

1607: WL in MW04 = 39.16' bgs

1610: Driller informed us that sewer company will not located on weekend, owner of geotek wants to wait until monday to drill on bluff and condo

264-3740 Yolonda

locate for geotek

907-317-7192 (Forest ML+P

1722: Driller + PM to view drill location at condo, owner does not want holes in parking lot, will attempt to contact owner of adjacent lot for access, locators located on adjacent prop. Also called TM to notify of issue

* 1700: Collect BH08GW

7/13/12

12-01-0004 4th & Gambell 7/13/12

1755: Drillers off Site
1520: E&E off Site
EN + JF to warehouse
Jm to Hotel
1900: EN + JF Arrive at hotel

12-01-0004 4th and gambell 7/14/12

0715: On site begin set up, will continue w/ water samples (BH04 + BH08) (Drill BH09 + BH10)

- notice that we only have 500' tubing Sow states will need 850', will need to provide more

0750: Drillers on site

0800: begin st up on BH09

0810: Collect TB04WT

~~0832~~ 0823: Collect BH09SS + BH09SB05

0-1.5' Silty sandy gravel (GW-GM) .5cm-2mm, R; Snd: C-M, A; Silt: moist, 10YR 3/3

1.5-4': Silt (ML), moist 10YR 3/6

4-5': Silty sandy gravel: (GW-GM) gvl: 3cm-2mm, R Snd: Fine, Angular, trace silt: moist 10YR 3/6

0834: Collect BH09SB10

5-6': Same as above

6-7': Sand (SW): med., Angular, 10YR 3/2

7-10': Same as 5-6'

0837: Collect BH09SB15

10-15': Same as above 60% gvl 40% snd trace silt gvl: 3cm-2mm, R; Snd: Predom med., A, silt dry 10YR 3/6

0843: Collect BH09SB20

15-20': gravelly sand (SW): gvl ~~.5~~ 3cm-2mm, Predom .5cm-2mm, R 40%; Snd: Predom med, A, trace silt, moist 10YR 3/3

0855: Collect BH09SB25

20-25: gravelly sand, same as above

0909: Collect BH09SB30

25-30: Same

27' ≈ 1" thick Black silt/peat material

28.5' ≈ 4" thick black silt/peat material

7/14/12

12-01-6604 4th and gambell 7/14/12

0918: Collect BH09SB35

30-30.5': Same as above

30.5-35': Sand (SP): med-Fine, predom med. A

30.5' black peat/silt, ~~30.4~~ 34.5 = 1" thick black peat/silt

0924: Collect BH09SB40

35-40': Same as above

39' ≈ 2" thick black peat/silt layer

0926': Add water to prevent heave

0930: Sample pump not working, o-Rings bad, allowing water into motor, EM to get intouch w/ Some one in Seattle to have pump shipped up From Seattle

* Jm to call John Seibert For drilling in parking lot, John. will not allow due to limited parking, will consult EPA monday *

0936: Collect BH09SB45

1008: Collect BH09SB50

1026: Driller brings new orings for pump, well set, ≈ 6 gal water added

1040: Begin Set up at BH10SB

1058: Collect BH10SB05 + BH10SS

0-6": Sandy loam (top soil)

6"-3': Silt (ML) Dry 10YR 5/4

3'-5': Sandy gravel (GW) 80% gvl 20% snd; gvl: 3cm-2mm, R, Snd Predom med., A, Dry, 10YR 3/2

1105: Collect BH10SB10

5-10': Same as above, gvl to 60% snd to 40%

1110: Collect BH10SB15

10-15: Same as above

1113: Collect BH10SB20

15-20': Gravelly Sand (SW) 75% Snd 25% gvl trace silt

gvl: 3cm-2mm, R; Snd: med, A, silt dry 10YR 3/3

Black streaking at 19'

7/14/12

12-01-0004 Lyth + Gambell 7/14/12

1121: Collect BH10SB25

20-25: Same as above
1.5" black layer at 22.5'

1128: ~~Sa~~ Collect BH10SB30

25-30: Same as above

1140: Collect BH10SB35

30-35': Sand (SW): predom med., angular; gvl: trace, 2cm-2mm, R, 10YR 3/3

1144: Collect ~~BH10S~~ BH10SB40

35-40: Sand, same as above

1051: Collect BH10SB45

40-45: Sand (SW) same as above

1156: begin Running in casing / screen

1206: Screen set

1208: Collect BH10SB50

45-50': Sand (SW) medium, Fine 49-50'

1213: Drillers to lunch

1230: E+E to lunch

1300: attempt to run E+E corp. grunFos pump, brought to Site by C.O.

1310: Pump running, using generator provided by driller, Running liquinox through pump to decon.

1404: Collect R108WT (Cutting shoE)

1415: begin purging BH05 w/ grundFos pump, well pumping dry, will allow to recharge + Pump again
well pump dry 4 times

1515: Jake off Site to hotel

1715: EN continue to purge BH05, J Fetters work on Scribe
All remaining wells Custody Sealed + PhotoEd to Prevent tampering

7/14/12

12-01-0004 4th + Campbell 7/14/12

1723: 20 gallons purged from borehole #5

1726: Collect BH05GW

1740: OFF Site

12-01-0004 4th + Gambell 7/15/12

0800: Depart hotel (EM + JF)

0915: Collect TB05WT

1600: Sample doc compleat on All samples previously collected
EM + JF go to lunch

1634: On site, will attempt to pump/purge BH09 + collect IDW samples, EM to HW store to buy reducer to help pump from pumping dry

1650: Collect ID01WT (Purge water)

1702: Collect ID02WT (Purge water)

1706: Collect ID03WT (Purge water)

1721: WL in BH07 = 41.3' bgs bottom of well at 50'

1725: begin purge 4.89 gal = 3 well volumes, 10 gal water added, will purge min. of 15 gal.

1756: 5 gal purged

1815: well dry 3rd time

1830: pumping ≈ 1 pint/min = .5L/min (measured in 500mL water bottle

1925: Collect BH07GW

- 17 gal purged prior to sample collection

1940: off site

12-01-0004 4th and Gambell 7/16/12

0700: Depart hotel
0712: on site, begin setup
0740: Drillers on site, will have to wait to drill until Sewer locate is done ≈ 0900
0800: Called Tim to discuss sample Loc. at appt./condo complex, Also sent Email
0817: WL = BH09 = 40.9 'bgs
0830: Spoke w/ Tim, Informed him of access problems w/ condo building
0840: Begin purging at BH09, Approx 1 gal pumped, well dry
0901: Driller informs that Rig is not running, personell at shop mixed water in ~~fuel~~ Fule can, water in Fule System of drill Rig, will change Filter, and try to restart possible need new Fule pump
0911: Sewer Locator stops by site, no lines in area to drill
1019: 10 gal pumped, Drillers still working on rig
→ BH09
1024: Drill Rig running
1051: Drillers remove casing from BH05
1115: Collect BH09 Gw
1129: Sample Pump deconed, moving to next BH Loc. at Former native hospital
1135: Collect Rio9wt (from cotting shoE)
1200: Set up on BH11SB
1205: begin drilling
1215: Collect BH11SB05 + ~~BH0~~ BH11SS (MS/MSD)
0-1': Silty Sandy gravel (GW-GM); gravel: Angular, 2cm-2mm, Snd Fine, Silt Moist, 2.5y 3/2 (Fill)
1-5': Sandy gravel: (GW) 60% gvl 40% snd; gvl: R, 1cm-2mm; Snd: med, A, trace Silt 2.5y 3/3
1221: Collect BH11SB10
5-10': Same as above (MS/MSD)

7/16/12

12-01-0001 4th and Gambell 7/16/12

1231: Collect BH11SB15 (ms/msD)

10-14': Same as above

14-15': Sandy gravel (GP) gvl: 80% Snd 20% trace silt
gvl: 2cm-2mm, R; Snd: Predom coarse, A, silt; moist
2.5y 3/3

1237: ~~15-T~~ Collect BH11SB20

15-16.5': Same as above

16.5-20': gravelly sand: 30% gvl 70% snd; gvl: 1cm-2mm, R; Snd:
predom med. A, 2.5y 3/3 moist

1247: Collect BH11SB25 (ms/msD)

20-21: Sand (SP) med.

21-25: Same as 16.5-20'

1752: Collect BH11SB30

25-28.5': Same as above

28.5-30: Sand (SP): med, A, moist 2.5y 3/3

28' ≈ 1" black peat/silt layer

1300: Collect BH11SB35 (ms/msD)

30-33': Same as above

33-35': Sand: (~~GP-Gm~~ SW-SM) Snd: Fine, A, Silt Moist 2.5y 3/3

1305: Collect BH11SB40:

35-40': Sand (SP); med-Fine, moist 2.5y 3/3

1313: Collect BH11SB45 (ms/msD)

40-45: Sand same as above

1315: Begin to set well (bottom of screen at 48' bgs ≈ 6
gal water added

1324: Collect BH11SB50

45-45.5: Same as above

45.5-46.5: Clay

46.5-48.5: Sand (SP) med. A

48.5-50: Sand (SP) Fine, A

1343: Drillers to Scout Final Borehole location

7/16/12

12-01-0004 4th + Gambell 7/16/12

1350: EN back on site, delivered samples to Fedex
2 coolers Airbill # 867564206088
795764401030

1414: Drillers unloading at Final borehole Loc at SW Corner of 1st + Ingra.

1437: Begin drilling at BH12SB

1444: Collect BH12SB05 + BH12SS

0-5 ~~0-4~~: gravelly loam

1450: Collect BH12SB10

5-10': same, gvl, A, >3cm, Silt: Dk brown, snd med (trace)

1455: Collect BH12SB15

10-15: Same as above
12'-15' Strong Petrol. like odor, cuttings black

1503: Collect BH12SB20

15-16'- Same as above ↑ gvl content
16-20'- Clay (CL) ~~(ML)~~ 2F, gray high to med. plasticity 2.5y 4/1
- ground water Encounterd, will install screen

1600: Drillers off Site, JF to BH10, EN has been purging, EN continues to purge, JF continues sample doc For days Samples

1713: 5th IDW Drum Full will collect ID04WT

1758: Deploy last summa (PP070A) in center of lot
unit locked to drum
Inital Pressure > -30

1830: Arrive at warehouse, decon pump, setup trailer

1900: Arrive at hotel

* Sample times * BH10GW : 1720 = 15-gal purged Prior to sampling
ID04WT : 1730

7/16/12

12-01-0004 4th & Gambell 7/17/12

0705: Depart hotel

0725: Arrive at site (Former native hospital) to pump well BH11

0734: DTW BH11 48.59 ≈ 6" water in BH

0758: Borehole not producing water wen pumped, E tape indicates tat WL is at bottom of borehole, will allow to recharge & retry sample

0827: DTW BH 12 = 9.9' bgs

0830: begin pumping on BH12, sheen noticed on water, noticable petrol like odor

0840: contacted Fedex RE: yesterdays shipment, She Indicates that there was a problem at sorting Facility and that Shipment was delayed, packages ~~fa~~ likley arrived after trucks were loaded for morning delivery, maybe delivered this afternoon

0903: Collect BH12gw:

* Also collected aliquat for Dx if requested by Tim

0919: Arrive at Lot to place purge water into remaining IDW Drum #6 ID05WT

Total of 6 IDW Drums (5 water 1 soil)

ID01WT — ID01WT = Full

ID05WT = 1/3 Full

Soils Drum = Full

1200: Collect TB05WT

* Late Entery *

1041: Spoke w/ Fedex, indicated that yesterdays Shipment is still in Anchorage, scheduled for delivery for tomorrow and no chance of reteriving packages, she will call back w/ an update

1230: Return to BH11, water has not recharged, no sample can not be collected.

7/17/12

12-01-0004 4th + Gambell 7/17/12

1300: Return to warehouse to complete Following tasks:
- Sample doc For all Samples (remaining) collected.
- Ship Remaining samples
- Summa canister doc
- Clean Equipment
- Clean truck
- Return Drillers Generator

1930: Depart warehouse

12-01-0004 4th & Gambell 7/18/12

0730: Depart warehouse for site, will
- move soil drum located in middle of site that was used to lock Summa canister

0750: Call Patrick (Parking lot guy) Re: Cones, left 2 messages (3 total) informed him that if did not hear from him today they will be taken and left at the EPA warehouse for pickup

0810: Arrive at warehouse, EN to TTT Env. to return pump rented by drillers

0815: contacted by J. Crawford, coolers have arrived to Liberty, both w/in temp.

1200: Compleat Sample doc for Summa canisters

1300: compleat doc for diesal sample for delivery to testAmerica Anchorage. Summas & water sample Droped off at Fedex

1430: back at warehouse to Finish cleaning up warehouse

12-01-0004 4th and Gambell 7/23/12

* · Spoke w/ tim about background soil gas sample that was forgotten, CO will ~~collect~~ install of Remaining background -Soilgas sample. E&E will cover the cost of Re-Renting the Equipment an 1/2 of the time to install and collect samples

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