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APPENDIX C - COPIES OF FIELD NOTES

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APPENDIX C

COPIES OF FIELD NOTES

Appendix C.1 Copies of Field Logbook Entries

Appendix C.2 Copies of Sampling Field Data Sheets

Appendix C.3 Copies of FPXRF Field Data Sheets

Appendix C.4 Direct Push Technology Field Boring
Logs

Appendix C.5 Direct Push Technology Field Photolog

APPENDIX C.1

Copies of Field Logbook Entries

Samples listed below are included in logbook 1 and were sampled for XRF analysis.
Sample IDs below correlate with the given SO name in the logbook.

Dates: 6/6/19-11/15/2019

WS19-1045-SO5009-N-102319
WS19-1045-SO5027-N-102319
WS19-1045-SO5028-N-102319
WS19-1045-SO5030-N-102319
WS19-0003-SO5031-N-102319
WS19-0003-SO5032-N-102319
WS19-0003-SO5036-N-102319
WS19-0003-SO5037-N-102319
WS19-0003-SO5038-N-102319
WS19-0003-SO5040-N-102319
WS19-0003-SO5042-N-102319
WS19-0003-SO5043-N-102319
WS19-0003-SO5048-N-102419
WS19-0003-SO5049-N-102419
WS19-0003-SO5051-N-102419
WS19-0003-SO5052-N-102419
WS19-0040-SO5053-N-102419
WS19-0040-SO5055-N-102419
WS19-0040-SO5059-N-102419
WS19-0040-SO5060-N-102419
WS19-0040-SO5061-N-102419
WS19-0040-SO5062-N-102419
WS19-0040-SO5064-N-102519
WS19-0040-SO5069-N-102519
WS19-0040-SO5072-N-102519
WS19-0040-SO5073-N-102519
WS19-0040-SO5074-N-102519
WS19-0040-SO5076-N-102519
WS19-0040-SO5080-N-102519
WS19-0043-SO5081-N-102519
WS19-0043-SO5083-N-102519
WS19-0043-SO5085-N-102519
WS19-0043-SO5086-N-102519
WS19-0043-SO5087-N-102519

WS19-0005-SO5011-N-102519
WS19-0005-SO5088-N-102519
WS19-0005-SO5090-N-102519
WS19-0006-SO5093-N-102519
WS19-0043-SO5094-N-102819
WS19-0040-SO5101-N-103119
WS19-0040-SO5102-N-103119
WS19-0040-SO5105-N-103119
WS19-0040-SO5106-N-103119
WS19-0040-SO5107-N-103119
WS19-0040-SO5109-N-103119
WS19-0038-SO5111-N-103119
WS19-0041-SO5116-N-103119
WS19-0006-SO5014-N-110419
WS19-0006-SO5015-N-110419
WS19-0006-SO5122-N-110419
WS19-0006-SO5123-N-110419
WS19-0006-SO5125-N-110419
WS19-0006-SO5128-N-110419
WS19-0006-SO5131-N-110419
WS19-0007-SO5132-N-110419
WS19-0037-SO5136-N-110419
WS19-0037-SO5138-N-110419
WS19-0037-SO5140-N-110519
WS19-0038-SO5143-N-110519
WS19-0038-SO5147-N-110519
WS19-0038-SO5153-N-110519
WS19-0037-SO5155-N-110519
WS19-0037-SO5158-N-110519
WS19-0010-SO5160-N-110519
WS19-0010-SO5162-N-110519
WS19-0010-SO5164-N-110519
WS19-0010-SO5170-N-110519
WS19-0010-SO5171-N-110519

WS19-0315-SO5021-N-110719
WS19-0315-SO5024-N-110719
WS19-0010-SO5172-N-110719
WS19-0010-SO5173-N-110719
WS19-0010-SO5174-N-110719
WS19-0010-SO5174-D-110719
WS19-0010-SO5176-N-110719
WS19-0010-SO5177-N-110719
WS19-0313-SO5180-N-110719
WS19-0015-SO5182-N-110719
WS19-0015-SO5183-N-110719
WS19-0010-SO5185-N-110719
WS19-0021-SO5001-N-110819
WS19-0017-SO5005-N-110819
WS19-0010-SO5026-N-110819
WS19-0010-SO5187-N-110819
WS19-0019-SO5192-N-110819
WS19-0019-SO5193-N-110819
WS19-0017-SO5194-N-110819
WS19-0015-SO5197-N-110819
WS19-0015-SO5200-N-110819
WS19-0015-SO5204-N-110819
WS19-0289-SO5007-N-111319
WS19-0289-SO5012-N-111319
WS19-0290-SO5018-N-111319
WS19-0290-SO5019-N-111319
WS19-0290-SO5206-N-111319
WS19-0292-SO5211-N-111319
WS19-0292-SO5214-N-111319
WS19-0288-SO5215-N-111519
WS19-0288-SO5217-N-111519
WS19-0297-SO5218-N-111519
WS19-0297-SO5220-N-111519
WS19-0297-SO5221-N-111519

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WEST SIDE SOILS
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(WSSOU)



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ALL-WEATHER
JOURNAL

Nº 391FX

6/6/19 → 11/15/19

BOOK 1

WSSOU RI PREP WORK

2

6-6-19 THURSDAY

S. SMITH

1430] STEWART SMITH AT ARCO PARCEL DUE SOUTH OF MINING MUSEUM WHERE BATH TRAIL MEETS W. STEEL ST.; 72°, CLOUDY, LT-MOD WIND; I AM TESTING OUT THE AVENTA MAP ON SMART PHONE AND VISITING SOME WASTE ROCK PILES/DUMPS SAMPLED BY PIONEER (FLAMMANG + OTHERS) IN 2017.

1535] PHOTOS OF AREA 2017-WR04, LK N AT N PART AND LK SE AT SE PART; AREA 04 APPEARS TO BE ONLY GRANITE OUTCROP AND SUBCROP - I DO NOT SEE WASTE ROCK OR SIGNS OF MINERALIZATION

1600] FOUND A SMALL SINKHOLE JUST NORTH OF 2017-WR09; WILL DOCUMENT AND REPORT TO PAT SAMPSON; SINKHOLE IS 3' x 2.5' x 2' DEEP

1623] SMITH OFFSITE

3

7-19-19 THURS

1450] S-SMITH AT PLUTUS SHAFT + CLAIM D. OF ALDERMAN, N. OF HIBERNIA; CDM CREW IS MICHELLE GOLDBERG; ADAM - , + WHITNEY

1500] GEO PROBE CREW STARTS A NEW BORING " IS FROM OLYMPUS. TECHNICAL SERVICES; PROBE IS 78220T

MICHELLE SAYS THEY ARE GETTING REFUSAL NEAR 25'; DRIVING 5' RUNS; 2 1/4" RODS PROBE HAS A HYDRAULIC LINER EXTRUDOR; CDM CREW IS DOING SOIL pH ON SELECTED INTERVALS

1515] PHOTOS OF RIG AND PLUTUS SHAFT W/ CONCRETE COVER

1525] RECOVERY IS ~50% HERE; CDM IS LOGGING GENERAL TEXTURE OF WASTE MATERIAL; EG. SILT, CLAY, SAND; ALSO COLOR AND TYPE OF ROCK FOR GRAVEL CLASTS ALSO RUNNING SOME FIELD XRF ON "STIEVED SOIL"

1550] SMITH LEAVES PLUTUS AREA

10-3-19 THURSDAY

1320] S. SMITH AT BLUEBIRD MILL TO OBSERVE
CDM GEOPROBE WORK. CDM CREW IS CONNOR
KELLEY AND MICHELLE GOLDBERG; OLYMPUS DRILL
CREW IS THE SAME 2-GUYS. 50°, P. CLAY,
LT-MOD WIND

1325] START PROBING LAST
HOLE FOR THIS SITE; 0-5' GOT ~20" RECOV

1350] DONE w/ THIS BORING AT 15', BUT HIT
TOP SOIL AT ~9.8', THEN CDM ASKED FOR
10-15'; TOP OF 10-15' HAS 6" SLOUGH, THEN
TOP SOIL - MICHELLE IS LOGGING HOLE; THEY

DECIDE ON XRF + LAB INTERVALS

COLLECT LAB SAMPLE FROM NATIVE (TOP SOIL)
LAYER - ALSO A pH & FPXRF ON SANDY ZONE
JUST ABOVE NATIVE

1405] DRILL CREW DECONS RIG; CDM DECIDES
TO DO ONE MORE BORING HERE

1418] START NEXT BORING

1424] 0-5', 2' RECOV. MOSTLY CRS SAND,
FILL MATERIAL; GRANITIC APPEARING

1430] 5-10', 20" RECOV, NATIVE AT ~8'

1438] 10-15', FULL RECOV; ~3" NATIVE BROWN
SOIL, THEN DECOMPOSED GRANITIC SOIL

7.78 pH ON NATIVE - COLLECTED A LAB

8.61 pH ON SAND ABOVE NATIVE - XRF?

1450] SMITH LVS BL. MILL SITE AS CDM + DRIVER
LV ALSO

10-21-19 MON

1300] S. SMITH / B. KREMER AT FRANCES CLAIM OR
JVT W. OF IT NEAR NWE GATE; 40°, CLOUDY,
WINDY, DOING FIELD RECON

1316] PHOTO ON TABLET; BARE AREA OF
DECOMPOSED GRANITE / S-FACING SLOPE

1331] PHOTO, LK NW, AT EPSON FEATURE IN NE
FRANCES

1338] SITE 5001, ON TABLET; WASTE DUMPS ALONG
EAST EDGE OF FRANCES

1345] BARE AREA
NEAR SE FRANCES IS NATIVE BEDROCK WEATHERED,
NOT A WASTE DUMP; IT IS S-FACING

1400] BARE / SPARSE AREA N. OF GAS PIPELINE IS ALL
GRANITE SUB-CROP; LT. MN-STAINING ON ROCKS

1413] PHOTO, LK N, OF 2-TRACK ROAD IN MID OF
VIOLET CLAIM

1430] SITE 5002, IN VIOLET, ALONG S. BORDER
PHOTO ON TABLET

1445] SITE 5003, IN CHARMER, EAST SIDE OF
WHISKEY GULCH; PHOTO ON TABLET

1448] SITE 5004, IN CHARMER, ALONG S. BORDER
SIGNIF MINE DUMP (FROM KIT CARSON?)

GRAY BRANCO DIORITE WASTE ROCK

1455] SITE 5005, IN KIT CARSON, SMALL WASTE
DUMP, MN-STAINING; PHOTO ON TABLET

1510] BACK AT TRUCK

WSSOU RI PREP WORK

10-21-19 MON

1550] SMITH/KREMER AT NILE CLAIM, THEN DO RECON ON UNITED STATES CLAIM

1607] SITE 5007, IN UNITED STATES, MODERATE CIRCULAR DUMP AROUND EXPLOR. HOLE; PHOTO ON PHONE LK NE, GARIBALDI IN BACKGROUND.

1621] SITE 5006; SMALL DUMP IN MISSOURI CLAIM, WEST OF WALKINGTRAIL; PHOTO-TABLET

1630] PIONEER LEAVES NILE CLAIM AREA THEN OFFSITE FROM WSSOU

10-22-19 TUES

1100] SMITH AND KREMER IN AREA S. OF MINING MUSEUM; 45°, CLOUDY, LT-MOD WIND; HEAD TO SOUTH END

1125] FOUND AN OLD GARBAGE DUMP ALONG EAST SIDE OF TZARENA AND PORTLAND; MAKE A GPS TRACK IN TABLET AVENZA; LOTS OF BOTTLES OF AND METAL CANS, ON AN ERODED SLOPE

1140] SITE 5008; IN TZARENA, A SMALL PILE OF BLACK CINDERS BY HOLE IN HOT R-O-W FENCE; PHOTO ON TABLET

1143] SITE 5009, IN TZARENA, MVAE DUMP IN SE CORNER OF PARCEL OR MINE STUDY AREA TABLET

1200] SITE 5010, IN MANHATTAN, AN EW GASH IN GROUND, ON TABLET; VY. WINDY

10-22-19

1209] SITE 5012, IN MOUNTAIN DUG, 1 1/2" SMALL PIT; DECOMP. GRANITIC SAND, 30' NORT S. SIDE FENCE, LT. RAIN

1220] SITE 5015, IN KATIE T., A SMALL DUMP NEXT TO LARGE PONDEROSA PINE; MOSTLY BLACKISH

1230-1300] LUNCH

1310] SITE 5018 IN SILVER GATE, SMALL DUMP FROM EXPL. HOLE; GRANITIC SANDY SOIL

1315] SITE 5019 IN SILVER GATE AT WEST END, A 30' LONG NE-SW GASH

1325] SITE 5020, ON EAST BORDER OF ST. LOUIS WY MT. TECH CLAIM, MODERATE DUMP, LOTS OF MN-STAINING

1347] SITE 5021, IN GARIBALDI, EAST OF WALKTRAIL SMALL DUMP; LT. COLORED GRANODIORITE, MINOR MN-STAINING

1353] SITE 5022, IN SE CORNER GARIBALDI, SMALL DUMP

* ? QUESTION ON BARE AREA TO N. OF 5022
1355] SITE 5023, ALSO GARIBALDI (SO CALLED), A SMALL DEEP (8') PIT W/ DUMP

1406] SITE 5024, MOD. DUMP, NE GARIBALDI 75' E OF W. TRAIL, MOSTLY GRAY MATERIAL HOLE AT N. END IS DEEP, ~15' *Rain in the rain*

8

WSSOU RI PREP WORK

10-22-19 TUES

S. SMITH

1418] SITE SO25, IN SILVER CLEFT, SMALL DUMP

MOSTLY BLACK, Mn-STAINED MATERIAL, NEAR

EASTER / BJB CLAIM

~1440] PIONEER OFFSITE FROM WSSOU

Stewart Smith
10-22-19

WEST SIDE SOILS RI SOIL SAMPLING

9

10-23-19 WED.

S. SMITH

0820] AT PIONEER OFFICE, CALIBRATE

PH PROBES

PROBE 1	BUFFER	READS
	7.0	7.02
	4.0	3.99
PROBE 2	7.0	7.03
	4.0	4.00

0900] J. SMITH AND B. KREMER ONSITE AT
BATP WALKING TRAIL BY STEELE ST.; CONNOR
KELLY OF COMSMITH ARRIVES AT SAME TIME;
35°, P. CLOUD, LT. WIND

0915] CONDUCT SAFETY BRIEFING

0940] AT SITE 5009, SE T2ARENA; 5-PT
FOR XRF + SOIL pH. MOSTLY BLACK MATERIAL
SAND + GRAVEL, ABUND. Mn-STAINING
WS19-~~500~~ 1045 - SO 5009 - 102319

ALSO YELLOWISH SOIL

SOIL pH 6.61

1000] AT SITE 5027, ON EAST SIDE OF
DRAINAGE; CONNOR DISCUSSES COM APPROX.
OF LOOKING AT DIFF COLORS OF WASTE

TEST pHs WHITE NW 4.63 SITE 5027

TAN NE 4.70; SITE 5028

TAN S 7.03; SITE 5029 IN 1045

POSSIBLE SPLP SAMPLE DUE TO CREEK PROXIM-
ITY

Red in the Rain

10-23-19 WED

S. SMITH

WHITISH-YELLOW MATERIAL - COLLECT METALS
AND SPLP - 3 PNT COMP, ALSO XRF
WJ19-1045 - SO 5027 - 102319 AT 1025
TAN NE " SO 5028 - 102319 METALS + XRF
- 3-PNT COMP → AT 1035
S-SIDE ONLY SOIL pH

1050] COLLECT A METALS SAMPLE ONLY
AT 5008, BLACK SLAG OR CINDERS W/
SOME REDDISH SLAG; NO SOIL pH

1100] AT GARBAGE DUMP, SITE 5030
COLLECT 5-PNT XRF + METALS; pH 8.92

1125] AT TOE OF LARGE DUMP IN HUMBOLT
COLLECT GRAB XRF IN Mn-STAINED AREA
SITE 5031

1130] SITE 5032, A WHITER, TOTALLY BARE
AREA, NORTH OF 5031; GRAB XRF

1150] BACK AT TRUCK TO RUN XRF
~1300] BREAK FOR LUNCH TIL 1325

1330-1335] PAT SAMPTON ON SITE; 37°
CLOUDY, MOD. WIND, LT. SNOW

1340] IN GERMINA NE LOBE OF DUMP
SOIL pH 8.84 AT SITE 5033 GERMINA
TAN GRANITIC S&G; ROCK IS GRAY,
VOLCANIC LOOKING

1355] SOIL pH 7.90 AT SITE 5034
SAME LOBE - GRAY ON SURFACE

10-23-19

S. SMITH

SAME GRAY VOLC ROCK

1405] SITE 5035, SOIL pH ONLY 8.61
MORE GRAY, MIX OF VOLC + GRANITIC ROCK
1410] SITE 5036, EAST END OF LOBE AT
BASE; XRF + METALS; ASSESS IMPACT ON
DRAINAGE; SOIL pH 5.82; SAMPLE AT 1415
1430] SITE 5037, NEXT DUMP LOBE TO SOUTH
GRAB XRF AND pH 9.15; ROCK IS GRAY-
DIORITE - FAIRLY FRESH; SOIL IS GRAY CRS
GRAVEL

1440] SITE 5038, → SAMPLE AT 1450 (SS)
ADRAINAGE BOTTOM IN
HUMB; PARTLY VEGET; DOWN GRAB OF DUMPS
NATIVE DECOMP GRAN ON EAST SIDE; XRF
+ METALS; SOIL pH 6.30 3-PNT COMP

1500] SITE 5039, AN MIS, 30-PNT SAMPLE
AT TOE OF 3 LARGE DUMP LOBES; BK COLLECTS
MIS; CRS GRAVEL W/ Mn-STAINING
SOIL pH 8.70

1520] CONNOR KELLY OFFSITE FOR THE DAY

1530] SITE 5040; TOP OF LARGE DUMP; GRAY
FRESH GRANODIORITE; XRF 10-PNT; pH 8.74

1545] SITE 5041, GULLY BETW. 2 LOBES,
METALS + pH 8.74; SIGNIF Mn-STAIN GRAVEL

1555] SITE 5042; TOP OF A LOBE, MOSTLY BLACK
GRAVEL, 3-PNT FOR XRF; pH 8.83

10-23-19 WED SMITH
 1615] SITE 5043, SMALL ISOLATED DUMP
 MOSTLY BLACK SAND + GRAVEL, 4-PNT XRF
 + LAB, PH 4.70
 1625] PIONEER OFFSITE FROM WSSOU

10-24-19 THURS

1000 - At Pioneer office, calibrate	probe 1 -	Buffer	pH probes Reads
		7.0	7.02
		4.0	4.11
Probe 2 -		7.0	6.82
		4.0	3.99

1100] SMITH + KREMER AT DAM TRAILHEAD
 MICHAEL GOLDBERG, COM SMITH IS HERE

32°, MOSTLY CLEAR, CALM TO CR WIND

1115] CONDUCT SAFETY BRIEFING

1130] MOVE TO GERMANIA AREA TO SAMPLE

1200] SITE 5044, A MODERATE DUMP
 PH 5.90

1205] SITE 5045, WEST LIMB OF DUMP, PH TEST
 MORE MN-STAINING HERE; PH 5.05
 TAKING A SERIES OF PH READINGS

1220] SITE 5047, COLLECT SPLP ON
 SOUTH FACE W/ RILLS, 5-PNT COMP
 VENEER OF WHITE SANDS ON BROWN

10-24-19

SMITH

SILTY SAND

1235] SITE 5048, SOUTH END OF W. LOBE W/
 SIGNIF MN GRAVEL, COLLECT DUP LAB
 METALS + XRF, 4.87 PH

WS19-0043-505048-N-102419 AT 1235
 AT 1240: " " " -D -102419 A DUP

1245] SITE 5049, AN ISOLATED DUMP OF
 ORANGISH-BROWN SAND + FINE GRAVEL
 PH 4.60

1258] SITE 5050, SMALL DUMP; ORANGISH-BRN
 SAND + CRS GRVL; MINOR MN-STAIN; PH 5.08

1310] SITE 5051, A SMALL CIRCULAR DUMP
 FROM A ROUND PIT; PH 5.66; STREAKS OF
 MN-STN ON E + W SIDES

1320] SITE 5052, A SMALL DUMP; MOSTLY BLACK
 GRAVEL W/ MN; XRF + METALS; PIT IS VERY
 DEEP, >10 FT; SAND MATRIX IS BROWN

1330-1355] LUNCH BREAK 1355] RUN XRF
 ON TRAILGATE; JUST 4 SAMPLES W.

1415-1430] PAT SAMPSON ONSITE; 45° CLDY, WIND

1445] M. GOLDBERG OFFSITE FOR THE DAY

1450] MOVE TO ELBA CLAIM, LOT OF SMALLER
 DUMPS; SITE 5053, SMALL DUMP; NOT IN
 PLACE, DUMPED HERE; GRAB XRF AND PH 5.27
 8" MINUS ROCK, MN-STND

WSS RI SOIL SAMPLING

10-24-19 PH 5.25 SMITH
 1505] SITE 5054, A MOD. ISOLATED DUMP,
 BROWN, SAND + GRAVEL WITH SOME MN
 MOST OF THE DUMPS IN THIS AREA
 APPEAR TO HAVE BEEN DUMPED HERE; THEY
 WERE NOT EXCAVATED HERE.

1520] SITE 5055, PORTION OF A BERM
 ~4' HIGH, OF MOSTLY BLACK SAND AND
 CRS GRAVEL AND COBBLES; COBBLES TOTALLY
 MN-STAINED; PH 5.82, XRF + METALS

1530] START MULTIPLE PHs ON ANOTHER
 PART OF BERM; SITE 5056, PH 7.40
 SIMILAR BLACK SAND + GRAV.

1545] SITE 5059, 5-PNT XRF AT AN
 AREA W/ PH IN MID 5 RANGE

1550] SITE 5060, MORE OF SAME BERM
 AS IT WRAPS AROUND; PH 7.94
 MOSTLY GRAY, FRESHER GRANITIC GRAVEL,
 MINOR MN-STND GRAVEL

1600] SITE 5061, MORE OF BERM, COVERED
 W/ BLACK COBBLES; SOME QTZ VEINS W/
 PYRITE + SULFIDES; 5-PNT FOR XRF
 PH 4.13 COLLECT GRAB FOR XRF + METALS (55)

1610] SITE 5062, TOP OF MOD. DUMP, SURFACE
 IS COVERED W/ BLACK COBBLES; SOME YELLOW-
 BROWN, WEATH. GRANITE, PH 4.49
 PILE IS 50 FT LONG

10-24-19

SMITH

1620] PIONEER OFFSITE FROM WSSOU

10-25-19 PM

0730] CALIBRATE PH PROBES AT PIONEER OFFICE

probe 1	Buffer	Reads
	4.0	3.98
	7.0	7.05
	10.0	10.08
Probe 2	4.0	3.97
	7.0	7.02
	10.0	10.08

0840] SMITH/KREMER ONSITE AT ELBACUM
 CONDUCT SAFETY BRIEFING; 30°; CLEAR LT. WIND

0850] SITE 5063, A BROAD DRAINAGE, COVERED
 WITH MOSTLY BLACK, CRS GRAVEL; BERMS OF
 WASTE ON EACH SIDE; COLLECT 30-PNT MLS

0915] SITE 5064, MODERATE DUMP, MOSTLY
 BLACK, MN-STAINED GRAVEL ON SURFACE, SOME
 VEIN QTZ, MINOR SULFIDES, 5-PNT XRF +
 LAB; PH 4.92

0930] SITE 5066, ALONG STEELE ST; GRAB PH 7.75
 SMALL DUMP OF DC GRANITE

0935] SITE 5067, SMALL DUMP AT CIRC. HOLE
 BROWN SAND + GRAV, MINOR MN-STN, PH 8.13

0940] SITE 5068, SMALLER DUMP, PH 7.77; LOTS
 OF VEIN QTZ; DK BRN SAND + GRAV *Return to Kren*

10-25-19 FRI

SMITH

- 0950] SITE 5069, A FLAT BARE AREA, MIX OF BLACK/MN GRAVEL AND YELLOW-BRN WEATHERED GRANITE; pH 4.97
- 1000] SITE 5070, A SMALL DUMP, MOSTLY BLACK CRS GRAVEL AND COBBLE W/ MN, SOME VEIN QTZ, pH 5.58
- 1005] SITE 5071, SMALL DUMP, W/ SMALL TREES, pH 7.41, BROWN SAND + GRAV, MINOR MN
- 1015] SITE 5072, SMALL DUMP, GRAB XRF, DK BRN SAND + GRVL, DC GRANITIC, RUSTY Fe STAINING, pH 7.70
- 1020] SITE 5073, A MODERATE DUMP, BROWN, VERY SANDY, DC GRANITE, MINOR MN STN, 5-PNT XRF + LAB, pH 6.62. 40° CLEAR
- 1030] SITE 5074, SMALL DUMP CRS BLACK GRAVEL, GRAB XRF, pH 5.61
- 1110] SITE 5075, A SMALL DUMP ON EAST EDGE OF STUDY AREA, ADJACENT TO 2 HOMES, LAB SAMPLE TO ASSESS EXPOSURE NO RILLING ON DUMP. DUMP IS BROWN SAND + GRAY, DC GRAN. PART OF DUMP IS COVERED WITH WHAT APPEARS TO BE GROUT (LIKE TILE GROUT) FROM HOME CONSTRUCTION.
- 1120] SITE 5076, A CIRCULAR SHAPED DUMP, MOSTLY BLACK, CRS GRVL, 5-PNT XRF + LAB pH 5.08 SAND IS BROWN

10-25-19

SMITH

- 1130] SITE 5077, TIP OF DUMP, S. OF 5076 GRAB pH 5.54, SAME CRS. BLACK GRVL + BLACK COBBLES, SOME DC GRANITE
- 1135] SITE 5078, N. HALF OF A 2 HUMP MOD-ERATE DUMP; NOT FROM ADJACENT GROUND - BUT DUMPED HERE; MATERIAL IS GRAY SAND + GRAV, W/ SOME MN-STN CRS GRVL; VEIN QTZ. W/ ~~SUF~~ SULFIDES PRESENT, pH 7.75 GRAB
- 1140] SITE 5079, S. HUMP - SAME DUMP, BLACK, MN STN COBBLES AND DK BRN SAND + GRVL MATRIX MINOR DC GRANITE, pH 5.23 GRAB
- 1150] SITE 5080, A MOD. DUMP, 5-PNT XRF, GRAY SAND + GRVL, W/ SIGNIF. MN-STN CRS GRVL
- 1200] SITE 5081, IN GERMANIA, A FLAT AREA W/ MULTIPLE BARE AREAS OF FINE BLACK SAND APPEARS ALMOST PROCESSED, XRF + LAB, SOME MN-STAINED GRAVEL + COBBLES, pH 5.66; 5-POINT
- 1215] SITE 5082, SMALL DUMP S. OF LONG E-W BERM, GRAB pH 8.31, GRAY SAND + GRAVEL, DC GRANITE, SIGNIF BLACK COBBLES
- 1225] SITE 5083, 5-PNT FROM SOUTH SLOPE OF E-W BERM, OVER A 50-FT LENGTH OF BERM (POSSIBLE RR GRADE). DK GRAY SAND + GRAY W/ SIGNIF BLACK CRS GRVL; pH 8.22 XRF + METALS
- 1240] SITE 5085, FLAT AREA ON TOP OF LARGE DUMP, pH 5.98; 10-PNT XRF *Rain in the Rain*

10-25-19 FRI

SMITH

MATERIAL IS GRAY SAND + GRAV, SOME Mn-STND GRVL.

1250] SITE 5086, MODERATE LOBE TO NE,
MATERIAL IS DK GRAY SAND + GRAV; DC GRANITE; SOME
Mn-STND GRVL; pH 8.11 GRAB XRF

1255] SITE 5087, A SMALL DUMP ON EDGE OF
LARGE DUMP AREA; DK BRN SAND + GRAV. W/
SIGNIF Mn-STND GRVL, pH 6.05 GRAB XRF

1300-1330 LUNCH BRK, 60° MOD WIND W/ GUSTS,
CLEAR

1345] IN MANHATTAN CLAIM AT AN E-W GASH
IN GROUND; SITE 5010 GRAB pH 8.22

1415] SITE 5088, BERM ON S. SIDE OF GASH, SPNT
FOR XRF, pH 7.93 - BROWN SAND + GRAV, DC GRAN.
SOME TO SIGNIF Mn-STND GRVL; MOD. VEGETATION

1430] SITE 5090, SMALL DUMP AT W. END OF
GASH, 5-PNT XRF + LAB, pH 6.46, BROWN
SAND + GRAVEL, SOME Mn-STND CRS GRVL.

1435] SITE 5091, SMALL DUMP, LT. BRN, DC
GRANITE, MINOR Mn-STND GRVL, GRAB pH 7.98
DUMP IS ONLINE W/ GASH, BUT SEPARATE FROM IT
BY GUSTY WINDS

1450] AT SITE 5092, IN MOUNTAIN BOY CLAIM;
A MODERATE SIZED DUMP THAT BORDERS ON A
SHALL DRAINAGE (DRY); COLLECT AN SPLP AND
AN SPLP DUP AND AN ABA SAMPLE

10-25-19

SMITH

SOIL IS BROWN SAND + GRAVEL, THIN VENEER OF
WHITE SALTS; SOME Mn-STND CRS GRVL.

pH 4.67, MINOR YELLOWISH DC GRANITE

1510] SITE 5093, AT TOP OF DUMP SAMPLED
FOR 5092, 5-PNT, XRF + LAB, BROWN SAND +
GRAVEL, SOME Mn-STND CRS GRVL, pH 5.34

1515] SITE 5016, A MOD. DUMP ON W. SIDE
OF DRAINAGE, BROWN SAND + GRAVEL; DC GRAN.
pH 7.68

1530] PIONEER OFFSITE FROM WSSOU

Stewart Smith
10-25-19

MONDAY

SMITH

10-28-19 at Pioneer office to calibrate

pH probe 0845]

Probe 2

Buffer

Reads

4.0

4.03

7.0

7.07

10.0

10.08

1000] SMITH AND KREMER AT GERMANIA CLAIM

17° } 7 MAH WIND, LT. SNOW, OVERCAST, GROUND

HAS LT. COVERING OF SNOW, JUST ENOUGH TO

COVER GROUND 1020] SITE 5094, IN CLAIM 0043

1055] SITE 5095, A RANGELAND, MIS IN

HUMBOLDT, 100' S. OF SITE 5094, SNOWING

HARDER; pH 8.54

36

1120] SITE 5096, GRAB pH 5.54 ON WALKING

TRAIL, SW OF LARGE DUMP IN HUMBOLDT/

GERMANIA; 21°, SNOWING, SOCKED IN

1130] AT VEHICLE TO CALL PAT SAMPSON ABOUT

SNOW AND FROZEN GROUND

1150] PIONEER LEAVES WSSOV FOR THE DAY

Stewart Smith
 10-28-19
 WS17-0043-505094-
 N-102819 FOR XRF AND LAB METALS
Stewart Smith

NOTE:

AT 1020, WE

COLLECTED

WS17-0043-505094-

N-102819 FOR XRF AND LAB METALS

Stewart Smith

Thursday

SMITH

10-31-19 @ Pioneer office @ 1000 to

calibrate pH probe

Probe 1

Buffer

Reads

4.0

4.08

7.0

7.08

10.0

10.10

1045] SMITH AND KREMER AT WSSOV IN WEST

PART OF ELBA CLAIM, MODERATE MINE DUMP

18°, CALM, OVERCAST.

1100-1110] TAKE 5 GRAB pH READINGS ON

VARIOUS LOBES OF DUMP, SITES 5097-5101

1112] SITE 5101, COLLECT A 6-POINT FOR XRF

ON NW TOP PART OF DUMP; pH 4.54,

ABUNDANT Mn-STND GRAVEL AND SOME COB-

BLES. SOME VEIN QZ AND WEATH GRANITE;

SOIL MATRIX IS DK. BRN SAND + GRAVEL

1130] SITE 5102, TOP OF DUMP, EAST SIDE,

INCLUDES LOCATION OF GRAB 5097, BUT COLLECT

6-POINT FOR XRF AND NEW pH 5.96, SIMILAR

ABUND Mn-STND GRAVEL LIKE AT 5101 AND

SAME SOIL MATRIX.

1155] SITE 5105, IN LOW AREA AT FAR WEST

END OF THIS DUMP; 5 POINT FOR XRF+LAB;

AREA IS PART OF A DRAINAGE GOING TO SW,

MATERIAL IS Mn-STND CAS GRAVEL AND DK BRN

SAND; pH 5.79

Return in Rain

WSS RI SOIL SAMPLING

10-31-19 THURS

SMITH

1215] 19°, CALM, OVERCAST; SITE 5106,
SOUTH END OF SMALL LOBE; WEATH GRANITE
COBBLES AND SIGNIF Mn-STAIN. GRAB XRF,
pH 6.11

NOTE: SITE 5103 AT 1145 WITH pH 6.11 IS
A LOW PILE WITH PREDOMINANTLY Mn-STAIN
COBBLES + GRAVEL

SITE 5104 AT 1150 HAS SOME Mn-
STAINED GRAV AND YELLOW-BRN DECOM. GRANITE
1230-1300] LUNCH BREAK 1300] 22°, SMITH

1300] SITE 5107, EAST END OF AN E-W
GASH; 6-POINT FOR XRF; MATERIAL IS GRANITE
FAIRLY FRESH TO WEATHERED, SOME VAIN QTZ,
MINOR Mn-STAINING, pH 7.35

1335] SITE 5108, MED. DUMP PILE
DC GRANITE W/ SOME Mn-STN; pH 7.28
SOIL MATRIX IS BROWN SAND + GRAVEL; LOTS OF
Fe-OXIDE ON COBBLES.

1340] SITE 5109, WEST PART OF SAME E-W
GASH AS 5107; 5-POINT XRF; pH 7.15
DC GRANITE; MOSTLY Fe-OXIDE STAINING

1355] SITE 5110, SMALL DUMP FROM SMALL
EXPL HOLE; GRAB pH 8.09, SOIL IS DC GRANITE,
REDDISH-BROWN; MINOR Mn-STAINING

1405] MOVE INTO NORTH POLE CLAIM
CLOSER TO WALKING TRAIL

10-31-19

SMITH

SITE 5111, SMALL DUMP AT WEST END OF
NE-SW GASH, pH 6.92, GRAB XRF; SOIL IS
DC GRAN W/ ABUND Mn-STND CAS GRAV; MATRIX
IS DK. BRN SAND + GRAVEL

1430] IN KATIE T. CLAIM; COLLECT A 30-POINT
MIS IN A FLAT AREA WITH DECOMPOSED
GRANITE SAND + GRAVEL; SPARSELY VEGETATED W/ A
FEW WEEDS; IT IS SITE 5113, pH 7.53
NO Mn-STAINING OBSERVED; SOME GRANITE SUB-
CROP OBSERVED

NOTE: BERM OR DUMP BETW SITES 5111 AND
5112 IS FAIRLY WELL VEGETATED, NO SAMPLES
TAKEN.

1500] SITE 5114, SMALL DUMP, GRAB pH
6.31; SIGNIF Mn-STND CAS ~~AT~~ GRAVEL

1505] SITE 5115, SMALL DUMP TO MEDIUM
WEATHERED GRANITE CAS GRAVEL AND COBBLE,
MOSTLY Fe-OXIDE STAINING; MINOR Mn-STAINING
GRAB pH 8.41

1515] SITE ~~5115~~ ⁵¹¹⁶, A LARGER ISOLATED DUMP
PILE; 5-POINT XRF ON SLOPE THAT
WRAPS AROUND SOUTH-FACING POINT
pH 4.94; NO SAMPLE FROM TOP; SIGNIF.
Mn-STND CAS GRAV IN AREAS; SOIL MATRIX
IS DK BRN.

10-31-19

SMITH

1525] SITE 5117, LARGE PILE - ISOLATED
GRAB PH 8.85; SOIL IS BRN GRANITIC
SAND + GRAV, MINOR Mn-STN; SOME
Fe-ox STN

1535] PIONEER OFFSITE FROM WSSOU

11-4-19 MONDAY

at Pioneer office at 0800 to
calibrate pH Probe

probe 1	Buffer	Reads
	4.0	4.06
	7.0	6.94
	10.0	10.08

1030] SMITH AND KREMER AT WSSOU IN MTN.
BOY CLAIM; 40°, OVERCAST, CALM; MOST OF
SNOW COVER IS GONE.

1035] AT LARGE MINE DUMP IN EAST PART
OF MTN BOY CLAIM; SEVERAL GRAB PLS

1040] SITE 5118, GRAB PH 3.56, SOIL IS
BRIGHT RUST COLORED SAND; MINOR Mn-STN

1045] SITE 5119; GRAB PH 4.77, S. END OF
EAST LOBE; SIGNIF. Mn-STN GRAVEL; SOIL IS

DK BRN SAND + GRAVEL

1050] SITE 5120; GRAB PH 8.66, SOIL IS GRAY
SAND + GRAVEL, NO Mn-STN; COBBLES ARE FAIRLY
FRESH GRANODIOR AND SOME POSSIBLE FINE-

11-4-19

SMITH

GRAINED APLITE.

1055] SITE 5121; GRAB PH 4.39, S. END OF
LARGER WEST LOBE; SOME Mn-STND GRAVEL
+ COBBLE, ALSO GRANOD.

1057-1130] PAT JAMPSON ONSITE

1100] SITE 5122, A 5-PNT IN AREA OF
SITE 5118; pH 3.79

1115] SITE 5123, AN SPLP + XRF FROM AN
EROSION RILL ON LOBE OF SITE 5121; pH 5.36
5-POINT

1130] SITE 5124, COLLECT A 30-PNT MIS IN
TOE AREA OF THIS LARGE DUMP; SOIL IS DK. BRN
SAND + GRAVEL; ABUND. Mn-STND CRS GRVL

1145] SITE 5125, 5-PNT XRF ON A LOW RIDGE
ABOVE MIS. SAMPLE; ABUN Mn-STND GRAVEL
ALSO GRANODIORITE ROCK; pH 4.69

1150] SITE 5126, GRAB PH 3.85, YELLOW-
BROWN SOIL; SOME Mn-STND GRAV +
COBBLE; ALSO ABOVE MIS SAMPLE

1155] SITE 5127, GRAB PH 4.11, ORANGISH-
BROWN SAND + GRAV; ABUND. Mn-STND CRS
GRAV AND COBBLES

1205] SITE 5128, GRAB XRF + pH 5.14
A MED PILE; LT. RED-BROWN SAND + GRAV,
SOME Mn-STND CRS GRAV.

43°, 5 MPH WIND, OVERCAST

Rite in the Rain

11-4-19 MON

SMITH/KREMER

1220-1250] LONCH

1253] SITE 5015, IN ~~SILVER GATE~~ ^{KATIE T} CLAIM
GRAB pH 5.60 AND XRF AT TOE OF MED.

ISOLATED DUMP; ACTUALLY ON BORDER W/ MAIN
BOY CLAIM. SIGNIF Mn-STND CRS GRAVEL
+ COBBLES PLUS GRANITIC ROCK

1320] SITE 5129, A RANGELAND, 30-POINT, ON
GRADUAL, SE-FACING SLOPE; GOOD GRASS COVER
SOIL IS DK BRN SANDY SILT w/ ROOTS, MOIST
SOME CLAY; pH 6.40

1345] SITE 5130, GRAB pH 7.61 IN KATIE T,
A SHALLOW TRENCH IN APPARENTLY DC GRAN
SAND + GRAVEL

1355] SITE 5014, 5-POINT XRF/pH 7.91
ON SOUTH BERM OF AN E-W SHALLOW TRENCH;
TRENCH FILLED W/ DEBRIS/GARBAGE; SOIL IS
BRN DC GRAN SAND + GRAV; MINOR Mn-
STND

1400] SITE 5131, GRAB XRF AND pH 9.22 WEST
END OF SAME BERM; ROCK IS STAINED W/
Mn, RUST, AND YELLOW COLOR; QTZ VEINS,
WELL WEATHERED; SOIL IS BRN SAND + GRAV

1415] SITE 5132; GRAB XRF + pH 6.16, A
SMALL ISOLATED PILE JUST N. OF R-O-W
FENCE; SIGNIF Mn-STND CRS GRVL AND SMALL
COBBLE; SOIL IS DK BRN SAND + GRAV; SOME

11-4-19

SMITH/KREMER

DC GRANITE; 45°, MOD. WIND, CLOUDY
1450] SITE 5133; 5-POINT LAB + pH 6.38

TAKEN AT BASE OF A MODERATE PILE IN BETW
2 E-W TRENCHES; SOIL IS DK BRN TO BLACK
SAND + GRAVEL; ABUND. Mn-STND GRAVEL

1500] SITE 5134; GRAB pH 8.22 ON N.
BERM OF THE SOUTH E-W TRENCH; DC GRANITE
SAND + GRAV; SOME Mn-STAIN; BERM ALONG
S-SIDE OF TRENCH IS WELL VEGETATED

1515] SITE 5135, GRAB pH 8.51, IN JOSEPH
JOYCE CLAIM, NORTH OF WALKING TRAIL; SMALL
ISOLATED PILE - DC CRS GRAN. SAND + GRAVEL
TRACE OF Mn-STAINING

1530] SITE 5136, 5-POINT XRF/pH 4.86 ON
FLAT TOP OF MODERATE DUMP IN J. JOYCE; SOIL
IS DK BRN SAND + GRVL; ABUND. Mn-STND
CRS GRAVEL; NO ROCKS ON TOP

1540] SITE 5137, GRAB pH 7.25; SOIL IS BRN
DC GRAN SAND + GRAVEL; MINOR Mn-STAINING

1545] SITE 5138, 5-POINT XRF + pH 4.66 ON
S-SLOPE OF WEST LABE OF DUMP; THIN VENEER
OF WHITE SALTS ON SURFACE; SOIL IS DK BRN
TO REDDISH-BRN SAND + GRAV; ABUND Mn-STND
CRS GRVL; EROSION RILLS ON SLOPE

1555] PIONEER OFFSITE FROM WSSOU

Ret in the Rain

50 WSSOU RI SOIL SAMPLING
11-4-19 ~~MON~~ TUES SMITH/KREMER

at Pioneer office at 800 to

calibrate pH probe

Probe	Buffer	Reads
	4.0	4.01
	7.0	7.04
	10.0	9.84

1015) SMITH + KREMER AT WSSOU IN
JOSEPH JOYCE CLAIM; 36°, MOSTLY CLEAR,
LT. WIND

1030] SITE 5139, GRAB pH 7.86; MEDIUM
PILE ON N. SIDE OF DEEP HOLE; DC GRANITE
MIX OF Mn + RUST STAINING

1040] SITE 5140, 5-POINT XRF + pH 5.62,
LOW-LYING MEDIUM PILE FROM SAME DEEP HOLE;
SOME Mn-STND CRS GRVL AND SMALL COBBLE
SOIL IS BRN SAND + GRAV - DC GRAN

1045] SITE 5141, GRAB pH 6.68, SMALL PILE
AT W. END OF SERIES OF HOLES; DC GRAN
WITH SOME Mn-STAINING

1055] SITE 5142, GRAB LAB AND pH 4.10; SOIL ON
FRESH SURFACE IS BRIGHT RED-BROWN; ON WEATHERED
SURFACE IS YELLOW; SOME QTR. VEIN; MINOR Mn-
STAINING.

1105] SITE 5143, 5-PT XRF AND pH 4.08;
THIS IS WEST PART OF SAME E-W LINEAR
FEATURE; THIS IS A LOW BERM COVERING

11-5-19

SMITH/KREMER

A WOODEN WATER FLUME; 5-PT AREA HAS
SIGNIF. Mn-STN CRS GRVL; SOIL IS BRIGHT
RED-BRN ON FRESH SURF LIKE AT 5142

1110] SITE 5144, GRAB pH 6.03, IN A
VERY SMALL RUN OFF CHANNEL BELOW BERM
OF 5142 AND 5143; DK BRN SILTY SAND, MOIST

1120] SITE 5145, GRAB pH 8.18, SMALL PILE
ON S. SIDE OF SMALL HOLE; SOIL IS DK BRN SAND
AND GRAV; DC GRAN, SOME Fe, SOME Mn STAINING

1130] SITE 5146, GRAB pH 7.74 + MED. PILE FROM
A HOLE (CIRCULAR), SOIL IS BROWN SAND + GRAV,
DC GRAN, MINOR Mn-STAINING

1135] SITE 5147, 5-POINT XRF + pH 7.03, AROUND
S. SLOPE OF MEDIUM PILE FROM CIRCULAR HOLE;
SOIL SAME AS 5146, BUT MORE Mn-STAINING

1145] SITE 5149, GRAB pH 5.06, SMALL ISOLATED
PILE, AROUND Mn-STND CRS GRVL; FRESH
SOIL IS BROWN TO RED-BRN SAND + GRVL

1150] SITE 5150, GRAB pH 3.71, NORTH WALL
OF A CIRCULAR HOLE; WEATH SOIL IS YELLOW W/ Mn-
STND GRVL; FRESH SOIL IS ORANGE-BROWN; COB-
BLES ARE GRANODIOR.; THIS SLOPE DRAINS INTO
HOLE, THUS NO XRF OR LAB

1155] SITE 5151, GRAB pH 7.08, MED. PILE
FROM SAME HOLE AS 5150, SOIL IS BROWN SAND
+ GRAVEL

Rite in the Rain

11-5-19 TUESDAY

SMITH/KREMER

1205] SITE 5152, GRAB pH 8.21, SMALL PILE
SOIL IS BROWN SAND + GRVL; ABUND Mn-STND
CRS GRVL AND DC GRAN.

1210] SITE 5153, 5-POINT XRF AND pH 4.47
A LOW BERM OF BARE SOIL W/ SOME WHITE
SALTS; JUST N. OF WALKING TRAIL
SOIL IS BROWN CLAYEY SAND W/ GRAVEL; WET;
SOME PEBBLES ARE COPPER STAINED; SEVERAL
PIECES OF SULFIDE BEARING ROCKS

1220] SITE 5154, GRAB pH 8.61, SMALL PILE
OF BROWN SAND + GRVL, DC GRAN, TRACE Mn-
STNING; SLIGHTLY VEGETATED / DEAD TREE

1230] SITE 5155, 6-POINT LAB, XRF, pH 5.31
A SMALL DUMP PILE FROM AN ISOLATED HOLE
ADJACENT TO PAVED ROAD; ~100' S. OF MINING
MUSEUM; PART OF PILE IS YELLOW SAND + GRVL
ANOTHER AREA HAS SIGNIF Mn-STND CRS GRV
AND SMALL COBBLE; ALL COMPOSITED TOGETHER
3 PITS OF EACH TYPE; PILE MOSTLY DRAINS
INTO HOLE.

1240] SITE 5156, GRAB pH 5.53, BARE AREA
DOWNGRAD OF 5155 HOLE; SOME Mn-STND
GRAVL IN BRN SAND + GRVL SOIL

1250] 50°, SMPH WIND; P. CLOUD; PIONEER LVS
WSSOU FOR LUNCH AND OFFICE WORK

11-5-19

1345] BACK AT WSSOU; N. PART OF JOSEPH
JOYCE 1400] SITE 5157, GRAB pH 7.56
SMALL DUMP ON N. SIDE OF CIRCULAR HOLE;
SOME Mn-STND CRS GRVL; SOIL IS BROWN
SAND + GRVL; DC GRAN ROCK

1410] SITE 5158, 5-POINT XRF AND pH 8.23,
A SMALL BERM DUMP AROUND AN OVAL HOLE;
SIGNIF Mn-STND CRS GRVL; SOIL IS BROWN
SAND + GRVL, DC GRAN; ABOUT HALF OF
BERM IS VEGETATED

1420] SITE 5184 (55) 5159, GRAB pH 7.49, A
SMALL DUMP, MOSTLY VEGETATED; SOIL IS BROWN
SAND + GRAVEL, DC GRAN; MINOR Mn-STNING

1430] SITE 5160, 6-POINT XRF AND pH 6.67, A
MEDIUM DUMP, N-S TRENDRG, FROM HOLE IN CENTER
AREA; 3 PITS OF EACH HALF; SOIL IS BROWN
DC GRAN SAND + GRV; LOTS OF Fe STAINING, SOME
Mn-STNING

1435] SITE 5161, GRAB pH 7.85, SMALL DUMP FROM
CIRC HOLE JUST W. OF 5160; SAME SOIL + ROCK
DESCRIPT.

1440] SITE 5162, 5-POINT XRF AND pH 5.62, A SMALL
DUMP, COLLECT SAMPLE AT TOE OF DUMP AS IT
TRANSITIONS TO MORE BARE SOIL; SOIL IS BRN
DC GRAN SAND + GRV; ABUND Mn-STND GRVL

Return to the Rain

11-5-19 TUES

SMITH/KREMER

1500] SITE 5163, GRAB pH 6.42, AT AREA W/ ABUND Mn-STND COBBLES, A PORTION OF MED. PILE FROM DEEP CIRC. HOLE; SOIL IS BROWN SAND + GRAV, MOIST; MOST OF PILE HAS ONLY MINOR Mn-STNING

1505] SITE 5164, GRAB XRF + pH 6.49, A SMALL PILE FROM SMALL HOLE; SOIL IS DC GRAN SAND + GRAVEL, MINOR Mn-STNING

1510] SITE 5165, GRAB pH 6.90, A MEDIUM DUMP, SOIL IS LT RED-BROWN DC GRAN SAND + GRAV; MOSTLY Fe-STNING, TRACE Mn-STNING

~~SITE 5166 (S)~~

1525] SITE 5167, GRAB pH 5.85, PILE AT W. END OF LINEAR FEATURE; SOIL IS BROWN DC GRAN SAND + GRAV; SIGNIF Mn-STND CR5 GRAV

1530] SITE 5168, 5-POINT LAB + pH 6.44 N-FACING SLOPE OF LARGER PILE AT EAST END OF LINEAR FEATURE; SOIL IS BROWN D.C. GRAV SAND + GRAV W/ SIGNIF Mn-STND GRAV ALSO Fe-STNING; PILE DOES DRAIN TOWARD ROAD TO NORTH

1535] SITE 5169, GRAB pH 7.39, SMALL DUMP AT FAR EAST END; EQUAL MIX OF Fe- AND Mn-STND SMALL COBBLES; DC GRAN BRN SAND + GRAV

11-5-19 TUES

1555] SITE 5170, A 9-POINT XRF + pH 4.97 MOVED TO W. SIDE OF WALKING TRAIL; SAMPLE IS FROM A BARE LOW RIDGE ON S. SIDE OF SMALL E-W DRAINAGE, ABUND Mn-STND GRAV SOIL IS YELLOWISH DC GRAN SAND + GRAVEL

1605] SITE 5171, A 10-POINT XRF + pH 5.56 WEST OF AND DOWNHILL FROM 5170, SIMILAR SOIL TYPE; HERE IT IS AN OLD 2-TRACK ROAD

1615] PIONEER OFFSITE FROM WSSOU

Stewart Smith
11-5-19

11-7-19 THURS SMITH/KREMER

AT Pioneer office @ 0930 to

calibrate pH Probe

Probe	Buffer	Reads
	4.0	4.0
	7.0	7.03
	10.0	9.81

1000] SMITH + KREMER AT MINING MUSEUM
PK LOT; 190, CALM, P. CLDY; MEETING
WHITNEY TREADWAY OF EDM FOR OVERSIGHT

1020] CONDUCT SAFETY MTG W/ WHITNEY

1030] MEET PAT SAMPSON BRIEFLY AT GATE TO
GREEN SEEP AREA; DISCUSS ACCESS; LEAVE
GATE OPEN WHILE INSIDE

1050] SITE 5172, ON MINNIE JANE DUMP
5-POINT XRF + pH 7.76, ON TOP OF DUMP
ABUND Mn-STND CRS GRVL + SMALL COBBLES
ALSO SMALL PATCHES OF YELLOW-ORANGE
DC GRAN; VY SPARSE VEG.

1100] SITE 5173, STILL ON TOP OF DUMP - VY
LARGE; AREA SOIL IS GRAY SAND + GRAVL
ROCK IS FRESHER GRANITE; 6-POINT XRF +
pH 8.52

1115] SITE 5174, SMALL PILE NE OF GREEN
SEEP; ABUND Mn-STND CRS GRVL + COBBLE
GRAB pH 7.54 + XRF - DUP; SOIL IS DK
BRN SAND + GRAVL; Mn + QTZ VEIN ROCKS

11-7-19 SMITH/KREMER

1130] SITE 5175, A LAB DUP ON WEST
FACING SLOPE OF M. JANE DUP; COLLECTED IN
SEVERAL RILLS (UP TO 4" DEEP); ROCK IS
MOSTLY FRESH GRANITE W/ SOME Mn-STND
CRS GRVL; 6-POINT COMP; pH 8.18

1145] SITE 5176, GRAB XRF + pH 8.36
FROM A VERTICAL FACE OF 'NATIVE' SOIL WITH
SIGNIF SALTS - MOSTLY WHITE, SOME YELLOWISH
ABOVE A WETLANDS

1200] SITE 5177, 5-POINT XRF + pH 7.56
ON SW SLOPE OF M. JANE DUMP IN EROSION
RILLS; SIGNIF Mn-STND CRS GRVL +
COBBLES, PLUS DC GRAN GRAY SAND + GRAVL SOIL

1225] SITE 5178, IN GARIBALDI CLAIM, N. SIDE
OF DEEP GASH; E. OF W. TRAIL; GRAB pH 8.42
SOIL IS DC GRAN LT. BRN SAND + GRAV; MINOR
Mn-STND

1235] SITE 5179 - NO SAMPLE, A TRACK/
POLYGON AROUND A CIRCULAR VERY LOW OUT-
CROP AREA; ~100' DIAM; ROCK IS HIGHLY
Mn-STND SLIGHTLY WEATHERED GRANITE

1245] SITE 5023; GRAB pH 6.58, SMALL
PILE AROUND SMALL CIRC HOLE; SIGNIF
Mn-STND CRS GRVL + COBBLE. SOIL IS DK BRN
SAND + GRAVL; PILE HAS SIGNIF. VEGETATION

Return to the Park

11-7-19 THURS.

SMITH/KREMER

1255] SITE 5021; A 5-POINT XRF / pH 8.37
MED. PILE OF BROWN DC GRAN SAND + GRAV
MINOR Mn-STND CAS GRAV; SOME FRESH
GRAND ROCK AT TOP OF PILE

1305] SITE 5022, GRAB pH 7.57, MEDIUM
MINE DUMP NW OF GREEN LAKE, SE LOBE

SOIL IS LT. GRAY DC GRAN, NO Mn-STN

1310] SITE 5024; GRAB XRF + pH 8.47,
SOIL IS SIMILAR TO 5022; FRESH SOIL IS
BUFF COLORED; SILTY SAND; MINOR GRVL

1345] WHITNEY OFFSITE FOR THE DAY; LUNCH BAK

1425] RELOCATE TO S. PART OF MILWAUKEE
CLAIM # 15

5-POINT

1430] SITE 5181, SPLP AND pH 5.57;
A GENTLE SLOPING AREA, BARREN, AT HEAD
OF A LARGE EROSIONAL FEATURE LEADING DOWN
INTO WHISKEY GULCH - SIGNIF Mn-STND CAS
GRAV; SOIL IS BROWN DC GRAN SAND + GRAV.

1440] SITE 5182; 6-POINT FROM 3 SMALL
SIMILAR PILES SURROUNDING 5181; XRF +
pH 5.05; ROCK IN PILES IS LT. GRAY
WEATHERED APLITE; SOIL IS LT BROWN SAND
+ GRAV; TRACE Mn-STNINGS

1445] SITE 5183, 5-POINT XRF + pH 5.31, A
50-FT DIAM FAT BARE AREA IN DRAINAGE
BELOW 5181, SOIL IS DK BRN SAND + FINE

11-7-19

GRAV ON FRESH SURF; LT. BRN ON WEATH SURFACE
SIGNIF Mn-STND CRS GRAV. (SS)

1505] SITE 5184, GRAB pH 5.22, A SMALL
BARE AREA 30' E OF WALK TRAIL; SOUTH END
OF RR CUT THRU BEDROCK; SOIL IS RED-BROWN
SAND + GRAV; ROCK IS YELLOW STAINED.

1525] SITE 5185, 5-POINT XRF + pH 7.24

SOIL IS BROWN DC GRAN SAND + GRAV; SOME Mn-
STND CRS GRAV; SAMPLE FROM TOP OF A BARE
SLOPE

NOTES: ABOUT 50' WEST OF SITE 5023
IS A SMALL PILE AROUND A SMALL CIRC. HOLE;
THE ENTIRE PILE IS WELL VEGETATED; NO PHOTOS
TAKEN TODAY, THOUGH MAY BE ONE FROM RECON
TRIP.

1535] PIONEER OFFSITE FROM WSSOU

Stewart Smith
11-7-19

11-8-19 FRIDAY

SMITH/KREMER

At office @ 0800 to calibrate

pH probe + run xrf's

probe 1	Buffer	Reeds
	4.0	4.02
	7.0	7.03
	10.0	10.09

1015] SMITH AND KREMER AT WSSOU AT MINNIE; 34°, P. CLOUDY, CALM

1030] SITE 5186, GRAB pH 4.73; A GENTLE SLOPE WEST OF MED MINE DUMP, SOIL IS ~~RETT~~ RUSTY TO YELLOWISH SAND + GRVL, DC GRAN. SIGNIF Mn-STND CRS GRVL

1035] SITE 5187, 5-POINT XRF + pH 3.97, SAME SLOPE, FARTHER WEST, SAMPLE FROM 30-FT DIAM. BARE AREA; SOIL IS MOSTLY YELLOW-BROWN W/ SIGNIF Mn-STND GRVL + SMALL COBBLES; QTZ VEIN MATERIAL; ADD A LAB SAMPLE AFTER GETTING pH RESULT

1045] SITE 5026, 5-POINT XRF AND pH 4.80, A MED. PILE IN A SMALL DRAINAGE; SOIL IS YELLOWISH; SOME Mn-STND CRS GRVL DC GRAN SAND + GRVL; SAMPLE TAKEN ON N. SIDE THAT DRAINS INTO DRAINAGE

1055] SITE 5188, GRAB pH 5.78, MED. DUMP UPHILL OF 5026, ROCK IS MOSTLY Fe-STND

11-8-19

DC GRAN, SOME Mn-STND; SOIL IS BRN SAND + GRVL

1100] SITE 5189, GRAB pH 5.69, A BARE MOD STEEP SLOPE, WEST-FACING; SOIL IS BROWN SAND + GRAVEL; SOME Mn-STND CRS GRVL; NO APPARENT MINE WORKING

NEARBY; APPEARS TO BE GRANITE BEDROCK AT TOP OF BARE AREA

1115] SITE 5190, MIS/RANGELAND 30-POINT W/ pH 7.22, IN PROSPECTOR CLAIM, ~100' S. OF WALKING TRAIL; THIS AREA APPEARS TO HAVE BEEN RECLAIMED AND REVEG-D; SOIL IS LT. BROWN SILTY SAND W/ GRVL; GRVL LOOKS VOLCANIC AND IS MOSTLY MINUS 1", GRAY

1145-1215] LUNCH BREAK

1215] HIKE N. TO FRANCES CLAIM #0021

1245] SITE 5001, 5-POINT XRF + pH 5.95, NE PART OF FRANCES, EAST SIDE OF WHISKEY GULCH. SAMPLE TAKEN FROM 4 SEPARATE PILES; ROCK IS APLITE OR MICRO-CRYST-LINE VOLC; PINK TO GRAY; SOME Fe-STNING, MINOR Mn-STNING. SOIL IS LT BRN SAND + GRAVEL; TOOK LAB BAG AS A BACKUP.

1300] SITE 5002, GRAB pH 8.32, IN VIOLET CLAIM SMALL PILE BELOW CIRC HOLE; SOIL IS BRN DC GRAN SAND + GRVL, NO Mn-STND

WSSOU RI SOIL SAMPLING

11-8-19 FRI

SMITH/KREMER

1315] SITE 5191, NO SAMPLES, SHALLOW
BEDROCK OUTCROP AREA; GRANITIC ROCK
Mn-STN ON COBBLES; SPARSE GRASSES; A
FEW TREES

1325] SITE 5003, GRAB pH 8.57 IN
CHARMMER? MED PILE AROUND CIRC HOLE
SOIL IS BRN DC GRAN SAND + GRAVL
TRACE Mn-STN; PARTIALLY VEGETATED

1335] SITE 5192, 5-POINT XRF + pH 4.47,
ON N-LOBE OF KIT CARSON DUMP (LARGE)
IN CHARMMER CLAIM - FRESH SOIL IS BRIGHT
RUSTY SAND + GRAVEL; SIGNIF Mn-STAINING;
ROCK IS FAIRLY FRESH GRANITE

1345] SITE 5004, GRAB pH 8.46, NEXT
LOBE TO SOUTH; SOIL IS DARK GRAY W/
GREENISH TINGE; MINOR Mn-STN; LOTS OF
FAIRLY FRESH GRANODIORITE; 2 MORE LOBES
TO SOUTH NOT TESTED

1350] SITE 5193, 7-POINT COMPOSITE FOR
SPLP, ABA, XRF, + pH 5.91; THIS IS FROM TOE
OF KIT CARSON DUMP WHICH IS AS CLOSE AS
10 FT FROM ^{CREEK} JOE - SAMPLE PITS ARE FROM
EXPANDED BASE OF N-LOBE; ROCK IS WEATH-
TO FRESH GRANITE; SOME Mn-STAIN; SOIL IS
BRN DC " SAND + GRAVEL

11-8-19

1410] SITE 5005, 5-POINT XRF AND pH 5.35,
ON EAST EDGE OF KIT CARSON CLAIM; ABUN. Mn-
STND CRS GRAVL. SOIL IS BRN SAND W/ GRAVL
SOME QTZ VEIN ROCK; MED. PILE FROM HOLE.

1435] SITE 5194, 5-POINT XRF + pH 5.79, 5-PNT
IN W. KIT CARSON; A MOSTLY BARE, ROCKY
AREA W/ SOME OUTCROP; ROCK MAY BE
APLITE; FINE GRAINED; MINOR Mn-STND

1450] SITE 5195, GRAB pH 7.04, SMALL POR-
TION OF MED. DUMP; YELLOWISH SANDY SOIL,
MINOR Mn-STNS; ROCK IS WEATH. GRANITE
MORE Fe-STAINING

1455] SITE 5196, GRAB pH 5.30, NEXT HUMP
TO SOUTH; SOIL IS BRN SAND + GRAV; MORE
Mn-STND GRAVEL

1505] ON TOP OF LARGE MINE DUMP NEAR
CENTER OF MILWAUKEE CLAIM; DO A SERIES
OF GRAB pHs BASED ON COLORS NEAR TOP
OF SLOPE

1507] SITE 5198, GRAB pH 7.03; AT SE END
OF DUMP; ROCK IS WEATH GRANITE; HIGHLY
Fe-STND; SOIL IS BROWN SAND + GRAV;
MINOR Mn-STNG

1512] SITE 5199, GRAB pH 8.24, MOVE TO NW,
THIS SECTION OF SLOPE HAS CRUSHED CONCRETE
DEBRIS ON IT; DID NOT REALIZE AT FIRST

WSSOU RI SOIL SAMPLING

11-8-19 Fri

SMITH/KRAMER

SOIL IS GRAY-BROWN SAND + GRAVEL

1520] SITE 5200, 5-POINT XRF + pH 4.87,

A SIGNIF PORTION OF SLOPE TOP (WEST FACING)

ROCK IS WEATH GRANITE; MIX OF Fe + Mn-

STAINING; SOIL IS BROWN SAND + GRAVEL;

SMALL AREAS OF ORANGISH SOIL

TOP OF THIS DUMP NOT SAMPLED DUE TO ITS
FLATNESS AND LACK OF EROSION

1525] SITE 5201; GRAB pH 6.25, CONTIN-

UING NORTH ALONG TOP EDGE OF DUMP; ROCK

IS WEATHERED GRAN; LOTS OF Fe-STAINING; MINOR

Mn-STN; SOIL IS LT. BRN SAND + GRAVEL

1530] SITE 5202, GRAB pH 5.40, ROCK IS

WEATH GRAN AND SOME VOLC.; SOIL IS

BRN SAND + GRV; SOME Mn-STND CRS.

GRV

1535] SITE 5203, GRAB pH 7.83, SOIL IS

BRN SAND + GRV; NOT MUCH ROCK ON SURF-

BUT IT IS WEATH GRANITE; MINOR Mn-STND

1545] SITE 5204, 5-POINT LAB, XRF, pH 4.49

TAKEN AT BASE/TOE OF SLOPE OF THIS LARGE

DUMP; FRESH SOIL IS RUSTY BRN SAND + GRV;

ON WEATHERED SURFACE IT IS YELLOW-BRN-

SIGNIF Mn-STND CRS GRV; WEATH GRAN

ROCK- 1555] PIONEER OFFSITE FROM WSSOU

11-13-19 Wed

@ Pioneer office @ 0830 to calibrate

pH probe

probe 1	Buffer	Reads
	4.0	4.11
	7.0	6.93
	10.0	9.82

0945] SMITH AND KRAMER AT WSSOU; N. OF
HIBERNIA CLAIM; 35°, CALM, CLOUDY; STILL A LITTLE
SNOW ON GROUND.

1005] SITE 5006, GRAB pH 7.32 SMALL PILE

FROM SMALL CIRC HOLE; SOIL IS TAN SAND

W/ GRAVEL; ROCK IS WHITE APLITE; NO Mn-

STAINING; MINOR Fe-STAINING

1015] NOTE; 30' SE OF SITE 5006 IS

ANOTHER EXPL PIT, THE SPOILS BARN IS MOSTLY

VEGETATED; NO SAMPLE OR PHOTO TAKEN

1030] SITE 5007, 5-POINT XRF + pH 6.60;

SOIL IS TOO WET TO SIEVE - COLLECT TO DAY LATER;

WE ARE AT TOP OF LARGE HIBERNIA DUMP; THIS

AREA IS BLACK ON SURF; AROUND Mn-STND

CRS. GRV AND SMALL COBBLES; SOIL IS DK BRN

SAND + GRV; ROCK IS YELLOWISH APLITE + VEIN QTZ

1035] SITE 5012; 5-POINT XRF + pH 8.33;

STILL AT TOP OF DUMP; AREA W. OF 5007; ROCK IS

TAN APLITE; SOME AREAS WITH Fe-STAINING

Mn-STAINING ON LARGER ROCKS, *Return to Pioneer*

11-13-19 WED

SMITH/KREMER

SOIL IS TAN SILTY SAND

1050] SITE 5017, 5-POINT SPLP LAB; pH 7.9. THIS IS IN HORSE SHOE; ~1/2 WAY DOWN SLOPE OF HIBERNIA DUMP, ON A BENCH, SAMPLE FROM 3 GULLIES; FAIRLY DEEP GULLIES; DEEPEST IS 9"-15" DEEP; OTHERS ARE ~4" DEEP; SOIL IS ALLUVIAL, BRN SAND + GRVL, ABUND Mn-STND GRVL

1110] SITE 5018, GMB XRF + pH 3.56, WEST PART OF HIBER DUMP - TAKEN FROM A 15' DIAM AREA OF YELLOW SOIL, DC GRM SAND + GRV, SOME Mn-STND GRVL.

1120] SITE 5019, 5-POINT XRF + pH 6.45, AT W. EDGE OF DUMP; AREA OF BLACK SMALL GRAVEL; SOIL IS DK BRN SAND + GRVL; SOME STREAKS OF ORANGE; NO ROCK IN SAMPLE AREA.

1130] SITE 5205; 5-POINT LAB + pH 7.10; SAMPLE IS ALLUVIAL SEDIMENT IN SMALL DRAINAGE AT BASE OF DUMP; COLLECTED N. OF FENCE AROUND ARCA ROCK PILES; BROWN SAND + FINE GRAVEL; IT DRAINS WHOLE DUMP

1140] SITE 5206; 5-POINT XRF + pH 3.73; A CONTINUATION OF DUMP; SLOPES TOWARD CLEAN ROCK PILE; AREA IS YELLOW STND SOIL - SAND + GRVL. MINOR Mn-STND

11-13-19

1150] SITE 5207, 5-POINT SPLP + pH 6.60, NEAR EAST SIDE OF DUMP; SAMPLE FROM 5 SMALL GULLIES 3"-5" DEEP; ABUND Mn-STND GRVL; SOIL IS DK BRN SAND + GRVL; ROCK IS APLITE.

1200-1230] LUNCH BRK; 420; MOD. WIND, CLOUDY

1240] SITE 5208; A BARE TO POORLY VEGETATED SLOPE; SE-FACING; LIKELY SHALLOW BEDROCK WEATHERED GRANITE AND/OR APLITE

1255] SITE 5209; GMB pH 5.99, MYRTLE CLAIM; 40' W. OF ROAD; SMALL BERM ON S. SIDE OF 2 CIRC HOLES; ROCK IS GRAY APLITE; SOIL IS BRN SAND + GRVL; MOD. VEG. ON BERMS

1300] SITE 5210] GMB pH 4.89; A MED ALG FROM AN OVERTGROWN CIRC. HOLE; ROCK IS TAN APLITE AND VEIN MATERIAL w/ Fe-STAINING, NO-Mn STAINING; SOIL IS TAN SAND + GRVL
NOTE: TODAY WE HAVE NOT SEEN ANY AREAS OBSTRUCTED BY SNOW COVER.

1315] SITE 5211; GMB XRF + pH 2.49; AN ISOLATED PILE OF YELLOW SOIL AND GRVL; VEINS w/ SULFIDES IN ROCK; PYRITE; FRESH SOIL IS RUSTY SAND + GRVL; PILE IS ~12' DIAM, APPEARS TO HAVE BEEN DUMPED HERE; NO EXCAVATION

1330] SITE 5212 - A TRACK MARKING AN AREA OF SOIL; PAT JAMPSON STOPS BY in the rain

11-13-19 WED

SMITH/KREMER

HE THINKS IT IS SOIL STRIPPED FROM ROCK STORAGE AREA; NO SAMPLES; PAT LVS AT 050
1400] SITE 5213, GRAB pH 6.30, W. BERM OF A 30' LONG N-S GASH; SOIL ON SURFACE IS GRAY; FRESH IS LT BRN SAND; ROCK APPEARS TO BE WEATHERED VOLCANIC - FRIABLE

1410] SITE 5214, GRAB XRF + pH 6.46, A MED PILE FROM A DEEP CIRC HOLE; ROCK IS GRAY VOLCANIC, SOIL IS TAN SAND + GRVL; MINOR Fe-STAINING; NO Mn-STAINING.

BETW 5213 AND 5214 WERE SEVERAL N-S GASHES, BUT THE SPONS WERE MODERATELY TO WELL VEGETATED; 5214 BERM IS "VEGETATED"

1425] SCOUTING TRIANGULAR AREA IN NE HIBERNIA CLAIM - NO MINING DISTURBANCES SEEN 1440] PIONEER OFFSITE FROM WSSOU

11-15-19 FRIDAY

At Pioneer office @ 0730 to
run xrf samples + calibrate pH probe

probe 1	Buffer	Reads
	4.0	3.90
	7.0	6.93
	10.0	9.84

11-15-19

0910] STEWART SMITH AND BRIAN KREMER AT WSSOU IN NETTIE CLAIM; 35° CLOUDY, CALM
0930] SITE 5020, A RANGELAND MIS, 30-POINT SAMPLE; WE WILL COLLECT A DUP MIS HERE; AREA IS WELL VEGETATED; MINOR FROST SOIL IS DK BRN SILTY SAND W/ ROOTS, MOST SAMPLE NAMES; SOIL pH 5.97

WS19-0288-SO 5020-N-111519 @ 0930

WS19-0288-SO 5020-D-111519 @ 0935

0955] SITE 5215, 6-POINT AND pH 7.18, TOP OF LARGE DUMP IN NETTIE. THIS AREA HAS HEAVY/ABUND Mn-STND CRS GRVL + SMALL COBBLE, SOIL IS DK BRN SAND + GRVL; ROCK IS DC YELLOWISH GRANITE

1005] SITE 5216, GRAB pH 8.69, A LIGHT COLORED AREA ON DUMP; ROCK IS GRAY VOLCANIC; SOME APLITE AND VEIN MATERIAL MINOR Fe AND Mn-STAINING; SOIL IS BRN SAND + GRVL

1010] SITE 5217, START AS GRAB pH 2.59, A LT. YELLOW AREA ON DUMP TOP; SOME Mn-STAINING; MOSTLY Fe-STND; CHANGE TO 5-POINT XRF + LAB DUE TO LOW pH; SOIL IS BUFP SAND W/ GRVL; ROCK IS DC GRANITE
LAB SAMP: WS19-0288-SO 5217-N-111519 @ 1010

Rite in the Rain

Samples listed below are included in logbook 2 and were sampled for XRF analysis.
Sample ID correlates with the given SO name in the logbook.

Dates: 11/15/2019-5/21/20

WS19-0288-SO5223-N-111519
WS19-0288-SO5224-N-111519
WS19-0288-SO5226-N-111519
WS19-0288-SO5227-N-111519
WS19-0288-SO5231-N-111519
WS19-0288-SO5234-N-111519
WS19-0286-SO5236-N-111519
20WS-0288-SO5238-N-051220
20WS-0297-SO5240-N-051220
20WS-0297-SO5241-N-051220
20WS-0297-SO5242-N-051220
20WS-0297-SO5243-N-051220
20WS-0297-SO5244-N-051220
20WS-0288-SO5274-N-051320
20WS-0288-SO5276-N-051320
20WS-0288-SO5278-N-051320
20WS-0288-SO5280-N-051320
20WS-0288-SO5281-N-051320
20WS-0297-SO5247-N-051220
20WS-0297-SO5248-N-051220
20WS-0297-SO5251-N-051220
20WS-0297-SO5255-N-051220
20WS-0297-SO5257-N-051220
20WS-0297-SO5260-N-051220
20WS-0300-SO5263-N-051220
20WS-0300-SO5264-N-051220
20WS-0300-SO5265-N-051220
20WS-0300-SO5266-N-051220
20WS-0299-SO5282-N-051320
20WS-0300-SO5285-N-051320
20WS-0300-SO5288-N-051320
20WS-0300-SO5290-N-051320
20WS-0298-SO5292-N-051320
20WS-0298-SO5293-N-051320

20WS-0298-SO5295-N-051320
20WS-0299-SO5299-N-051320
20WS-0299-SO5301-N-051320
20WS-0285-SO5305-N-051420
20WS-0285-SO5308-N-051420
20WS-0285-SO5311-N-051420
20WS-0285-SO5312-N-051420
20WS-0285-SO5314-N-051420
20WS-0285-SO5316-N-051420
20WS-0285-SO5318-N-051420
20WS-0285-SO5319-N-051420
20WS-0285-SO5321-N-051420
20WS-0285-SO5322-N-051420
20WS-0285-SO5324-N-051420
20WS-0285-SO5326-N-051420
20WS-0285-SO5329-N-051420
20WS-0285-SO5333-N-051420
20WS-0285-SO5334-N-051420
20WS-0285-SO5336-N-051420
20WS-0285-SO5337-N-051420
20WS-0285-SO5340-N-051420
20WS-0299-SO5342-N-051820
20WS-0285-SO5345-N-051820
20WS-0285-SO5349-N-051820
20WS-0285-SO5354-N-051820
20WS-0285-SO5355-N-051820
20WS-0285-SO5357-N-051820
20WS-0285-SO5361-N-051820
20WS-0285-SO5369-N-051820
20WS-0246-SO5372-N-051820
20WS-0246-SO5373-N-051820
20WS-0246-SO5376-N-051820
20WS-0246-SO5377-N-051820
20WS-0246-SO5383-N-051820

20WS-0246-SO5384-N-051820
20WS-0246-SO5386-N-051920
20WS-0246-SO5391-N-051920
20WS-0246-SO5396-N-051920
20WS-0246-SO5397-N-051920
20WS-0246-SO5400-N-051920
20WS-0256-SO5402-N-051920
20WS-0249-SO5407-N-052020
20WS-0249-SO5411-N-052020
20WS-0249-SO5412-N-052020
20WS-0249-SO5418-N-052020
20WS-0249-SO5419-N-052020
20WS-0306-SO5421-N-052020
20WS-0306-SO5422-N-052020
20WS-0016-SO5426-N-052120
20WS-0016-SO5428-N-052120
20WS-0016-SO5430-N-052120
20WS-0016-SO5437-N-052120
20WS-0015-SO5438-N-052120
20WS-0013-SO5439-N-052120
20WS-0013-SO5443-N-052120
20WS-0013-SO5447-N-052120

START OF 2020

WEST SIDE SOILS
OPERABLE UNIT
(WSSOU)



Rite in the Rain

ALL-WEATHER
JOURNAL

Nº 391FX

11/15/19 → 5/21/2020
BOOK 2

11-15-19 FRI

S. SMITH/B. KREMER

CONTINUED FROM BOOK 1

- 1120] SITE 5223, 10-POINT XRF AND pH 6.87 COLLECTED IN A LINE ACROSS TOP OF LOWER EASTERN PORTION OF DUMP; MOSTLY Fe-STND CAS GRVL ON SURF, MINOR Mn-STNING. ROCK IS MIX OF GRANITE + VOLCANIC; SOIL IS REDDISH-BRN SAND + GRVL
- 1130] SITE 5224, 5-POINT XRF + pH 5.06 ON DUMP SLOPE ABOVE 5223; COLLECTED IN A CIRC AREA; ABUND Mn-STND CAS GRVL; SOIL IS MOSTLY BRN SAND + GRVL, A SMALL AREA (INCLUDED) IS BRICK RED; ROCK IS WEATH GRAN.
- 1140] SITE 5225, GRAB pH 6.24, A SMALL HIGHER THAN DUMP. ABUND Mn-STNING, SOIL IS TAN SAND + GRVL; ALSO Fe-STNING. ROCK IS HIGHLY WEATHERED
- 1155] SITE 5226; GRAB XRF AND pH 9.19; FROM THE INNER SLOPE OF A LARGE, OVAL HOLE; ALL SLOPES DRAIN INTO HOLE; SOIL IS LT. BRN SAND + GRVL, SLIGHT PINK HUE; TRACE Mn-STNING; ROCK VARIES FROM WHITE TO PINK APLITE
- 1210-1240] LUNCH BRK: 45^o, CLOUDY, LT. WIND

11-15-19

- 1245] SITE 5227, 5-POINT XRF + pH 8.53, A 5-FACING SLOPE W/ WHITE APLITE ROCK; SOIL IS LT. BRN SAND + GRVL; TRACE Mn-STNING. SOME Fe-STNING, SOME PINK APLITE.
- 1255] SITE 5228, GRAB pH 8.87, AREA JUST S. OF 5227 WITH SOME Mn-STND ROCK, SOIL IS BRN SAND + GRVL; ROCK IS WHITISH APLITE W/ Fe-STNING
- 1300] SITE 5229, GRAB pH 8.45, FROM A MED PILE; SOIL IS TAN SAND + GRVL; ROCK IS WEATHERED; ABUND Mn-STNING ALSO Fe-STNING; MATERIAL COMES FROM A N-S CUT TO EAST OF THIS PILE
- 1310] SITE 5230, GRAB pH 8.85; ALONG WHITE AREA NEAR RIDGE TOP; SAMPLE IS A SMALL GULCH; SOIL IS TAN SAND + GRVL. ROCK IS WEATHERED APLITE; SOIL SEEMS BLEACHED; TRACE Mn-STNING
- 1320] SITE 5231, 5-POINT LAB, XRF, + pH 9.01, A N-S TRANSECT ON AN E-FACING SLOPE; DOMINANT COLOR IS PINKISH ROCK; SOME Mn-STNING; SOME AREAS ORANGE W/ Fe-STNING; ROCK IS WEATHERED AND FRACTURED; THIS SLOPE MAY BE 'IN-PLACE' MATERIAL; SOIL RANGES FROM BRICK RED TO BROWN SAND + GRAVEL

WSSOU RI SOIL SAMPLING

4

11-15-19 FRI

SMITH/KREMER

1335] SITE 5232, GRAB pH 8.31, A BARE AREA - PINK + WHITE APLITE w/ SOME Mn-STAINING; MORE Fe-STAINING; SOIL IS PINKISH BRN SAND + GRVL; ALSO POSSIBLE THAT MATERIAL IS IN PLACE

1340] SITE 5233 - THE BARE AREA AROUND SITE 5232, TRACKED TO SHOW ITS EXTENT

1345] SITE 5234, GRAB XRF AND pH 8.57, A SMALL ISOLATED PILE BY A POWER POLE; SOIL IS BRN SAND + GRVL, SOME Mn-STND GRVL, SOME Fe-STAINING. ROCK IS WEATH APLITE

1405] SITE 5235, GRAB pH 7.41, IN CREOLE CLAIM, FROM TOP OF A PILE AT N END OF A N-S GASH; WEATHERED GRANK APLITE; SOIL IS BRN SAND + GRVL; PILE IS MOSTLY WELL VEGETATED; PILE ON GASH TO EAST IS " " - NO SAMPLE.

1415] SITE 5236, GRAB XRF AND pH 7.50, FROM WEST-MOST OF 4 N-S GASHES; PILE BTW 5236 AND 5235 IS WELL VEGETATED; SOIL IS BRN SAND + GRVL; ONLY SMALL ROCK-WEATH. APLITE w/ Fe-STAINING; MINOR Mn-STAINING

NOTE: ALL 4 GASHES HAVE BARE SOIL THAT DRAINS INTO GASH; NOT SAMPLED.

1440] SITE 5237, GRAB pH 7.03 SMALL PILE JUST N. OF ROAD, SOIL IS BRN SAND

11-15-19

GRVL; ROCK IS WEATH. APLITE w/ Fe-STAINING, MINOR, Mn-STAINING - PILE MAY BE DUMPED HERE

1445] PIONEER LV'S WSSOU

Stan Smith
11-15-19

WSSOU RI SOIL SAMPLING

12-10-19

S. SMITH

ADDITIONAL NOTES TO DOCUMENT LABORATORY SAMPLE NAMES, TIMES, AND DEPTHS
ALL 2019 SOIL SAMPLES WERE COLLECTED FROM A DEPTH OF 0-2 INCHES
ALL SAMPLES COLLECTED ONLY FOR TAL (TARGET ANALYTE LIST) METALS WERE COLLECTED IN QUART ZIPLOC BAGS

SPLP, MIS, AND ABA SAMPLES WERE COLLECTED IN GALLON ZIPLOC BAGS
SPLP SAMPLES ARE ANALYZED FOR TAL METALS AND SPLP
MIS SAMPLES ARE ANALYZED FOR TAL METALS AFTER THE MIS SAMPLE PREP

SAMPLE NOMENCLATURE FOR WSSOU RI:
HERE IS AN EXAMPLE SAMPLE NAME AND

WS19-1045-S05027-N-102319

WS19 - 2019 SAMPLE COLLECTION FOR
1045 - CDM MINING CLAIM NUMBER, AS
S05027 - 'S0' IS FOR SOIL SAMPLE; 5027
IS A SEQUENTIAL NUMBER.

AT 5000 TO PIONEER TECHNICAL
ATLANTIC RICHFIELD MINING

N - INDICATES A NATURAL SAMPLE;
102319 - DATE SAMPLE WAS COLLECTED

SAMPLE NAME	COLLECTION DATE & TIME	LABORATORY ANALYSIS
WS19-1045-S05027-N-102319	10-23-19, 1025	SPLP
WS19-1045-S05028-N-102319	10-23-19, 1035	TAL METALS
WS19-1045-S05008-N-102319	10-23-19, 1050	TAL METALS
WS19-1045-S05030-N-102319	10-23-19, 1100	TAL METALS
WS19-0043-S05036-N-102319	10-23-19, 1415	TAL METALS

A DESCRIPTION OF THE PARTS OF THE NAME.

WSSOU RI

SIGNED TO EACH MINING CLAIM BY CDM
IS THE SAMPLE LOCATION ID NUMBER. THIS
ASSIGNED CDM ASSIGNED NUMBERS STARTING
CAL TO USE FOR SAMPLING THE
CLAIMS.

D - INDICATES A FIELD DUPLICATE

WSSOU RI SOIL SAMPLING

12-10-19

S. SMITH

SAMPLE NAME	COLLECTION DATE	TIME	LABORATORY ANALYSIS
WS19-0003-SO 5038-N-102319	10-23-19,	1450	TAL METALS
WS19-0003-SO 5039-N-102319	10-23-19,	1500	MIS
WS19-0003-SO 5041-N-102319	10-23-19,	1545	TAL METALS
WS19-0003-SO 5043-N-102319	10-23-19,	1615	TAL METALS
WS19-0043-SO 5047-N-102419	10-24-19,	1220	SPLP
WS19-0043-SO 5048-N-102419	10-24-19,	1235	TAL METALS
WS19-0043-SO 5048-D-102419	10-24-19,	1240	DUPLICATE FOR TAL METALS
WS19-0003-SO 5052-N-102419	10-24-19,	1320	TAL METALS
WS19-0040-SO 5055-N-102419	10-24-19,	1520	TAL METALS
WS19-0040-SO 5062-N-102419	10-24-19,	1610	TAL METALS
WS19-0040-SO 5063-N-102519	10-25-19,	0850	MIS
WS19-0040-SO 5064-N-102519	10-25-19,	0915	TAL METALS
WS19-0040-SO 5073-N-102519	10-25-19,	1020	TAL METALS
WS19-0040-SO 5075-N-102519	10-25-19,	1110	TAL METALS
WS19-0040-SO 5076-N-102519	10-25-19,	1120	TAL METALS
WS19-0043-SO 5081-N-102519	10-25-19,	1200	TAL METALS
WS19-0043-SO 5083-N-102519	10-25-19,	1225	TAL METALS
WS19-0005-SO 5090-N-102519	10-25-19,	1430	TAL METALS
WS19-0006-SO 5092-N-102519	10-25-19,	1450	SPLP
WS19-0006-SO 5092-D-102519	10-25-19,	1450	DUPLICATE FOR SPLP
WS19-0006-SO 5092-N-102519	10-25-19,	1450	ABA
WS19-0006-SO 5093-N-102519	10-25-19,	1510	TAL METALS
WS19-0043-SO 5094-N-102819	10-28-19,	1020	TAL METALS

12-10-19

S. SMITH

SAMPLE NAME	COLLECTION DATE	TIME	LABORATORY ANALYSIS
WS19-0003-S05095-N-102819	10-28-19,	1055	MIS
WS19-0040-S05105-N-103119	10-31-19,	1155	TAL METALS
WS19-0041-S05113-N-103119	10-31-19,	1430	MIS
WS19-0006-S05123-N-110419	11-4-19,	1115	TAL METALS
WS19-0006-S05124-N-110419	11-4-19,	1130	MIS
WS19-0006-S05129-N-110419	11-4-19,	1320	MIS
WS19-0037-S05142-N-110519	11-5-19,	1055	TAL METALS
WS19-0037-S05155-N-110519	11-5-19,	1230	TAL METALS
WS19-0010-S05168-N-110519	11-5-19,	1530	TAL METALS
WS19-0010-S05175-N-110719	11-7-19,	1130	TAL METALS
WS19-0010-S05175-D-110719	11-7-19,	1135	DUPLICATE FOR TAL METALS
WS19-0015-S05181-N-110719	11-7-19,	1430	SPLP
WS19-0010-S05187-N-110819	11-8-19,	1035	TAL METALS
WS19-0012-S05190-N-110819	11-8-19,	1115	MIS
WS19-0019-S05193-N-110819	11-8-19,	1350	SPLP
WS19-0019-S05193-N-110819	11-8-19,	1350	ABA
WS19-0015-S05204-N-110819	11-8-19,	1545	TAL METALS
WS19-0290-S05017-N-111319	11-13-19,	1050	SPLP
WS19-0290-S05017-N-111319	11-13-19,	1050	ABA
WS19-0290-S05205-N-111319	11-13-19,	1130	TAL METALS
WS19-0290-S05207-N-111319	11-13-19,	1150	SPLP
WS19-0288-S05020-N-111519	11-15-19,	0930	MIS
WS19-0288-S05020-D-111519	11-15-19,	0935	DUPLICATE FOR MIS

WSSOU RI SOIL SAMPLING
S. SMITH

12-10-19

SAMPLE NAME	COLLECTION DATE &
WS19-0288-S05217-N-111519	11-15-19,
WS19-0297-S05222-N-111519	11-15-19,
WS19-0288-S05231-N-111519	11-15-19,

ON 11-6-19, 30 SOIL SAMPLES WERE SHIP
MINNEAPOLIS, MN 55414 ON ICE,
TRACKING # 4934 3734 5342

ON 11-6-19, 7 SOIL SAMPLES WERE SHIPPED TO
BILLINGS, MT 59101 ON ICE, UNDER
TRACKING # 4934 3734 5386.

ON 11-18-19, 12 SOIL SAMPLES WERE SHIPPED
MINNEAPOLIS, MN 55414 ON ICE,
TRACKING # 4934 3734 5353.

ON 11-18-19, 5 SOIL SAMPLES WERE SHIPPED TO
BILLINGS, MT 59101 ON ICE, UNDER
TRACKING # 4934 3734 5412.

Stewart Smith
12-10-19

TIME	LABORATORY ANALYSIS
1010	TAL METALS
1110	SPLP
1320	TAL METALS

TO PACE ANALYTICAL SERVICES, 1700 ELM ST,
UNDER CHAIN-OF-CUSTODY USING FED EX

PACE ANALYTICAL SERVICES, 150 N. 9th ST.,
CHAIN-OF-CUSTODY USING FED EX

TO PACE ANALYTICAL SERVICES, 1700 ELM ST. SE,
UNDER CHAIN-OF-CUSTODY USING FED EX

PACE ANALYTICAL SERVICES, 150 N. 9th ST.,
CHAIN-OF-CUSTODY USING FED EX

Stewart Smith
12-10-19

WSSOU RI SOIL SAMPLING

5-12-20 TUES

J. SMITH

0745] AT Pioneer office, calibrate
pH probes

Probe 1	Buffer	Reads
	4.0	4.09
	7.0	7.07
	10.0	10.09

Probe 2	Buffer	Reads
	4.0	4.00
	7.0	7.01
	10.0	10.06

0800] CONDUCT SAFETY MEETING AT OFFICE
CREW IS STEWART SMITH, MOLLY SPRUNGER,
AND COLE DALLASERRA.0830] CREW AT NETVE/KEY WEST, LARGE
DUMP; 42°, WIND ~ 5 MPH; CLOUDY0845] SITE 5238; KEY WEST, 10-POINT
COMPOSITE IN A 20-PT, pH 6.10

0855] CONNOR KELLY ON SITE; CON-SMITH

0900] SITE 5239; SOUTH PROJECTING
LOBE, LAB METALS, pH 4.4220WS-0297-505239-~~051220~~ 051220 @ 0900 (EA)
TAL METALS; QT. ZIPLOCK BAG0915] SITE 5240, SE LOBE OF DUMP
GRAB XRF; SOIL pH 5.56

PHOTO SHOWS BOTH 5240 AND 5241

5-12-20

0920] SITE 5241, NEXT LOBE TO WEST; SIGMIF
Fe-STAINING, GRAB pH 5.36 AND XRF0925] SITE 5242, A MEDIUM DUMP EAST OF
MAIN DUMP AT S END OF EXPLORATION
TRENCH; 5-POINT COMP; XRF; pH 8.020930] CON/M'S WORK ON XRF; CONNOR AND
I WALK DUMP - DISCUSS SAMPLES1000] SITE 5243, A WEST LOBE, AREA WY
ABUN Mn-STAINING; 5-POINT COMP, XRF
pH 5.841030] SITE 5245; BACK AT SAME SITE AS
5241, COLLECT A LAB SAMPLE DUE TO
HIGH As + Pb ON XRF; pH 6.6120WS-0297-505245-^{N-}051220 @ 1030 (SS)
TAL METALS; QT. ZIPLOCKNOTE: AT 1015] SITE 5244; WEST FACE
OF SAME LOBE AS 5243; COLLECT 5-POINT
LAB + XRF; pH 5.41^{N-}20WS-0297-505244-^{N-}051220 @ 1015 (SS)
TAL METALS; QT. ZIPLOCK

1035] 50°, P. CLOUDY, LT. WIND; XRF DONE

1100] SITE 5246, A TOE AREA BELOW
SITE 5244; 30-POINT MIS; pH 6.21
20WS-0297-505246-^{N-}051220 @ 1100 (SS)
MIS; GALLON ZIPLOCK

WSSOU RI SOIL SAMPLING

5-12-20 TUES S. SMITH

1105] SITE 5247; A SMALL TOE AREA

5-POINT, XRF, pH 6.24

1120] SITE 5248, LOWER PART OF MAIN

DUMP; 10-POINT XRF, pH

LIGHT TAN SURFACE

1130] SITE 5249; AN SPLP/ABA SAMPLE

IN A DRAINAGE AT SW CORNER OF

MAIN DUMP; 5-POINT; pH 5.45 (35)

2OWS-0297-SO5249-N^o052012 @ 1130

SPLP-QT-ZIPLOCK; ABA-GAL. ZIPLOCK

1140] SITE 5250, A GRAB pH 5.25;

SMALL DUMP W. OF DRAINAGE; GRANITE
COBBLES1150] LUNCH BRK, ~SS^o

1225] SITE 5251, A 5-PNT XRF,

A Mn-STAINED AREA IN CENTER OF DUMP

pH

1245] SITE 5252, GRAB pH 3.46

SW LOBE, UP HIGH, WHITE SOIL W

MOD Mn STAIN

1250] SITE 5253, GRAB pH 4.58

SMALL RIDGE; FARTHER WEST

1255] SITE 5254, A 5-PNT LAB AT SITE

OF 5252; WRAPS AROUND POINT OF LOBE

2OWS-0297-SO5254-N^o051220 @ 1255 (35)

pH 4.27 TAL METALS, QT ZIPLOCK

5-12-20

1300] SITE 5255, 5-POINT XRF; pH 3.97

A LOW RIDGE IN SW PART OF BIG DUMP

1305] SITE 5256, AN MIS SAMPLE AT

TOE OF SOUTH CENTER PART OF DUMP

MIS/30-POINT; SOIL pH 5.27

2OWS-0297-SO5256-N^o051220 @ 1305

MIS GALLON ZIPLOCK (35)

~SS^o, MOD WIND W/ GUSTS

1320] SITE 5257; BARE AREA AT SE

PART OF DUMP; SOUTH OF SMALL DRAINAGE

5-POINT XRF; pH 4.41

1340] SITE 5260, 5-POINT COMP AT SE

TOE OF MAIN DUMP; COMBINES AREAS OF

5258 AND 5259 (SEE BELOW); XRF; pH 4.52

NOTES: AT 1325] SITE 5258, GRAB

pH 4.39

AT 1330] SITE 5259; GRAB pH 4.52

1355] C. KELLEY OFFSITE FOR THE DAY

1405-1415] PAT JAMPSON ON SITE TO CHECK IN

1420] SITE 5261, A GRAB pH 8.74,

SMALL BARE AREA IN PREDONIA 0299

1430] SITE 5262, LOW RIDGE; MOD.

VEGETATION, W. OF KEY WEST DUMP, GRAB

pH 8.85

1445] SITE 5263, IN NARROW DRAINAGE

W/ D-STRM OF KEY WEST DUMP *Rite in the Rain*

5-12-20 TUES

S-SMITH

GRAB XRF OF DRY SEDIMENT, pH 5.82

~~NOTE AT (S)~~

1500] SITE 5264, A LARGE, CONICAL DUMP IN TOM HANAY; SOURCE AREA IS UN CLEAR; 5-POINT XRF + LAB, pH 7.22
 20WS - 0300 - 505264 - 051220 @ 1500 (SS)
 TAL METALS, QT ZIPLC

1510] SITE 5265, 5-POINT XRF + pH 5.67
 EAST STEEP FACE OF SAME DUMP

HIGH Mn-STAIN.

1520] SITE 5266, 10-POINT XRF, pH 7.10
 S-FACING SLOPE OF LARGE DUMP, SOUTH OF DEEP GASH

1540] PHOTOS LR W, THEN N AT A SUBS-
 SIDENCE FEATURE AT WEST END OF KEY WEST
 SLIVER

1550] SITE 5267, A GRAB pH 8.27 ON
 A SMALL DUMP, FREDONIA, N. OF ROAD
 TABLET HAS DIED, NO PHOTO.

1600] PIONEER CREW LVS FIELD.

Howard Smith
 5-12-20

5-13-20 Wed

0735] AT Pioneer office, Calibrate
 pH probes

Probe 1	Buffer	Reads
	4.0	3.98
	7.0	7.02
	10.0	10.07

Probe 2	4.0	4.00
	7.0	7.02
	10.0	10.07

0845] AT FIELD SITE, NETTIE CLAIM
 CREW IS S-SMITH, M. SPRUNGER, C. DALLA-
 SERA; 43°, LT. WIND, CLOUDY, THERE WAS
 OVERNIGHT RAIN

0900] SITE 5268, NETTIE CLAIM/0288
 A MODERATE, WELL-VEGETATED DUMP, NO
 SAMPLE, NO pH; TOOK A PHOTO

0910] SITE 5269, A MODERATE DUMP,
 GRANITIC ROCK AND GRAVEL, 5-POINT
 pH 6.96; MATERIAL FROM

0915] SITE 5270, A GRAB pH 6.59
 DARK STAINED SOIL A N. END OF 5269 ARE
 SEVERAL SMALL DISTURBANCES N. OF 5269
 SMALL PILES AND A SHALLOW TRENCH

0940] SITE 5272, SMALL PILE FROM
 CIRCULAR PIT GRAB pH 5.62 *Return to the Rain*

WSSBU RI SOIL SAMPLING

5-13-20 WED

S. SMITH

5272 IS GRANITIC GRAVEL

0945] SITE 5273, A SMALL DUMP FROM
A LARGE TRENCH. GRAB pH 7.32MOSTLY WELL VEG'D; SAMPLE A BARE AREA
GRANITIC TO APLITIC0955] SITE 5274, A MEDIUM DUMP NEAR
RIDGE TOP, ROCK NEARBY IS HEAVILY Mn-
STAINED; 5-POINT XRF, pH 5.521005] SITE 5275, SMALL DUMP, GRAB pH 5.18
ON SOUTH SIDE OF NE-SW VEIN OUTCROP.
VEIN ROCK IS HIGHLY Mn-STAINED1010] SITE 5276; PART OF A LARGE
BARE AREA SW OF VEIN IN 5275,
10-POINT XRF, pH 4.67, ADD A LAB
SAMPLE AFTER pH RESULT; SAMPLE FROM
SAME SUBSAMPLES20WS-0288-SO 5276^N 051320 @ 1010
QT. ZIPLOCK FOR TAL METALS1025] SITE 5277, WEST PORTION OF LARGE
BARE AREA; GRAB pH 5.431030] SITE 5278, SOUTH PART, SAME BARE
AREA; HIGH Mn-STN; GRAB XRF, pH 5.151040] SITE 5279, MED DUMP W/ MED. VEG
FROM MED TRENCH W ASPENS IN IT
5-POINT. pH 8.37

5-13-20

1045] SITE 5280, A MED. DUMP, BARE
5-POINT, XRF + pH 6.041055] SITE 5281, A MOSTLY BARE AREA
JUST NORTH OF ROAD, A MODERATE AMT
OF BLACK SLAG IN SOIL, 1/2" TO 2" SIZE
5-POINT XRF, pH 5.381100] OVERCAST, 49°, MOD. WIND
COLE RUNNING XRF AT TRUCK1130] SITE 5282, FREDONIA/0299; 5-POINT
XRF, pH 8.49 LARGE DUMP ON N SIDE
OF DEEP GASH, EAST END OF CLAIM
ROCK IS WEATHERED GRANITE1145] SITE 5283, LARGE NARROW DUMP
EAST ONE OF 2 JOINED DUMPS, GRAB
pH 8.96, APLITE?, FINE-GRAINED WHITE
ROCK; SOUTH FACE OF DUMP HAS GOOD
VEGETATION - GRASSES1150] SITE 5284; WEST OF 2 DUMPS
GRAB pH 8.63, SIMILAR APLITIC ROCK
MOD. SAGE VEG ON SLOPE1200] SITE 5285, IN TOM HANEY CLAIM/0300
A N-S ORIENTED DUMP; Mn-STN HIGH
5-POINT, LAB, XRF, pH 6.11 SOIL IS
DARK STAINED20WS-0300-SO 5285^N 051320 @ 1200
TAL METALS, QT ZIPLOCK*Rite in the Rain*

WSSOU RI SOIL SAMPLING

5-13-20 WED

S. SMITH

- 1210] SITE 5286, SMALL DUMP JUST E OF 5285, LIGHT APLITE, 5-POINT pH 8.96
- 1215-1245] LUNCH BREAK, WINDY, RAIN IN AREA
- 1300] SITE 5287, KEY WEST, A SHALLOW BEDROCK (GRANITE) AREA SOUTH OF LARGE DUMP; MIS, 30-POINT pH 5.60. SOIL IS COARSE, DECOMPOSED GRANITE
- 1325] HIGH WINDS, 50°, OVERCAST
SITE 5288 TOM HANEY, A MED. DUMP GRAB pH 7.20; WEATH. APLITE, LT. TAN SOIL
- 1335] SITE 5289, ~~X~~ A SMALL BARE AREA, W/ SHALLOW BEDROCK
GRAB pH 5.96 LT. RAIN
- 1345] SITE 5290, CREEK BOTTOM, 5-POINT XRF, pH 6.06 SAMPLE IS STREAM SEDIMENT - SAND; GRANITE BEDROCK NEARBY
- 1355] SITE 5291, FREDONIA, SMALL DUMP, MINOR VEGE, GRAB pH 8.87 APLITE ROCK
- 1405] SITE 5292, A LARGE DUMP IN S-CENTRAL FREDONIA; 5-POINT XRF, pH 5.62 ON A NORTH LOBE; CREEK RUNS AROUND N SIDE OF DUMP
SAMPLE FROM Mn-STND PORTIONS

5-13-20

- 1415] SITE 5293, SW LOBE OF DUMP 5-POINT XRF, pH 4.77; SAMPLE IS WHITE TO LT. GRAY SANDY SOIL
- 1420] SITE 5294, GRAB pH 5.03
A SEPARATE PILE WEST OF 5293, NO VEG IN SAMPLE AREA
- 1435] SITE 5295, 5-POINT XRF, pH 8.71
A MODERATE DUMP, WEST PART OF FREDONIA; ROCK IS HIGH Mn-STAINED; GRANITE? DUMP IS ON N-SIDE OF FORMER SHAFT AND A DEEP GULLY
- 1450] SITE 5296, 5-POINT LAB, pH 6.34
THIS IS A WIDE AREA IN UNNAMED CREEK, SAME AS SAMPLED EARLIER; SAMPLE COVERS 50 FT OF CHANNEL; 12-15' WIDE CHANNEL
- 1500] SITE 5297, A SMALL WHITE + YELLOW PILE, GRAB pH 8.73, HIGHLY ALTERED GRANITE
- 1510] SITE 5298, BACK AT DUMP OF 5292 EAST SLOPE; 5-POINT SPLP, + ABA pH 5.63; TOE OF SLOPE IS RIGHT IN DRAINAGE; SLOPE IS BROWN SANDY SOIL, DECOMPOSED GRANITIC
- 1605] SITE 5299, A MED DUMP, WEST PART OF FREDONIA; 5-POINT XRF, pH 9.13.
GRANITE + VEIN QTZ SOURCE AREA ~~UNNAMED~~

5-13-20 WED

S. SMITH

1620] SITE 5300, GRAB pH 8.22
SMALL BARE AREA JUST W. OF APPARENT
MINE WORKING; OUTCROPS ARE Mn-
STAINED VEINS; DRAWS INTO A MOSTLY
CLOSED BASIN

1630] SITE 5301, 5-POINT FROM 3 BARE
AREAS; E. OF 5300, HIGH Mn-STAINING
XRF, ~~8.55~~ pH 6.82, 2 PHOTOS, 1 OF PIT

1635] SITE 5302, GRAB pH 7.37
SMALL DUMP NE. OF 5301; LOTS OF ASPENS
ON DUMP AREA

1640] SITE 5303, GRAB pH ^{8.76}, SMALL, 5-FT
DIAM BARE AREA, LT. TAN ON SURF

1650] SITE 5304, AN MIS RANGELAND
MOD. GRASS VEG pH 5.66
NO PHOTO, TABLET DIED

20WS-~~0285~~⁰²⁸⁵ S05304-N-051320
MIS ⁰²⁹⁹, GALLON ZIPLOCK

THIS IS IN SW PART OF BURLINGTON
CLAIM, 0285. OTHER SAMPLES TODAY ARE:

20WS-0297-S05287-N-051320, MIS, GAL
ZIPLOCK @ 1300

20WS-0299-S05296-N-051320, TAL
METAL, QT ZIPLOCK @ 1450

20WS-0299-S05298-N-051320, SPLP IN QT ZIPLOCK,
ABA IN GALLON ZIPLOCK, BOTH AT 1510

1710] PIONEER CREW OFFSITE FOR THE DAY
Peter Smith 5-13-20

WSSON RE Soil Sampling

5-14-20 THUR

0735] At Pioneer office, calibrate
pH probes

Probe 1	Buffer	Reads
	4.00	4.00
	7.00	7.01
	10.00	10.06

0825] FIELD CREW IN FRONZONIA, BUT WALKING
TO BURLINGTON; 36°, LT. WIND, CLOUDY.
CONDUCTED SAFETY MEETING AT OFFICE

0845] SITE 5305, BURLINGTON, 0285
A MED PILE, ISOLATED AT TOP OF HILL,
EAST EDGE OF BURLING CLAIM, 10-POINT
XRF, pH 6.19 WEATHER GRANITE

0900] SITE 5306; 5-POINT pH ~~5.95~~^{5.95}
A BARE AREA, SOUTH OF 5305, JUST
SE OF PIT THAT MAY BE SOURCE OF 5305

0905] SITE 5307, 5-POINT pH 5.78
ANOTHER BARE AREA, SLIGHTLY TO WEST

0915] SITE 5308, 5-POINT XRF pH 4.87
A ROCKY BARE AREA, FOCUS ON Fe-STND
REDDISH AREAS, WEATH GRANITE

0920] CONNOR KEZLEY, COM ONSITE

0925] SITE 5309, GRAB pH, A VERY
LOW RIDGE, COBBLES - HIGH Mn-STAINED
pH 4.54

WSSOU RI SOIL SAMPLING

5-14-20 THURS

S. SMITH

- 0930] SITE 5310, A BARE AREA, SOUTH SIDE OF CENTRAL 'VEIN' - WEATH GRANITE N-POINT PH 5.43
- 0940] SITE 5311, BARE AREA, N. SIDE OF VEIN, TAN SANDY SOIL, GRANITE 10-POINT XRF, pH 5.11
- 0955] SITE 5312, GRAB XRF pH 5.90 DRAINAGE BOTTOM; VERY SANDY, DECOMP N. EDGE OF BURLINGTON CLAIM GRANITE SHALLOW BEDROCK ALL THE WAY DOWN N SLOPE
- 1010] SITE 5313, BACK ON RIDGE TOP AT VEIN; 6-POINT LAB pH 6.23 N. SIDE OF CUT/GASH INTO BEDROCK, Mn VEIN; HIGH Mn AREA
- 1015] SITE 5314, 5-POINT XRF, pH 5.28 BARE AREA ON N. SLOPE; DARK TAN SANDY SOIL
- 1025] SITE 5315, GRAB pH 5.16 SMALL PART OF LARGER BARE AREA DARK TAN SOIL
- 1030] SITE 5316, 5-POINT XRF, pH 4.92 A SMALL LINEAR DUMP, S. OF MAIN VEIN ROCKY, WEATH GRANITE
- 1035] SITE 5317, GRAB pH 5.37, SMALL Fe-STD STREAK, SMALL GRAVEL

5-14-20 SITE 5318

- 1050] 5-POINT, XRF, pH 5.06 CENTRAL VEIN AREA, A PENINSULA BETW OPEN TRENCHES; RUNOFF WOULD MOSTLY DRAIN INTO " , NOT DOWN SLOPE
- 1055] SITE 5319, 5-POINT XRF, pH 5.13 BARE AREA, N. OF MAIN VEIN, DARK TAN SOIL, MOD. Mn STAINING; SHALLOW GRANITE BEDROCK - SIMILAR TO MOST OF THIS AREA
- 1100] SITE 5320 GRAB pH 4.91 MORE BARE AREA
- 1105] SITE 5321, GRAB XRF pH 5.85 A MED PILE, SLIGHTLY N. OF MAIN VEIN; ROCK IS MOSTLY VEIN MATERIAL
- 1115] SITE 5322, 5-POINT XRF pH A MED PILE JUST S. OF MAIN VEIN WEATH GRANITE; HIGH Fe-STAIN, LOW Mn
- 1120] SITE 5323, 5-POINT LAB, pH 5.17 BARE AREA SW OF 5322, SMALL GRAVEL, TAN, SANDY SOIL, ZOWS-0285-505323-N-051420
- 1130] SITE ~~5323~~ 5324, AT VERY HIGH Mn AREA NE OF BURLINGTON DUMPS 5-POINT XRF, LAB, pH 5.75 1-2" GRAVEL, ALL Mn-STAINED, FROM 4 SEPARATE LITTLE PILES ZOWS-0285-505324-N-051420

WSSOU RI SOIL SAMPLING

5-14-20 THURS

S. SMITH

20WS-0285-SO5324-051420 @ 1130

TAL METALS, QT ZIPLOCK

1140] SITE 5325, GRAB pH 6.24

SMALL PART OF LARGE Mn-AREA

S. OF 5324

1150-1220 LUNCH BREAK 1155] CONNOR

KELLEY OPPOSITE 52°, LT-MOD WIND, P. CLOUDY

1225] COLE RUNNING XRF AT TRUCK

1245] SITE 5326, 5-POINT XRF, pH 5.23

A BARE, SANDY AREA EAST OF BIG DUMP
TAN SOIL, SMALL GRAVEL1300] SITE 5327; A DUPLICATE LAB METALS
SAMPLE; 5-POINT AT TOP OF SOUTH
LOBE OF BIG DUMP; ROCK IS GRANITE
pH 5.06

20WS-0285-SO5327-N-051420 @ 1300

TAL METALS, QT ZIPLOCK - BOTH

20WS-0285-SO5327-D-051420 @ 1330

1310] SITE 5328 GRAB pH 5.35

SOUTH FACE OF SW LOBE; ROCK IS

GRANITE

1315] SITE 5329, GRAB XRF, pH 4.75

NORTH FACE OF SAME SW LOBE; GRANITE

1325] SITE 5330, GRAB pH 4.98

VERTICAL STREAK OF WHITISH WASTE ROCK
AT EAST END OF WEST (BLACK) LOBE

5-14-20 BURLINGTON

ROCK IS WEATH GRANITE

1330] SITE 5331 GRAB pH 4.75

A STREAK OF REDDISH WASTE ROCK, JUST
E. OF 5330, SAME PHOTO AS 5330

1335] SITE 5332 GRAB pH 5.57

NORTH SLOPE OF N. HIGH LOBE,
PINKISH STREAK OF WASTE ROCK

1340] SITE 5333; 5-POINT XRF, pH 6.15

SOUTH PORTION OF VERY BLACK AREA, NORTH
OF BIG DUMP

1350] SITE 5334, 10-POINT XRF, pH 4.97

THIS IS A LARGE BARE AREA N OF VERY
BLACK AREA; MOD Mn-STAINING, DARK BROWN
SOIL; SORT OF A TOE AREA

1415] SITE 5335, A 30-POINT MIS

pH: 4.88 THIS IS A DUMP SLOPE TOE
AREA FOR SOUTH AND WEST LOBE OF BUR-
LINGTON DUMP, COARSE GRAVEL AND SANDY
SOIL

1430] SITE 5336, 10-POINT XRF, pH 5.51

THIS IS AROUND THE NOSE OF THE WEST
(BLACK) LOBE OF DUMP; HIGH Mn-STAINING

1440] SITE 5337, 5-POINT XRF, pH 5.15

A DRAINAGE AREA, D-STRM OF MIS
DARK BROWN SOIL

WSSOU RI SOIL SAMPLING

5-14-20 THURS

S. SMITH

1445] SITE 5338, GRAB pH 7.92
 LT-COLORED MED DUMP ON S-SIDE OF
 TRENCH; W. OF BURL DUMP; GRANITE

1455] SITE 5339 GRAB pH 5.82
 SMALL BARE AREA

1505] SITE 5340 S-POINT XRF, pH 6.97
 A BARE AREA; PINKISH SOIL, N. SIDE
 OF E-W GASH

1515] SITE 5341, S-POINT LAB, pH 5.71
 A BARE AREA; CRS. GRAVEL; S-SIDE
 OF TRENCH; APPROACHING W. END OF
 BURLINGTON CLAIM

EA 20WS-0285-505341-N-051420 @ 1515
 FOR TAL METALS IN QT ZIPLOCK

NOTE: OTHER SAMPLES COLLECTED TODAY INCLUDES
 20WS-0285-505313-N-051420 @ 1010
 FOR TAL METALS IN QT ZIPLOCK

20WS-0285-505335-N-051420 @ 1415
 FOR MIS IN GALLON ZIPLOCK

~~Stewart Smith
 5-14-20~~

WSSOU RI Soil Sampling

5-18-20 Mon.

0755] At Pioneer office, Calibrate
 PH probes

Probe 1	Buffer	Reads
	4.0	3.99
	7.0	7.01
	10.0	10.07

0845] FIELD CREW IN W. END OF BURLINGTON
 S. SMITH, M. SPRUNGER, + C. DALLASERRA, 50°
 OVERCAST; LT TO MOD WIND; GROUND IS
 SLIGHTLY WET FROM OVERNIGHT RAIN

0900] SITE 5342, IN FREDONIA, A MED
 PILE SOUTH OF A CIRCULAR PIT; S-POINT
 XRF, pH 6.14, COLE RUNNING TABLET
 GRANITE ROCK

0910] SITE 5343, GRAB pH 5.36
 EAST PART OF A E-W BARE AREA; WEATH,
 GRANITE

0920] SITE 5344, GRAB pH 5.28 W. END
 OF SAME BARE AREA

0925] SITE 5345, GRAB XRF, pH 5.80
 A SAMPLE DRAINAGE AREA; VERY SANDY, D-STRM
 OF LARGE BURLINGTON DUMP

0940] SITE 5346, GRAB pH 7.13, A SMALL
 BARE, N. OF A TRENCH, NEARBY PILES ARE
 MOD-VEGETATED; GRANITE ROCK

Rite in the Rain

WSSOU RI SOIL SAMPLING

5-18-20 MON

S. SMITH

0950] SITE 5347, 10-POINT LAB, pH 5.51
 A MOD. SIZE BARE AREA, SLOPING TO W.
 GRANITE SUB-CROP; DARK BROWN SOIL
 20WS-0285-SO 5347-N-051820 @ 0950
 TAL METALS, QT. ZIPLOCK

0955] SITE 5348, GRAB pH 5.28 A
 SMALL DUMP ON E. SIDE OF MED., CIR-
 CULAR PIT

1005] SITE 5349, 5-POINT XRF, pH 6.69
 A MED DUMP ON WEST SIDE OF SAME PIT
 WEATH. GRANITE; TAN, SANDY SOIL

1015] SITE 5350, GRAB pH 6.89
 A BARE AREA AT W. END OF A TRENCH
 HIGH MN. STAIN; ALSO JUST E. OF A SMALL
 PIT

1025] SITE 5351, A GRAB pH 5.24 IN
 AN AREA W/ SHALLOW BEDROCK AND CRS
 DECOMPOSED GRANITE

1035] SITE 5352, NO SAMPLE, A GRANITE
 BEDROCK AREA, MOD. VEGETATION, LOW
 OUTCROPS; PLOTTED A TRACK

1045] SITE 5353, BACK IN FREDONIA -
 GRAB pH 9.15, A SMALL PILE AT S. END
 OF A SHALLOW TRENCH

* OLD WELL IN THE TRENCH; 6" CASING
 DTB 4 FT

5-18-20

4th

1110] SITE 5354, 5-POINT XRF, pH 5.40
 W. END OF BURLINGTON; PILE ON N. SIDE OF
 TRENCH; WEATH GRAY GRANITE ROCK; SOIL
 IS PINKISH; * POSSIBLE SUBSIDENCE
 IN TRENCH - COVERED W/ STYROFOAM

1120] SITE 5355, 5-POINT XRF, LAB, pH 5.47
 FARTHER WEST ON SAME PILE, HIGH MN-
 STAINING, QTZ-RICH VEIN ROCK

20WS-0285-SO 5355-N-051820 @ 1120
 TAL METALS, QT. ZIPLOCK

1130] SITE 5356, GRAB pH 5.63; A BARE
 SANDY AREA JUST N. OF 5355

1135] SITE 5357, GRAB pH 4.56 SMALL
 PART OF BARE AREA, S-SIDE OF TRENCH,
 DUE EAST OF CLAIM BOUNDARY FENCE;
 GRANITE ROCK

1140] SITE 5358, GRAB pH 5.38; SANDY
 BARE AREA, NO ROCK; S. OF 5353, ON S.
 SIDE OF TRENCH

1150] SITE 5359; GRAB pH 6.02; IN ROAD IN
 BURLINGTON; 50' EAST OF GATE; MN-STAINED
 CRS GRAVEL

1200-1230] LUNCH BREAK; 55° LT WIND, OVER

1245] SITE 5360; GRAB pH 5.69
 BARE AREA, N. SIDE OF MAIN TRENCH
 SHALLOW BEDROCK - GRANITE *Rest in the Rain*

WSSOV RI SOIL SAMPLING

5-18-20 MONDAY

S. SMITH

1250] SITE 5361, S-POINT, XRF, pH 6.00
A MED DUMP; ORIENTED N-S, PERPENDICULAR
TO TRENCH; N OF TRENCH; WEATHERED
GRANITE

1255] SITE 5362, NO SAMPLE, SHALLOW BED
ROCK AREA.

1305] SITE 5363, NO SAMPLE, ANOTHER BED
ROCK AREA; ~~800~~ N. OF LARGE DUMP;
S. OF DRAINAGE; GRANITE, SHALLOW OUTCROP

1315] SITE 5364; GRAB pH 6.04; IN
DRAINAGE, 50 FT SOUTH OF FENCE
GRANITE GRAVEL + SAND IN CHANNEL

1325] SITE 5365, GRAB pH 6.05; A
SMALL BARE AREA, ON N-SIDE OF
CREEK; LT. BROWN SANDY SOIL; GRANITIC

1335] SITE 5366; GRAB pH 9.34 SMALL
BARE AREA; LT. TAN, STEEP, N. BANK
OF CREEK

1340] SITE 5367, NO SAMPLE, BEDROCK OUT-
CROP, GRANITE; N. SIDE OF DRAINAGE

1350] SITE 5368, GRAB pH 5.37; A BARE
SANDY BANK ON N. SIDE OF CREEK

1400] SITE 5369, 5-POINT XRF, pH 5.82
SAMPLE IN DRAINAGE; FROM FENCE THEN 30'
TO EAST; DECOMP GRANITE SEDIMENT

20WS-0246-S05370-N-051820, QT. ZIPLOCK

5-18-20 INDEPENDENT CLAIM/0246 TAL

1425] SITE 5370, IN ~~9~~, 10-POINT LAB; METAL
PH 5.53; MED PILE 30' WEST OF FENCE,
SO EAST EDGE OF CLAIM; HIGH Mn-STAIN,
4-WHEELERS HAVE DRIVEN ON.

1430] SITE 5371, GRAB pH 5.03; SMALL
PILE JUST SOUTH OF 5370; LESS Mn

1440] SITE 5372, 5-POINT XRF, pH 4.95
N. FACE OF LARGE, HIGH LT-COLORED DUMP
PINKISH SOIL; NOT MUCH ROCK - BUT IT IS
GRANITE

1445] SITE 5373, 5-POINT XRF, pH 3.03
WEST FACE OF SAME DUMP; ON SURFACE
IT IS WHITE TO PALE YELLOW; LT. RED
UNDER SURFACE

1450] SITE 5374, GRAB pH 5.36; IN ROAD
AT TOE OF 5373; DARK BROWN SOIL

1455] SITE 5375, GRAB pH 7.01; IN ROAD
W. OF 5370; BROWN SAND + GRAVEL

1500] SITE 5376; ~~900~~ 5-POINT XRF, pH 5.30
MED DUMP PILE SOUTH OF APPARENT SHAFT PIT;
JUST W OF ROAD; 5 POINTS ON EAST AND SOUTH
FACE OF PILE

1510] SITE 5377, 5-POINT XRF, pH 3.66
SMALL PART OF LARGE DUMP; SOIL IS
WHITISH TO PINKISH; WEATHERED GRANITE

WSSOU RI SOIL SAMPLING

5-18-20 MON

S. SMITH

1515] SITE 5378, SPLP/ABA, pH 5.83
 SAMPLE A SMALL DRAINAGE OR GULY BETW
 2 LOBES OF DUMP; HIGH Mn STAINED

THIS GULY FEEDS INTO THE CREEK (2A)
 BOTTOM (DRY). ZOWS-0246-S05378-N-051820

1530] SITE 5379, GRAB pH 5.94; WEST
 FACE OF LARGE DUMP, HIGH Mn-STAIN

1535] SITE 5380 GRAB pH 5.49
 A VERTICAL STREAK OF RED-BROWN SOIL
 N. OF 5379

1540] SITE 5381, GRAB pH 5.61 } WEST FACE
 OF NEXT LOBE TO NORTH } HIGH Mn.
 GRANITE ROCK

1545] SITE 5382, A 30-POINT MIS; pH 6.35
 TOE AREA BENEATH SW AND WEST LOBES OF
 LARGE INDEPEN DUMP; HIGH Mn-STAINING

1550] SITE 5383, 5-POINT XRF; pH 5.62
 A SAMPLE IN DRAINAGE BOTTOM; SANDY,
 D-STAIN OF LARGE DUMP

1600] SITE 5384, 5-POINT XRF, pH 4.16
 S-SLOPE OF LARGE WEST LOBE; DK. RED-
 BROWN SOIL; WEATH GRAY GRANITE

1615] 63°, MOD. WIND; CLOUDY; PIONEER
 CREW HEADS OFFSITE. NOTE: AT 1545 SAMPLE
 ZOWS-0246-S05382-N-051820 WAS COLLECTED
 FOR MIS IN A GALLON ZIPLOCK

WSSOU RI Soil Sampling

5/19/20 Tuesday

09:20 AT Pioneer office, Calibrate
 pH probe

Probe 1	Buffer	Reads
	4.0	4.00
	7.0	7.01
	10.0	10.06

1040] PIONEER CREW ONSITE AT INDEPENDENT;
 STEWART SMITH, MOLLY SPRUNGER, COLE DALLA-
 SERA, + JESSE SIMS; 50° P. CLM, LTRWIND;
 HEAVY OVERNIGHT RAIN

1105] SITE 5385, GRAB pH 5.26; A
 LOBE IN NW PART OF DUMP; HIGH Mn-
 STAINING

1110] SITE 5386, 5-POINT XRF, pH 6.73
 A SMALL DRAINAGE BETW LOBES; THIS
 DRAINAGE FEEDS INTO CREEK BED TO SOUTH
 NOTE: MUCH OF THIS DUMP HAS TIRE
 TRACKS ON IT; APPEARS TO HAVE RECREA-
 TIONAL USE

1115] SITE 5387, GRAB pH 5.60, LOBE
 FARTHEST NW

1120] SITE 5388, GRAB pH 6.41, NEXT
 LOBE TO SOUTH - A LARGE LOBE, HIGH Mn.

1130] SITE 5389, 5-POINT LAB, pH 6.36
 SOME SMALL DRAINAGE AS 5388; OUT BEYOND
 LAST LOBE. ZOWS-0246-S05389-N-061420 (2A)

WSSOU RI SOIL SAMPLING

5-19-20 TUES

S. SMITH

- 1135] SITE 5390, 5-POINT pH 7.00, A FLAT BARE AREA ON TOP OF DUMP ALONG N. EDGE OF DUMP, HIGH Mn-STAIN
- 1145] SITE 5391, 10-POINT XRF, pH 6.22
LARGE BARE AREA IN CENTER TOP OF DUMP
HIGH Mn-STAIN
- 1150] SITE 5392, 5-POINT pH 5.87
N PART OF DUMP, E OF 5390, A BIKE JUMP AREA
- 1205] SITE 5393, NO SAMPLE; ~WELL VEG-ETATED DUMP FROM DEEP EXCAV PIT
DREW A TRACK; 2 PHOTOS
NOTE - 3 SMALL SINKHOLES WEST OF 5393 AND S. OF 5394
- 1210] SITE 5394, GRAB pH 5.10
S. SLOPE OF MED DUMP W/ BURNT TREES
- 1230] SITE 5395, GRAB pH 7.88 ALONG N-CENTRAL BORDER OF INDEPEND CLAIM
SILTY SAND SOIL IS BLACK FROM FIRE
SMALL TRENCH JUST NW OF A GRANITE WALL
- 1235] RUNNING WATER IN DRAINAGE W OF 5395
- 1255] SITE 5396, 5-POINT XRF, pH 6.00
BARE AREA, 20' S. OF ROAD; HIGH Mn-STN ON S-CENTRAL INDEPEND BORDER

5-19-20

- JUST N. OF 5396, ON N. SIDE OF ROAD IS A STONE FOUNDATION WITH BRICK DEBRIS
- 1305] SITE 5397; 5-POINT XRF, pH 6.29
IN DRAINAGE BOTTOM D-STRM OF INDEP. DUMP
- 1315] SITE 5398; GRAB pH 6.62
A SMALL ISOLATED DUMP ON SOUTH CLAIM BORDER, FROM A SMALL PIT; GRANITE ROCK
- 1320] SITE 5399; GRAB pH 5.74
10 FT DIAM BARE AREA W/ HIGH Mn-STAIN
- 1330] SITE 5400, 5 PT-COMPOSITE XRF pH 5.48; A NARROW Mn-STAINED BARE AREA; MINOR VEG.; JUST EAST OF N-S ROAD; 60°, MOD. WIND, CLOUDY
- 1340-1400] LUNCH BREAK
- 1405] A SMALL SUBSIDENCE NEAR NW FENCE CORNER OF BURL, BUT W. OF ROAD
- 1420] MOVED TO ASPHALT PLANT SOUTH OF HAAKON CLAIM, ALMOST TO BROWN'S GULCH
LT RAIN
- 1430] SITE 5401, HAAKON #0256, GRAB pH 6.70; EAST MOST OF 4 SMALL DUMPS
- 1440] SITE 5402, 5-POINT XRF pH 7.14
NEXT DUMP TO WEST; CIRCULAR PIT IS DEEP; SAMPLING NOT SIEVING WELL
RAINING HARDER

Rite in the Rain

WSSOU RI SOIL SAMPLING

5-19-20 TUESDAY

S. SMITH

1445] SITE 5403, 5-POINT LAB, pH 6.07
 FARTHEST WEST AND LARGEST DUMP; SAMPLE
 FROM WEST SLOPE OF DUMP

1455] PIONEER CREW LEAVES WSSOU FOR
 THE DAY DUE TO RAIN

NOTE: LAB SAMPLES TAKEN TODAY ARE:

20WS-0246-S05389-N-051920 @ 1130

20WS-0256-S05403-N-051920 @ 1445

TAL METALS, QT ZIPLOCKS

~~Stewart Smith~~
 5-20-20

NOTE FOR 5-20-20

20WS-0249-S05406-N-052020 @ 1135

MIS SAMPLE PREP / TAL METALS ANALYSIS

GALLON ZIPLOCK

WSSOU RI Soil Sampling

5/20/20 Wednesday

@ Piner @ 7:30. Picked
 first 13 natural cut samples
 + 3 SPLP samples to ship to
 Pace Analytical in MN.

Cal pH probe 1 @ 8:45

Buffer	Read
4.0	4.00
7.0	7.02
10.0	10.07

1025] CREW IN FIELD AT FAIRVIEW CLAIM
 CREW IS STEWART SMITH, MOLLY SPRUNGER,
 COLE DALLAGEIRA, + EVAN GRIFFITHS

510, P. CLOUD, CALM TO LT WIND

1100] SITE 5404, A GRAB pH 6.37
 IN CENTRAL FAIRVIEW; A SMALL SANDY BARE
 AREA, NO SIGN OF MINING IMPACT; GRAVEL
 APPEARS GRANITIC

1120] SITE 5405, OLD BORROW AREA, NO SAMPLE
 HEAVY GRASS, 2 PHOTOS; ON WEST BORDER OF
 CLAIM

1135] SITE 5406, A RANGELAND MIS,
 pH 5.64; A GRASSY, W-FACING SLOPE
 GRASS + SAGE, MINOR BARE AREAS

DK BROWN, SANDY LOAM

1200-1230 LUNCH BREAK, MOVE TRUCKS TO
 EAST PART OF FAIRVIEW

Return to Piner

WSSOV RI SOIL SAMPLING

5-20-20 WEB

S. SMITH

1240] SITE 5407, 5-POINT XRF, pH 5.95
A MEDIUM DUMP FROM CIRCULAR PIT
WEATHERED GRANITE; DUMP ON E-FACING
SLOPE

1250] SITE 5408, GRAB pH 4.93
SMALL PART OF DUMP EAST OF 5407
GRANITE ROCK

CONNOR KELLEY AND MICHELLE GOLDBERG OF
EDM ARE AT BLUE BIRD DUMP ACROSS
DRAW

1255] SITE 5409, 5-POINT LAB, pH 5.26
A SMALL DUMP LOWER DOWN HILL; RUNOFF
WOULD FLOW TO CREEK BED

20WS-0249-S05409-N-052020 @ 1255

TAL METALS, QT. ZIPLOCK

1305] SITE 5410, GRAB pH 6.44
WEATHERED GRANITE BEDROCK AREA, VERY
STEEP SLOPE DRAINS DIRECTLY INTO
LIVE CREEK

1310] SITE 5411, GRAB XRF, pH 6.44 ⁸⁷ (L)
SAME STEEP SLOPE, 30' S OF 5410

1320] SITE 5412, 5-POINT XRF, pH 5.69
NEAR EAST BOUNDARY OF FAIRVIEW ON WEST FACING
SLOPE, AT TOE OF LARGE DUMP THAT IS NOT
ON FAIRVIEW; EAST OF CREEK

57°; CLOUDY, LT. WIND

5-20-20

1335] SITE 5413, GRAB pH 5.89
SMALL BARE SANDY AREA NW OF 5412, PART
OF A SMALL DRAINAGE COMING OUT OF LARGE
DUMP

1345] SITE 5414, GRAB pH 5.51
10-FT DIAMETER BARE AREA; ON N. BORDER OF
FAIRVIEW; E. OF CREEK

1350] SITE 5415, NO SAMPLE, A LARGE
LOW GRANITE OUTCROP, GRASSES AND A
FEW TREES, BUT LOOKS BARE ON AIR
PHOTO

1400] SITE 5416, GRAB pH 5.54
SMALL PILE FROM SMALL PIT; PART OF
PILE IS VEGETATED

1405] SITE 5417, NO SAMPLE, LOW GRANITE
OUTCROP

1425] SITE 5418, 5-POINT XRF, pH 8.63
N. BANK OF SMALL DRAINAGE ALONG S.
BORDER OF CLAIM; SAMPLE IS WET; DOES
NOT LOOK MINING IMPACTED

1450] SITE 5419, 5-POINT XRF, pH 5.76
A SMALL PILE FROM A SMALL CIRCULAR
PIT; COMPOSITE INCLUDES SLOPE COMING
AWAY FROM PILE; S. CENTRAL FAIRVIEW NEAR
BEND IN ROAD; LT. RAIN, MOD. WIND

Rain in the Rain

- 5-20-20 WED
 1455] SITE 5420] GRAB pH ~~5.76~~ 5.55
 SMALLER PILE AND PIT WEST OF 5419
 MOD VEG ON PILE
 1540] SITE 5421, GRAB pH 6.15, XRF
 NOW IN HERBERT CLAIM, 0306
 (P) SMALL PILE AROUND SMALL PIT
 WEATHERED GRANITE
 1550] SITE 5422, 5-POINT XRF, pH 6.08
 A MED PILE ALONG W. EDGE OF HERBERT
 NEAR FREDONIA; SOURCE OF MATERIAL IS
 WEST OF FENCE; GRANITE ROCK
 1605] SITE 5423, GRAB pH 5.86
 CENTER OF 3 10-FT DIAM BARE AREAS
 TAN, SANDY AREAS; DOES NOT APPEAR
 MINING-IMPACTED; EAST PART OF HERBERT
 1615] SITE 5424, GRAB pH 5.29 SMALL
 PILE JUST N OF FENCE ALONG BLUEBIRD
 TRAIL RD.; WEATH. GRANITE
 1620] SITE 5425, NO SAMPLE; LOW
 GRANITE BEDROCK AREA, SOME GRASS
 BETW. BEDROCK
 1635] PIONEER CREW OFFSITE FOR THE DAY
 NOTE: 20 SAMPLES WERE SHIPPED TODAY
 TO PACE ANALYTICAL, 1700 ELM ST., MINNEAP-
 OLIS, MN 55414 ON ICE UNDER CHAIN-OF-CUSTODY
 FED EX TRACKING 4278 9928 2765

5/21/20 Thur C. SALASERRA
 0920] At Pioneer office, calibrate
 pH probes

Probe 1	Butter	Brads
	4.00	4.00
	7.00	7.02
	10.00	10.06

- 11:00] Crew in field at Tom Hayne
 claim. Crew is Stewart Smith, Cole
 Dallasera, and Molly Sprunger
 470, Mostly cloudy with gusty winds
 11:25] Pat Sampson on site to
 aid crew in site Recon of Orphan
 Bay claim. (0016 claim #)
 12:05 In the North East portion of
 Orphan Bay dump. beginning characterization
 on North face
 12:05] Site 5426, 5-Point XRF pH 5.78
 Granite rock on surface. Surface mostly
 coarse fragments with little exposed soil
 12:15] Site 5427, Grab, pH 8.07
 Small dump w/ L Mn staining and
 moderate Fe staining.
 12:20] Site 5428, 5-Point XRF, pH 7.50
 Small dump NW of gash/small pit

8/21/20 Thur.

C. DALLASERNA

12:30] Site 5429, Grab pH 4.00

Small site at toe of large dump with higher Mn & Fe staining than surrounding areas.

12:40] Site 5430 10-Point, XRF, pH 8.72

Along toe of slope on large dump on North side

12:45] Site 5431 Grab pH 8.86

Small outwash area at toe of slope

13:00] Site 5432 Grab pH 7.82

Series of small dumps below toe of large dump off NW side.

13:45] Site 5433 5-Point pH 8.58

at top of slope on NE end of dump

13:55] Site 5434 10-Point Lab pH 7.12

Collected for total metals analysis. Q+ Ziplock 20WS-0066-505434-N-052120 @ 13:55

Sample collected at top of slope on dump along NW point of dump.

14:15] Site 5435 Grab pH 7.07

Bench of Orphan Boy dump above large impoundment

14:20] Site 5436 Grab pH 8.46

Just South on bench from 5435

14:25] Site 5437 5-Point XRF pH 6.19

Along Bench on SW axial of Orphan Boy Dump. High Mn stained area. Shows signs of recreational use.

8-21-20 Thur.

14:35] Site 5438 10-Point, XRF, pH 5.14

large circular Bine area that appears to be impacted just SW of Orphan Boy dump.

Moved into George Lode Claim. SE ⁵ Quad of Spitzer dump on Orphan ⁵ Boy

14:45] Site 5439 5-Point XRF, Lab, pH 6.34

Collect sample along toe of steep Spine Minedump. collected 20WS-0013-505439-N-052120 @ 14:45 for total metals analysis. Q+ Ziplock

15:00] Site 5440 10-Point pH 8.56

Site along toe of steep Spine minedump close to SW side of Orphan ⁵ Boy Back in Orphan Boy Claim on site 5440.

15:15] Site 5441 Grab pH 8.55

Site Along Recreational use area just West of Orphan Boy dump.

15:35] Site 5442 Grab pH 6.55

Small dump just NW of large dump on George Lode Claim

15:40] Site 5443 5-Point XRF pH 5.64

SE facing slope of small dump. More earthy looking material.

15:45] Site 5444 Grab pH 4.51

Top of dump near bike Trail

Rite in the Rain

5-21-20 Thurs.

- 15:50] Site 5445 Grab pH 3.44
South facing slope at top of dump
- 15:55] Site 5446 Grab pH 8.63
- 16:00] Site 5447 10-Point YRF pH 4.05
Larger dump piles of more coarse material with high Mn + Fe moderate
- 16:15] Site 5448 10-Point Lab pH 3.03
Circular area that appears impacted.
Runoff moving off site (presence of erosion rills down gradient), collected 10-Point composite sample in Qt Ziplock for total metals 20ws-0013-505448-10-052120 @ 16:15
- 16:25] Site 5449 Grab pH 6.27
High Mn area split by recreational rd. sampled on west side of road.
- 16:30] Site 5450 Grab pH 2.61
Small dump
- 16:40] PIONEER CREW OPPOSITE FOR THE WEEK.

Stewart Smith
5-21-20

FIELD NOTES CONTINUE IN LOG BOOK 3



USE WET OR DRY
most pens stop writing when wet

- ALL PENCILS
- RITE IN THE RAIN PENS
- WAX MARKERS
- CRAYONS
- OIL PASTELS / PAINT

WHEN DRY ONLY
what you write won't wash off

- PERMANENT MARKERS
- STANDARD BALLPOINTS

WON'T WORK
water-based inks bead off sheet

- GEL PENS
- MOST HIGHLIGHTERS
- FOUNTAIN PENS
- WATER COLORS
- ACRYLIC PAINT

EQUIPPING MULTIPLE INDUSTRIES WORLD-WIDE



other product styles available



BOUND BOOKS



COVERS, KITS & PLANNERS



LOOSE LEAF & BINDERS



WRITING INSTRUMENTS



PRINTER / COPIER BLANK SHEETS



RiteintheRain.com

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2614 PACIFIC HWY EAST,
TACOMA, WA 98424 USA



MADE IN TACOMA
— SINCE 1916 —

Rite in the Rain®
— DEFYING MOTHER NATURE —

Yes, Rite in the Rain
is a wood-based & recyclable
paper, but unlike plain paper...
it won't turn to mush
when exposed to:



ALL-WEATHER TOUGH!



BRAND HISTORY
J.L. DARLING
est. 1916

The Rite in the Rain story began nearly a century ago in the forests of the Great Northwest. Entrepreneur, Jerry Darling, recognized the logging industry's need for a durable material that could be written on and survive in poor weather conditions. Jerry developed a special coating that created a unique moisture shield on the hand-dipped sheets of paper that he and his wife, Mary, processed at their home. From humble beginnings our first all-weather paper was born! Over the many years we've perfected and patented our environmentally responsible coating process. Still located in Tacoma, our continued mission is to provide innovative products for professionals and enthusiasts who brave the outdoors.

Samples listed below are included in logbook 3 and were sampled for XRF analysis.
Sample ID correlates with the given SO name in the logbook.

Dates: 5/26/20-6/3/20

20WS-0315-SO5453-N-052620
20WS-0315-SO5454-N-052620
20WS-0315-SO5459-N-052620
20WS-0315-SO5460-N-052620
20WS-0315-SO5464-N-052620
20WS-0315-SO5471-N-052620
20WS-0315-SO5474-N-052620
20WS-0315-SO5479-N-052620
20WS-0315-SO5480-N-052620
20WS-0315-SO5484-N-052620
20WS-0315-SO5490-N-052720
20WS-0315-SO5495-N-052720
20WS-0315-SO5496-N-052720
20WS-0315-SO5498-N-052720
20WS-0313-SO5505-N-052720
20WS-0315-SO5506-N-052720
20WS-0313-SO5511-N-052720
20WS-0315-SO5513-N-052720
20WS-0315-SO5516-N-052720
20WS-0320-SO5523-N-052720
20WS-0320-SO5524-N-052720
20WS-0320-SO5527-N-052720
20WS-0321-SO5531-N-052820
20WS-0319-SO5535-N-052820
20WS-0319-SO5536-N-052820
20WS-0312-SO5542-N-052820
20WS-0312-SO5547-N-052820
20WS-0307-SO5548-N-052820
20WS-0313-SO5552-N-052820
20WS-0313-SO5553-N-052820
20WS-0313-SO5556-N-052820
20WS-0301-SO5557-N-052820
20WS-0301-SO5559-N-052820

20WS-0301-SO5560-N-052820
20WS-0301-SO5566-N-052820
20WS-1150-SO5567-N-052920
20WS-1150-SO5568-N-052920
20WS-0301-SO5573-N-052920
20WS-1150-SO5574-N-052920
20WS-1150-SO5576-N-052920
20WS-1150-SO5577-N-052920
20WS-0301-SO5579-N-052920
20WS-0301-SO5584-N-052920
20WS-0301-SO5585-N-052920
20WS-0300-SO5590-N-052920
20WS-0300-SO5592-N-052920
20WS-0300-SO5593-N-052920
20WS-0306-SO5597-N-052920
20WS-0013-SO5603-N-060120
20WS-0013-SO5608-N-060120
20WS-0296-SO5614-N-060120
20WS-0296-SO5615-N-060120
20WS-0296-SO5618-N-060120
20WS-0296-SO5619-N-060120
20WS-0311-SO5623-N-060120
20WS-0038-SO5664-N-060120
20WS-0317-SO5668-N-060120
20WS-1143-SO5626-N-060220
20WS-1143-SO5627-N-060220
20WS-1142-SO5631-N-060220
20WS-0350-SO5633-N-060220
20WS-0350-SO5637-N-060220
20WS-0350-SO5640-N-060220
20WS-0350-SO5648-N-060220
20WS-0130-SO5729-N-060220
20WS-0130-SO5731-N-060220
20WS-0162-SO5734-N-060320

20WS-0162-SO5736-N-060320
20WS-0160-SO5738-N-060320
20WS-0160-SO5739-N-060320
20WS-0158-SO5745-N-060320
20WS-0158-SO5748-N-060320
20WS-0153-SO5751-N-060320
20WS-0138-SO5752-N-060320
20WS-0138-SO5754-N-060320
20WS-0138-SO5756-N-060320
20WS-0138-SO5757-N-060320

WEST SIDE SOILS
OPERABLE UNIT
(WSSOU)



Rite in the Rain
ALL-WEATHER
JOURNAL
No 391FX

5/26/20 to 6/3/20

BOOK 3

WSSOU RI SOIL SAMPLING
BOOK 3 - FIELD NOTES
CONTINUED FROM BOOK 2

5-26-20 TUESDAY

@ Pioneer office @ 07:30 to
load equipment + hold safety
meeting. Weather = 53°F + partly cloudy
Calibrate pH probe

probe I	Buffer	Reading
	4.0	4.00
	7.0	7.01
	10.0	10.00

9:00] Crew on site @ Garibaldi
Claim. Crew consists of Cole Dallasera
and Molly Spranger. Primary focus
will begin at main dump site
along south central parcel border.
Dump does extend into the United
States claim to the SW and the
Missouri claim to the SE. Will
label all samples taken from dump
0315 for Garibaldi claim.

9:10] Site 5451 Grab pH 4.82
Along west side of dump. Motorbike trail
running through dump. Took grab in very
light colored material between trail +
higher Mn stained area.

5-26-20 Tuesday

9:15] Site 5452 Grab pH 5.43

located just East of trail on top of
lobe w/ light Mn + Fe staining

9:25] Site 5453 5-Point XRF, pH 5.56

Site mid slope of lobe. Some movement/
sloughing of material from slope.

9:30] Site 5454 5-Point XRF, pH 4.39

On large dump in Garibaldi. South
facing slope. Really bleached looking material

9:45] Site 5455 10-point Lab, pH 5.49

Collected 20WS-0315-505455-N-052620

@ 9:45 in Q+ ziplack to run the
metals analysis. Site is small depositional
area at toe of slope from South
facing slope of mine dump @
Garibaldi claim.

9:55] Site 5456 Grab pH 6.45

Site at top of lobe on Garibaldi dump

10:00] Site 5457 Grab pH 8.74

Site just SE of site 5456 on top
of lobe on Garibaldi dump.

10:05] Site 5458 Grab pH 8.99

10:15] Site 5459 5-point XRF, pH 7.35

Site in somewhat of a gully where
runoff is occurring.

4 5-26-20 Tuesday

- 10:25] Site 5460 Grab, XRF, pH 8.93
Site is sister-site to 5458. Wanted
XRF data from higher pH range
on large dump on Garibaldi
- 10:35] Site 5461 S-Point pH 8.75
SE facing slope. Collected composite from
top of spine lobe. Some old bike tracks ^{on slope}
- 10:50] Site 5462 Grab pH 5.78
Site shows recreational use. Along SW
corner of large dump on Garibaldi
- 10:55] Site 5463 Grab pH 5.39
Site just south of large gash/pit
Smaller dump area.
- 11:00] Site 5464 S-Point, XRF, pH 5.41
Small dump just south of large gash
- 11:05] Site 5465 Grab pH 8.20
- 11:15] Site 5466 Grab pH 9.01
Small dump next to small pit.
- 11:20] Site 5467 - Bed Rock area
- Site has shallow bedrock + poor
soil development. Really exposed to
wind + harsh weather conditions
- 11:25] Site 5468 - Bed Rock Area
Shallow bed rock area. Took polygon of
both site 5468 + 5467
- 11:30] Site 5469 Grab pH 5.23
Small dump. No visual pit in close proximity

WSSOU RI SOIL SAMPLING

5-26-20 Tuesday. 5

- 12:20] Site 5470 Grab pH 6.61
Small dump below large dump
& just west of large cut in eastern
- 12:40] Site 5471 7-Point, XRF, pH 5.35
Area Below large dump & just
south of large cut in eastern. just
upgradient of well vegetated drainage
- 12:46] Site 5472 Grab pH 5.27
- 12:50] Site 5473 S-Point pH 6.17
SW Facing slope on dump
- 13:00] Site 5474 10-Point, XRF, pH 6.63
SE facing slope on dump next to large
cut in eastern.
- 13:15] Site 5475 Grab pH 5.11
Bare Area south of open cut
- 13:20] Site 5476 Grab pH 4.84
- 13:25] Site 5477 Grab pH 5.23
- 13:30] Site 5478 Grab pH 6.44
Small dump on east end of open cut
in eastern. Just west of walking trail.
Lighter hue with little Mn + Fe
- 13:35] Site 5479 S-Point, XRF, pH 5.15
On small terrace along south facing slope
just below gash. Near site 5476
- 14:05] Site 5480 S-Point XRF, pH 7.88
Based at the toe of large dump

WSSOU RI SOIL SAMPLING

5-26-20 Tuesday

on Garibaldi Claim, off of SE
Toe of dump in a pretty well
vegetated drainage swall.

14:15] Site 5481 grab pH 5.24
large bare area upgradient of
pit. Most runoff will end up in
pit.

14:20] Site 5482 grab pH 5.30
Site small area just down gradient
of bedrock + open pit with lots
of rock/bedrock exposed.

14:25] Site 5483 5-point pH 5.41
- Appears to be mostly decomposed
granite + barren due to poor
soil conditions.

14:35] Site 5484 5-point XRF, pH 5.28
Comprised of several smaller bare areas
adjacent to large gash. Just north
of gash.

14:45] Site 5485 Grab pH 5.22
just down gradient of pointed shallow
bedrock area. Most likely bare due to
~~poor~~ soil conditions due to weather exposure +
shallow bedrock, but is adjacent to
historic mining activity.

5-26-20 Tuesday

15:00] Began running samples
for XRF analysis. Ran
a total of 25 Natural Samples,
1 Replicate, 1 duplicate, and 4
Standards plus System Check
at start up.

Crew off site and back
@ Pioneer office at
17:50 for the day
- collected 1 lab sample for the day.

Chloe Pallam
5/26/2020

WSSOU RI SOIL SAMPLING

5/27/20 Wed.

@ Pioneer office @ 7:30 to
load equipment and
calibrate pH probe.

Held safety meeting

probe	Buffer	Reading
Cal	4.0	4.00
	7.0	7.01
	10.0	10.06

Crew on site @ 8:45 to
continue investigation on Caribaldi

Claim. Crew consists of Cole
Dallaserra, Molly Spranger, and
Jesse Sims. Stewart Smith to

Join crew later in the morning

Weather = 50°F + clear. Forecasted
hi = 71°F for the day.

9:00] Site 5486 Grab pH 8.94

Small dump next to small pit

9:05] Site 5487 Grab pH 8.86

Small dump next to cut in center

just down gradient of site 5486

9:15] Site 5488 10-Point lab, pH 6.13

Site at mouth of drainage just west

of walking trail. Large sediment

deposit over from drainage runoff.

Collected 20WS-0315-S05488-N-052720

5/27/20 Wed

@ 9:15 in 10 ziplock bag
(10-point composite) for total metals analysis.

9:30] Site 5489 Grab pH 5.87

Site just upstream from
site 5488 @ inlet of small channel
coming from the North

9:35] Site 5490 5-Point XRF, pH 5.17

South easterly facing slope down
gradient of a few dump piles

9:40] Site 5491 5-Point pH 5.03

just west of site 5490 in some
material with a more orangish hue

9:50] Site 5492 Grab pH 4.92

Site just upslope from site 5490 in
some more coarse rock area

9:55] Site 5493 Grab pH 5.24

10:00] Site 5494 Grab pH 5.23

just down gradient from small dump

10:05] Site 5495 5-point XRF, pH 5.38

Small dump next to small pit.

Really bleached looking material.

10:10] Site 5496 5-Point XRF, pH 6.53

Dump site adjacent to pit and in close
proximity to walking trail

10:20] Site 5497 Grab pH 5.05

site in higher Fe stained area

Site on the Rain

WSSOU RI SOIL SAMPLING

5-27-20 Wed.

10:25] Site 5498 10-point XRF, pH 5.61
 Site is depositional area on "terrace"
 just west of walking trail where
 it was cut into the slope for
 trail construction. Deposits from upgradient
 slope consists of small pits and
 bare areas where there is shallow
 bedrock. The majority of the slope appears
 decently vegetated.

10:35] Site 5499 5-Point pH 5.07
 down gradient of small dump and
 adjacent to what appears to be
 mostly shallow bedrock area.

10:40] Site 5500 Bed rock area
 Area appears to be large shallow
 bedrock area. There are some small
 pits adjacent in which it appears.
 Some exploration was attempted but
 was halted due to the bedrock.

10:45] Site 5501 Grab pH 5.62
 Small dump next to small pit.

10:55] Site 5502 Grab pH 5.84
 High Fe stain area next to small
 exploration pit in a shallow bedrock area.

11:00] Site 5503 Grab pH 7.36
 Small dump next to small pit.

5-27-20 Wed.

11:10] Site 5504 5-Point pH 5.17
 Large Bare area between two
 small dumps.

11:15] Site 5505 5-Point XRF pH 5.88
 Dump pile adjacent to pit. Looks
 like encounter bedrock while digging
 pit.

11:25] Site 5506 10-Point XRF, pH 5.85
 Site is in drainage down gradient
 of bare areas and various small dumps

12:30] Site 5507 Grab pH 8.69
 Site is located on what appears to
 be an old embankment. Does not
 appear to be heavily impacted. Area well
 vegetated with few bare spots.

12:35] Site 5508 Grab pH 8.28

at the toe of large open pit and just
 NW of embankment feature

12:55] Site 5509 Grab pH 8.57
 Small dump from open gash in
 earth just north of large open cut/gully
 feature

13:05] Site 5510 Grab pH 7.20
 Site along North edge of large open cut
 feature

WSSOU RI SOIL SAMPLING
Weed.

13:10] Site 5511 5-point XRF, pH 7.29

Bare area towards head of open cut feature. Aspen shoots throughout area. Bottom of drainage is well vegetated and does not appear to see much flow.

13:20] Site 5512 Grab pH 8.21

Well vegetated dump from large open cut feature located along southern edge.

13:25] Site 5513 5-Point XRF, pH 5.43

Site located just west of road/trail. Small dump near small pit and just south of large open cut/gully type feature.

13:40] Site 5514 30-point MIS, pH 7.64

Rangeland MIS Sample
Collected towards central western boundary in well vegetated area on Garibaldi Claim. Collected
DOWS-0315-SO5514-N-052720 in
Gallons. ziplock @ 13:40

13:55] Site 5515 Grab pH 6.28

Small dump mostly well vegetated

14:05] Site 5516 5-Point XRF, pH 6.39

Small dump next to pit near

5/27/20 Weed.

Various other small pits/dumps. Some higher Mn staining. Data should be representative of local area. Completed Investigation on Garibaldi. Moving towards Nike claim to continue site investigations. Stewart Smith on site to aid investigation @ 14:00

14:55] Site 5517 Grab pH 5.87

Small dump next to pit in fairly well timbered area.

15:05] Site 5518 Grab pH 6.58

Small dump next to shallow bedrock. Lots of vein rock/Quartz. Vein present.

15:10] Site 5519 5-Point pH 6.40

Site adjacent to shaft. Really coarse material. Shaft opening narrow but looks really deep.

15:20] Site 5520 8-Point Lab, pH 6.32

Site large dump. Completed collection of lab and lab duplicate samples. Collected 8-Point composite sample

DOWS-0319-SO5520-N-052720 @ 15:20

in 1 qt ziplock for total metals. Collected

WSSOU RI SOIL SAMPLING

5-27-20 Wed.

8-Point composite lab duplicate
 sample 20WS-0319-505520-D-052720
 @ 15:25 as QA/QC sample.

15:30] Site 5521 Grab pH
 small lobe to North of main large
 dump. Lighter colored material.

15:35] Site 5522 Grab pH 6.87
 lobe to ~~East~~ East of main large dump

15:40] Site 5523 10-Point XRF, pH 6.17
 Large dump just south and adjacent
 to source area. High Fe staining.

15:45] Site 5524 Grab XRF, pH 7.01
 Fe south end of larger dump.

Material varies in coloration from rest
 of dump.

15:55] Site 5525 5-Point, pH 7.50
 Small dump adjacent to source pit
 South facing slope

16:00] Site 5526 Grab, pH 6.74
 Higher Mn stained site just west
 of small dump @ Site 5525. Site has
 High Mn + Low Fe

16:05] Site 5527 6-Point XRF, pH 6.51
 Site consists of two dumps adjacent
 to two small pits. Material from both dumps

5-27-20 Wed.

is very consistent. Some small
 heavy^{Mn} staining coarse rock piles adjacent
 on NE side of pile. Piles have moderate
 Mn staining + light Fe staining.

16:20] Site 5528 Grab pH 6.69
 Small dump in Nile claim next

to source area. Moderate to Low Fe + Mn staining

16:25] Site 5529 Grab pH 7.65

Small dump in Nile claim next
 to source area. Moderate Fe + Mn staining

There was another small dump between
 sites 5528 + 5529 that was covered
 in very coarse material. did not
 complete any characterization on that dump

Went off site and back to office
 @ 17:00. Collected 2 lab samples;
 1 lab duplicate QA/QC sample,
 and 1 lab range land MIS
 sample for the day.

Col. Gallan
 5/27/20

WSSOM BI Soil Sampling

5/28/20 Thurs

0735] at Pioneer office calibrate

pH probe. Held safety meeting.

Probe 1	Buffer	Reads
	4.00	4.00
	7.00	7.02
	10.00	10.07
Probe 2	4.00	4.06
	7.00	7.00
	10.00	10.05

Crew arrived in the field @ 9:45. Crew consists of Cole Dallaserra, Molly Sprunger, and Jesse Sims. Crew will investigate Missouri, United States, and Nile Claims not previously covered.

- 3 ABA samples and 8 MIS samples were prepped and packaged in cooler to be

shipped to Pace Analytical in Billings, MT for processing.

Fed Ex tracking # 4278 9928 2743

- Weather = 56°F Mostly Sunny. Forecast = 76°F

10:10] Site 5530 S-Point pH 5.35
Small dump adjacent to small pit. Area just southeast of large Garibaldi dump.

5/28/20 Thurs.

10:15] Site 5531 S-Point XRF, pH 5.47
Small dump next to pit & just SE of large Dump on Garibaldi. Site just south of well vegetated dump.

10:20] Site 5532 Grab pH 5.35
Site is bare area just south of large dump on Garibaldi. Site has bike trail running through center of it.

10:25] Site 5533 S-Point pH 5.22
Site is medium to small size dump with high Fe staining. Adjacent to pit with lots of conifer trees surrounding.

10:30] Site 5534 Grab pH 8.74
Well vegetated spoils pile with few bare areas. Adjacent to large open cut feature running east-west.

11:00] Site 5535 S-Point XRF pH 5.65
Site is small dump adjacent to road. Appears to be quartz vein rock.

11:10] Site 5536 S-Point lab, XRF, pH 5.19
Site is medium size dump adjacent to source area. High Mn staining on top of dump. Prepared XRF sample with lab sample. Collected 20WS-0319-505536-N-052820 in at ziplock for total metals analysis.

5/28/20 Thurs.

C. DALLASEREA

11:25] Site 5537 Grab pH 5.02

Small dump adjacent to pit.

Vein rock locking with the more

coarse rock showing more Mn

staining.

11:30] Site 5538 S-point pH 5.05

Small area below small dump that

has more coarse rock. Adjacent to

larger pit for size of dump. Sampled

from finer depositional area.

11:35] Site 5539 Grab pH 5.04

Small dump adjacent to source

w/ high Mn staining

11:45] Site 5540 Grab pH 5.07

Small high Mn stained area adjacent

to large open cut feature.

12:35] Site 5541 Grab pH 5.32

Small dump adjacent to drainage

12:40] Site 5542 S-Point XRF, pH 6.13

Dump adjacent to source area and

extremely close to drainage area.

Drainage mostly well vegetated.

12:50] Site 5543 Grab pH 5.56

Site is sediment deposit area

adjacent to drainage + in close

proximity to small mine dump.

5/28/20 Thurs.

Appears to be mostly natural deposit
from upgradient Area

12:55] Site 5544 S-Point Lab, pH 5.00

Site is dump pile that extends into

the drainage. Drainage is mostly

vegetated, and doesn't appear much runoff

is coming off dump pile, but any

runoff would flow directly into drainage.

Material really bleached.

Collected 20WS-0312-SO5544-N-052820

@ 12:55 in Qt Ziplock for SPLP.

Collected 20WS-0312-SO5544-N-052820

in Gallon Ziplock for ABA.

13:05] Site 5545 Grab pH 7.89

Site appears to be area of salt

accumulation from upgradient runoff

13:10] Site 5546 Grab pH 6.84

Site adjacent to large open pit that

does appear to be at least mildly

actively sloughing in. Collected grab

in bare area. Rim around pit

does have vegetation. No sign of large spoil pile

13:20] Site 5547 S-Point XRF, pH 6.01

Site in depositional area of channel just

down gradient of large open pit.

Rite in the Rain

WSSOU RI SOIL SAMPLING

5/28/20 Thurs

C: DALLASEYMA

13:35] Site 5548 5 point XRF, pH 4.73

Small dump next to source area.

Southern portion more fine. Rest of pile more coarse rock. Collected sample from more fine deposits.

13:45] Site 5549 Grab pH 5.15

Site located in bottom of ephemeral swale. Material deposit consists of some more coarse material than other areas in the swale, which makes one believe material could have intentionally been placed there.

14:05] Site 5550 5-point pH 5.20

Area is bare and feature does

show on Aerial image, but appears to be bare due to shallow bedrock + wind drawn.

14:15] Site 5551 Grab pH 4.95

Site upgradient from ~~off~~^{CO} embankment feature. Appears to be mostly poorly developed decomposed granite.

14:25] Site 5552 Grab XRF, pH 4.76

Site is small dump adjacent to source. Sample from small pile w/ High Mn staining.

5/28/20 - Thurs.

14:30] Site 5553 5-Point XRF pH 4.63

Site is small dump East facing adjacent to source area. Dump does have some sporadic veg + slope below is well vegetated.

14:55] Site 5554 30-Point MTS, pH 5.71

Site is in bottom of drainage down stream of large dump on Gen. Wash. Lots of sediment accumulation with some moderate Mn staining.

Collected 30-Point MTS Sample
DOWS-0313-505554-N-052820 @

14:55 in a Gallon ziplock bag.

15:10] Site 5555 Grab pH 5.54

Site is in bare area down gradient of series of well vegetated dumps. Some recreational use occurring on Bike trail dissecting area. Area has some processed looking fragments that look like Mn stained rock, but aren't. Fragments are really light ~~in~~ in weight.

15:20] Site 5556 5-Point XRF, pH 4.88

Small dump adjacent to source

Note: Silver Cleft claim has a lot of shallow bedrock areas + areas of poorly developed decomposed granite. These features do show on Aerial

Rite in the Rain

WSSOU RI SOIL SAMPLING

5/28/20 Thurs.

C. DALLASERRA

15:50 } Site 5557 S-Point XRF, pH 4.98

Site is spoils pile just south of large open cut feature.

15:55 } Site 5558 Grab pH 5.06

Site just below (east) of mouth of large open cut feature. Smaller area with higher Mn than surrounding areas.

16:00 } Site 5559 S-Point XRF, pH 4.78

Site is bare area with fine sand deposits down gradient of dump and adjacent to big open cut feature.

16:10 } Site 5560 10-Point XRF, pH 4.60

Large dump adjacent to open cut feature.

16:15 } Site 5561 Grab pH 4.71

Site just of North edge of dump for site 5560.

16:20 } Site 5562 Grab pH 5.17

Just below dump at site 5560. Some milky Quartz present.

16:25 } Site 5563 Grab pH 5.05

Small dump. No apparent source area. Adjacent to Blue Bird Trail.

16:30 } Site 5564 Grab pH 5.65

Small dump just North of site 5563.

5/28/20 Thurs.

16:35 } Site 5565 S-Point pH 4.93

Bare area just South + adjacent to open cut feature. No Spoils pile.

16:40 } Site 5566 S-Point XRF, pH 4.92

Large bare area w/ sparse veg. Similar to site 5565 described above. Lots of ants in the area.

Crew off site @ 17:00

Daily Summary = Ran 12

Natural XRF Samples plus Replicate, Duplicate, and Standard Requirements. Shipped 3 ABA + 8 MDS Samples

to Pace Billings, Characterized 37 sites, collected 1 ABA, 1 MDS, 1 SPLP, and 1 metals lab samples. Collected 13 samples for XRF analysis.

Checked pH probe 1 when returned to office in 7:00 buffer. Reading = 7.09.

C. Dallaserra
5/28/20

WSSOU RI SOIL SAMPLING

5-29-2011

1020] PIONEER CREW ONSITE AT GENERAL WASHINGTON CLAIM; 60°, CLOUDY, CALM
CREW IS STEWART SMITH; MOLLY SPRUNGER AND JESSE SIMS; PH PROBE WAS CALIBRATED AT OFFICE

Cole Dallaserra on site @ 10:25
Crew began characterizing large dump on Gen Washington claim.

10:30] Site 5567 10-Point XRF, pH 5.72
Site is on NW corner of large dump on west-facing slope that drains directly into drainage.

10:50] SITE 5568, 5-POINT XRF, pH 5.51
COLLECTED FROM EROSION RILLS ON WEST FACE OF LARGE DUMP; ROCK IS GRANITE, FAIRLY FRESH; DUMP FACE IS VERY STEEP

11:00] SITE 5569, GRAB pH 5.35, NEXT PORTION ON WEST DUMP FACE TO THE SOUTH
SOIL IS YELLOWISH, MORE Mn-STAINING

11:05] Site 5570 Grab pH 6.13
Site in depositional area below large dump.

11:10] Site 5571 6-Point lab pH 8.55
from South westerly face of large dump.
Collected Composite sample from rills

5/29/2011 Friday

~~running~~ off the face of the dump.
Collected JOWS-0301-505571-10-052420 in Qt ziplock @ 11:10 to Run for total metals analysis.

11:15] Site 5572 Grab pH 8.37
Site at Mouth of large Rill coming off of SW corner of large dump

11:20] Site 5573 5-Point XRF, pH 7.55
Site located in runoff drainage just SW of large dump.

11:35] Site 5574 5-Point XRF, pH 5.44
Site on large dump on SE corner of dump. High Mn staining and some larger coarse fragments on surface.

11:40] Site 5575 Grab pH 5.25
Site on East facing slope on center of large dump.

11:45] Site 5576 5-Point XRF, pH 3.51
Site on bench type area on large dump. Gradual SE facing slope. ~~But~~ Really yellowish colored material.

11:55] Site 5577 5-Point XRF, pH 5.19
Site on NE corner of large dump

12:40] Site 5578 Grab pH
Site is dump in center of Aspen Stand west of large dump on Gen Wash claim ~~at the~~

WSSOU RI SOIL SAMPLING

5/29/20 Friday

C. DALLASETTA

- 13:00] Site 5579 S-Point XRF, pH 5.50
Site B in depositional area in drainage down gradient of series of small dumps.
- 13:05] Site 5580 Grab pH 5.12
Site is small dump w/ old timbers. adjacent to drainage. pH grab from top of fill draining in to drainage.
- 13:10] Site 5581 Grab pH 3.16
Site on top of dump just west of site 5580 in some more yellowish colored material.
- 13:15] Site 5582 S-Point pH 4.72
Small dump adjacent to source
- 13:20] Site 5583 S-Point pH 5.05
Small dump up gradient of drainage to the north.
- 13:25] Site 5584 6-Point XRF, pH 6.23
Medium size dump adjacent to source
- 13:30] Site 5585 S-Point XRF, pH 6.87^{7.09}_{6.87}
Site medium sized dump adjacent to source. Pit appears to be actively sloughing in. Spills material has greasy texture to it.

5/29/20 Friday

- 13:40] Site 5586 Grab pH 6.87
Dump area with established aspen stand surrounding clump.
- 13:55] Site 5587 S-Point, pH 5.22
Site is small dump adjacent to source. Most runoff is impounded, but site is adjacent to road.
- 14:00] Site 5588 Grab pH 4.73
Site small lobe with higher
- 14:05] Site 5589 Grab pH 8.89
Site within series of small dumps some well vegetated.
- 14:10] Site 5590 S-Point XRF, pH 5.28
Site is eastern lobe of large dump on eastern side of Tom Harey Claim
- 14:15] Site 5591 Grab pH 5.41
just west along dump from site 5590 in some lighter colored material
- 14:20] Site 5592 S-point XRF, pH 4.95
Site is down gradient of dump at the head of the drainage running south. Some higher Mn staining
- 14:30] Site 5593 10-Point XRF, pH 4.66
Large dump with dark colored material East of site 5592 (runny North-South,

WSSOU RI SOIL SAMPLING

5/29/20 Friday SIMS/DALYASINNA

14:45] Site 5594 S-Point PH 5.13

Large Bare area with little growth, looks natural and made up of sand. Directly North of Site 5591.

14:50] Site 5595. Grab PH 5.42

Small dump next to source. Medium vegetation growing on east side of dump pile

15:00] Site 5596 Grab PH 5.32

Small dump with High Mn staining scattered through vegetation. Dumps are on both north and south side of digging.

15:05] Site 5597 S-Point XRF PH 4.97

Small dump adjacent to source made up coarse material, lighter colored rocks.

15:30] Site 5598 S-Point PH 4.64

Small dump in area with shallow bed rock adjacent to pit. Asparagus growing in pit with no vegetation on dump.

15:40] Site 5599 Grab PH 6.42

Small dump west of Site 5593 Rabbit brush and grass growing in dump

5/29/20 Friday

Perform site walk heading North westerly from large dump on Eastern edge of Tom Harney claim heading towards Bluebird Trail. Then headed south along ARCO boundary through Herbert and in to little Gem claim (eastern area) and then back North easterly through western portion of Cora May and ending back at large dump in Tom Harney. Seen and characterized few small dumps as noted on pg. 28. Area mostly dominated by large areas of shallow bedrock and poorly developed decomposed granite. Most features would show on aerial image but don't appear to be mining impacted. Daily Summary - Characterized 33 sites, took 1 Job sample for total metals, and 1 XRF analysis samples. Crew off site @ 16:00

C. Dalysinna
5/29/20

WSSO0 R1 Soil Sampling

6/1/20 Mon. Weather = Partly Cloudy 80°F

@ Office at 7:30 to load equip,
Calibrate pH probes, and complete
FAF.

Probe	Buffer	Reading
Probe 1	4.0	4.00
	7.0	7.01
	10.0	10.04
Probe 2	4.0	4.00
	7.0	7.03
	10.0	10.03

Crew on site @ George Lode
Claim @ 8:45 to resume
Characterization. Crew consists
Stewart Smith, Cole Dallasera, Molly
Sprunger, Jesse Sims, and Zach
Archibald.

9:00] Site 5600 S-Point pH 6.33
Site is bare bare area just west
of fence line. Some high Fe staining
& areas of high Mn staining.

9:05] Site 5601 S-Point Lab, pH 7.18
Site is a southwesterly facing slope
with some very coarse fragments on
the surface. Site has high Fe & Mn staining.
Collected 20WS-0013-805601-N-060120

6/1/20 Mon.

@ 9:05 in at ~~FF~~ Ziplock bag for
total metals analysis.

9:15] Site 5602 Grab - pH 5.78
Small dump with various old
timbers scattered throughout.

9:20] Site 5603 S-Point XRF, pH 4.13
Site small dump with high Mn staining
and some underlying lighter colored
material. Some old timber debris
present

9:25] Site 5604 - Natural Bone area.
doesn't appear to be mining impacted.
Mostly bedrock shallow bedrock &
poorly decomposed granite.

9:30] Site 5605 - Bone Area
Site appears to be poorly vegetated
due to being an old scar from
road cut. does not appear to be
mining impacted

9:35] Site 5606 Grab pH 8.08
Site just east of 5605 in runoff
drainage

9:40] Site 5607 S-Point pH 7.05
Site along toe of slope from site 5601

9:45] Site 5608 S-Point XRF, pH 5.85

→ *Rite in the Rain*

WSSOU RI SOIL SAMPLING

6/1/20 Mon.

Site is on Eastern Lobe of dump
9:55] Site 5609 5-point, pH 6.94
Site is adjacent to drainage area
where HDPE pipe for Orphan Girl
drain.

10:05] Site 5610 30-Point NIS, pH 7.72
Site is drainage bottom that is
currently dry. Evidence of periods
of saturation due to presence of
wetland species. Appears area
seen ponding water when
drainage of orphan girl
discharge was fully released.

10:20] Site 5611 10-Point lab, pH 3.70
Site is medium sized dump within
close proximity to Blue Bird trail
& drainage area. Material does
have a more severely impacted
visual appearance to it. Collected
JOWS-0010-50 5611-N-060120 @
10:20 in QZ ziplock for total
metals analysis.

10:25] Site 5612 Grab pH 4.89
Site from small windrow of impacted
material adjacent to Blue Bird trail.

6/1/20 Mon.

Site 5610 - Collected 30 point
NIS Sample JOWS-0013-50 5610-N-
060120 @ 10:05 in yellow ziplock
for lab NIS analysis.

10:50] Site 5613 Grab pH 7.82
Site has lots of debris present including
Masonry brick & slag/processed material.
11:00] Site 5614 5-Point XRF, pH 6.00
Site an impacted area w/ 2 distinct
^{vertical} variations. Area this site has really
intense Mn staining surrounded by
bleached material.

11:05] Site 5615 5-Point XRF, pH 3.42
Site adjacent to site 5614 in really
bleached looking material

11:20] Site 5616 5-Point pH 6.39
Site in large Mn stained area. Aetice
(new) sink hole just East of site.

11:25] Site 5617 Grab pH 8.28
Cinders looking material

11:30] Site 5618 5-Point XRF, pH 3.63
Site large Box area w/ small
bleached material dumps. took composite
from 3 separate dump piles

11:40 Site 5619 5-Point XRF, pH 5.37

Return in chain

WSSOU RI SOIL SAMPLING

6/1/20 Mon

- Site 5619 in drainage area down gradient of series of dumps. Collected sample from channel that shows flow from runoff events.
- 12:40] Site 5620 - Bedrock Area Area poorly vegetated due to shallow bedrock + poorly developed decomposed granite, sandy soil
- 12:45] Site 5621 - Grab pH 8.15 Site is small dump located next to source. Mostly vegetated.
- 13:00] Site 5622 Animal denning. Appears to be small dumps but actually is series of gravel dens from most likely badger activity.
- 13:05] Site 5623 S-Point XRF, pH 5.73 Site is small to medium sized dump adjacent to source area.
- 13:15] Site 5624 Grab pH 4.83 small dump adjacent to source in area predominantly shallow bedrock. lots of pine trees + pine needles present on site
- Completed walk through on western Dog leg portion of Little gem

6/1/20 Mon

- Claim: Some small dumps + one medium sized dumps were characterized. Site mostly dominated by shallow bedrock + poorly developed decomposed granite. Site shows lots of anthropogenic disturbance with lots of garbage + debris dumping.
- 13:35] Site 5625 S-Point Lab, pH 5.76 Collecting a lab sample from same site as previously collected XRF sample 505422. Collected JOWS-0306-505625-N-000120 in Qz ziplock for metals analysis
- 15:10] Site 5664 S-Point XRF, pH 4.99 Small dump adjacent to source. Previously completed pH and CdM requested metals lab on XRF. Small dump so completed XRF.
- 15:30] Site 5665 Bone area Bone area towards bottom of drainage. Asphalt present + material appears impacted
- 15:35] Site 5666 S-Point. pH 6.03 Site bone area w/ seal deposit in drainage bottom.
- 15:55] Site 5667 Grab pH 5.45 Material looking bone area on west facing Redoan

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WSSOU RI SOIL SAMPLING

6/1/20 Mon.

16:00] Site 5668 6-Point XRF, pH 5.31

Two small dumps w/ high Mn

Steaming took composite of 3
subsets from each dump in
high Mn stained area.

16:05] Site 5669 - Bedrock area

Site is bedrock spine. shallow
bed well extends outside of
fenced area.Ave off site @ 16:45
and back @ Pioneer office
Ave members Jesse Sims and
Zach Archibald ran XRF
analysis on samples collected
5/29 and 6/1.-collected 3 lab samples
for total metals and 1
lab-MIS sample.


6/1/20

WSSOU RI Sampling 37

6/2/20 Tues. Weather = clear + 55°F
forecast = 73°FOn site @ Pioneer office @
7:30 to load equip, calibrate pH
probes, and go through FAF

Probe	Buffer	Reading
	4.0	4.00
	7.0	7.03
	10.0	10.08

On Site @ 9:00 to characterize
Small claims (Slivers of claims)
in Northern Area along western
Side. Parked on Orofino Rd and
Walking NW through all claims.9:10] Site 5626 5-Point XRF, pH 8.54
Site is dump adjacent to source.The only dump on the southern 1143
Claim. Claim mostly well vegetated.
Sliver near Houghton is the claim9:35] Site 5627 5-Point XRF, pH 3.69
Site is small dump adjacent to source.Very bleached looking material. Lots
of Agricultural (cows) activity on pile
Claim is Northern 1143 Sliver between
Little Georgia + Little Anne Claim9:40] Site 5628 Grain pH 5.19.
Site just west of pit + dump pile right on
end of claim. Claim 1143 just W of site 5627

WSSOU RE SOIL SAMPLING

6/2/20 Tues.

- 9:50] Site 5629 Grab pH 6.40
Site small dump next to small pit.
Material appears mostly like poorly decomposed granite, located at top of ridge line between 2 drainages
- 10:00] Site 5630 Grab pH 6.78
Site looks like small dump just down slope of small cut in hill. Right on claim border of 1142 + Cheyenne claim. Just upslope from running stream.
- 10:15] Site 5631 5-Point YRF, pH 6.11
Site small dump on 1142 Between Big Bonanza + Vann claims. Next to source. lots of cattle use around area. Soil really compacted.
- 10:40] Site 5632 Grab pH 8.53
Small dump next to small pit on small pie shaped claim. Some dump piles w/ High Mn staining adjacent to claim. Site just west of Big Bonanza claim.
- 11:55] Site 5633 5-Point YRF, pH 4.85
Small dump on NW facing slope just off Ryan Rd w/ Motorcycle trail going through middle of pile. Some coarse fragments w/ Mn staining.

6/2/20 Tuesday.

- 12:05] Site 5634 5-Point pH 5.69
Site is adjacent to Ryan Rd on NW facing slope. Some more coarse fragments w/ high Mn + Fe staining
- 12:10] Site 5635 5-Point pH 6.15
Just below main small dump pile along Ryan Rd.
- 12:15] Site 5636 Grab pH 7.44
Small dump adjacent to source and just south of Ryan Rd.
- 12:25] Site 5637 5-Point YRF, pH 6.65
Site looks like flattened dump pile. Just NW of large dump pile in SE corner of Belcher claim that sits within BPSOU Bud. Site in close proximity to Rising Star Rd. A lot of glass shards on dump.
- 12:35] Site 5638 Grab pH 6.60
Small site w/ High Mn close to Rising Star Rd.
- 12:40] Site 5639 Grab pH 5.92
Small dump adjacent to small pit.
- 12:45] Site 5640 5-Point YRF pH 7.82
Dump adjacent to pit. Small (~18") circle looks like it is actively piping in pit. Sampled from rim of pit.

WSSOU RI SOIL SAMPLING

6/2/20 Tues.

13:00] Site 5641 5-Point pH 8.06

Site within what appears to be erosional feature on west facing slope. Area has unusual Mn + Fe stained material next to what appears to be natural material.

13:10] Site 5642 5-Point pH 7.20

Site at toe of dump like area just down gradient of Ryan Rd.

Sample collected on toe of area w/ some larger fragments up slope that show high Mn staining.

13:45] Site 5643 Grab pH 7.25

Small dump, no visual nearby pits in NW corner of Sargent claim.

Not much activity in western part of Sargent claim.

13:55] Site 5644 Grab pH 7.77

Site on border of Belcher claim on North side of drainage in what appears to be erosional feature. Some old cable and blocks of granite dumped in feature. Material appears to be mostly poorly decomposed granite.

6/2/20 Tues.

14:00] Site 5645 5-Point Lab, pH 6.13

Site is unusual circular shaped area w/ high Mn staining. Just upslope from flowing surface water. Collected 5-Point composite sample in a ziplock bag @ 12:00. Sample ID = 20WS-0350-505645-N-060220. Sample for total metals analysis.

14:15] Site 5646 Grab pH 6.22

Small dump adjacent to source.

Some pine trees growing on + around dump.

14:20] Site 5647 Grab pH 6.43

Site on terrace area just upslope from Aspen stand. Some coarse fragments upslope w/ high Mn staining.

14:25] Site 5648 10-Point XRF, pH 4.10

Site is down gradient of Ryan Rd. on sharper type corner. Slope is westerly facing + drains directly to bottom of drainage that has running water (does appear intermittent in where it subs in some portions). Site appears to be underlain material used to make bench on slope for the road. Lots of old wood + metal debris present. Light colored material ~~exposed~~.

WSSOU RI SOIL SAMPLING

6/2/20 Tues

- almost sulfur bearing, collected from Pills
 14:35] Site 5649 Grab pH 5.27
 Site at toe of Ryan road embankment
 on terrace area just NE of
 site 5648 in erosional silt
 14:45] Site 5650 5-point pH 7.44
 in bottom of drainage in sed. deposit
 area in intermittent stream. No
 surface flow present in this section
 of reach, but was noted down gradient.
 15:10] Site 5726 in Claim 0111.
 Grab pH (7.82) at top of trench
 on drainage. just NE of Ryan
 Mine access gate. No staining.
 15:20] Site 5727 in claim 0130
 Grab pH 7.73. Site small dump
 next to small pit. Low Mn + Fe staining.
 15:30] Site 5728 in Claim 0130, pH 5.92
 5-Point SPLP + ABA. Site is
 out to of dump at mouth of
 fill draining directly into drainage.
 Dump is right on claim boundary.
 Collected 5-Point composite sample
 20WS-0130-505728-N-060220 in a ziplock
 for SPLP analysis. Collected sister sample

6/2/20 Tuesday

- 20WS-0130-505728-N-060220 in
 Gallon ziplock for ABA Analysis.
 Low Mn + Fe staining.
 15:45] Site 5729 5-Point XRF, pH 4.76
 In Claim 0130. Site in Bleached
 material in what appears to
 be recreational use trail off Ryan Rd.
 does appear slope sees runoff.
 15:50] Site 5730 Grab pH 5.20
 Site at toe of dump in claim 0130.
 Small dump. site at head of
 silt leaning dump. L Mn + M Fe
 15:55] Site 5731 7-Point XRF pH 5.51
 Site in channel bottom of intermittent
 reach on 0130 (Gulch) claim.
 Lots of upgradient dumps on non
 AR property drain in to this
 drainage. Low Mn + Fe staining.
 Really fine sand sediment.
 Crew off site @ 16:50.
 Collected 9 XRF, 1 SPLP, 1 ABA,
 and 1 lab metals. Characterized
 a total of 31 sites (only Cole &
 Jesse crew).

Cole & Jesse
 6/2/20 Pitt in the Rain

6/3/20 Wed. WSS on RR Sampling
On site @ office @ 7:30
to load equipment, calibrate pH
probes, and go through FAF.

Probe 1	Buffer	Reading
	4.0	4.00
	7.0	7.03
	10.0	10.08

Crew on site @ 8:30. Two
crews running. This crew
comprised of Cole Dallaserra &
Jesse Sims.

8:40] Site 5732 30-Point MFS, pH 8.15
Site in bottom of settling pond.
Pond is middle pond in series of
Settling ponds. Area is very well
vegetated. Collected Jaws-0162-505732-N-060220
in Gallen Ziplock for MFS Sample.

9:00] Site 5733 9-Point Lab, pH 8.79
Site in bottom of old settling pond.

1st pond in series of ponds. Well
vegetated. Collected a 9-Point composite
sample ID Jaws-0162-505733-N-060320

@ 9:00 in Gt Ziplock for total metal.

9:20] Site 5734 5-Point XRF, pH 5.98

Small dump east of large dump on
Margaret Ann claim. Lots of Granite rock on surface

Weather = 56°F, Partly⁴⁵

6/3/20 Wed. Cloudy + breezy
9:25] Site 5735 Grab pH 4.77
Small bare area adjacent to old
structures (Maybe shaft?).

9:35] Site 5736 5-Point XRF, pH 8.09
Site is loading ramp for loading
station. Material ramp constructed w/
appears to be overburden type material.
Sampled along west edge of ramp.
Ramp does have areas of vegetation.

9:55] Site 5737 Grab pH 7.64
Site is small dump adjacent to small
pit just east of medium dump on
eastern portion of Rescue claim

10:00] Site 5738 5-Point XRF, pH 5.07
Site on Northern portion of medium
dump in area w/ orangish colored
material, adjacent to source area.

10:05] Site 5739 5-Point XRF, pH ^{8.13} 5.07_{CO}
Site on Southern face of medium dump
West side of dump on Site 5738 + 5739
is small man made ditch that is
mostly well vegetated.

10:15] Site 5740 Grab pH 7.36
Small well vegetated dump next to source.

10:25] Site 5741 - Well veg. Pit area
no significant dump pile. *Rite in the Rain*

WSSOU RI SOIL SAMPLING

6/3/20 Wed,

- 11:10] Site 5742 5-Point pH 4.23
Site on south end of large dump
on Union Claim. Patches of Aspen on site
Shaft Area well vegetated w/ Aspen
- 11:15] Site 5743 Grab pH 4.58
Top of smaller lobe in series of lobes
adjacent to source area.
- 11:20] Site 5744 8-Point Lab, pH 3.31
Northern portion of center lobe of
large dump that extends on to Remnant
Claim. Very organic material w/ white
crusty layer on surface. Collected 8-point
composite sample 20WS-015^{SS}-505744-N-060320
@ 11:20 for total metals in at ziplock
- 11:30] Site 5745 7-Point XRF, pH 7.67
lobe running NE from source area.
Material varies from rest of dump site.
appears to be mostly granite like with
little to no Mn & Fe staining
- 11:40] Site 5746 Grab pH 4.05
Small lobe/pile between two ^{larger} lobes
in swale. bottom of pile well vegetated
w/ aspens
- 11:45] Site 5747 5-Point pH 3.41
Top of lobe from site 5744. really

6/3/20 Wed

- orangeish material w/ white crust layer
on the surface
- 11:50] Site 5748 6-Point XRF, pH 4.40
Northwest lobe w/ 2 erosion rills
running off dump. collected 6-Point
composite / 3 subsites from each rill
- Note area below dump ~~in~~ in
between site and drainage is mostly
well vegetated. Aspens growing around
& on dump.
- 11:55] Site 5749 Grab pH 5.17
Small dump just west of large dump
on Union. Adjacent to source.
- 12:00] Site 5750 Grab pH 5.11
Small dump next to source. Several
small pits near, but not many spoils
piles. Mostly well vegetated.
- 12:45] Site 5751 5-Point XRF, pH 5.60
Small dump adjacent to source on
Daisy claim. Only visual exploration
on Daisy Claim.
- 13:35] Site 5752 5-Point XRF, pH 7.96
Large dump on Glen Gary East
of Bull Run Rd. NW corner of
dump on NW Facing slope

WSSOU RE SOIL SAMPLING

6/3/20

13:45] Site 5753 Grab pH 4.08

Small pile on dump in swale
between two dumps.

13:50] Site 5754 S-Point XRF, pH

Site NW facing slope. Material
varies from ~~east~~^{rest} of dump. More
orange in color w/ Mn Mn staining
on coarse fragments. Woods Rose seedlings
growing throughout slope.

14:00] Site 5755 S-Point pH 8.14

on top of North facing slope on large
dump. Lighter colored material w/ slivers
of higher Mn stained areas between
sub sample sites.

14:10] Site 5756 S-Point XRF, pH 5.15

High Mn staining. North facing slope.

down gradient area. well vegetated.

14:15] Site 5757 S-Point lab, XRF, pH 5.56

Site is on west side of dump at toe
of slope @ mouth of Kill coming off
the site. does appear to have some
active erosion. Collected sister samples
for lab + XRF. Collected S-Point
composite sample JOWS-0138-SO 5757-N-060320

@ 14:15 in lat 20 block for total metals.

Continued in logbook # 5

Samples listed below are included in logbook 4 and were sampled for XRF analysis.

Dates: 6/1/20-6/26/20

Sample ID correlates with the given SO name in the logbook.

20WS-0003-SO5661-N-060120
20WS-0179-SO5672-N-060220
20WS-0179-SO5675-N-060220
20WS-0179-SO5678-N-060220
20WS-0179-SO5679-N-060220
20WS-0179-SO5684-N-060220
20WS-0179-SO5685-N-060220
20WS-0142-SO5688-N-060220
20WS-0142-SO5692-N-060220
20WS-0138-SO5694-N-060220
20WS-0138-SO5697-N-060220
20WS-0162-SO5708-N-060320
20WS-0162-SO5710-N-060320
20WS-0162-SO5711-N-060320
20WS-0162-SO5716-N-060320
20WS-0162-SO5719-N-060320
20WS-0162-SO5720-N-060320
20WS-0138-SO5724-N-060320
20WS-0138-SO5780-N-060320
20WS-0138-SO5781-N-060320
20WS-0138-SO5783-N-060320
20WS-0138-SO5785-N-060320
20WS-0138-SO5776-N-060320
20WS-0138-SO5790-N-060420
20WS-0138-SO5793-N-060420
20WS-0138-SO5796-N-060420
20WS-0121-SO5803-N-060420
20WS-0121-SO5804-N-060420
20WS-0121-SO5809-N-060420
20WS-1118-SO5815-N-060920
20WS-1116-SO5819-N-060920

20WS-0040-SO5885-5.6-6.2-N-061820
20WS-0040-SO5886-5.6-10.0-N-061820
20WS-0040-SO5887-6.0-6.5-N-061820
20WS-0040-SO5888-5.6-6.0-N-061820
20WS-0043-SO5889-5.8-6.2-N-061820
20WS-0043-SO5890-6.2-6.4-N-061820
20WS-0043-SO5891-10.3-10.9-N-061820
20WS-0006-SO5892-5.7-6.0-N-061820
20WS-0006-SO5893-10.4-10.7-N-061920
20WS-0006-SO5894-11.1-11.4-N-061920
20WS-0006-SO5895-5.4-5.7-N-061920
20WS-0043-SO5896-5.9-6.5-N-061920
20WS-0043-SO5896-5.9-6.5-D-061920
20WS-0043-SO5897-7.3-7.7-N-061920
20WS-0043-SO5898-10.8-11.2-N-061920
20WS-0043-SO5899-16.0-16.3-N-061920
20WS-0003-SO5900-1.0-1.5-N-062320
20WS-0003-SO5901-4.4-4.7-N-062320
20WS-0003-SO5902-8.6-9.0-N-062320
20WS-0003-SO5903-4.6-4.9-N-062320
20WS-0003-SO5904-12.6-13.0-N-062320
20WS-0010-SO5905-8.4-8.8-N-062320
20WS-0010-SO5906-13.0-13.5-N-062320
20WS-0010-SO5907-12.2-12.6-N-062320
20WS-0010-SO5908-12.4-12.8-N-062320
20WS-0010-SO5909-8.2-8.5-N-062420
20WS-0010-SO5910-9.2-9.6-N-062420
20WS-0297-SO5911-12.7-13.0-N-062420
20WS-0297-SO5912-4.5-4.8-N-062420
20WS-0297-SO5913-0.2-0.8-N-062420
20WS-0297-SO5914-0.4-0.8-N-062420

20WS-0288-SO5915-4.6-5.0-N-062420
20WS-0285-SO5916-4.4-4.5-N-062520
20WS-0285-SO5917-8.4-8.7-N-062520
20WS-0285-SO5918-0.3-0.9-N-062520
20WS-0285-SO5918-0.3-0.9-D-062520
20WS-0285-SO5919-1.2-1.5-N-062520
20WS-0285-SO5920-1.3-1.5-N-062520
20WS-0246-SO5921-12.2-12.6-N-062520
20WS-0246-SO5922-8.8-9.2-N-062520
20WS-0246-SO5923-4.8-5.1-N-062520
20WS-0246-SO5924-8.7-9.0-N-062520
20WS-0285-SO5925-1.0-1.4-N-062520
20WS-1150-SO5926-20.5-20.8-N-062520
20WS-0015-SO5927-5.5-6.2-N-062620
20WS-0015-SO5928-12.5-12.7-N-062620
20WS-0015-SO5929-12.7-13.0-N-062620
20WS-0015-SO5930-8.7-9.0-N-062620
20WS-0015-SO5931-9.2-9.5-N-062620

WEST SIDE SOILS OU



Rite in the Rain.

ALL-WEATHER
JOURNAL

Nº 391FX

Book 4

6/1/20 → 6/26/20

WSSOU RI SOIL SAMPLING

6-1-20 MONDAY

J. SMITH

1235] CREW 2 IN AREA SOUTH OF MINING MUSEUM; REVISIT SOME AREAS THAT COM REQUESTED MORE DATA; CREW IS J. SMITH, M. SPRUNGER, AND E. ARCHIBALD, ~70°, P. CLAY, LT. WIND

1255] SITE 5651, NO SAMPLE; AN AREA IN PORTLAND CLAIM; MULTIPLE PILES OF COARSE ROCK (WEATHERED GRANITE) AND CONCRETE DEBRIS; APPEAR TO BE END-DUMP SIZE PILES; VEGETATED W/ WEEDS

1300] SITE 5652; GRAB PH 8.08
pile is east of 5651 and east of a small drainage. Pile is poorly vegetated

1310] SITE 5653^{MS}; NO SAMPLE; MULTIPLE PILES OF COARSE ROCK (WEATHERED GRANITE) SIMILAR TO 5651; VEGETATED W/ WEEDS

1320] SITE 5654; NO SAMPLE, MULTIPLE PILES OF COARSE ROCK (WEATHERED GRANITE AND VOLCANIC) SPARSELY VEGETATED W/ WEEDS; EAST EDGE DRAINS IN LARGE DRAINAGE

1335] SITE 5655; NO SAMPLE, LARGE AREA OF BARE SANDY SOIL

1340] SITE 5656; GRAB PH 4.97

6-1-20

Sample is in bare sandy area
1345] SITE 5657, NO SAMPLE, 2 CIRCULAR AREAS AND A SHALLOW MAN-MADE TRENCH, APPEAR TO BE PART OF OLD GARBAGE DUMP THAT IS 100 FT TO SOUTHEAST, WELL VEGETATED, MOSTLY W/ WEEDS

1400] SITE 5658; MEDIUM SIZE TRENCH NOT MINING IMPACTED, WELL VEGETATED. PHOTO TAKEN LOOKING SOUTH NO SAMPLE

1405] SITE 5659; GRAB PH 5.09
Bare area west of 5660.

1410] SITE 5660; NO SAMPLE, TRENCH / DRAINAGE, WELL VEGETATED, NO MINING IMPACT. PHOTO TAKEN LOOKING SOUTH.

1420] SITE 5661. 5-POINT XRF, PH 8.00
Sample is in two center lobes of large dump. Weathered granite rock

1430] SITE 5662. GRAB PH 8.11
lobe east of 5661.

1435] SITE 5663, GRAB PH 8.14 SE LOBE OF DUMP;

1440] JOINED BY DALLASARA + SIMS.

1455] SIMS + ARCHIBALD GO TO OFFICE TO

RUN XRF; FIELD NOTES CONTINUE IN COLE'S LOGBOOK

WSSOU RI SOIL SAMPLING

6-2-20 TUES

S. SMITH

0745] At Pioneer office Calibrate
PH probes

Probe 1	Butter	Beads
	4.00	4.00
	7.00	7.03
	10.00	10.08
Probe 2	4.00	4.00
	7.00	7.02
	10.00	10.07

will be using probe 2 today

0845] CREW 2 AT EAGLE CLAIM ON
MOUNTAIN RES. RD; 45° CLEAR, LT. WIND
CREW IS STEWART SMITH, MOLLY SPRUNGER,
AND ZACH ARCHIBALD.

0900] WORKING ON LARGE DUMP ON
WEST SIDE OF ROAD SITE 5670,
5-POINT SPLP, ABA, pH 3.88
A NORTH FACING GULLY OF DUMP;
SIGNIFICANT SEDIMENT AT TOE OF
DUMP; YELLOWISH, BLEACHED CLAYEY SAND

0920] SITE 5671, GRAB pH 8.00
NEXT LOBE TO WEST, NEAR TOE OF SLOPE
SMALL ROCK-WEATHERED GRANITE
LT. BROWN SOIL

0925] SITE 5672, 5-POINT XRF, pH 3.59
NW LOBE OF DUMP; YELLOWISH SILTY SAND

6-2-20 TUES

SAMPLE NEAR TOE, SOME EROSION RILLS
WEATH. GRANITE

0935] SITE 5673, 5-POINT LAB, pH 4.22
W-FACE OF DUMP NEAR SW CORNER,
SOIL IS YELLOW TO LIGHT ORANGE
ROCK IS GRANITE; SIGNIF SEDIMENT AT
TOE OF SLOPE. ^(S) 0179

LAB SAMPLE: 20WS-~~0177~~-50 5673-N-060220
AT 0935, FOR TAL METALS, QT ZIPLOCK

NOTE: SAMPLES COLLECTED AT 0900 FOR
SPLP; QT ZIPLOCK AND ABA; GALLON ZIPLOCK
20WS-~~0177~~-50 5670-N-060220
^(S) 0179 *[Signature]*

0945] SITE 5674, GRAB pH 3.50, A
SMALL BERM OF YELLOW WASTE ALONG
WEST EDGE OF FLAT AREA, SW OF LARGE
DUMP

0950] SITE 5675, 5-POINT XRF, pH 3.77
FLAT AREA SOUTH OF LARGE DUMP,
SOME DIRT BIKE TRACKS HERE AND ON
LARGE PILE; YELLOWISH SANDY WASTE

1000] SITE 5676, GRAB pH 3.86, SE
LOBE OF DUMP; YELLOWISH-GRAY ON SUR-
FACE

1005] SITE 5677, GRAB pH 3.76, NEXT LOBE
TO N., WHITE TO YELLOW ON SURFACE

WSSOU RI SOIL SAMPLING

6-2-20 TUES

J. SMITH

ROCK NEARBY TO 5677 IS FAIRLY FRESH, GRAY GRANITE

NOTE: EAGLE CLAIM IS # 0179

1020] SITE 5678, 10-POINT XRF, pH 3.77

THIS IS THE FLAT TOP OF LARGE DUMP (STILL ON W-SIDE OF ROAD); YELLOWISH SANDY WASTE, SOME AREAS OF WHITE SALTS

1030] SITE 5679, 5-POINT XRF, pH 3.40

NOW ON EAST SIDE OF ROAD; DUMP IS HIGHER THAN W-SIDE; HEAVY RECREATION USE WITH DIRT BIKES + ATVS

THIS 5-POINT IS A NW FACING SLOPE; ORANGISH SANDY WASTE

NOTE: MOLLY SPOTTED A CULVERT UNDER ROAD THAT DRAINS THE EAST DUMP TO W-SIDE OF ROAD

1040] SITE 5680, 6-POINT LAB, pH 3.97

THIS SAMPLE IS FROM 3 RILLS THAT DRAIN TO NORTH FROM CENTER PART OF DUMP

SAMPLE: 20WS-0179-S05680-N-060220

FOR TAL METALS, QT ZIPLOCK

1055] SITE 5681, GRAB pH 3.17, SOUTH

END OF MAIN HIGH RIDGE; YELLOWISH WASTE

ROCK IN AREA IS WEATHER GRANITE

1100] SITE 5682, GRAB pH 3.25, CENTER PART OF SAME RIDGE TOP

6-2-20 TUES

1105] SITE 5683, GRAB pH 6.37, A SMALLER DUMP E OF LARGE DUMP, SOIL IS LT BROWN - GRANITIC SOIL

1110] SITE 5684, GRAB XRF, pH 4.53 SAMPLE FROM A DRAINAGE RILL; WHITISH BLEACHED WASTE; SOME ROCK IS QTZ. VEIN

1115] SITE 5685, GRAB XRF, pH 5.02 FROM NEXT RILL TO SOUTH; WASTE OR SOIL TO LT. BROWN; DECOMPOSED GRANITE

1130] SITE 5686, NO SAMPLE, BARE AREA WITH SHALLOW BEDROCK - GRANITE

1135] AN EXPLORATION PIT, NO SAMPLE BUT A PIN + PHOTO; MOD. VEG.

1200] SITE 5687, NO SAMPLE, A BEDROCK AREA WITH BARE PATCHES; IT EXTENDS TO E+W OF HERE

LT. WIND

1215-1245] LUNCH BRK; 60°, CLEAR

1315] IN NON-CONSOLIDATED CLAIM (0142)

SMALL CLAIM JUST N. OF RYAN RD.

SITE 5688, 5-POINT XRF, pH 6.65

A MED SIZE DUMP; SAMPLE ALONG RIDGE TOP; ROCK IS WEATH. GRANITE

1325] SITE 5689, GRAB pH 8.08

NEXT PILE TO WEST; WASTE/SOIL IS LT. BROWN

8 WISSON RI SOIL SAMPLING
6-2-20 TUES J. SMITH

- 1330] SITE 5690; GRAB pH 3.76; N-FACING
SLOPE OF THIS MED. DUMP, IT FACES THE
SEALED SHIRT; ORANGISH SANDY WASTE.
- 1340] SITE 5691, GRAB pH 4.72
SMALL DUMP IN EAST PART OF CLAIM
ORANGISH WASTE; PILE IS ON S.
CLAIM BORDER
- 1345] SITE 5692, 5-POINT XRF, pH 3.90
SAMPLE FROM NE QUADRANT OF MED DUMP
RIGHT ON CLAIM BOUNDARY; WASTE IS ORANGISH
BROWN; WEATH. GRANITE
- 1425] SITE 5693, A RANGELAND, 30 PNT
MIS, pH 5.36; A WELL VEGETATED
AREA NEAR EAST EDGE OF SNOWDRIFT CLAIM
GRASSES AND SOME SAGE BRUSH; 75' N. OF
SOUTH FENCE, 20WS-0122-505693-N-060220
- 1455] SITE 5694, 5-POINT XRF, pH 5.02
THIS IS WEST PART OF GLENGARY (0138)
AND ON WEST SIDE OF BULL RUN ROAD;
MED-LARGE DUMP; THIS IS FLAT AREA ON
TOP.
- 1500] SITE 5695, GRAB pH 7.95; FROM
NW LOBE - TOP OF IT
- 1505] SITE 5696, GRAB pH 4.63; A SEDIMENT
AREA AT TOE OF W-FACING SLOPE;
ORANGE-BROWN SANDY WASTE; WEATH GRANITE

6-2-20

- 1515] SITE 5697, 5-POINT XRF, pH 6.33
TOP OF CENTER LOBE; IN AREA W HIGH Mn-
STAINING; GUSTY WIND, 650
- 1520] SITE 5698, GRAB pH 4.11, FROM
A MED. PILE ON N. SIDE OF CIRCULAR
PIT; ORANGISH, SANDY WASTE. SOME
QZ VEIN ROCK
- 1525] SITE 5699, GRAB pH 8.02, A
SMALL PILE OF MOSTLY FRESH GRANITE ROCK;
LT. BROWN SOIL
- ~~1520~~ 1530] SITE 5700, GRAB LAB, pH 5.06
FROM N. TOE OF NW LOBE, BELOW 5695
DK BROWN WASTE
SAMPLE: 20WS-0138-S05700-N-060220
AT 1530 FOR TAL METALS, QT ZIPLOCK
- 1550] SITE 5701, NO SAMPLE, A WELL-VEG'D
PILE FROM A DEEP N-S TRENCH
- 1555] SITE 5702, NO SAMPLE, SAME AS ABOVE
PILES HAVE, GRASS, SAGE, + KNAF WEED; NOW
MOVED INTO SNOWDRIFT
- 1600] SITE 5703, NO SAMPLE, WEST ONE OF 3
N-S TRENCH; THIS PILE HAS LESS VEG AND
SOME EXPOSED GRANITIC SOIL
- 1610] SITE 5704, 10-POINT LAB, pH 4.06
NW LOBE OF A LARGE DUMP IN SNOWDRIFT
SIGNIF Mn-STAINING; DARK BROWN WASTE

10

WSSOU RI SOIL SAMPLING

6-2-20 TUES

S. SMITH

AT 5704, ROCK IS VEIN MATERIAL AND WEATH
 GRANITE; SAMPLE FOR TAL METALS, AT 2:00 PM
 20WS-0122-505704-N-060220 AT 1610

1615] SITE 5705, 5-POINT pH 6.11

TOP EDGE OF N. LOBE, N-FACING SLOPE
 JESSE AND COLE-ONSITE; WINDY, ~70°

1630] ALL PIONEER CREW OFFSITE

~~Steven Smith~~
 6-2-20

WSSOU RI SOIL SAMPLING

11

6-3-20 WEDS

0730] Pioneer office calibrating probes

Probe 2	Butter	Needs
	4.00	4.00
	7.00	7.00
	10.00	9.90

Will be using probe 2

0820] ENSURE 5-PERSON CREW AT
 MARGOT ADJ CLAIM; SS, P. CLOUD, LT. WIND
 CREW IS S. SMITH, C. DALLAVERA, M. SPRUNGER,
 J. SIMS, + Z. ARCHIBALD

0840] SITE 5706, 5-POINT LAB, pH 8.61
 SAMPLE ON TOP OF SOUTH-MOST BENCH OF LARGE
 DUMP, BENCH IS LOWER THAN REST OF DUMP
 ROCK IS FRESH TO SLIGHTLY WEATHERED

GRANITE. 20WS-0162-505706-N-060320

0850] SITE 5707, GRAB pH 8.50, AT TOE
 OF A CENTRAL LOBE OF DUMP, S-FACING
 SLOPE, LT. BROWN WASTE

0855] SITE 5708, 5-POINT XRF, pH 8.35
 AT TOE OF NEXT LOBE TO EAST; LT. GRAY-
 BROWN WASTE MATERIAL; WEATHERED GRANITE

0900] SITE 5709, GRAB pH 8.33, AT TOE
~~0900] SITE (S)~~ OF NEXT LOBE TO E, THIS
 IS SE LOBE OF DUMP, GRAY-BROWN WASTE
 MATERIAL; SMALL ROCK AT TOE BOTTOM HAS
 HIGH Mn-STAIN.

Return in 2008

WSSOU RI SOIL SAMPLING

6-3-20 WED

S. SMITH

- 0905] SITE 5710, GRAB XRF, pH 8.70
SAMPLE FROM 3 SMALL RILLS ON SE FACE
OF SAME LOBE AS 5709. LT. GRAY WASTE
MATERIAL; NOT ~~RE~~ MUCH ROCK
- 0915] SITE 5711, 5-POINT XRF, pH 8.33
TOE OF SMALLER LOBE IN NE PART OF DUMP
LT. BROWN SANDY WASTE; ROCK IS MOSTLY
QTZ. ~~W~~ VEIN - WIND PICKING UP
- 0925] SITE 5712, GRAB pH 8.57 ON
TOP OF A SE LOBE; SLIGHTLY WEATH. GRAN
- 0930] CONNOR KELLEY, CON-SMITH ONSITE
AT SITE 5713, GRAB pH 6.43, TOP
OF A CENTRAL LOBE, THIS LOBE WAS
NOT SAMPLED AT BOTTOM - TOO ROCKY.
- 0940] SITE 5714, GRAB pH 8.23, TOP
OF WEST LOBE DIRECTLY NORTH OF
STRUCTURE. SAMPLE WAS TAKEN IN
ORANGE ~~SOIL~~ WASTE MATERIAL
- 1005] SITE 5715, GRAB pH 8.48, A
LOW LOBE NW OF MAIN DUMP, FRESH GRANITE
ROCK. CONNOR OFFSITE AT 1002
- 1015] SITE 5716, 5-POINT XRF, pH 6.85
FLATTER AREA BEYOND TOE OF A WEST LOBE
SOIL IS ORANGE-BROWN SAND
- 1020] MEET W/ COLE & JESSE; THEY WILL GO TO
UNION CLAIM

6-3-20 WED

- 1050] SITE 5717, GRAB pH 8.39, TOE
OF W-FACING SLOPE, TALL DUMP PILE
AT SW PART OF LARGE M. ANN DUMP
- 1100] SITE 5718, GRAB pH 8.33, SAME
PILE AS 5717; FARTHER TO SOUTH
- 1105] SITE 5719, 5-POINT XRF, pH 5.33
SITE IS ALONG WEST EDGE OF MARGET ANN
CLAIM; A SE-FACING SLOPE; HIGH Mn-STAIN;
THIS IS BELOW A LARGER DUMP ON SILVERLOCK
- 1115] SITE 5720, 5-POINT XRF, pH 6.89
THIS IS A SPARSE VEGETATED AREA SOUTH OF
AND BEYOND TOE OF MAIN DUMP; LOOKS LIKE
NATIVE GRANITIC SOIL; IT IS DOWN SLOPE OF
MAIN DUMP
- 1125] SITE 5721, GRAB pH 7.67, THIS IS
IN A DIRT ROADWAY THAT CUTS THROUGH
A SETTLING POND DIKE; LT BROWN SOIL
APPEARS UNIMPACTED.
- 1130] SITE 5722, GRAB LAB, pH 8.50
THIS SITE IS IN THE DIKE WALL OF THE
UPPER LARGE SETTLING BASIN BELOW THE
MILL; SOIL IS DK. BROWN SANDY SILT W/
ORGANICS; DIKE IS WELL VEGETATED
- SAMPLES: 20WS-0162-50 5722-N-060320 @ 1130
TAL METALS IN QT. ZIPLOCK

Rite in the Rain

WSSOU RI SOIL SAMPLING

6-3-20 WED

S. SMITH

- 1150] SITE 5723, NOW IN GLENGARRY
GRAB pH 8.45, THIS IS A LOW
SPARSELY VEGETATED PILE, LOTS OF VEIN
QTZ, PERHAPS PUSHED UP BY A DOZER
- 1200] SITE 5724, 5-POINT XRF, pH 6.40
MED PILE, N. OF 5723; ROCK IS GRANITE
AND VEIN MATERIAL; THIS IS FROM LARGEST
OF 6-8 EXPLOR. PITS IN AN E-W TREND
- 1205] SITE 5725, GRAB pH ~~6.40~~, AT A
~~SMALL~~ PILE. 8.53 (SS)
- (S) MED SE OF 5724, FROM A LARGER AT
SOME WEATH. GRANITE ROCK.
- 1210] SITE 5776, 5-POINT XRF, pH 4.55
THIS IS FROM N END OF A MEDIUM DUMP
ABOUT 75' LONG N TO S; SAMPLE AREA IS
ORANGISH SANDY WASTE, MOD MN-STM AT SAMPLE
BUT PARTS OF DUMP ARE HEAVILY MN-STM
- VERY WINDY, CLOUDY, ~65° WEATH. GRANITE
- 1220] SITE 5777, GRAB pH 4.90 AT
S-END OF SAME DUMP; HIGH-MN; WEATH.
GRANITE + VEIN ROCK
- 1230-1250] LUN BREAK
- 1320] ALL CREW TOGETHER; JERSE SIMS STAYS AT
TRUCK TO RUN XRF; 1325] HI WINDS
COLE + BACH HEAD TO LARGE GLENGARRY
DUMP; MOLLY + STEWART TO E.

6-3-20 WED

- DROPPED A PIN FOR A SMALL OPEN HOLE
MAY BE A BURIED DRUM.
- 1330] SITE 5778, GRAB pH 8.55, FROM A
MED PILE, ONE N. OF MILL BLDGS; AT S. END
OF NUMEROUS SMALL DUMP PILES; ROCK IS
WEATH GRANITE
- 1340] SITE 5779, GRAB pH 8.49, N-END OF
MULTI PILE AREA; WEATH. GRANITE
- 1350] SITE 5780, 5-POINT XRF, pH 8.48
100' E OF 5778/5779 IS ANOTHER, LARGER AREA
OF SMALL DUMPS (~30 PILES); MOSTLY WEATH.
GRANITE IN PILES; SAMPLE FROM 5 GRAY
PILES IN CENTER OF AREA
- 1405] SITE 5781, GRAB pH 8.43, A MEDIUM
PILE NE OF MILL; ROCK SEEMS NON-
NATIVE / IMPORTED / SANDSTONE OR QTZITE;
SOIL IS ORANGISH W/ LOW AMOUNT OF 'CL-
STAINING, SOME ROCKS HAVE 'CL- STAINS;
ADD AN XRF SAMPLE
- NOTE: LAB SAMPLE TAKEN AT 0840 IS
20WS-0162-S05706-N-060320 FOR
TAL METALS, QT. ZIPLOCK
- 1425] SITE 5782, GRAB pH 4.59, SMALL
PILE NEAR N-EDGE OF GLENGARRY; ORANGISH
SANDY WASTE; FAIRLY FRESH GRANITE

WSSOU RI SOIL SAMPLING

6-3-20 WED

S. SMITH

1440] SITE 5783, 5-POINT XRF, pH 7.11

A MED TO LARGE PILE IN N-CENTRAL GLENS
FROM A DEEP NW-SE PIT; ROCK IS VEIN
MATERIAL, HIGH Mn-STN1450] SITE 5784, GRAB pH 8.52, A MED
PILE NW OF 5783; GRAY SANDY WASTE;

" FROM A DEEP CIRCULAR PIT

1505] SITE 5785, GRAB XRF, pH 3.74
SMALL PILE FROM SMALL PIT; ORANGISH
SANDY WASTE; SMALL QTZ VEIN ROCKS1510] SITE 5786, GRAB pH 7.65, SMALL
PILE, 50' E OF ASPEN GROVES; N. OF SOME
LARGER PILES; LT BROWN TO LT ORANGE
WASTE

1520] SITE 5787, 5-POINT LAB, pH 8.16

A MED PILE, ORIENTED EW; SAMPLE FROM
CREST OF PILE; MODERATE VEG AROUND ENTIRE
BASE; WEATH. GRANITE; GRAY-BROWN WASTE
MATERIAL

SAMPLES: 20WS-0138-SO 5787-N-060320

AT 1520 FOR TAL METALS, QT ZIPLOCK

1540] AT TRUCK, CHECK ON JESSE'S XRF PROGRESS

1600] ALL PIONEER CREW OFFSITE

Stewart Smith 6-3-20

WSSOU RI Soil sampling

6-04-20 THURS

0730] At Pioneer office, calibrate probes

Probe 2 Buffer Reads

4.00 4.01

7.00 7.02

10.00 10.05

Will be using probe 2

0830] Entire 4-person crew at Gilengammy
claim; 56°, P. cloudy, lt wind. Crew
is M. Springer, C. Dallaserra, J. Sims
& Z. Archibald.0840] site 5788, Grab pH 8.45, sample
on face of south facing lobe, well vegetated
lt. brown waste.0850] site 5789, Grab pH 7.62, sample
SW of large pit w/ trees. lt brown waste0900] site 5790, 5-point XRF, pH 5.24
Sample from top of E large pile, dark
brown waste, slightly vegetated0910] site 5791, Grab pH 3.74, sample
on W side of large pile on the S lobe.
lt brown to orange waste material0915] site 5792, Grab pH 5.67, sample
on W side of large pile N of site 5791.waste material is lt grey to lt. brown
sample on top of lobe.

6-4-20 Thurs

M. SPRUNGER

- 0920] Site 5793, 6-point XRF, pH 5.11
sample taken on top of pile. pile is cut
in a horseshoe shape. slightly vegetated
Grey-brown-orange waste material.
- 0930] Site 5794, Grab pH 5.52, sample
taken on N face of small pile NW of
large pile. lt brown to lt. orange material
- 0940] Site 5795, 5-point pH, 5.57, sample
taken on N face of NW pile attached to
large pile. Dark brown waste material
- 0950] Site 5796, 10-point XRF, pH 7.07
sample taken on ^E face of W. large pile
top is moderately vegetated.
- 1000] Site 5797, 5-point pH 8.07, sample
~~taken~~ taken in drainage on SW part of pile
Dark brown waste material. Bottom of drainage/
pile is moderately vegetated.
- 1010] Site 5798, Grab pH, 8.68, sample
taken S face of large western pile. taken
from drainage rift. Dark brown to lt orange
material. moderately vegetated.
- 1045] Natural Bare areas, do not appear
to be mining impacted, no sample
taken
- 1055] Site 5799, Grab pH 6.45, sample
taken from exploration ditch material

6-4-20

- 2 exploration pits, pH taken from 1,
large rectangular fenced area just
west of site 5799
- 1110] Site 5800, Grab pH 5.77, sample
collected from small, well vegetated
drainage, large waste pile directly
south of drainage, soil appears healthy
- 1125] Site 5801, 7 point lab taken
on north facing slope of largest pile on
claim, lab duplicate also taken from
same site, top of pile is well vegetated
pH 8.29, Sample # 20WS-0121-505801-n-060420
dup sample # 20WS-0121-505801-⁽²⁾060420 (1130)
- 1140] Site 5802, 5 point pH 4.72 on north
side top of large pile (same as mentioned in
site 5801), soil waste material is bright
orange
- 1150] Site 5803, 5 point XRF, pH 7.76 on center
of large pile, sample taken in waste material
that is very light orange/grey.
- 1200] Site 5804, 5 point XRF, pH 5.01
sample taken from orange waste pile from
2 small exploration pits, pits south of
large pile (site 5803)

6-4-20, site 5805 (2A)

(205] Grab pH taken from pile, very coarse and well vegetated, pile from exploration pit, pH = 8.15

(215] Site 5806, Grab pH taken from exploration pit ~~at~~ pile just west of site 5805, pH 8.59

(226] Very small manmade pit, could be mining related but so vegetated its hard to tell

(340] site 5807, Grab pH, 6.60, pile is near 3 pits to the South. Lt brown material

(360] site 5808, Grab pH, 5.99, Sample taken in drainage. ~~E~~ side has low vegetation

(355] site 5809, Grab XRF, pH, 5.78; pile is E to site 5808; dark brown material. Offsite @ 1415 for the day

Molly Sprunger 6/4/20

WSSOH BI SAMPLING

6-09-20 TUES

0820] At Pioneer office, calibrate pH probes, load trucks, fill out FAF.

Probe 2	Buffer	Reads
	4.00	4.00
	7.00	7.01
	10.00	10.05

0920] STEWARD SMITH AND MOLLY SPRUNGER ON SITE AT JOSIAH CLAIM (#118), SOUTH OF SILVER BOW CRK, 40°, CLOUDY, MOD. WIND; GROUND IS WET FROM HEAVY SNOW YESTERDAY

0940] site 5810; Sparsely vegetated, mostly bare area; soil is decomposed granite

0950] site 5811, Sparsely vegetated, mostly bare area. Bulk is aplite and granite

1000] site 5812; on top of ridge; granite outcrop area w/ Mn staining

1005] SITE 5813, GRAB pH 5.24, IN CENTER OF 40' DIAMETER BARE AREA; DECOMP GRANITE SOIL, SOUTH OF 5812 RIDGE

1015] site 5814, Exploration trench, bulk is granite. no sample due to coarse rock and vegetation cover.

1025] SITE 5815, GRAB XRF, pH 7.29
MEDIUM DUMP FROM A DEEP CIRCULAR PIT

* PIT IS A HAZARD, 15' DEEP, VERTICAL WALLS
ROCK IS APLITE; PART OF A LONG TRENCH FEAT.

WSSOU RI SOIL SAMPLING

6-9-20 TUES

1055] SITE 5816 sparse vegetation; low
granite outcrop; no sample

1055] SITE 5817, GRAB pH 6.50. A 20-FT
DIAMETER SPARSE VEG AREA; SMALL DIS-
TURBED PORTION; ROCK IS APLITE

1120] SITE 5818, bare area, sparse vegetation
soil is decomposed granite

1140] SITE 5819, 5-POINT XRF, pH 5.56
NOW IN CONCENTRATOR PLACER CLAIM (1116)
SAMPLE FROM A PORTION OF LARGER, BARE
N-FACING SLOPE; SAMPLE ONLY FROM Mn-
STAINED AREA; NEARBY IS LOTS OF BRICK
DEBRIS. SAMPLE NEEDS TO DRY FOR SIEVING.
ROCK IS GRANITE, MINOR APLITE

1150] SITE 5820, GRAB pH 5.17. THIS IS
~100 FT WEST OF 5819, PART OF SAME SLOPE
DIRT BIKE TRACKS; COARSE GRANITIC SOIL
TRACE OF Cu STAINING

1155] SITE 5821, 5-POINT LAB, pH 5.20
FROM NEAR WEST END OF THIS SLOPE; 50' SW
OF 5820, ROCK IS GRANITE AND VEIN ROCK
LARGE TIMBERS SUGGEST POSSIBLE OLD STRUCTURE
IN AREA.

1210] SITE 5822, GRAB pH 5.74, A 30'x
10' BARE AREA ON SLOPE ABOVE (SOUTH OF)
5821; SOME GRANITIC ROCK, DECOMP GRANITIC SOIL

→ COLLECTED: 20WS-1116-SO 5823-N-060920 IN
6-9-20 TUES GALLON ZIPLOC FOR MIS

1230-1300] LUN BREAK

NOTE: SAMPLE 20WS-1116-SO 5821-060920
COLLECTED AT 1155, QT ZIPLOC FOR TAL METALS

1340] SITE 5823, A RANGELAND, 30-POINT
MIS SAMPLE, pH 8.27. THIS IS IN CENTRAL
PART OF CONCENTRATOR CLAIM, ~100' SOUTH OF
SANTA CLAUSS RD. AREA IS WELL VEGETATED
W/ GRASS; THIS IS A RECLAIMED BORROW AREA
SOIL IS WET, DK BROWN SANDY LOAM

1415] SITE 5824, NO SAMPLE, A LOW-LYING
GRANITE BEDROCK AREA, SPARSE VEG.

1433] AT TRUCK; JESSE SIMS + ZACH ARCHIBAGO
THEY WILL GO TO HELEN BLAZES CLAIM AND
NEARBY; COLE D. OFFSITE FOR THE DAY
53°, OVERCAST, MOD. WIND W/ GUSTS

1445] SITE 5825, GRAB pH 6.09; A PORTION
OF BARE AREA, 50' W. OF WOLF TRAIL
SOME Mn-STAINING; ALSO BLACK SLAG ROCKS
W/ Cu-STAINING; OTHERWISE: GRANITIC SAND +
GRAVEL.

1450] SITE 5826, GRAB pH 4.98; 15' SW
OF 5825; BARE GRANITIC SAND AREA, MINOR
Mn-STAIN; SOME SLAG GRAVEL

1500] SMITH + SPRUNGER OFFSITE FROM WSSOU,
GO TO PARROT TO DRY XRF SAMPLES

Howard J. M. 6-9-20

Return to Rain

WSSOU RI SOIL SAMPLING

6-10-20 Wed S. SMITH

0745] At Pioneer office, Calibogue PH
Probes, load trucks, fill out FAF.

Probe 2	Buffer	Reads
	4.00	4.00
	7.00	7.01
	10.00	10.06

0930] A CREW AT HUMBOLDT CLAIM, SOUTH OF MINING MUSEUM TO COLLECT IVBA SAMPLES AT 2019 SAMPLE SITES. CREW IS S. SMITH, M. SPRUNGER, + Z. ARCHIBALD
53, LT. WIND, CLOUDY.

0945] SITE 5877, IVBA RANGELAND NEAR WEST EDGE OF HUMBOLDT; REOCCUPY S05075, WELL VEGETATED WITH GRASS; SOIL IS BROWN LOAMY SAND, MOIST; pH 8.43

1005] SITE 5878, IVBA 8-POINT COMPOSITE pH 5.22; MEDIUM PILE SW OF LARGE DUMP; TWO CO-ALESCEED PILES - 4 SUB-SAMPLES FROM EACH PILE

1030] SITE 5879, IVBA 5-POINT, pH 4.98 REOCCUPY S05093, SAMPLE ON TOP OF MED. PILE IN A DRAINAGE, WEST OF LARGE MTN. BOY DUMP.

NOTE: MOLLY SPRUNGER OFFSITE TO RUN XRF AT ~ 1015; COLE DALLA SEMA W/ SMITH + ARCHIBALD NOW

6-10-20

1115] SITE 5880, IVBA 5-POINT, pH 6.63 REOCCUPY S05075; THIS IS A SMALL PILE AT EAST END OF ELBA CLAIM; IT IS ADJACENT TO 2 RESIDENCES; PART OF THE PILE HAS A VENEER OF GROUT FROM HOME CONSTRUCTION

1125] AT ~ 200' WEST OF NORTH HOUSE, THERE IS A SINKHOLE / MINE OPENING; SMITH CALLED PAT SAMPSON TO INFORM AND WE WILL MARK SPOT W/ PAINT; 60°, P. CLOUDY

1210] SITE 5881, IVBA 5-POINT, pH 5.74 REOCCUPY S05222; ORIGINAL SAMPLE WAS FOR SPLP; THIS IS A NARROW GULLY BETWEEN 2 LARGE PORTIONS OF NETTIE DUMP; SITE IS ON BORDER W/ NETTIE CLAIM; SAMPLE IS SEDIMENT; SAND + GRAVEL

1230] SITE 5882, 10-POINT IVBA, pH 8.66 REOCCUPY S05231; THIS IS A GENTLE, E-FACING SLOPE; IT MAY BE SHALLOW IN-PLACE BEDROCK; BANDS OF COLORING GO E-W; SAMPLE IS FROM N-S TRANSECT; WEATHERED APLITE ROCK

1245] SITE 5883, IVBA RANGELAND, MIS IN NETTIE CLAIM pH 6.62; WELL VEGETATED W/ GRASSES; SOIL IS SILTY SAND + GRAVEL, MINOR BRICK DEBRIS

WSSOU RI SOIL SAMPLING

6-10-20 WED

S. SMITH

1335] COLED. OFFSITE

1345] SITE 5884, IVBA, 5-POINT, pH 3.73
 REOCCUPY S05204, THIS IS TOE OF
 LARGE DUMP IN MILWAUKEE CLAIM, SIGNIF
 Mn-STAINING IN AREA, BUT SAMPLE SKIPS
 THESE ZONES. WASTE IS ORANGISH SAND +
 GRAVEL, ROCK IS WEATHERED GRANITE

~~1404] START PROBING AT DPT 24' - 75'
 EAST OF - 28, AT A LOWER ELEVON
 DUMP, ON A SOUTH TOE OF DUMP
 830, P. 424, CALM~~

DELETION BY S. SMITH

NOTE: THE FOLLOWING SAMPLES WERE
 COLLECTED TODAY FOR IVBA ANALYSIS IN
 GALLON ZIPLOCK BAGS.

20WS-0003-S05877-N-061020 @ 0945
 20WS-0003-S05878-N-061020 @ 1005
 20WS-0006-S05879-N-061020 @ 1030
 20WS-0040-S05880-N-061020 @ 1115
 20WS-0297-S05881-N-061020 @ 1210
 20WS-0288-S05882-N-061020 @ 1230
 20WS-0288-S05883-N-061020 @ 1245
 20WS-0015-S05884-N-061020 @ 1345

Stewart Smith 6-10-20

6-10-20 WED

ALSO NOTE:

A SECOND BATCH OF 20 SOIL SAMPLES WAS
 SHIPPED ON MONDAY 6-8-20 TO
 PACE ANALYTICAL SERVICES

1700 ELM ST. SE

MINNEAPOLIS, MN 55414

UNDER FED EX TRACKING # 4278 9928 2776

SAMPLES WERE SHIPPED ON ICE, ALL IN
 QT ZIPLOCK BAGS. 18 SAMPLES FOR
 TAL METALS AND 2 SAMPLES FOR SPLP AND
 TAL METALS.

Stewart Smith
 6-10-20

6-11-20 THURS

S. SMITH

0855] ONSITE IN ELBA CLAIM W/ BRANDON AND SCOTT OF JCI TO DO BLIND SWEEPS AT MINE DUMPS FOR GEOPROBE WORK; 50°, CLEAR LT. WIND. SWEEPING W/ RIGID SR-20 INSTRUMENT.

0909] PHOTO LR N OF UTILITY CLEARANCE MARKS FOR DUMP IN ELBA CLAIM

0915] COMPLETED N-MOST DUMP; DID AN ENTIRE CIRCUMFERENCE AROUND DUMP, THEN 2 PASSES OVER DUMP AT RIGHT ANGLES.

0935] COMPLETED SMALL HUMBOLDT DUMP DUE EAST OF GAS PIPE LINE

0955] COMPLETED LARGE DUMP IN MTN. BOY DUE WEST OF GAS LINE.

1021] PHOTO LIC NE AT UTILITY MARKS ON TOP OR N END OF LARGE HUMBOLDT DUMP

1030] SCOTT WILL MARK OVERHEAD POWER ON THE PLOT PLAN; IT IS IN NE PART OF HUMBOLDT. SOME UG POWER GOES FROM A POLE TO THE NORTH 'NEW' HOUSE EAST OF ELBA

1045] COMPLETED SWEEP OF LARGE + SMALL HUMBOLDT/PORTLAND DUMPS AS ONE LARGE AREA

1050] JCI OFFSITE

6-11-20 THURS

1055] AT GATE TO MINNIE JANE DUMP AND GREEN SLEEP ACCESS ROAD; KEY # 2078 WORKS IN LOCK

1100] PHOTOS LR W. OF UTILITY MARKS AT GATE; M. JANE DUMP IN BACKGROUND

1105] SMITH OFFSITE FROM WSSOU

6-12-20 FRIDAY

1000] STEWART SMITH AND NATE FARLEY ONSITE AT ELBA/HUMBOLDT AREA TO ASSESS ACCESS FOR GEOPROBE RIG; WHAT WILL WORK ETC. 70°

MOST PILES SEEM ACCESSIBLE FROM THE UPHILL END OF THE PILE. NATE SAYS HE CAN USE THE PLOW ON THE PROBE TO LEVEL OUT OR WIDEN SOME NARROW AREAS.

~1100] PIONEER OFFSITE

Stewart Smith
6-12-20

30

WSSOU RI SOIL SAMPLING

6-15-20 MONDAY

S. SMITH

3 COOLERS WERE SHIPPED TODAY, EACH TO
A DIFFERENT PACE ANALYTICAL FACILITY.

ONE COOLER WITH 20 SAMPLES WAS SENT TO:
PACE ANALYTICAL SERVICES ON ICE
1700 ELM ST. SE

MINNEAPOLIS, MN 55414

FED EX TRACKING # 1686 7303 0800

ONE COOLER WITH 12 SAMPLES ON ICE WENT TO:
PACE ANALYTICAL SERVICES

150 N. 9th ST

BILLINGS, MT 59101

FED EX TRACKING # 4278 9928 2754

ONE COOLER WITH 8 SAMPLES ON ICE WENT TO:

PACE ANALYTICAL SERVICES

1673 TERRA AVE.

SHERIDAN, WY 82801

FED EX TRACKING # 1686 7302 5597

Stewart Smith
6-15-20

31

WSSOU GEOPROBE WORK

6-18-20 THURS

S. SMITH

0815] STEWART SMITH AND MOLLY SPRUNGER
AT WEST ELBA CLAIM. GEOPROBE CREW OF
NATE FARLEY AND JUSTIN HARCHARIK ARE
HERE STARTING INSPECTION OF IMBE #6;
IT IS A GEOPROBE 7822DT

42°; OVERCAST; CALM TO LT. WIND - GROUND
IS WET FROM HEAVY RAIN YESTERDAY.

0835] CONDUCT SAFETY BRIEFING; LT.
RAIN

0900] RIG SETTING UP AT DPT-01,
SE LOBE OF ELBA

0910] MICHELLE GOLDBERG, CDM-SMITH ONSITE
REVIEW SAFETY ASPECTS W/ HER

0920] START DRILLING AT DPT-01

0950] VERY HARD " AT ~12.5 FT

THERE WAS A ROCK AT 10'; WE ARE
USING ~2 1/2" OD RODS

1010] START DRILLING AT DPT-01B, 5'
N. OF 01; SAMPLE TUBE 10-15' IS LIKELY
MELTED IN OUTER ROD; LT. RAIN/MIST

1040] AT DPT-01B; REFUSAL AT
10.8'; SMITH SAYS TO MOVE TO
-02 SITE, STICK W/ SMALL RODS

1055] PHOTO OF BACKFILLING -01 & 01B
IN BENTONITE CRUMBLES

Rite in the Rain

WJ50U GEOPROBE WORK

6-18-20 THURS

S. SMITH

- 1103] START DRILLING AT DPT-02
 1107] PHOTO, LK E OF DPT-02
 1150] START DRILLING AT DPT-03,
 NW PART OF MAIN ELBA DUMP
 1158] CALL FROM CENTURY LINK LO-
 CATOR FOR NEXT SET OF HOLES. THERE IS
 A COMMUN. LINE BURIED ON N. SIDE OF
 BLUEBIRD TRAIL
 1200-1225 MOMMY OFFSITE BRIEFLY
 1245-1330 MICHELLE OFFSITE LUNCH; CREW
 TAKES LUNCH; 53°, CLOUDY, LT. WIND;
 NO RAIN LAST HR
 1255-1310 PAT JAMPSON ONSITE
 NOTE: PH PROBE 1 CALIBRATED AT
 0930 AT OFFICE
- | BUFFER | READING |
|--------|---------|
| 4.00 | 3.98 |
| 7.00 | 7.03 |
| 10.00 | 10.09 |
- 1330] START PROBING AT DPT-04 IN SW
 PART OF MAIN DUMP
 1334] 2 PHOTOS OF -04 SITE
 1353] DONE BACKFILLING DPT-04
 ~1415] START DRILLING AT MEDIUM DUMP
 IN WEST GERMANIA (0043); MICHELLE &
 SMITH LOOK AT LARGE DUMP IN

6-18-20 THURS

- HUMBOLT TO DISCUSS ANISCE DRILLING
 OR DRILLING ALONG TOE OF SLOPE
 ~1445 3 PHOTOS OF -05
 1510] MICHELLE OFFSITE FOR THE DAY
 PROBE CREW HAS DRILLED 0-15' AT -06
 LT. RAIN
 1600] CREW PULLS RODS AND B-FILLS -06
 WE WILL DO 1 MORE BORING; 55°, P. CUDY
 1620] START DRILLING AT DPT-07 IN
 MOUNTAIN BOY (0006).
 1705] DONE LOGGING AND SAMPLING;
 CREW IS DECON-ING RODS
 1730] SMITH/SPRUNGER OFFSITE; ^① PROBE
 CREW WILL LEAVE SOON.
- NOTE: THE FOLLOWING SAMPLES WERE COLLECTED
 TODAY FOR LABORATORY ANALYSIS OF TAL METALS;
 ALL IN QT. ZIPLOCK BAGS.
- 20WS-0040-S05885-5.6-6.2-N-
 061820 AT 1030
 20WS-0040-S05886-5.6-10-N-061820
 AT 1115
 20WS-0040-S05887-6-6.5-N-061820
 AT 1155
 20WS-0040-S05888-5.6-6.0-N-061820
 AT 1335

WSSOU GEOPROBE WORK

6-18-20 THURS

S. SMITH

20WS-0043-S05889-5.8-6.2-N-

061820 AT 1425

20WS-0043-S05890-6.2-6.4-N-

061820 AT 1430

20WS-0043-S05891-10.3-10.9-N-

061820 AT 1505

20WS-0006-S05892-5.7-6-N-

061820 AT 1630

Stewart Smith
6-28-20

6-19-20 FRIDAY

S. SMITH

0835] At Pioneer office, calibrate
pk probe.

Probe 1	Buffer	Blads
	4.00	3.98
	7.00	7.06
	10.00	10.18

STEWART

0900] SMITH AT ELBA CLAIM STAGING

AREA; PROBE CREW JUST ARRIVED; 50° CLEAR
CALM TO LT. WIND. 0915] MOLLY SPRINGER
ONSITE; PROBE CREW IS NATE FARLEY AND
JUSTIN HARCHARIK - DOING INSPECTION

0930] CONDUCT SAFETY MTS

1000] PROBE SETS UP AT DPT-08 IN MTN.
BOY CLAIM

~1020] START DRAWING ON DPT-08B; MOVED ~5'
TO REDRILL; AT ~08 THE RECOVERY AT 10:15'
WAS NONE - ROCK IN SHOE

1045] PRT S ONSITE TIL 1150

1100] 0-10' FROM DPT-09 HERE

1130] PROBE SETTING UP AT DPT-10 - A

SMALLER DUMP IN DRAINAGE WEST OF
LARGE MTN BOY CLAIM; 59° ~~CLD~~, LT. WIND

1200-1230] PROBE CREW DECONS P. CLDY

RODS; THEN ALL MOVE TO HUMBLET CLAIM

1240-1300 MOLLY OPPOSITE FOR LYN BRK; CLDY
WIND INCR; HOLES 08, 09, +10 ARE ~~B~~ FILLED

WSSOV GEOPROBE WORK

6-19-20 FRI

S. SMITH

HUMBOLT CLAIM IS # 0003

1304] PHOTOS OF DPT-11 SITE

1400] CREW MOVES TO DPT-13 ON
NORTH END OF MAIN HUMBOLT DUMPPHOTO OF DPT-13 AT 1403, LK NE, THEN
THEN PHOTO OF B-FILLED -12 + -11

1404] START DRILLING -13

1430] AT DPT-13; POOR RECOVERY AT 10-15'
WE WILL REDRILL AT A NEW HOLE; USE SOLID
TIP TO GO 0-10', THEN SAMPLE 10-15'1520] PROBE MOVES TO DPT-14 ON NE
FLAT TOP OF LARGE DUMP; NOTE-SOME
OF AFTERNOON BORINGS ARE TECHNICALLY
IN GERMANIA CLAIM BUT ARE LOGGED AS
HUMBOLT WHERE MAIN DUMP IS. 65° p. clay.

NOTE: BORING DPT-13B IS 1 FOOT N. OF -13

1550] SMITH ASKS FOR REDRILL OF -14 AS AT
13B; SOLID TIP 0-10'; CORE 10-15'

BORING -14B IS 1 FOOT WEST OF -14

1640] LV HUMBOLT AREA FOR STAGING
AREA/ PROBE TRAILER; CREW HAS DETONATED
RODS1650] SMITH AND SPRUNGER OFFSITE TO
OFFICE; PROBE CREW WILL LEAVE SOON.TODAY'S LABORATORY SAMPLES ARE LISTED
ON NEXT PAGE.

6-19-20 FRI

ALL LABORATORY SAMPLES COLLECTED TODAY
ARE IN QT. ZIPLOCKS FOR TAL METALS.20WS-0006-S05893-10.4-10.7-N-
061920 AT 103020WS-0006-S05894-11.1-11.4-N-
061920 AT 104520WS-0006-S05895-5.4-5.7-N-
061920 AT 114020WS-0003-S05896-5.9-6.5-N-
061920 AT 131520WS-0003-S05896-5.9-6.5-D-
061920 AT 132520WS-0003-S05897-7.3-7.7-N-
061920 AT 134520WS-0003-S05898-10.8-11.2-N-
061920 AT 144520WS-0003-S05899-16-16.3-N-
061920

Stewart Smith
6-19-20

WSSON Geoprobe Work

6-23-20 Tuesday

S. SMITH

0735] At Pioneer office, calibrate pt probe 2	reads	buffer
	3.99	4.00
	7.01	7.00
	10.06	10.00

0805] CREW OF STEWART SMITH, RACH ARCHIBALD AND MOLLY SPRUNGER AT ELBA STAGING AREA DRILLERS NATE FARLEY + JUSTIN HARCHANIK HERE AT 0815 ; CONDUCT SAFETY BRIEFING

AT 0830 ; 50°, CLEAR, CALM

~~0900~~ 0845] PROBE IS SETTING UP AT DPT-15, ON W-FACING SLOPE OF BIG LOBE OF HUMBOLT DUMP

0902] START PROBING AT -15

0936] " " AT DPT-15B ; IT APPEARS THE TOP OF NATIVE 'SOIL' MAY HAVE BEEN IN THE 0-4' TUBE, BUT SMITH DID NOT RECOGNIZE IT. THE 4-8' TUBE APPEARED TO BE ALL NATIVE GRANITE

NOTE! AT 0855 MOLLY S. LEFT TO GO BLIND SWEEP ESCORT W/ JCI

0955] RIG SETTING UP AT DPT-16, ON TOE OF SLOPE AT SOUTH (TERMINAL) END OF LARGE DUMP LOBE ; 1002] START PROBING TODAY WE ARE USING 4-FOOT RODS, SO 0-4', 4-8', ETC

6-23-20. TUES.

1030] START PROBING AT DPT-17, ON SOUTH END OF LOW FLAT-TOP DUMP

1110] START PROBING AT DPT-18 WITH RODS STILL IN GROUND, WAITING FINAL DEPTH

1140] PROBE CREW B-FILLING -17 + -18, RODS OUT ; 1155] DECON RODS AT

CENTRAL AREA 1210-1235 LUN BRK

1230] MOLLY ON SITE - BLIND SWEEPERS FOUND NOTHING

1240] CREW MOBING RIG TO DPT-19 IN MIDDLE TOP OF MAIN HUMBOLT DUMP ; 120 FT SOUTH OF DPT-13 ; 70°, CLEAR, LT. WIND

1405] START DRILLING AT DPT-20 IN MINNIE JANE CLAIM (0010) IN SW PORTION OF DUMP ; EARLIER WE MOBBED FROM HUMBOLT AREA ; TRAILER STALL AT ELBA

1500] BACKFILL -21 ; -21 IS ON CENTER OF S. SLOPE

1512] PHOTO LKN AT DPT-22 AS THEY START PROBING AT EAST TOP OF DUMP 80°, CLEAR, LT. WIND

1555] START DRILLING AT DPT-23, N-CENTRAL PART OF DUMP

1625] PULLING RODS FROM -23, THEN DECON ON ROAD.

Rite in the Rain

WSSOU GEOPROBE WORK

6-23-20 TUES

S. SMITH

1705] SMITH, SPRUNGER, AND ARCHIBALD
LEAVE WSSOU; PROBE CREW LEAVING SOON.
NOTE: THE FOLLOWING SAMPLES WERE
COLLECTED TODAY FOR LABORATORY ANALYSIS OF
TAL METALS IN QT. ZIPLOCK BAGS.

20WS-0003-S05900-1-1-5-N-062320
AT 0940

20WS-0003-S05901-4-4-4-7-N-062320
AT 1015

20WS-0003-S05902-8-6-9-0-N-062320
AT 1105

20WS-0003-S05903-4-6-4-9-N-062320
AT 1125

20WS-0003-S05904-12-6-13-N-062320
AT 1305

20WS-0010-S05905-8-4-8-8-N-062320
AT 1420

20WS-0010-S05906-13-13-5-N-062320
AT 1445

20WS-0010-S05907-12-2-12-6-N-062320
AT 1530

20WS-0010-S05908-12-4-12-8-N-062320
AT 1615

Stewart Smith

6-23-20

6-24-20 WED

S. SMITH

0715] AT PIONEER OFFICE; CALIBRATE PROBE 2

BUFFER READING

4.00 3.99

7.00 7.03

10.00 10.10

0750] SMITH AT MINNIE JANE GATE; PROBE
CREW: N. FARLEY + J. HARCHARIK ARE DOING
THEIR RIG INSPECTION; 50°, CLEAR, CALM
WE WILL DRILL 2-3 HOLES AT MINNIE JANE
AND THEN MOVE TO KEY WEST AREA

0800] MOLLY SPRUNGER ONSITE - CONDUCT
SAFETY BRIEFING

0910] START DRILLING AT DPT-25,
EAST END OF M. JANE DUMP, ON TOP
ALREADY DRILLED DPT-24

1000-1030] MOVING FROM M. JANE TO
KEY WEST 1045] SETTING UP RIG AT
DPT-26 ON EAST FLAT TOP OF KEY WEST

72°, P. CLOY, LT. WIND

1157] START A REDRILL AT DPT-27
DUE TO REFUSAL AT 11', BUT STILL IN
MINE WASTE

1200-1300 PAT SAMPSON ONSITE

LUN BRK 1230-1300

1300] PROBE CREW DECONS RODS

WISSOU GEOPROBE WORK

6-24-20 WED

J. SMITH

1330] PHOTOS LK SE + E AT DPT-28 SITE
ON A LOW BENCH; S-CENTRAL PART OF DUMP

1335] START PROBING AD-28

1425] " " " DPT-29 TOE IN
SE CORNER OF DUMP -30 (S)

1445] DAN RES + ZACH ARCHIBALD ON SITE
TO SURVEY IN PROBE HOLES; LV AT 1510

1500] ABOUT TO START AT DPT-31 IN NW
CORNER OF DUMP TOP

1520] DECON RODS ON TOP OF DUMP, CLOUD
INCREASING

1608] ALL LEAVE KEY WEST FOR PROBE
TRAILER; LT. RAIN; WE DID A QUICK TOUR
OF BURLINGTON CLAIM AND SET PIN FLAGS

1615] ALL PIONEER CREW LEAVES WISSOU

NOTE: THE FOLLOWING SAMPLES WERE COLLECTED
TODAY FOR LABORATORY ANALYSIS OF TAL METALS,
ALL IN QT ZIPLOCKS BAGS.

20WS-0010-S05909-8.2-8.5-N-062420
AT 0840

20WS-0010-S05910-9.2-9.6-N-062420
AT 0930

20WS-0297-S05911-12.7-13-N-062420
AT 1105

20WS-0297-S05912-4.5-4.8-N-062420
AT 1350

6-24-20 WED

20WS-0297-S05913-0.2-0.8-N-062420
AT 1410

20WS-0297-S05914-0.4-0.8-N-062420
AT 1430

20WS-0297-S05915-4.6-5-N-062420
AT 1510

ALSO, 20 GEOPROBE SAMPLES WERE SHIPPED
TODAY ON ICE FOR TAL METALS ANALYSIS,
UNDER FED EX TRACKING #1686 7303 3584
TO: PACE ANALYTICAL SERVICES

1700 ELM ST. SE
MINNEAPOLIS, MN 55414

Stewart Smith
6-24-20

NOTE: AT 1404, START
PROBING AT DPT-29, ~75'
EAST OF DPT-28, AT A
LOWER ELEVATION ON DUMP
ON A SOUTH TOE OF A DUMP
LOBE. 83°, P. CLDY, CALM

(SS)

Rite in the Rain

WISSON GEOPROBE INVESTIGATION

6-25-20 THURS

S. SMITH

0715] AT PIONEER OFFICE, CALIBRATE PROBE 2

BUFFER	READING
4.00	4.00
7.00	7.01
10.00	10.07

0740] CREW OF STEWART SMITH, MOLLY SPRUNGER + ZACH ARCHIBALD AT GEN. WASHINGTON STAGING AREA ON BLUEBIRD TRAIL; PROBE CREW OF NATE FARLEY + JUSTIN HARCHARIK ARE HERE STARTING PROBE INSPECTION

0800] CONDUCT SAFETY BRIEFING, THEN WALK PROBE TO BURLINGTON CLAIM

0855] START PROBING AT DPT-33 - IN MID OF LARGE DUMP AT BURLINGTON

1100] CREW IS DECONNING AT TRUCKS ALL BORINGS DONE AT BURLINGTON;

65°, P. CLOUD, LT. WIND

1215-1245] LUN BREAK

1245] START DRILLING AT DPT-38 ON A S-CENTRAL LOBE IN INDEPENDENT CLAIM

1325] START PROBING AT DPT-39 IN N-CENTER OF DUMP TOP

1425] START DRILLING AT DPT-41, ON N. SIDE/SLOPE OF DUMP ON E. SIDE OF ROAD

70°, P. CLOUD, LT. WIND

1440] DONE AT INDEPEND; CLEAN UP

6-25-20 THURS

1500] LV INDEPENDENT AFTER DECONNING ROADS

1655] LV GEN. WASHINGTON - DECON ROADS. AT DPT-42, WE HAD TO REDRILL AND GO TO 24' DEEP

1715] ALL PIONEER CREW OFFSITE. NOTE: THE FOLLOWING SAMPLES WERE COLLECTED TODAY FOR LAB ANALYSIS OF TAL METALS; ALL IN QT. ZIPLOCKS.

20WS-0285-S05916-4.4-4.5-N-062520 @ 0840

20WS-0285-S05917-8.4-8.7-N-062520 @ 0905

20WS-0285-S05918-0.3-0.9-N-062520 @ 0925

20WS-0285-S05918-0.3-0.9-D-062520 @ 0930

20WS-0285-S05919-1.2-1.5-N-062520 @ 0940

20WS-0285-S05920-1.3-1.5-N-062520 @ 1035

20WS-0246-S05921-12.2-12.6-N-062520

@ 1205

9.2 (S)

20WS-0246-S05922-8.8-~~9.1~~-N-062520 @ 1305

20WS-0246-S05923-4.8-5.1-N-062520 @ 1340

20WS-0246-S05924-8.7-9-N-062520 @ 1415

20WS-0246-S05925-1-1.4-N-062520 @ 1430

20WS-1150-S05926-20.5-20.8-N-062520

@ 1635

Stewart Smith
6-25-20

6-26-20 Fri

S. SMITH

0710] At Pioneer office, calibrate pH probe

Probe 2	Buffer	Reads
	4.00	3.99
	7.00	7.01
	10.00	10.07

0740] STEWART SMITH + MOLLY SPRUNGER AT MILWAUKEE CLAIM SOUTH GATE; PROBE CREW NATE FARLEY + JUSTIN HAROCHANK ARE HERE STARTING INSPECTION; 52°, HIGH THIN CLOUDS,

CALM 0805] CONDUCT SAFETY BRIEFING

0835] PROBE WALKS TO MILWAUKEE DUMP, SET UP AT N. END OF DUMP

1028] START PROBING AT DPT-45, ~75'

N. OF -44 IN CENTER TOP OF DUMP

1055] CREW MOVED TO DPT-46, ~50' TO N

~1130] TRACK ON GEOPROBE CAME OFF AS

RIG WAS MOVING TO DECON; NATE LET

TARA SCHLEEMAN KNOW OF PROBLEM + REPAIR

1150] JOSH HENDERSON OF WASLEY BRINGS SOME

SMOOTH WIRE FOR A FUTURE FENCE RE-

PAIR; 75°, CLEAR, LT. WIND

~1300] NATE + JUSTIN GET TRACK BACK ON

THEN SMITH + NATE MAKE DECISION TO

CALL IT A DAY 1320] DECON RODS

1335] MOLLY S. OFFSITE; 80°, LT. WIND

6-26-20 Fri

1355] ALL PIONEER CREW OFFSITE FOR THE WEEKEND.

NOTE; THE FOLLOWING SAMPLES WERE COLLECTED TODAY FOR ANALYSIS OF TAL METALS, ALL IN QT. ZIPLOCK BAGS.

20WS-0015-S05927-5.5-6.2-N-062620
AT 0920

20WS-0015-S05928-12.5-12.7-N-062620
AT 1010

20WS-0015-S05929-12.7-13-N-062620
AT 1015

20WS-0015-S05930-8.7-9-N-062620
AT 1040

20WS-0015-S05931-9.2-9.5-N-062620
AT 1110

Stewart Smith
6-26-20

FIELD NOTES CONTINUE IN BOOK 5

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MADE IN TACOMA
— SINCE 1916 —

Rite in the Rain
— DEFYING MOTHER NATURE —

Yes, Rite in the Rain
is a wood-based & recyclable
paper, but unlike plain paper...
it won't turn to mush
when exposed to:

- USE WET OR DRY**
most pens stop writing when wet
- ALL PENCILS
 - RITE IN THE RAIN PENS
 - WAX MARKERS
 - CRAYONS
 - OIL PASTELS / PAINT



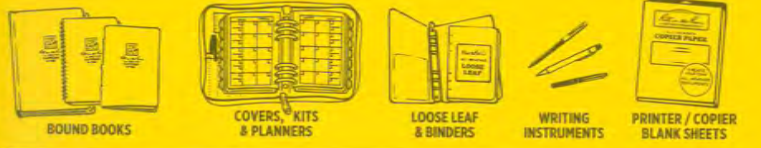
- WHEN DRY ONLY**
what you write won't wash off
- PERMANENT MARKERS
 - STANDARD BALLPOINTS

- WON'T WORK**
water-based inks bead off sheet
- GEL PENS
 - MOST HIGHLIGHTERS
 - FOUNTAIN PENS
 - WATER COLORS
 - ACRYLIC PAINT

ALL-WEATHER TOUGH!



The Rite in the Rain story began nearly a century ago in the forests of the Great Northwest. Entrepreneur, Jerry Darling, recognized the logging industry's need for a durable material that could be written on and survive in poor weather conditions. Jerry developed a special coating that created a unique moisture shield on the hand-dipped sheets of paper that he and his wife, Mary, processed at their home. From humble beginnings our first all-weather paper was born! Over the many years we've perfected and patented our environmentally responsible coating process. Still located in Tacoma, our continued mission is to provide innovative products for professionals and enthusiasts who brave the outdoors.



Samples listed below are included in logbook 5 and were sampled for XRF analysis.

Dates:6/3/20-2/22/21

Sample ID correlates with the given SO name in the logbook.

20WS-0138-SO5758-N-060320
20WS-0138-SO5761-N-060320
20WS-0138-SO5762-N-060320
20WS-0122-SO5765-N-060420
20WS-0122-SO5766-N-060420
20WS-0102-SO5770-N-060420
20WS-0122-SO5773-N-060420
20WS-0123-SO5775-N-060420
20WS-0123-SO5827-N-060420
20WS-0122-SO5831-N-060420
20WS-0122-SO5834-N-060420
20WS-0122-SO5837-N-060420
20WS-0122-SO5839-N-060420
20WS-1115-SO5846-N-060920
20WS-1115-SO5850-N-060920
20WS-1115-SO5851-N-060920
20WS-1115-SO5852-N-060920
20WS-1114-SO5853-N-060920
20WS-1113-SO5856-N-060920
20WS-1113-SO5857-N-060920
20WS-1113-SO5859-N-060920
20WS-1112-SO5860-N-060920
20WS-1016-SO5863-N-060920
20WS-1007-SO5866-N-060920
20WS-1016-SO5870-N-061020
20WS-0607-SO5871-N-061020
20WS-0607-SO5872-N-061020
20WS-1124-SO5963-N-072820
20WS-0016-SO5932-4.8-5.2-N-070120
20WS-0016-SO5933-12.7-13.0-N-070120

20WS-0016-SO5934-12.7-13.2-N-070120
20WS-0016-SO5935-4.0-5.0-N-070120
20WS-0016-SO5935-4.0-5.0-D-070120
20WS-0013-SO5936-12.3-12.6-N-070120
20WS-1150-SO5937-12.3-12.7-N-070120
20WS-1150-SO5938-24.4-24.9-N-070120
20WS-0288-SO5939-4.0-4.4-N-070220
20WS-0288-SO5940-4.4-4.9-N-070220
20WS-0288-SO5941-4.0-4.5-N-070220
20WS-0288-SO5942-0.9-1.3-N-070220
20WS-0289-SO5944-12.3-12.6-N-070220
20WS-0289-SO5945-12.8-13.3-N-070220
20WS-0162-SO5943-12.3-12.7-N-070620
20WS-0162-SO5946-16.0-16.4-N-070620
20WS-0162-SO5947-20.0-20.4-N-070620
20WS-0138-SO5948-12.8-13.3-N-070620
20WS-0138-SO5949-13.1-13.6-N-070620
20WS-0138-SO5950-9.5-9.8-N-070620
20WS-0179-SO5951-4.2-4.5-N-070820
20WS-0179-SO5953-5.4-5.7-N-070820
20WS-0179-SO5954-4.3-4.9-N-070820
20WS-0179-SO5954-4.3-4.9-D-070820
20WS-0179-SO5955-0.7-1.2-N-070820
20WS-0017-SO5956-8.1-8.6-N-070820
20WS-0019-SO5957-5.3-5.7-N-070820
20WS-0017-SO5958-12.4-12.8-N-070820
20WS-0315-SO5959-8.8-9-N-070920
20WS-0315-SO5960-4.3-4.7-N-070920
20WS-0315-SO5961-4.3-4.6-N-070920
20WS-0315-SO5962-5.3-5.6-N-070920

WEST SIDE SOILS
OPERABLE UNIT
(WSSOU)



Rite in the Rain.

ALL-WEATHER
JOURNAL

Nº 391FX

6/3/20 →

BOOK 5

2 USSOU RI Soil Sampling
Book 5 - Field Notes
Continued from Book 3

6/3/20 Wednesday

15:00] Site 5758 Grab XRF, pH 5.17
Top of lobe w/ unusually high
Mn staining w/ some finer grain
material. Appears to be at head
of a potential rill trying to form.

15:10] Site 5759 Grab pH 5.13
Dump pile off NW corner of main
large dump. Consists of some larger
coarse fragments w/ high Mn staining

15:15] Site 5760 Grab pH 8.87.
Dump pile west of large dump on
Glen Gary Claim. Just east of
Bull Run Rd. Appears like mostly
granite chunks + decomposed granite

15:25] Site 5761 5-Point XRF pH 8.11
Along west side of large dump. Westward
facing slope. Collected sample from
swales between lobes. 5-Point
composite. Each lobe varied slightly,
but swales had consistent Mn
staining. Toe of slope, +
downgradient area, well vegetated.

6/3/20 Wed.

15:35] Site 5762 8-Point XRF
pH 5.73. Medium sized dump
adjacent to pit. SW of large dump
+ just east of Bull Run Rd. Some
coarse fragments w/ high Mn staining
and areas of high Fe staining.

- Daily Summary = Characterized
31 Sites, Collected 14 XRF
Samples, 1 MIS Lab, and 3
Metals Lab Samples for
this crew.

- All XRF Samples to date
analyzed.

Crew off site @ 16:45.

Cole Pallas

6/3/20

4
Weather = Clear, 59°F
6/4/20 Thurs. WSSOR. RE Sampling
On site @ Pioneer office @ 7:30
to load equip, fill out FAF, and
calibrate pH probes.

Probe	Buffer	Reading
1	4.0	4.08
	7.0	6.91
	10.0	9.97

Crew in field @ 8:30.

This crew comprised of
Cole Dallasera and Jesse Simms.
2nd crew is Molly Springer
and Zach Archibald.

8:45] Site 5763 30-Point MFS +
MFS Dup. pH 5.78. Site is well
vegetated area to the south of
large dump and east of Bull
Run Rd. Site has good bunch grasses
& some sage & rabbit brush growing.

Collected 30-Point Range composite
JOWS-0138-505763-N-060420 @
8:45 in gallon ziplock and
collected Duplicate sample from
same pits JOWS-0138-505763-D-060420
@ 8:55 in gallon ziplock. Both
samples are 30-Point MFS.

5
6/4/20 Thursday

9:25] Site 5764 Grab pH 4.03

Large dump of eastern portion of
Snow drift claim. Small lobe of

NW corner w/ high Mn staining.
9:30] Site 5765 S-Point XRF, pH 7.96
Along west side of dump in area
w/ high Mn staining. Surface

has lots of coarse fragment cover
9:35] Site 5766 S-Point XRF, pH 8.08
dump pile on SW corner of large
dump. Pange wire fence around
pile.

9:50] Site 5767 S-Point pH 6.73
Small dumps adjacent to pits.

10:10] Site 5768 - Bedrock area
shallow bedrock area / Bedrock point.
Feature shows up but mostly bare due
to shallow bedrock point & poorly developed
decomposed granite.

10:15] Site 5769 Grab pH 6.91
Small pile mostly well vegetated. No
visual source. Appears like mostly decomposed
granite.

10:25] Site 5770 S-Point XRF, pH 6.15
Site small dump adjacent to source. Small

Return to Rain

WSSOU RI SAMPLING

6/4/20 Thurs.

C. DALLASERRA

area on NW side of pile w/ high Mn staining. Otherwise low Mn staining. Site in close proximity to stream w/ running water.

10:35] Site 5771 Grab pH 6.96
Hard to determine if site is mining related or not.

10:50] site 5772 Grab pH 5.85.
Small dump adjacent to source + just west of larger dump.

10:55] Site 5773 10-Point xRF, pH 5.07
Medium sized dump. Mostly consistent in characteristics. Just up gradient from drainage.

11:05] Site 5774 Grab, pH 3.75
Small dump in aspen patch, located adjacent to large dump and above a large head cut Southeast of dump.

11:25] Site 5775 S-Point xRF, pH 4.09
Southern face of dump pile. Below pile is swale that leads to drainage. Very well vegetated below dump.

11:30] Site 5826 Grab pH 4.88
Site on dump just adjacent to pit area

6/4/20 Thurs.

11:35] Site 5827 S-Point xRF, pH 6.14
West facing side of dump in characteristically different material. A more grey colored fines w/ high Mn stained rock on surface.

Dump does have pine trees growing on it.

11:45] Site 5828 S-Point ~~data~~, pH 2.96
Site in NW part of dump. Really orangish material w/ white crusty layer. Just above swale (well vegetated swale) that leads to intermittent reach.

Dump in close proximity to residential parcel. Dump sits right on property line. Collected JOWS-0123-505828-N-060420 in a ziplock

11:50] Site 5829 S-Point Lab, pH 4.37
Just south of Site 5828 on west facing slope in area w/ high Mn staining. Collected S-Point composite sample JOWS-0123-505829-N-060420 in a ziplock for total metals.

12:35] Site 5830 Grab pH 5.62. Small dump site adjacent to small pit.

12:40] Site 5831 S-Point xRF, pH 7.20
Dump next to source on north facing slope.
Pit in the rain

WSSOU RI SAMPLING

6/4/20 Thurs C. DALLASERRA

12:50] Site 5832 Grab pH 4.93

Small dump on North slope. Mostly well vegetated. Lots of pine needles on surface.

12:55] Site 5833 Grab pH 6.78

Small dump in cluster of small exploration pits. Lots of coarser fragments w/ high Mn staining.

13:00] Site 5834 S-Point XRF, pH 6.41

Small dump adjacent to pit on South facing slope. Some coarser fragments w/ high Mn. Finer material appears to have high Fe staining.

13:05] Site 5835 Grab pH 5.03

Small dump on North facing slope w/ mostly very coarse fragments on surface. Really well established Aspen stand on dump.

13:15] Site 5836 Grab pH 5.94

Small well vegetated dump adjacent to source.

13:25] Site 5837 S-Point XRF, pH 5.27

Bare area at SW toe of dump. Small dump adjacent to source.

15:35] Site 5838 S-Point pH 6.12

Small dump next to pit.

6/4/20 Thursday.

13:45] Site 5839 S-Point XRF, pH 6.30

Site off NE edge of large dump on eastern portion of snowdrift.

Sampled from sediment deposits that have moved from the dump down through Aspen stand to toe of slope. Aspens appear to be ~~irrigated~~ spreading w/ more shrubs popping up.

14:45] Site 5840 S-Point Lab, pH

Same sample site as 505633.

5833 had 11.9K result for pb. See entry in log book #3 for site description.

~~14:50] Site 5841~~ Collected S-Point

Composite 20WS-0350-505840-N-060420 in 1 Qt Ziplock for total metals.

14:50] Site 5841 S-Point Lab, pH 5.45

Same sample site as 505637 that

had elevated pb XRF hit. See

log book #3 for site description.

Collected S-point composite sample

20WS-0350-505841-N-060420 in

1 Qt Ziplock for total metals analysis.

off site @ 15:25 for the day.

Characterized 29 sites. Collected 4 labs,

1 MMS, 1 MMS Dup, + 10 XRF samples

Cite Dallas 6/4/20 CDR

WSSOU EF Sampling
6-09-20 Tues C. DALLASERRA

08207 At Pioneer office, calibrate pH
probes, fill out FAF and load truck

Probe 1	Buffer	Reads
	4.00	3.99
	7.00	7.02
	10.00	10.07

Crew in field @ 9:00.
Crew is Cole Dallaserra and
Zach Archibald. Jesse Sims to
join later. Crew starting in
Virgo claim south of Santa Clara
lane weather is mostly cloudy.
Light breeze and 45°F.

9:15] Site 5842 Grab pH 5.66

Barren area on Virgo claim that appears
to be mostly natural. Shallow bedrock.

Just below well established Azaleas.

Area shows an 05 29 20 layer on handheld

9:20] Site 5843. Well vegetated area.

Appears to be dump piles from a distillery,
but when investigated Area appears
to be piles from a cut to establish
a level pad (Maybe for potential
building purposes. Piles are very
well vegetated.

6/9/20 Tues

9:25] Site 58461 - Natural bare
area. Area very wind drawn
and appears to be bare due to
natural causes + poor native soil
conditions

9:30] Site 5845 5-Point pH 5.41

Small dump adjacent to pit. Mostly
vegetated + some more coarse fragments
Material appears granitic.

9:45] Site 5846 5-Point XRF, pH 6.25

Large dump pile mostly well vegetated.
Site on NW slope near large pine
tree. Unable to sieve in field due
to wet soil conditions.

9:55] Site 5847 Grab pH 7.23

Site along west side of dump in
barren area. Lots of debris + garbage dumping
in the area.

10:00] Site 5848 Grab pH 7.42

Site on slope extending to NE. Sparse
vegetated area. Toe more well vegetated.

10:05] Site 5849 5-Point lab, pH 5.46

Site adjacent to Dumps + pits. Smaller
barren area, but has most Mn staining
in the area. Collected 5-Point composite

WSSOU RI SAMPLING

6/9/20 Tues C-DALLASERRA

Sample ID 20WS-1115-505849-N-000920

@ 10:05 in at ziplock for total metals.

10:10] Site 5850 Gash XRF, pH 7.20

Site along NE border of Jewel
Claim. Small dump adjacent to pit.Mostly vegetated. Sampled from bare
area. * Pit seems to be actively
sloughing. Old bridge in bottom of
pit. Site adjacent to access rd.

10:30] Site 5851 S-Point XRF, pH 8.77

Large, mostly vegetated dump, adjacent
to residential property. Dump adjacent
to source & loadout area. Some old
timbers & concrete present wherefeatures were present. took samples
from SE portion of pile where
it appears someone was actively
digging. Shaft Area NE of
pile is full of old timbers difficult to
see, but does look like it could
be sloughing in.

10:45] Site 5852 S-Point XRF, pH 5.52

Site adjacent to large open cut feature
in NW corner of Jewel Claim. Gash
Narrow shallow bedrock spine feature

6/9/20 Tues.

11:05] Site 5853 S-Point XRF, pH 4.64

Site on Bare area on NW facing slope
just up gradient of small running
stream. Down gradient of concrete
structure that appears to be base
of old beehive.

11:15] Site 5854 S-Point lab, pH 5.47

Site on North bank of gash type
feature lead towards a pit. Site
drains directly towards Silver Bow
creek. Drainage very well vegetated.collected S-Point composite lab sample
20WS-1114-505854-N-000920 in at ziplock@ 11:15 for total metals. Site has
heavy ~~the~~ staining & moderate Mn

11:40] Site 5855 Gash pH 6.10

Small dump next to small pit.

Well vegetated dump pile

11:45] Site 5856 S-Point XRF, pH 5.80

Small dump adjacent to source. Mostly vegetated
with Bare area on NW corner of pile. Sampled
from bare area.

12:45] Site 5857 S-Point XRF, pH 6.77

Small dump adjacent to source. Up gradient
of drainage, Area below dump well vegetated.

Return to Rain

WSSOU RI SAMPLING

6/9/20 Tues.

C. DALLASERRA

- 12:50] Site 5859 S-Point lab pH 3.39
SPLP/ABA. Site is large dump in
center of drainage. Very light/Bleached
looking material w/ yellow's tint. Drainage
below dump mostly well vegetated. Some
visual deposits below dump. Collected
20WS-1113-505858-W-060920 @ 12:50
in Gt ziplock for SPLP + sister ABA
sample 20WS-1113-505858-W-060920
in Gallon ziplock bag. Collected
duplicate sample 20WS-1113-505858-D-060920
in Gt ziplock for SPLP timed 13:00.
collected duplicate ABA 20WS-1113-505858-D-060920
in Gallon ziplock.
- 13:05] Site 5859 Grab XRF pH 2.26
Stat of dump and just adjacent
to shaft area. Remnants of timbered
^{flume}
~~structure~~ present. Material extremely bleached
looking.
- 14:05] Site 5860 S-Point XRF pH 5.55
Site appears to be in area of old borrow
material appears to be mostly decomposed
granite. Recreational use in area
prominent. Site also appears to have
some historic dumping of garbage.

6/09/20 Tues.

- 1450] Site 5861, Shallow bedrock
ridge
- 15:00] Site 5862, S Point pH 5.53
Small dump located along fence
line adjacent from Highway. Area
surrounding has been regraded.
- 1505] Site 5863 S Point XRF pH, 5.46
large area with multiple pits.
Exposed bedrock and High Mn
staining both in coarse and fine
material.
- 1510] Site 5864 S point pH 5.88
large bare area with high
Mn staining. Bare area is
just south of a pit. Heavy
Machine tracks run through
the site up to the area
with new dirt.
- 1520] Site 5865, Bed rocks
Spine with lots of glass
and garbage
- 1530] Site 5867, long Shallow
Spine bedrock
- 1535] Site 5866 S Point XRF pH 7.11
Pit adjacent to drainage. Lightly
vegetated and appears active. *lots in the rain*

6/9/20 Tues

15:45 Site 5868, Shallow Bed
Creek leading into drainage15:55 Site 5869, Grab pH 6.41
Large Head cut with pits
and large dump adjacent west,
Fine material that's moving
into the drainage

- Note: At ~14:30 while investigating the Lizzie claim, a woman arrived at site and claimed we were trespassing on private property. The woman did not state her name and was in a irritable state. She did not want to hear any explanation and threatened that her husband and cops were coming. The crew obeyed her wishes to avoid any further confrontation.

Daily Summary: Characterized 28 sites, collected 11 XRF samples, 2 lab metals, 1 SPLP/ABA + 1 SPLP/ABA Duplicate.

Cole Dallasen
6/9/20

WSS00 RI Sampling

6/10/20 Wednesday

Crew on site @ Pioneer office
@ 7:30 to calibrate pH probes,
Load equip, + local Society meeting.

probe	Buffer	Reading
	4.0	4.00
	7.0	7.02
	10.0	10.07

Crew on site in field @ 8:30.

Crew = Cole Dallasen + Jesse Sims.

Weather = Partly Cloudy, 55°F

8:35 Site 5870 Grab XRF, pH 5.90
Site is small dump adjacent to pit.

Majority of dump outside of western
end of Eagle Bird claim. Runoff
leads directly to drainage where
culvert goes under Grizzly trail.
Collected grab on small sliver
that extends in to Eagle Bird claim.

8:55 Site 5871 5-Point XRF, pH 7.68
Dump pile adjacent to drainage
and just west of East/West Gulch
source area. Pile has mostly undesirable
vegetation growing on it.

9:05 Site 5872 5-Point XRF, pH 6.02
Dump adjacent to source w/ high Mn staining

6/10/20 Wed.

9:15] Site 5873 S-Point pH 8.21

Site on lobe just south of
gash. Material appears mostly
granitic with low staining.

9:25] Site 5874 Grab pH 8.34

Small dump adjacent to source
+ west of drainage on west end
of Helen Blazes Claim. Appears like
decomposed granite + pile sparsely vegetated.

9:30] Site 5875 Grab pH 8.65

Small dump next to small pit. Mostly
well vegetated.

- Jesse Sims offsite @ 10:15.

- Meet up w/ other crew.

S. Smith + Z. Archibald.

Consolidated all XRF samples
previously run and disposed
of them on site. Disposed

of Elba samples on Elba
Claim. All other samples

were disposed of in small pit
on large dump on Key West.

Daily Summary = characterized

6 sites & collected 3 XRF samples

DePalmer 6/10/20

6-23-20 Tuesday

[0900] met at Mining Museum Parking
lot. Crew is Molly Springer. From
JCT is Scott Desena and Brandon
Belfiore. Temp is 63°F, sunny.

[0915] On claim Minnie Jane. One
pile on claim is being swept. Nothing
was found.

[1005] Key West Claim. One large
pile is being swept. Nothing was
found.

[1035] Burlington Claim. One large
pile is being swept. Nothing was
found.

[1115] Independent Claim. One large
pile is being swept. East fence is used
as boarder. Nothing was found.

Summary: Four claims were blind
swept. by Jordan Contracting, Inc.

Nothing was found on any site.

Pink wooden posts were placed
on the corners of the area walked.

All personnel offsite at 11:50

Molly Smith 6/23/20

Rite in the Rain

WISSOU GEOPROBE WORK
CONTINUED FROM BOOK 4

7-1-20 WED

S. SMITH

0730] At Pioneer office to calibrate pH probe - Probe 1:

Buffer soln	Reading
4.00	3.98
7.00	7.01
10.00	10.06

0810] SAMPLE 4 GEOPROBE CREW AT ORPHAN BOY CLAIM AND MINE DUMP, ON HIGHEST NORTH BENCH; 50°, CLOUDY, LT. WIND; PROBE CREW IS KEN MANCHESTER + JUSTIN HARCHARIK; SAMPLERS ARE STEWART SMITH, MOLLY SPRUNGER, + ZACH ARCHIBALD

0830] CONDUCT SAFETY BRIEFING, THEN PROBE CREW DOES INSPECTION. 0900] MOVING

PROBE TO DPT-47, ON NORTH MIDDLE BENCH

0935] PAT SAMPSON ONSITE; PROBE STARTS AT DPT-48, ON EAST MIDDLE BENCH; INCREASED CLOUDS + WIND; PAT LEAVES AT 0955

1025] PROBE MOVES TO DPT-49 IN SW PART OF DUMP; ZACH A. IS WORKING AS HELPER

1110] MOVING PROBE TO DPT-50 IN BOTTOM OF ORPHAN BOY PIT. CLOUDY, LT. WIND W/ GUSTS; 55°

1145] PROBE MOVES TO DPT-51 IN GEORGE LODGE (2013) LT HAIL + RAIN

7-1-20 WED

DPT-51 F-12' @ 1205 CLAYEY

GRAVEL, ORANGE + GRAY, DRY M. WASTE

~1215 - GO TO 30/30 RULE FOR LIGHTENING

ALSO TAKE LUNCH BREAK; WINDY, RAIN STOPPED

DPT-51 HAS BEEN DRILLED TO 16'

1245] GO BACK TO WORK LOGGING -51;

1300] DECON RODS; LOADING UP PROBE INTO TRAILER

1335] SETTING UP AT GEN. WASHINGTON;

1345] DRILL AT DPT-52 IN NW FLAT AREA

1420] SET UP AT DPT-53 IN NE " "

WINDY, CLOUDY, ~55°

1500] DPT-53 WENT TO 28' TO FIND NATIVE

1530] SMITH LVS SITE FOR THE DAY; REST OF CREW LEAVING SOON. NOTE: THE FOLLOWING SAMPLES

WERE COLLECTED TODAY FOR ANALYSIS OF TAL METALS, ALL IN QT ZIPLOCK BAGS

20WS-0016-S05932-4.8-5.2-N-070120 @ 0910

20WS-0016-S05933-12.7-13-N-070120 @ 1000

20WS-0016-S05934-12.7-13.2-N-070120 @ 1050

20WS-0016-S05935-4-5-N-070120 @ 1125

20WS-0016-S05935-4-5-D-070120 @ 1130

20WS-0013-S05936-12.3-12.6-N-070120 @ 1205

20WS-1150-S05937-12.3-12.7-N-070120 @ 1400

20WS-1150-S05938-24.4-24.9-N-070120 @ 1450

— Stewart Smith 7-1-20 — *note in the rain*

WSSOU GEOPROBE WORK

7-2-20 Thurs

S. SMITH

0700] At Pioneer office - calibrate pH probe 1

Buffer	Reading
7.00	4.00
7.00	0.97
10.00	10.07

0725] SAMPLE CREW AT GEN. WASHINGTON STAGING AREA; 40°, CLEAR, LT. WIND

CREW IS STEWART SMITH + MOLLY SPRUNGER; PROBE CREW IS JUSTIN HARCHANK + ZACH ARCHIBALD; M. POTTS DRIVE OUT

0745] MIKE POTTS OFFSITE 0755] CONDUCT SAFETY BRIEFING AFTER PROBE INSPECTION

0810] WALK RIG TO NETTIE DUMP 0820] MOLLY OFFSITE TO GET DECON WATER

0830] SET UP RIG AT DPT-54 ON WEST SLOPE OF NETTIE 0905] MOLLY BACK

0910] MOVE RIG TO DPT-55, ON EAST SLOPE OF MAIN (BLACK) NETTIE DUMP JUST WEST OF SMALL RAVINE BETWEEN BLACK + ORANGISH DUMPS

0922] PHOTOS, LK WNE OF RIG AT DPT-55 PIN FLAG FOR -55⁵⁷ IN RIGHT B-GRND

0945] AT -55, NATIVE (APPARENT) IS VY SHALLOW; I ADDED A BORING UP THE HILL TO NW -; WIND INCRSING

7-2-20 THURS

1040] PROBE CREW IS DECONNING AT DPT-57

1105] SMITH AT DPT-58; A S-FACING SLOPE IN EAST PART OF NETTIE CLAIM; IT IS ~125' WEST OF OH POWER LINE, WHICH IS ALMOST THE NETTIE/HIBERIA CLAIM LINE 60°, CLEAR

1111] PHOTO LK W AT RIG AT DPT-58

1145] AT DPT-58; SOLID POINT GOT STUCK IN SHOE DURING A RE-DRILL ATTEMPT;

PROBE WILL MOVE TO -59 IN WEST PART OF HIBERIA CLAIM

1200-1330] PROBING AT BOTH -59 AND -60 TO FIND NATIVE; LEAVE RODS IN GROUND UNTIL NATIVE FOUND - BORINGS ARE A SIGNIFICANT WALK FROM LOGGING TABLE, SO THERE IS A LAG IN DETERMINING TOTAL DEPTH.

1345] DONE DRILLING FOR THE WEEK; START WALK BACK TO TRAILER AT GEN. WASHINGTON BORING DPT-58 DID NOT GET COMPLETED

1400] MIKE POTTS ONSITE TO DRIVE PROBE TRAILER; SMITH HEADS OFFSITE; REST OF CREW WILL LEAVE BY 1430.

NOTE: THE FOLLOWING SAMPLES WERE COLLECTED TODAY FOR LAB ANALYSIS OF TAL METALS ALL IN QT ZIPLOCK BAGS.

Rite in the Rain

LW50U GEOPROBE WORK

7-2-20 THURS

SS N - J. SMITH

20WS-0288-S05939-4-4.4-070220@0845

20WS-0288-S05940-4.4-4.9-070220@0850

20WS-0288-S05941-4-4.5-N-070220@1005

20WS-0288-S05942-0.9-1.3-N-070220@1025

SAMPLE # S05943 WAS NOT USED TODAY.

20WS-0289-S05944-12.3-12.6-N-070220@1310

20WS-0289-S05945-12.8-13.3-N-070220@1340

ALSO NOTE: ON MONDAY 6-30-20,
20 GEOPROBE SAMPLES WERE SHIPPED ON ICE
FOR TAL METALS ANALYSIS UNDER FEDEX
TRACKING # 1686 7303 3595 TO:

PACE ANALYTICAL SERVICES

1700 ELM ST. SE

MINNEAPOLIS, MN 55414

Stewart Smith
7-2-20

ANOTHER
NOTE FOR 7-2-20THE FOLLOWING
LAB SAMPLE WAS ALSO

COLLECTED ON 7-2-20

AT 1030 IN QT. ZIPLOCK:

20WS-0288-S05942-0.9-1.3-D-

070220 FOR TAL METALS

Stewart Smith 7-6-20

LW50U GEOPROBE WORK

7-6-20 MON

J. SMITH

0935] PIONEER SAMPLING CREW AND GEOPROBE
AT MARGET ANN CLAIM; CREW IS STEWART
SMITH, MOLLY SPRINGER, JON PRADE, JUSTIN

HARCHARUK + ZACH ARCHIBALD; 55°, PARTLY
CLOUDY, CALM TO LT. WIND; KEN MANCHETER
DROVE PROBE TRAILER TO THIS SITE.

1000] CONDUCT SAFETY BRIEFING AFTER
GEOPROBE INSPECTION

1030] SETTING UP PROBE AT DPT-61, NW PART
OF MARGET ANN DUMP

1035] PHOTOS OF -61, LK SETS

1109] PHOTOS OF DPT-62, LK N + NE

1155] RIG MOVING TO DPT-63; ON A SOUTH-
FACING LOBE IN CENTER OF DUMP

1250] DONE DRILLING AT MARGET ANN;
DECON SOME RODS; 70°, P. CLOUDY, LT. WIND

1300-1330] MOLLY S. OPPOSITE

1305-1330] PAT JAMPSON ON SITE

1335] PROBE + TRUCKS MOVE TO GLENGARRY
CLAIM - TO WORK ON DUMP EAST OF BULL RUN
RD.

1350] DRILLING AT DPT-64

1425-1505] DRILLED AT DPT-65; SW PART OF DUMP

1515] SETTING UP AT DPT-66; IN A SADDLE
AREA NEAR CENTER OF DUMP; 75°, P. CLOUDY
LT. WIND

Return to the River

WISCON GEOPROBE WORK

7-6-20 MON

S. SMITH

1545] PROBE CREW IS DECONNING RODS AT TRUCKS; DONE PROBING FOR THE DAY
 NOTE: THE FOLLOWING SAMPLES WERE COLLECTED TODAY FOR TAL METALS ANALYSIS ALL IN QT ZIPLOCK BAGS.

20WS-0162-SO 5943-12.3-12.7-N-070620 @ 1055

20WS-0162-SO 5946-16-16.4-N-070620 @ 1130

20WS-0162-SO 5947-20-20.4-N-070620 @ 1230

20WS-0138-SO 5948-12.8-13.3-N-070620 @ 1405

20WS-0138-SO 5949-13.1-13.6-N-070620 @ 1500

20WS-0138-SO 5950-9.5-9.8-N-070620 @ 1530

1640] At Pioneer Office, calibrate pH

probe and run pH on samples

Probe #	Buffer	Reads
	4.00	3.99
	7.00	7.02
	10.00	10.06

NOTE: ALL PIONEER CREW INCLUDING KEN MANCHESTER WITH GEOPROBE TRAILER OFFSITE FROM MARKET ANN AREA BY 1645

Stewart Smith
7-6-20

7-7-20 TUES

NO FIELD WORK TODAY, NO GEOPROBE OPERATOR IS AVAILABLE

ONE BATCH OF 20 GEOPROBE SAMPLES WERE SHIPPED TODAY ON ICE UNDER FED EX TRACKING # 1686 7303 5017 FOR ANALYSIS OF TAL METALS TO PACE ANALYTICAL SERVICES
 1700 ELM ST. SE
 MINNEAPOLIS, MN 55414

7-8-20 WEDNESDAY

0735] PIONEER CREW AT EAGLE CLAIM ON MOULTON RESER. RD.; 50°, P. CLOUD, CALM
 SAMPLE CREW IS STEWART SMITH AND MOLLY SPRUNGER; PROBE CREW IS JUSTIN HAR-CHARIK + ZACH ARCHIBALD

0750] CONDUCT SAFETY BRIEFING

0805] PROBE SETS UP AT DPT-67, IN SW PART OF WEST SIDE DUMP ON W-FACING SLOPE.

0820-830] PHILIP COTTON, NEIGHBOR PROPERTY OWNER STOPS BY TO ASK WHAT WE ARE DOING

0915] PROBE CREW DECONNING RODS; WE HAVE DRILLED DPT-68 AND -69 ON WEST DUMP; WILL MOVE NEXT TO EAST DUMP ON EAST SIDE OF MOULT. RES RD

Rite in the Rain

WSSOU GEO PROBE WORK

7-8-20 WED

S. SMITH

0935] START DRILLING AT DPT-70,
N. END OF EAST DUMP

1000] Re-drill 70, named 70-B

1000 1020] Start drilling at DPT-71,
S. end of east dump

1130] Crew onsite at Kit Carson claim
62°F sunny light wind

1400] PROBE RIG IS MOVING DOWN
OFF OF KIT CARSON DUMP AFTER
DRILLING DPT-72, -73, + -74

NOTE: S. SMITH OFFSITE FROM 1005-1220
PAT SAMPSON ONSITE FROM 0955-1220

1420] DECON RODS ON BLUEBIRD TRAIL
BY KIT CARSON: 65°, A FEW CLOUDS, LT. WIND

1445] SMITH GOES TO GARIBALDI TO MARK
SITES FOR TOMORROW; REST OF CREW
WILL LEAVE SITE ~1515

1525] SMITH OFFSITE FROM WSSOU

1530] At pioneer office, calibrate pH
probes and pH samples.

Probe 1	Buffer	Reads
	4.00	4.00
	7.00	7.03
	10.00	10.10

WSSOU GEO PROBE WORK

7-8-20 WED

Note: The following samples were collected
today for TAL metals analysis. All in
QT Ziplock bags.

20WS-0179-505951-4.2-4.5-N-070820 @ 0815

20WS-0179-505952-0.2-0.7-N-070820 @ 0835

20WS-0179-505953-5.4-5.7-N-070820 @ 0900

20WS-0179-505954-4.3-4.9-N-070820 @ 1015

20WS-0179-505954-4.3-4.9-D-070820 @ 1030

20WS-0179-505955-0.7-1.2-W-070820 @ 1020

20WS-0017-505956-8.1-8.6-N-070820 @ 1255

20WS-0017-505957-5.3-5.7-N-070820 @ 1310

20WS-0017-505958-12.4-12.8-N-070820 @ 1350

Stan Smith
7-8-20

WISSON GEOPROBE WORK

7-9-20 THURS

J. SMITH

- 0740] PIONEER CREW AT GENERAL WASHINGTON STAGING AREA; SAMPLERS ARE STENART SMITH AND MOLLY SPRUNGER; PROBE CREW IS JUSTIN HARCHAK AND ZACH ARCHIBALD; 45°, CLEAR, CALM
- 0800] CONDUCT SAFETY BRIEFING
- 0810] START WALKING PROBE TO GARIBALDI CLAIM
- 0835] IN NE PART OF GARIBALDI; DIFFICULT ACCESS TO PROPOSED PROBE HOLES
- 0845] SET UP PROBE AT DPT-75, AT TOE OF N-FACING SLOPE
- 0932] PHOTOS OF PROBE AT DPT-76, ~100' EAST OF -75, ON AN EAST PROTRUDING LOBE, JUST SOUTH OF EW GASH
- 1000] DONE AT -76
- 1023] PHOTOS OF PROBE AT A LOCATION ~100' W OF -75; ACCESS IS TOO DIFFICULT, WE WILL NOT DRILL HERE
- 1050] RIG SETS UP AT DPT-77, AT WEST END OF G-BACK DUMP; SURFACE IS BLEACHED VERY WHITE
- 1120] RIG SET UP AT DPT-78 ON S-FACING SLOPE; ~150' EAST OF -77
- 65°, CLEAR, CALM
- 1140] PROBE WALKS BACK TO TRUCK; DPT-78 WAS LAST BORING FOR THIS PHASE OF WISSON WORK!

7-9-20

- 1220] WHOLE CREW BACK AT GEN. WASH. STAGING AREA; DECON ROADS
- 1245] ALL PIONEER CREW OFFSITE
- 1320] AT PIONEER OFFICE, CALIBRATE PH PROBES AND PH SOIL SAMPLES
- | Probe 1 | Butter | Beads |
|---------|--------|-------|
| | 4.00 | 3.98 |
| | 7.00 | 7.03 |
| | 10.00 | 10.09 |

Note: The following samples were collected today for lab analysis of TAL metals. All in QT ziplock bags.

- 20WS-0315-S05959-8.8-9-N-070920 @ 0900
- 20WS-0315-S05960-4.3-4.7-N-070920 @ 0940
- 20WS-0315-S05961-4.3-4.6-N-070920 @ 1100
- 20WS-0315-S05962-5.3-5.6-N-070920 @ 1130

Justin Smith
7-9-20

WISSOU GEOPROBE WORK

7-13-20 MONDAY

J. SMITH

NO FIELD WORK; JUST SHIPPING SAMPLES.
ONE BATCH OF 23 GEOPROBE SAMPLES
WERE SHIPPED TODAY ON ICE UNDER
FED EX TRACKING # 1686 7303 5028 FOR
ANALYSIS OF TAL METALS TO:
PACE ANALYTICAL SERVICES
1700 ELM ST. SE

MINNEAPOLIS, MN 55414

Stewart Smith 7-13-20

7-27-20 MON

1330] STEWART SMITH AND PAT SAMP-
SON ONSITE AT AN ARCO PARCEL
SOUTHWEST OF THE MILES CROSSING ON
SILVER BOW CREEK; 80° M. CLEAR, LT. WIND
CONDUCT A WALK-THRU TO CHECK FOR
ANY EVIDENCE OF HISTORIC MINING
ACTIVITY.

1425] LV SITE AFTER WALKING
MOST OF IT, ~4 PHOTOS. WE DID NOT
SEE ANY EVIDENCE OF HISTORIC MINING ACTIVITY.
THE BEDROCK AT THIS SITE IS LOWLAND CREEK
VOLCANICS, WHICH TYPICALLY DOES NOT HOST
MINERALIZATION.

Stewart Smith 7-27-20

WISSOU RI SOIL SAMPLING

7-28-20 TUES

J. SMITH

0920] AT PIONEER OFFICE, CALIBRATE PH
PROBE 2. BUFFER READING

	7.0	6.98
	10.0	10.06
	4.0	4.09

1020] SMITH ONSITE AT WEST END OF
SCHLEY AVE. TO LOOK AT LOT JUST W.
OF 1045 SCHLEY; I LEFT A FLYER IN
DOOR AT 1045 " AND GAVE ONE TO BILL
QUEER AT " . HE SAID HIS MOTHER-
IN-LAW LIVES AT 1045 SCHLEY.

1024] PHOTOS OF PARCEL LKING SOUTH
FROM N. END, THEN PHOTOS " NORTH
FROM S. END. ; ~70°, CLOUDY, CALM

1026-1030] BILL QUEER'S WIFE'S SISTER
CAME OUT OF 1045 SCHLEY; I LET HER
KNOW WHAT ~~SH(S)~~ I AM DOING; SHE
EXPRESSED CONCERN ABOUT A GRASS FIRE
IN LATE SUMMER DUE TO HIGH GRASS &
WEEDS

1035] PARCEL IS COVERED BY GRASS AND
WEEDS; VERY LITTLE EXPOSED SOIL.
NO WATER IN SAND CREEK NOW.

1043] PHOTO OF SOIL SAMPLE S05963 FOR XRF
AND SOIL PH 7.24. TAKEN W. OF CENTER OF
HOUSE AT 1045

Return in Rain

7-28-20 TUES

J. SMITH

SOIL IS SANDY SILT, DRY, LOTS OF VEGETATION
D=0.15

1055] SMITH OFFSITE FROM SCHLEY SITE
Steward Smith 7-28-20

WSSOU RI extra samples

2/16/2021 TUES

M. SPRINGER

0850] calibrate probe #2 at Parrot office.

Will be taking pH of archived samples
along w/ extra samples from select locations

Probe #	Buffer	Reads
Pioneer DE	4.0	3.99
bottle # A82	7.0	7.02
used for all samples	10.0	10.06

0920] ~~site~~ sample # ~~595964~~ ^{ms 62842} 5964, DPT-01-0-5'Elba claim, paste pH: 4.36 ^{ms} ~~sample # changed due to original already being used.~~

Slight salt forming on gravel

0936] sample # 5965, DPT-01-6-10'

Elba claim, pH: 5.26

white salt forming on gravel

0956] talked to Cole D. about 01 & 01B

cleared up issue of 0-5' from 01B not

being archived.

1021] sample # 5966, DPT-01B-5:5.6'

Elba claim pH = 4.83

2/16/21 TUES

1028] sample # 5967, DPT-01B-6.2-10'

Elba claim pH = 4.87

1037] sample # 5968, DPT-02-0-5'

Elba claim pH = 4.27

1046] sample # 5969, DPT-02-5-5.6'

Elba claim pH = 5.25

1107] sample # 5970, DPT-02-10.4-11.4'

Elba claim pH = 5.40

No archive material for ~~DPT-02-11.4-12.3~~ ^{MS}DPT-02-12.3-~~15~~ ^{MS} 15'

1131] sample # 5971, DPT-03-11.4-12.3'

Elba claim pH = 5.04

1138] sample # 5972, DPT-03-0.5-6.0'

Elba claim pH = 5.09

1145] sample # 5973, DPT-03-5-5.9'

Elba claim pH = 5.34

1158] sample # 5974, DPT-03-6.2-6.9'

Elba claim pH = 7.09

1359] sample # 5975, DPT-03-10-12.2'

Elba claim pH = 8.55

1406] sample # 5976, DPT-03-12.2-15'

Elba claim pH = 8.47

1412] sample # 5977, DPT-04-0-5'

Elba claim pH = 4.81

2/16/2021

1419] sample # 5978, DPT-04-5-5.6'

Elba claim pH = 5.81

1428] sample # 5979, DPT-04-6-6.7'

Elba claim pH = 6.51

1438] sample # 5980, DPT-04-6.7-7.9'

Elba claim pH = 8.59

1447] sample # 5981, DPT-04-7.9-8.2'

Elba claim pH = 8.73

1458] sample # 5982, DPT-05-0-5'

Germania claim pH = 4.39

1506] sample # 5983, DPT-05-5-5.8

Germania claim pH = 4.45

1513] sample # 5984, DPT-05-6.4-10'

Germania claim pH = 4.46

1519] sample # 5985, DPT-05-10-13.7'

Germania claim pH = 4.95

1529] sample # 5986, DPT-06-0-5'

Germania claim pH = 6.71

1543] sample # 5987, DPT-06-5.0-10.3'

Germania claim pH = 5.94

14:55 - collect sample on 6/18/2020 DPT-06

20WS-0043-505987-5.0-10.3-N-061820

sample collected in a 1 QT Ziplock bag; total metals & SPLP

15:00 - collect sample duplicate on 06/18/2020

20WS-0043-505987-5.0-10.3-D-061820

EPA 6010/7470

2/16/2021

sample collected in a 1QT ziplock bag; total metals & SPLP

Additional sample request was for interval

10-10.3', however when material was

archived 5.0-10.0' was included. Total sample

interval is 5.0-10.3'

1616] sample # 5988, DPT-06-11.4-13.8

Germania claim pH = 6.83

1631] sample # 5989, DPT-07-0.0-5.0'

MTN. Bay pH = 7.13

1639] sample # 5990, DPT-07-5.0-5.7

MTN. Bay pH = 4.37

16:27 - collect sample on 6/18/2020 DPT-07

20WS-0006-505990-5.0-5.7-N-061820

1QT ^{Ziplock} bag for total metals & SPLP - EPA 6010/7470

1QT ^{Ziplock} bag for ABA

1703] sample # 5991, DPT-07-06-09'

MTN. Bay pH = 4.59

1711] sample # 5992, DPT-07-10-12

MTN. Bay pH = 7.45

1716] sample # 5993, DPT-07-13-15

MTN. Bay pH = 6.82

1730] M. Springer offsite from Patriot

Pioneer office. pH probe damaged between samples

with water by spraying of probe. No Decon

See log Book pg 28-29 for collection & decon to single use.

2/16/2021 for sample collection due

2/17/2021 Wed.

0845] M. Springer onsite at Plover Pioneer Office to collect PH and additional samples from archived core material.

0850] calibrate pH probe #2

Probe 2	Buffer	Reads
	4.0	4.01
	7.0	7.01
	10.0	10.09

0907] sample # 5994, DPT-08-0-5

MTN. Boy pH = 3.94

0916] sample # 5995, DPT-08-5-5.5

MTN. Boy pH = 6.18

0922] sample # 5996, DPT-08-5.5-5.9

MTN. Boy pH = 6.57

0931] sample # 5997, DPT-08-10.7-13.5

MTN. Boy pH = 4.36

0939] sample # 5998, DPT-08B-5.3-6.2

MTN. Boy pH = 6.19

0950] sample # 5999, DPT-08B-10.0-10.4

MTN. Boy pH = 4.99

1008] sample # 6000, DPT-09-0-5

MTN. Boy pH = 5.69

1015] sample # 6001, DPT-09-10.0-11.1

MTN. Boy pH = 6.88

2/17/21

slight orange color was present in material

1045] collected sample on 6/19/2020 DPT-09

20WS-0006-506001-10.0-11.1-N-061920

1QT Ziplock bag: total metals of SPLP-^{EPA} 6016/7420

1034] sample # 6002, DPT-09-11.4-15.0

MTN. Boy pH = 6.56

1042] sample # 6003, DPT-10-0-5

MTN. Boy pH = 4.72

1049] sample # 6004, DPT-10-~~5.5-5.9~~ 5-5.4

MTN. Boy pH = 4.89

1102] sample # 6005, DPT-10-5.7-6.2

MTN. Boy pH = 4.33

1119] sample # 6006, DPT-11-0-5

Humbolt pH = 4.18

1127] sample # 6007, DPT-11-5-5.9

Humbolt pH = 6.17

1134] sample # 6008, DPT-11-6.5-7.8

Humbolt pH = 8.36

1142] sample # 6009, DPT-12-0-5

Humbolt pH = 4.47

1256] sample # 6010, DPT-12-5-6.5

Humbolt pH = 4.96

1304] sample # 6011, DPT-12-6.5-7.3

Humbolt pH = 3.69

1310] talk to Cole D. about quantity

Rite in the Rain

2/17/21

of sample material. Only Totals + SPLP for now.

1342] collected sample on 6/19/2020 DPT-12

20WS-0003-S06011-6.5-7.3-N-061920

10T ziplock bag for total metals & SPLP - EPA 6010/7470

1334] sample # 6012, DPT-12-7.7-8.3

Humbolt pH = 4.08

1347] sample # 6013, DPT-13-0-5

Humbolt pH = 8.26

1356] sample # 6014, DPT-13-5-10

Humbolt pH = 5.54

1407] sample # 6015, DPT-13B-10-10.8

Humbolt pH = 5.40

1425] sample # 6016, DPT-13B-11.2-12

Humbolt pH = 4.19

1432] sample # 6017, DPT-13B-12-13

Humbolt pH = 8.18

1441] sample # 6018, DPT-14-0-5

Humbolt pH = 6.59

1450] sample # 6019, DPT-14-5-10

Humbolt pH = 7.82

1501] sample # 6020, DPT-14B-10-15

Humbolt pH = 7.70

1535] collected sample on 6/19/2020 DPT-14B

20WS-0003-S06020-10.0-15.0-N-061920

10T ziplock bag for total metals EPA 6010/7470

2/17/21

1530] sample # 6021, DPT-14B-15-16

Humbolt pH = 7.72

1531] sample # 6022, DPT-14B-16.3-18

Humbolt pH = 7.41

1544] sample # 6023, DPT-15-0-4

Humbolt pH = 8.63

1549] sample # 6024, DPT-15-~~4.5-6~~^{ms} 4-4.5

Humbolt pH = 8.13

1555] sample # 6025, DPT-15-4.5-6

Humbolt pH = 7.54

1600] sample # 6026, DPT-15-6-7.2

Humbolt pH = 7.64

1612] sample # 6027, DPT-16-0-4

Humbolt, pH = 8.39

1619] sample # 6028, DPT-16-4-4.4

Humbolt pH = 6.97

1625] sample # 6029, DPT-16-4.7-5.0

Humbolt pH = 8.44

1632] sample # 6030, DPT-16-5-6.3

Humbolt pH = 8.78

material has organic smell

1644] sample # 6031, DPT-17-0-4

Humbolt pH = 8.06

1650] sample # 6032, DPT-17-4-8

Humbolt pH = 8.24

2/17/21

1657] sample # 6033, DPT-17-5-8.6

Humbolt pH = 7.03

Cole D. stop in to check sampling progress.

1700 - 1705

1703] sample # 6034, DPT-17-9-9.5

Humbolt pH = 7.98

1710] sample # 6035, DPT-17-9.5-11

Humbolt pH = 8.24

probe disconnected between samples w/
DI waterto ^{Ms} 1730] M. Springer onsite from RamotPioneer Office for the day See for Book 6 pg. 28-29
for collection & clean probe
for 4 days samplesM. Springer 2/17/2021

2/18/21 Thurs

M. Springer

0830] Molly at Ramot Pioneer Office to calibrate
pH probe and collect samples from amended
material.

Probe 2	Buffer	Reads
	4.0	4.01
	7.0	7.01
	10.0	10.07

0852] sample # 6036, DPT-18-0-4

Humbolt, pH = 4.30

0854] Molly call Cole to discuss DPT-18 sample
quantity. Decided to use 0-4' for NBA & 4-4.6

2/18/21

for total metals & SPLP.

11:12] collected sample on 6/23/2020 DPT-18

20WS-0003-506036-0.0-4.0-N-062320

1RT ziplock bag for ABA

0907] sample # ~~6037~~ 6037, DPT-18-4-4.6

Humbolt pH = 4.93

11:20] collected sample on 6/23/20

20WS-0003-506037-4.0-4.6-N-0623201RT ziplock bag for total metals & SPLP ~~EPA~~ EPA 6010/74700921] sample # 6038, DPT-18-4.9-6.0

Humbolt pH = 4.61

0929] sample # 6039, DPT-19-0-4

Humbolt pH = 9.20

0938] sample # 6040, DPT-19-4-8

Humbolt pH = 9.17

0945] sample # 6041, DPT-19-8-12

Humbolt pH = 8.82

0952] sample # 6042, DPT-19-12-12.6

Humbolt pH = 9.24

13:00] collected sample 6/23/20 DPT-19-12.0-12.6

20WS-0003-506042-12.0-12.6-N-0623201RT ziplock bag for total metals & SPLP ~~EPA~~ EPA 6010/74701016] sample # 6043, DPT-20-0-4~~to~~ ^{Ms} Minnie Jane pH = 7.53

Return to Rain

2/18/21

1025] sample # 6044, DPT-20-4-8

Minnie Jane pH = 5.87

1037] sample # 6045, DPT-20-8-8.4

Minnie Jane pH = 5.31

1042] sample # 6046, DPT-20-8.8-9.4

Minnie Jane pH = 8.10

1049] sample # 6047, DPT-20-9.4-11

Minnie Jane pH = 8.76

1100] sample # 6048, DPT-21-0-4

Minnie Jane pH = 6.87

1106] sample # 6049, DPT-21-4-8

Minnie Jane pH = 7.88

1117] sample # 6050, DPT-21-8-12

Minnie Jane pH = 7.86

1123] sample # 6051, DPT-21-12-13

Minnie Jane pH = 7.34

1140] sample collected 6/23/2020 DPT-21

20WS-COLO-SO 6051-12.0-13.0-N-062320

105 ziploc bag for total metals + SPLP EPA 6010/7470

1143] sample # 6052, DPT-22-0-4

Minnie Jane pH = 7.74

1152] sample # 6053, DPT-22-4-8

Minnie Jane pH = 5.21

1157] sample # 6054, DPT-22-8-12

Minnie Jane pH = 6.68

2/18/21

1203] sample # 6055, DPT-22-12-12.2

Minnie Jane pH = 5.31

1210] sample # 6056, DPT-22-12.6-14

Minnie Jane pH = 5.93

1240] sample # 6057, DPT-23-0-4

Minnie Jane pH = 4.74

1257] sample # 6058, DPT-23-4-12

Minnie Jane pH = 5.97

1258] sample # 6059, DPT-23-12-12.4

Minnie Jane pH = 6.14

1304] sample # 6060, DPT-23-12.8-13.5

Minnie Jane pH = 5.16

1310] sample # 6061, DPT-24-0-4

Minnie Jane pH = 6.22

1317] sample # 6062, DPT-24-4-4.6

Minnie Jane pH = 4.25

1326] sample # 6063, DPT-24-4.6-5.6

Minnie Jane pH = 4.82

1334] sample # 6064, DPT-24-8-8.2

Minnie Jane pH = 6.09

1338] sample # 6065, DPT-24-8.5-9.5

Minnie Jane pH = 7.82

1351] sample # 6066, DPT-25-0-0.5

Minnie Jane pH = 7.78

→

Rott in the Rain

2/18/2021

1357) sample # 6067, DPT-25-1.2-1.8

Minnie Jane pH = 7.66

1403) sample # 6068, DPT-25-4-8

Minnie Jane pH = 7.61

1419) sample # 6069, DPT-25-8-9.2

Minnie Jane pH = 4.22

sample also has gravel present

0925) sample collected 6/24/2020

20WS-0010-S06069-8.0-9.2-N-062420

1 QT bag ziplock for total metals & SPLP EPA ⁶⁰⁷⁰/₇₄₇₀

1 QT bag ziplock for ABA

1438) sample # 6070, DPT-25-9.6-10.8

Minnie Jane pH = 4.62

1446) sample # 6071, DPT-26-0-4~~key west~~ key west pH = 5.691509) sample # 6072, DPT-26-4-8

key west pH = 4.97

1516) sample # 6073, DPT-26-8-12

key west pH = 5.03

Archived bag was labeled DPT-8-12

through process of elimination it was determined this interval goes w/ this DPT-26. Bag was re-named & deleted.

1505) talked to Cole about quantity of mat'l for DPT-26-12-12.7. only total metals & SPLP.

2/18/21

will be sent. NO ABA like requested.

1524) sample # 6074 DPT-26-12-12.7

key west pH = 4.90

1105) sample collected 6/24/2020 DPT-26

20WS-0297-S06074-12.0-12.7-N-062420

1 QT bag ziplock for total metals & SPLP

1541) sample # 6075, DPT-27-0-4

key west pH = 4.71

1552) clean up for the day

1600) molly offsite from Pioneer office

pH probe decont w/ DI water

between every sample ^{See Log Book 6 pg 28-29} for details + sample collection procedures for today~~M. Springer 2/18/2021~~

2/22/2021 Mon.

M. Springer

0845) M. Springer at Pioneer Parrot office to calibrate pH probe, collect soil pH and additional soil samples.

0900) calibrate pH probe

probe 2:	Buffers	Reads
	4.0	3.98
	7.0	7.01
	10.0	10.07

1010) sample # 6076, DPT-27-4-5.5

key west pH = 5.04

Note: See Log Book 6 pg 28-29
for today's sample collection
& record procedures.

2/22/21

0916] m. Springer to Pioneer office to get new
log book.

0939] m. Springer back c Permit.

0942] sample # 6077 DPT-27-5.5-6.7

Key West PH= 8.78

~~104~~] sample # 6078 DPT-27-8-11

^m 0953] Key West PH= 9.08

1011] sample # 6079 DPT-27B-11-13.7

Key West PH= 9.27

Not enough material for samples requested.
Combined 8.0-11 + 11-13.7 due to similar
material & PH.

1019] sample # 6080 DPT-27-8.0-13.7

Key West PH= 9.21

11:36] collected sample on 6/24/2020 DPT-27

20WS-0297-506080-8.0-13.7-N-062420

1QT ziplock bag for: Total Metals, SPLP EPA ^{6016/} 7470

1QT ziplock bag for: ABA

11:38] collected sample duplicate on 6/24/2020 ^{DPT-} 27

20WS-0297-506080-8.0-13.7-D-062420

1QT ziplock bag for: ABA

1045] sample # 6081 DPT-28-0.0-4.0

Key West PH= 3.69

1340] collect sample on 6/24/2020 DPT-28

20WS-0297-506081-0.0-4.0-N-0624-20

1QT ziplock bag for ABA



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- CRAYONS
- OIL PASTELS / PAINT

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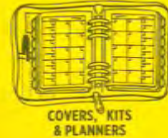
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- STANDARD BALLPOINTS

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02/22/2021 →

Book 6

Book 6

Continued from logbook 5.

Pioneer DI bottle: #82 used for all samples

2/22/2021 Mon.

M. Springer

DPT-28-4.0-4.5 not enough material for all 3 requested samples. @ 10:42 molly talk to Cole. Decided to use DPT-28-0.0-4.0 for ABIA sample as collected in logbook 5 pg 48.

1104] sample # 6082 DPT-28-4.0-4.5

Key West pH=3.35

1345] collected sample on 6/24/2020 DPT-28

20WS-0297-S06082-4.0-4.5-N-062420

1QT ziplock bag for: Total Metals & SPLP pg 28 for collection + Decon Procedures

1118] sample # 6083 DPT-28-4.8-5.4

Key West pH=3.38

White precip forming on material

1127] sample # 6084 DPT-28-5.4-6.6

Key West pH=4.28

1133] sample # 6085 DPT-29-0-0.2

Key West pH=3.68

1139] sample # 6086 DPT-29-0.8-2.3

Key West pH=5.76

1148] sample # 6087 DPT-30-0-0.4

Key West pH=3.42

1155] sample # 6088 DPT-30-0.8-1.2

Key West pH=4.27

2/22/21

1204] sample # 6089 DPT-31-0-4

Key West pH=3.56

1210] sample # 6090 DPT-31-4-4.6

Key West pH=3.52

+ms 1510] sample collected 6/24/2020 DPT-31

20WS-0297-S06090-4.0-4.6-N-062420

1QT ziplock bag for: Total Metals & SPLP pg 28 collection + Decon procedures

1219] sample # 6091 DPT-31-5-6.2

Key West pH=4.76

1230-1315 - lunch

1321] sample # 6092 DPT-32-0-4

Burlington pH=4.03

1332] sample # 6093 DPT-32-4-4.4

Burlington pH=6.41

1339] sample # 6094 DPT-32-4.5-6.5

Burlington pH=6.23

1349] sample # 6095 DPT-33-0-4

Burlington pH=5.60

1355] sample # 6096 DPT-33-4-8.4

Burlington pH=5.13

0905] sample collected 6/25/2020 DPT-33

20WS-0285-S06096-4.0-8.4-N-062520

1QT ziplock bag for: Total Metals & SPLP

1QT ziplock bag for: ABIA pg 28 for collection + decon procedures

2/22/21
 1407] sample # ~~6098~~^{6097 MS} DPT-33-8.7-10.7
 Burlington pH=5.24
 1417] sample # ~~6098~~ DPT-34-0-0.3
 Burlington pH=4.92
 1422] sample # ~~6098~~⁶⁰⁹⁹ DPT-34-0.9-3
 Burlington pH=5.72
 1431] sample # ~~6100~~ DPT-35-0-1.2
 Burlington pH=4.48
 1436] sample # ~~6101~~ DPT-35-1.5-1.8
 Burlington pH=4.76
 1444] molly call cole to discuss requested samples. It was determined DPT-35 is actually DPT-32. will take sample from both locations (DPT-32, DPT-35)
 DPT-32 original sample interval: 4.4-4.5'
 new sample interval: 0.0-4.0
 Interval 4.0-4.4 is very coarse and would not produce enough material for a sample.
 0835] sample collected 6/25/2020 DPT-32
 20WS-0285-506092-0.0-4.0-N-062520
 1GT ziplock bag for: Total Metals & SPLP
 0938] sample collected 6/25/2020 DPT-35
 20WS-0285-506100-0.0-1.2-N-062520
 1GT ziplock bag for: ABA
 Pg 28 for collection + decon procedures

2/22/21
 1442] sample # ~~6102~~ DPT-35-04-08
 Burlington pH=5.44
 1602] sample # ~~6103~~ DPT-36-0-0.6
 Burlington pH=4.41
 1609] sample # ~~6104~~ DPT-36-0.6-1.9
 Burlington pH=4.25
 1613] sample # ~~6105~~ DPT-36-4-4.5
 Burlington pH=4.65
 1619] sample # ~~6106~~ DPT-36B-0-1.3
 Burlington pH=5.50
 1030] sample collected 6/25/2020 DPT-36B
 20WS-0285-506106-0.0-1.3-N-062520
 1GT ziplock bag for: total metals & SPLP
 1628] sample # ~~6107~~ DPT-36B-1.5-5.0
 Burlington pH=4.93
 1640-1650: cole D. stopped to check on samples
 1648] sample # ~~6108~~ DPT-37-4-8
 Independent pH=5.14 found malic
 *see pg 19
 DPT-37-0-4, no archived material for pH result
 1654] sample # ~~6109~~ DPT-37-8-12 MS
 Independent pH=6.07
 1150] sample collected 6/25/2020 DPT-37
 20WS-0246-506109-8.0-12.0-N-062520
 1GT ziplock bag for: Total Metals & SPLP
 Pg 28 for collection + decon procedures
 Note in the book

Pg 28 for collection + decon procedures

2/22/21

1705] Sample # 6110 DPT-37-12-12.2

Independent pH = 5.32

1708] Sample # 6111 DPT-37-12.6-12.8

Independent pH = 4.35

Waste material present on archived material

1715] Sample # 6112 DPT-37-12.8-15

Independent pH = 4.09

1730] Clean up area for the day. pH probe
deconed in between samples. w/ DI water.~~M. Springer 2/22/21~~

2/24/2021

M. Springer & J. Ehman at Pioneer Panot
office to calibrate pH probe, collect soil pH
and additional samples. (6820)

0839] calibrate pH probe 2

Probe 2	Buffer	Reads
	4.0	4.00
	7.0	7.01
	10.0	10.08

0917] Sample # 6113 DPT-38-0-4

Independent pH = 6.14

0900] Sample # ~~6115~~ 6115 DPT-38-4-6.6

Independent pH = 5.20

2/24/21

0910] Sample # 6115 DPT-38-8-8.8

Independent pH = 5.73

0917] Sample # 6116 DPT-38-12-13.2

Independent pH = 4.26

DPT-38-13.2-14.5 no archive material

0924] Sample # 6117 DPT-39-0-4

Independent pH = 4.87

0929] Sample # 6118 DPT-39-4-4.8

Independent pH = 5.33

Archive material for DPT-39-4-4.8 did not have
sufficient quantity for all three requested ~~samples~~ samples

0929] Called Cole decided to combine

DPT-39-0-4 and DPT-39-4-4.8

All three samples will be collected from this
Combination.0936] Sample # 6119 DPT-39-0-4.8

Independent pH = 4.96

1335] Collected Sample on 6/25/2020 DPT-39

2005-0246-S06119-0.0-4.8-N-062520

1QT Ziplock bag for: Total Metals, SPLP

1QT Ziplock bag for: ABA pg 28 for ^{Collection} ~~2 Accon~~ _{Procedures}0950] Sample # 6120 DPT-39-8-10

Independent pH = 4.79

1010] Sample # 6121 DPT-40-0-4

Independent pH = 4.66

2/24/21

1014] Sample # 6122 DPT-40-4-8

Independent pH = 3.92

Archive sample also has gravel

1019] Sample # 6123 DPT-40-8-8.7

Independent pH = 4.49

1410] Collected sample on 6/25/2020 DPT-40

ZOWS-0246-S06123-8.0-8.7-N-062520

1QT Ziplock bag for: Total Metals, SPLP

1027] Sample # 6124 DPT-40-9-9.4

Independent pH = 4.59

1038] Sample # 6125 DPT-41-0-1

Independent pH = 4.40

1045] talked to Cole about mis-labeled

Gen Wash interval. Determined it belonged to DPT-42B-20.8-22

Requested sample will not provide enough materials for the sample requested. will combine DPT-42B-20-20.5 and DPT-42B-16-20 for samples requested.

1105] Sample # 6126 DPT-42-0-4

Gen Wash pH = 5.24

1111] Sample # 6127 DPT-42-4-8

Gen Wash pH = 6.04

1115] Sample # 6128 DPT-42-8-12

Gen Wash pH = 5.53

pg 28 for collection & decon procedures

2/24/21

1119] Sample # 6129 DPT-42-12-16

Gen Wash pH = 5.65

1127] Sample # 6130 DPT-42B-12-16

Gen Wash pH = 4.77

white precip on archive material

1132] Sample # 6131 DPT-42B-16-20

Gen Wash pH = 4.26

1135] Sample # 6132 DPT-42B-20-20.5

Gen Wash pH = 4.44

1140] Sample # 6133 DPT-42B-16-20.5

Gen Wash pH = 4.33

1630] collected sample on 6/25/2020 DPT-42

ZOWS-1150-S06133-16.0-20.5-N-062520

1QT Ziplock bag for: Total Metals, SPLP

1QT Ziplock bag for: ABA pg 28 for collection & decon procedures

See page 8 about combining intervals.

ABA analysis was selected due to low pH.

1152] Sample # 6134 DPT-42B-20.8-22

Gen Wash pH = 4.78

1300] Sample # 6135 DPT-43-0-4

Milwaukee pH = 6.02

1303] Sample # 6136 DPT-43-4-5

Milwaukee pH = 7.28

1308] Sample # 6137 DPT-43-5-5.5

Milwaukee pH = 6.86

Rite in the Rain

2/24/21

1313] Sample# 6138 DPT-43-8-8.7
Milwaukee pH = 6.97

1316] Sample# 6139 DPT-43-8.7-9.7
Milwaukee pH = 8.53

1320] Sample# 6140 DPT-43-9.7-10.8
Milwaukee pH = 8.30

1324] Sample# 6141 DPT-44-0-4
Milwaukee pH = 7.06

1329] Sample# 6142 DPT = 44-4-8
Milwaukee pH = 7.58

1333] Sample# 6143 DPT = 44-8-12
Milwaukee pH = 7.80

1338] Sample# 6144 DPT-44-12-12.5
Milwaukee pH = 7.91

1343] Sample# 6145 DPT-44-13-14.3
Milwaukee pH = 7.06

1351] Sample# 6146 DPT-45-0-4
Milwaukee pH = 6.32

1356] Sample# 6147 DPT-45-4-8
Milwaukee pH = 7.82

white precip on archive material.

1404] Sample# 6148 DPT-45-8-8.7
Milwaukee pH = ~~8.0~~ 8.05

1411] Sample# 6149 DPT-45-9-9.3
Milwaukee pH = 5.06

2/24/21

1414] Sample# 6150 DPT-45-9.3-9.7
Milwaukee pH = 6.31

1421] Sample# 6151 DPT-46-0-4
Milwaukee pH = 7.78

1427] Sample# 6152 DPT-46-4-8
Milwaukee pH = 8.26

1431] Sample# 6153 DPT-46-8-9.2
Milwaukee pH = 7.95

1435] Sample# 6154 DPT-46-9.5-10.1
Milwaukee pH = 5.95

1440] Sample# 6155 DPT-47-0-4
Orphan Bay pH = 6.51

1444] Sample# 6156 DPT-47-4-4.8
Orphan Bay pH = 4.86

1446] Sample# 6157 DPT-47-5.2-5.9
Orphan Bay pH = 4.76

1451] Sample# 6158 DPT-47-8-12
Orphan Bay pH = 6.76

1502] Called Cole discussed quantity of
Sample material.

1503] Sample# 6159 DPT-48-0-4
Orphan Bay pH = 4.59

1506] Sample# 6160 DPT-48-4-8
Orphan Bay pH = 5.69

2/24/21

1510] Sample # 6161 DPT-48-8-12
Orphan Boy pH = 5.98

1513] Sample # 6162 DPT-48-12-12.7
Orphan Boy pH = 3.99

0948] Collected sample on 7/1/2020 DPT-48
20WS-0016-S06161-8.0-12.0-N-070120
1QT ziplock bag for: ABA pg 28 for collection & decap

1000] Collected Sample on 7/1/2020 DPT-48
20WS-0016-S06162-12.0-12.7-N-070120
1QT ziplock bag for: total metals, SPLP- pg 28
Requested sample interval was low on ^{for collect}
quantity. Decision was made to collect _{decap}
DPT-48-12-12.7 for total metals and SPLP
DPT-48-8-12 for ABA. Did not combine
due to different pH levels.

1525] Sample # 6163 DPT-48-13-14.7
Orphan Boy pH = 3.87
pH probe decayed between every
sample with DI water.

1530] off site for the day.

WSSON soil samples

2/26/21 M. Sprimner
0900] onsite to sort samples, calibrate
pH probe, and collect soil pH and

2/26/21

additional soil samples

0930] calibrate pH probe 2

Probe 2	Buffer	Reads
	4.0	3.97
	7.0	6.97
	10.0	10.07

0940] sample # 6164 DPT-49-0-4
Orphan Boy pH = 8.83

0951] sample # 6165 DPT-49-11-8
Orphan Boy pH = 11.17

0959] sample # 6166 DPT-49-8-12
Orphan Boy pH = 9.29

1038] collected sample on 7/01/2020 DPT-49
20WS-0016-S06166-8.0-12.0-N-070120
1QT ziplock bag for: Total metals

1008] sample # 6167 DPT-49-12-12.7
Orphan Boy pH = 7.26

1013] sample # 6168 DPT-49-13.2-13.7
Orphan Boy pH = 6.42

1022] sample # 6169 DPT-50-0-1.3
Orphan Boy pH = 4.95

1118] collected sample on 7/01/2020 DPT-50
20WS-0016-S06169-0.0-4.0-N-070120 ^{pg 28}
1QT ziplock bag for: Total metals, & SPLP _{for collect}
_{decap}

2/26/21

1035) sample # 6170 DPT-50-5-7.5

Orphan Bay pH = 4.46

1105) sample # 6171 DPT-51-0-4

Georox lode pH = 5.41

1114) sample # 6172 DPT-51-4-8

Georox lode pH = 5.22

1120) sample # 6173 DPT-51-8-12

Georox lode pH = 4.20

1125) sample # 6174 DPT-51-12-12.3

Georox lode pH = 4.68

1131) sample # 6175 DPT-51-12.6-13.8

Georox lode pH = 4.37

1135) sample # 6176 DPT-52-0-4

Gen. Wash pH = 4.60

1139) sample # 6177 DPT-52-4-8

Gen Wash pH = 5.24

1142) sample # 6178 DPT-52-8-12

Gen wash pH = 4.41

1147) sample # 6179 DPT-52-12-12.3

Gen wash pH = 3.94

1152) sample # 6180 DPT-52-12.7-13.5

Gen Wash pH = 5.59

1202) sample # 6181 DPT-52-13.5-15

Gen. wash pH = 6.43

2/26/21

1211) sample # 6182 DPT-53-0-4

Gen. Wash pH = 6.65

1216) sample # 6183 DPT-53-4-8

Gen. Wash pH = 4.53

1222) sample # 6184 DPT-53-8-12

Gen. Wash pH = 4.96

NO archive material for DPT-53-12-16

~~1228~~ sample # 6185 DPT-53-16-20

Gen Wash pH = 5.52 C 1228

1233) sample # 6186 DPT-53-20-24

Gen Wash pH = 6.70

1446) sample collected on 7/10/2020 DPT-53

20WS-1150-S06186-20.0-24.0-N-0701201 BT ziplock bag for: Total meta (S & SPLP) ^{pg 28}
for collection & decon1243) sample # 6187 DPT-53-24-24.4

Gen Wash pH = 6.01

1252) sample # 6188 DPT-53-24.9-26

Gen. wash pH = 5.05

pH probe cleaned w/ DI water

in between each sample.

1315) outside for the day

~~M. Spinnaker 2/26/21~~

3/1/21 Mon.

M. Spinnaker

0850) onsite to organize and calibrate pH probe, pH soil samples, & collect soil samples

Rate in the Rain

3/11/21

0910] Calibrate pH probe 2

Probe 2	Buffer	Reads
	4.0	4.00
	7.0	7.01
	10.0	10.08

0900-0900 - Cole D. onsite (Parrot P) in our office.

0926] talk to Cole about quantity of sample material. DPT-54 had two original lab samples. Interval requested was already slant to lab. Decided to send DPT-54-0-4 for total metals & SPLP

0931] sample # 6189 DPT-54-0-4

Nettle pH = 4.36

0840] sample collected on 7/02/2020 DPT-54

20WS-0288-S06189-0.0-4.0-N-070220

1QT ziplock bag for: Total Metals & SPLP

0842] sample duplicate collected on 7/02/2020 DPT-54

20WS-0288-S06189-0.0-4.0-D-070220

1QT ziplock bag for: Total Metals & SPLP

0954] sample # 6190 DPT-54-4.9-6.2

Nettle pH = 6.70

1005] sample # 6191 DPT-55-0-0.8

Nettle pH = 5.41

No archived mate for DPT-55-0.8-1.5

See pg 28 for collection & decorn

3/11/21

1013] sample # 6192 DPT-55-4-6

Nettle pH = 4.89

1018] sample # 6193 DPT-56-0-1.1

Nettle pH = 5.68

1022] sample # 6194 DPT-56-1.1-1.6

Nettle pH = 4.92

1032] sample # 6195 DPT-56-0-1.6

Nettle pH = 5.23

Requested sample interval did not have the quantity for requested samples. Combined DPT-56-0-1.1 & DPT-56-1.1-1.6.

0955] sample collected on 7/02/2020 DPT-56

20WS-0288-S06195-0.0-1.6-N-070220

1QT bag for: Total Metals & SPLP ^{ziplock} pg 28 for collection & decorn

1QT ziplock bag for: ARIA

1046] sample # 6196 DPT-56-4.5-6

Nettle pH = 4.97

1058] sample # 6197 DPT-57-0-0.7

Nettle pH = 6.07

1022] sample collected on 7/02/2020 DPT-57

20WS-0288-S06197-0.0-0.7-N-070220

1QT ziplock bag for: Total Metals & SPLP ^{ziplock} pg 28 for collection & decorn

1114] sample # 6198 DPT-57-0.7-0.9

Nettle pH = 5.04

M. Spivak

Rite in the Rain

3/1/21

1125] sample collect # 6199 DPT-58-0-4
 Nettle ^{MS} pH = 4.85

1131] sample # 6200 DPT-58-4-8
 Nettle pH = 4.76

1137] sample # 6201 DPT-58-8-12
 Nettle pH = 5.19

1314] sample # 6202 DPT-59-0-4
 Hibernia pH = 5.07

White perip forming on material

1319] sample # 6203 DPT-59-4-4.7
 Hibernia pH = 5.11

1324] sample # 6204 DPT-59-4.7-5.2
 Hibernia pH = 4.97

1330] sample # 6205 DPT-59-5.2-5.7
 Hibernia pH = 4.20

No archived material from DPT-59-8-8.5

1342] sample # 6206 DPT-59-8.6-8.8
 Hibernia pH = 4.45

1351] sample # 6207 DPT-59-8.8-9.3
 Hibernia pH = 4.52

1405] sample # 6208 DPT-59-12-12.3
 Hibernia pH = 4.55

1416] sample # 6209 DPT-59-12.6-14
 Hibernia pH = 4.97

No archived material for DPT-59-14-14.8

3/1/21

1428] sample # 6210 DPT-60-0-4
 Hibernia pH = 5.68

1437] sample # 6211 DPT-60-4-4.6
 Hibernia pH = 4.56

1441] sample # 6212 DPT-60-4.4-4.8
 Hibernia pH = 4.38

1454] sample # 6213 DPT-60-4.8-5
 Hibernia pH = 4.25

1500] sample # 6214 DPT-60-5-5.8
 Hibernia pH = 4.67

1506] sample # 6215 DPT-60-8-12
 Hibernia pH = 4.77

1512] sample # 6216 DPT-60-12-12.8
 Hibernia pH = 4.93

1335] sample collected on 7/02/2020 DPT-60
 2005-0289-506216-12.0-12.8-N-070220

1st ziplock bag for: Total metals, & SPLP - ^{P2²⁸} Arc collection
 1522] sample # 6217 DPT-60-13.3-14 ^{+ Dicom}

Hibernia pH = 5.16

1527] sample # 6218 DPT-37-0-4
 Independent pH = 5.81

1538] sample # 6219 DPT-61-0-4
 Margaret Ann pH = 7.82

1547] sample # 6220 DPT-61-4-8
 Margaret Ann pH = 8.02

3/1/21 Mon

1547] sample # 6221 DPT-61-8-12

Margret Ann pH = 7.32

1557] sample # 6222 DPT-61-12-12.3

Margret Ann pH = 7.22

1606] sample # 6223 DPT-61-12.7-12.9

Margret Ann pH = 6.82

1612] sample # 6224 DPT-61-12.9-14.4

Margret Ann pH = 7.57

1628] sample # 6225 DPT-62-0-4

Margret Ann pH = 8.50

1634] sample # 6226 DPT-62-4-8

Margret Ann pH = 5.92

1639] sample # 6227 DPT-62-8-12

Margret Ann pH = 7.10

No archived material DPT-62-12-16

1647] molly talk to Cole. Requested interval

is not archived. Material is coarse and had poor recovery. Decided to combine

DPT-62-0-4, DPT-62-4-8 + DPT-62-8-12

to have enough material to sample.

1654] sample # 6228 DPT-62-0-12

Margret Ann pH = 6.59

1118] sample collected on 7/06/2020 DPT-62

20WS-0162-S06228-0.0-12.0-N-070620

1QT ziplock bag for: Total Metals & SPLP

See pg 28 for collection + decan

3/1/21

1707] sample # 6229 DPT-62-16.4-16.8

Margret Ann pH = 7.10

1718] sample # 6230 DPT-62-16.8-17.4

Margret Ann pH = 7.08

1730] M. Sprunger offsite for the day

pH probe decanned between every sample
w/ DI water~~M. Sprunger 3/1/21~~

3/2/21

M. Sprunger
J. Ehmman0815] onsite at pilmer Purot office to
calibrate pH probe, take soil pH
and collect extra soil samples

0830] calibrate pH probe

probe 2	Buffer	Reads
	4.0	4.01
	7.0	7.01
	10.0	10.08

0842] Sample # 6231 DPT-63-0-4

Margret Ann pH = 8.39

0846] Sample # 6232 DPT-63-4-8

Margret Ann pH = 8.31

0849] Sample # 6233 DPT-63-8-12

Margret Ann pH = 8.42

→

Rite in the Rain

3/2/21

1205] Collected Sample on 7/06/2020 DPT-63

ZOWS-0162-506233-8.0-12.0-N-070620

1QT Ziplock bag for: Total metals pg 28 collect

0900] Sample # 6234 DPT-63-12-16 +decorn

Margaret Ann pH = 8.55

0905] Sample # 6235 DPT-63-16-20

Margaret Ann pH = 9.23

0909] Sample # 6236 DPT-63-20.4-22.2

Margaret Ann pH = 7.66

0919] Sample # 6237 DPT-64-0-4

Glengarry pH = 8.54

0927] Sample # 6238 DPT-64-4-12

Glengarry pH = 8.03

0932] Sample # 6239 DPT-64-12-12.8

Glengarry pH = 6.92

1405] Collected Sample on 7/06/2020 DPT-64

ZOWS-0138-506239-12.0-12.8-N-070620

1QT Ziplock bag for: Total Metals pg 28 - collection

0944] Sample # 6240 DPT-65-0-4 +decorn

Glengarry pH = 8.82

0949] Sample # 6241 DPT-65-4-8

Glengarry pH = 6.78

0956] Sample # 6242 DPT-65-8-12

Glengarry pH = 6.44

3/2/21

1000] Sample # 6243

DPT-65-12-13.1

Glengarry

pH = 7.98

1005] Sample # 6244

DPT-66-0-4

Glengarry

pH = 5.56

1014] Sample # 6245

DPT-66-4-8

Glengarry white precip on
mutual

pH = 5.94

1019] Sample # 6246

DPT-66-8-9.5

Glengarry

pH = 5.37

1530] Collected Sample on 7/06/2020 DPT-66

ZOWS-0138-506246-8.0-9.5-N-070620

1QT Ziplock bag for: Total Metals, SPLP

1QT Ziplock bag for: ABA pg 28 for collection/decorn

1035] Sample # 6247 DPT-67-0-4

Eagle pH = 3.55

1041] Sample # 6248 DPT-67-4.2-6.2

Eagle pH = 3.68

1045] Sample # 6249 DPT-68-0-0.2

Eagle pH = 3.71

1049] Sample # 6250 DPT-68-0.7-2.0

Eagle pH = 3.49

1207] Sample # 6251 DPT-69-0-4

Eagle pH = 3.41

1215] Sample # 6252 DPT-69-4-5.4

Eagle pH = 3.07

24 3/2/21

0857] Collected Sample on 7/8/2020 DPT-69
ZOWS-0179-S06252-4.0-5.4-N-070820

1QT Ziplock bag for: total metals, SPLP - pg 28 for collection

1QT Ziplock bag for: ABA + decan

1227] Sample # 6253 DPT-69-5.7-6.3

Eagle pH=3.73

1235] Sample # 6254 DPT-70-0-4

Eagle pH=3.53

1240] Sample # 6255 DPT-70B-0-4

Eagle pH=3.21

1245] Sample # 6256 DPT-70B-4-4.3

Eagle pH=3.28

1015] Collected Sample on 7/8/2020 DPT-70B

ZOWS-0179-S06256-4.0-4.3-N-070820

1QT Ziplock bag for: total metals - pg 28 for collection/decant

1253] Sample # 6257 DPT-70B-4.9-6.2

Eagle pH=3.47

1302] Sample # 6258 DPT-71-0-0.7

Eagle pH=3.42

1307] Sample # 6259 DPT-71-1.2-2.1

Eagle pH=3.65

1309] Sample # 6260 DPT-72-0-4

Kit Carson pH=8.09

1313] Sample # 6261 DPT-72-4-8

Kit Carson pH=8.71

3/2/21 25

1318] Sample # 6262 DPT-72-8-8.1

Kit Carson pH=8.13

1323] Sample # 6263 DPT-72-8.6-9.6

Kit Carson pH=8.36

1327] Sample # 6264 DPT-73-0-4

Kit Carson pH=2.97

1334] Sample # 6265 DPT-73-4-5.3

Kit Carson pH=4.64

1340] Sample # 6266 DPT-73-5.7-6

Kit Carson pH=6.43

1346] Sample # 6267 DPT-74-0-4

Kit Carson pH=9.04

1349] Sample # 6268 DPT-74-4-8

Kit Carson pH=9.17

1353] Sample # 6269 DPT-74-8-12.4

Kit Carson pH=9.20

1356] Sample # 6270 DPT-74-12.8-14

Kit Carson pH=8.18

white prep on archive material

1417] Sample # 6271 DPT-75-0-4

Garibaldi pH=4.56

1421] Sample # 6272 DPT-75-4-8

Garibaldi pH=5.45

0855] Collected Sample on 7/9/2020 DPT-75

ZOWS-0315-S06272-4.0-8.0-N-070920

1QT Ziplock bag for: total metals + SPLP *Kit in the Rain*

pg. 28 for collection storage, + decan

3/2/21

1428] Sample # 6273 DPT-75-8-8.8
Garibaldi pH = 5.40

1433] Sample # 6274 DPT-75-9.0-9.3
Garibaldi pH = 5.57

1438] Sample # 6275 DPT-76-0-4
Garibaldi pH = 5.68

1505] Sample # 6276 DPT-76-4-4.3
Garibaldi pH = 8.62

1510] Sample # 6277 DPT-76-4.7-6.8
Garibaldi pH = 9.22

1518] Sample # 6278 DPT-77-0-4
Garibaldi pH = 5.86

1528] Sample # 6279 DPT-77-4-4.3
Garibaldi pH = 4.71

1535] Sample # 6280 DPT-77-0-4.3
Garibaldi pH = 5.06

Requested sample interval was low on quantity. Decision was made to combine DPT-77-0-4 and DPT-77-4-4.3.

~~Sample # 6281^{ds} DPT-77-4.6-6.3^{ds}~~
Garibaldi^{ds} pH = ^{ds}

1100] Collected Sample on 7/9/2020 DPT-77
ZOWS-0315-S06280-0.0-4.3-N-070920

1 QT Ziplock bag for: Total metals + SPLP

See pg. 28 for collection, decon, + storage

3/2/21

1557] Sample # 6281 DPT-77-4.6-6.3
Garibaldi pH = 8.35

1600] Sample # 6282 DPT-78-0-4
Garibaldi pH = 4.56

1606] Sample # 6283 DPT-78-4-5.3
Garibaldi pH = 4.24

pH probe deconv'd w/ DI water
between samples

~~M. Springer~~

3/3/21 wed. shipping information
M. Springer, C. Dallaserra

31 natural samples for total metals
and SPLP, 2 duplicate samples for
total metals and SPLP

5 natural samples for total metals
for a total of 38 samples

Shipped on ice under FedEx
Tracking #: 4278 9929 5743

To: Pall Analytical
1700 Elm St.

STE 200

Minneapolis MN 55414

13 Natural samples for ABT

Note in the Rain

3/3/21 shipping info cont.
 1 duplicate sample for ABA
 for a total of 14 samples
 shipped on ice under FedEx
 Tracking # 9550 9940 5640
 TO: Palle Sheridan
 1673 Terra Ave
 Sheridan WY 82801

M. Spinnaker

Methods - Total Metals - EPA 6010/7470
 SCLP - EPA 6010/7470
 ABA - Acid Base Pot.
 Neutralization
 All sulfur forms

Sample Collection procedure -
 Archived sample was kneaded
 together in zip lock bag to
 get good mixture. Sample
 was then collected by using
 disposable scoop to place
 sample aliquots in separate
 zip lock bag.

Decon procedures - No decon on
 sampling equipment since
 all equipment used was single
 use. pH probe was triple rinsed
 w/ DI water in between
 each pH test.

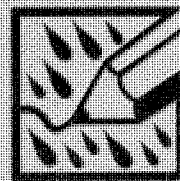
Sample storage. Samples were
 stored at the Pioneer Parent office
 until shipment. Cole Tallace 6/10/21

List of constituents Analyzed for
 Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu,
 Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Ti, V,
 Zn, Hg By EPA 6010/7470

ABA By modified Sobek -
 includes Acid Potential, Acid Base
 Potential, Neutralization Potential,
 All Sulfur forms.

Cole Tallace
 6/10/21

West Side Soils
Operable Unit
(WSSOU)



Rite in the Rain
ALL-WEATHER
JOURNAL
Nº 391FX

02/22/2021 → 9/23/21

Book 6

9/20/21 Monday
 0800] On site @ Parat to
 load equip + calibrate equip
 in prep for additional site
 characterization as requested
 by the Agency.

pH probe Calibration

Oakton probe 2

3-Point Cal Verified

Live Reading Buffer

4.01 @ 17.7°C 4.0

7.03 @ 17.7°C 7.0

10.16 @ 17.7°C 10.0

1000] C. Dallas area. M. Schonsberg,
 M. Springer (Pioneer) onsite @ Mining
 Museum parking lot to meet w/
 Nick Anton (CDM Smith). Crew move
 to Tearena mining claim (1045)

1105] site 6284, well vegetated area
 inspected to confirm presence of natural
 feature. NO pH collected, poly & photos
 taken 21WS-1045-506284-N-092021
 move to Portland claim (0062).

1130] site 6285, coarse aplite material
 through mat, w/ orange lichen.

9/20/21

soil pH = 9.01, 8-point composite
 collection for total metals. see pg 29.

21WS-0002-506285-N-092021

move to Humboldt claim (0003)

1200] site 6286, 5-point composite
 for XRF, small dump, w/ high Mn.

no veg. soil pH = 6.52

21WS-0003-506286-N-092021

1220] site 6287, 10-point composite
 for XRF, gravelly loose sand, low

vegetated, soil pH = 7.21

21WS-0003-506287-N-092021

1240] site 6288, grab pH, coarse gravel
 mostly well vegetated pile next to exploratory
 pit. soil pH = 7.82

21WS-0003-506288-N-092021

1250] site 6289, bed rock outcrop. no
 pH, no sample collection.

21WS-0003-506289-N-092021

1310] Portland claim site 6290,
 coarse gravel, light veg. soil pH = 5.62
 5-point composite for XRF

21WS-0002-506290-N-092021

1430] Humboldt claim site 6291, coarse gravel
 liquid veg. soil pH = 6.12 Don't need pg

9/20/21

5-point composite for XRF. ² (MS)21WS-0003-S06291-N-092021

1440] site 6292, coarse gravel, low veg.

3-point grab pH, soil pH = 6.65

21WS-0003-S06292-N-092021

1455] site 6293, natural feature, coarse gravel material. No pH no sample

21WS-0003-S06293-N-092021

1530] site 6294, Area adjacent to dump from Germania Claim. Coarse to very

coarse gravel, low veg. soil pH = 5.35, 1qt bag for XRF ^{7-pt composite} 1 gal bag for total metals21WS-0003-S06294-N-092021

1600] MTN Boy Claim (0006) site 6295, shallow bedrock outcrop w/ decomposed granite,

coarse gravel. soil pH = 6.29. 1qt bag for XRF 5-point composite

21WS-0006-S06295-N-0920211620] site 6296, coarse gravel high ^{SPT} _{composite} low veg. soil pH = 5.76 1qt bag for XRF21WS-0006-S06296-N-092021

1630] site 6297, natural feature no pH no sample collected. Coarse gravel

21WS-0006-S06297-N-092021

1400. M. Schonsberg, 44 site

170] M. Spinnaker, C. Dalluserra, N. Antona offsite

Tues 9/21/2021

0730] M. Spinnaker C. Pantoja to load truck & calibrate pH probe.

Probe #2

Buffer	live Reading	Temp
4.0	3.97	18.7°C
7.0	7.07	17.2°C
10.0	10.09	18.3°C

0830] M. Spinnaker, C. Dalluserra, M. Schonsberg onsite at Elba Claim. ^{6:30 AM} safety meeting

0845] site 6298, 5-point composite for XRF, coarse gravel along road on

southern portion of Elba dump w/ rock no veg. soil pH = 5.85

21WS-0040-S06298-N-092121

0855] site 6299 grab XRF, coarse gravel, sand, shards of glass soil pH = 5.95

21WS-0040-S06299-N-092121

0900] site 6300, grab pH, coarse sandy material w/ glass on surface. W of 6299

soil pH = 5.57

21WS-0040-S06300-N-092121

0910] site 6301, granite - decomposed mat'l heavy off-road use, w/ pepper weed, perennial

logged for a natural feature no pH
Return to River

9/21/2021

6301 cont. no sample collected. Katie T claim (0041)

21WS-0041-S06301-N-092121

0940) on Minnie Jane claim (0010) site 6302.

Very coarse rock & gravel, sand high Mn

staining dump on W end adjacent to drainage
soil pH = 5.83, 1qt bag for SPLP (sec 0920)21WS-0010-S06302-N-092121 C 0940

collected duplicate sample. parent is rock

21WS-0010-S06302-D-092121 C 0945

1qt bag for HBA: (sec 0929)

21WS-0010-S06302-N-092121 C 0940

collected duplicate sample. parent is above

21WS-0010-S06302-D-092121 C 0945

6302 was an 8 point composite.

1000] site 6303, medium coarse mat similar
to 6302 w/ high Mn staining w/ low vegetation3-point ^{composite} XRF, soil pH = 5.6121WS-0010-S06303-N-0921211005] site 6304, imported rock from quarry
poly collected, no pH, no sample21WS-0010-S06304-N-0921211010] site 6305, small dump adjacent to
seep, coarse rock w/ gravel & sand, high Mn
and high Fe, soil pH = 5.59, grab pH21WS-0010-S06305-N-092121

9/21/2021

1020] site 6306, sandy loam w/ sparse
coarse gravel, w/ biotic soil crusting w/ well
veg cover. 5-point ^{composite} XRF soil pH = 8.4121WS-0010-S06306-N-0921211025] site 6307, same mat as 6306 w/
more biotic crusting & very well veg cover.
3-point ^{composite} pH. soil pH = 7.7121WS-0010-S06307-N-0921211035] site 6308, sandy loam w/ rock mat
contains Mn & Fe staining w/ biotic crusting
& well vegetation. soil pH = 7.50 3-point ^{composite} XRF21WS-0010-S06308-N-092121

1125] George claim (0013): site 6309,

gravelly sand w/ rock, ~~wilflowers~~ ^{ASPEN} on dump
Grab XRF. ^{mid} soil pH = 7.4621WS-0013-S06309-N-0921211135] site 6310, gravelly sand, compact
road looking site. low vegetation. 5-point
composite XRF. soil pH = 8.3921WS-0013-S06310-N-0921211145] site 6311, 3-point composite XRF
collected near Bluebird trail in erosional
feature near parking pull out. gravelly
sand brown. mostly vad based. soil pH = 8.5121WS-0013-S06311-N-092121

Return to Rain

9/21/2021

1150] site 6312, asphalt dump. NO pH
NO sample collected. on South side of
Bluebird trail.

21WS-0013-S06312-N-092121

1200] site 6313. 10-point composite for
total metals. Granitic like material, compact
low staining for Mn + Fe. South of the big
spine dump. NO to low veg. soil pH = 8.36

21WS-0013-S06313-N-092121 C 1200

collected duplicate sample. parent is above.

21WS-0013-S06313-D-092121 C 1205

1240] site 6314. 10-point composite XRF.

brown decomposed granite. sparse annual
weeds. off-road use is high. soil pH = 6.99

21WS-0013-S06314-N-092121

1255] site 6315, 3-point ^{composite} XRF, decomposed
granite w/ large granite rocks on surface.
NO veg. soil pH = 7.52

21WS-0014-S06315-N-092121

1300] site 6316, natural feature, w/ some
weeds/vegetation. NO pH, NO sample collected.

21WS-0015-S06316-N-092121

1315] site 6317, 5-point ^{composite} XRF, decomposed
granite w/ large granite rocks soil pH = 6.02

21WS-0016-S06317-N-092121

9/21/2021

1325] site 6318, Grab XRF, scattered
mine waste. soil pH = 3.99 ⁽⁰⁰¹⁶⁾ ^{Drum Boy}

21WS-0016-S06318-N-092121

1330] site 6319, 3-point composite pH,
small dump, mine waste w/ granite
rocks. yellow spots present. soil pH = 5.96

21WS-0014-S06319-N-092121

1335] site 6320, 5-point composite
XRF, decomposed granite, low veg.

soil pH = 6.46

21WS-0014-S06320-N-092121

~~1420] site 63 mjs~~

~~1330] site 63 mjs~~

~~1345] @ Point to Run XRF Samples
see FDS for results~~

~~1700] off site~~

~~All samples for late
analysis collected are
stored in Pioneer
sample fridge @
Point until
shipment~~

~~*[Signature]*~~

9/22/21 Wed
0700] On site @ Permit to
load Equip + Calibrate
Equip.

pH probe H2 Oakton
Cal check Verified

Live Reading	Buffer
4.01 @ 18.4°C	4.0
7.04 @ 18.6°C	7.0
10.06 @ 18.5°C	10.0

Crew = Cole Dallasone +
Matt Schonsberg.

Review FAF

8:30] on site @ Orphan Bay
to continue Additional characterizations
in Agency identified areas

08:40] 21WS-0016-506321-N-092221

5-point XRF Sample collected, pH = 7.85
Sandy soil w/ coarse fragments on surface
Adjacent (just to North) of Orphan Bay
shaft. High Fe Low Mn staining

08:50] 21WS-0016-506322-N-092221

Grab pH. pH = 7.98. Site adjacent
to Orphan Bay shaft. High Fe, C Mn

09:05] 21WS-0016-506323-N-092221

Grab XRF pH = 8.25. Area adjacent

9/22/21 Wed.

to road + where runoff runs
off road + eventually in whiskey
Gulch.

0910] 21WS-0016-506324-N-092221

Site comprised of natural feature
shallow bedrock. Appears the
southern edge of feature was
attempted to be tapped.

Area adjacent to Road. 506325
to characterize material exposed
during exploration

9:20] 21WS-0016-506325-N-092221

5-point composite lab for total
metals on pg 29. pH = 7.13. Site
appears to be area where bedrock
outcrop vein was attempted to
be tapped.

9:50] 21WS-0017-506326-N-092221

3-point XRF pH = 6.23. Scattered
Remnant of exploration near
pits throughout pine trees.

1150] site 6327, 3-point XRF, sandy
loam brown, soil pH = 8.26

21WS-0015-506327-N-092221

1200] site 6328, 5-point XRF,

9/22/2021

brown sandy loam. In drainage area.
possible dozed area, but not mining
related. pH = 7.84

21WS-0015-506328-N-092221

1225] site 6329, Natural feature, no pH
no sample collected.

21WS-0300-506329-N-092221

1240] site 6330, 3-point composite XRF
small dump next to exploring pit. on
little gum claim (0311). Soil pH = 5.23

21WS-0311-506330-N-092221

1310] site 6331, Natural feature, no
pH, no sample collected. Nile claim (0319)

21WS-0319-506331-N-092221

1330] site 6332, 5-point composite lab
for total metals see pg 29. Soil pH = 8.61
coarse sandy gravel. w/ aspen trees
and moderate to well vegetation.

21WS-0319-506332-N-092221

1350] site 6333, Grab XRF, Soil pH = 8.26
bottom of open cut feature. coarse
sandy gravel.

21WS-0315-506333-N-092221

1400] site 6334, exposed bedrock outcrop
feature. North side of open cut

9/22/2021

feature no pH, no sample collected

21WS-0315-506334-N-092221

1410] site 6335, 5-point composite XRF
soil pH = 6.46 coarse gravelly sand

21WS-0315-506335-N-092221

1420] site 6336, polygon, open cut
feature west of claim. 8-point composite
pH. Soil pH = 7.61, well vegetated.

21WS-0315-506336-N-092221

1500] off site for Day
All lab samples store in Pioneer Sample
Ridge @ Paul's office until shipment

Colt Allan

9/23/21 Thurs.

0700] on site @ Butte office
to load Equip, Cal Equip, &
Go through FAF

pH Calibration Oaken prep 2

3 point Cal verified

Live Reading Buffer

3.99 @ 20.6°C 4.0

7.03 @ 20.7°C 7.0

10.07 @ 20.7°C 10.0

0800] C. Dallaserra, M. Springer (Pioneer)
onsite w/ N. Anton (CDM)

0830] M. Schonsberg on site (Pioneer)

0845] site 6337 on Philadelphia claim (0200)

5-point composite XRF. Soil pH = 6.26

compact road mix material. sandy gravel
on N side of Bluebird trail next to quarry.

21WS-0296-S06337-N-092321

1 qt bag for total metals (see pg 29)

21WS-0296-S06337-N-092321 0 0845

0910] site 6338, grab pH same mat'l as
6337, more Fe staining soil pH = 5.82

21WS-0296-S06338-N-092321

0915] site 6339, grab pH, dark brown
compact sandy silt w/ gravel, greasy
appearance to soil. soil pH = 5.89.

Thurs

9/23/21

21WS-0296-S06339-N-092321

0920] site 6340, 3-point composite XRF

sandy gravel. brown w/ Mn stained
cobbles. small misc pile. soil pH = 5.13

21WS-0296-S06340-N-092321

0935] site 6341, 5-point ^{composite} XRF, soil pH = 5.74

sandy silt w/ veg debris & Mn stained cobbles

21WS-1150-S06341-N-092321

0950] site 6342, natural bedrock milwork
outcrop feature, no pH, no sample (0015)

21WS-0015-S06342-N-092321

0955] site 6343, 8-point composite XRF

soil pH = 6.74, light gray colored sandy

silty w/ gravel & light Mn + Fe stained
cobbles. no vegetation

21WS-0015-S06343-N-092321

1015] site 6344, 5-point composite XRF

soil pH = 8.61, large dump w/ large veg.
gravelly sand w/ granite present.

21WS-0015-S06344-N-092321

1020] site 6345, grab pH, soil pH = 6.88

small dump w/ coarse fragments. no veg.

21WS-0015-S06345-N-092321

1030] site 6346, 5-point composite ~~XRF~~ ^{miss lab} for ^{total} metals
soil pH = 7.07, on top of bedrock outcrop (P2)

Rite in the Rain

9/23/2021 Thurs

appears to be mine waste matl. 1 qt bag

21WS-0015-S06346-N-092321

1045] site 6347, 10-point composite for XRF and total metals (see pg 29) soil pH = 6.42

silt material w/ gravel in drainage area moderate vegetation. 1 qt bag for XRF

21WS-0015-S06347-N-092321 c 1045

1 qt bag for total metals

21WS-0015-S06347-N-092321 c 10451125] site 6348, 5-point composite XRF ^{silt (0301) 145m⁴}

S. of rock quarry. very coarse granitic rock, gravel and sand w/ sparse weeds next to aspen trees. soil pH = 7.14

21WS-0301-S06348-N-092321

1140] site 6349, 5-point composite XRF (0015) soil pH = 5.25, coarse sandy matl w/ Mn & Fe stained cobbles

21WS-0015-S06349-N-092321

1155] site 6350, 5-point composite XRF (0301) soil pH = 8.08, coarse granitic, native near rock quarry.

21WS-0301-S06350-N-092321

1245] site 6351, 10-point composite XRF (0296) soil pH = 5.63, sandy silt w/ gravel low veg.

21WS-0296-S06351-N-092321

Thurs

9/23/2021

1300] site 6352, 5-point composite XRF soil pH = 3.48, small dump west of rock quarry piles, yellow & Mn stained mine waste

21WS-0296-S06352-N-092321

1315] site 6353, 5-point composite XRF soil pH = 7.94, large dump west of rock piles. Mn & Fe stained mine waste w/ weeds

21WS-~~0296~~¹¹²⁵-S06353-N-092321

1330] site 6354, 5-point composite XRF soil pH = 6.04, granitic like mine waste high Mn & Fe

21WS-0296-S0635~~4~~⁴-N-0923211345] site 6356, 5-point composite XRF (0289) soil pH = 7.97, high Fe stained mine waste, granitic. ^(MSS)21WS-0289-S0635~~6~~⁶-N-092321

1310] site 6355, natural feature, no pH no sample collected.

21WS-0289-S06355-N-092321

1400] site 6357, 7-point composite XRF (0288) soil pH = 5.34, granitic mine waste high Mn staining

21WS-0288-S06357-N-092321

9/23/2021

Thurs

14107 site 6358, 5-point composite XRF
soil pH = 5.07, Fe stained granitic loam
mix w/ coarse fragments.

21WS-0288-S06358-N-092321

14407 site 6359, Grab XRF, soil pH = 4.14
mine waste mat'l. most likely from big
pile to the north.

21WS-0297-S06359-N-092321

14457 site 6360, natural feature, no pH
no sample collected. located in pine trees

21WS-0297-S06360-N-092321

15207 site 6361, Grab XRF, soil pH = 7.80
Roasted ore. Black in color north of
rock quarry pile.

21WS-0290-S06361-N-092321

15357 site 6362, 10-point composite XRF
soil pH = 5.38, waste material appears to
be pushed to side to make room for rock
quarry piles.

21WS-0296-S06362-N-092321

15507 site 6363, 3-point composite XRF
soil pH = 5.87, waste ~~deposit~~ depositional
area off Bluebird Trail source is not
apparent

21WS-0296-S06363-N-092321

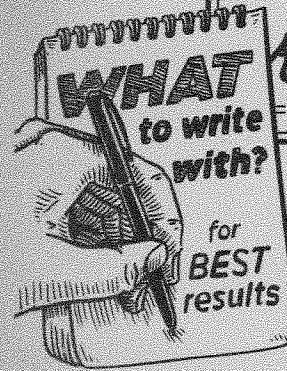
9/23/2021 Thurs

16002 off site for tea
Party. All lab samples collected today
stored in Pioneer Sample fridge @ Pallet office until shipped.

Cole Pellaen
9/23/2021

Intentionally Left
Blank

[Handwritten signature]



- USE WET OR DRY**
most pens stop writing when wet
- ALL PENCILS
 - RITE IN THE RAIN PENS
 - WAX MARKERS
 - CRAYONS
 - OIL PASTELS / PAINT

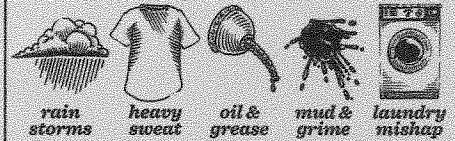
- WHEN DRY ONLY**
what you write won't wash off
- PERMANENT MARKERS
 - STANDARD BALLPOINTS

- WON'T WORK**
water-based inks bead off sheet
- GEL PENS
 - MOST HIGHLIGHTERS
 - FOUNTAIN PENS
 - WATER COLORS
 - ACRYLIC PAINT

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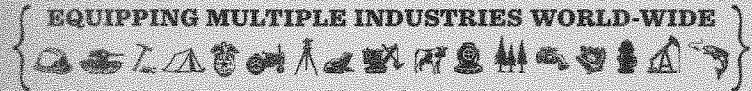
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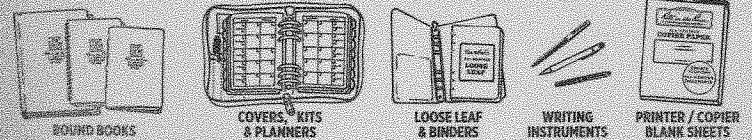
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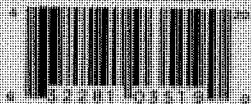
Using a pencil or all-weather pen,
Rite in the Rain ensures that your
notes survive the rigors of the field,
regardless of the conditions.

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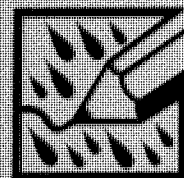
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Item No. 351FX
ISBN: 978-1-60134-188-6

Made in the USA
US Pat. No. 8,963,940



West Side Soils
Operable Unit
(WSSOU)



Rite in the Rain

ALL-WEATHER

FIELD

Nº 351FX

9/27/21 →

Book 7

9/27/21

Mon

Crew = W.D. Mutt Schenker
Molly Spranger

on site @ office @ 7:00
To load Equip, Co Swagler
EKF, + Calibrate Equip.
pH probe Calibration
probe @ Oakton
cal check verified.

Live Reading

Buffer

3.99 @ 18.4°C

4.00

7.02 @ 17.7°C

7.00

10.06 @ 16.5°C

10.00

9:05] 21WS-0285-506364-N-092721

3-Point Sample for XRF.

Appears mostly natural shallow
bedrock type Area. pH = 5.02

9:15] 21WS-0285-506365-N-092721

5-Point XRF. Some fine grained
coarse fragments in area that
appear like it could be old
Access Rd. pH = 5.29

9:30] 21WS-0285-506366-N-092721

10-Point Composite for lab total metals
in O.F. Ziplock. See logbook to pg 29
for Analytes. Site appears mostly
natural feature w/ some pine trees.
pH = 5.61

9/27/21

Mon

3

9:40] 21WS-0285-506367-N-092721

Natural Feature - Bedrock outcrop

9:50] 21WS-0285-506368-N-092721

12-Point Composite for XRF. Sieved
through dissolvable Sieve #10 2mm
Area appears mostly naturally
formed due to coarse soil + SW
exposure pH 5.59

10:05] 21WS-0285-506369-N-092721

Natural Feature - Bedrock outcrop
Some geology as Sob36810:15] On Fredonia Claim
21WS-0299-506370-N-0927215-Point Composite for XRF. Sieved
through dissolvable sieve.small dump adjacent to Explorations
L.Mn Mod Fe pH 8.49

10:35] 21WS-0299-506371-N-092721

Grab XRF. Sieved thru dissolvable sieve
Small dump High Fe Mod Mn
pH = 7.02

9/27/21 Mon.

10:45] 21WS-0249-S06372-N-092721

6-Point composite XRF sample

L=Mn L=Fe

Coarse fragments have higher Mn
staining

11:25] 21WS-0285-S06373-N-092721

Natural Feature - Bed rock outcrop

11:30] 21WS-0285-S06374-N-092721

Natural Feature - Bed rock outcrop

11:35] 21WS-0285-S06375-N-092721

Natural Feature - Shallow bedrock

11:40] 21WS-0285-S06376-N-092721

Natural Feature - Shallow bedrock

12:35] on Independent Claim

21WS-0246-S06377-N-092721

5-Point XRF Sample, pH = 6.39

Low Mn & Fe. Site along intersection

of Access Road/trails through

Area. Within Primary disturbance

area delineated by EPA.

Southern Edge of the disturbance

area runs along rd going E/W.

9/27/21

16:00] Completed Running
all previously collected
XRF Analysis. To Concentrator
place to collect samples
in Agency Identified Areas16:15] 21WS-1116-S06378-N-092721Collected 1 Gal Ziplock for ABA
& 1 Qt Ziplock for SPLP

Site adjacent to Railgrade

and Below Santa clause

in Erosional feature pH = 6.34

16:30] 21WS-1116-S06379-N-0927215-Point XRF. Sited thru disposable
Jurm Sieve Area adjacent to

Railgrade. Visually impacted &

Some fragments w/ Mn staining pH 5.88

16:35] 21WS-1116-S06380-N-092721Crack XRF. Depositional area @ head
of culvert. pH 5.76

16:50. off site

- All Lake samples ^{collected today} stored in Sample fridge
at Perotti

C. Callan

9/28/27 Tues @ 8:00

On site @ office to load equip,
Go thru FFF, + Calibrate equip
Crew = Cole Dallas, Matt
Schonsberg, + Kite Denny.

pH probe 2 ON on Calibration
and check verified

Live Reading	Buffer
4.05 @ 13.7°C	4.0
7.16 @ 16.8°C	7.0
10.11 @ 16.9°C	10.0

[0830] on site to characterize
Spec claims.

[0855] 21WS-1072-506381-N-092821

- 5 point composite for XRF.

Field Sieve through
disposable sieve. pH = 6.31

- Coarse granitic fragments with ^{high}Mn/^{moderate}Fe
staining.

[0910] 21WS-1072-506382-N-092821

- 5 point composite for XRF.

Field Sieve through disposable sieve.

- Down site in area of accumulation.

High Mn and Moderate Fe staining.
pH = 5.49.

9/28/21 Tues

[0915] 21WS-1072-506383-N-092821

- 5 point composite for XRF.

- Field Sieve through disposable sieve.

- Small lobe, centrally located with
bleached material. Pyritic void
generating material. pH = 3.38

[0920] 21WS-1072-506384-N-092821

Grab pH = 6.97

Coarse grained material with
high manganese and moderate
iron staining.

[0925] 21WS-1072-506385-N-092821

Part of dump on Spot Conn. site 506385

- 8 point composite for XRF

and Lab. Analytes listed on
page 29 of logbook 6.

- High manganese/iron staining
present. Intermixed coarse grained
and fines. pH = 4.93

[0935] 21WS-1072-506386-N-092821

Grab pH = 3.87

adjacent to source area with
fines present. Pyritic ^{acid} generating.

Rite in the Rain

9/28/21 Tues

[0940] 21WS-1072-S06387-N-092821

- Grab XRF. pH = 8.11
- Field sieve with disposable sieve.
- North of source area with low Mn/Fe staining.

Charcoal and ashy looking material, indicative of fire and high temps @ one time.

[0945] 21WS-1072-S06388-N-092821

- shallow bedrock outcrop.

Natural Feature.

[0950] 21WS-1072-S06389-N-092821

- 5-point XRF. pH = 5.34
- small dump, east of main source area. Moderate Mn and High Fe staining. Intermixed coarse and fines present.

[0955] 21WS-1072-S06390-N-092821

- 3-point XRF. pH = 5.04
- accumulation area south east of main dump. High Mn and Low Fe staining.

[1000] 21WS-1072-S06391-N-092821

natural feature composed of shallow bedrock and poorly decomposed granite.

9/28/21 Tues

[1010] 21WS-1072-S06392-N-092821

- 3 point XRF. pH = 7.21
- small dump adjacent to source, with low Mn and high Fe staining.

[1015] 21WS-1072-S06393-N-092821

- Grab pH = 4.69
- coarse remnants of shallow exploration.

[1020] 21WS-1016-S06394-N-092821

- 5-point XRF. pH = 7.47
- area downsite of main dump @ Spur. Within primary disturbance boundary delineated by the EPA.

[1030] 21WS-1016-S06395-N-092821

- "Natural Feature" appears to be overlain from interstate road-work. Large granitic chunks with slight vegetation cover. May potentially be covering mine waste due to High Mn staining to the south.

9/28/21 Tues

[1040] 21WS-1016-506396-N-092821

- 4 point XRF. pH = 5.42

Field sieved.

- Area that appears to be impacted down gradient of overburden pile; previously delineated in 6395.

[1150] 21WS-1111-506397-N-092821

- 5-point XRF pH = 7.53

- Eastern most boundary of pits running East/West @ Lizzie. Some Fe staining. Field sieved.

[1200] 21WS-1111-506398-N-092821

5 point XRF pH = 5.58

- Small exploratory pit with Fe staining. Sandy loam material adjacent to source.

Field sieved.

[1210] 21WS-1111-506399-N-092821

Grab pH = 3.81; Total Metals.

- Bottom of lobe that extends westward. On Lizzie Claim Site 506399

[1215] 21WS-1111-506400-N-092821

- Small pile within series of disturbance. Grab; pH = 7.21
Moderate Fe staining.

9/28/21 Tues

[1230] 21WS-1111-506401-N-092821

Grab 3-point pH = 5.82

- Spoils pile within series of disturbance. Fairly barren.

[1240] 21WS-1111-506402-N-092821

- 5 point XRF pH = 6.86

- Field sieved. Small dump adjacent to source area within series of disturbance. Moderate Fe staining.

[1250] 21WS-1111-506403-N-092821

- 5 point XRF pH = 6.19

- Decomposed granite/natural looking material with no obvious staining present. Remnants of yardage spread throughout.

- Field Sieved.

[1400] 21WS-0162-506404-N-092821

Site 6404. In settling pond on margin of the claim. Total Metals pH = 8.60

- embankment between settling ponds. Well vegetated. No Mn/Fe staining. 10 point.

[1405] 21WS-0162-506405-N-092821

6-point XRF pH = 8.66 (Field)

- Lower east settling pond. 10 (Sieved)
Obvious Mn/Fe staining. Vegetated.

9/28/21 Tues

[1410] 21WS-0102-506406-N-092821

5-point XRF pH = 8.44

Field sieved. No obvious Mn/Fe staining present. Settling pond on upper (north) side.

[1415] 21WS-0102-506407-N-092821

Grab pH = 7.36. XRF

Field sieved. @ outlet point for upper pond. No obvious staining. Fairly vegetated.

[1510] 21WS-0102-506408-N-092821

- Natural feature, exposed granitic bedrock. South facing slope, experiencing erosion. Rills/Gullies are prevalent. Barren spots covered w/ decomposed granite.

[1515] 21WS-0102-506409-N-092821

Grab pH = 7.13.

- shallow, exploratory pit. Coarse grained/decomposed granite with no Mn & some Fe staining. Field sieved for XRF

[15:30] off site for day

All lab samples collected today stored in sample fridge @ Parent until shipped.

9/29/21 wed

09:00] On site @ Parent to complete XRF analysis on remaining samples.
 1300] Complete XRF Analysis
 1500] Packed & shipped all laboratory samples.
 Shipped samples for SLP & Total metals analysis to Pace ~~Worce~~ Minneapolis chilled on ice in cooler FedEx overnight #4289985 1736
 Shipped 1 cooler ambient w/ ABA samples to Pace Sheridan FedEx overnight #955099477914.

Cole Hellner

10/4/21-

3 Samples on the COC for Pace Minneapolis on 9/29/21 were left in sample fridge @ Parent office & not received by Pace in trust shipment. These 3 samples

Return to Parent

10/4/21

were shipped in one cooler
on 10/4/21 w/ copy of
COE Fed Ex Overnight
Tracking: 4278 9935 1747

Al Callan

APPENDIX C.2

Copies of Sampling Field Data Sheets

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	CDM CLAIM #	MINING CLAIM NAME	SAMPLE #	DATE USED	CDM CLAIM #	MINING CLAIM NAME
5000	10/XX/19	0005	Manhattan	5036	10-23	0043	Germany
5001	10-21-19	0021	FRANCES	5037	10-23	0043	"
5002	10-21	0020	VIOLET	5038	10-23	0003	HUMBOLDT
5003	10-21	0019	CHARLMAR	5039	10-23	0003	"
5004	10-21	"	" MINE DUMP	5040	10-23	0003	"
5005	10-21	0017	KIT CARSON	5041	10-23	0003	"
5006	10-21-19		MISSOURI	5042	10-23	0043	GERMANIA
5007	10-21	0320	UNITED STATES	5043	10-23	0003	HUMBOLDT
5008	10-22	1045	TZARENA; NO PH	5044			
5009	10-22	1045	"	5045			
5010	10-22	0005	MANHATTEN	5046			
5011	10-22	0005	"	5047			
5012	10-22	0006	MTN. BOY	5048			
5013	10-22	0007	SILVER GATE	5049			
5014	10-22	0007	" "	5050			
5015	10-22	0041	KATIE T.	5051			
5016	10-22	0006	MTN. BOY	5052			
5017	10-22	0043	GERMANIA	5053			
5018	10-22	0007	SILVER GATE	5054			
5019	10-22	0007	" "	5055			
5020	10-22	0317	ST. LOUIS	5056			
5021	10-22	0315	GARIBALDI	5057			
5022	10-22	0315	"	5058			
5023	10-22	0315	"	5059			
5024	10-22	0315	"	5060			
5025	10-22	0313	SILVER CLEFT	5061			
5026	10-22	0010	MIDDIE JANE	5062			
5027	10-23	1045	TZARENA	5063			
5028	10-23	1045	"	5064			
5029	10-23	1045	" JUST PH	5065			
5030	10-23	1045	TZAR - D ¹⁰⁰⁰	5066			
5031	10-23	0003	HUMBOLDT	5067			
5032	10-23	0003	"	5068			
5033	10-23	0043	GERMANIA PH	5069			
5034	10-23	0043	" PH	5070			
5035	10-23	0043	" PH	5071			

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SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other
5044	10-24-19	1200	0043	GERMANIA	X 5.90			GRAB
5045	10-24	1205	↓	"	X 5.05			GRAB
5046	↓	1210	↓	"	X 4.95			GRAB
5047	↓	1213		"	X 4.43			SPLP 5-PNT
5048	↓	1235	0043	"	X 4.87	X DUP → X		
5049	↓	1245	0003	HUMBOLDT	X 4.60	X		GRAB
5050	↓	1258	0003	"	X 5.08			GRAB
5051	10-24-19	1310	0003	"	X 5.66	X		5-PNT
5052	↓	1330	"	"	X 5.68	X	X	5-PNT
5053	↓	1450	0040	ELBA	X 5.27	X		
5054	↓	1505	0040	"	X 5.25			
5055	↓	1520	0040	"	X 5.82	X	X	
5056	10-24-19	1530	0040	"	X 7.40			
5057	↓	1535	0040	"	X 5.98			
5058	↓	1540	0040	"	X 7.86			
5059	↓	1542	0040	"	X 5.52	X		
5060		1550	0040	ELBA	X 7.94	X		GRAB
5061	10-24	1600	0040	"	X 4.13	X		5-PNT
5062		1610	0040	"	X 4.49	X	X	GRAB
5063	10-25-19	0850	0040	ELBA	X 5.22			MIS 30-PNT
5064	↓	0915	0040	"	X 4.92	X	X	5-PNT
5065	↓	0920	0040	"	X 6.05			GRAB
5066	↓	0930	0040	"	X 7.70			GRAB
5067	↓	0935	0040	"	X 8.13			GRAB
5068	↓	0940	0040	"	X 7.77			"
5069	10-25-19	0950	0040	"	X 4.97	X		5-PNT
5070	↓	1000	0040	ELBA	X 5.58			GRAB
5071	↓	1005	0040	"	X 7.41			GRAB
5072	↓	1015	0040	"	X 7.70	X		GRAB
5073	↓	1020	0040	"	X 5.62	X	X	5-PNT
5074	10-25-19	1030	0040	ELBA	X 5.61	X		GRAB
5075	↓	1110	0040	"	X 6.83		X	GRAB
5076	↓	1120	0040	"	X 5.08	X	X	5-PNT
5077	↓	1130	0040	"	X 5.54			GRAB
5078	↓	1135	0040	"	X 7.75			GRAB
5079	↓	1140	0040	"	X 5.23			GRAB

5080 10-25-19 1150 0040 ELBA 4.70 X 5 pnt

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other
5081	10-25-19	1200	0043	GERMANIA	X 5.66	X	X	
5082	↓	1215	0043	"	X 8.31			GRAB
5083	↓	1225	0043	"	X 8.22	X	X	5-PNT
5084	↓	1230	0043	"	X 7.14			GRAB
5085	↓	1240	0043	"	X 5.98	X		10-PNT
5086	10-25-19	1250	0043	"	X 8.11	X		GRAB
5087	↓	1255	0043	"	X 6.05	X		GRAB
5088	↓	1415	0005	MANHATTAN	X 7.93	X		5-PNT
5089	↓	1425	0005	"	X 7.46			GRAB
5090	10-25-19	1430	0005	"	X 6.46	X	X	5-PNT
5091	↓	1435	0005	"	X 7.98			GRAB
5092	↓	1450	0006	MTN BOY	X 4.67		X	SPLP ABA 5-PNT
5093	10-25-19	1510	0006	" " 534	X 7.18	X	X	5-PNT
5094	10-28-19	1020	0043	GERMANIA	X 7.55	X	X	6-PNT
5095	↓	1055	0003	HUMBOLDT	X 8.54		X	RANGEWID
5096	↓	1120	0003	"	X 5.53			GRAB
5097	10-31-19	1100	0040	ELBA	X 5.22			GRAB
5098	↓	1102	↓	↓	X 8.93			GRAB
5099	↓	1105	↓	↓	X 5.64			GRAB
5100	↓	1107	↓	↓	X 7.06			"
5101	↓	1112	↓	↓	X 4.54	X		6-PNT
5102	10-31-19	1130	0040	ELBA	X 5.96	X		6-POINT
5103	↓	1145	"	"	X 6.11			GRAB
5104	↓	1150	"	"	X 5.31			GRAB
5105	↓	1155	"	"	X 5.79	X	X	5-POINT
5106	↓	1215	"	"	X 6.11	X		GRAB
5107	↓	1320	"	"	X 7.35	X		6-POINT
5108	↓	1335	↓	↓	X 7.28			GRAB
5109	↓	1340	↓	↓	X 7.15	X		5-POINT
5110	↓	1355	↓	↓	X 8.09			GRAB

5010 10-25 1400 0005 MANHATTAN X 8.22 GRAB
 5011 10-25 1410 0005 " X 7.20 X GRAB
 5016 10-25 1515 0006 MTN BOY X 7.68 GRAB

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other
5111	10-31-19	1405	0038	NORTH POLE	X 6.92	X		GRAB
5112	↓	1415	"	" "	X 5.55			GRAB
5113	↓	1430	0041	KATIE T	X 7.53		X	MIS 30-PT
5114	↓	1500	0041	" T	X 6.31			GRAB
5115	10-31	1505	"	"	X 8.41			"
5116	10-31	1515	"	"	X 4.94	X		5-POINT
5117	10-31	1525	0038	NORTH POLE	X 8.85			GRAB
5118	11-4-19	1040	0006	MTN. BOY	X 3.56	X		GRAB/ SPLP
5119	↓	1045	↓	↓	X 4.77			↓
5120	↓	1050	↓	↓	X 8.66			↓
5121	↓	1055	↓	↓	X 4.39			GRAB
5122	↓	1100	0006	MTN BOY	X 3.79	X		5-POINT
5123	11-4-19	1115	"	" "	X 5.36	X	X	SPLP
5124	↓	1130	"	" "	X 5.29		X	MIS, 30-PT
5125	↓	1145	"	" "	X 4.69	X		5-PNT
5126	↓	1150	"	" "	X 3.85			GRAB
5127	↓	1155	"	" "	X 4.11			GRAB
5128	11-4-19	1205	"	" "	X 5.60	X		GRAB
5129	↓	1320	"	" "	X 6.40		X	R-ROAD, MIS, 30-PT
5130	↓	1345	0041	KATIE T	X 7.61			GRAB
5131	↓	1400	"	"	X 9.22	X		GRAB
5132	↓	1415	0007	SILVER GATE	X 6.16	X		GRAB
5133		1450	0041	KATIE T	X 6.38		X	5-POINT
5134		1500	0041	" "	X 8.22			GRAB
5135		1515	0037	JOSEPH JOYCE	X 8.51			GRAB
5136		1530	"	" "	X 4.86	X		5-POINT
5137		1540	"	" "	X 7.25			GRAB
5138		1545	"	" "	X 4.66	X		5-POINT
5139	10-5-19	1030	0037	" "	X 7.86			GRAB
5140		1040	"	" "	X 5.62	X		5-POINT

5015 11-4-19 1255 ~~0041~~ ~~KATIE T~~ X 5.60 X GRAB
 0006 MTN BOY
 5014 11-4 1355 0041 KATIE X 7.91 X 5-PNT
 5013 11-4 1410 0007 SILVER GATE X 8.86 GRAB

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other
5141	10-5-19	1045	0037	JOS. JOYCE	X 6.68			GRAB
5142	↓	1055	"	" "	X 4.10		X	GRAB
5143		1105	"	" "	X 4.08	X		5-ANT
5144		1110	0038	N. POLE	X 6.02			GRAB
5145		1112	0037	JOS. JOYCE	X 8.18			GRAB
5146		11-5-19	1130	0037	" "	X 7.74		
5147	↓	1135	"	" "	X 7.03	X		5-POINT
5148		1140	"	" "	X 7.78			GRAB
5149		1145	"	" "	X 5.06			GRAB
5150		1150	"	" "	X 3.71			GRAB
5151		1155	"	" "	X 7.08			GRAB
5152	↓	1205	0038	N. POLE	X 8.21			GRAB
5153	11-5-19	1210	"	N. POLE	X 4.47	X		5-POINT
5154	↓	1220	"	" "	X 8.61			GRAB
5155		1230	0037	JOS. JOYCE	X 5.31	X	X	6-POINT
5156		1240	"	" "	X 5.53			GRAB
5157	11-5-19	1400	0037	JOSEPH JOYCE	X 7.56			GRAB
5158		1410	"	" "	X 8.23	X		5-POINT
5159		1420	0010	MINNIE JANE	X 7.49			GRAB
5160		1430	"	" "	X 6.67	X		6-POINT
5161		1435	"	" "	X 7.85			GRAB
5162		1440	"	" "	X 5.62	X		5-POINT
5163		1500	0010	" "	X 6.42			GRAB
5164		1505	"	" "	X 6.49	X		GRAB
5165		1510	"	" "	X 6.90			GRAB
5166		1515	"	" "	X 7.41			GRAB
5167		1525	"	" "	X 5.85			GRAB
5168		1530	"	" "	X 6.44		X	5-POINT
5169		1535	"	" "	X 7.39			GRAB
5170		1555	0010	MINNIE JANE	X 4.97	X		9-POINT

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other
5171	11-5-19	1605	0010	MINNIE JANE	X 5.56	X		10-POINT
5172	11-7-19	1050	0010	" "	X 7.76	X		5-POINT
5173		1100	"	" "	X 8.52	X		6-POINT
5174		1115	"	" "	X 7.54	X DUP		GRAB / XRF DUP
5175		1130	"	" "	X 8.18		X DUP	6-POINT
5176		1145	"	" "	X 8.36	X		GRAB
5177		1200	"	" "	X 7.56	X		5-POINT
5178	11-7	1225	0315	GARIBALDI	X 8.42			GRAB
5179		1235	0315	" "	N/A			Outcrop
5180		1325	0313	SILVER CLEFT	X 5.91	X		GRAB
5181		1430	0015	MILWAUKEE	X 5.57		X	SPLP; 5-PT
5182		1440	0015	"	X 5.05	X		6-POINT
5183		1445	0015	"	X 5.31	X		5-POINT
5184		1505	"	"	X 4.22			GRAB
5185	11-7-19	1525	0012	PROSPECTOR	X 7.24	X		5-POINT
5186	11-8-19	1030	0010	MIN. JANE	X 4.73			GRAB
5187		1035	"	" "	X 3.97	X	X	5-POINT
5188		1055	"	" "	X 5.78			GRAB
5189		1100	"	" "	X 5.69			GRAB
5190		1115	0012	PROSPECTOR	X 7.22		X MIS	10-POINT
5191		1315	0020	VIOLET			BEDROCK	
5192	11-8-19	1335	0019	CHARMMER	X 4.47	X		5-POINT
5193		1350	"	"	X 5.91	X	ABA SPLP	7-POINT
5194		1435	0017	KIT CARSON	X 5.79	X		5-POINT
5195		1450	0015	MILWAUKEE	X 7.04			GRAB
5196		1455	"	"	X 5.30			GRAB
5197		1500	"	"	X 8.07	X		GRAB
5198		1507	"	"	X 7.03			GRAB
5199		1512	"	"	X 8.24			GRAB
5200		1520	"	"	X 4.87	X		5-POINT

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other
5201	11-8-19	1525	0015	MILWAUKEE	X 6.25			GRAB
5202	↓	1530	"	"	X 5.40			"
5203	↓	1535	"	"	X 7.83			"
5204	↓	1545	"	"	X 4.49 X		X	5-POINT
5205	11-13-19	1130	0290	HORSESHOE	X 7.10		X	5-POINT
5206	↓	1140	"	"	X 3.77 X			5-POINT
5207	↓	1158	"	"	X 6.60		SPLP	5-POINT
5208	↓	1240	0289	HIBERNIA			BEDROCK	SHAL OUTCROPS
5209	↓	1255	0292	MYRTLE	X 5.99			GRAB
5210	11-13-19	1300	"	"	X 4.89			GRAB
5211	↓	1315	"	MYRTLE	X 2.49 X			GRAB
5212	↓	1330	0296	PHILADELPHIA			DISTURBED	NON-MINING AREA
5213	↓	1400	0292	MYRTLE	X 6.30			GRAB
5214	↓	1410	"	"	X 6.46 X			GRAB
5215	11-15-19	0955	0288	NETTIE	X 7.18 X			6-POINT
5216	↓	1005	"	"	X 8.69			GRAB
5217	↓	1010	"	"	X 2.59 X		X	GRAB 5-POINT
5218	↓	1025	0297	KEY WEST	X 5.78 X			5-POINT
5219	↓	1035	0297	"	X 5.06			GRAB
5220	↓	1045	0297	"	X 6.33 X			5-POINT
5221	↓	1055	0297	"	X 5.07 X			GRAB
5222	11-15-19	1110	0297	"	X 6.73		SPLP	5-POINT
5223	↓	1120	0288	NETTIE	X 6.87 X			10-POINT
5224	↓	1130	0288	"	X 5.06 X			5-POINT
5225	↓	1140	0288	"	X 6.24			GRAB
5226	↓	1155	0288	"	X 9.19 X			GRAB
5227	11-15-19	1245	0288	NETTIE	X 8.53 X			5-POINT
5228	↓	1255	0288	"	X 8.89			GRAB
5229	↓	1300	0288	"	X 8.45			GRAB
5230	↓	1310	0288	"	X 8.85			GRAB

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5238	5-12-20	0845	0297	KEY WEST	6.10	X					
5239		0900	0297	" "	4.42		X		10-POINT	M	L
5240	5-12-20	0915	0297	↓	5.56	X			GRAB	L	N
5241	5-12-20	0920	0297	↓	5.36	X			GRAB	L	L
5242	5-12	0925	0297	KEY WEST	8.02	X			GRAB	N	H
5243	5-12	1000	0297	" "	5.84	X			5-POINT	L	L
5244	5-12	1015	0297	" "	5.41	X	X		5-POINT	H	N
5245	5-12-20	1030	0297	KEY WEST	6.61		X		5-POINT	H	N
5246	5-12-20	1100	0297	" "	6.21			SAME SPOT AS 5241 MIS	GRAB	N	H
5247	5-12	1105	0297	" "	6.24	X			30-POINT	H	N
5248	5-12-20	1120	0297	KEY WEST	4.76	X			5-POINT	L	N
5249	5-12-20	1130	0297	" "	5.45			SPLP/ABA	10-Point	L	L
5250	5-12-20	1140	0297	" "	5.25				5-Point	N	N
5251	5-12-20	1225	0297	KEY WEST	5.51	X			Grab	N	L
5252	5-12-20	1245	0297	" "	3.46				5-point	H	N
5253	5-12-20	1250	0297	" "	4.58				Grab	N	N
5254	5-12-20	1255	0297	KEY WEST	4.27				Grab	L	L
5255	5-12-20	1300	0297	KEY WEST	3.97	X		X	5-point	M	N
5256	5-12-20	1305	0297	KEY WEST	5.27				5-point	L	M
5257	5-12-20	1320	0297	KEY WEST	4.41	X		MIS	30-Point	L	L
5258	5-12-20	1325	0297	KEY WEST	4.39				5-point	N	N
5259	5-12	1330	0297	" "	4.52				GRAB	L	L
5260	5-12-20	1340	0297	" "	4.52	X			GRAB	L	L
									5-point	L	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5261	5-12-20	14:20	0299	Fredonia	8.94				Grab	L	N
5262	5-12-20	14:30	0299	"	8.85				Grab	L	M
5263	5-12-20	14:45	0300	Tom Haney	5.82	X			Grab	N	N
5264	5-12-20	15:00	0300	" "	7.22	X	X		5-point	M	N
5265	5-12-20	15:10	0300	Tom Haney	5.67	X			5-point	H	L
5266	5-12-20	15:20	0300	" "	7.10	X			10-point	M	L
5267	5-12-20	15:50	0299	Fredonia	8.27				Grab	L	L
5268	5-13-20	09:00	0288	Nettie					None	N	N
5269	5-13-20	09:10	0288	"	6.96				5-point	L	L
5270	5-13-20	09:15	0288	"	6.59				Grab	H	L
5271	5-13-20	09:30	0288	Nettie					None	N	N
5272	5-13-20	09:40	0288	Nettie	5.62				Grab	L	L
5273	5-13-20	09:45	0288	Nettie	7.32				Grab	L	L
5274	5-13-20	09:55	0288	Nettie	5.52	X			5-point	M	L
5275	5-13-20	10:05	0288	Nettie	5.18				Grab	H	M
5276	5-13-20	10:10	0288	Nettie	4.67	X	X		10-point	H	N
5277	5-13-20	10:25	0288	Nettie	5.43				Grab	M	N
5278	5-13-20	10:30	0288	Nettie	5.15	X			Grab	H	N
5279	5-13-20	10:40	0288	Nettie	8.37				5-point	L	L
5280	5-13-20	10:45	0288	Nettie	6.04	X			5-point	L	L
5281	5-13-20	10:55	0288	Nettie	5.38	Y			5-point	L	M
5282	5-13-20	11:30	0299	FREDONIA	8.49	X			5-point	L	M
5283	5-13-20	11:45	0299	"	8.96				GRAB	M	M

slag present

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5284	X 5-13-20	1150	0299	FREDONIA	8.63				GRAB	M	M
5285	5-13-20	1200	0300	TOM HANEY	6.11	X	X		5-POINT	H	L
5286	5-13-20	1210	0300	" "	8.96				5-POINT	A L	M
5287	5-13-20	1300	0297	KEY WEST	5.60			MIS	30-POINT	N	N
5288	5-13-20	1325	0300	TOM HANEY	7.20				Grab	M	M
5289	5-13	1335	300	" "	5.96				GRAB	L	N
5290	5-13-20	1345	0300	" "	6.06	X			5-point	L	L
5291	5-13-20	1355	0299	Fredonia	8.87				Grab	L	N
5292	5-13-20	1405	0299	Fredonia	5.62	X			5-point	H	L
5293	5-13-20	1415	0299	Fredonia	4.77	X			5-point	M	L
5294	5-13-20	1420	0299	Fredonia	5.03				Grab	L	L
5295	5-13-20	1435	0299	Fredonia	8.71	X			5-point	M	L
5296	5-13-20	1450	0299	Fredonia	6.34		X		5-point	L	N
5297	5-13-20	15:00	0299	Fredonia	8.23				Grab	L	L
5298	5-13-20	1510	0299	Fredonia	5.63			SPLP ABL	5-point	N	N
5299	5-13-20	1605	0299	Fredonia	9.13	X			5-point	M	L
5300	5-13-20	1620	0299	Fredonia	8.22				Grab	L	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5301	5-13-20	1630	0299	Fredonia	6.82	X			5-point	H	N
5302	5-13-20	1635	0299	' '	7.37				Grab	M	M
5303	5-13-20	16:40	0299	Fredonia	8.96				Grab	N	N
5304	5-13-20	1650	0299	Fredonia	5.66			MIS	30-point		
5305	5-14-20	0845	0285	Burlington	6.19	X			10-point	L	M
5306	5-14-20	0900	0285	Burlington	5.98				5-point	M	N
5307	5-14-20	0905	0285	Burlington	5.78				5-point	N	N
5308	5-14-20	0915	0285	Burlington	4.87	X			5-point	L	H
5309	5-14-20	0925	0285	Burlington	4.54				Grab	H	L
5310	5-14-20	0930	0285	Burlington	5.43				10-point	L	N
5311	5-14-20	0940	0285	Burlington	5.11	X			10-point	L	N
5312	5-14-20	0955	0285	Burlington	5.90	X			Grab	N	N
5313	5-14-20	1010	0285	Burlington	6.23		X		6-point	H	L
5314	5-14-20	1015	0285	Burlington	5.28	X			5-point	L	N
5315	5-14-20	1025	0285	Burlington	5.16				Grab	L	N
5316	5-14-20	1030	0285	Burlington	4.92	X			5-point	H	M
5317	5-14-20	1035	0285	Burlington	5.37				Grab	L	H
5318	5-14-20	1050	0285	Burlington	5.06	X			5-point	M	L
5319	5-14-20	1055	0285	Burlington	5.13	X			5-point	M	L
5320	5-14-20	1100	0285	Burlington	4.91				Grab	M	L
5321	5-14-20	1105	0285	Burlington	5.85	X			Grab	M	M
5322	5-14-20	1115	0285	Burlington	5.24	X			5-point	L	H
5323	5-14-20	1120	0285	Burlington	5.17		X		5-point	M	L
5324	5-14-20	1130	0285	Burlington	5.75	X	X		5-point	H	L
5325	5-14-20	1140	0285	Burlington	6.24				Grab	H	L

Range
Label

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5326	5-14-20	1245	0285	BURLINGTON	5.23	X			5-POINT	L	N
5327	5-14-20	1300	"	"	5.06		X DUP @ 1330		5-POINT	L	M
5328	5-14-20	1310	0285	"	5.35				GRAB	M	M
5329	5-14-20	1315	285	"	4.75	X			GRAB	M	M
5330	5-14-20	1325	0285	"	4.98				GRAB	L	L
5331		1330	0285	BURLINGTON	4.75				GRAB	M	M
5332		1335	0285	"	5.57				GRAB	L	H
5333		1340	0285	"	6.15	X			5-POINT	H	L
5334		1350	0285	"	4.97	X			10-POINT	M	N
5335		1415	0285	BURLINGTON	4.88			MIS	30-POINT	M	N
5336	5-14-20	1430	0285	"	5.51	X			10-POINT	H	L
5337	5-14-20	1440	0285	"	5.15	X			5-POINT	M	N
5338	5-14-20	1445	0285	"	7.92				GRAB	L	M
5339	5-14-20	1455	0285	"	5.82				GRAB	M	L
5340	5-14-20	1505	0285	"	6.97	X			5-POINT	L	L
5341	5-14-20	1515	0285	BURLINGTON	5.71		X		5-POINT	M	L
5342	5-18-20	09:00	299	Fredonia	6.14	X			5-Point	M	L
5343	5-18-20	0910	0299	"	5.36				GRAB	L	N
5344	5-18	0920	0299	"	5.28				GRAB	L	M
5345		0925	0285	BURLINGTON	5.80	X			GRAB	L	L
5346		0940	0285	"	7.13				GRAB	M	M
5347		0950	0285	"	5.51		X		10-POINT	M	L
5348		0955	0285	"	5.28				GRAB	M	N
5349		1005	0285	"	6.69	X			5-POINT	L	M
5350	5-18-20	1015	0285	BURLINGTON	6.84				GRAB	H	L

* POSSIBLE SUBSIDENCE IN TRENCH

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5351	5-18-20	1025	0285	BURLINGTON	5.24				GRAB	L	N
5352	5-18	1035	285	"	NA	NO SAMPLES			BEDROCK	L	N
5353	5-18	1045	299285	FREDONIA	9.15				GRAB	L	L
* 5354	5-18-20	1110	0285	BURLINGTON	5.40	X			5-POINT	N	L
5355	5-18	1120	0285	"	5.47	X	X		5-POINT	H	L
5356	5-18	1130	0285	"	5.63				GRAB	N	N
5357	↓	1135	0285	"	4.56	X			GRAB	M	L
5358	↓	1140	0285	"	5.38				GRAB	L	N
5359	↓	1150	0285	"	6.02				GRAB	H	N
5360	↓	1245	0285	BURLINGTON	5.69				GRAB	H	L
5361	5-18-20	1250	0285	"	6.00				5-POINT	M	M
5362	↓	1255	0285	"		NO SAMPLE			BEDROCK	L	L
5363	↓	1305	0285	"		NO SAMPLE			"	L	N
5364	↓	1315	0285	"	6.04				GRAB	N	L
5365	↓	1325	0285	"	6.05				GRAB	N	N
5366	5-18-20	1335	0285	"	9.34				GRAB	L	N
5367	↓	1340	0285	BURLINGTON		NO SAMPLE			BEDROCK	L	L
5368	↓	1350	0285		5.37				GRAB	N	N
5369	↓	1400	0285		5.82	X			5-POINT	N	N
5370	5-18-20	1425	0246	INDEPENDENT	5.53		X		10-POINT	H	L
5371	↓	1430	0246	↓	5.03				GRAB	M	M
5372	↓	1440	↓	↓	4.95	X			5-POINT	L	M
5373	↓	1445	↓	↓	3.03	X			5-POINT	N	L
5374	↓	1450	↓	↓	5.36				GRAB	L	N
5375	5-18-20	1455	0246	INDEPENDENT	7.01				GRAB	N	N

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	MN	FR
5376	11/15/2019 5-18-20	1500	0246	INDEPENDENT	5.30	X		5-POINT	M	L
5377	11/15/2019	1510	0246	"	3.66	X		5-POINT	N	M
5378	11/15/2019	1515	0246		5.83			SPLP/ABA	H	L
5379	11/15/2019	1530			5.94			GRAB	H	L
5380	11/15/2019	1535			5.49			GRAB	M	L
5381	11/15/2019	1540			5.61			GRAB	H	L
382	11/15/2019	1545	0246	INDEPENDENT	6.35			MIS/30-POINT	H	L
5383	5-18-20	1550	0246		5.62	X		5-POINT	L	N
5384	5-18	1600	246		4.16	X		5-POINT	M	L
5240										
5241										
5242										
5243										
5244										
5245										
5246										
5247										
5248										
5249										
5250										
5251										
5252										
5253										
5254										
5255										
5256										
5257										
5258										
5259										
5260										

STONE SXR NEAR 5383

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining	
5376	5-18-20											
5377	↓											
5378												
5379												
5380												
5381												
5382												
5383												
5384	5-18-20		0246	INDEPENDENT								
5385	5-19-20	1105	0246	↓	5.26				GRAB	H	L	
5386	↓	1110	0246		6.73	X			5-POINT	H	L	
5387		1115	0246		5.60				GRAB	H	L	
5388		1120	0246		6.41				GRAB	H	L	
5389		1130	0246		6.36		X		5-point	H	L	
5390		5-19-20	1135		0246	INDEPENDENT	7.00			5-point	H	L
5391		↓	1145		0246	6.27	X			10-point	H	L
5392	1150		0246	5.87				5-point	H	L		
5393	1205		0246					None				
5394	1210		0246	5.10				Grab	N	N		
5395	1230		0246	7.88				Grab	N	N		
5396	1255		0246	6.10	X			5-point	H	L		
5397	1305		0246	6.29	X			5-point	L	N		
5398	1315		0246	6.62				Grab	M	M		
5399	↓		1320	0246	5.74				Grab	H	L	
5400			5-19-20	1330	0246	INDEPENDENT	5.18	X		5-point	H	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5401	5-19-20	14:30	0256	Haakon	6.70				Grab	L	L
5402	5-19-20	1440	0256		7.14	X			5-point	M	L
5403	5-19-20	1445	0256		6.09		X		5-point	N	L
5404	5-20-20	1100	0249	FAIRVIEW	6.37				GRAB	N	N
5405	5-20	1120	0249	"		NO SAMPLE		OLD BORROW AREA		HEAVY GRASS	
5406	5-20	11:35	0249		5.64			MIS	30-Point	N	N
5407	5-20-20	1240	0249	FAIRVIEW	5.95	X			5-POINT	M	L
5408	5-20-20	12:50	0249	FAIRVIEW	4.93				Grab	L	M
5409	5-20-20	10:55	0249	"	5.26		X		5-Point	L	M
5410	5-20-20	13:05	0249	"	6.44				Grab	L	M
5411	5-20-20	13:10	0249	"	6.87	X			Grab	L	L
5412	5-20-20	13:20	0249	"	5.69				5-Point	L	L
5413	5-20-20	13:35	0249	"	5.89				Grab	N	N
5414	5-20-20	13:45	0249	"	5.51				Grab	N	N
5415	5-20-20	1350	0249	FAIRVIEW		NO SAMPLE			BEDROCK	L	L
5416	5-20-20	1400	0249	"	5.54				Grab	M	L
5417	5-20-20	1405	0249	"		NO SAMPLE			Bedrock	L	L
5418	5-20-20	1435	0249	"	8.63	X			5-point	N	L
5419	5-20-20	1450	0249	FAIRVIEW	5.76	X			5-POINT	M	L
5420	5-20-20	1455	"	"	6.97				GRAB	M	L
5421	5-20	1540	0306	HERBERT	6.15	X			GRAB	N	L
5422	5-20-20	1550	0306	"	6.08	X			5-POINT	M	L
5423		1605	0306	"	5.86				GRAB	N	N
5424		1615	0306	HERBERT	5.29				GRAB	N	M
5425		1620	0306	"		NO SAMPLE			BEDROCK	L	N

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5426	5-21-20	12:05	0016	ORPHAN BOY	5.78	✓			5-POINT	L	M
5427		12:15	0016	" "	8.07				GRAB	L	M
5428		12:20	0016	" "	7.50	✓			5-Point	L	M
5429		12:30	0016	" "	4.00				Grab	H	H
5430		12:40	0016	" "	8.72	✓			10-Point	L	L
5431		12:45	0016	" "	8.86				Grab	L	L
5432		13:00	0016	" "	7.82				Grab	L	M
5433	5-21-20	13:45	0016	ORPHAN BOY	8.58				5-Point	L	L
5434	5-21-20	13:55	0016	" "	7.12		✓		10-Point	L	L
5435	5-21-20	14:15	0016	" "	7.07				Grab	L	H
5436	5-21-20	14:20	0016	" "	8.46				Grab	L	N
5437	5-21-20	14:25	0016	" "	6.19	✓			5-Point	H	L
5438	5-21-20	14:35	0016	" "	5.14	✓			10-Point	M	L
5439	5-21-20	14:45	0013	George Lode	6.34	✓	✓		5-Point	L	L
5440	5-21-20	15:00	0016	Orphan Boy	8.56				10-POINT	L	L
5441	5-21-20	15:15	0016	" "	8.55				Grab	N	M
5442	5-21-20	15:35	0013	George Lode	6.55				Grab	H	M
5443	5-21-20	15:40	0013	George Lode	5.64	✓			5-Point	L	L
5444	5-21-20	15:45	0013	George Lode	4.51				Grab	M	L
5445	5-21-20	15:50	0013	George Lode	3.44				Grab	L	H
5446	5-21-20	15:55	0013	George Lode	8.63				Grab	L	L
5447	5-21-20	16:00	0013	George Lode	4.05	✓			10-Point	H	M
5448	5-21-20	16:15	0013	George Lode	3.03		✓		10-Point	L	H
5449	5-21-20	16:25	0013	George Lode	6.27				Grab	H	L
5450	5-21-20	16:30	0013	George Lode	2.61				Grab	M	H

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5451	5/26/20	9:00	0315	GARIBALDI	4.82				Grab	N	N
5452		9:15		"	5.43				Grab	L	L
5453		9:25		"	6.56	X			5-point	L	L
5454		09:30		"	4.39	X			5-point	L	L
5455		09:45		"	5.49		X		10-Point	L	L
5456		09:55		"	6.45				Grab	L	L
5457		10:00		"	8.74				Grab	L	L
5458		10:05		"	8.99				Grab	N	N
5459		10:15		"	7.35	Y			5-Point	L	L
5460		10:25		"	8.93	Y			Grab	N	N
5461		10:25 ⁸		"	8.75				5-Point	L	L
5462		10:50		"	5.78				Grab	N	N
5463		10:55		"	5.39				Grab	M	L
5464		11:00		"	5.41	Y			5-Point	M	M
5465		11:05		"	8.20				Grab	N	L
5466		11:15		"	9.01				Grab	L	L
5467		11:20		"					BED Rock Area		
5468		11:25		"					BED Rock Area		
5469	5/26/20	11:30	0315	GARIBALDI	5.23				Grab	M	L
5470		12:20		"	6.61				Grab	L	L
5471		12:40		"	5.35	Y			7-Point	H	L
5472		12:45		"	5.27				Grab	L	L
5473		12:50		"	6.17				5-Point	L	L
5474		13:00		"	6.63				10-Point	M	L
5475	9	13:15	9	"	5.11				Grab	M	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5476	5/26/20	13:20	0315	Garibaldi	4.84				Grab	H	L
5477		13:25		" "	5.23				Grab	M	L
5478		13:30		" "	6.44				Grab	L	L
5479		13:35		" "	5.15	✓			S-Point	H	L
5480		14:05		" "	7.89	✓			S-Point	N	L
5481		14:15		" "	5.24				Grab	L	L
5482		14:20		" "	5.30				Grab	N	L
5483		14:25		" "	5.41				S-Point	L	L
5484		14:35		Garibaldi	5.28	✓			S-Point	L	L
5485	5/26/20	14:45	0315	Garibaldi	5.22				Grab	M	L
5486	5/27/20	9:00	0315	Garibaldi	8.94				Grab	L	L
5487	5/27/20	9:05	0315	Garibaldi	8.56				Grab	N	M
5488	5/27/20	9:15	0315	Garibaldi	6.13		✓		10-point	L	L
5489	5/27/20	9:30	0315	Garibaldi	5.87				Grab	N	N
5490	5/27/20	9:35	0315	Garibaldi	5.17	✓			S-Point	M	L
5491	5/27/20	9:40	0315	Garibaldi	5.03				S-Point	M	M
5492	5/27/20	9:50	0315	Garibaldi	4.92				Grab	H	L
5493	5/27/20	9:55	0315	Garibaldi	5.24				Grab	L	L
5494	5/27/20	10:00	0315	Garibaldi	5.23				Grab	M	N
5495	5/27/20	10:05	0315	Garibaldi	5.38	✓			S-Point	L	L
5496	5/27/20	10:10	0315	Garibaldi	6.53	✓			S-Point	M	M
5497	5/27/20	10:20	0315	Garibaldi	5.05				Grab	M	H
5498	5/27/20	10:25	0315	Garibaldi	5.61	✓			10-Point	N	N
5499	5/27/20	10:35	0315	Garibaldi	5.07				S-Point	L	L
5500	5/27/20	10:40	0315	Garibaldi	NA		Bed Rock Area				

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5501	5/27/20	10:45	0315	Garibaldi	5.62				Grab	M	M
5502	5/27/20	10:55	0315	Garibaldi	5.84				Grab	L	H
5503	5/27/20	11:00	0313	Silver cleft	7.36				Grab	H	L
5504	5/27/20	11:10	0313	Silver cleft	5.17				S-Point	M	L
5505	5/27/20	11:15	0313	Silver cleft	5.88	Y			S-Point	M	L
5506	5/27/20	11:25	0315	Garibaldi	5.85	Y			10-Point	N	N
5507	5/27/20	12:30	0313	Silver cleft	8.69				Grab	L	L
5508	5/27/20	12:35	0313	Silver cleft	8.28				Grab	L	L
5509	5/27/20	12:55	0313	Silver cleft	8.57				Grab	L	L
5510	5/27/20	13:05	0313	Silver cleft	7.20				Grab	L	L
5511	5/27/20	13:10	0313	Silver cleft	7.29	Y			S-Point	L	L
5512	5/27/20	13:20	0315	Garibaldi	8.21				Grab	L	L
5513	5/27/20	13:25	0315	Garibaldi	5.43	Y			S-Point	M	M
5514	5/27/20	13:40	0315	Garibaldi	7.64			MFS	30-Point	N	N
5515	5/27/20	13:55	0315	Garibaldi	6.28				Grab	M	L
5516	5/27/20	14:05	0315	Garibaldi	6.39	Y			S-Point	H	L
5517	5/27/20	14:55	0319	Nile	5.87				Grab	L	L
5518	5/27/20	15:05	0319	Nile	6.58				Grab	M	L
5519	5/27/20	15:10	0319	Nile	6.40				S-Point	L	L
5520	5/27/20	15:20	0319	Nile	6.32		Y DUP		8-Point	L	L
5521	5/27/20	15:30	0319	Nile	7.49				Grab	L	L
5522	5/27/20	15:35	0319	Nile	6.87				Grab	M	L
5523	5/27/20	15:40	0320	United states	6.17	Y			10-Point	L	H
5524	5/27/20	15:45	0320	United states	7.01	Y			Grab	L	L
5525	5/27/20	15:55	0320	United states	7.50				S-Point	L	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5526	5/27/20	1600	0320	United States	6.74				Grab	H	L
5527	5/27/20	1605	0320	United States	6.51	X			6-point	M	L
5528	5/27/20	1620	0319	Nile	6.69				Grab	L	L
5529	5/27/20	1625	0319	Nile	7.65				Grab	M	M
5530	5/28/20	10:10	0321	Missouri	5.35				S-Point	L	L
5531	5/28/20	10:15	0321	Missouri	5.47	✓			S-Point	L	L
5532	5/28/20	10:20	0320	United States	5.35				Grab	L	L
5533	5/28/20	10:25	0320	United States	5.22				S-Point	M	H
5534	5/28/20	10:30	0319	Nile	6.74				Grab	L	M
5535	5/28/20	11:00	0319	Nile	5.65	✓			S-Point	L	L
5536	5/28/20	11:10	0319	Nile	5.19	✓	✓		S-Point	H	L
5537	5/28/20	11:25	0319	Nile	5.02				Grab	M	L
5538	5/28/20	11:30	0319	Nile	5.05				S-Point	H	L
5539	5/28/20	11:35	0319	Nile	5.04				Grab	H	L
5540	5/28/20	11:45	0315	Garibaldi	5.07				Grab	H	L
5541	5/28/20	12:35	0312	Uncle Sam	5.32				Grab	L	N
5542	5/28/20	12:40	0312	Uncle Sam	6.13	✓			S-Point	L	M
5543	5/28/20	12:50	0312	Uncle Sam	5.55			CD ABA	Grab	N	N
5544	5/28/20	12:55	0312	Uncle Sam	5.00			✓, ABA	S-Point	N	N
5545	5/28/20	13:05	0312	Uncle Sam	7.89				Grab	N	N
5546	5/28/20	13:10	0312	Uncle Sam	6.84				Grab	H	L
5547	5/28/20	13:20	0312	Uncle Sam	6.01	✓			S-Point	N	L
5548	5/28/20	13:25	0307	Cora May	4.73	✓			S-Point	M	M
5549	5/28/20	13:45	0307	Cora May	5.15				Grab	L	L
5550	5/28/20	14:05	0313	Silver Cleft	5.20				Grab	N	N

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5551	5/28/20	14:15	0313	Silvercleft	4.95				Grab	N	N
5552	5/28/20	14:25	0313	Silver Cleft	4.76	✓			Grab	H	L
5553	5/28/20	14:30	0313	Silver Cleft	4.63	✓			5-Point	M	M
5554	5/28/20	14:55	0313	Silver cleft	5.71			MIS	30-Point	M	L
5555	5/28/20	15:10	0313	Silver Cleft	5.54				Grab	N	N
5556	5/28/20	15:20	0313	Silver Cleft	4.88	✓			5-Point	M	M
5557	5/28/20	15:50	0301	Self Rising	4.90	✓			5-Point	M	L
5558	5/28/20	15:55	0301	Self Rising	5.06				Grab	H	L
5559	5/28/20	16:00	0301	Self Rising	4.78	✓			5-Point	L	N
5560	5/28/20	16:10	0301	Self Rising	4.68	✓			10-Point	M	M
5561	5/28/20	16:15	0301	Self Rising	4.71				Grab	L	L
5562	5/28/20	16:20	0301	Self Rising	5.17				Grab	L	L
5563	5/28/20	16:25	0301	Self Rising	5.05				Grab	M	H
5564	5/28/20	16:30	0301	Self Rising	5.65				Grab	H	N
5565	5/28/20	16:35	0301	Self Rising	4.93				5-Point	H	L
5566	5/28/20	16:40	0301	Self Rising	4.92	✓			8-Point	H	L
5567	5-29-20	10:30	0302	Gen Wash.	5.72	✓			10-Point	H	L
5568		10:50	0302	" "	5.51	X			10-POINT	M	L
5569		11:00	0302	GEN. WASHINGTON	5.35				GRAB	H	M
5570		11:05	0301	Self Rising Last chance	6.13				Grab	L	L
5571		11:10	0301	Self Rising	8.55		✓		6-Point	H	L
5572	5/29/20	11:15	0301	Self Rising	8.37				Grab	L	L
5573		11:20	0301	Self Rising	7.55	✓			5-Point	M	L
5574		11:35	0302	Gen. Wash.	5.46	✓			5-Point	H	M
5575		11:40	0302	Gen. Wash	5.25				Grab	M	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5576	5/24/20	11:45	0302	Gen. Wash	3.51	✓			S-Point	L	M
5577		11:55	0302	Gen Wash	5.19	✓			S-Point	H	L
5578		12:40	0301	Self Rising	7.15				Grab	L	L
5579		13:00	0301	Self Rising	5.50	✓			S-Point	L	L
5580		13:05	0301	Self Rising	5.12				Grab	H	L
5581		13:10	0301	Self Rising	3.16				Grab	M	M
5582		13:15	0301	Self Rising	4.72				S-Point	M	M
5583		13:20	0301	Self Rising	5.05				S-Point	H	L
5584		13:25	0301	Self Rising	6.23	✓			S-Point	M	M
5585		13:30	0301	Self Rising	7.09	✓			S-Point	H	H
5586		13:40	0301	Self Rising	6.87				Grab	M	H
5587		13:55	0300	Tom Haney Self Rising	5.22				S-Point	M	M
5588		14:00	0300	Tom Haney Self Rising	4.73				Grab	H	L
5589		14:05	0300	Tom Haney	8.89				Grab	N	L
5590		14:10	0300	Tom Haney	5.28				S-Point	M	H
5591		14:15	0300	Tom Haney	5.41	✗ JS			Grab	N	L
5592		14:20	0300	Tom Haney	4.95	✗			S-Point	H	N
5593		14:30	0300	Tom Haney	4.66	✗			10-Point	H	M
5594		14:45	0300	Tom Haney	5.13				S-Point	N	N
5595		14:50	0300	Tom Haney	5.42				Grab	M	M
5596		15:00	0300	Tom Haney	5.32				Grab	M	M
5597		15:05	0306	Herbert	4.97	✗			S-Point	M	H
5598		15:30	0311	Little Gem	4.64				S-Point	M	M
5599	5-24-20	15:40	0300	Tom Haney	6.42				Grab	H	M
5600	6/1/20	9:00	0013	George Lode	6.33				S-Point	M	H

NOT XRF

57

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5601	6/1/20	9:05	0013	George Lode	7.18		Y		5-Point	H	H
5602		9:15	0013	" "	5.78				Grab	M	H
5603		9:20	0013	" "	4.13	Y			5-Point	H	W M
5604		9:25	0013	" "					BARE Area / BedRock		
5605		9:30	0013	" "					BARE AREA		
5606		9:35	0013	" "	8.08				Grab	N	N
5607		9:40	0013	" "	7.05				5-Point	M	M
5608		9:45	0013	" "	5.85	Y			8-Point	M	M
5609		9:55	0013	" "	6.99				5-Point	N	N
5610		10:05	0013	" "	7.72			MIS	30-Point	N	N
5611		10:20	0010	Mini Jane	3.70		Y		10-Point	H	M
5612		10:25	0010	" "	4.89				Grab	H	L
5613		10:50	0296	Philadelphia	7.82				Grab	L	L
5614		11:00	0296	" "	6.00	Y			5-Point	H	L
5615		11:05	0296	" "	3.42	X			5-Point	N	L
5616		11:20	0296	" "	6.39				5-Point	H	L
5617		11:25	0296	" "	8.28				Grab	L	L
5618		11:30	0296	" "	3.63	Y			5-Point	L	L
5619		11:40	0296	" "	5.37	Y			5-Point	L	L
5620		12:40	0311	Little Gem	NA				Bed Rock Area		
5621		12:45	0311	" "	8.15				Grab	L	H
5622		13:00	0311	" "	NA				Mammal Denning (Prob badger)		
5623		13:05	0311	" "	5.73	Y			5-Point	L	H
5624		13:15	0311	" "	4.83				Grab	M	L
5625		13:25	0306	Herbert	5.76		Y		5-Point	H	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5626	6/2/20	9:10	1143	Sliver Near Klugstern	8.54	Y			5-Point	L	H
5627	6/2/20	9:35	1143	Sliver Near Little Annie	3.69	Y			5-Point	N	M
5628	6/2/20	9:40	1143		5.19				Grabs	M	L
5629	6/2/20	9:50	1143		6.40				Grabs	N	N
5630	6/2/20	10:00	1142	Next to Cheyenne	6.78				Grab	N	M
5631	6/2/20	10:15	1142	Next to Big Bonanza	6.11	Y			5-Point	L	L
5632	6/2/20	10:40	1140	Small claim West of Big Bonanza	8.53				Grab	L	L
5633	6/2/20	11:55	0350	Belcher	4.85	Y			5-Point	M	M
5634		12:05	0350	Belcher	5.64				5-Point	H	H
5635		12:10	0350	Belcher	6.15				5-Point	L	H
5636		12:15	0350	Belcher	7.44				Grab	L	L
5637		12:25	0350	Belcher	6.65	X			5-Point	M	H
5638		12:35	0350	Belcher	6.60				Grab	H	M
5639		12:40	0350	Belcher	5.92				Grab	M	H
5640		12:45	0350	Belcher	7.82	Y			5-Point	L	H
5641		13:00	0350	Belcher	8.06				5-Point	M	M
5642		13:10	0350	Belcher	7.70				5-Point	M	M
5643		13:45	0111	Sargeant	7.25				Grab	N	N
5644		13:55	0111	Sargeant	7.77				Grab	N	L
5645		14:00	0350	Belcher	6.13		Y		5-Point	H	L
5646		14:15	0350	Belcher	6.22				Grab	L	M
5647		14:20	0350	Belcher	6.43				Grab	M	L
5648		14:25	0350	Belcher	4.10	Y			10-Point	L	L
5649		14:35	0350	Belcher	5.27				Grab	L	L
5650		14:45	0111	Sargeant	7.44				5-Point	N	N

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5651	6/01/20	1255	0002	Portland	NA				vegetated piles	N	L
5652	6-1-20	1300	"	"	8.08				GRAB	N	L
5653	6/01/20	1310	"	"	NA				vegetated piles	N	L
5654	6/01/20	1320	"	"	NA				waste rock piles	N	N
5655	6/01/20	1335	"	"	NA				Bare area	N	N
5656	6/01/20	1340	"	"	4.97				Grab	N	N
5657	6/01/20	1345	"	"	NA				NO SAMPLE, PART OF OLD DUMP	N	N
5658	6/01/20	1400	"	"	NA				medium size trench	N	N
5659	6/01/20	1405	"	"	5.09				Grab	L	N
5660	6/01/20	1410	"	"	NA				trench / drainage	N	N
5661	6-1-20	1420	0003	HUMBOLDT	8.00	X			5-POINT	L	L
5662	6/01/20	1430	"	"	8.11				Grab	M	L
5663	6/01/20	1435	"	"	8.14				Grab	L	L
5664	6-1-20	1510	0038	N. POLE	4.99	X			5-POINT	H	L
5665	6-1-20	1525	0041	KATIE T	NA				NO SAMPLE, IMPORTED MATERIAL	N	N
5666	6-1-20	1530	0041	KATIE T	6.03				5-POINT	L	N
5667	6-1-20	1555	0317	ST. LOUIS	5.45				GRAB	N	N
5668	6-1-20	1600	0317	ST. LOUIS	5.31	X			5-POINT	H	L
5669	6-1-20	1605	0317	ST. LOUIS	NA				NO SAMPLE, BEDROCK SPINE	L	N
5670	6-2-20	0900	0177	EAGLE	3.88				SPLP/ABA 5-POINT	N	L
5671	↓	0920	0179	↓	8.00				GRAB	N	L
5672	↓	0925	↓	↓	3.59	X			5-POINT	N	N
5673	↓	0935	↓	↓	4.22		X		5-POINT	L	M
5674	↓	0945	↓	↓	3.50				GRAB	N	L
5675	6-2-20	0950	0177	EAGLE	3.77	X			5-POINT	L	L

EAGLE IS 0179

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5676	6-2-20	1000	0197	EAGLE	3.86				GRAB	N	L
5677	6-2-20	1005	0197		3.76				GRAB	N	N
5678	6-2-20	1020	0179	EAGLE	3.77	X			10-POINT	N	L
5679	6-2-20	1030	0179	"	3.40	X			5-POINT	N	M
5680		1040	0179	"	3.97		X		6-POINT	N	L
5681		1055			3.17				GRAB	N	L
5682		1100			3.25				GRAB	N	L
5683	6-2-20	1105	0179	EAGLE	6.37				GRAB	N	N
5684		1110	0179	"	4.53	X			GRAB	N	L
5685		1115	0179	"	5.02	X			GRAB	N	N
5686	6-2-20	1130	0179	EAGLE	NA		NATIVE BARE AREA			N	N
5687	6-2-20	1200	0179	EAGLE	NA		BEDROCK OUTCROP			N	N
5688	6-2-20	1315	0142	NON-CONSOLIDATED	6.65	X			5-POINT	M	L
5689		1325	0142	" "	8.08				GRAB	L	L
5690		1330	0142	" "	3.76				GRAB	M	M
5691	6-2-20	1340	0142	" "	4.72				GRAB	M	M
5692		1345	0142	" "	3.90	X			5-POINT	L	M
5693	6-2-20	1425	0122	SNOWDRIFT	5.36			RANGERAD	30-POINT	N	N
5694		1455	0138	GLENGARRY	5.02	X			5-POINT	M	L
5695		1500	0138	"	7.95				GRAB	L	N
5696		1505	0138	"	4.63				GRAB	M	L
5697		1515	0138	"	6.33	X			GRAB 5-POINT	H	N
5698		1520	0138	GLENGARRY	4.11				GRAB	M	M
5699		1525	"	"	8.02				GRAB	N	L
5700	6-2-20	1530	0138	GLENGARRY	5.06		X		GRAB		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5701	6-2-20	1550	0138	GLENGARRY	NA				WELL VEG'D TRENCH PILE	N	N
5702		1555	0122	SNOW DRIFT		"	"	" "		N	N
5703		1600		" "					MOD VEG'D TRENCH PILE	L	L
5704	6-2-20	1610	0122	SNOW DRIFT	4.06		X		10-POINT	H	L
5705		1615	0122	" "	6.11				5-POINT	M	L
5706	6-3-20	0840	0162	MARGET ANN	8.61		X		5-POINT	L	L
5707		0850			8.50				GRAB	L	N
5708		0855			8.35	X			5-POINT	L	N
5709		0900			8.33				GRAB	M	L
5710		0905			8.70	X			GRAB	L	N
5711	6-3-20	0915	0162	MARGET ANN	8.33	X			5-POINT	M	L
5712		0925	0162		8.57				GRAB	L	N
5713		0930			6.43				GRAB	H	L
5714		0940			2.23				GRAB	M	H
5715	6-3-20	1005	0162	MARGET ANN	8.48				GRAB	N	N
5716		1015			6.85	X			5-POINT	N	M
5717		1050			8.39				GRAB	L	L
5718		1100	0162		8.33				GRAB	L	N
5719		1105	0162	MARGET ANN	5.33	X			5-POINT	H	L
5720	6-3-20	1115			6.89	X			5-POINT	N	N
5721		1125			7.67				GRAB	N	N
5722		1130		M. ANN	8.50		X		GRAB	N	N
5723		1150	0138	GLENGARRY	8.45				GRAB	M	N
5724		1200	0138	" "	6.40	X			5-POINT	M	L
5725	6-3-20	1205	0138	" "	8.53				GRAB	M	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5726	6/2/20	15:10	0111	Sergeant	7.82				Grab	N	N
5727	6/2/20	15:20	0130	Gulch	7.73				Grab	L	L
5728	6/2/20	15:30	0130	Gulch	5.42			Y, ABA	5-Point	L	L
5729	6/2/20	15:45	0130	Gulch	4.76	Y			5-Point	N	L
5730	6/2/20	15:50	0130	Gulch	5.20				Grab	L	L
5731	6/2/20	15:55	0130	Gulch	5.57	Y			7-Point	L	L
5732	6/3/20	8:46	0162	Margaret Ann	8.15			MIS	30-Point	N	N
5733	6/3/20	9:00	0162	"	8.79		Y		9-Point	N	N
5734	6/3/20	9:20	0162	"	5.98	Y			5-Point	M	N L
5735		9:25	0162	"	4.77				Grab	M	N
5736		9:35	0162	"	8.29	Y			5-Point	L	L
5737		9:55	0160	Reserve	7.64				Grab	M	M
5738		10:00	0160	"	5.07	Y			5-Point	L	M
5739		10:05	0160	"	8.13	Y			5-Point	L	L
5740		10:15	0160	"	7.36				Grab	N	N
5741		10:25	0160	"	N/A						
5742		11:10	158	Union	4.23				5-Point	N	L
5743		11:15	158	Union	4.58				Grab	N	H
5744		11:20	157	Remnant	3.31		Y		8-Point	L	M
5745		11:30	158	Union	7.67	Y			7-Point	N	N
5746		11:40	158	Union	4.05				Grab	N	H
5747		11:45	158	Union	3.41				5-Point	N	M
5748		11:50	158	Union	4.40	Y			6-Point	N	M
5749		11:55	158	Union	5.17				Grab	N	H
5750		12:00	0158	Union	5.11				Grab	L	H

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5751	6/3/20	12:45	0153	Daisy	5.60	X			5-Point	M	M
5752	6/3/20	13:35	0138	6 ton Gary	7.96	X			5-Point	M	L
5753		13:45	0138	" "	4.08				Grab	M	M
5754		13:50	0138	" "	6.37	Y			5-Point	M	H
5755		14:00	0138	" "	8.14				5-Point	N	N
5756		14:10	0138	" "	5.15	X			5-Point	H	M
5757		14:15	0138	" "	5.56	X	Y		5-Point	H	L
5758		15:00	0138	" "	5.17	Y			Grab	H	L
5759		15:10	0138	" "	5.13				Grab	H	M
5760		15:15	0138	" "	8.87				Grab	N	N
5761		15:25	0138	" "	8.11	Y			5-Point	H	L
5762		15:35	0138	" "	5.73	Y			5-Point	H	H
5763	6/4/20	8:45	0138	" "	5.78			MIS-D	30-Point ^{RANGE LAND} (S)	N	N
5764		9:25	0122	Snow Drift	4.03				Grab	H	M
5765		9:30	0122	" "	7.96	Y			5-Point	H	L
5766		9:35	0122	" "	8.08	Y			5-Point	M	L
5767		9:50	0122	" "	6.73				5-Point	H	M
5768		10:10	0102	Valley Forge	N/A		Bed rock Area				
5769		10:15	0102	" "	6.91				Grab	N	M
5770		10:25	0102	" "	6.15	Y			5-Point	L	L
5771		10:35	0102	" "	6.96				Grab	N	L
5772		10:50	0102	Snow Drift	5.85				Grab	L	M
5773		10:55	0122	" "	5.07	Y			10-Point	M L	H
5774		11:05	0122	" Kerry "	3.75				Grab		
5775		11:25	0123	" "	4.09	Y			5-Point	H	M

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5776	6-3-20	1210	0138	GLENGARRY	4.55	X			5-POINT	M	M
5777	6-3-20	1220	"	"	4.90				GRAB	H	L
5778	6-3	1330	0138	"	8.55				GRAB	L	N
5779		1340	0138	"	8.49				GRAB	L	N
5780		1350	0138	GLENGARRY	8.48	X			5-POINT	L	N
5781		1405	0138	"	8.43	X			GRAB	L	M
5782	6-3-20	1425	0138	"	4.59				GRAB	M	L
5783		1440	0138	GLENGARRY	7.11	X			5-POINT	H	L
5784		1450	0138	"	8.52				GRAB	M	L
5785	6-3-20	1505	0138	"	3.74	X			GRAB	M	M
5786		1510	0138	"	7.65				GRAB	L	L
5787		1520	0138	GLENGARRY	8.16		X		5-POINT	M	L
5788	6/04/20	0840	0138	Glengarry	8.45				Grab	N	N
5789		0850	0138	"	7.62				Grab	L	N
5790		0900	0138	"	5.24	X			5-point	M	N
5791		0910	0138	"	3.74				Grab	L	M
5792	6/04/20	0915	0138	Glengarry	5.67				Grab	L	L
5793		0920	0138	Glengarry	5.11	X			6-point	M	M
5794		0930	0138	"	5.22				Grab	M	L
5795		0940	0138	"	5.57				5-point	H	L
5796		0950	0138	"	7.07	X			10-point	M	L
5797	6/04/20	1000	0138	Glengarry	8.07				5-point	M	L
5798		1010	0138	"	8.18				Grab	L	L
5799		1055	0121	Harkaway	6.45				Grab	L	L
5800		1110	0121	"	5.77				Grab	N	N

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining	
5801	06-09-20	11:25	0121	Harkaway	8.29		X		7 point-D	L	L	
5802	}	11:40	0121	"	9.72				5 point pH	L	M	
5803		11:50	"	"	7.76	X		5 point XRF	Grab	L	M L	
5804		⑤ 12:00	"	"	5.61	X			5 point	L	M	
5805		↓	12:05	"	"	8.15			Grab	L	L	
5806		06-04-20	12:15	0121	Harkaway	8.59				Grab	L	L
5807	06/04/20	13:40	0121	"	6.60				Grab	N	N	
5808	}	13:50	0121	"	5.99				Grab	L	N	
5809		13:55	0121	"	5.78	X			Grab	M	L	
5810		6-9-20	09:40	1118	JOSIAH						N	N
5811	}	09:50	1118	"					Bare Area	N	L	
5812		10:00	1118	"					Bare Area	N	L	
5813		6-9-20	10:05	1118	"	5.24			Bid walk area	M	N	
5814		}	10:15	1118	"					GRAB	N	N
*5815			10:25	1118	JOSIAH	7.29	X			TRENCH	N	M
5816	}	10:45	1118	"					GRAB	N	L	
5817		10:55	1118	"					Bid walk area	M	L	
5818		6-9-20	11:20	1118	"	6.50			GRAB	L	L	
5819	}	11:40	1116	CONCENTRATOR	5.56	X			Bare Area	N	N	
5820		11:50	1116	"	5.17				5-POINT	M	N	
5821		6-9-20	11:55	1116	"	5.20		X		GRAB	L	N
5822		}	12:10	1116	"	5.74				5-POINT	M	L
5823			13:40	1110	"	8.27				GRAB	N	N
5824	}	14:15	1116	"	NA	NO SAMPLE			RANGE AND MIS	N	N	
5825		6-9-20	14:45	1116	CONCENTRATOR	6.09				30-POINT	N	N
									GRAB	L	N	
										H	L	

* HAZARDOUS OPENINGS

ALSO SLAG

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5826	6/4/20	11:30	0123	Kerry	4.88				Grab	H	M
5827		11:35	0123	" "	6.14	✓			S-Point	H	L
5828		11:45	0123	" "	2.96		✓		S-Point	N	H
5829		11:50	0123	" "	4.37		✓		S-Point	H	L
5830		12:35	0122	Snow Drift	5.62				Grab	H	M
5831		12:40	0122	" "	7.20	✓			S-Point	H	L
5832		12:50	0122	" "	4.93				Grab	M	L
5833		12:55	0122	" "	6.78				Grab	H	M
5834		13:00	0122	" "	6.41	X			S-Point	H	H
5835		13:05	0122	" "	5.03				Grab	H	M
5836		13:15	0122	" "	5.94				Grab	M	M
5837		13:25	0122	" "	5.27	✓			S-Point	L	L
5838		13:35	0122	" "	6.12				S-Point	M	H
5839		13:45	0122	" "	6.30	✓			S-Point	L	L
5840		14:45	0350	Belcher	4.65		X		S-Point	M	M
5841		14:50	0350	Belcher	5.45		✓		S-Point	M	H
5842	6/9/20	9:15	1114	Virgo	5.66				Grab	N	N
5843	6/9/20	9:20	1114	" "	NA			Well Vegetated Area			
5844		9:25	1114	" "	NA			Bare Area			
5845		9:30	1114	" "	5.41				S-Point	N	L
5846		9:45	1115	Jewel	6.25	✓			S-Point	L	L
5847		9:55	1115	Jewel	7.23				Grab	N	L
5848		10:00	1115	Jewel	7.42				Grab	N	M
5849		10:05	1115	Jewel	5.44		✓		S-Point	H	L
5850		10:10	1115		7.20	X			Grab	L	L

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5851	6/9/20	10:30	1115	Jewel	8.77	Y			S-Point	N	L
5852		10:45	1115	Jewel	5.52	Y			S-Point	N	N
5853		11:05	1115 1114	Jewel Virgo	4.84	Y			S-Point	L	L
5854		11:15	1114	Virgo	5.47		Y		S-Point	M	H
5855		11:40	1113	Carrie	6.10				Grab	L	L
5856		11:45	1113	Carrie	5.80	Y			S-Point	L	L
5857		12:45	1113	" "	6.77	Y			S-Point	M	L
5858		12:50	1113	" "	3.39			V, ABT Duplicate	S-Point	N	M
5859		13:05	1113	" "	2.26	X			Grab	L	L
5860		14:05	1112	Lizzie	5.55	Y			S-Point	N	N
5861		14:50	1016	Eagle bird				Bed Rock	area		
5862		15:00	1016	Eagle bird	5.53				S-Point	M	L
5863		15:05	1016	Eagle bird	5.46	X			S-Point	H	M
5864		15:10	1016	Eagle bird	5.88				S-Point	H	M
5865		15:20	0546	Spur				Bed Rock			
5866		15:35	1007	Berito Extension	7.11	X			S-Point	L	L
5867		15:30	1101	Celestina				Bed Rock			
5868		15:45	546 1072	Spur				Bed Rock			
5869	6-9-20	15:55	1016	Eagle Bird	6.41				Grab	L	L
5870	6-10-20	8:35	1016	Eagle Bird	5.90	Y			Grab	H	L
5871		8:55	0607	Helem Blazes	7.68	Y			S-Point	H	L
5872		9:05	0607	" "	6.02	Y			S-Point	H	M
5873		9:15	0607	" "	8.21				S-Point	L	L
5874		9:25	0607	" "	8.34				Grab	N	L
5875		9:30	0607	" "	8.65				Grab	"	"

0.65 (55)

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5876	6-9-20	1450	1116	CONCENTRATOR	4.98				GRAB	L	N
5877	6-10-20	0945	0003	HUMBOLDT	8.43			IVBA	RANGELAND	N	N
5878	6-10-20	1005	0003	"	5.22			IVBA	8-POINT	H	L
5879	6-10-20	1030	0006	MTN. BOY	4.98			IVBA	5-POINT	H	L
5880	6-10-20	1115	0040	ELBA	6.63			IVBA	5-POINT	L	M
5881	6-10-20	1210	0297	KEY WEST	5.74			IVBA	5-POINT	M	M
5882	6-10-20	1230	0288	NETTIE	8.66			IVBA	10-POINT	L	ⓈKM
5883	6-10-20	1245	0288	NETTIE	6.62			IVBA	RANGELAND	N	N
5884	6-10-20	1345	0015	MILWAUKEE	3.73			IVBA	5-POINT	M	M
5885	6-18-20	1030	0040	ELBA	4.27		X	DPT-01	5-6 FT		
5886	6-18	1115	0040	ELBA	4.51		X	DPT-02	5-10 FT		
5887	6-18	1155	0040	ELBA	5.91		X	DPT-03	6-6.5		
5888	6-18-20	1335	"	"	4.88		X	DPT-04	5.5-6		
5889	6-18-20	1425	0043	GERMANIA	4.93		X	DPT-05	6.2-6.4	←	
5890	6-18-20	1430	0043	"	4.22		X	DPT-05	5.8-6.2	←	
5891	6-18	1505	"	"	4.51		X	DPT-06	10-11		
5892	6-18-20	1630	0006	Mountain Boy	4.17		X	DPT-07	5.7-6		
5893	6-18-20	1030	0006	" "	4.74		X	DPT-08	10.4-10.7		
5894	6-19-20	1045	0006	" "	7.45		X	DPT-09	11.1-11.4		
5895	6-19-20	1140	0006	" "	4.35		X	DPT-10	5.4-5.7		
5896	6-19-20	1315	0003	Humbolt	6.40		X dup	DPT-11	5.9-6.5		
5897	6-19-20	1345	0003	" "	4.09		X	DPT-12	7.3-7.7		
5898	6-19-20	1445	0003	" "	4.28		X	DPT-13	10.8-11.2		
5899	6-19-20	1415	0003	" "	6.12		X	DPT-14			
5900	6-23-20	0940	0003	" "	8.71		X	DPT-15	1-1.5		

see ↓
arrow ↓

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5901	6-23-20	1015	0003	HUMBOLT	6.91		X	DPT-16	4.4-4.7		
5902	6-23-20	1105	0003	Humbolt	6.23		X	DPT-17	8.6-9.0		
5903	6-23-20	1125	0003	Humbolt	4.50		X	DPT-18	4.6-4.9		
5904	6-23-20	1305	0003	Humbolt	6.05		X	DPT-19	12.6-13		
5905	6-23-20	1420	0010	Minnie Jane	4.20		X	DPT-20	8.4-8.8		
5906	6-23-20	1445	0010	Minnie Jane	4.98		X	DPT-21	13-13.5		
5907	6-23-20	1530	0010	Minnie Jane	4.43		X	DPT-22	12.2-12.6		
5908	6-23-20	1615	0010	Minnie Jane	4.35		X	DPT-23	12.4-12.8		
5909	6-24-20	0840	0010	Minnie Jane	6.37		X	DPT-24	8.2-8.5		
5910	6-24-20	0930	0010	Minnie Jane	3.94		X	DPT-25	9.2-9.6		
5911	6-24-20	1105	0297	Key West	3.95		X	DPT-26	12.7-13		
5912	6-24-20	1350	0297	Key West	3.16		X	DPT-28	4.5-4.8		
5913	6-24-20	1410	0297	Key West	3.67		X	DPT-29	0.2-0.8		
5914	6-24-20	1430	0297	Key West	4.31		X	DPT-30	0.4-0.8		
5915	6-24-20	1510	0297	Key West	4.27		X	DPT-31	4.6-5		
5916	6-25-20	0840	0285	BURLINGTON	NA		X	DPT-32	4.4-4.5	SAMPLE TOO SMALL	
5917	↓	0905	0285	BURLINGTON	5.67		X	DPT-33	8.4-8.7		
5918		0925	0285	Burlington	5.69		X-Dup	DPT-34	0.3-0.9		
5919		0940	0285	Burlington	5.49		X	DPT-35	1.2-1.5		
5920		1035	0285	Burlington	7.05		X	DPT-36B	1.3-1.5		
5921	6-25-20	1205	0246	Independent	3.95		X	DPT-37	12.2-12.6		
5922	6-25-20	1305	0246	↓	4.19		X	DPT-38	8.8-9.2		
5923	6-25-20	1340	0246		4.06		X	DPT-39	8.8-9.2		
5924	6-25-20	1415	0246		4.26		X	DPT-40	8.7-9		
5925	6-25-20	1430	0246		4.11		X	DPT-41	1-1.4		
5926	6-25	1635	1150		GEN. WASHING			X	DPT-42	20.5-20.8	

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5926	6-25-20	1635	1150	GEN, WASHING	NA		X	DPT-42	20.5-20.8'		
5927	6-26-20	0920	0015	Milwaukee	6.64		X	DPT-43	5.5-6.2'		
5928		1010	0015	Milwaukee	7.44		X	DPT-44	12.5-12.7'		
5929		1015	0015	Milwaukee	7.55		X	DPT-44	12.7-13'		
5930		1040	0015	Milwaukee	5.12		X	DPT-45	8.7-9'		
5931		1110	0015	Milwaukee	5.62		X	DPT-46	9.2-9.5'		
5932	7-1-20	0910	0016	Orphan Boy	4.48		X	DPT-47	4.8-5.2'		
5933	7-1-20	1000	0016	Orphan Boy	3.08		X	DPT-48	12.7-13'		
5934	7-1-20	1050	0016	Orphan Boy	4.44		X	DPT-49	12.7-13.2'		
5935	7-1-20	1125	0016	Orphan Boy	4.15		X-DUP	DPT-50	4-5'		
5936	7-1-20	1205	0013	George Wade	4.53		X	DPT-51	12.3-12.6'		
5937	7-1-20	1400	1150	Gen. Wash	4.23		X	DPT-52	12.3-12.7'		
5938	7-1-20	1450	1150	Gen. Wash	5.04		X	DPT-53	24.4-24.9'	*DPT-55 was not sampled. DPT-54 has two.	
5939	7-2-20	0845	0288	Nettie	3.96		X	DPT-54	4-4.4'		
5940	7-2-20	0850	0288	Nettie	4.36		X	DPT-54	4.4-4.9'		
5941	7-2-20	1005	0288	Nettie	5.30		X	DPT-56	4-4.5'		
5942	7-2-20	1025	0288	Nettie	5.48		X	DPT-57	0.9-1.3'		
5943	7-2-20	1055	0162	Marget Ann	6.42		X	DPT-61	12.3-12.7'	*Notice dates	
5944	7-2-20	1310	0162	Hibernia	4.62		X	DPT-59	12.3-12.6'	claim# 0289	
5945	7-2-20	1340	0289	Hibernia	5.15		X	DPT-60	12.8-13.3'		
5946	7-6-20	1130	0162	Marget Ann	7.04		X	DPT-62	16-16.4'		
5947	7-6-20	1230	0162	Marget Ann	8.31		X	DPT-63	20-20.4'		
5948	7-6-20	1405	0138	Glengarry	5.02		X	DPT-64	12.8-13.3'		
5949	7-6-20	1500	0138	" "	5.51		X	DPT-65	13.1-13.6'		
5950	7-6-20	1630	0138	Glengarry	3.96		X	DPT-66	9.5-9.8'		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5951	7-8-20	0815	0179	Eagle	4.02		X		DPT-67	4.2-4.5'	
5952	7-8-20	0835	0179	Eagle	3.73		X	DPT-68	0.2-0.9'		
5953	7-8-20	0900	0179	Eagle	3.72		X	DPT-69	5.4-5.7'		
5954	7-8-20	1015	0179	Eagle	3.49		X-DUP	DPT-70	4.3-4.9		
5955	7-8-20	1020	0179	Eagle	3.58		X	DPT-71	0.7-1.2		
5956	7-8-20	1255	0017	Kit Carson	8.19		X	DPT-72	8.1-8.6'		
5957	7-8-20	1310	0017	Kit Carson	6.37		X	DPT-73	5.3-5.7'		
5958	7-8-20	1350	0017	Kit Carson	6.41		X	DPT-74	12.4-12.8'		
5959	7-9-20	0900	0315	Garibaldi	5.64		X	DPT-75	8.8-9'		
5960	7-9-20	0940	0315	Garibaldi	9.68		X	DPT-76	4.3-4.7'		
5961	7-9-20	1100	0315	Garibaldi	4.92		X	DPT-77	4.3-4.6'		
5962	7-9-20	1130	0315	Garibaldi	3.71		X	DPT-78	5.3-5.6'		
5963	7-28-20	1045	NA	SCHLEY AVE	7.24	X				N	N
6284	5964	2/16/21	0920	0040	Elba	4.36			DPT-01-0-5'		
5965	2/16/21	0936	0040	Elba	5.26				DPT-01-6-10'		
5966	2/16/21	1021	0040	Elba	4.83				DPT-01B-5-5.6'		
5967	2/16/21	1028	0040	Elba	4.87				DPT-01B-6.2-10'		
5968	2/16/21	1037	0040	Elba	4.27				DPT-02-0-5'		
5969	2/16/21	1046	0040	Elba	5.25				DPT-02-5-5.6'		
5970	2/16/21	1107	0040	Elba	5.40				DPT-02-10.4-11.4'		
5971	2/16/21	1131	0040	Elba	5.04				DPT-02-11.4-12.3'		
5972	2/16/21	1138	0040	Elba	5.09				DPT-03-0.6-5.0'		
5973	2/16/21	1145	0040	Elba	5.34				DPT-03-5-5.9'		
5974	2/16/21	1158	0040	Elba	7.09				DPT-03-6.2-6.9		
5975	2/16/21	1359	0040	Elba	8.55				DPT-03-10-12.2'		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
5976	2/16/21	1406	0040	Elba	8.47			DPT-03-	2.2-15'		
5977	2/16/21	1412	0040	Elba	4.81			DPT-04-	0-5'		
5978	2/16/21	1419	0040	Elba	5.81			DPT-04-	5-5.6'		
5979	2/16/21	1428	0040	Elba	6.51			DPT-04-	6-6.7'		
5980	2/16/21	1438	0040	Elba	8.59			DPT-04-	6.7-7.9'		
5981	2/16/21	1447	0040	Elba	8.73			DPT-04-	7.9-8.2		
5982	2/16/21	1458	0043	Germania	4.39			DPT-05-	0-5'		
5983	2/16/21	1506	0043	Germania	4.45			DPT-05-	5-5.8'		
5984	2/16/21	1513	0043	Germania	4.46			DPT-05-	6.4-10'		
5985	2/16/21	1519	0043	Germania	4.95			DPT-05-	10-13.7'		
5986	2/16/21	1529	0043	Germania	6.71			DPT-06-	0-5'		
5987	2/16/21	1543	0043	Germania	5.94	SEE LOG BOOK 5 PG. 36-37		DPT-06-	5.0-10.3'	lab a dup	total SPLP
5988	2/16/21	1616	0043	Germania	6.83			DPT-06-	11.4-13.5		
5989	2/16/21	1631	0006	MTN. Boy	7.13			DPT-07-	0-5.6		
5990	2/16/21	1639	0006	MTN. Boy	4.37	SEE LOG BOOK 5 PG. 37		DPT-07-	5.0-5.7	lab total, SPLP & Pb	
5991	2/16/21	1703	0006	MTN. Boy	4.59			DPT-07-	0.6-0.9'		
5992	2/16/21	1711	0006	MTN. Boy	7.45			DPT-07-	10-12		
5993	2/16/21	1716	0006	MTN. Boy	6.82			DPT-07-	13-15		
5994	2/17/21	0907	0006	MTN. Boy	3.94			DPT-08-	0-5		
5995	2/17/21	0916	0006	MTN. Boy	6.18			DPT-08-	5-5.5		
5996	2/17/21	0922	0006	MTN. Boy	6.57			DPT-08-	5.5-5.9		
5997	2/17/21	0931	0006	MTN. Boy	4.36			DPT-08-	10.7-13.5		
5998	2/17/21	0939	0006	MTN. Boy	6.19			DPT-08B-	5.3-6.2		
5999	2/17/21	0950	0006	MTN. Boy	4.99			DPT-08B-	10.0-10.4		
6000	2/17/21	1003	0006	MTN. Boy	5.69			DPT-09-	0-6		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6001	2/17/21	1015	0006	MTN. Boy	6.88	See log book 5 pg 39		DPT-09-10	0-11,1 Lab total Metals		SPLP
6002	2/17/21	1034	0006	MTN. Boy	6.56			DPT-09-11	1.4-15.0		
6003	2/17/21	1042	0006	MTN. Boy	4.72			DPT-10	0-5		
6004	2/17/21	1049	0006	MTN. Boy	4.89			DPT-10	5-5.4		
6005	2/17/21	1102	0006	MTN. Boy	4.33			DPT-10	5.7-6.2		
6006	2/17/21	1119	0003	Humbolt	4.18			DPT-11	0-5		
6007	2/17/21	1127	0003	Humbolt	6.17			DPT-11	5-5.9		
6008	2/17/21	1134	0003	Humbolt	8.36			DPT-11	6.5-7.8		
6009	2/17/21	1142	0003	Humbolt	4.97			DPT-12	0-5		
6010	2/17/21	1256	0003	Humbolt	4.96			DPT-12	5-6.5		
6011	2/17/21	1304	0003	Humbolt	3.69	See log book 5 pg 40		DPT-12	6.5-7.3 Lab total Metals		SPLP
6012	2/17/21	1334	0003	Humbolt	4.08			DPT-12	7.7-8.3		
6013	2/17/21	1347	0003	Humbolt	8.26			DPT-13	0-5		
6014	2/17/21	1356	0003	Humbolt	5.54			DPT-13	5-10		
6015	2/17/21	1407	0003	Humbolt	5.40			DPT-13B	10-10.8		
6016	2/17/21	1425	0003	Humbolt	4.19			DPT-13B	11.2-12		
6017	2/17/21	1432	0003	Humbolt	8.18			DPT-13B	12-13		
6018	2/17/21	1441	0003	Humbolt	6.59			DPT-14	0-5		
6019	2/17/21	1450	0003	Humbolt	7.82			DPT-14	5-10		
6020	2/17/21	1501	0003	Humbolt	7.70	See log book 5 pg 40		DPT-14B	10-15 Lab total Metals		
6021	2/17/21	1520	0003	Humbolt	7.72			DPT-14B	15-16		
6022	2/17/21	1531	0003	Humbolt	7.41			DPT-14B	16.3-18		
6023	2/17/21	1544	0003	Humbolt	8.63			DPT-15	0-4		
6024	2/17/21	1549	0003	Humbolt	8.13			DPT-15	4-4.5		
6025	2/17/21	1555	0003	Humbolt	7.54			DPT-15	4.5-6		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6026	2/17/21	1600	0003	Humboldt	7.64			DPT-15-6-7.2			
6027	2/17/21	1612	0003	Humboldt	8.39			DPT-16-6-4			
6028	2/17/21	1619	0003	Humboldt	6.97			DPT-16-4-4.4			
6029	2/17/21	1625	0003	Humboldt	8.44			DPT-16-4.7-5.0			
6030	2/17/21	1632	0003	Humboldt	8.78			DPT-16-5-6.3			
6031	2/17/21	1644	0003	Humboldt	8.06			DPT-17-6-4			
6032	2/17/21	1650	0003	Humboldt	8.24			DPT-17-4-8			
6033	2/17/21	1657	0003	Humboldt	7.03			DPT-17-8-8.6			
6034	2/17/21	1703	0003	Humboldt	7.98			DPT-17-9-9.5			
6035	2/17/21	1710	0003	Humboldt	8.24			DPT-17-9.5-11			
6036	2/18/21	0852	0003	Humboldt	4.30	see log book 5 pg 43		DPT-18-0-4		HBA	
6037	2/18/21	0907	0003	Humboldt	4.93	see log book 5 pg 43		DPT-18-4-4.6		total metals + SPLP	
6038	2/18/21	0921	0003	Humboldt	4.61			DPT-18-4.9-6.0			
6039	2/18/21	0929	0003	Humboldt	9.20			DPT-19-0-4			
6040	2/18/21	0938	0003	Humboldt	9.17			DPT-19-4-8			
6041	2/18/21	0945	0003	Humboldt	8.82			DPT-19-8-12			
6042	2/18/21	0952	0003	Humboldt	9.24	see log book 5 pg 43		DPT-19-12-12.6		Total metals + SPLP	
6043	2/18/21	1014	0010	Humboldt Minnie Jane	7.53			DPT-20-0-4			
6044	2/18/21	1025	0010	Minnie Jane	5.87			DPT-20-4-8			
6045	2/18/21	1037	0010	Minnie Jane	5.31			DPT-20-8-8.4			
6046	2/18/21	1042	0010	Minnie Jane	8.10			DPT-20-8.8-9.4			
6047	2/18/21	1049	0010	Minnie Jane	8.76			DPT-20-9.4-11			
6048	2/18/21	1100	0010	Minnie Jane	6.87			DPT- 20 21-0-4			
6049	2/18/21	1106	0010	Minnie Jane	7.88			DPT-21-4-8			
6050	2/18/21	1117	0010	Minnie Jane	7.86			DPT-21-8-12			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6051	2/18/21	1123	0010	Minnie Jane	7.34	see log books pg 44		DPT-21-12-13		TOTAL METALS of SPLP	
6052	2/18/21	1143	0010	Minnie Jane	7.74			DPT-22-0-4			
6053	2/18/21	1152	0010	Minnie Jane	5.21			DPT-22-4-8			
6054	2/18/21	1157	0010	Minnie Jane	6.68			DPT-22-8-12			
6055	2/18/21	1203	0010	Minnie Jane	5.31			DPT-22-12-12.2			
6056	2/18/21	1210	0010	Minnie Jane	5.93			DPT-22-12.6-14			
6057	2/18/21	1240	0010	Minnie Jane	4.74			DPT-23-0-4			
6058	2/18/21	1251	0010	Minnie Jane	5.97			DPT-23-4-12			
6059	2/18/21	1258	0010	Minnie Jane	6.14			DPT-23-12-18.4			
6060	2/18/21	1304	0010	Minnie Jane	5.16			DPT-23-12.8-13.5			
6061	2/18/21	1310	0010	Minnie Jane	6.22			DPT-24-0-4			
6062	2/18/21	1317	0010	Minnie Jane	4.25			DPT-24-4-4.6			
6063	2/18/21	1326	0010	Minnie Jane	4.82			DPT-24-4.6-5.6			
6064	2/18/21	1334	0010	Minnie Jane	6.09			DPT-24-8-8.2			
6065	2/18/21	1338	0010	Minnie Jane	7.82			DPT-24-8.5-9.5			
6066	2/18/21	1351	0010	Minnie Jane	7.78			DPT-25-0-0.5			
6067	2/18/21	1357	0010	Minnie Jane	7.66			DPT-25-1.2-1.8			
6068	2/18/21	1403	0010	Minnie Jane	7.61			DPT-25-4-8			
6069	2/18/21	1419	0010	Minnie Jane	4.22	see log books pg 46		DPT-25-8-9.2		TOTAL of SPLP KBA	
6070	2/18/21	1438	0010	Minnie Jane	4.62			DPT-25-9.6-10.8			
6071	2/18/21	1446	0297	Key West	5.69			DPT-26-0-4			
6072	2/18/21	1509	0297	Key West	4.97			DPT-26-4-8			
6073	2/18/21	1516	0297	Key West	5.03			DPT-26-8-12			
6074	2/18/21	1524	0297	Key West	4.90	see log books pg 47		DPT-26-12-12.7		TOTAL of SPLP	
6075	2/18/21	1541	0297	Key West	4.71			DPT-27-0-4			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6076	2/22/21	0910	0297	Key West	5.04			DPT-27-4-5.5			
6077	2/22/21	0942	0297	Key West	8.78			DPT-27-5.5-6.7			
6078	2/22/21	0953	0297	Key West	9.08			DPT-27-8-11			
6079	2/22/21	1011	0297	Key West	9.27	see log book 5 pg 48		DPT-27B-11-13.7		combine w/ next # for sample	
6080	2/22/21	1019	0297	Key West	9.21			DPT-27-8-13.7		total metals, SPLP, HBA ↓	
6081	2/22/21	1045	0297 0297	Key West	3.69	see log book 5 pg 48		DPT-28-0-4		HBA	
6082	2/22/21	1104	0297 0297	Key West	3.35	see log book 4 pg 2		DPT-28-4.0-4.5		total ↓ SPLP	
6083	2/22/21	1118	0297 0297	Key West	3.38			DPT-28-4.8-5.4			
6084	2/22/21	1127	0297	Key West	4.28			DPT-28-5.4-6.6			
6085	2/22/21	1133	0297	Key West	3.68			DPT-29-0-0.2			
6086	2/22/21	1139	0297	Key West	5.76			DPT-29-0.8-2.3			
6087	2/22/21	1148	0297	Key West	3.42			DPT-30-0-0.4			
6088	2/22/21	1155	0297	Key West	4.27			DPT-30-0.8-1.2			
6089	2/22/21	1204	0297	Key West	3.56			DPT-31-0-4			
6090	2/22/21	1210	0297	Key West	3.52	see log book 6 pg 03		DPT-31-4-4.6		total ↓ SPLP	
6091	2/22/21	1219	0297	Key West	4.76			DPT-31-5-6.2			
6092	2/22/21	1321	0285	Burlington	4.03	see log book 6 pg 04		DPT-32-0-4		total ↓ SPLP	
6093	2/22/21	1332	0285	Burlington	6.41			DPT-32-4-4.5 4			
6094	2/22/21	1339	0285	Burlington	6.23			DPT-32-4.5-6.5			
6095	2/22/21	1349	0285	Burlington	5.60			DPT-33-0-4			
6096	2/22/21	1355	0285	Burlington	5.13	see log book 6 pg 03		DPT-33-4-8.4		total, SPLP ↓ HBA	
6097	2/22/21	1407	0285	Burlington	5.24			DPT-33-8.7-10.7			
6098	2/22/21	1417	0285	Burlington	4.92			DPT-34-0-0.3			
6099	2/22/21	1422	0285	Burlington	5.72			DPT-34-0.9-3			
6100	2/22/21	1431	0285	Burlington	4.48	see log book 6 pg 04		DPT-35-0-1.2		HBA	

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6101	2/22/21	1436	0285	Burlington	4.76			DPT-35-1.5-1.8			
6102	2/22/21	1442	0285	Burlington	5.44	see logbook p. 11	MS	DPT-35-4-8			
6103	2/22/21	1602	0285	Burlington	4.41			DPT-36-0-0.6			
6104	2/22/21	1609	0285	Burlington	4.25			DPT-36-0.6-1.9			
6105	2/22/21	1613	0285	Burlington	4.65			DPT-36-4-4.6			
6106	2/22/21	1619	0285	Burlington	5.50	see logbook p. 5		DPT-36B-0-1.3		Total of SPLP	
6107	2/22/21	1628	0285	Burlington	4.93			DPT-36B-1.5-5.0			
6108	2/22/21	1648	0246	Independent	5.14			DPT-37-4-8			
6109	2/22/21	1654	0246	Independent	6.02	see logbook p. 05		DPT-37-8-12		Total of SPLP	
6110	2/22/21	1705	0246	Independent	5.32			DPT-37-12-12.2			
6111	2/22/21	1708	0246	Independent	4.35			DPT-37-12.6-12.8			
6112	2/22/21	1715	0246	Independent	4.09			DPT-37-12.8-15			
6113	2/24/21	0847	0246	Independent	6.16			DPT-38-0-4			
6114	2/24/21	0906	0246	Independent	5.20			DPT-38-4-6.6			
6115	2/24/21	0910	0246	Independent	5.73			DPT-38-8-8.8			
6116	2/24/21	0917	0246	Independent	4.26			DPT-38-12-13.2			
6117	2/24/21	0924	0246	Independent	4.87			DPT-39-0-4			
6118	2/24/21	0929	0246	Independent	5.33			DPT-39-4-4.8			
6119	2/24/21	0936	0246	Independent	4.96	see logbook p. 27		DPT-39-0-4.8		Total of SPLP, ABX	
6120	2/24/21	0950	0246	Independent	4.79			DPT-39-8-10			
6121	2/24/21	1010	0246	Independent	4.66			DPT-40-0-4			
6122	2/24/21	1014	0246	Independent	3.92			DPT-40-4-8			
6123	2/24/21	1019	0246	Independent	4.49	see logbook p. 3		DPT-40-8-8.7		Total of SPLP	
6124	2/24/21	1027	0246	Independent	4.59			DPT-40-9-9.4			
6125	2/24/21	1030	0246	Independent	4.40			DPT-41-0-1			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6126	2/24/21	1105	1150	Gen Wash	5.24			DPT-42-0-4			
6127	2/24/21	1111	1150	Gen Wash	6.04			DPT-42-4-8			
6128	2/24/21	1115	1150	Gen Wash	5.53			DPT-42-8-12			
6129	2/24/21	1119	1150	Gen Wash	5.65			DPT-42-12-16			
6130	2/24/21	1127	1150	Gen Wash	4.77			DPT-42B-12-16			
6131	2/24/21	1132	1150	Gen Wash	4.26			DPT-42B-16-20			
6132	2/24/21	1135	1150	Gen Wash	4.44			DPT-42B-20-20.5			
6133	2/24/21	1140	1150	Gen Wash	4.33	See log book 4 pg 9		DPT-42B-16-20.5		Total SPLP MBA	
6134	2/24/21	1152	1150	Gun. Wash	4.78			DPT-42B-20.5-22			
6135	2/24/21	1300 1303	0015	Milwaukee	6.02			DPT-43-0-4			
6136	2/24/21	1303	0015	Milwaukee	7.28			DPT-43-4-5			
6137	2/24/21	1308	0015	Milwaukee	6.86			DPT-43-5-5.5			
6138	2/24/21	1313	0015	Milwaukee	6.97			DPT-43-8-8.7			
6139	2/24/21	1316	0015	Milwaukee	8.53			DPT-43-8.7-9.7			
6140	2/24/21	1320	0015	Milwaukee	8.30			DPT-43-9.7-10.8			
6141	2/24/21	1324	0015	Milwaukee	7.06			DPT-43 DPT-44-0-4			
6142	2/24/21	1329	0015	Milwaukee	7.58			DPT-44-4-8			
6143	2/24/21	1333	0015	Milwaukee	7.80			DPT-44-8-12			
6144	2/24/21	1338	0015	Milwaukee	7.91			DPT-44-12-12.5			
6145	2/24/21	1343	0015	Milwaukee	7.06			DPT-44-13-14.3			
6146	2/24/21	1351	0015	Milwaukee	6.32			DPT-45-0-4			
6147	2/24/21	1356	0015	Milwaukee	7.82			DPT-45-4-4.8 DPT-45-4-8			
6148	2/24/21	1404	0015	Milwaukee	8.05			DPT-45-8-8.7			
6149	2/24/21	1411	0015	Milwaukee	5.06			DPT-45-9-9.3			
6150	2/24/21	1414	0015	Milwaukee	6.31			DPT-45-9.3-9.7			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6151	2/24/21	1421	0015	Milwaukee	7.78			DPT-46-0-4			
6152	2/24/21	1427	0015	Milwaukee	8.26			DPT-46-4-8			
6153	2/24/21	1431	0015	Milwaukee	7.95			DPT-46-8-9,2			
6154	2/24/21	1435	0015	Milwaukee	5.95			DPT-46-9.5-10.1			
6155	2/24/21	1440	0015	Orphan Bay	6.51			DPT-47-0-4			
6156	2/24/21	1444	0016	Orphan Bay	4.86			DPT-47-4-4.8			
6157	2/24/21	1446	0016	Orphan Bay	4.76			DPT-47-5.2-5.9			
6158	2/24/21	1451	0016	Orphan Bay	6.76			DPT-47-8-12			
6159	2/24/21	1503	0016	Orphan Bay	4.59			DPT-48-0-4			
6160	2/24/21	1506	0016	Orphan Bay	5.69			DPT-48-4-8			
6161	2/24/21	1510	0016	Orphan Bay	5.98			DPT-48-8-12			
6162	2/24/21	1513	0016	Orphan Bay	3.99	See log book p. 12		DPT-48-12-12.7	Total, SPLP, ABV		
6163	2/24/21	1525	0016	Orphan Bay	3.87			DPT-48-13-14.7			
6164	2/26/21	0940	0016	Orphan Bay	8.83			DPT-49-0-4			
6165	2/26/21	0951	0016	Orphan Bay	11.17			DPT-49-4-8			
6166	2/26/21	0959	0016	Orphan Bay	9.28	See log book p. 13		DPT-49-8-12	Total Metals		
6167	2/26/21	1008	0016	Orphan Bay	7.26			DPT-49-12-12.7			
6168	2/26/21	1013	0016	Orphan Bay	6.42			DPT-49-13.2-13.7			
6169	2/26/21	1022	0016	Orphan Bay	4.95	See log book p. 13		DPT-50-0-1.3			
6170	2/26/21	1035	0016	Orphan Bay	4.46			DPT-50-5-7.5			
6171	2/26/21	1105	0013	George Wade	5.41			DPT-51-0-4			
6172	2/26/21	1114	0013	George Wade	5.22			DPT-51-4-8			
6173	2/26/21	1120	0013	George Wade	4.20			DPT-51-8-12			
6174	2/26/21	1125	0013	George Wade	4.68			DPT-51-12-12.3			
6175	2/26/21	1131	0013	George Wade	4.37			DPT-51-12.6-13.8			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6176	2/26/21	1135	1150	Gen. Wash	4.60			DPT-52-0-4			
6177	2/26/21	1139	1150	Gen. Wash.	5.24			DPT-52-4-8			
6178	2/26/21	1142	1150	Gen. Wash	4.41			DPT-52-8-12			
6179	2/26/21	1147	1150	Gen. Wash	3.94			DPT-52-12-12.3			
6180	2/26/21	1152	1150	Gen. Wash	5.59			DPT-52-12.7-13.5			
6181	2/26/21	1202	1150	Gen. Wash	6.43			DPT-52-13.5-15			
6182	2/26/21	1211	1150	Gen. Wash	5.55			DPT- 53 0-4 ms 53-0-4			
6183	2/26/21	1216	1150	Gen. Wash	4.53			DPT-53-4-8			
6184	2/26/21	1222	1150	Gen. Wash	4.96			DPT-53-8-12			
6185	2/26/21	1228	1150	Gen. Wash	5.52			DPT-53-16-20			
6186	2/26/21	1233	1150	Gen. Wash	5.70	See log book pg 15		DPT-53-20-24		total of SPLP	
6187	2/26/21	1243	1150	Gen. Wash	6.01			DPT-53-24-24.4			
6188	2/26/21	1252	1150	Gen. Wash	5.05			DPT-53-24.9-26			
6189	3/1/21	0934	0288	Nettie	4.36	See log book pg 16		DPT-54-0-4		total of SPLP & PBP	
6190	3/1/21	0954	0288	Nettie	6.70			DPT-54-4.9-6.2			
6191	3/1/21	1005	0288	Nettie	5.41			DPT- 55 0-0.8 DPT-55-0-0.8			
6192	3/1/21	1013	0288	Nettie	4.89			DPT-55-4-6			
6193	3/1/21	1018	0288	Nettie	5.68			DPT-56-0-1.1			
6194	3/1/21	1022	0288	Nettie	4.92			DPT-56-1.1-1.6		} combined below.	
6195	3/1/21	1032	0288	Nettie	5.23	See log book pg 17		DPT-56-0-1.6		total of SPLP & PBP	
6196	3/1/21	1046	0288	Nettie	4.97			DPT-56-4.5-6			
6197	3/1/21	1058	0288	Nettie	6.07	See log book pg 17		DPT-57-0-0.7		total of SPLP	
6198	3/1/21	1114	0288	Nettie	5.04			DPT-57-0.7-0.9			
6199	3/1/21	1125	0288	Nettie	4.85			DPT-58-0-4			
6200	3/1/21	1131	0288	Nettie	4.76			DPT-58-4-8			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6201	3/1/21	1137	0288	Nettle	5.19			DPT-58-	8-12		
6202	3/1/21	1314	0289	Hibernia	5.07			DPT-59-	0-4		
6203	3/1/21	1319	0289	Hibernia	5.11			DPT-59-	4-4.7		
6204	3/1/21	1324	0289	Hibernia	4.97			DPT-59-	4.7-5.2		
6205	3/1/21	1330	0289	Hibernia	4.20			DPT-59-	5.2-5.7		
6206	3/1/21	1342	0289	Hibernia	4.45			DPT-59-	8.5-8.8		
6207	3/1/21	1351	0289	Hibernia	4.52			DPT-59-	8.8-9.3		
6208	3/1/21	1405	0289	Hibernia	4.55			DPT-59-	12-12.3		
6209	3/1/21	1416	0289	Hibernia	4.97			DPT-59-	12.6-14		
6210	3/1/21	1428	0289	Hibernia	5.68			DPT-60-	0-4		
6211	3/1/21	1434	0289	Hibernia	4.56			DPT-60-	4-4.6		
6212	3/1/21	1441	0289	Hibernia	4.38			DPT-60-	4.6-4.8		
6213	3/1/21	1454	0289	Hibernia	4.25			DPT-60-	4.8-5		
6214	3/1/21	1500	0289	Hibernia	4.67			DPT-60-	5-5.8		
6215	3/1/21	1506	0289	Hibernia	4.77			DPT-60-	8-12		
6216	3/1/21	1512	0289	Hibernia	4.93	see logbook v pg 19		DPT-60-	12-12.8	total of SPLP	
6217	3/1/21	1522	0289	Hibernia	5.16			DPT-60-	13.3-14		
6218	3/1/21	1527	0246	Independent	5.81			DPT-37-	0-4		
6219	3/1/21	1538	0246 0162	Margaret Ann	7.82			DPT-61-	0-4		
6220	3/1/21	1542	0162	Margaret Ann	8.02			DPT-61-	4-8		
6221	3/1/21	1547	0162	Margaret Ann	7.32			DPT-61-	8-12		
6222	3/1/21	1557	0162	Margaret Ann	7.22			DPT-61-	12-12.3		
6223	3/1/21	1606	0162	Margaret Ann	6.82			DPT-61-	12.7-12.9		
6224	3/1/21	1612	0162	Margaret Ann	7.57			DPT-61-	12.9-14.4		
6225	3/1/21	1628	0162	Margaret Ann	8.50			DPT-62-	0-4		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6226	3/1/21	1634	0162	Marget Ann	5.92			DPT-62-4-8			
6227	3/1/21	1639	0162	Marget Ann	7.10			DPT-62-8-12			
6228	3/1/21	1654	0162	Marget Ann	6.59	See logbook pg 20		DPT-62-0-4		Total SPLP	
6229	3/1/21	1707	0162	Marget Ann	7.10			DPT-62-16.4-16.8			
6230	3/1/21	1718	0162	Marget Ann	7.08			DPT-62-16.8-17.4			
6231	3/2/21	0842	0162	Marget Ann	8.39			DPT-63-0-4			
6232	3/2/21	0846	0162	Marget Ann	8.31			DPT-63-4-8			
6233	3/2/21	0849	0162	Marget Ann	8.42	See logbook pg 21		DPT-63-8-12		total	
6234	3/2/21	0900	0162	Marget Ann	8.55			DPT-63-12-16			
6235	3/2/21	0905	0162	Marget Ann	9.23			DPT-63-16-20			
6236	3/2/21	0909	0162	Marget Ann	7.66			DPT-63-20.4-22.2			
6237	3/2/21	0919	0162 ⁰¹³⁸	Marget Ann ^{Glengarry}	8.54			DPT-64-0-4			
6238	3/2/21	0927	0138	Glengarry	8.03			DPT-64-4-12			
6239	3/2/21	0932	0138	Glengarry	6.92	See logbook pg 22		DPT-64-12-12.8		total	
6240	3/2/21	0944	0138	Glengarry	8.82			DPT-65-0-4			
6241	3/2/21	0949	0138	Glengarry	6.78			DPT-65-4-8			
6242	3/2/21	0956	0138	Glengarry	6.44			DPT-65-8-12			
6243	3/2/21	1000	0138	Glengarry	6.78	7.98		DPT-65-12-13.1			
6244	3/2/21	1005	0138	Glengarry	5.56			DPT-66-0-4			
6245	3/2/21	1014	0138	Glengarry	5.94			DPT-66-4-8			
6246	3/2/21	1019	0138	Glengarry	5.37	See logbook pg 23		DPT-66-8-9.5		Total + SPLP + ABA	
6247	3/2/21	1035	0179	Eagle	3.55			DPT-67-0-4			
6248	3/2/21	1041	0179	Eagle	3.68			DPT-67-4.2-6.2			
6249	3/2/21	1045	0179	Eagle	3.71			DPT-68-0-0.2			
6250	3/2/21	1049	0179	Eagle	3.49			DPT-68-0.7-2.0			

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6251	3/2/21	1207	0179	Eagle	3.41				DPT-69-0-4		
6252	3/2/21	1215	0179	Eagle	3.07	logbook # 4 pg 23-24			DPT-69-4-5.4	total, S	PUP, HBA
6253	3/2/21	1227	0179	Eagle	3.73				DPT-69-5.7-6.3		
6254	3/2/21	1235	0179	Eagle	3.52 ⁵	3.53			DPT-70-0-4		
6255	3/2/21 3/2/21	1240	0179	Eagle	3.21				DPT-70B-0-4		
6256	3/2/21	1245	0179	Eagle	3.28	logbook # 6 pg 24			DPT-70B-4-4.3	total	metals
6257	3/2/21	1253	0179	Eagle	3.47				DPT-70B-4.9-6.2		
6258	3/2/21	1302	0179	Eagle	3.42				DPT-71-0-0.7		
6259	3/2/21	1307	0179	Eagle	3.65				DPT-71-1.2-2.1		
6260	3/2/21	1309	0017	Kit Carson	8.09				DPT-72-0-4		
6261	3/2/21	1313	0017	Kit Carson	8.71				DPT-72-4-8		
6262	3/2/21	1318	0017	Kit Carson	8.13				DPT-72-8-8.1		
6263	3/2/21	1323	0017	Kit Carson	8.36				DPT-72-8.6-9.6		
6264	3/2/21	1327	0017	Kit Carson	2.97				DPT-73-0-4		
6265	3/2/21	1334	0017	Kit Carson	4.64				DPT-73-4-5.3		
6266	3/2/21	1340	0017	Kit Carson	6.43				DPT-73-5.7-6		
6267	3/2/21	1346	0017	Kit Carson	9.04				DPT-74-0-4		
6268	3/2/21	1349	0017	Kit Carson	9.17				DPT-74-4-8		
6269	3/2/21	1353	0017	Kit Carson	9.20				DPT-74-8-12.4		
6270	3/2/21	1356	0017	Kit Carson	8.18				DPT-74-12.8-14		
6271	3/2/21	1417	0315	GFB Garibaldi	4.56				DPT-75-0-4		
6272	3/2/21	1421	0315	Garibaldi	5.45	logbook see logbook pg 25			DPT-75-4-8		
6273	3/2/21	1430 ^{H28}	0315	Garibaldi	5.40				DPT-75-8-8.8		
6274	3/2/21	1433	0315	Garibaldi	5.57				DPT-75-9-9.3		
6275	3/2/21	1438	0315	Garibaldi	5.68				DPT-76-0-4		

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6276	3/2/21	1505	0315	Garibaldi	8.62				DPT-76-4-4.3		
6277	3/2/21	1510	0315	Garibaldi	9.22				DPT-76-4.7-6.8		
6278	3/2/21	1518	0315	Garibaldi	5.86				DPT-77-0.4		
6279	3/2/21	1528	0315	Garibaldi	4.71				DPT-77-4.3 ⁵		
6280	3/2/21	1535	0315	Garibaldi	5.06	See Log book pg 26			DPT-77-0-4.3		
6281	3/2/21	1557	0315	Garibaldi	8.35				DPT-77-4.6-6.3		
6282	3/2/21	1600	0315	Garibaldi	4.56				DPT-78-0-4		
6283	3/2/21	1606	0315	Garibaldi	4.24				DPT-78-4-5.3		
6284	9/20/21	1105	1045	Tzarana	—		Vegetated area			N	N
6285	9/20/21	1130	0002	Portland	9.01		X		8 point	N	L
6286	9/20/21	1200	0003	Humbolt	6.52	X			5 point	H	L
6287	9/20/21	1220	0003	Humbolt	7.21	X			10 point	L	L
6288	9/20/21	1240	0003	Humbolt	7.82				grab PH	M	M
6289	9/20/21	1250	0003	Humbolt	—		bed rock	area	—	H	M
6290	9/20/21	1310	0002	Portland	5.62	X			5 point	L	L
6291	9/20/21	1430	0003	Humbolt	6.12	X			5 point	L	L
6292	9/20/21	1440	0003	Humbolt	6.65				grab PH	L	L
6293	9/20/21	1455	0003	Humbolt	—		Natural feature		—	MIS E/N	MIS E/N
6294	9/20/21	1530	0003	Humbolt	5.35	X	X		7 point	L	N
6295	9/20/21	1600	0006	MTV Boy	6.29	X			5 point	L	N
6296	9/20/21	1620	0006	MTV Boy	5.76	X			5 point	H	M
6297	9/20/21	1630	0006	MTV Boy	—		Natural feature		—	L	N
6298	9/21/21	0845	0040	Elba	5.85	X			5-point	L	N
6299	9/21/21	0855	0040	Elba	5.95	X			Grab	N	N
6300	9/21/21	0900	0040	Elba	5.57				grab PH	N	N

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6301	9/21/21	0910	0001	Katie T.	-			Natural feature	-	N	N
6302	9/21/21	0940	0010	Minnie Jane	5.83	X	Dup	X/ABA	8 point	H	M
6303	9/21/21	1000	0010	Minnie Jane	5.61	X			3-point	H	L
6304	9/21/21	1005	0010	Minnie Jane	-			Natural feature	-	N	L
6305	9/21/21	1010	0010	Minnie Jane	5.59				Grab PH	H	H
6306	9/21/21	1020	0010	Minnie Jane	8.11	X			5-point	N	N
6307	9/21/21	1025	0010	Minnie Jane	7.71				3-point Grab PH	N	N
6308	9/21/21	1035	0010	Minnie Jane	7.50	X			3-point	L	M
6309	9/21/21	1125	0013	Georgie	7.46	X			Grab	L	M
6310	9/21/21	1135	0013	Georgie	8.39	X			5-point	N	N
6311	9/21/21	1145	0013	Georgie	8.51	X			3-point	N	N
6312	9/21/21	1150	0013	Georgie	-			Asphalt	-	-	-
6313	9/21/21	1200	0013	Georgie	8.36			X & dup	10-point	L	L
6314	9/21/21	1240	0013	Georgie	6.99	X			10 point	N	N
6315	9/21/21	1255	0014	Cuprate	7.52	X			3 point	N	N
6316	9/21/21	1300	0015	Milwaukee	-			Natural feature	-	N	N
6317	9/21/21	1315	0016	Orphan Boy	6.02	X			5-point	M	M
6318	9/21/21	1325	0016	Orphan Boy	3.94	X			Grab	M	H
6319	9/21/21	1330	0016	Orphan Boy	5.96				3-point Grab PH	M	M
6320	9/21/21	1335	0016	Orphan Boy	6.46	X			5 point	N	N
6321	9/22/21	8:40	0016	" "	7.85	X			5-Point	L	H
6322	9/22/21	8:50	0016	" "	7.98				Grab PH	L	H
6323	9/22/21	9:05	0016	" "	8.25	X			Grab	N	L
6324	9/22/21	9:10	0016	" "	N/A			Natural feature			
6325	9/22/21	9:20	0016	" "	7.13		X		5-Point	L	H

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6326	9/22/21	9:50	0017	K. + Conson	6.23	X			3-Point	None	High
6327	9/22/21	1150	0015	Milwaukee	8.26	X			3 point	N	N
6328	9/22/21	1200	0015	Milwaukee	7.84	X			5 point	N	N
6329	9/22/21	1235 1230 mss	0300	Tom Nancy	-		Natural Feature		-	-	-
6330	9/22/21	1240	0311	Little Gem	5.23	X			3 point	L	M
6331	9/22/21	1310	0319	Nile	-		Natural Feature		-	-	-
6332	9/22/21	1330	0319	Nile	8.61		X		5 point	L	M
6333	9/22/21	1350	0315	Garibaldi	8.26	X			Grab	L	M
6334	9/22/21	1400	0315	Garibaldi	-		Natural Feature		-	-	-
6335	9/22/21	1410	0315	Garibaldi	6.46	X			5-point	L	M
6336	9/22/21	1420	0315	Garibaldi	7.61			pH	8-point	L	M
6337	9/23/21	0845	0296	Philadelphia	6.26	X	X		5 point	H	N
6338	9/23/21	0910	0296	Philadelphia	5.82				grab pH	H	L
6339	9/23/21	0915	0296	Philadelphia	5.89				grab pH	L	L
6340	9/23/21	0920	0296	Philadelphia	5.13	X			3-point	L	L
6341	9/23/21	0935	1150	Gen. Wash	5.74	X			5-point	L	N
6342	9/23/21	0950	0015	Milwaukee	-		Natural Feature		-	-	-
6343	9/23/21	0955	0015	Milwaukee	6.74	X			8-point	L	L
6344	9/23/21	1015	0015	Milwaukee	8.61	X			5-point	L	L
6345	9/23/21	1020	0015	Milwaukee	6.88				grab pH	L	H
6346	9/23/21	1030	0015	Milwaukee	7.07		X		5 point	H	M
6347	9/23/21	1045	0015	Milwaukee	6.42	X	X		10 point	M	M
6348	9/23/21	1125	0301	Self Rising	7.14	X			5 point	N	L
6349	9/23/21	1140	0015	Milwaukee	5.25	X			5 point	H	H
6350	9/23/21	1155	0301	Self Rising	8.08	X			5 point	N	M

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6351	9/23/21	1245	0296	Philadelphia	5.63	X			10-point	M	L
6352	9/23/21	1300	0296	Philadelphia	3.48	X			5 point	L	H
6353	9/23/21	1315	0296	Philadelphia	7.94	X			5 point	H	H
6354	9/23/21	1330	0296	Philadelphia	6.04	X			5 point	H	H
6355	9/23/21	1310	0289	Hiburnia	-			Natural feature		-	-
6356	9/23/21	1345	0289	Hiburnia	7.97	X			5 point	M	H
6357	9/23/21	1400	0288	Nettie	5.34	X			7 point	H	L
6358	9/23/21	1410	0288	Nettie	5.07	X			5 point	L	M
6359	9/23/21	1440	0297	Key West	4.14	X			Grab		
6360	9/23/21	1445	0297	Key West	-			Natural feature		-	-
6361	9/23/21	1520	0290	Horse shoe	7.80	X			Grab	L	L
6362	9/23/21	1535	0296	Philadelphia	5.38	X			10 point	H	M
6363	9/23/21	1550	0296	Philadelphia	5.87	X			3 point	H	L
6364	9/27/21	0905	0285	Burlington	5.02	X			3 Point	L	M
6365	9/27/21	0915	0285	Burlington	5.29	X			5 Point	M	M
6366	9/27/21	9:30	0285	" "	5.61				10-Point	L	L
6367	9/27/21	9:40	0285	" "	-			Natural Feature		-	-
6368	9/27/21	9:50	" "	" "	5.58				12-Point	L	L
6369	9/27/21	10:05	" "	" "	-			Natural Feature		-	-
6370	9/27/21	10:15	0299	Fedonia	8.49	X			5-Point	L	M
6371	9/27/21	10:35	" "	" "	7.02	X			Grab	M	H
6372	9/27/21	10:45	" "	" "	4.76	X			6-Point	L	L
6373	9/27/21	11:25	0285	Burlington	-			Natural Feature		-	-
6374	9/27/21	11:30	0285	Burlington	-			Natural Feature		-	-
6375	9/27/21	11:35	0285	Burlington	-			Natural Feature		-	-

SOIL SAMPLE NUMBERS for PIONEER SAMPLES at WSSOU

SAMPLE #	DATE USED	TIME	CDM CLAIM #	MINING CLAIM NAME	SOIL pH	XRF	Metals	SPLP/ Other	Sample Type	Mn staining	Fe staining
6376	9/27/21	11:40	0285	Burlington	—	Natural		Feature	—	—	—
6377	9/27/21	12:35	0246	Independent	6.39	X			5-Point	L	L
6378	9/27/21	16:15	1116	Conc. Plover	7.17			SPLP/ABA	5-Point	L	L
6379	9/27/21	16:30	1116	Conc. Plover	5.95	X			5-Point	M	L
6380	9/27/21	16:35	1116	Conc. Plover	5.76	X			Grab	L	M
6381	9/28/21	8:55	1072	Spur	6.31	X			5-Point	H	M
6382	9/28/21	9:08 ¹⁰	1072	Spur	5.49	X			5-Point	H	M
6383	9/28/21	9:15	1072	Spur	3.38	X			5-Point	L	H
6384	9/28/21	9:20	1072	Spur	6.97				Grab (pH)	H	M
6385	9/28/21	9:25	1072	Spur	4.93	X	X		8-Point	H	H
6386	9/28/21	9:35	1072	Spur	3.87				Grab (pH)	L	H
6387	9/28/21	9:40	1072	Spur	8.11	X			Grab	L	L
6388	9/28/21	9:45	1072	Spur	—	Natural		Feature	—	—	—
6389	9/28/21	9:50	1072	Spur	5.34	X			5-Point	M	H
6390	9/28/21	9:55	1072	Spur	5.04	X			3-Point	H	L
6391	9/28/21	10:00	1072	Spur	—	Natural		Feature	—	—	—
6392	9/28/21	10:10	1072	Spur	7.21	X			3-Point	L	H
6393	9/28/21	10:15	1072	Spur	4.69	X ^{ED}			Grab (pH)	H	M
6394	9/28/21	10:20	1016	Eagle Bird	7.47	X			5-Point	NA	NA
6395	9/28/21	10:30	1016	Eagle Bird	—	Natural		Feature	—	—	—
6396	9/28/21	10:40	1016	Eagle Bird	5.42	X			4-Point	H	M
6397	9/28/21	11:50	1111	Lizzie	7.53	X			5-Point	NA	M
6398	9/28/21	12:00	1111	Lizzie	5.58	X			5-Point	NA	M
6399	9/28/21	12:10	1111	Lizzie	3.81		X		Grab	NA	NA
6400	9/28/21	12:15	1111	Lizzie	7.21				Grab (pH)	NA	M

APPENDIX C.3

Copies of FPXRF Field Data Sheets

42951

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2019
 (Soil sample depth is 0-2 inches)

10-23-19

Ag?

Sample ID	XRF Results (in ppm)					Soil pH (s.u.)	Mn Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn			
SYSTEM CHECK							RES 170.9	132
S102	23	10	214	24	27		STD	134
NIST 2709	11	28	34	12	93		STD	135
1045-505027	257	28	29	473	172	4.63	2750 9	136
1045-505028	197	28	105	397	366	4.70	6183 29	137
1045-505029	187	29	55	596	749	6.61	57.5K 99	138
1045-505030	66	27	372	274	485	8.92	1345 <5	139
0003-505031	69	9	59	573	2386		60.1K <7	140
0003-505032	13	28	57	62	110		1338 <6	141 REF
505032R	14	9	62	66	123		1332 <6	142 DUP
505032D	23	28	74	62	148		1713 <6	143
RCRA	436	475	19	464	50		104 STD	144
System Check							Res 172.0	145
S102	23	11	213	24	28		230 STD	146
AK-2709	45	15	193	744	688		747 STD	147
0003-505036	102	28	109	228	420	5.82	28.0K 42	148
0043-505037	48	28	55	116	251	9.15	8982 <6	149
0003-505038	57	28	152	234	333	6.30	6022 7	150
0003-505040	20	28	56	57	156	8.74	2957 <6	151
0043-505042	63	28	40	981	2206	8.83	31.8K <6	152
0003-505043	90	10	135	522	850	4.70	23.6K 68	153

uses

miss labeled XRF as 0043

stopped sample

S102-102319c 23 10 214 24 27 232 25

10-24-19

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2019
 (Soil sample depth is 0-2 inches)

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
SYSTEM CHECK									RES 169.5	155
S102	23	12	214	24	27	51	25			156
RCRApp	447	474	218	476	47	125	477			157
0003-S05048	99	28	145	401	757	24.0K	56	4.87		158
0003-S05049	94	28	112	292	645	11.4K	71	4.60		159
0003-S05051	211	8	77	189	701	12.2K	<6	5.66		160
0003-S05052	264	10	57	268	608	43.1K	10	5.68		161
NIST 2709	10	10	22	14	85	487	<6			162
System Check									Res 174.8	163
S102	23	10	213	25	27	230	25			164
USGS	64	14	197	762	660	789	20			165
0040-S05053	154	12	145	1220	1203	28.8K	83	5.27		166
0040-S05055	115	29	137	1186	2160	46.8K	44	5.82		167
0040-S05059	156	12	198	1193	2184	42.8K	54	5.52		168
0040-S05060	109	10	87	604	1256	19.6K	30	5.52 BK	294	169
0040-S05061	318	28	146	1320	693	28.1K	46	4.13		170
0040-S05062	125	28	92	825	1357	27.3K	33	4.13 BK	4.49	171
0040-S05062R	129	29	91	834	1387	27.5K	40			172
0040-S05062D	131	13	98	869	2625	30.3K	38			173
RCRA	437	476	24	464	45	120	466			174

RUN ON 10-28-19
UNIT 92951

West Side Soils OU, Waste Rock Dump Samples
Field XRF and Soil pH Results, 2019
(Soil sample depth is 0-2 inches)

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Check									166.5, 56.4 sec	175
0. SiO ₂	23	13	214	24	28	230	7			176
VSGS	58	11	203	810	728	798	20			177
0040-So5064	164	11	265	1425	815	11.7K	1052	4.92		178
0040-So5069	180	13	282	1908	1472	22.1K	86	4.97		179
0040-So5072	253	13	403	1409	2383	111.7K	188	7.70		180
0040-So5074	361	11	246	1971	891	17.0K	106	5.61		181
0040-So5076									3.7 sec. ReRun	182
0040-So5076	175	28	195	719	851	50.1K	44	5.08		183
0040-So5080	76	15	97	903	2715	27.9K	39	4.70		184
0043-So5081	145	11	148	768	865	46.5K	109	5.66		185
0043-So5083	65	29	157	419	965	45.7K	50	8.22		186
0043-So5085	168	29	394	889	373K	1394	68	5.98	Zn + Mn ↑	187
0043-So5086	54	29	94	401	1555	41.2K	54	8.11		188
0043-So5087	225	29	472	716	1060	45.0K	60	6.05		189
0005-So5011	74	8	124	70	211	5981	26	7.92	20	190
0005-So5088									ReRun **staged	191
0005-So5088	179	28	124	194	487	40.1K	27	7.93		192
0040-So5073	179	14	113	3626	1229	7305	56	6.62		193
0005-So5090	249	28	94	114	220	5914	6	6.46		194
0006-So5093	96	28	95	262	754	8255	25	5.34		195
0043-So5094	67	28	101	268	600	22.0K	38	7.55		196
0043-So5094 Rep	81	28	89	260	625	22.1K	43			197
0043-So5094 Dup	80	28	117	297	639	24.1K	37			198
NIPT	8	28	36	13	97	491	26			199

West Side Soils OU, Wa. Rock Dump Samples
 Field XRF and Soil pH Results, 2019
 (Soil sample depth is 0-2 inches)

11-11-19

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System check									170.5, 56.3	369
System check									145.7, 56.3	370
SiO ₂	23	7	214	25	28	56	25			371
RCRA	447	489	23	459	54	116	466			372
0021-So5001	22	9	61	37	58	1522	25	5.95		373
0017-So5005	430	17	92	2336	2271	12.8K	26	5.30		374
0010-So5026	277	10	243	4760	1421	5344	134	4.80		375
0010-So5187	196	11	66	1466	556	3443	40	3.97	LAB	376
0019-So5192	117	28	36	485	205	5911	18	4.47		377
0019-So5193	93	28	33	289	242	4592	13	5.91		378
0017-So5194	66	27	93	113	247	1533	25	5.79		379
0015-So5197	158	18	169	472	6071	9385	23	8.07		380
0015-So5200	159	18	43	4794	3448	5032	20	4.87		381
0015-So5204	142	28	57	3649	2656	2333	21	4.49	LAB	382
0015-So5204 Rep	132	10	67	3661	2709	2502	25			383
2015-So5204 Dup	143	10	54	3534	3789	2370	26			384
NIET	7	28	32	18	69	451	26			385

New Battery

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2019
 (Soil sample depth is 0-2 inches)

11-15-19

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Check									168.3, 56.3	386
SiO ₂	23	8	213	24	28	41	6			387
RCRA	425	480	218	459	49	115	498			388
0289-S05007	86	13	49	2167	2839	20.1K	52	6.60		389
0289-S05012	197	27	218	455	529	1355	13	8.23		390
0290-S05018	164	16	85	3295	2345	595	77	3.56		391
0290-S05019	138	17	74	2199	3566	16.7K	50	6.45		392
0290-S05206	229	16	68	3891	1646	797	42	3.72		393
0292-S05211	146	29	428	440	185	350	24	2.49		394
0292-S05214	15	28	72	83	86	351	26	6.46		395
0292-S05214 Rep	15	28	69	80	89	350	26			396
0292-S05214 Dup	19	27	71	75	90	403	26			397
USGS	77	17	186	789	739	279	17			398
System Check									168.9, 56.4	399
SiO ₂	23	14	213	24	28	49	25			400
NIST	9	28	31	11	92	457	26			401
0288-S05215	52	28	219	878	1707	19.4K	40	7.18		402
0288-S05217	132	27	32	2888	626	337	209	2.59		403
0297-S05218	141	23	80	3681	4765	13.3K	125	5.78		404
0297-S05220	117	13	53	2259	1835	9283	58	6.33		405
0297-S05221	61	13	20	60	870	1846	10	5.07		406
0288-S05223	299	9	38	436	355	2624	36	6.87		407
0288-S05224	116	9	121	2796	1677	3754	104	5.06		408
0288-S05226	16	27	216	25	44	480	25	9.19		409
0288-S05227	47	27	25	100	86	748	6	8.53		410
0288-S05231	112	27	215	42	143	1291	26	9.01		411
0288-S05234	572	8	32	465	334	4847	19	8.57		412
0286-S05236	29	28	219	16	95	1790	26	7.50		413
0286-S05236 Rep	26	28	28	12	92	1814	26			414
0286-S05236 Dup	25	28	21	13	98	1738	26			415
RCRA	429	494	219	461	50	127	482			416

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020
 (Soil sample depth is 0-2 inches)

Analysis Date: 5/12/20
 Operator: Cole/Molly
 XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System check								Time 56.4 s	Res 166.4	510
SiO ₂	<3	13	<15	<4	<8	<32	<5			511
NIST 2709	8	9	32	14	96	410	<6			512
0297-505238-051220	118	9	61	1578	1250	3904	41			513
0297-505240-051220	34	<7	27	77	943	517	<5			514
0297-505241-051220	300	10	73	2477	2132	399	27			515
0297-505242-051220	60	8	20	323	1028	835	31			516
0297-505243-051220	308	18	86	4498	4857	41.1K	40			517
0297-505244-051220	49	<8	29	1615	3226	5381	50			518
" " - R	<38	16	30	1651	3213	5509	49			519
" " - D	<37	9	34	1569	2637	5127	42			520
USGS-SDAR-M2	97	12	190	737	666	804	17			521
Analysis Date	5-13-20									
System check								Time 56.3 sec	Res 172.7	522
SiO ₂	<3	9	<14	<5	<8	50	<5			523
RCLA	417	486	<18	482	48	163	485			524
0288-505274-051320	34	14	77	1232	603	3616	20			525
0288-505276-051320	117	<8	114	1462	437	3799	16			526
0288-505278-051320	101	15	99	463	416	3084	19			527
0288-505280-051320	38	<7	50	165	523	4163	<6			528
0288-505281-051320	115	<8	117	419	533	6265	8			529
0297-505247-051220	123	13	50	1034	695	1492	28			530
0297-505249-051220	95	<8	67	1955	1331	1268	60			531
0297-505251-051220	130	<8	68	1942	1753	2948	45			532
0297-505255-051220	195	<8	47	2198	961	361	68			533

West Side Soils OU, Waste Rock Dump Samples

Field XRF and Soil pH Results, 2020

(Soil sample depth is 0-2 inches)

Analysis Date: 5/13/20

Operator: Cole / Molly

XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #	
	As	Cd	Cu	Pb	Zn	Mn	Ag				
0297-505257-051220	84	9	127	2657	880	1145	44			534	
0297-505260-051220	111	19	94	3567	2634	1403	62			535	
0300-505263-051220	197	12	28	1265	592	1460	29			536	
0300-505264-051220	733	10	<20	2200	798	9469	28			537	
0300-505265-051220	556	<8	73	1939	855	19.6K	80			538	
" " " " " " " "	"-K-538	9	81	1926	814	20.2K	80			539	
0300-505266-051220	205	13	52	1780	775	1913	61			540	
" " " " " " " "	"-D-192	<8	44	1748	763	1302	54			541	
0299-505282-051320	126	<7	<16	186	383	2568	10			542	
0200-505285-051320	276	<8	30	278	671	9580	24			543	
NIST 2709	9	10	20	16	97	499	<6			544	
Analysis Date	5/14/20										
System Check								Time 56.3 sec	172.7	545	
SiO ₂	<3	^o 2137	<13	<4	<7	<22	<5			546	
USGS SdAR-m2	59	14	212	806	717	850	18			547	
2065-0200-505288-051320	144	<7	<17	162	408	2828	17			548	
0300-505290-051320	49	<7	26	538	353	1283	10			549	
0299-505292-051320	122	<8	43	66	569	14.0K	<6			550	
0299-505293-051320	123	<7	22	51	60	1814	7			551	
0299-505295-051320	219	<8	30	100	254	4212	19			552	
0299-505299-051320	109	<7	<16	31	70	638	7			553	
0299-505301-051320	265	<8	60	157	522	45.3K	16			554	
0285-505305-051420	231	11	276	12.6K	876	3845	173		Area Sample collected had lot of shotshell	555	
0285-505308-051420	186	<7	195	3727	304	798	57			556	
0285-505311-051420	117	9	149	802	280	845	20			557	

West Side Soils OU, Waste Rock Dump Samples Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)								Analysis Date: 5/14/20		
								Operator: Cole		
								XRF Unit #: 92951		
Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
0285-505312-051420	37	47	70	67	79	470	45			558
0285-505314-051420	97	8	134	1747	265	2850	56			559
0285-505316-051420	236	9	391	6095	2706	19.9K	84			560
0285-505318-051420	222	48	209	2517	1228	5248	118			561
0285-505319-051420	81	47	101	802	443	3200	30			562
0285-505321-051420	204	9	111	2258	3077	15.7K	328			563
0285-505322-051420	229	48	119	2549	943	4916	82			564
0285-505324-051420	496	34	176	11.4K	17.6K	125.0K	108			565
"	620	32	206	11.7K	17.6K	129.5K	109			566
"	620	38	179	12.4K	18.7K	148.5K	141			567
RCRA	452	484	23	472	46	170	473			568
0285-505326-051420	130	47	99	742	497	3277	18			569
0285-505329-051420	274	48	252	5521	1268	24.1K	102			570
0285-505333-051420	514	33	297	13.6K	10.4K	60.9K	115			571
0285-505334-051420	248	15	241	3318	1116	14.8K	94			572
SiO ₂	43	13	414	44	48	45	5			573
Analysis Date 5/19/20										
System Check								Time 56.4	Res 168.0	574
SiO ₂	43	10	413	45	48	432	45			575
NIST 2709	7	9	420	16	96	403	46			576
0285-505336-051420	265	14	358	7306	5541	36.5K	90			577
0285-505337-051420	110	48	85	436	887	5263	13			578
0285-505340-051420	33	9	63	146	351	2355	14			579
0285-505342-051420	100	47	65	182	528	5865	27			580
0285-505345-051420	41	47	67	419	399	2009	46			581

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020
 (Soil sample depth is 0-2 inches)

Analysis Date: 5/19/20
 Operator: CD/ms
 XRF Unit #: 92251

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
0285-505349-051820	91	27	46	773	802	3994	90			582
0285-505354-051820	37	<8	53	63	459	266	<6			583
0285-505355-051820	177	16	119	1388	1010	12.1K	255			584
0285-505357-051820	119	19	115	1067	364	2196	70			585
0285-505361-051820	116	22	94	1581	2160	14.8K	88			586
0285-505369-051820	27	8	44	63	71	572	<5			587
0246-505373-051820	<19	<10	<82	63	<37	178	<9			588
0246-505372-051820	104	<8	107	560	356	1554	65			589
0246-505376-051820	20	<6	167	78	102	926	<5			590
0246-505377-051820	90	20	<37	606	315	481	47			591
0246-505383-051820	67	<8	48	211	207	3605	17			592
0246-505384-051820	165	<8	39	623	664	16.1K	51			593
11-02-140	140	<8	53	638	629	16.3K	47		Forgot "R" on XRF	594
11-02-113	113	<8	49	367	504	12.5K	21			595
USGS SJAR-M2	78	14	263	743	690	797	20			596
SiO ₂ SiO ₂ System Check	<3	9	<13	<4	<8	<32	<5	Time 56.3 HR	Res 169.3	598, 599
0246-505386-051920	110	<7	72	407	363	12.9K	48			600
0246-505391-051920	123	<8	94	395	609	8415	46			601
0246-505396-051920	89	<8	160	571	394	4921	65			602
0246-505397-051920	31	<7	25	92	116	1202	<6			603
0246-505400-051920	67	<7	26	162	459	5760	12			604
0256-505402-051920	76	<8	51	33	175	2640	7			605
USGS SJAR-M2	61	16	200	771	700	780	15			606
Intentionally left Blank last 2 spots										

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020
 (Soil sample depth is 0-2 inches)

Analysis Date: 5/26/20
 Operator: cp/ms
 XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Check								Time 56.35 sec	Res 167.1	607
SiO ₂	23	10	214	24	28	43	25			608
RCRA	414	486	20	461	46	144	473			609
0315-505453-052620	<14	9	23	255	73	563	25			610
0315-505454-052620	46	27	23	41	41	411	25			611
0315-505459-052620	19	10	20	32	74	1371	26			612
0315-505460-052620	8	<7	21	36	98	1003	<5			613
0315-505464-052620	149	<7	208	226	214	8202	39			614
0315-505471-052620	114	<7	177	383	165	12.2k	93			615
0315-505474-052620	43	<7	58	160	183	10.6k	72			616
0315-505479-052620	122	<7	190	131	153	3605	19			617
0315-505480-052620	30/34	<7	75/74	105/109	116	2472	12	0.105% major released on list		618/619
0315-505484-052620	103	<7	213	133	159	5180	9			620
0249-505407-052020	46	<7	347	61	59	3140	16			621
0249-505411-052020	15	<7	169	32	112	856	<5			622
0249-505412-052020	33	9	66	74	81	769	6			623
0249-505418-052020	46	<7	<18	15	49	658	<6			624
0249-505419-052020	77	<7	71	65	102	9652	16			625
0306-505421-052020	47	<7	62	33	45	332	<5			626
* 0306-505422-052020	456	10	59	444	521	16.0k	30	See Note to		628
* 0306-505421-052020-R	46	<7	53	32	45	327	25	the left		627
0016-505426-052120	412	16	371	17.3k	1831	4438	53			630
" " -D	384	14	380	14.8k	1713	4332	51			631
NTST	10	8	<20	14	92	478	<6			629
0016-505428-052120	81	10	133	3031	2506	2957	17	Charged Battery		632

Note: Run these two readings out of order on Report.

* Note: order of readings

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020
 (Soil sample depth is 0-2 inches)

Analysis Date: 5/26/20
 Operator: CD/MS
 XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #	
	As	Cd	Cu	Pb	Zn	Mn	Ag				
0016-505430-052120	100	14	56	1571	5747	7503	9			633	
0016-505437-052120	158	20	98	2514	7861	11.7K	18			634	
0016-505438-052120	63	28	56	423	1108	2296	26			635	
0013-505439-052120	72	10	54	1556	4425	9481	7			636	
0013-505443-052120	71	16	36	3373	7788	11.7K	12			637	
0013-505447-052120	228	8	183	1325	1306	12.8K	112			638	
USGS SoLAR	69	28	199	789	714	866	19		As	639	
System Check	Analysis Date 5/28/20								Time Sys Res 170.2		640
SiO ₂	<3	<7	<14	<5	<8	<33	<5			641	
RCR App	419	479	21	467	42	125	474			642	
20WS-0315-505490-052720	111	27	180	124	92	412	<5			643	
0315-505495-052720	59	<7	56	61	109	248	<5			644	
0315-505496-052720	98	<7	96	540	171	861	17			645	
0315-505498-052720	48	8	79	70	74	446	<5			646	
* 0313-505505-052720	34	<7	81	243	136	3732	28		Change 315 to 313	647	
0315-505506-052720	59	<7	87	76	90	924	<5			648	
0313-505511-052720	51	<7	<17	6	8	88	4			649	
0315-505513-052720	91	<7	54	52	133	2579	<5			650	
0315-505516-052720	105	<7	168	159	157	7242	48			651	
0320-505523-052720	64	<7	83	65	169	824	14			652	
0320-505524-052720	27	<7	50	46	167	1465	6			653	
0320-505527-052720	44	<7	61	54	87	3903	<5			654	
0320-505527-052720-R	43	<7	48	55	85	3997	<6			655	
0320-505527-052720-R	38	<7	72	48	94	4291	<6			656	
NIST	10	8	28	18	89	473	<6			657	

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020
 (Soil sample depth is 0-2 inches)

Analysis Date: 5/29/20
 Operator: JS
 XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Checks								56.4 Sec	Res: 172.5	658
Si: O ₂	<3	<7	<14	<4	<8	232	<5			659
USGS STAR-M2	55	12	194	803	725	780	19			660
0301-S05531-052820	32	27	73	193	136	4918	6			661
0319-S05535-052820	24	27	28	46	151	3738	9			662
0319-S05536-052820	97	<7	92	120	87	929	6			663
0312-S05542-052820	86	<7	81	76	151	1577	7			664
0312-S05547-052820	32	<7	80	64	85	757	6			665
0307-S05548-052820	96	<7	144	108	95	296	7			666
0313-S05552-052820	131	<7	282	141	347	10.1K	24			667
0313-S05553-052820	160	<7	122	71	149	4199	8			668
0313-S05556-052820	48	<7	304	31	148	3897	<5			669
0301-S05557-052820	81	<8	218	148	889	19.4K	32			670
0301-S05559-052820	164	<7	282	147	155	909	11			671
0301-S05560-052820	140	<8	174	209	527	11.4K	31			672
0301-S05566-052820	90	<7	231	178	261	9711	68			673
RCR App	431	463	22	470	51	142	448			674
System Checks								56.3 Sec	Res: 169.0	675
Si: O ₂	<3	<7	<14	<5	<8	33	<5			676
Ni: S†	9	<8	24	14	90	474	<6			677
0302-S05568-052920	455	11	101	3561	3498	4239	40			680
0302-S05567-052920	95	13	86	3017	3734	3839	35			681
0301-S05573-052920	39	<7	53	534	1113	2595	7			682
0302-S05574-052920	167	15	85	2546	3448	4939	33			683
0302-S05576-052920	81	14	113	2503	4564	722	39			684

5/29/20
 6/1/20

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020
 (Soil sample depth is 0-2 inches)

Analysis Date: 06-01-20
 Operator: ZA
 XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
0302-S05577-052920	49	10	106	2808	3429	3174	58			685
0301-S05579-052920	23	8	35	332	520	822	26			686
0301-S05579-052920-R	23	27	42	336	513	806	26			687
0301-S05579-052920-D	31	27	45	374	576	828	6			688
0301-S05584-052920	41	27	67	222	573	3667	47			689
0301-S05585-052920	87	28	69	132	447	42.0 K	23			690
0300-S05590-052920	246	28	111	198	655	27.4 K	32			691
0300-S05592-052920	119	28	153	208	187	45.9 K	69			692
0300-S05593-052920	213	29	187	547	677	123.4 K	68			693
0306-S05597-052920	114	27	116	130	132	345	26			694
0013-S05603-060120	192	17	106	8277	8926	4349	38			695
0013-S05605-060120	62	12	51	2063	4656	4484	9			696
0296-S05614-060120	249	14	59	2523	5283	28.4 K	28			697
0296-S05615-060120	109	13	53	3256	2387	290	28			698
0296-S05618-060120	28	11	42	711	735	583	10			699
0296-S05619-060120	94	28	47	778	926	5206	18			700
0311-S05623-060120	35	27	101	51	75	521	25			702
0003-S05661-060120	42	28	32	66	170	3556	26			703
0038-S05664-060120	440	25	161	965	2794	39.7 K	46			704
0317-S05668-060120	158	29	235	1637	1953	93.8 K	6			705
USGS S ₁ ac-M2	64	28	214	804	718	832	13	Run after #700		701

6/1/20

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)
 BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 6/3/20
 Operator: JS
 XRF Unit #: 92951

6/2/20
 JS

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Checks								56.3 Secs	Res 167.6	706
SiO ₂	<3	<7	<14	<4	<8	231	<5			707
USGS Std. - M2	62	14	189	750	679	776	21			708
1143 - S05626-060220	52	<8	114	14	74	3999	<6			709
1143 - S05627-060220	59	<8	51	43	84	690	18			710
1142 - S05631-060220	111	<7	170	168	252	3505	8			711
0350 - S05633-060220	273	<9	403	11.9K	1060	5166	125			712
0350 - S05637-060220	923	25	666	25.5K	4778	11.6K	67			713
0350 - S05640-060220	133	<8	308	1089	1620	3934	72			714
0350 - S05648-060220	276	<8	309	205	176	1435	9			715
0197 - S05672-060220	196	<7	101	293	188	123	637			716
0197 - S05675-060220	147	<8	110	731	535	575	108			717
0174 - S05678-060220	87	27	144	676	360	700	83	Double Check ID 197 to 179		718
0179 - S05679-060220	103	<8	57	187	109	312	21			719
0179 - S05684-060220	46	<8	39	167	159	197	47			720
0179 - S05685-060220	73	28	143	92	161	849	17			721
0142 - S05688-060220	30	<8	437	497	1443	4880	16			722
0142 - S05692-060220	127	9	146	964	409	4356	103			723
0178 - S05694-060220	165	<8	218	608	688	10.7K	78			724
0138 - S05697-060220	34	<8	261	492	889	17.1K	100			725
0130 - S05729-060220	123	8	216	1973	593	1206	18			726
0130 - S05731-060220	23	<8	459	147	264	2069	<6			727
0130 - S05731-060220-D	23	<8	505	96	284	1560	9			728
0130 - S05731-060220-R	41	<8	755	198	923	2896	<6	Battery low		729
System Checks				Time: 58.7	Res: 167.4			Change Battery		730

Writing on XRF

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)
 BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 6/3/20
 Operator: JS
 XRF Unit #: 92951

6/3/20

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
RCR APP	437	488	218	461	49	152	490			731
0162-505708-060320	48	9	228	1207	2584	7045	60			732
0162-505710-060320	245	12	187	1899	4057	11.3K	40			733
0162-505711-060320	101	11	340	1629	3222	8217	218			734
0162-505716-060320	70	28	111	165	694	1632	26			735
0162-505714-060320	107	29	67	496	658	34.1K	46			736
0162-505720-060320	22	9	83	117	274	2353	26			737
0138-505724-060320	86	28	192	122	511	11.2K	26			738
0162-505734-060320	59	10	129	852	1679	7526	17			740
0162-505736-060320	40	28	230	235	532	6660	11			741
0160-505738-060320	40	28	101	174	200	4385	26			742
0160-505739-060320	46	28	98	141	293	9351	26			743
0158-505745-060320	24	27	39	39	72	487	6			744
0158-505748-060320	127	28	47	418	66	217	25			745
0153-505751-060320	127	18	158	188	739	4200	10			746
0138-505752-060320	98	9	101	444	831	15.3K	30			747
0138-505754-060320	78	28	89	262	407	7777	45			748
0138-505756-060320	70	29	107	1490	870	40.7K	31			749
0138-505757-060320	120	19	131	1674	2234	20.1K	51			751
System checks					Time: 56.4	Res: 168.6	After transport			739
0138-505756-060320-R	76	29	88	1511	886	40.9K	29			750
0138-505757-060320-D	105	13	141	1992	2159	21.0K	53			752
0138-505758-060320	119	17	155	2858	3940	36.4K	107			753
0138-505761-060320	126	11	167	667	1386	22.1K	110			754
0138-505762-060320	135	28	228	1269	1400	27.4K	106			755

West Side Soils OU, Waste Rock Dump Samples Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)								Analysis Date: 6/3/20		
								Operator: MS		
								XRF Unit #: 92951		
Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
0138-S05780-060320	10	<7	26	13	48	1471	<5			756
0138-S05781-060320	13	<9	4644	23	155	2042	<7			757
0138-S05783-060320	133	16	245	1817	2092	66.3k	237			758
0138-S05785-060320	69	<8	93	55	85	1050	8			759
SiO ₂	<3	<7	<14	<4	<8	53	<5			760
RCR App	440	479	19	475	50	152	475			761
06104/20 System Check								56.35	ELS: 172.7	762
SiO ₂	<3	<7	<14	<4	<8	<31	<5			763
NIST	6	<8	28	17	99	500	59			764
0122-S05765-060420	172	<9	341	1002	1691	58.5k	83			766
0138-S05776-060320	64	<8	165	355	157	2999	56			765
0122-S05766-060420	16	<8	46	216	230	5552	11			767
0102-S05770-060420	59	<7	170	263	263	4683	10			768
0122-S05773-060420	130	9	170	2126	1460	1750	73			769
0123-S05775-060420	118	<9	100	492	627	15.7k	27			770
0138-S05790-060420	213	11	286	1064	1133	16.6k	60			771
0138-S05793-060420	134	<8	160	1016	1663	23.5k	52			772
" -D	208	10	197	1269	2389	19.6k	53			773
0138-S05796-060420	98	<8	156	748	1329	14.8k	28			774
-R	87	<8	112	742	1337	14.8k	30			775
0121-S05803-060420	86	<8	96	117	289	4819	10			776
0121-S05804-060420	128	<8	265	1193	785	5972	266			777
0121-S05809-060420	83	<8	109	354	354	7149	54			778
0123-S05827-060420	24	<8	44	323	685	15.2k	6			779

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)
 BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 6/4/20
 Operator: ms
 XRF Unit #: 92951

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
0122-505831-060420	111	25	311	2430	3206	40.0K	405			780
0122-505834-060420	156	19	222	1744	2622	28.6K	85			781
0122-505837-060420	131	<8	596	205	290	3543	<6			782
0122-505839-060420	83	<8	117	238	2000	8207	9		Zn = 323	783
ECBA PP	434	496	<18	449	53	127	490			784
6/10/20										
System check								54.05	Res 166.5	786
SiO ₂	<3	8	<14	<4	<7	<31	<5			787
ECBA PP	418	506	<18	488	51	147	480			788
1118-505815-060920	24	<7	285	18	78	541	<5			789
1116-505819-060920	<28	13	2815	712	2453	8691	63			790
1115-505846-060920	168	<8	49	67	231	2337	<6			791
1115-505850-060920	121	9	43	111	310	1905	<6			792
1115-505851-060920	82	<8	36	80	253	1753	<6			793
1115-505852-060920	59	1000	130	59	145	1156	<6		Cd = <8	794
1114-505853-060920	122	<8	69	291	296	4125	15			795
1113-505856-060920	112	<8	252	296	270	900	7			796
1113-505857-060920	108	<8	131	208	213	3991	26			797
" -D	115	<8	136	185	244	3972	<6			798
1113-505859-060920	317	13	70	11.2K	1144	356	54			799
" -E	284	15	66	11.4K	1142	276	56			800
1112-505860-060920	76	<8	171	144	155	1308	<6			801
1016-505863-060920	442	13	474	2015	1794	56.5K	10			802
1007-505866-060920	74	<9	87	204	132	5368	<7			803
1016-505870-061020	129	<8	313	800	761	5814	20			804

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)
 BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 6/29/20
 Operator: ZA
 XRF Unit #: 92950

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Check										
SiO ₂	23	26	114	24	27	230	24.4			16
Ni s†	9	28	226	19	98	431	25.3			17
20WS-0040-505885-5.6-6.2-N	223	65	288	86	150	1171	37		06/18/20	18
20WS-0040-505886-5.6-10-N	28	50	286	64	289	3255	34		06/18/20	19
20WS-0040-505887-6-6.5-N	215	55	258	53	109	2061	31		06/18/20	20
20WS-0040-505888-5.6-6.0-N	219	57	289	55	181	1942	38		06/18/20	21
20WS-0043-505889-5.8-6.2-N	221	59	97	77	370	4409	66		06/18/20	22
20WS-0043-505890-6.2-6.4-N	218	81	293	48	171	1157	22		06/18/20	23
20WS-0043-505891-10.3-10.9-N	219	65	115	49	181	2564	41		06/18/20	24
20WS-0006-505892-5.7-6-N	214	47	92	69	278	4501	30		06/18/20	25
20WS-0006-505893-10.4-10.7-N	219	71	290	60	187	2811	37		06/19/20	26
20WS-0006-505894-11.1-11.4-N	236	73	2100	154	382	1346	56		06/19/20	27
20WS-0006-505895-5.4-5.7-N	221	66	292	59	288	3828	44		06/19/20	28
20WS-0003-505896-5.9-6.5-N	217	58	291	45	496	4620	31		06/19/20	29
20WS-0003-505896-5.9-6.5-N	219	69	283	50	76	744	43		06/19/20	30
" rep "	218	50	286	57	81	749	33		06/19/20	31
" dup "	216	53	267	40	87	754	31		06/19/20	32
20WS-0003-505897-7.3-7.7-N	216	74	276	52	133	862	47		06/19/20	33
20WS-0003-505898-10.8-11.2-N	21	59	271	43	116	1849	32		06/19/20	34
20WS-0003-505899-16-16.3-N	215	55	278	31	1243	12531			06/19/20	35
20WS-0003-505900-1-1.5-N	218	52	295	36	58	943	30		06/23/20	36
20WS-0003-505901-1.4-1.7-N	214	53	268	30	67	439	24		06/23/20	37
SiO ₂	23	26	114	25	27	233	24.4			38
USGS S&A-M2	72	28	203	801	692	771	13			39

20
52
54

West Side Soils OU, Waste Rock Dump Samples								Analysis Date: 6/29/20		
Field XRF and Soil pH Results, 2020 (Soil sample depth is 0-2 inches)								Operator: RA		
BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As								XRF Unit #: 9298		
Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System check										
SiO ₂	23	26	214	25	27	233	24.5			48
NIST	11	28	24	17	93	472	25.3			49
0003-505907-12.5-13-N										
0010-505907-8.2-8.5-N-062420	25	43	281	28	747	3143	32		DPT-24	50
0010-505910-9.2-9.6-N-062420	226	51	112	149	571	3584	28		DPT-25	51
0297-505911-12.7-13-N-062420	94	72	299	930	604	1757	59		DPT-26	52
0297-505912-4.5-4.8-N-062420	41	57	2104	243	607	429	40		DPT-28	53
0297-505913-0.2-0.8-N-062420	226	67	295	119	264	655	44		DPT-29	51
0297-505914-0.4-0.8-N-062420	276	86	293	1497	1244	954	40		DPT-30	55
0297-505915-4.6-5-N-062420	216	52	270	52	744	743	40		DPT-31	56
0285-505916-4.4-4.5-N-062520	215	33	236	124	584	475	24		DPT-32	57
0285-505917-8.4-8.7-N-062520	135	72	145	1421	1945	27.8K	31		DPT-33	58
0285-505918-0.3-0.9-N-062520	244	58	259	729	643	5823	59		DPT-34	59
0285-505919-1.2-1.5-N-062520	244	61	258	809	874	5731	53			60
0285-505920-1.7-1.9-N-062520										61
0285-505918-0.3-0.9-N-062520	244	61	258	809	874	5731	53			60
0285-505919-1.2-1.5-N-062520	266	57	290	1135	1355	4781	61		DPT-35	61
0285-505920-1.3-1.5-N-062520	243	63	104	422	641	2052	63		DPT-36B	62
0246-505921-12.2-12.6-N-062520	216	62	286	34	329	3935	38		DPT-37	63
0246-505922-8.8-9.2-N-062520	222	49	271	125	318	2223	35		DPT-38	64
0246-505923-4.8-5.1-N-062520	21	40	78	43	395	13.2K	26		DPT-39	65
00246-505924-8.7-9-N-062520	23	4233	57	129	279	1415	29		DPT-40	66
R "	"	29	44	247	109	291	1342	36	" "	67
D "	"	41	61	65	356	277	2717	61	" "	68

* DPT-64 ch → dws not name ' - ol' in XRF name.

West Side Soils OU, Waste Rock Dump Samples									Analysis Date: 7/07/20	
Field XRF and Soil pH Results, 2020 (Soil sample depth variable - DPT samples)									Operator: M. Sprunger	
BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As									XRF Unit #: 92951	
Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
System Check								Time: 53.95	BS: 173.0	2
SiO ₂	<3	12	<14	<4	8	<29	9			3
USGS	69	19	215	809	718	788	21			4
BCRAPP	467	446	25	485	48	<55	439			5
0016-505932-4.8-5.2-N ⁻⁰⁷⁰¹²⁰	51	16	77	287	2675	4421	7	4.48	DPT-47	6
16-50 5933-12.7-13-N-070120	124	17	61	924	1767	8661	<6	3.08	DPT-48	7
16-50 5934-12.7-13.2-N-070120	17	15	41	200	934	2739	7	4.44	DPT-49	8
16-50 5935-4-5-N-070120	46	10	52	381	1638	5735	<6	4.15	DPT-50	9
16-50 5936-4-5-D-070120	58	14	44	703	1836	6237	9		DPT-50	10
13-50 5936-12.3-12.6-N-070120	68	26	85	138	1983	8791	8	4.53	DPT-51	11
50-50 5937-12.3-12.7-N-070120	12	15	66	85	1782	3769	5	4.23	DPT-52	12
0-50 5938-24.4-24.9-N-070120	20	16	28	158	2637	4569	8	5.04	DPT-53	13
58-50 5939-4-4.4-N-070220	163	17	25	955	650	461	77	3.96	DPT-54	14
88-50 5940-4.4-4.9-N-070220	20	18	67	83	1665	2654	9	4.36	DPT-54	15
58-50 5941-4-4.5-N-070220	25	11	17	21	398	624	6	5.30	DPT-56	16
58-50 5942-0.9-1.3-N-070220	33	11	35	26	703	2008	12	5.48	DPT-57	17
39-50 5944-12.3-12.6-N-070220	137	12	38	26	2926	2842	8	4.62	DPT-59	18
59-50 5945-12.8-13.3-N-070220	147	10	47	62	375	2709	15	5.15	DPT-60	19
17-50 5943-12.3-12.7-N-070620	38	10	131	32	668	661	6	6.42	DPT-61	20
13-50 5946-16-16.4-N-070620	9	15	66	41	216	830	11	7.04	DPT-62	21
2-50 5947-20-20.4-N-070620	7	13	45	12	65	818	8	8.31	DPT-63	22
2-50 5947-20-20.4-N-070620-R	<6	14	40	12	61	989	<6		"	23
3-50 5948-12.8-13.3-N-070620	19	<7	47	88	186	2500	9	5.02	DPT-64	24
50 5948-12.8-13.3-N-070620-D	26	<7	73	111	238	4168	9		* " see above	25
8-50 5949-13.1-13.6-N-070620	13	<6	56	73	280	1760	17	5.51	DPT-65	26

West Side Soils OU, Waste Rock Dump Samples
 Field XRF and Soil pH Results, 2020 (Soil sample depth variable - DPT samples)
 BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 7/07/20
 Operator: M. Sprungler
 XRF Unit #: 92951

0138-50
 7/7/20
 ZA
 0179-50
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 0017-50
 0017-50
 0017-50
 0315-50
 0315-50
 0315-50
 0315-50

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
5950-9.5-9.8-N-070620	15	13	72	79	333	6088	<5	3.96	DPT-66	27
MIST	12	14	30	13	87	388	8			28
System Check										29
Si O2	4	13	214	44	26	230	9			30
ALRA pp	469	457	26	469	46	77	461			31
5951-4.2-4.5-N-070820	143	13	58	15	114	579	26		DPT-67	32
5952-0.2-0.7-N-070820	72	14	91	106	116	389	20		DPT-68	33
5953-5.4-5.7-N-070820	19	27	66	17	62	502	26		DPT-69	34
5954-4.3-4.9-N-070820	110	13	97	16	76	493	7		DPT-70B	35
5955-4.3-4.9-N-070820	115	27	110	23	95	599	7		DPT-70B	36
5955-0.7-1.2-N-070820	93	10	89	33	86	1823	11		DPT-71	37
5956-0.1-0.6-N-070820	25	11	33	28	93	2783	7		DPT-72	38
5957-5.3-5.7-N-070820	26	16	220	35	522	160K	13		DPT-73	39
5958-12.4-12.8-N-070820	16	27	52	25	116	2448	26		DPT-74	40
5959-8.8-9.0-N-070920	24	12	46	67	79	5644	13		DPT-75	41
5960-4.3-4.7-N-070920	26	13	17	18	38	92	7		DPT-76	42
5961-4.3-4.6-N-070920	41	7	153	71	148	2675	13		DPT-77	43
5962-5.3-5.6-N-070920	80	8	62	48	63	605	11		DPT-78	44

West Side Soils OU, Waste Rock Dump Samples
Field XRF and Soil pH Results, 2020 (Soil sample depth variable - DPT samples)
BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 9/21/21
 Operator: CJD, MJS
 XRF Unit #: 98052

ISS: m
 0003' ON
 XRF ID
 296' X
 XRF ID

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
SYSTEM CHECK	Time: 56.1 sec Res: 175.7							-		566
STO2	<3	7	<12	<4	1	<24	3	-		567
NIST	15	11	29	12	99	512	<5.8	-		568
USGS	86	19	213	804	725	843	23	--		569
PCDA	485	517	24	510	52	118	509	-		570
21WS-0003-S06286-N-092021										
21WS-0003-S06286-N-092021	190	<8	43	218	327	36.3k		6.52		571
21WS-0003-S06287-N-092021	78	<8	278	76	285	3756		7.21		572
21WS-0002-S06290-N-092021	219	8	409	252	206	1037	7	5.62		573
21WS-0003-S06291-N-092021	116	<8	308	113	284	4229		6.12		574
21WS-0003-S06294-N-092021	115	<8	209	138	173	1308	<5.7	5.35		575
21WS-0006-S06295-N-092021	72	<8	286	82	267	2333	<6.3	6.29		576
21WS-0006-S06296-N-092021	220	12	328	508	1202	27.3k	55	5.76		577
21WS-0040-S06298-N-092121	147	<8	436	379	473	2471	22	5.85		578
21WS-0040-S06299-N-092121	188	<7	378	138	241	1265	<5.7	5.95		579
21WS-0010-S06303-N-092121	160	14	29	1213	2263	71.1k	7	5.61		580
21WS-0010-S06306-N-092121	48	<7	85	893	1061	6868	13	8.11		581
21WS-0010-S06308-N-092121	308	17	198	4136	4343	60.1k	28	7.50		582
21WS-0013-S06309-N-092121	119	10	76	1794	3981	7116	8	7.46		583
21WS-0013-S06310-N-092121	56	15	103	512	2433	26.0k	<5.9	8.39		584
21WS-0013-S06311-N-092121	61	<9	68	419	630	7835	10	8.51		585
21WS-0013-S06314-N-092121	56	11	117	396	1373	3317	<6.1	6.99		586
21WS-0014-S06315-N-092121	121	14	129	1319	3662	7000	11	7.52		587
21WS-0016-S06317-N-092121	172	16	100	3191	6539	9957	15	6.07		588
21WS-0016-S06318-N-092121	259	27	112	3964	6481	3720	19	3.94		589

West Side Soils OU, Waste Rock Dump Samples								Analysis Date: 9/21/21		
Field XRF and Soil pH Results, 2020 (Soil sample depth variable - DPT samples)								Operator: CJD, MJS		
BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As								XRF Unit #: 98052		
Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
21WS-0016-S06320-N-092121	75	10	84	595	2093	7005	<5.8	6.46		590
21WS-0016-S06320-N-092121-B	70	<8	79	578	2042	6842	<5.9	-		591
21WS-0016-S06320-N-092121-D	51	<8	91	513	2541	6603	<6.0	-		592
SiO ₂	<2	7	<12	<3	<6	<24	<4.8	-		593
NIIST	12	8	33	12	84	492	<5.8	-		594
USGS	76	14	196	791	707	784	23	-		595
BCRA	497	549	22	479	43	179	527	-		596
NEW Analysis Date: 9/27/2021: operator: MJS, CJD								MCS	XRF Unit: 98052	-
System Check: Time: 56.1 sec Res: 174.4										631
SiO ₂	<3	7	<12	<3	<6	<25	6	-		632
NIIST	12	11	37	10	86	487	<5.9	-		633
USGS	73	17	209	792	719	836	22	-		634
BCRA	497	516	30	479	46	147	517	-		635
21WS-0016-S06321-N-092221	180	20	113	1682	2933	1202	20			636
21WS-0016-S06323-N-092221	41	11	44	352	595	3160	6			637
21WS-0017-S06326-N-092221	339	10	284	6903	810	1014	151	6.23		638
21WS-0015-S06327-N-092221	39	8	28	366	647	4106	<5.7	8.26		639
21WS-0015-S06328-N-092221	33	10	39	213	445	1805	<5.7	7.84		640
21WS-0311-S06330-N-092221	107	8	140	150	106	2524	6	5.23		641
21WS-0315-S06333-N-092221	64	<7	35	22	108	1736	5	8.26		642
21WS-0315-S06335-N-092221	45	11	45	31	122	2390	9	6.46		643
21WS-0296-S06337-N-092221	44	16	60	600	1880	3709	11	6.26		644
21WS-0296-S06340-N-092321	228	<7	109	1534	1973	5310	35	5.13		645
21WS-1150-S06341-N-092321	95	17	125	2428	2524	2687	37	5.74		646
21WS-0015-S06343-N-092321	82	33	217	6077	11.92	4825	101	6.74		647

West Side Soils OU, Waste Rock Dump Samples
Field XRF and Soil pH Results, 2020 (Soil sample depth variable - DPT samples)
BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 9/27/2021
 Operator: MTS LTD, MCS
 XRF Unit #: 98052

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
21WS-0015-S06344-N-092321	24	<8	30	76	172	3437	<5.7	8.61		648
21WS-0015-S06347-N-092321	<29	<7	71	1118	1114	1763	14			649
21WS-0301-S06348-N-092321	22	8	100	70	162	607	<5.3	7.14		650
21WS-0015-S06349-N-092321	77	<7	154	80	119	255	7	5.25		651
21WS-0301-S06350-N-092321	24	<7	94	85	194	425	<5.0			652
21WS-0296-S06351-N-092321	137	11	61	679	1829	3920	24	5.63		653
21WS-0296-S06352-N-092321	49	12	48	1373	2664	615	13	3.48		654
21WS-0296-S06353-N-092321	53	<8	138	447	1448	2293	<6.0	7.94		655
21WS-0296-S06353-N-092321-R	35	<8	135	480	147	2209	<6.1	-		656
21WS-0296-S06353-N-092321-D	65	<8	167	514	1708	2309	<5.8	-		657
SiO2	<2	<6	<12	<3	<6	<22	<4.9	-		658
NIST	11	9	30	17	98	512	<5.7	-		659
USGS	88	18	214	790	732	835	25	-		660
RCRA	503	509	22	486	45	156	503	-		661
21WS-0289-S06356-N-092321	971	8	52	1486	390	2241	74			662
21WS-0296-S06354-N-092321	180	20	119	2723	5038	5407	36			663
21WS-0288-S06357-N-092321	140	9	89	441	631	3887	20	5.34		664
21WS-0288-S06358-N-092321	142	<7	126	492	402	2515	16			665
21WS-0297-S06359-N-092321	120	13	100	893	712	1810	44	4.14		666
21WS-0290-S06361-N-092321	69	<7	94	931	2355	1035	8	7.80		667
21WS-0296-S06362-N-092321	120	12	83	1583	2217	3194	49	5.38		668
21WS-0296-S06363-N-092321	78	18	93	2989	3339	4194	44	5.87		669
21WS-0285-S06364-N-092721	141	<7	206	175	274	1355	<5.4			670
21WS-0285-S06365-N-092721	106	<7	151	313	245	2154	13	5.29		671
21WS-0285-S06368-N-092721	112	<7	193	413	558	1142	12			

10' - 1' structure

West Side Soils OU, Waste Rock Dump Samples
Field XRF and Soil pH Results, 2020 (Soil sample depth variable - DPT samples)
BPSOU Open Space Action levels: 2300 ppm Pb, 1000 ppm As

Analysis Date: 9/27/2021
 Operator: MDS, CJD, MCS
 XRF Unit #: 98052

Sample ID	XRF Results (in ppm)							Soil pH (s.u.)	Comments	XRF Reading #
	As	Cd	Cu	Pb	Zn	Mn	Ag			
21WS-0299-S06370-N-092721	39	17	144	81	275	1854	<5.3		673	
21WS-0299-S06371-N-092721	250	17	159	258	283	9606	19		674	
21WS-0299-S06372-N-092721	125	7	163	87	191	1631	<5.3		675	
21WS-0246-S06377-N-092721	45	17	43	60	238	2478	<5.5		676	
21WS-0246-S06377-N-092721-B	46	9	46	57	231	2626	7		677	
21WS-0246-S06377-N-092721-D	61	9	48	66	290	3240	<5.5		678	
SI02	<3	7	<11	<3	<6	<25	5		679	
NIST	15	<8	30	12	97	487	<5.7		680	
USGS	91	17	227	777	721	868	25		681	
ECRA	488	502	<16	494	51	168	508		682	
New Date - 9/29/21 OP = CJD Unit 98052										
System Check	Time: 53.6	Sec	Res	176.7					683	
SI02	3	12	<11	<3	<5	<24	<4.8		684	
NIST	11	10	30	15	88	535	<5.8		685	
USGS	85	18	220	795	726	820	24		686	
ECRA	484	526	21	485	39	145	512		687	
21WS-1116-S06379-N-092721	186	15	2067	757	3008	1343	18	5.95	688	
21WS-1116-S06380-N-092721	270	11	1153	512	2050	1815	25	5.76	689	
21WS-1072-S06381-N-092821	463	27	754	3179	4906	48600	150	6.31	690	
21WS-1072-S06382-N-092821	286	15	516	1691	2276	5062	136	5.49	691	
21WS-1072-S06383-N-092821	400	10	102	924	527	2808	68	3.38	692	
21WS-1072-S06385-N-092821	482	18	392	1783	1498	13700	67	4.93	693	
21WS-1072-S06387-N-092821	53	17	339	63	162	577	<5.1	8.11	694	
21WS-1072-S06389-N-092821	173	18	176	935	2721	6272	65	5.34	695	

APPENDIX C.4

Direct Push Technology Boring Logs



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Elba / 0040

Log of Boring: DPT-01

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	10.8
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5634.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations /	SE lobe of mine dump in western part of Elba claim			Northing (ft)	655,634
Comments	Very hard drilling, rock at 10'. Moved N. of 01 to start hole 01B, No core collected from 0-5' on 01B. Hit refusal at 01B at 10.8'. Archived DPT-01 portion from 6-10' Sampled from DPT-01B core			Easting (ft)	1,190,162

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.8 5.0	0-5.0	sand and gravel, brown, moist, sand is coarse-grained, gravel up to 1 inch 20WS-0040-SO6284-0.0-5.0-N-061820 pH = 4.36 Noticed white precipitates forming on archived material.	Mine Waste
2						
3						
4						
5			2.8 5.0	5.0-5.6	sand and gravel, gray to light orange, dry, sand is coarse 20WS-0040-SO5966-5.0-5.6-N-061820 pH=4.83	Mine Waste
6				5.6-6.2	sand and clayey sand, dark brown, moist. 20WS-0040-SO5885-5.6-6.2-N-061820 for Total Metals. pH = 4.27	Native
7				6.2-10.0	sand and fine gravel, gray-brown, dry. Decomposed granite bedrock. 20WS-0040-SO5967-6.2-10.0-N-061820 pH=4.87	Native
8						
9					Core from DPT 01-6-10' was archived 20WS-0040-SO5965-6.0-10.0-N-061820 pH = 5.26	
10						
11			0.8 0.8	10.0-10.8	pulverized rock with sand, gray, dry Total Depth 10.8 feet	Native
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Mining Claim/ Number: Elba / 0040

Log of Boring: DPT- 02

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	15.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5635.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NE part of mine dump in western part of Elba claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,678
				Easting (ft)	1,190,146

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.2 5.0	0-0.8	coarse sand and fine gravel, dark brown, moist	Mine Waste
2				0.8-5.0	silty sand, light orange, moist 20WS-0040-SO5968-0.0-5.0-N-061820 pH=4.27	Mine Waste
3						
4						
5						
6			0.8 5.0	5.0-5.6	sandy gravel with rock, gray-brown, dry 20WS-0040-SO5969-5.0-5.6-N-061820 pH=5.25	Mine Waste
7				5.6-10.0	silt with sand and gravel, brown, moist. Lab sample: 20WS-0040-SO5886-5.6-10.0-N-061820 for total metals pH = 4.51	Native
8						
9						
10						
11			3.8 5.0	10.0-10.4	as above with more sand	Native
				10.4-11.4	clayey sand, yellow-brown, moist. Decomposed granite bedrock. 20WS-0040-SO5970-10.4-11.4-N-061820 pH=5.40	Native
				11.4-12.3	clayey sand, rusty-brown, moist. Decomposed granite bedrock. 20WS-0040-SO5971-11.4-12.3-N-061820 pH=5.04	Native
12						
				12.3-15.0	sand and gravel, light brown, dry; decomposed granite bedrock. Firm drilling at 12.5 feet. No archive material	Native
13						
14						
15					Total Depth 15.0 feet	



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Elba / 0040

Log of Boring: DPT- 03

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	15.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5634.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NW part of main mine dump in western part of Elba claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,680
				Easting (ft)	1,190,084

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 5.0	0-0.5	silty sand, dark brown, moist	Mine Waste
2				0.5-5.0	sand and fine gravel, brown with light-colored streaks, moist. Decomposed granitic waste rock 20WS-0040-SO5972-0.5-5.0-N-061820 pH=5.09	Mine Waste
3						
4						
5						
6			1.9 5.0	5.0-5.9	sand and gravel, brown with orange streaks, moist. 20WS-0040-SO5973-5.0-5.9-N-061820 pH=5.34	Mine Waste
7				5.9-10.0	sandy silt, dark brown, moist. 20WS-0040-SO5887-6.0-6.5-N-061820 for total metals pH=5.91	Native
8					Archive core labled DPT-03-6.2-6.9'. 20WS-0040-SO5974-6.2-6.9-N-061820 pH=7.09	
9						
10						
11			4.0 5.0	10.0-12.2	sandy silt and clay, brown, moist 20WS-0040-SO5975-10.0-12.2-N-061820 pH=8.55	Native
12				12.2-15	sand and gravel, brown with orange, dry. Decomposed granite bedrock. 20WS-0040-SO5976-12.2-15.0-N-061820 pH=8.47	Native
13						
14						
15					Total Depth 15.0 feet	



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Mining Claim/ Number: Elba / 0040

Log of Boring: DPT- 04

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	13.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5631.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	SW lobe of main mine dump in western part of Elba claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,623
				Easting (ft)	1,190,087

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.4 5.0	0.0-5.0	sandy gravel, gray-brown, dry. Appears to have drilled mostly through waste rock. 20WS-0040-SO5977-0.0-5.0-N-061820 pH=4.81	Mine Waste
2						
3						
4						
5						
6			3.2 5.0	5.0-5.6	sand and gravel, brown with orange, moist. 20WS-0040-SO5978-5.0-5.6-N-061820 pH=5.81	Mine Waste
7				5.6-6.0	silt, dark brown, moist. Lab sample. pH = 4.88 20WS-0040-SO5888-5.6-6.0-N-061820 for total metals	Native
8				6.0-6.7	sandy silt, brown, moist. 20WS-0040-SO5979-6.0-6.7-N-061820 pH=6.51	Native
9				6.7-7.9	sand, red-brown, dry. 20WS-0040-SO5980-6.7-7.9-N-061820 pH=8.59	Native
10				7.9-10.0	sandy silt, brown and black, dry. Archived core labled 7.9-8.2' 20WS-0040-SO5981-7.9-8.2-N-061820 pH=8.73	Native
11			2.8 3.0	10.0-13.0	sandy gravel, gray, dry. Decomposed granite bedrock. No archived material for this interval	Native
12						
13					Total Depth 13.0 feet	
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Mining Claim/ Number: Germania / 0043

Log of Boring: DPT-05

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	13.7
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5612.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NW part of mine dump in western part of Germania claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,210
				Easting (ft)	1,190,098

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.1 5.0	0.0-5.0	clayey sand and gravel, brown with orange and white streaks, moist. Decomposed granitic waste rock 20WS-0043-SO5982-0.0-5.0-N-061820 pH=4.39	Mine Waste
2						
3						
4						
5						
6			2.7 5.0	5.0-6.2	sand and gravel, orangish-brown, moist; some clay. Lab sample at 5.8-6.2 ft. pH = 4.93 20WS-0043-SO5889-5.8-6.2-N-061820 for total metals	Mine Waste
7					DPT-05 archived core 5-5.8' 20WS-0043-SO5983-5.0-5.8-N-061820 pH=4.45	
8				6.2-10.0	sandy silt, brown, moist. 20WS-0043-SO5890-6.2-6.4-N-061820 pH=4.22 for total metals	Native
9					DPT-05 archived core from 6.4-10' 20WS-0043-SO5984-6.4-10.0-N-061820 pH=4.46	
10						
11			3.7 3.7	10.0-13.7	sand and gravel, gray-brown, dry; some silt. Decomposed granite bedrock. Refusal at 13.7 ft. 20WS-0043-SO5985-10.0-13.7-N-061820 pH=4.95	Native
12						
13						
					Total Depth 13.7 feet	
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Germania / 0043

Log of Boring: DPT- 06

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	15.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5610.3
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	SE part of mine dump in western part of Germania claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,177
				Easting (ft)	1,190,135

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.0 5.0	0.0-5.0	silty sand and gravel, dark gray with orange streaks, moist 20WS-0043-SO5986-0.0-5.0-N-061820 pH=6.71	Mine Waste
2						
3						
4						
5						
6			2.0 5.0	5.0-10.0	As above with some black-stained gravel, moist. Archived material from 5-10' and 10-10.3' were combined for SPLP/ABA analysis 20WS-0043-SO5987-5.0-10.3-N-061820 pH=5.94	Mine Waste
7						
8						
9						
10						
11			3.5 5.0	10.0-10.3	gravel, as above. Lab sample @ 5.0-10.3 Lab duplicate @ 5.0-10.3	Mine Waste
12				10.3-11.4	silty sand, dark brown, dry. Lab sample at 10.3-10.9 ft for total metals pH=4.51 20WS-0043-SO5891-10.3-10.9-N-061820	Native
13				11.4-15.0	sand and gravel, gray-brown, dry. Decomposed granite bedrock. 20WS-0043-SO5988-11.4-13.5-N-021621 pH=6.83	Native
14						
15					Total Depth 15.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Mountain Boy / 0006

Log of Boring: DPT-07

Date(s) Drilled	6/18/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	15.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5605.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	North, flat portion of mine dump in eastern part of Mountain Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,136
				Easting (ft)	1,189,901

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.1 5.0	0.0-5.0	clayey sand and gravel, brown with orange and white streaks, moist. 20WS-0006-SO5989-0.0-5.0-N-021621 pH = 7.13	Mine Waste
2						
3						
4						
5						
6			3.1 5.0	5.0-5.7	sandy gravel, orange and gray, moist. 20WS-0006-SO5990-5.0-5.7-N-061820 pH=4.37 Lab sample for total metals/SPLP/ABA	Mine Waste
7				5.7-6.0	sandy silt, dark brown, dry. Lab sample, pH=4.17 20WS-0006-SO5892-5.7-6.0-N-061820 for total metals	Native
8				6.0-10.0	sand with gravel, gray, dry; from 7-8 ft is a black silty matrix. Archived core 6-9' 20WS-0006-SO5991-6.0-9.0-N-021621 pH=4.59	Native
9						
10						
11			5.0 5.0	10.0-12.0	sandy clay with gravel, gray with black staining, dry. Highly altered granite bedrock. 20WS-0006-SO5992-10.0-12.0-N-021621 pH=7.45	Native
12				12.0-15.0	silty sand with gravel, gray, dry. Decomposed granite bedrock. 20WS-0006-SO5993-13.0-15.0-N-021621 pH=6.82	Native
13						
14						
15					Total Depth 15.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Mountain Boy / 0006

Log of Boring: DPT-08

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	13.5
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5605.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	SW lobe of large mine dump in eastern part of Mountain Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,100
				Easting (ft)	1,189,935

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.4 5.0	0.0-5.0	clayey sand with fine gravel, dark brown with orange and gray streaks, moist. 20WS-0006-SO5994-0.0-5.0-N-021721 pH=3.94	Mine Waste
2						
3						
4						
5						
6			1.2 5.0	5.0-10.0	silty gravel with sand, brown, dry. Some granitic waste rock. DPT-08 archived core 5-5.5 20WS-0006-SO5995-5.0-5.5-N-021721 pH=6.18	Mine Waste
7						
8					DPT-08 archived core 5.5-5.9 20WS-0006-SO5996-5.5-5.9-N-021721 pH=6.57	
9					DPT-08B archived core 5.3-6.2 20WS-0006-SO5998-5.3-6.2-N-021721 pH=6.19	
10					No recovery from DPT-08 from 10-15' due to rock in shoe. moved to DPT-08B right adjacent to 1st bore	
11			2.0 3.5	10.0-10.4	silty gravel with sand, brown and orange, dry. 20WS-0006-SO5999-10.0-10.4-N-02172 pH=4.99	Mine Waste
12				10.4-10.5	sandy silt, brown, dry. A thin 'soil' horizon. 20WS-0006-SO5893-10.4-10.7-N-061920 for total metals pH=4.74	Native
13				10.5-13.5	sand with gravel, gray-brown, dry. Decomposed granite bedrock. Refusal at 13.5 ft. DPT-08B archived core 10.7-13.5 20WS-0006-SO5997-10.7-13.5-N-021721 pH=4.36	Native
14					Total Depth 13.5 feet	
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Mountain Boy / 0006

Log of Boring: DPT-09

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	15.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5604.2
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	SE lobe of large mine dump in eastern part of Mountain Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,080
				Easting (ft)	1,189,865

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.0 5.0	0.0-5.0	silty gravel with sand, dark brown with orange streaks, moist. 20WS-0006-SO6000-0.0-5.0-N-021721 pH=5.69	Mine Waste
2						
3						
4						
5						
6				5.0-10.0	interval not logged. Poor quality photo shows sandy gravel, brown, dry.	Mine Waste
7						
8						
9						
10						
11			3.0 5.0	10.0-11.1	silty gravel with sand, dark brown and white, dry. Slight orange color present 20WS-0006-SO6001-10.0-11.1-N-061920 Lab sample 10.0-11.1 for Total metals/SPLP pH=6.88	Mine Waste
12				11.1-11.4	sandy silt, brown, dry. Lab sample. pH = 7.45 20WS-0006-SO5894-11.1-11.4-N-061920 for total metals	Native
13				11.4-15.0	sand with gravel, light gray-brown, dry. Decomposed granite bedrock. 20WS-0006-SO6002-11.4-15.0-N-021721 pH=6.56	Native
14						
15					Total Depth 15.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Mountain Boy / 0006

Log of Boring: DPT- 10

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	10.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5587.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	on a small mine dump in a drainage, in eastern part of Mountain Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,126
				Easting (ft)	1,189,716

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 5.0	0.0-5.0	clayey fine gravel, brown with black and orange streaks, moist. 20WS-0006-SO6003-0.0-5.0-N-021721 pH=4.72	Mine Waste
2						
3						
4						
5						
6			1.2 5.0	5.0-5.4	clayey gravel with sand, dark brown, moist. 20WS-0006-SO6004-5.0-5.4-N-021721 pH=4.89	Mine Waste
7				5.4-5.7	clayey sand, dark brown, dry. Lab sample. pH=4.35 20WS-0006-SO5895-5.4-5.7-N-061920 for total metals	Native
8				5.7-10.0	silty gravel with sand, gray-brown, dry. Decomposed granite bedrock. Archived core from 5.7-6.2 20WS-0006-SO6005-5.7-6.2-N-021721 pH=4.33	Native
9						
10					Total Depth 10.0 feet	
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Germania / 0043

Log of Boring: DPT- 11

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	10.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5600.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	north side of brownish mine dump in north-central part of Humbolt claim that extends into Germania claim. DPT in Germania claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,281
				Easting (ft)	1,190,406

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.7 5.0	0.0-5.0	clayey gravel with sand, brown with orange and white streaks, moist. 20WS-0043-SO6006-0.0-5.0-N-021721 pH=4.18	Mine Waste
2						
3						
4						
5						
6			2.8 5.0	5.0-5.9	sandy gravel with silt, light brown, dry. 20WS-0043-SO6007-5.0-5.9-N-021721 pH=6.17	Mine Waste
7				5.9-6.5	silty coarse sand, dark brown, dry. Lab sample pH =6.40 20WS-0043-SO5896-5.9-6.5-N-061920 for total metals	Native
8				6.5-10.0	silty sand with fine gravel, light brown, dry. Decomposed granite bedrock. Archived core labeled DPT-11 6.5-7.8' 20WS-0043-SO6008-6.5-7.8-N-021721 pH=8.36	Native
9						
10					Total Depth 10.0 feet	
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Germania / 0043

Log of Boring: DPT- 12

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	10.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5599.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	central area of brownish mine dump in north-central part of Humbolt claim that extends Germania claim. Southeast of DPT-11.			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,267
				Easting (ft)	1,190,435

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.4 5.0	0.0-5.0	clayey gravel with sand, brown with orange streaks, moist. 20WS-0043-SO6009-0.0-5.0-N-021721 pH=4.47	Mine Waste
2						
3						
4						
5						
6			3.3 5.0	5.0-6.5	silty sand with gravel, gray with orange streaks, moist. 20WS-0043-SO6010-5.0-6.5-N-021721 pH=4.96	Mine Waste
7				6.5-7.3	silty gravel with rock, orange and black, moist 20WS-0043-SO6011-6.5-7.3-N-061920 pH=3.69 Lab metals/SPLP	Mine Waste
8				7.3-7.7	sandy silt, dark brown, dry. Lab sample pH=4.09 20WS-0043-SO5897-7.3-7.7-N-061920 for total metals	Native
9				7.7-10.0	sandy silt, brown, dry. A soil of decomposed granite. 20WS-0043-SO6012-7.7-8.3-N-021721 pH=4.08	Native
10					Total Depth 10.0 feet	
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Germania / 0043

Log of Boring: DPT-13

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	15.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5602.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NW top part of large mine dump along Humboldt and Germania Claims			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,318
				Easting (ft)	1,190,493

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 5.0	0.0-5.0	silty gravel with sand, dark gray, dry. Decomposed granitic waste rock 20WS-0043-SO6013-0.0-5.0-N-021721 pH=8.26	Mine Waste
2						
3						
4						
5						
6			1.0 5.0	5.0-10.0	silty gravel, brown and gray, dry. Decomposed granitic waste rock 20WS-0043-SO6014-5.0-10.0-N-021721 pH=5.54	Mine Waste
7						
8						
9						
10						
11			3.0 5.0	10.0-10.8	sandy gravel, gray with orange streaks, dry. 20WS-0043-SO6015-10.0-10.8-N-021721 pH=5.40	Mine Waste
12				10.8-12.0	sandy silt, dark brown, dry. <u>Lab sample at 10.8-11.2</u> pH = 4.28 20WS-0043-SO5898-10.8-11.2-N-061920	Native
13				12.0-15.0	silty sand, gray with orange streaks, dry. Decomposed granite bedrock. DTP-13B archived core 11.2-12 20WS-0043-SO6016-11.2-12.0-N-021721 pH=4.19	Native
14					DPT13B archived core 12-13 20WS-0043-SO6017-12.0-13.0-N-021721 pH=8.18	
15					Total Depth 15.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Germania / 0043

Log of Boring: DPT- 14

Date(s) Drilled	6/19/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	20.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5600.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NE top part of large mine dump on border of Germania and Humboldt claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,335
				Easting (ft)	1,190,651

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		2.5 5.0		0.0-5.0	silty gravel with sand, gray to black, dry. At 1.0-1.8 ft is gray clay, highly altered granite waste rock. 20WS-0043-SO6018-0.0-5.0-N-021721 pH=6.59	Mine Waste
2						
3						
4						
5						
6		2.0 5.0		5.0-10.0	clayey, sandy gravel, brown to gray, dry; with granite rock 20WS-0043-SO6019-5.0-10.0-N-021721 pH=7.82	Mine Waste
7						
8						
9						
10						
11		2.0 5.0		10.0-15.0	broken granite rock with clayey gravel, gray-brown, dry. 20WS-0043-SO6020-10.0-15.0-N-061920 pH=7.70 Lab sample for total metals	Mine Waste
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Project Number: Germania / 0043

Log of Boring: DPT- 14

Depth (ft-bgs)	SAMPLES			Drill Rate (ft/hr)		MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)				
15			3.0		15.0-16.0	silty gravel, gray, dry. 20WS-0043-SO6021-15.0-16.0-N-021721 pH=7.72	Mine Waste
16			5.0		16.0-16.3	silty sand, brown, dry. <u>Lab sample</u> pH = 6.12 20WS-0043-SO5899-16.0-16.3-N-061920 for total metals	Native
17					16.3-20.0	sandy gravel, brown and gray, dry. Decomposed granite bedrock.	Native
18						Archived core from 16.3-18 20WS-0043-SO6022-16.3-18.0-N-021721 pH=7.41	
19							
20						Total Depth 20.0 feet	
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Humbolt / 0003

Log of Boring: DPT- 15

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5586.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	on west-facing side slope of large mine dump in Humbolt claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,134
				Easting (ft)	1,190,603

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-1.0	sandy gravel and zones of clayey gravel, gray-brown, dry. Bottom inch above native is orange.	Mine Waste
2				1.0-4.0	sandy, fine gravel with silt, dark brown, dry. <u>Lab sample from bottom 0.5 feet in tube. Labeled as 1.0-1.5.</u>	Native
3					20WS-0003-SO5900-1.0-1.5-N-062320 for total metals pH= 8.71	
4					Archived core portion labeled DPT-15-0-4 20WS-0003-SO6023-0.0-4.0-N-021721 pH=8.63	
5			3.2 4.0	4.0-4.5	sandy, fine gravel, dark brown, dry. Decomposed granite bedrock. 20WS-0003-SO6024-4.0-4.5-N-021721 pH=8.13	Native
6				4.5-8.0	sandy, fine gravel, dark gray, dry. Decomposed granite bedrock. Harder drilling at 6 feet.	Native
7					Archived core portion labeled DPT-15-4.5-6 20WS-0003-SO6025-4.5-6.0-N-021721 pH=7.54	
8					Archived core portion labeled DPT-15-6-7.2 20WS-0003-SO6026-6.0-7.2-N-021721 pH = 7.64	
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Humbolt / 0003

Log of Boring: DPT- 16

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5582.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	on south-facing terminal slope of large mine dump in Humbolt claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,100
				Easting (ft)	1,190,692

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.6 4.0	0.0-4.0	sandy, fine gravel, dark gray, dry. 20WS-0003-SO6027-0.0-4.0-N-021721 pH=8.39	Mine Waste
2						
3						
4						
5			2.3 4.0	4.0-4.4	silty gravel, gray-brown, dry. 20WS-0003-SO6028-4.0-4.4-N-021721 pH=6.97	Mine Waste
6				4.4-6.0	sandy silt, brown, dry, some clay. 20WS-0003-SO5901-4.4-4.7-N-062320 for total metals . pH 6.91	Native
7				6.0-8.0	sand and gravel, gray, dry. Decomposed granite bedrock. Archived core labeled DPT-16-4.7-5.0 20WS-0003-SO6029-4.7-5.0-N-021721 pH=8.44	Native
8					Archived core labeled DPT-16-5-6.3. Organic smell 20WS-0003-SO6030-5.0-6.3-N-021721 pH=8.78	
9					Total Depth 8.0 feet	
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Mining Claim/ Number: Humbolt / 0003

Log of Boring: DPT- 17

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5579.2
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	SE lobe of low mine dump in south-central part of Humbolt claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	654,944
				Easting (ft)	1,190,701

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	sandy gravel with silt, gray-brown, dry. 20WS-0003-SO6031-0.0-4.0-N-021721 pH=8.06	Mine Waste
2						
3						
4						
5			1.5 4.0	4.0-8.0	sandy gravel with silt, dark gray, dry. 20WS-0003-SO6032-4.0-8.0-N-021721 pH=8.24	Mine Waste
6						
7						
8						
9			3.0 4.0	8.0-8.6	as above with brick debris at 8.4-8.6 ft. 20WS-0003-SO6033-8.0-8.6-N-021721 pH=7.03	Mine Waste
10				8.6-9.5	silty sand, brown, dry, some fine gravel. 20WS-0003-SO5902-8.6-9.0-N-062320 for total metals. pH=6.23 20WS-0003-SO6034-9.0-9.5-N-021721 pH=7.98	Native
11				9.5-12.0	silty gravel with sand, light brown with black streaks, dry. Decomposed granite bedrock. 20WS-0003-SO6035-9.5-11.0-N-021721 pH=8.24	Native
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Humbolt / 0003

Log of Boring: DPT- 18

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5579.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NW part of low mine dump in south-central part of Humbolt claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	654,994
				Easting (ft)	1,190,663

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	sandy gravel, red-brown, dry. 20WS-0003-SO6036-0.0-4.0-N-062320 pH=4.3 Lab sample 0.0-4.0 for ABA	Mine Waste
2						
3						
4						
5			2.0 4.0	4.0-4.6	sandy coarse gravel, black and rusty red, dry, significant Mn-staining. Lab for metals/SPLP 20WS-0003-SO6037-4.0-4.6-N-062320 pH=4.93	Mine Waste
6				4.6-4.9	sandy gravel with silt, brown, dry. 20WS-0003-SO5903-4.6-4.9-N-062320 for total metals pH = 4.50	Native
7				4.9-8.0	silty sand with fine gravel, gray-brown, dry. Decomposed granite bedrock. DPT-18 archived core 4.9-6.0 20WS-0003-SO6038-4.9-6.0-N-021821 pH=4.61	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Humbolt / 0003

Log of Boring: DPT- 19

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5602.3
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	Central top part of large mine dump in north-central part of Humbolt claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,227
				Easting (ft)	1,190,583

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.8 4.0	0.0-4.0	sandy gravel, gray, dry. Mostly broken up granitic waste rock. 20WS-0003-SO6039-0.0-4.0-N-021821 pH=9.20	Mine Waste
2						
3						
4						
5			0.8 4.0	4.0-8.0	sandy gravel, gray, dry. Mostly broken up granitic waste rock. 20WS-0003-SO6040-4.0-8.0-N-021821 pH=9.17	Mine Waste
6						
7						
8						
9			0.9 4.0	8.0-12.0	silty gravel with sand, brown with grat rock, dry. 20WS-0003-SO6041-8.0-12.0-N-021821 pH=8.82	Mine Waste
10						
11						
12						
13			1.0 4.0	12.0-12.6	sandy gravel and rock, gray, dry. Lab for metals/SPLP 20WS-0003-SO6042-12.0-12.6-N-062320 pH=9.24	Mine Waste
14				12.6-16.0	sandy silt, brown, dry. Lab sample from bottom 0.4 feet in tube. Labeled as 12.6-13.0 20WS-0003-SO5904-12.6-13.0-N-062320 for total metals. pH=6.05	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Minnie Jane / 0010

Log of Boring: DPT- 20

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5574.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	In SW part of large mine dump in Minnie Jane claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	656,085
				Easting (ft)	1,188,087

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		0.6 4.0		0.0-4.0	silty gravel with sand, brown, dry. 20WS-0010-SO6043-0.0-4.0-N-021821 pH=7.53	Mine Waste
2						
3						
4						
5		1.5 4.0		4.0-8.0	sandy gravel with silt, gray to black with orange, dry. 20WS-0010-SO6044-4.0-8.0-N-021821 pH=5.87	Mine Waste
6						
7						
8						
9		3.0 4.0		8.0-8.4	clayey gravel, brown with orange, dry. 20WS-0010-SO6045-8.0-8.4-N-021821 pH=5.31	Mine Waste
10				8.4-8.8	clayey sand, brown, dry. <u>Lab sample for total metals.</u> 20WS-0010-SO5905-8.4-8.8-N-062320 pH=4.20	Native
				8.8-8.9	charcoal layer	Native
				8.9-9.4	clayey sand, tan, dry. 20WS-0010-SO6046-8.8-9.4-N-021821 pH=8.10	Native
				9.4-12.0	sandy gravel, gray, dry. Decomposed granite bedrock. Arcived core labeled DPT-20-9.4-11 20WS-0010-SO6047-9.4-11.0-N-021821 pH=8.76	Native
12					Total Depth 12.0 feet	
13						
14						
15						

Archived together
8.8-8.9 & 8.9-9.4



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Minnie Jane / 0010

Log of Boring: DPT- 21

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5581.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	central part of south slope of large mine dump in Minnie Jane claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	656,101
				Easting (ft)	1,188,157

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	silty gravel with sand, dark gray with orange, dry. 20WS-0010-SO6048-0.0-4.0-N-021821 pH=6.87	Mine Waste
2						
3						
4						
5			1.4 4.0	4.0-8.0	clayey gravel with sand, dark gray, moist. 20WS-0010-SO6049-4.0-8.0-N-021821 pH=7.88	Mine Waste
6						
7						
8						
9			1.0 4.0	8.0-12.0	as above, but dry. 20WS-0010-SO6050-8.0-12.0-N-021821 pH=7.86	Mine Waste
10						
11						
12						
13			1.5 4.0	12.0-13.0 13.0-16.0	silty gravel with sand, gray, dry. Some broken rock. Lab sample for for metals/SPLP 20WS-0010-SO6051-12.0-13.0-N-062320 pH=7.34 silty sand, dark brown, moist. <u>Lab sample from bottom 0.5 feet in tube. Labeled as 13-13.5</u>	Mine Waste Native
14					20WS-0010-SO5906-13.0-13.5-N-062320 for total metals pH=4.98	
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Minnie Jane / 0010

Log of Boring: DPT- 22

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5589.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	east part of flat top of large mine dump in Minnie Jane claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	656,170
				Easting (ft)	1,188,226

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	sandy gravel, gray, dry. Mostly broken up granitic waste rock. Contains a piece of wet wood debris. 20WS-0010-SO6052-0.0-4.0-N-021821 pH=7.74	Mine Waste
2						
3						
4						
5			1.2 4.0	4.0-8.0	sandy gravel, gray with orange streaks, dry. 20WS-0010-SO6053-4.0-8.0-N-021821 pH=5.21	Mine Waste
6						
7						
8						
9			1.1 4.0	8.0-12.0	sandy gravel with silt, gray with a black zone, dry. 20WS-0010-SO6054-8.0-12.0-N-021821 pH6=6.68	Mine Waste
10						
11						
12						
13			2.0 4.0	12.0-12.2	silty gravel, gray, dry. 20WS-0010-SO6055-12.0-12.2-N-021821 pH=5.31	Mine Waste
				12.2-12.6	silty sand, brown, dry. Lab sample, pH=4.43 20WS-0010-SO5907-12.2-12.6-N-062320 for total metals	Native
				12.6-12.7	charcoal layer.	Native
14				12.7-16.0	silty sand, gray to brown, dry. Decomposed granite bedrock. DPT-22 archived core 12.6-14 20WS-0010-SO6056-12.6-14.0-N-021821 pH=5.93	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Minnie Jane / 0010

Log of Boring: DPT- 23

Date(s) Drilled	6/23/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5583.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	north-central part of flat top of large mine dump in Minnie Jane claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	656,275
				Easting (ft)	1,188,187

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-0.6	clayey sand, black, moist.	Mine Waste
2				0.6-4.0	silty gravel, gray, dry. Archived core from 0-4 20WS-0010-SO6057-0.0-4.0-N-021821 pH=4.74	Mine Waste
3						
4						
5			0.9 4.0	4.0-8.0	mostly broken up granitic waste rock.	Mine Waste
6						
7						
8						
9			1.0 4.0	8.0-12.0	sandy gravel with silt, gray with orange silt, dry. Core archived from 4-12' 20WS-0010-SO6058-4.0-12.0-N-021821 pH=5.97	Mine Waste
10						
11						
12						
13			1.5 4.0	12.0-12.4	sandy gravel, gray, dry. Bottom 0.2 ft is wood. 20WS-0010-SO6059-12.0-12.4-N-021821 pH=6.14	Mine Waste
14				12.4-12.8	silty sand, brown, dry; some wood. <u>Lab sample.</u> 20WS-0010-SO5908-12.4-12.8-N-062320 lab for total metals pH=4.35	Native
15				12.8-16.0	silty sand, brown, dry. Decomposed granite bedrock. core archived from 12.8-13.5 20WS-0010-SO6060-12.8-13.5-N-021821 pH=5.16	Native



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Minnie Jane / 0010

Log of Boring: DPT- 24

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5560.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	toe of west slope of large mine dump in Minnie Jane claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	656,217
				Easting (ft)	1,188,058

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.9 4.0	0.0-4.0	sandy gravel, brown to gray, dry. 20WS-0010-SO6061-0.0-4.0-N-021821 pH=6.22	Mine Waste
2						
3						
4						
5			2.4 4.0	4.0-4.6	sandy silt, brown, wet. It looks like a soil horizon, but there is mine waste below it. 20WS-0010-SO6062-4.0-4.6-N-021821 pH=4.25	Mine Waste
6				4.6-8.0	clayey gravel with sand, orange and black, dry. Core archived DPT-24-4.6-5.6 20WS-0010-SO6063-4.6-5.6-N-021821 pH=4.83	Mine Waste
7						
8						
9			4.0 4.0	8.0-8.2	silty gravel, orange, dry. 20WS-0010-SO6064-8.0-8.2-N-021821 pH=6.09	Mine Waste
10				8.2-12.0	silty sand, brown with orange and black, dry. Appears to be decomposed granite bedrock. No apparent soil horizon; mine waste directly on top of native granite. Lab sample at 8.2-8.5 ft. pH=6.37 20WS-0010-SO5909-8.2-8.5-N-062420 for total metals	Native
11					Archived core 8.5-9.5' 20WS-0010-SO6065-8.5-9.5-N-021821 pH=7.82	
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Minnie Jane / 0010

Log of Boring: DPT- 25

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5588.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	east edge of flat top of large mine dump in Minnie Jane claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	656,204
				Easting (ft)	1,188,287

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.8 4.0	0.0-0.5	silty gravel, brown, dry. 20WS-0010-SO6066-0.0-0.5-N-021821 pH=7.78	Mine Waste
2				0.5-1.2	wood debris, wet.	Mine Waste
3				1.2-4.0	sandy gravel, gray, dry. Archived core 1.2-1.8 20WS-0010-SO6067-1.2-1.8-N-021821 pH=7.66	Mine Waste
4						
5			0.8 4.0	4.0-8.0	broken up rock with clay, gray, moist. 20WS-0010-SO6068-4.0-8.0-N-021821 pH=7.61	Mine Waste
6						
7						
8						
9			2.8 4.0	8.0-9.2	sandy clay w/gravel, black, gray and orange, moist. 20WS-0010-SO6069-8.0-9.2-N-062420 pH=4.22 Lab for metals/SPLP/ABA	Mine Waste
10				9.2-9.6	silt with gravel, dark brown, moist. <u>Lab sample</u> . pH=3.94 20WS-0010-SO5910-9.2-9.6-N-062420 for total metals	Native
11				9.6-12.0	silty sand with gravel, gray, dry. Decomposed granite bedrock. Archived core from 9.6-10.8' 20WS-0010-SO6070-9.6-10.8-N-021821 pH=4.62	Native
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Key West / 0297

Log of Boring: DPT- 26

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5747.5
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	East part of flat top of large mine dump in western Key West claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,004
				Easting (ft)	1,185,576

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	silty gravel with sand, light brown and orange, dry; some wood debris. 20WS-0297-SO6071-0.0-4.0-N-021821 pH=5.69	Mine Waste
2						
3						
4						
5			0.9 4.0	4.0-4.4	silty sandy gravel, gray, moist.	Mine Waste
6				4.4-8.0	silty coarse sand, brown and orange, moist, some wood debris. Core archived from 4-8' 20WS-0297-SO6072-4.0-8.0-N-021821 pH=4.97	Mine Waste
7						
8						
9			1.0 4.0	8.0-12.0	silty sand, yellow and brown, moist; minor gravel 20WS-0297-SO6073-8.0-12.0-N-021821 pH=5.03	Mine Waste
10						
11						
12						
13			1.0 4.0	12.0-12.7	silty sand with gravel, white to orange, moist; piece of wood at bottom. Lab for metals/SPLP 20WS-0297-SO6074-12.0-12.7-N-062420 pH=4.90	Mine Waste
14				12.7-16.0	clay, brown, moist, some sand. <u>Lab sample from bottom 0.3 feet in tube. Labeled as 12.7-13.0</u> 20WS-0297-SO5911-12.7-13.0-N-062420 for total metals pH=3.95	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Key West / 0297

Log of Boring: DPT- 27

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	13.75
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5737.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	in a west-central valley between 2 lobes of large mine dump in western Key West claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,978
				Easting (ft)	1,185,464

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.9 4.0	0.0-4.0	silty sand, tan, moist; minor gravel. Gravel at 4 feet is black. 20WS-0297-SO6075-0.0-4.0-N-021821 pH=4.71	Mine Waste
2						
3						
4						
5			2.7 4.0	4.0-5.5	silty sand with gravel, brown with black and white zones, moist. 20WS-0297-SO6076-4.0-5.5-N-022221 pH=5.04	Mine Waste
6				5.5-8.0	silty sand, white with yellow zones, dry. Highly altered waste material. 20WS-0297-SO6077-5.5-6.7-N-022221 pH=8.78	Mine Waste
7						
8						
9			3.0 3.0	8.0-11.0	sand and gravel, white, dry. Highly altered waste rock. Refusal at 11.0 feet. 20WS-0297-SO6078-8.0-11.0-N-022221 pH=9.08	Mine Waste
10					Moved over 1 foot to drill DPT-27B, due to refusal at 11 feet and still in mine waste. At DPT-27B, used a solid point to 11 feet, then collected soil core.	
11						
12			2.1 2.75	11.0-13.7	sand and gravel, white, dry. Black lens at 12.3 ft. Highly altered waste rock. Refusal at 13.75 feet. 20WS-0297-SO6079-11.0-13.7-N-022221 pH=9.27 No native material encountered at DPT-27.	Mine Waste
13					No Lab sample taken at DPT-27. Combined SO6078 and SO6079 for lab total metals/SPLP/ABA 20WS-0297-SO6080-8.0-13.7-N-062420 pH=9.21	
14					Total Depth 13.75 feet	
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Key West / 0297

Log of Boring: DPT- 28

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	9.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5727.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	On a bench in SW part of large mine dump in western Key West claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,895
				Easting (ft)	1,185,487

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.4 4.0	0.0-4.0	silty gravel, orange with black zones, dry. 20WS-0297-SO6081-0.0-4.0-N-062420 pH=3.69 Lab for ABA	Mine Waste
2						
3						
4						
5			2.6 4.0	4.0-4.5	clayey gravel, brown to gray, dry. Lab sample for total metals/SPLP 20WS-0297-SO6082-4.0-4.5-N-062420 pH=3.35	Mine Waste
6				4.5-4.8	sandy clay, brown, dry; some silt. Lab sample. 20WS-0297-SO5912-4.5-4.8-N-062420 for total metals	Native
7				4.8-5.4	sandy clay as above, grading to decomposed granite bedrock. 20WS-0297-SO6083-4.8-5.4-N-022221 pH=3.38	Native
8				5.4-8.0	silty sand, yellow to tan, dry. Decomposed granite bedrock. 20WS-0297-SO6084-5.4-9.0-N-022221 pH=4.28	Native
9			1.0 1.0	8.0-9.0	silty sand, yellow to tan, dry. Decomposed granite bedrock. Refusal at 9.0 feet. Total Depth 9.0 feet	Native
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Key West / 0297

Log of Boring: DPT- 29

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	2.3
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5727.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	toe of south-central slope of large mine dump in western Key West claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,899
				Easting (ft)	1,185,554

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.6 2.3	0.0-0.2	silty sand, tan, dry. 20WS-0297-SO6085-0.0-0.2-N-022221 pH=3.68	Mine Waste
				0.2-0.8	sandy clay with fine gravel, brown, dry. Lab sample. pH=3.67	Native
2				0.8-2.3	20WS-0297-SO5913-0.2-0.8-N-062420 for total metals silty sand with gravel, gray, dry. Decomposed granite bedrock. A sharp, angular contact with the above soil horizon. Refusal at 2.3 feet. Total Depth 2.3 feet	Native
3					20WS-0297-SO6086-0.8-2.3-N-022221 pH=5.76	
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Key West / 0297

Log of Boring: DPT- 30

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	4.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5732.4
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	Toe of slope near SE corner of large mine dump in western Key West claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,932
				Easting (ft)	1,185,620

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.0 4.0	0.0-0.4	broken up waste rock with silt, gray, dry. 20WS-0297-SO6087-0.0-0.4-N-022221 pH=3.42	Mine Waste
2				0.4-0.8	sandy clay, brown, dry. <u>Lab sample from 0.4-0.8 ft.</u> 20WS-0297-SO5914-0.4-0.8-N-062420 for total metals pH=4.31	Native
3				0.8-4.0	silty sand with gravel, gray, dry. Decomposed granite bedrock. 20WS-0297-SO6088-0.8-1.2-N-022221 pH=4.27	Native
4				Total Depth 4.0 feet		
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Nettie / 0288

Log of Boring: DPT-31

Date(s) Drilled	6/24/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5746.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	NW part of flat top of large Key West mine dump in SW corner of Nettie Drilled to replace DPT-27 that had no lab sample.			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,026
				Easting (ft)	1,185,455

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.1 4.0	0.0-4.0	silty gravel with sand, brown with orange and black, dry. Mn-stained sand lens at bottom of tube. 20WS-0288-SO6089-0.0-4.0-N-022221 pH=3.56	Mine Waste
2						
3						
4						
5			2.2 4.0	4.0-4.6	clayey gravel, orange with black, moist. 20WS-0288-SO6090-4.0-4.6-N-062420 pH=3.52 Lab metals/SPLP	Mine Waste
6				4.6-5.0	clayey sand, brown, moist. <u>Lab sample</u> , pH=4.27 20WS-0288-SO5915-4.6-5.0-N-062420 for total metals	Native
7				5.0-8.0	silty sand, tan, dry. Decomposed granite bedrock. Archived core DPT-31 5-6.2 20WS-0288-SO6091-5.0-6.2-N-022221 pH=4.76	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Burlington / 0285

Log of Boring: DPT- 32

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5699.4
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	Top of dump, betw. south and SW lobes of large dump in central Burlington claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,292
				Easting (ft)	1,184,813

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		0.8 4.0		0.0-4.0	silty sand with gravel, dark red-brown, dry. 20WS-0285-SO6092-0.0-4.0-N-062520 pH=4.03 Lab sample for metals/SPLP	Mine Waste
2						
3						
4						
5		2.5 4.0		4.0-4.4	sandy gravel, light brown, dry. 20WS-0285-SO6093-4.0-4.4-N-022221 pH=6.41	Mine Waste
6				4.4-4.5	sandy clay, brown, moist. <u>Lab sample.</u> 20WS-0285-SO5916-4.4-4.5-N-062520 for total metals	Native
7				4.5-8.0	silty sand with gravel, tan and white with black streaks, dry. Decomposed granite bedrock. DPT-32 archived core 4.5-6.5 20WS-0285-SO6094-4.5-6.5-N-022221 pH=6.23	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Burlington / 0285

Log of Boring: DPT- 33

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	10.25
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5703.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	near middle of dump top of large mine dump in central Burlington claim			Northing (ft)	658,336
				Easting (ft)	1,184,796

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.7 4.0	0.0-4.0	sandy gravel, dark brown, dry; some gravel is stained black. 20WS-0285-SO6095-0.0-4.0-N-022221 pH=5.60	Mine Waste
2						
3						
4						
5			0.6 4.0	4.0-8.0	sandy gravel, brown to 4.4 ft, then yellowish-tan, moist. Combined 4-8 and 8-8.4 for lab analysis for metals/SPLP/ABA	Mine Waste
6						
7						
8						
9			1.5 ###	8.0-8.4 8.4-8.7	sandy gravel, yellowish-tan, dry. 20WS-0285-SO6096-4.0-8.4-N-062520 pH=5.13 sandy silt, dark brown, moist. Sits on broken up granitic rock. Lab sample, 20WS-0285-SO5917-8.4-8.7-N-062520 for total metals. pH = 5.07	Mine Waste Native
10				8.7-10.25	sandy gravel, gray with black, dry. Decomposed granite bedrock. Refusal at 10.25 feet. 20WS-0285-SO6097-8.7-10.7-N-022221 pH=5.24 Total depth says 10.25 feet. Archived core was labeled 8.7-10.7 Total Depth 10.25 feet	Native
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number Burlington / 0285

Log of Boring: DPT- 34

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	3.75
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5697.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	a low bench on north side of main Burlington dump high Mn-staining on surface			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,392
				Easting (ft)	1,184,801

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			3.0 3.75	0.0-0.3	silty sandy gravel, dark brown with black staining, dry. 20WS-0285-SO6098-0.0-0.3-N-022221 pH=4.92	Mine Waste
2				0.3-3.75	silty sand with gravel, red to pink, dry. Decomposed granite bedrock. <u>Lab sample and field duplicate at 0.3-0.9 ft.</u> 20WS-0285-SO5918-0.3-0.9-N-062520 pH=5.69	Native
3					Soil horizon does not appear to be present. Mine waste is sitting directly on decomposed bedrock. Refusal at 3.75 feet. Archived core 0.9-3.0 20WS-0285-SO6099-0.9-3.0-N-022221 pH = 5.72	
4					Total Depth 3.75 feet	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Burlington / 0285

Log of Boring: DPT- 35

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5697.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	A low bench on north side of main Burlington dump high Mn-staining on surface			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,435
				Easting (ft)	1,184,809

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		1.8 4.0		0.0-1.2	gravel with sand, brown with orange zones, dry. 20WS-0285-SO6100-0.0-1.2-N-062520 pH=4.48 Lab ABA	Mine Waste
2				1.2-4.0	sandy silt, dark brown, dry. <u>Lab sample at 1.2-1.5 feet.</u> 20WS-0285-SO5919-1.2-1.5-N-062520 for total metals. pH-5.44	Native
3					Archived core labeled DPT-35 1.5-1.8 20WS-0285-SO6101-1.5-1.8-N-022221 pH=4.76	
4						
5		3.4 4.0		4.0-8.0	silty sandy gravel, tan and white with rusty areas, dry. Decomposed granite bedrock. 20WS-0285-SO6102-4.0-8.0-N-022221 pH = 5.44	Native
6						
7						
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Burlington / 0285

Log of Boring: DPT-36

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	6.3
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5689.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations /	south slope of west lobe of main Burlington dump			Measuring Point Elevation (ft-msl)	
Comments	DPT-36B was punched due to having hard time calling lithology in original DPT-36. cores for DPT-36 archived			Northing (ft)	658,300
				Eastings (ft)	1,184,752

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.0 4.0	0.0-1.3	sandy gravel, black, dry. At 0.8-1.0 ft, a layer of clayey gravel, orange, most. 20WS-0285-SO6106-0.0-1.3-N-062520 pH=5.5 Lab 0.0-1.3 for metals/SPLP	Mine Waste
2				1.3-1.5	sandy silt, dark brown, moist. Lab sample. pH=4.65 20WS-0285-SO5920-1.3-1.5-N-062520 for total metals	Native
3				1.5-4.0	silty sand, white, dry; some gravel. Decomposed granite bedrock. Archived cores from original DPT-36 below 20WS-0285-SO6103-0.0-0.6-N-022221 pH=4.41 20WS-0285-SO6104-0.6-1.9-N-022221 pH=4.25 20WS-0285-SO6105-4.0-4.5-N-022221 pH=4.65	Native
4						
5			2.3 2.3	4.0-6.3	silty sand, white, dry; some gravel. Decomposed granite bedrock. Archived core labeled DPT-36B 1.5-5.0 20WS-0285-SO6107-1.5-5.0-N-022221 pH=4.93	Native
6					Total Depth 6.3 feet	
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Independent / 0246

Log of Boring: DPT- 37

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5600.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	On west center lobe of large mine dump in Independent claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,277
				Easting (ft)	1,183,640

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	clayey sand, brown and orange, moist. 20WS-0246-SO6218-0.0-4.0-N-030121 pH=5.81	Mine Waste
2						
3						
4						
5			1.5 4.0	4.0-8.0	clayey gravel with sand, black, gray and orange, moist. Some rock. 20WS-0246-SO6108-4.0-8.0-N-022221 pH=5.14	Mine Waste
6						
7						
8						
9			1.2 4.0	8.0-12.0	clayey gravel with sand, gray and orange, moist. Lab sample for metals/SPLP 20WS-0246-SO6109-8.0-12.0-N-062520 pH=6.02	Mine Waste
10						
11						
12						
13			3.0 4.0	12.0-12.2	broken rock and black silt 20WS-0246-SO6110-12.0-12.2-N-022221 pH=5.32	Mine Waste
14				12.2-12.8	sandy clay, brown, dry. Lab sample for total metals 20WS-0246-SO5921-12.2-12.6-N-062520 pH=3.95 White material on archived material SO6111 pH=4.35	Native
15				12.8-16.0	silty sand, orange with white streaks, dry. Decomposed granite bedrock. 20WS-0246-SO6112-12.8-15.0-N-022221 pH=4.09 Total Depth 16.0 feet	Native



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Independent / 0246

Log of Boring: DPT- 38

Date(s) Drilled	6/25/2020	Logged By	S. Smith / M. Sprunger	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5598.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	On south center lobe of large mine dump in Independent claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,222
				Easting (ft)	1,183,702

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		2.0 4.0		0.0-4.0	clayey gravel, orange and gray, moist. 20WS-0246-SO6113-0.0-4.0-N-022421 pH= 6.16	Mine Waste
2						
3						
4						
5		2.6 4.0		4.0-8.0	silty gravel, light and dark brown, moist. 20WS-0246-SO6114-4.0-6.6-N-022421 pH=5.20	Mine Waste
6						
7						
8						
9		1.2 4.0		8.0-8.8	sandy gravel, gray, dry. 20WS-0246-SO6115-8.0-8.8-N-022421 pH=5.73	Mine Waste
10				8.8-12.0	sandy silt, dark brown, moist. <u>Lab sample from bottom 0.4 feet in tube. Labeled as 8.8-9.2.</u> pH=4.19	Native
11					20WS-0246-SO5922-8.8-9.2-N-062520 for total metals	
12						
13		2.5 4.0		12.0-13.2	sandy silt, dark brown, moist. 20WS-0246-SO6116-12.0-13.2-N-022421 pH=4.26	Native
14				13.2-16.0	sandy gravel, gray, dry. Decomposed granite bedrock. no archive material	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Independent / 0246

Log of Boring: DPT- 39

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5600.4
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	north-central area of dump top of large mine dump in Independent claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,295
				Easting (ft)	1,183,720

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.1 4.0	0.0-4.0	silty gravel, dark gray and orange, dry; orange zones are clayey. 20WS-0246-SO6117-0.0-4.0-N-022421 pH=4.87	Mine Waste
2						
3						
4						
5			1.1 4.0	4.0-4.8	sandy gravel, tan. 20WS-0246-SO6118-4.0-4.8-N-022421 pH=5.33	Mine Waste
6				4.8-8.0	sandy silt, dark brown, dry. <u>Lab sample from bottom 0.3 ft in tube. Labeled as 4.8-5.1.</u> 20WS-0246-SO5923-4.8-5.1-N-062520 for total metals. pH=4.06 20WS-0246-SO6119-0.0-4.8-N-062520 pH=4.96 combined all intervals from 0-4.8 for sample for total metals/SPLP/ABA	Native
7						
8						
9			3.5 4.0	8.0-12.0	silty gravel with sand, gray to orange, dry. Decomposed granite bedrock. 20WS-0246-SO6120-8.0-10.0-N-022421 pH=4.79	Native
10						
11						
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Independent / 0246

Log of Boring: DPT- 40

Date(s) Drilled	6/25/2020	Logged By	S. Smith / M. Sprunger	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5601.2
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	On southeast lobe of large mine dump in Independent claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,225
				Easting (ft)	1,183,780

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.3 4.0	0.0-4.0	sandy gravel, brown, black, and orange, dry. 20WS-0246-SO6121-0.0-4.0-N-022421 pH=4.66	Mine Waste
2						
3						
4						
5			1.0 4.0	4.0-8.0	silty sand, brown and orange, dry. 20WS-0246-SO6122-4.0-8.0-N-022421 pH=3.92	Mine Waste
6						
7						
8						
9			1.4 4.0	8.0-8.7	sandy clay, orange to gray, moist; wood at bottom of 20WS-0246-SO6123-8.0-8.7-N-062520 pH=4.49 Metals/SPLP	Mine Waste
10				8.7-9.0	sandy silt, dark brown, wet. <u>Lab sample for total metals</u> 20WS-0246-SO5924-8.7-9.0-N-062520 pH=4.26	Native
11				9.0-12.0	silty sand, brown to pink, moist. Decomposed granite bedrock. archived core labeled 9.0-9.4 20WS-0246-SO6124-9.0-9.4-N-022421 pH=4.59	Native
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Burlington / 0285

Log of Boring: DPT- 41

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	4.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5603.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	North slope of dump on east side of road at large mine dump associated w/ Independent claim but on Burlington			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,252
				Easting (ft)	1,183,880

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.4 4.0	0.0-1.0	silty sand, pink to gray, dry.	Mine Waste
2				1.0-4.0	20WS-0285-SO6125-0.0-1.0-N-022421 pH=4.40 sandy silt, dark brown, moist. <u>Lab sample from bottom 0.4 ft in tube. Labeled as 1.0-1.4</u>	Native
3						
4					Total Depth 4.0 feet	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: General Washington / 1150

Log of Boring: DPT- 42

Date(s) Drilled	6/25/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	24.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5652.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	In south part of flat area at north end of large dump in Gen. Washington claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,680
				Easting (ft)	1,187,442

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.9 4.0	0.0-4.0	sandy gravel, gray to orange, dry. 20WS-1150-SO6126-0.0-4.0-N-022421 pH=5.24	Mine Waste
2						
3						
4						
5			1.2 4.0	4.0-8.0	sandy gravel, gray with orange, dry; some wood. 20WS-1150-SO6127-4.0-8.0-N-022421 pH=6.04	Mine Waste
6						
7						
8						
9			0.6 4.0	8.0-12.0	mostly broken rock; silty gravel, gray with orange, dry. 20WS-1150-SO6128-8.0-12.0-N-022421 pH=5.53	Mine Waste
10						
11						
12						
13			1.4 4.0	12.0-16.0	silty gravel, gray to orange, moist. Archived core DPT-42 12-16 20WS-1150-SO6129-12.0-16.0-N-022421 pH=5.65	Mine Waste
14					Archived core DPT-42B 12-16 20WS-1150-SO6130-12.0-16.0-N-022421 pH=4.77	
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Milwaukee / 0015

Log of Boring: DPT- 43

Date(s) Drilled	6/26/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5607.5
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	North end of top of large mine dump in central Milwaukee claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,478
				Easting (ft)	1,188,719

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.2 4.0	0.0-4.0	silty gravel with sand, brown and gray, dry. 20WS-0015-SO6135-0.0-4.0-N-022421 pH=6.02	Mine Waste
2						
3						
4						
5			2.2 4.0	4.0-5.0	silty sand, dark brown, wet to moist. 20WS-0015-SO6136-4.0-5.0-N-022421 pH=7.28	Mine Waste
6				5.0-5.5	sand, brown, moist. 20WS-0015-SO6137-5.0-5.5-N-022421 pH=6.86	Mine Waste
7				5.5-8.0	silty sand, dark brown, moist. <u>Lab sample from bottom 0.7 feet in tube. Labeled as 5.5-6.2.</u> 20WS-0015-SO5927-5.5-6.2-N-062620 for metals pH=6.64	Native
8						
9			2.8 4.0	8.0-8.7	sandy silt, dark brown, moist. 20WS-0015-SO6138-8.0-8.7-N-022421 pH=6.97	Native
10				8.7-9.7	silt, brown, moist. Some sand toward bottom. 20WS-0015-SO6139-8.7-9.7-N-022421 pH=8.53	Native
11				9.7-12.0	clay, brown to dark brown, moist. 20WS-0015-SO6140-9.7-10.8-N-022421 pH=8.30	Native
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Mining Claim/ Number: Milwaukee / 0015

Log of Boring: DPT- 44

Date(s) Drilled	6/26/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5617.4
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	south end of top of large mine dump in central Milwaukee claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,309
				Easting (ft)	1,188,692

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	silty gravel, brown and orange, moist. 20WS-0015-SO6141-0.0-4.0-N-022421 pH=7.06	Mine Waste
2						
3						
4						
5			1.4 4.0	4.0-8.0	clayey gravel, brown, orange, and black, moist. 20WS-0015-SO6142-4.0-8.0-N-022421 pH=7.58	Mine Waste
6						
7						
8						
9			1.4 4.0	8.0-12.0	clayey gravel, brown and black, moist. 20WS-0015-SO6143-8.0-12.0-N-022421 pH=7.80	Mine Waste
10						
11						
12						
13			2.3 4.0	12.0-12.5	clayey gravel, orange, moist. 20WS-0015-SO6144-12.0-12.5-N-022421 pH=7.91	Mine Waste
				12.5-12.7	sandy gravel, black, dry. <u>Lab sample</u> . pH=7.44 20WS-0015-SO5928-12.5-12.7-N-062620 for metals	Mine Waste
14				12.7-13.0	sandy gravel, brown, dry. <u>Lab sample</u> . pH=7.55 20WS-0015-SO5929-12.7-13.0-N-062620 for metals	Native
15				13.0-16.0	silty gravel with sand, brown, dry.	Native



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Milwaukee / 0015

Log of Boring: DPT- 45

Date(s) Drilled	6/26/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5615.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	Center area of top of large mine dump in central Milwaukee claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,368
				Easting (ft)	1,188,727

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Feet	Recovery (ft)			
1			1.5 4.0	0.0-4.0	clayey gravel, brown to gray, dry. 20WS-0015-SO6146-0.0-4.0-N-022421 pH=6.32	Mine Waste
2						
3						
4						
5			1.1 4.0	4.0-8.0	clayey gravel, brown with gray and orange, moist. 20WS-0015-SO6147-4.0-8.0-N-022421 pH=7.82	Mine Waste
6						
7						
8						
9			1.7 4.0	8.0-8.7	clayey gravel, brown to orange, moist; with wood. 20WS-0015-SO6148-8.0-8.7-N-022421 pH=8.05	Mine Waste
10				8.7-9.3	silty sand, dark brown, moist. Lab sample for total metals 20WS-0015-SO5930-8.7-9.0-N-062620 pH=5.12 20WS-0015-SO6149-9.0-9.3-N-022421 pH=5.06	Native
11				9.3-12.0	silty sand with gravel, dark brown, dry. 20WS-0015-SO6150-9.3-9.7-N-022421 pH=6.31	Native
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Milwaukee / 0015

Log of Boring: DPT- 46

Date(s) Drilled	6/26/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5612.3
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	N. Farley	Sampler Type		Checked By	
Locations / Comments	north-central top of large mine dump in central Milwaukee claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,424
				Easting (ft)	1,188,728

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.2 4.0	0.0-4.0	silty gravel, brown with black and orange, dry. 20WS-0015-SO6151-0.0-4.0-N-022421 pH=7.78	Mine Waste
2						
3						
4						
5			1.5 4.0	4.0-8.0	clayey gravel, orange to brown, moist; with sand. 20WS-0015-SO6152-4.0-8.0-N-022421 pH=8.26	Mine Waste
6						
7						
8						
9			2.1 4.0	8.0-9.2	clayey gravel, brown to orange, moist. 20WS-0015-SO6153-8.0-9.2-N-022421 pH=7.95	Mine Waste
10				9.2-12.0	silty sand, dark brown, dry. <u>Lab sample for total metals</u> 20WS-0015-SO5931-9.2-9.5-N-062620 pH=5.62	Native
11					archived core DPT-46 9.5-10.1 20WS-0015-SO6154-9.5-10.1-N-022421 pH=5.95	
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Orphan Boy / 0016

Log of Boring: DPT- 47

Date(s) Drilled	7/1/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5684.2
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	On middle bench on north side of large mine dump in Orphan Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,541
				Easting (ft)	1,189,347

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		0.8 4.0		0.0-4.0	silty gravel, gray to orange, dry. 20WS-0016-SO6155-0.0-4.0-N-022421 pH=6.51	Mine Waste
2						
3						
4						
5		1.9 4.0		4.0-4.8	sandy gravel, gray to orange, dry. Some rock. 20WS-0016-SO6156-4.0-4.8-N-022421 pH=4.86	Mine Waste
6				4.8-5.2	sandy silt, dark brown, dry. <u>Lab sample</u> . pH=4.48 20WS-0016-SO5932-4.8-5.2-N-070120 for metals	Native
7				5.2-8.0	sandy gravel, gray, dry. Decomposed granite bedrock. 20WS-0016-SO6157-5.2-5.9-N-022421 pH=4.76	Native
8						
9		4.0 4.0		8.0-12.0	sandy gravel, gray, dry. Clayey gravel at 9.5-10.5. Decomposed granite bedrock. 20WS-0016-SO6158-8.0-12.0-N-022421 pH=6.76	Native
10						
11						
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Orphan Boy / 0016

Log of Boring: DPT- 48

Date(s) Drilled	7/1/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5684.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	On middle bench on east side of large mine dump in Orphan Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,467
				Easting (ft)	1,189,542

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Feet	Recovery (ft)			
1			1.8 4.0	0.0-4.0	clayey gravel, orange to gray, moist. 20WS-0016-SO6159-0.0-4.0-N-022421 pH=4.59	Mine Waste
2						
3						
4						
5			1.8 4.0	4.0-8.0	sandy gravel with clay, gray to orange, dry. 20WS-0016-SO6160-4.0-8.0-N-022421 pH=5.69	Mine Waste
6						
7						
8						
9			1.4 4.0	8.0-12.0	clayey gravel, orange, moist; and broken rock, gray. 20WS-0016-SO6161-8.0-12.0-N-070120 pH=5.98 Lab for ABA	Mine Waste
10						
11						
12						
13			2.7 4.0	12.0-12.7	clayey gravel, orange and gray, dry. Lab metals/SPLP 20WS-0016-SO6162-12.0-12.7-N-070120 pH=3.99	Mine Waste
14				12.7-13.0	silty sand, dark brown, dry. Lab sample, pH=3.08 20WS-0016-SO5933-12.7-13.0-N-070120 for total metals	Native
14				13.0-16.0	silty sand, brown, dry. 20WS-0016-SO6163-13.0-14.7-N-022421 pH=3.87	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Orphan Boy / 0016

Log of Boring: DPT- 49

Date(s) Drilled	7/1/2020	Logged By	S. Smith / M. Sprunger	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5678.2
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	on middle bench in SW part of large mine dump in Orphan Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,385
				Easting (ft)	1,189,223

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.6 4.0	0.0-4.0	silty sandy gravel, gray, dry. 20WS-0016-SO6164-0.0-4.0-N-022621 pH=8.83	Mine Waste
2						
3						
4						
5			0.9 4.0	4.0-8.0	sandy gravel with rock, gray, dry. 20WS-0016-SO6165-4.0-8.0-N-022621 pH=11.17	Mine Waste
6						
7						
8						
9			1.0 4.0	8.0-12.0	sandy gravel, gray, dry. Decomposed granitic waste rock. 20WS-0016-SO6166-8.0-12.0-N-070120 pH=9.28 Lab for total metals	Mine Waste
10						
11						
12						
13			1.7 4.0	12.0-12.7	sandy gravel and rock, gray with black, dry. 20WS-0016-SO6167-12.0-12.7-N-022621 pH=7.26	Mine Waste
14				12.7-13.2	gravelly silt, dark brown, dry. Lab sample. for total metals 20WS-0016-SO5934-12.7-13.2-N-070120 pH=4.44	Native
15				13.2-16.0	sandy silt, brown, dry. 20WS-0016-SO6168-13.2-13.7-N-022621 pH=6.42	Native
					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Orphan Boy / 0016

Log of Boring: DPT- 50

Date(s) Drilled	7/1/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5667.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	Center of bottom level of large mine dump in Orphan Boy claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,454
				Easting (ft)	1,189,370

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	sandy gravel, brown, gray, and orange, dry. 20WS-0016-SO6169-0.0-4.0-N-070120 pH=4.95 Lab for metals/SPLP	Mine Waste
2						
3						
4						
5			3.5 4.0	4.0-5.0	sandy clay, dark brown, dry. Lab sample and field duplicate for total metals. 20WS-0016-SO5935-4.0-5.0-N-070120 pH=4.15	Native
6				5.0-8.0	silty sandy gravel, brown, dry. Decomposed granite bedrock. 20WS-0016-SO6170-5.0-7.5-N-022621 pH=4.46	Native
7						
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: George Lode (Georgie) / 0013

Log of Boring: DPT- 51

Date(s) Drilled	7/1/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5646.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	on top of mine dump in NE part of George Lode			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,094
				Easting (ft)	1,189,222

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.4 4.0	0.0-4.0	clayey gravel, orange with gray and black, moist, some wood. 20WS-0013-SO6171-0.0-4.0-N-022621 pH=5.41	Mine Waste
2						
3						
4						
5			1.3 4.0	4.0-8.0	clayey gravel, orange with gray and white areas, moist, some wood. 20WS-0013-SO6172-4.0-8.0-N-022621 pH=5.22	Mine Waste
6						
7						
8						
9			1.8 4.0	8.0-12.0	clayey gravel, orange and gray, dry. White percip fromed on archived material 20WS-0013-SO6173-8.0-12.0-N-022621 pH=4.20	Mine Waste
10						
11						
12						
13			1.8 4.0	12.0-12.3	sandy gravel, orange and black, dry. 20WS-0013-SO6174-12.0-12.3-N-022621 pH=4.68	Mine Waste
14				12.3-12.6	silty sand, dark brown, dry. <u>Lab sample for metals</u> 20WS-0013-SO5936-12.3-12.6-N-070120 pH=4.53	Native
15				12.6-16.0	sandy gravel, gray brown, dry. 20WS-0013-SO6175-12.6-13.8-N-022621 pH=4.37	Native
					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: General Washington / 1150

Log of Boring: DPT- 52

Date(s) Drilled	7/1/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5652.4
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	in NW part of flat area at north end of large dump in Gen. Washington claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,754
				Easting (ft)	1,187,405

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.3 4.0	0.0-4.0	silty sandy gravel, gray with black, dry, with wood. 20WS-1150-SO6176-0.0-4.0-N-022621 pH=4.60	Mine Waste
2						
3						
4						
5			1.5 4.0	4.0-8.0	sandy gravel, orange and gray, dry. 20WS-1150-SO6177-4.0-8.0-N-022621 pH=5.24	Mine Waste
6						
7						
8						
9			1.0 4.0	8.0-12.0	clayey gravel with sand, orange with gray, moist. 20WS-1150-SO6178-8.0-12.0-N-022621 pH=4.41	Mine Waste
10						
11						
12						
13			3.0 4.0	12.0-12.3	broken rock, white, dry. 20WS-1150-SO6179-12.0-12.3-N-022621 pH=3.94	Mine Waste
13				12.3-12.7	sandy clay, brown with black, dry.Lab sample metals 20WS-1150-SO5937-12.3-12.7-N-070120 pH=4.23	Native
14				12.7-13.5	sandy clay, gray brown, moist. 20WS-1150-SO6180-12.7-13.5-N-022621 pH=5.59	Native
14				13.5-16.0	sandy gravel, gray brown, dry.Decomposed granite bedrock. 20WS-1150-SO6181-13.5-15-N-022621 pH=6.43	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: General Washington / 1150

Log of Boring: DPT- 53

Date(s) Drilled	7/1/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	28.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5651.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	in NE part of flat area at north end of large dump in Gen. Washington claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	657,752
				Easting (ft)	1,187,483

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.9 4.0	0.0-4.0	silty gravel, white, brown, and orange, dry. 20WS-1150-SO6182-0.0-4.0-N-022621 pH=5.55	Mine Waste
2						
3						
4						
5			1.8 4.0	4.0-8.0	clayey gravel, gray and orange, moist. 20WS-1150-SO6183-4.0-8.0-N-022621 pH=4.53	Mine Waste
6						
7						
8						
9			1.6 4.0	8.0-12.0	clayey gravel, gray and orange, moist. 20WS-1150-SO6184-8.0-12.0-N-022621 pH=4.96	Mine Waste
10						
11						
12						
13			0.4 4.0	12.0-16.0	sandy gravel, orange, dry No archived material	Mine Waste
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Project Number: General Washington / 1150

Log of Boring: DPT-53

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
15						
16			1.0	16.0-16.6	clayey gravel with rock, gray, moist.	Mine Waste
17			4.0	16.6-16.8	clayey sand, brown, moist.	Mine Waste
18				16.8-20.0	broken rock All archived into one bag. 16-20 20WS-1150-SO6185-16.0-20.0-N-022621 pH=5.52	Mine Waste
19						
20			0.9	20.0-24.0	sandy gravel with rock, gray to orange, moist.	Mine Waste
21			4.0		20WS-1150-SO6186-20.0-24.0-N-070120 pH=5.70 Lab for metals/SPLP	
22						
23						
24			2.0	24.0-24.4	sandy gravel, gray, moist.	Mine Waste
25			4.0	24.4-24.9	20WS-1150-SO6187-24.0-24.4-N-022621 pH=6.01 silty sand, dark brown with black, moist. <u>Lab sample for metals</u> 20WS-1150-SO5938-24.4-24.9-N-070120 pH=5.04	Native
26				24.9-28.0	sandy clay, brown, moist. 20WS-1150-SO6188-24.9-26.0-N-022621 pH=5.05	Native
27						
28					Total Depth 28.0 feet	
29						
30						
31						
32						
33						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Nettie / 0288

Log of Boring: DPT- 54

Date(s) Drilled	7/2/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5747.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	West slope of large, mostly black mine dump in central Nettie claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,187
				Easting (ft)	1,186,085

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	clayey sandy gravel, orange with white and brown, moist. 20WS-0288-SO6189-0.0-4.0-N-070220 pH=4.36 Lab and field dup for metals/SPLP	Mine Waste
2						
3						
4						
5			2.2 4.0	4.0-4.4	clayey gravel, orange, moist. Metals <u>Lab sample.</u> 20WS-0288-SO5939-4.0-4.4-N-070220 pH=3.96	Mine Waste
6				4.4-4.9	clay with silt and sand, brown, dry. Metals <u>Lab sample.</u> 20WS-0288-SO5940-4.4-4.9-N-070220 pH=4.36	Native
7				4.9-8.0	sandy silt, dark brown to black, moist. 20WS-0288-SO6190-4.9-6.2-N-030121 pH=6.70	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Nettie / 0288

Log of Boring: DPT- 55

Date(s) Drilled	7/2/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	6.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5732.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	east slope of large, mostly black mine dump in central Nettie claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,247
				Easting (ft)	1,186,335

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-0.8	silty coarse gravel with rock, dark brown, dry.	Mine Waste
2				0.8-4.0	20WS-0288-SO6191-0.0-0.8-N-030121 pH=5.41 Appears to be decomposed granite or aplite bedrock. Silty sand, white with streaks of rust, dry.	Native
3					No archived material	
4						
5			2.0 2.0	4.0-6.0	Appears to be decomposed granite or aplite bedrock. Silty sand, white with streaks of rust and black, dry. Refusal at 6.0 feet. 20WS-0288-SO6192-4.0-6.0-N-030121 pH=4.89	Native
6					Total Depth 6.0 feet	
7					No Lab sample taken at DPT-55.	
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Nettie / 0288

Log of Boring: DPT-56

Date(s) Drilled	7/2/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	6.3
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5737.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	east slope of large, mostly black mine dump in central Nettie claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,268
				Easting (ft)	1,186,320

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.7 4.0	0.0-1.1	clayey sand, dark brown, moist. 20WS-0288-SO6193-0.0-1.1-N-030121 pH=5.68	Mine Waste
2				1.1-1.6	sandy gravel, orange and brown, moist. 20WS-0288-SO6194-1.1-1.6-N-030121 pH=4.92	Mine Waste
3				1.6-4.0	Apparent decomposed aplite bedrock. 20WS-0288-SO6195-0.0-1.6-N-070220 pH=5.23	Native
4					Lab DPT-56-0.0-1.6 Combined intervals for Metals/SPLP/ABA	
5			2.3 2.3	4.0-6.3	Appears to be decomposed aplite bedrock. Silty sand, tan with streaks of pink and black, dry. Refusal at 6.3 feet. <u>Lab sample from 4.0-4.5.</u> 20WS-0288-SO5941-4.0-4.5-N-070220 pH=5.30	Native
6					20WS-0288-SO6196-4.5-6.0-N-030121 pH=4.97	
7					Total Depth 6.3 feet	
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Nettie / 0288

Log of Boring: DPT- 57

Date(s) Drilled	7/2/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	4.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5737.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	central part of large, mostly orange mine dump in central Nettie claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,287
				Easting (ft)	1,186,378

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		2.0 4.0		0.0-0.7	sandy gravel, red and orange, dry. 20WS-0288-SO6197-0.0-0.7-N-070220 pH=6.07 Lab 0-0.7 for metals/SPLP	Mine Waste
2				0.7-0.9	silt, brown, dry. 20WS-0288-SO6198-0.7-0.9-N-030121 pH=5.04	Native
3				0.9-4.0	sandy gravel, tan with black, dry. Metals <u>Lab sample at 0.9-1.3 ft.</u> Decomposed granite bedrock. 20WS-0288-SO5942-0.9-1.3-N-070220 pH=5.48	Native
4					Total Depth 4.0 feet	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Nettie / 0288

Log of Boring: DPT- 58

Date(s) Drilled	7/2/2020	Logged By	S. Smith / M. Sprunger	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5712.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	on mine dump near east edge of Nettie claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,439
				Easting (ft)	1,186,720

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	sandy gravel, dark brown with orange, dry. 20WS-0288-SO6199-0.0-4.0-N-030121 pH=4.85	Mine Waste
2						
3						
4						
5			0.8 4.0	4.0-8.0	sandy gravel, gray with black and orange, dry. 20WS-0288-SO6200-4.0-8.0-N-030121 pH=4.76	Mine Waste
6						
7						
8						
9			0.7 4.0	8.0-12.0	sandy gravel, white and black, dry. Mn-staining. 20WS-0288-SO6201-8.0-12.0-N-030121 pH=5.19	Mine Waste
10					Difficult drilling; maybe rocky. First hole got zero recovery at 12-16 feet. Second hole got drive shoe stuck at 8 feet. Did not encounter native material; no sample.	
11						
12					Total Depth 12.0 feet	
13					No Lab sample taken at DPT-58	
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Hibernia / 0289

Log of Boring: DPT- 59

Date(s) Drilled	7/2/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5698.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	on slope of large mine dump in west part of Hibernia claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,550
				Easting (ft)	1,186,916

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	clayey gravel, brown with orange, moist. White percip forming on archived material 20WS-0289-SO6202-0.0-4.0-N-030121 pH=5.07	Mine Waste
2						
3						
4						
5			1.7 4.0	4.0-4.7	silty gravel, brown, dry, with wood. 20WS-0289-SO6203-4.0-4.7-N-030121 pH=5.11	Mine Waste
6				4.7-5.2	sandy gravel, orange, dry. 20WS-0289-SO6204-4.7-5.2-N-030121 pH=4.97	Mine Waste
7				5.2-8.0	broken granitic waste rock, white, dry. 20WS-0289-SO6205-5.2-5.7-N-030121 pH=4.20	Mine Waste
8						
9			1.3 4.0	8.0-8.5	pieces of wood. No archived material	Mine Waste
10				8.5-8.8	gravel, black, dry, highly Mn-stained. 20WS-0289-SO6206-8.5-8.8-N-030121 pH=4.45	Mine Waste
11				8.8-12.0	clayey gravel, orange and black, moist. Archived core labled DPT-59 8.8-9.3 20WS-0289-SO6207-8.8-9.3-N-030121 pH=4.52	Mine Waste
12						
13			2.8 4.0	12.0-12.3	clay, brown, moist 20WS-0289-SO6208-12.0-12.3-N-030121 pH=4.55	Mine Waste
14				12.3-12.6	sandy clay, brown, moist. Metals <u>Lab sample.</u> 20WS-0289-SO5944-12.3-12.6-N-070220 pH=4.62	Native
15				12.6-14.0	sandy clay, tan with orange, dry. Highly altered granite. 20WS-0289-SO6209-12.6-14.0-N-030121 pH=4.97	Native
				14.0-16.0	silty sand, gray, dry. Decomposed granite bedrock. No archived material	Native
					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Hibernia / 0289

Log of Boring: DPT- 60

Date(s) Drilled	7/2/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5703.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	On slope of large mine dump in west part of Hibernia claim; east of DPT-59			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,618
				Easting (ft)	1,187,033

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.2 4.0	0.0-4.0	sandy gravel with clayey lenses, brown, gray, and orange, moist. 20WS-0289-SO6210-0.0-4.0-N-030121 pH=5.68	Mine Waste
2						
3						
4						
5			1.8 4.0	4.0-4.6	gravelly clay, brown, dry. 20WS-0289-SO6211-4.0-4.6-N-030121 pH=4.56	Mine Waste
6				4.6-4.8	gravel, black and brown, dry. Mn-staining 20WS-0289-SO6212-4.6-4.8-N-030121 pH=4.38	Mine Waste
7				4.8-5.0	gravelly clay, brown, dry. 20WS-0289-SO6213-4.8-5.0-N-030121 pH=4.25	Mine Waste
8				5.0-8.0	sandy gravel, brown with orange, dry. 20WS-0289-SO6214-5.0-5.8-N-030121 pH=4.67	Mine Waste
9			1.9 4.0	8.0-12.0	sandy gravel, orange and gray, dry. 20WS-0289-SO6215-8.0-12.0-N-030121 pH=4.77	Mine Waste
10						
11						
12						
13			3.7 4.0	12.0-12.8	sandy gravel, orange and black, dry. Lab metals/SPLP 20WS-0289-SO6216-12.0-12.8-N-070220 pH=4.93	Mine Waste
14				12.8-13.3	silty sand, orange and black, dry. Metals Lab sample. 20WS-0289-SO5945-12.8-13.3-N-070220 pH=5.15	Native
15				13.3-16.0	clayey sand, orange and white, dry. Decomposed granite bedrock. 20WS-0289-SO6217-13.3-14.0-N-030121 pH=5.16	Native
					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Marget Ann / 0162

Log of Boring: DPT- 61

Date(s) Drilled	7/6/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6327.4
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	NW part of flat top of Marget Ann dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	666,544
				Easting (ft)	1,196,344

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	clayey gravel, brown with orange, dry. 20WS-0162-SO6219-0.0-4.0-N-030121 =7.82	Mine Waste
2						
3						
4						
5			1.4 4.0	4.0-4.3 4.3-8.0	sandy clay, gray, moist. clayey sandy gravel, gray, moist.	Mine Waste Mine Waste
6					Archived DPT-61 4-8 together 20WS-0162-SO6220-4.0-8.0-N-030121 pH=8.02	
7						
8						
9			0.8 4.0	8.0-12.0	clayey gravel, gray, moist. 20WS-0162-SO6221-8.0-12.0-N-030121 pH=7.32	Mine Waste
10						
11						
12						
13			2.4 4.0	12.0-12.3 12.3-12.7	clayey sand, gray to brown, moist. 20WS-0162-SO6222-12.0-12.3-N-030121 pH=7.22 silt, brown, dry. Metals <u>Lab sample</u> . 20WS-0162-SO5943-12.3-12.7-N-070620 pH=6.42	Mine Waste Native
14				12.7-13.5 13.5-16.0	broken granitic rock, white, dry. Archive 12.7-12.9 20WS-0162-SO6223-12.7-12.9-N-030121 pH=6.82 silty sand, gray brown, dry. Decomposed granite bedrock. 20WS-0162-SO6224-12.9-14.4-N-030121 pH=7.57	Native Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Marget Ann / 0162

Log of Boring: DPT- 62

Date(s) Drilled	7/6/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	20.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6328.2
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	Near east edge of flat top of Marget Ann dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	666,550
				Easting (ft)	1,196,410

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	silty sandy gravel, gray, dry. 20WS-0162-SO6225-0.0-4.0-N-030121 pH=8.50	Mine Waste
2						
3						
4						
5			0.9 4.0	4.0-8.0	clayey gravel, brown to orange, moist, with wood. 20WS-0162-SO6226-4.0-8.0-N-030121 pH=5.92	Mine Waste
6						
7						
8						
9			0.6 4.0	8.0-12.0	sandy gravel, dark gray and orange, dry. 20WS-0162-SO6227-8.0-12.0-N-030121 pH=7.10 Combined DPT-62 from 0-12 for lab metals/SPLP 20WS-0162-SO6228-0.0-12.0-N-070620 pH=6.59	Mine Waste
10						
11						
12						
13			0.5 4.0	12.0-16.0	broken granitic rock, gray, dry. No archived material small amount of native silty sand in sample catcher at 16.0 feet	Mine Waste
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Project Number: Marget Ann / 0162

Log of Boring: DPT- 62

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
15						
16			3.0	16.0-16.4	silty sand, light brown with orange, dry. Metals <u>Lab sample.</u>	Native
17			4.0	16.4-16.8	20WS-0162-SO5946-16.0-16.4-N-070620 pH=7.04 silt, brown with orange, dry.	Native
18				16.8-20.0	20WS-0162-SO6229-16.4-16.8-N-030121 pH=7.10 clayey sand with clay zones, orange-brown, dry.	Native
19					Decomposed granite bedrock.	
20					20WS-0162-SO6230-16.8-17.4-N-030121 pH=7.08 Total Depth 20.0 feet	
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Marget Ann / 0162

Log of Boring: DPT- 63

Date(s) Drilled	7/6/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	24.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6323.5
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Measured Point Elevation (ft-msl)	
Locations / Comments	Top of middle lobe of Marget Ann dump			Northing (ft)	666,464
		Checked By		Easting (ft)	1,196,405

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	clayey sandy gravel, gray-brown, dry. 20WS-0162-SO6231-0.0-4.0-N-030221 pH=8.39	Mine Waste
2						
3						
4						
5			1.7 4.0	4.0-8.0	clayey gravel with rock, gray, moist. 20WS-0162-SO6232-4.0-8.0-N-030221 pH=8.31	Mine Waste
6						
7						
8						
9			1.4 4.0	8.0-12.0	clayey gravel, gray with orange zone, moist. 20WS-0162-SO6233-8.0-12.0-N-070620 pH=8.42 Lab for total metals	Mine Waste
10						
11						
12						
13			1.0 4.0	12.0-16.0	broken granitic rock with sand and gravel, gray, dry. 20WS-0162-SO6234-12.0-16.0-N-030221 pH=8.55	Mine Waste
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Project Number: Marget Ann / 0162

Log of Boring: DPT-63

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
15						
16			0.7	16.0-20.0	broken granitic rock with clayey gravel, gray, dry. 20WS-0162-SO6235-16.0-20.0-N-030221 pH=9.23	Mine Waste
17		4.0				
18						
19						
20			2.2	20.0-20.4	silty sand with gravel, gray to brown, dry. Metals <u>Lab sample.</u> 20WS-0162-SO5947-20.0-20.4-N-070620 pH=8.31	Native
21		4.0				
22				20.4-24.0	silty sand with gravel, brown with black, dry. Decomposed granite bedrock. 20WS-0162-SO6236-20.4-22.2-N-030221 pH=7.66	Native
23						
24				Total Depth 24.0 feet		
25						
26						
27						
28						
29						
30						
31						
32						
33						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Glengarry / 0138

Log of Boring: DPT- 64

Date(s) Drilled	7/6/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6273.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	North central part of large mine dump in Glengarry claim; east of Bull Run Road.			Measuring Point Elevation (ft-msl)	
				Northing (ft)	667,033
				Easting (ft)	1,195,597

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	clayey gravel, gray, dry. 20WS-0138-SO6237-0.0-4.0-N-030221 pH=8.54	Mine Waste
2						
3						
4						
5			0.4 4.0	4.0-4.4	rock and sandy gravel, gray, dry. Archived material with 8-12'	Mine Waste
6						
7						
8						
9			0.9 4.0	8.0-12.0	rock and clayey gravel, gray, dry. Archived DPT-64 4-12 20WS-0138-SO6238-4.0-12.0-N-030221 pH=8.03	Mine Waste
10						
11						
12						
13			1.3 4.0	12.0-12.8	clayey gravel, black, orange and gray, dry. Lab for total metals 20WS-0138-SO6239-12.0-12.8-N-070620 pH=6.92	Mine Waste
14				12.8-16.0	sandy silt, black, moist. Total metals <u>Lab sample from 12.8-13.3 feet.</u> 20WS-0138-SO5948-12.8-13.3-N-070620 pH=5.02	Native
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Glengarry / 0138

Log of Boring: DPT- 65

Date(s) Drilled	7/6/2020	Logged By	S. Smith / M. Sprunger	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6274.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	SW part of large mine dump in Glengarry claim; east of Bull Run Road.			Measuring Point Elevation (ft-msl)	
				Northing (ft)	666,915
				Easting (ft)	1,195,582

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Feet	Recovery (ft)			
1			1.0 4.0	0.0-4.0	silty gravel with rock, gray and black, dry. 20WS-0138-SO6240-0.0-4.0-N-030221 pH=8.82	Mine Waste
2						
3						
4			1.0 4.0	4.0-8.0	broken granitic rock, gray, dry. Black and orange clayey lens at 4.3-4.6 feet. 20WS-0138-SO6241-4.0-8.0-N-030221 pH=6.78	Mine Waste
5						
6						
7						
8			1.5 4.0	8.0-12.0	sandy gravel with rock, gray with black and orange, dry. 20WS-0138-SO6242-8.0-12.0-N-030221 pH=6.44	Mine Waste
9						
10						
11						
12			1.6 4.0	12.0-13.1	silty gravel with rock, gray with orange, dry. 20WS-0138-SO6243-12.0-13.1-N-030221 pH=7.98	Mine Waste
13				13.1-16.0	silt, black, moist. Metals Lab sample from 13.1-13.6 feet. 20WS-0138-SO5949-13.1-13.6-N-070620	Native
14						
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Glengarry / 0138

Log of Boring: DPT- 66

Date(s) Drilled	7/6/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6276.7
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	Saddle area, central part of large mine dump in Glengarry claim; east of Bull Run Rd.			Measuring Point Elevation (ft-msl)	
				Northing (ft)	666,982
				Easting (ft)	1,195,663

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.5 4.0	0.0-4.0	silty sandy gravel, gray, orange, and black, dry. 20WS-0138-SO6244-0.0-4.0-N-030221 pH5.56	Mine Waste
2						
3						
4						
5			1.3 4.0	4.0-8.0	clayey sandy gravel, orange and black, moist; some rock. 20WS-0138-SO6245-4.0-8.0-N-030221 pH=5.94	Mine Waste
6						
7						
8						
9			1.8 4.0	8.0-9.5	sandy gravel, black and gray, moist; with lenses of orange clayey gravel. Lab for metals/SPLP/ABA 20WS-0138-SO6246-8.0-9.5-N-070620 pH=5.37	Mine Waste
10				9.5-12.0	sandy silt, black, moist. <u>Lab sample from 9.5-9.8 feet for total metals</u> 20WS-0138-SO5950-9.5-9.8-N-070620 pH=3.96	Native
11						
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Eagle / 0179

Log of Boring: DPT- 67

Date(s) Drilled	7/8/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	6.5
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6464.6
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	West slope of Eagle mine dump on west side of Moulton Reservoir Road			Measuring Point Elevation (ft-msl)	
				Northing (ft)	668,442
				Easting (ft)	1,198,788

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1		1.2 4.0		0.0-4.0	gravelly clay, orange and rust red, moist. 20WS-0179-SO6247-0.0-4.0-N-030221 pH=3.55	Mine Waste
2						
3						
4						
5		2.2 2.5		4.0-4.2 4.2-6.5	broken rock. silty sandy gravel, 20WS-0179-SO5951-4.2-4.5-N-070820 pH=4.02	Mine Waste Native
6					DPT-67 archive core labeled 4.2-6.2 20WS-0179-SO6248-4.2-6.2-N-030221 pH=3.68 Total Depth 6.5 feet	
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Eagle / 0179

Log of Boring: DPT- 68

Date(s) Drilled	7/8/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	4.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6470.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	south slope of Eagle mine dump on west side of Moulton Reservoir Road			Measuring Point Elevation (ft-msl)	
				Northing (ft)	668,411
				Easting (ft)	1,198,814

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.0 4.0	0.0-0.2	sandy clay, light orange, dry. 20WS-0179-SO6249-0.0-0.2-N-030221 pH=3.71	Mine Waste
2				0.2-0.7	silty sand, brown, dry. Total metals <u>Lab sample</u> . 20WS-0179-SO5952-0.2-0.7-N-070820 pH=3.73	Native
3				0.7-4.0	silty sand with gravel, brown and orange, dry. Decomposed granite bedrock. 20WS-0179-SO6250-0.7-2.0-N-030221 pH=3.49	Native
4					Total Depth 4.0 feet	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Eagle / 0179

Log of Boring: DPT- 69

Date(s) Drilled	7/8/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6469.3
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Measured Point Elevation (ft-msl)	
Locations / Comments	SE slope of Eagle mine dump on west side of Moulton Reservoir Road			Northing (ft)	668,410
				Easting (ft)	1,198,847

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.3 4.0	0.0-4.0	clayey sand, orange and white, dry; some rock. 20WS-0179-SO6251-0.0-4.0-N-030221 pH=3.41	Mine Waste
2						
3						
4						
5			2.3 4.0	4.0-5.4	clayey sand, yellow-orange, dry; some gray rock. Lab for metals/SPLP/ABA 20WS-0179-SO6252-4.0-5.4-N-070820 pH=3.07	Mine Waste
6				5.4-5.7	silty sand, brown, dry. Metals Lab sample. 20WS-0179-SO5953-5.4-5.7-N-070820 pH=3.72	Native
7				5.7-8.0	silty sand, brown with black, dry. 20WS-0179-SO6253-5.7-6.3-N-030221 pH=3.73	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Eagle / 0179

Log of Boring: DPT- 70

Date(s) Drilled	7/8/2020	Logged By	M. Sprunger	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6474.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	near north end of Eagle mine dump on east side of Moulton Reservoir Road			Northing (ft)	668,447
				Easting (ft)	1,199,057

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.9 4.0	0.0-4.0	silty sand with clay, orange with white, dry to moist. Archived core DPT-70-0-4 20WS-0179-SO6254-0.0-4.0-N-030221 pH=3.53 Archived core 20WS-0179-SO6255-0.0-4.0-N-030221 pH=3.21 Hit refusal at 4.75 on original DPT so drilled B	Mine Waste
2						
3						
4						
5			2.2 4.0	4.0-4.3	silty sand, orange, moist. Lab metals 20WS-0179-SO6256-4.0-4.3-N-070820 pH=3.28	Mine Waste
6				4.3-4.9	silty gravel, dark brown, moist; with wood at bottom of interval. <u>Lab Metals sample.</u> 20WS-0179-SO5954-4.3-4.9-N-070820 pH=3.49	Native
7				4.9-8.0	silty sand, brown, moist. 20WS-0179-SO6257-4.9-6.2-N-030221 pH=3.47	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Eagle / 0179

Log of Boring: DPT- 71

Date(s) Drilled	7/8/2020	Logged By	M. Sprunger	Total Depth of Borehole (ft)	4.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	6475.3
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	near south end of Eagle mine dump on east side of Moulton Reservoir Road			Measuring Point Elevation (ft-msl)	
				Northing (ft)	668,388
				Easting (ft)	1,198,974

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			2.1 4.0	0.0-0.7	silty gravel, light orange, dry. 20WS-0179-SO6258-0.0-0.7-N-030221 pH=3.42	Mine Waste
2				0.7-1.2	silty sand, dark brown, dry. Metals <u>Lab sample</u> . 20WS-0179-SO5955-0.7-1.2-N-070820 pH=3.58	Native
3				1.2-4.0	sandy gravel, brown, dry. 20WS-0179-SO6259-1.2-2.1-N-030221 pH=3.65	Native
4					Total Depth 4.0 feet	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Kit Carson / 0017

Log of Boring: DPT- 72

Date(s) Drilled	7/8/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5638.5
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	near toe of south-facing slope in middle of Kit Carson dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,134
				Easting (ft)	1,188,795

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.7 4.0	0.0-4.0	clayey gravel, gray, dry. 20WS-0017-SO6260-0.0-4.0-N-030221 pH=8.09	Mine Waste
2						
3						
4						
5			0.7 4.0	4.0-8.0	broken granitic rock, gray, dry. 20WS-0017-SO6261-4.0-8.0-N-030221 pH=8.71	Mine Waste
6						
7						
8						
9			1.6 4.0	8.0-8.1 8.1-12.0	clayey sand, gray, dry. Weathered granite. 20WS-0017-SO6262-8.0-8.1-N-030221 pH=8.13 silty sand with rock, brown, dry. <u>Lab sample from 8.1- 8.6 feet.</u> 20WS-0017-SO5956-8.1-8.6-N-070820 pH=8.19 20WS-0017-SO6263-8.6-9.6-N-030221 pH=8.36	Mine Waste Native
10						
11						
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Charmmer / 0019

Log of Boring: DPT- 73

Date(s) Drilled	7/8/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5658.8
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	near east end of north lobe of Kit Carson dump on Charmmer Claim			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,190
				Easting (ft)	1,188,835

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.7 4.0	0.0-4.0	clayey sandy gravel, orange with white, dry. 20WS-0019-SO6264-0.0-4.0-N-030221 pH=2.97	Mine Waste
2						
3						
4						
5			2.0 4.0	4.0-5.3	silty sandy gravel, brown, orange, and black, dry. 20WS-0019-SO6265-4.0-5.3-N-030221 pH=4.64	Mine Waste
6				5.3-8.0	sandy clay with rock, brown, dry. Metals Lab sample from 5.3- 5.7 feet. 20WS-0019-SO5957-5.3-5.7-N-070820 pH=6.37 20WS-0019-SO6266-5.7-6.0-N-030221 pH=6.43	Native
7						
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection

Project Location: Butte, MT

Mining Claim/ Number: Kit Carson / 0017

Log of Boring: DPT-74

Date(s) Drilled	7/8/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	16.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5660.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	southeast portion of top of Kit Carson dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	658,155
				Easting (ft)	1,188,856

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.0 4.0	0.0-4.0	sandy gravel and rock, gray, dry. Wood at 0.3-0.4 ft. 20WS-0017-SO6267-0.0-4.0-N-030221 pH=9.04	Mine Waste
2						
3						
4						
5			1.0 4.0	4.0-8.0	broken rock (fairly fresh-looking granite), gray, dry. 20WS-0017-SO6268-4.0-8.0-N-030221 pH=9.17	Mine Waste
6						
7						
8						
9			0.8 4.0	8.0-12.0	broken rock as above.	Mine Waste
10						
11					DPT-74 8-12.4' archived together	
12						
13			2.0 4.0	12.0-12.4 12.4-16.0	broken rock as above. 20WS-0017-SO6269-8.0-12.4-N-030221 pH=9.20 silty sand, brown, dry; some gravel. Total metals <u>Lab</u> sample from 12.4-12.8 feet. 20WS-0017-SO5958- 12.4-12.8-N-070820 pH=6.41	Mine Waste Native
14					white precipitates on archive material 20WS-0017-SO6270-12.8-14.0-N-030221 pH=8.18	
15					Total Depth 16.0 feet	



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Garibaldi / 0315

Log of Boring: DPT- 75

Date(s) Drilled	7/9/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	12.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5627.0
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	Toe of north-facing slope in central part of large Garibaldi dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,993
				Easting (ft)	1,186,751

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.7 4.0	0.0-0.4 0.4-4.0	silty sand, brown, dry. A soil on top of mine waste. sand with rock, white and orange, dry. 20WS-0315-SO6271-0.0-4.0-N-030221 pH=4.56	Mine Waste Mine Waste
2						
3						
4						
5			1.6 4.0	4.0-8.0	sandy gravel with rock, light orange to tan, moist. Rock is quartz-rich; maybe a vein. 20WS-0315-SO6272-4.0-8.0-N-070920 pH=5.45 Lab sample for metals/SPLP	Mine Waste
6						
7						
8						
9			1.4 4.0	8.0-8.8 8.8-9.0	sandy gravel with rock, tan, moist. 20WS-0315-SO6273-8.0-8.8-N-030221 pH=5.40 silty sand, brown, moist. Metals <u>Lab sample</u> . 20WS-0315-SO5959-8.8-9-N-070920 pH=5.64	Mine Waste Native
10				9.0-9.3	broken rock, black. Unknown rock type. 20WS-0315-SO6274-9.0-9.3-N-030221 pH=5.57	Native
11				9.3-12.0	silty sand, brown, moist.	Native
12					Total Depth 12.0 feet	
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Garibaldi / 0315

Log of Boring: DPT-76

Date(s) Drilled	7/9/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5617.9
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	in a saddle area near the east end of large Garibaldi dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,963
				Easting (ft)	1,186,844

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.3 4.0	0.0-4.0	broken rock with sandy gravel, black and white, dry. 20WS-0315-SO6275-0.0-4.0-N-030221 pH=5.68	Mine Waste
2						
3						
4						
5			2.8 4.0	4.0-4.3	clayey sand, tan, moist. 20WS-0315-SO6276-4.0-4.3-N-030221 pH=8.62	Mine Waste
6				4.3-8.0	sandy gravel with rock, white with orange, dry. Rock may be aplite or vein material. Metals <u>Lab sample from 4.3- 4.7 feet</u> . 20WS-0315-SO5960-4.3-4.7-N-070920 pH=9.68	Native
7					20WS-0315-SO6277-4.7-6.8-N-030221 pH=9.22 It appears there is no soil horizon here. Mine waste is sitting directly on bedrock.	
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
 Project Location: Butte, MT
 Mining Claim/ Number: Garibaldi / 0315

Log of Boring: DPT-77

Date(s) Drilled	7/9/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5655.5
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	on top of a low lobe near the west end of large Garibaldi dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,988
				Easting (ft)	1,186,547

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			0.7 4.0	0.0-4.0	sandy gravel, light brown, dry. 20WS-0315-SO6278-0.0-4.0-N-030221 pH=5.86	Mine Waste
2						
3						
4					Combined 0-4.3 for lab metals/SPLP Analysis 20WS-0315-SO6280-0.0-4.3-N-070920 pH=5.06	
5			2.3 4.0	4.0-4.3	as above. 20WS-0315-SO6279-4.0-4.3-N-030221 pH=4.71	Mine Waste
6				4.3-4.6	silty sand, brown, dry. A thin soil horizon. <u>Lab metals.</u> 20WS-0315-SO5961-4.3-4.6-N-070920 pH=4.92	Native
7				4.6-8.0	sandy gravel, tan and white, dry. Decomposed granite bedrock. 20WS-0315-SO6281-4.6-6.3-N-030221 pH=8.35	Native
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						



Project Name: WSSOU RI Data Collection
Project Location: Butte, MT
Mining Claim/ Number: Garibaldi / 0315

Log of Boring: DPT-78

Date(s) Drilled	7/9/2020	Logged By	S. Smith	Total Depth of Borehole (ft)	8.0
Drilling Method	Direct Push	Diameter of Borehole (in)	2.25	Ground Surface Elevation (ft-msl)	5635.1
Drill Rig Type	Geoprobe 7822	Drilling Company	Pioneer Technical Services	Groundwater Elevation (ft-msl)	
Driller's Name	J. Harcharik	Sampler Type		Checked By	
Locations / Comments	toe of southwest-facing slope in central part of large Garibaldi dump			Measuring Point Elevation (ft-msl)	
				Northing (ft)	655,936
				Easting (ft)	1,186,658

Depth (ft-bgs)	SAMPLES			Depth Interval (ft)	MATERIAL DESCRIPTION	REMARKS
	Sample Type	Blows/Foot	Recovery (ft)			
1			1.2 4.0	0.0-0.5 0.5-4.0	silty gravel, brown, dry. A soil on top of mine waste. clayey sandy gravel, tan and white, dry. 20WS-0315-SO6282-0.0-4.0-N-030221 pH=4.56	Mine Waste
2						
3						
4						
5			1.6 4.0	4.0-5.3 5.3-8.0	sandy gravel with rocks, tan and white, dry. 20WS-0315-SO6283-4.0-5.3-N-030221 pH=4.24 sandy silt, brown, dry. Sharp contact with mine waste above. Lab sample from bottom 0.3 feet in tube. Labeled as 5.3-5.6. 20WS-0315-SO5962-5.3-5.6-N-070920 pH=3.71	Mine Waste Native
6						
7						
8					Total Depth 8.0 feet	
9						
10						
11						
12						
13						
14						
15						

APPENDIX C.5

Direct Push Technology Field Photolog



Photo Number: 1

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 2

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

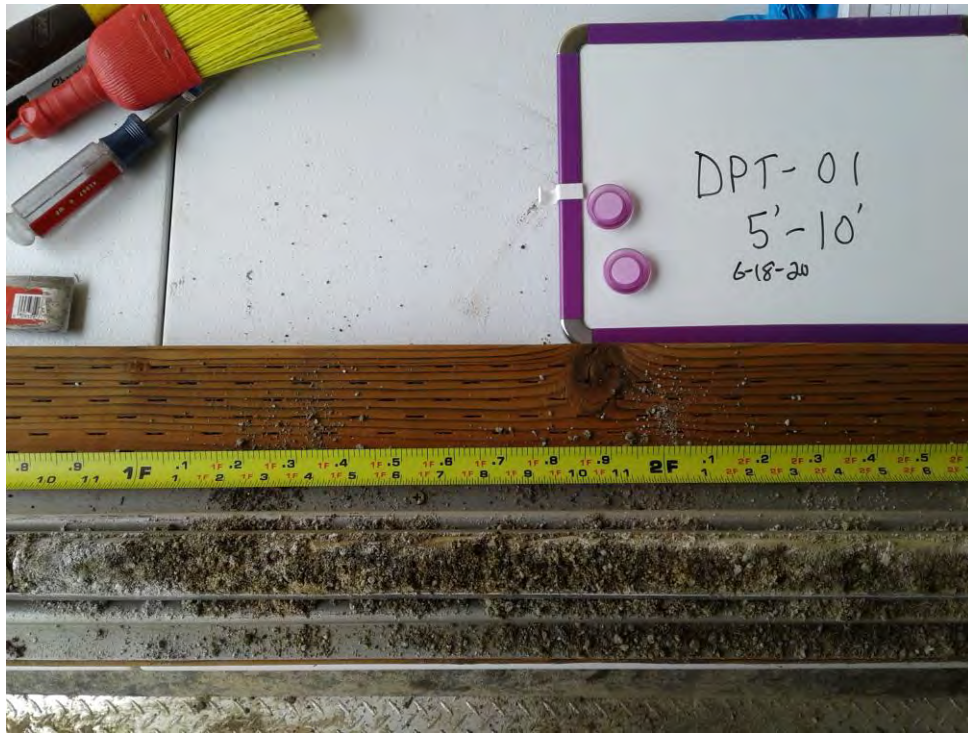


Photo Number: 3

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

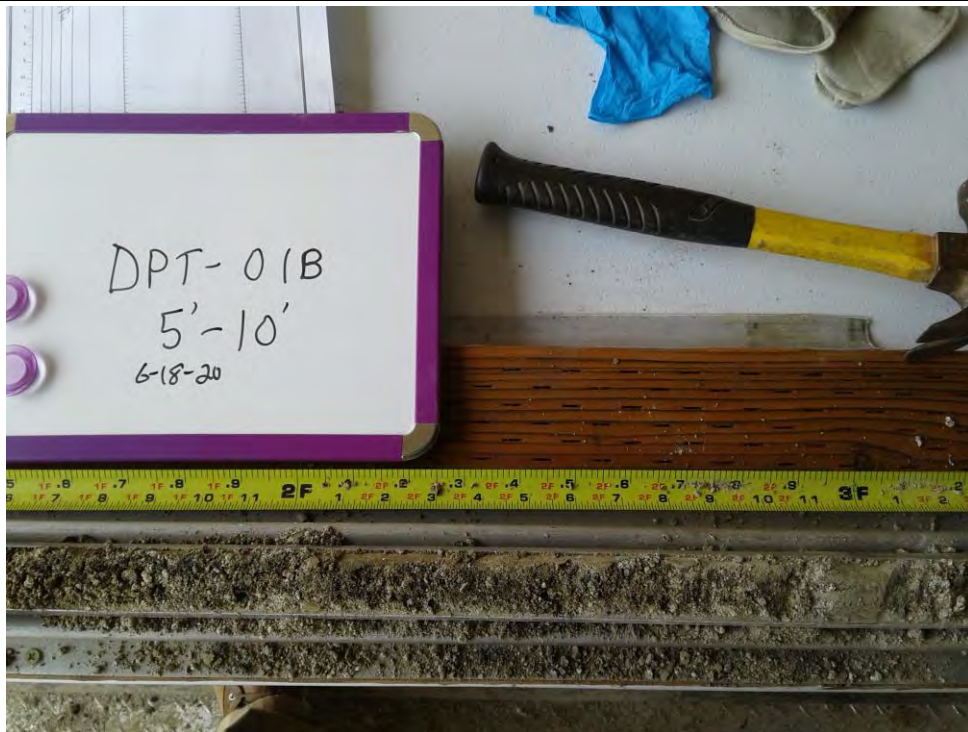


Photo Number: 4

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 5

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 6

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 7

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 8

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 9

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

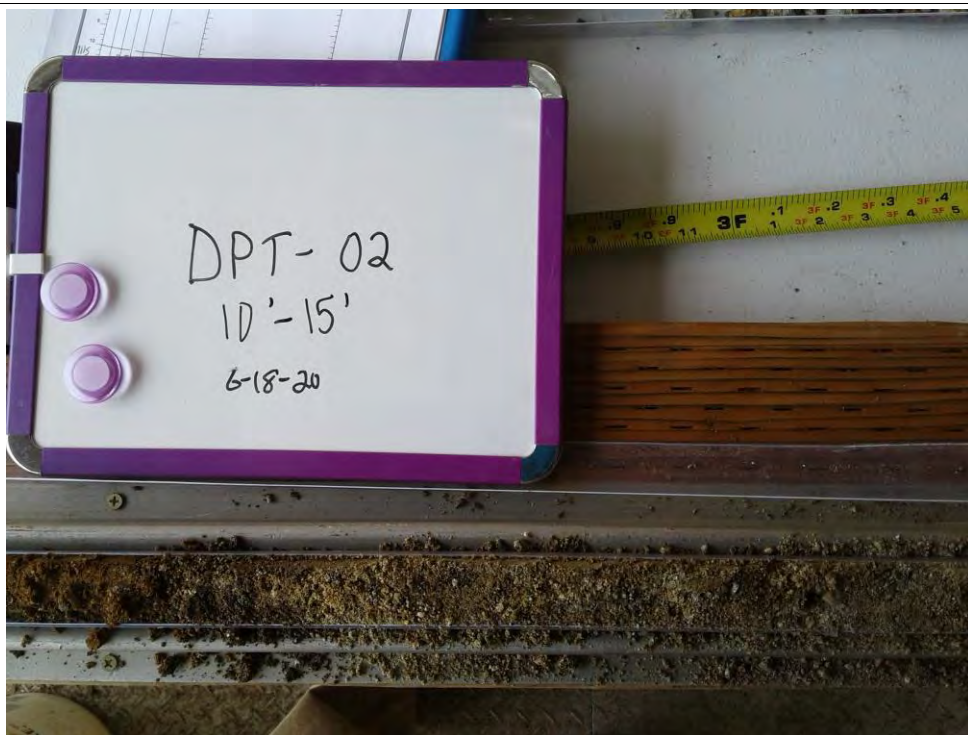


Photo Number: 10

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 11

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

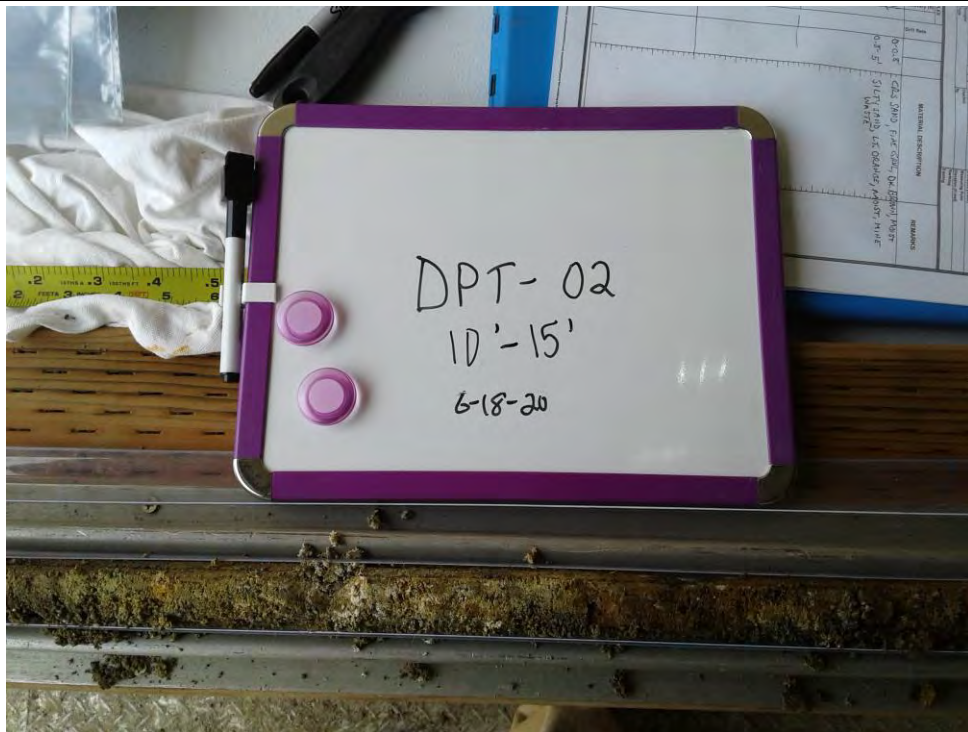


Photo Number: 12

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

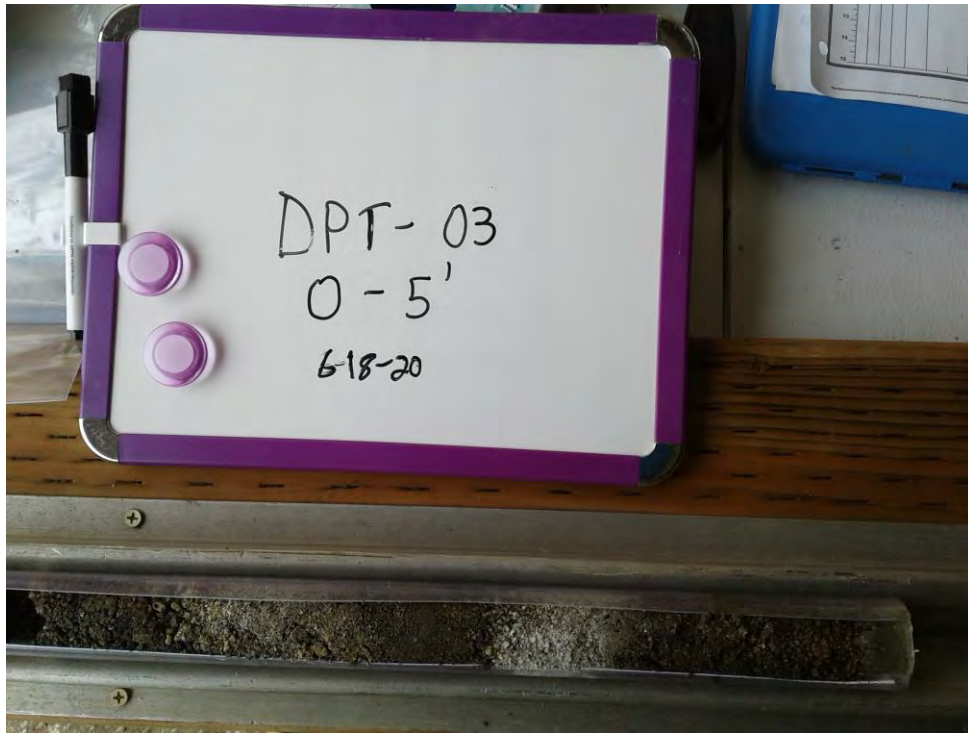


Photo Number: 13

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

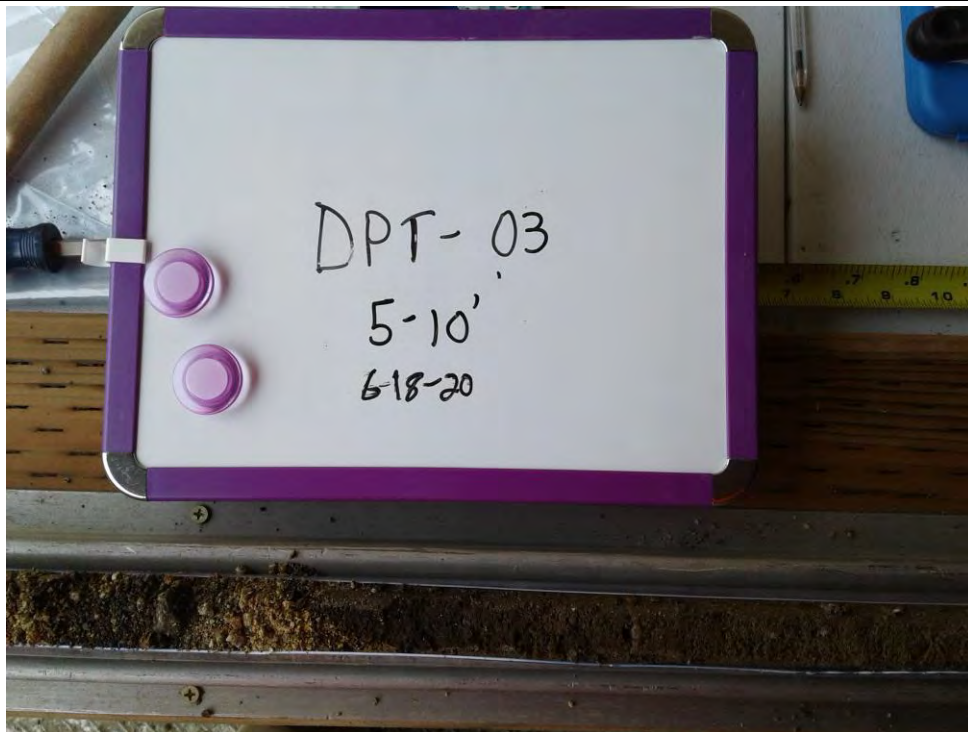


Photo Number: 14

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 15

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 16

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 17

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 18

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

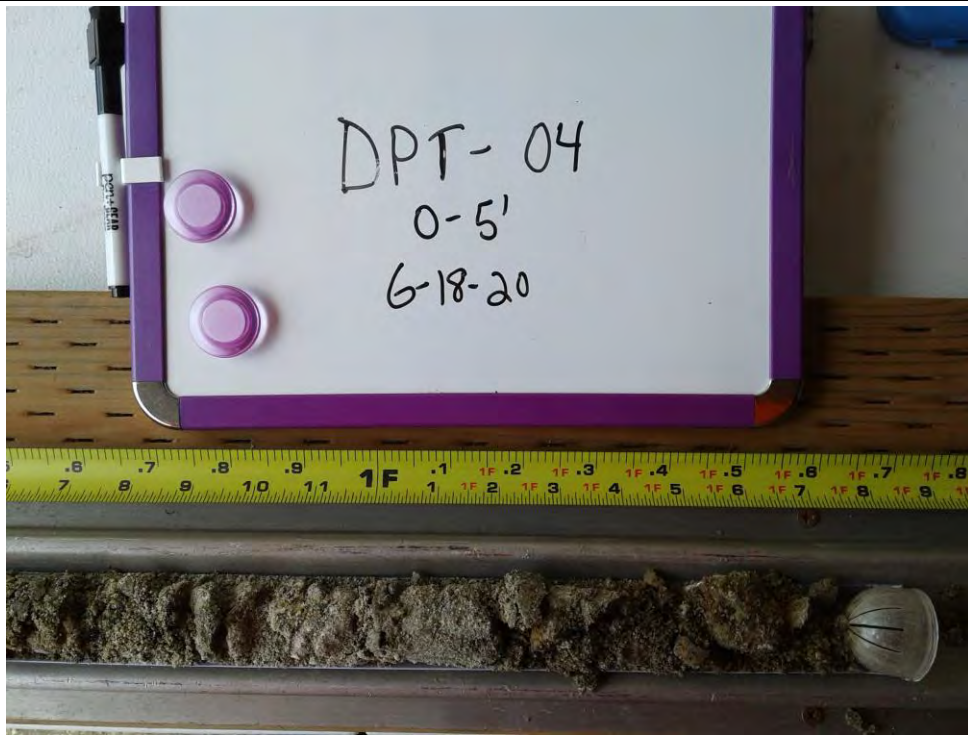


Photo Number: 19

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

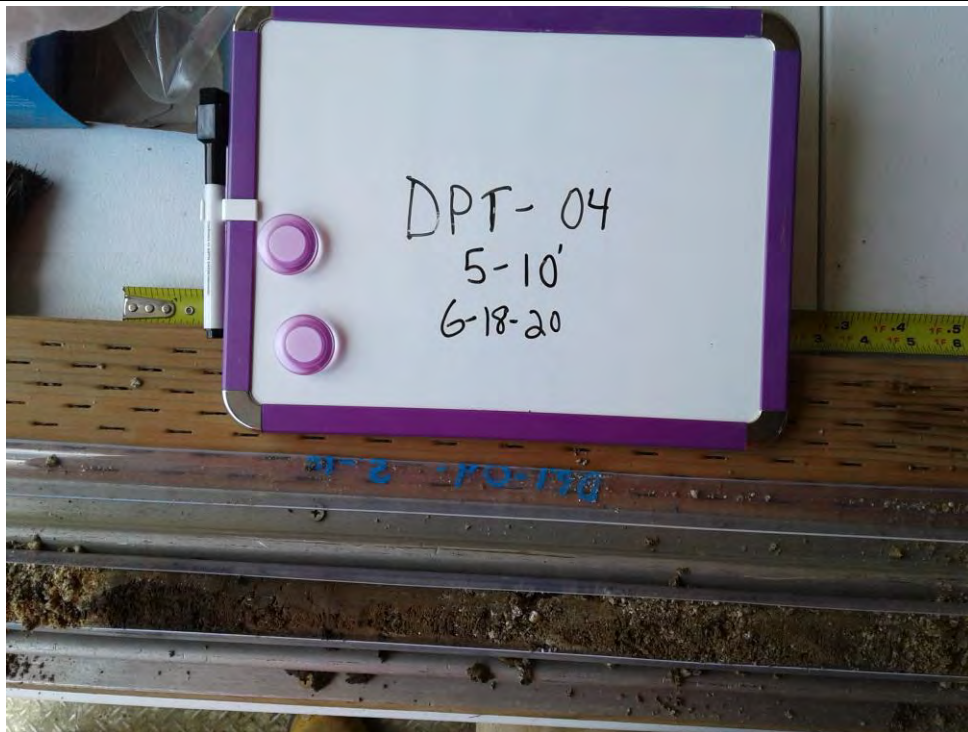


Photo Number: 20

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

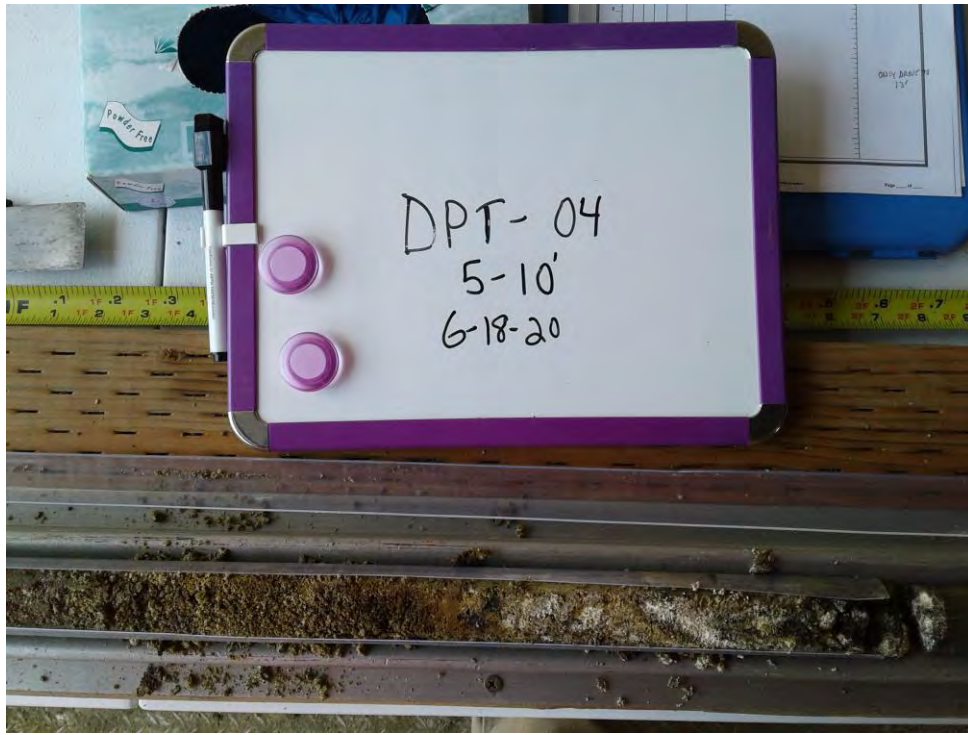


Photo Number: 21

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 22

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 23

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 24

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 25

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

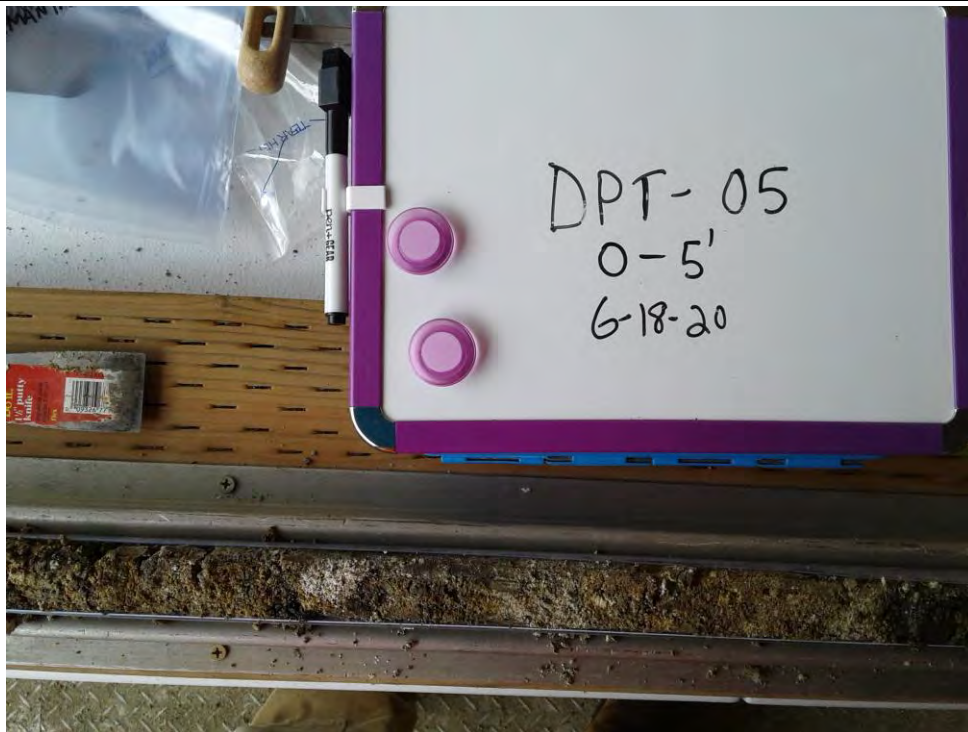


Photo Number: 26

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 27

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 28

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 29

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

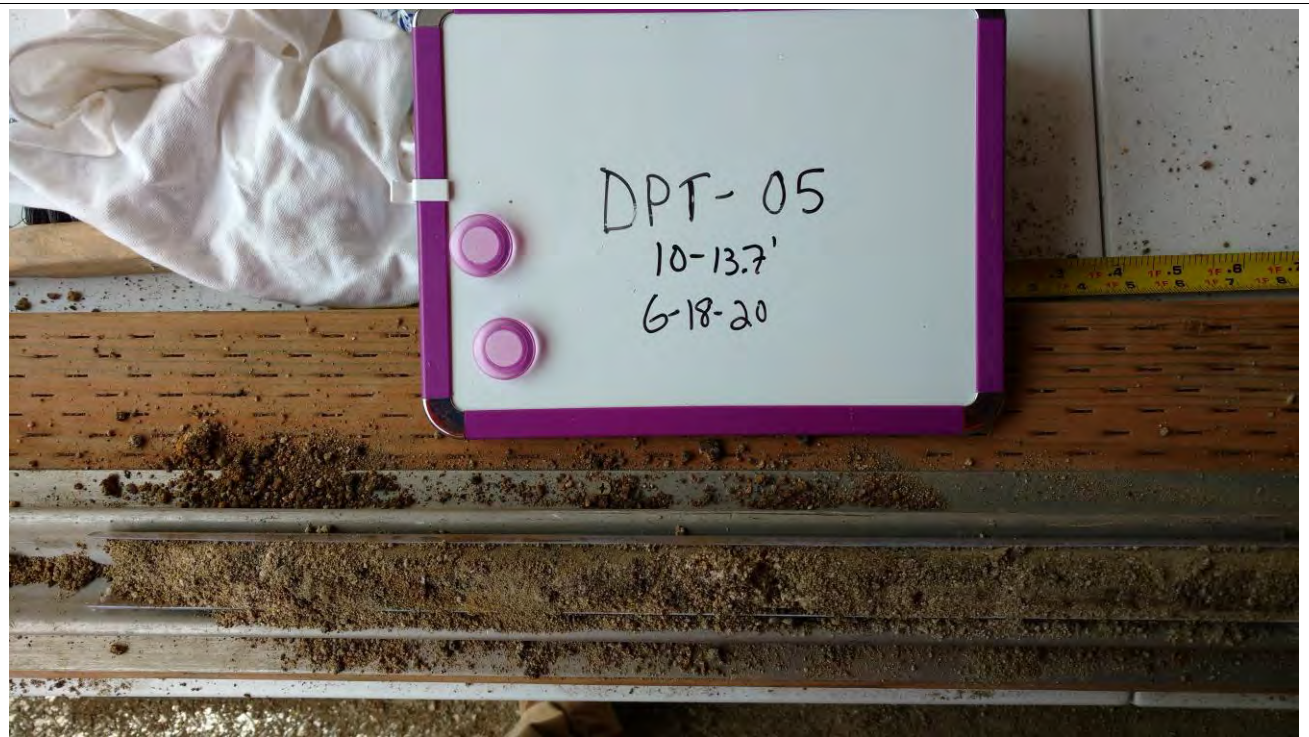


Photo Number: 30

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 31

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 32

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 33

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 34

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 35

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 36

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 37

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 38

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

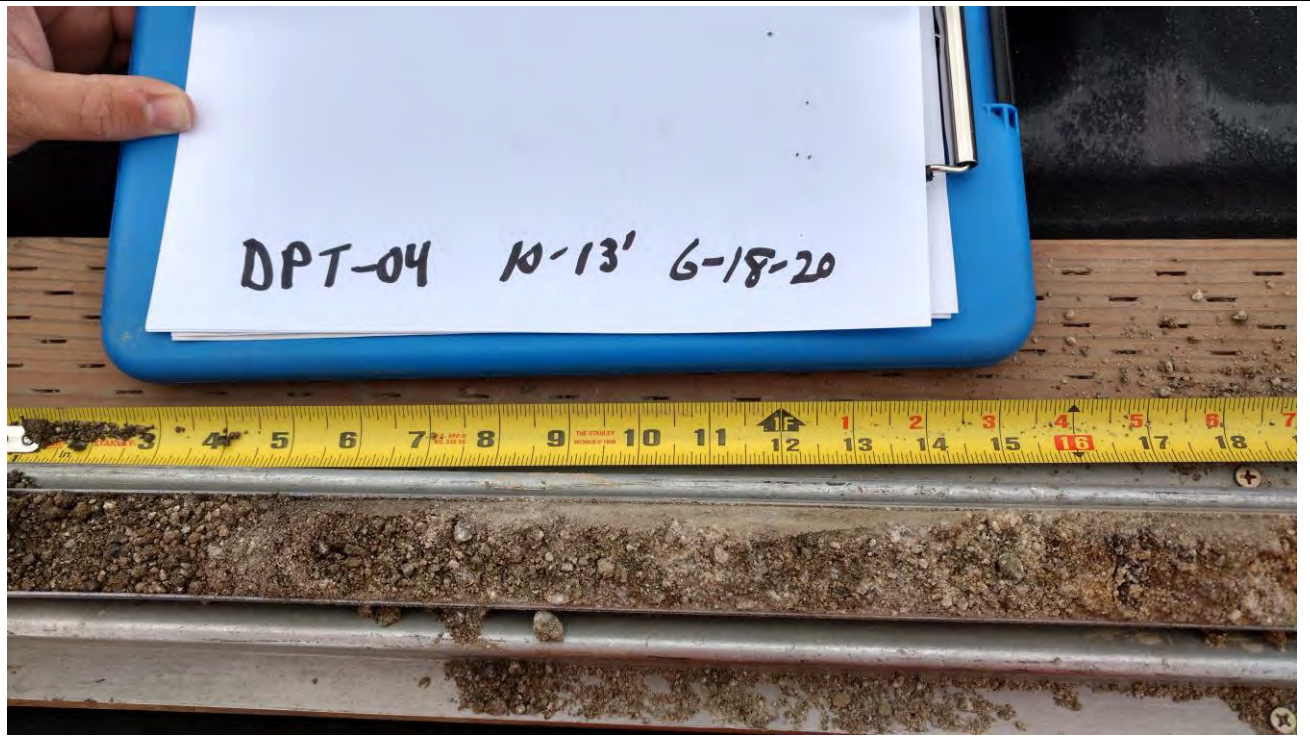


Photo Number: 39

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

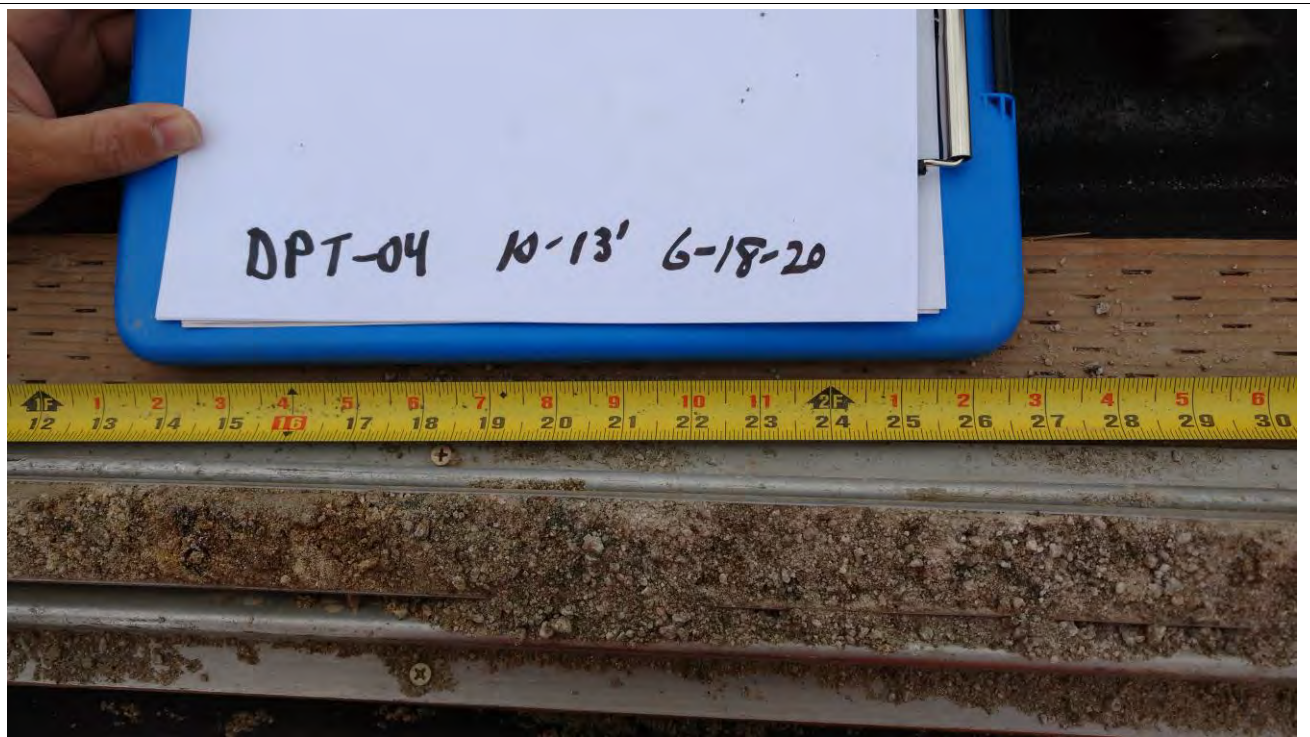


Photo Number: 40

Date: 6/18/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 41

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 42

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 43

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 44

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 45

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

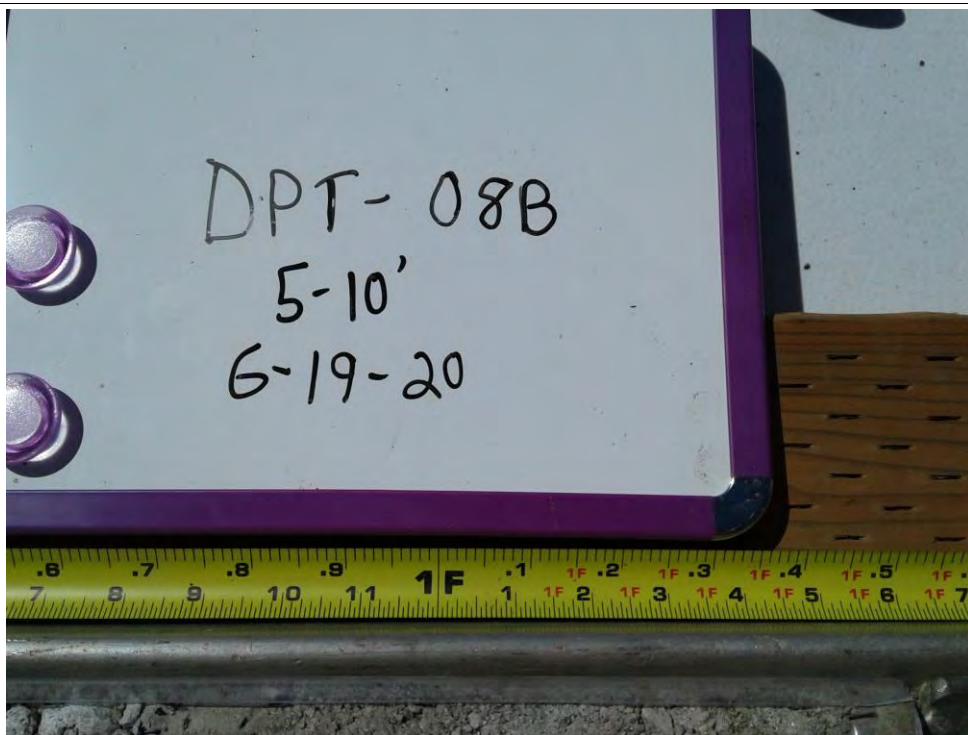


Photo Number: 46

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

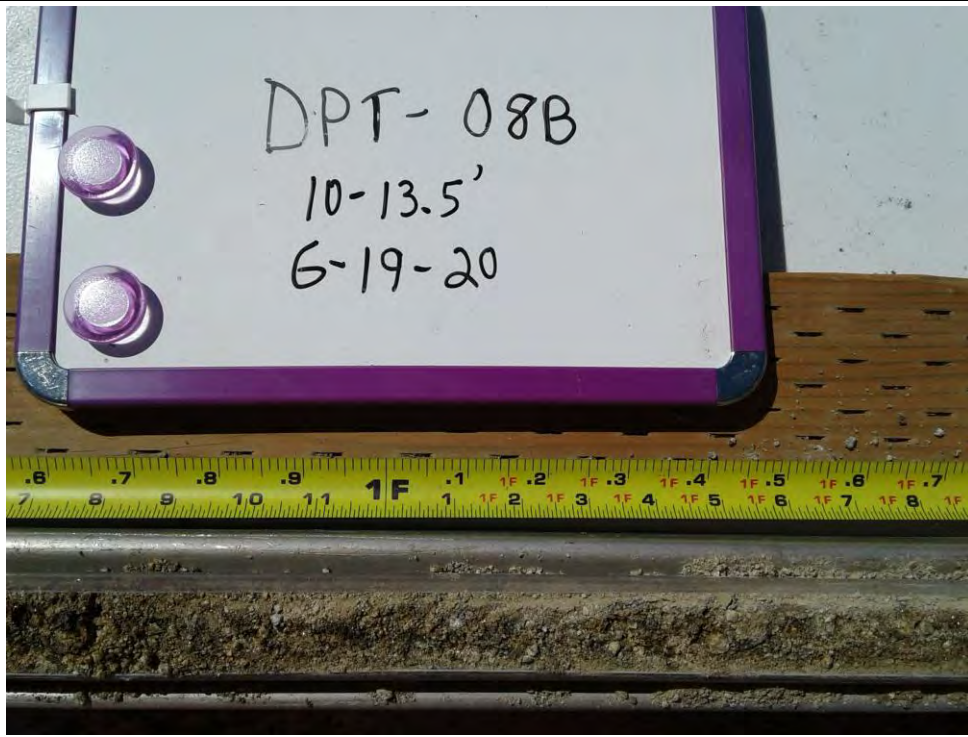


Photo Number: 47

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

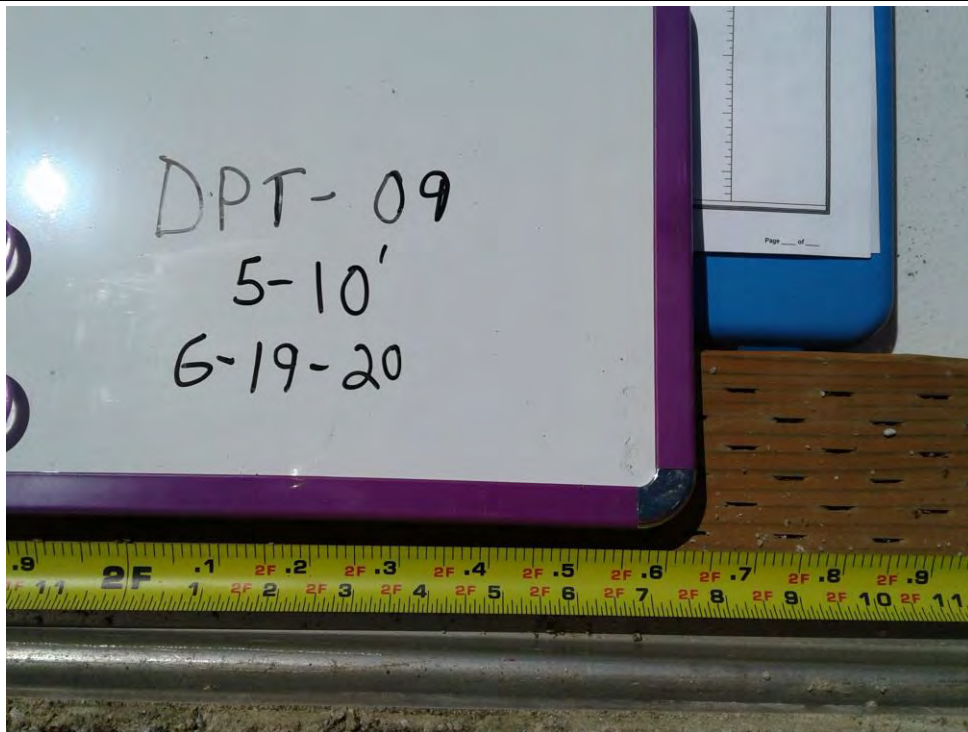


Photo Number: 48

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 49

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 50

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 51

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 52

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 53

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

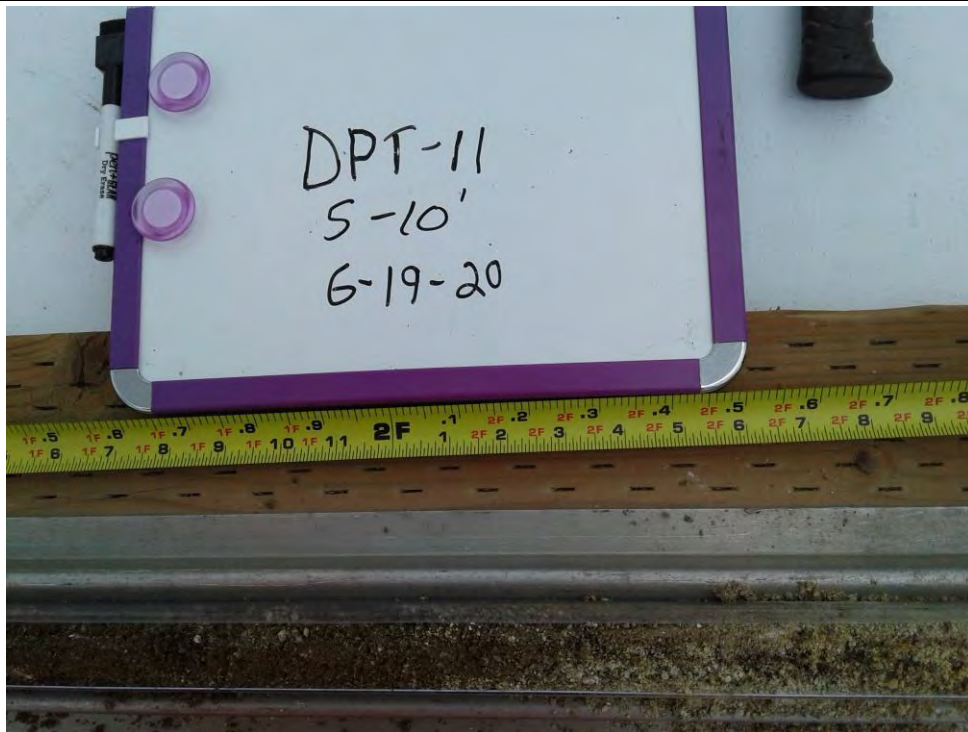


Photo Number: 54

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 55

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 56

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

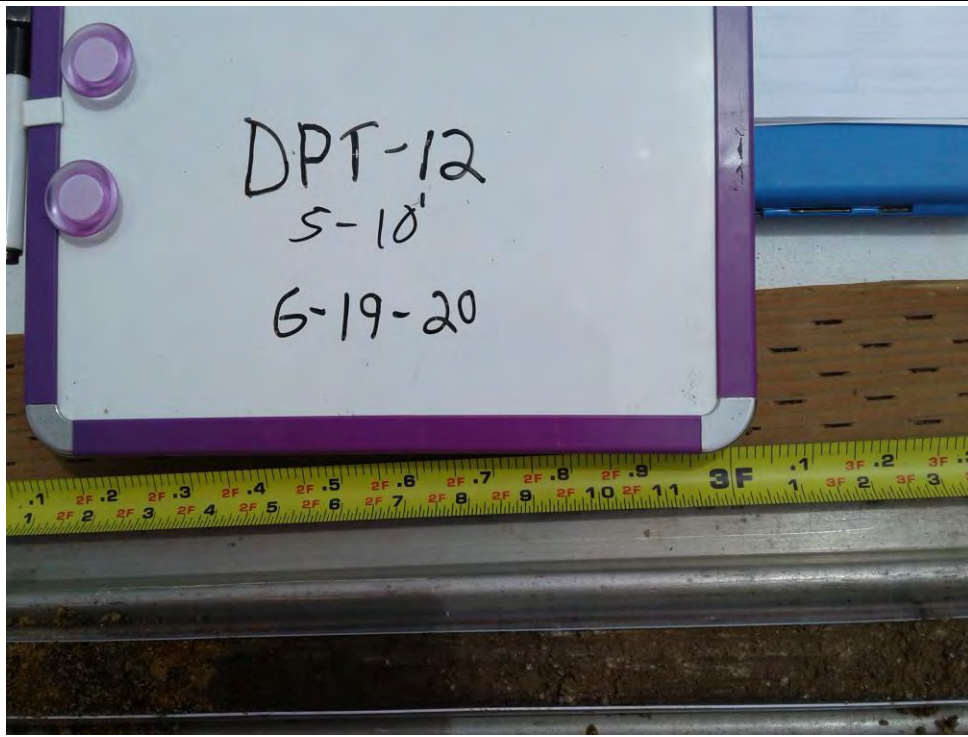


Photo Number: 57

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 58

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 59

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 60

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

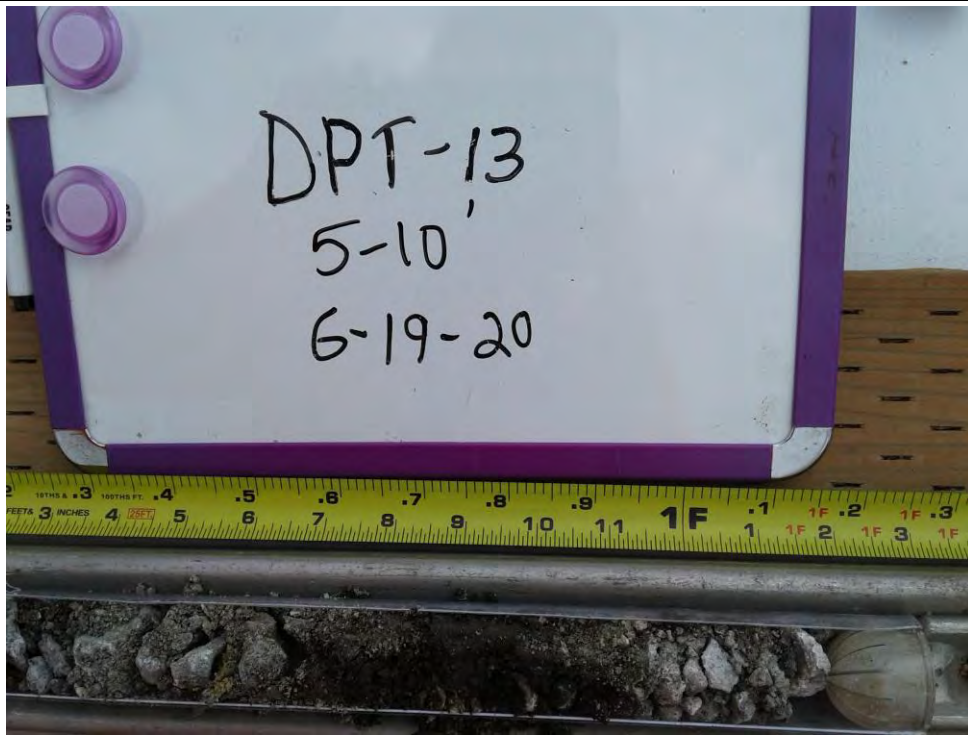


Photo Number: 61

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

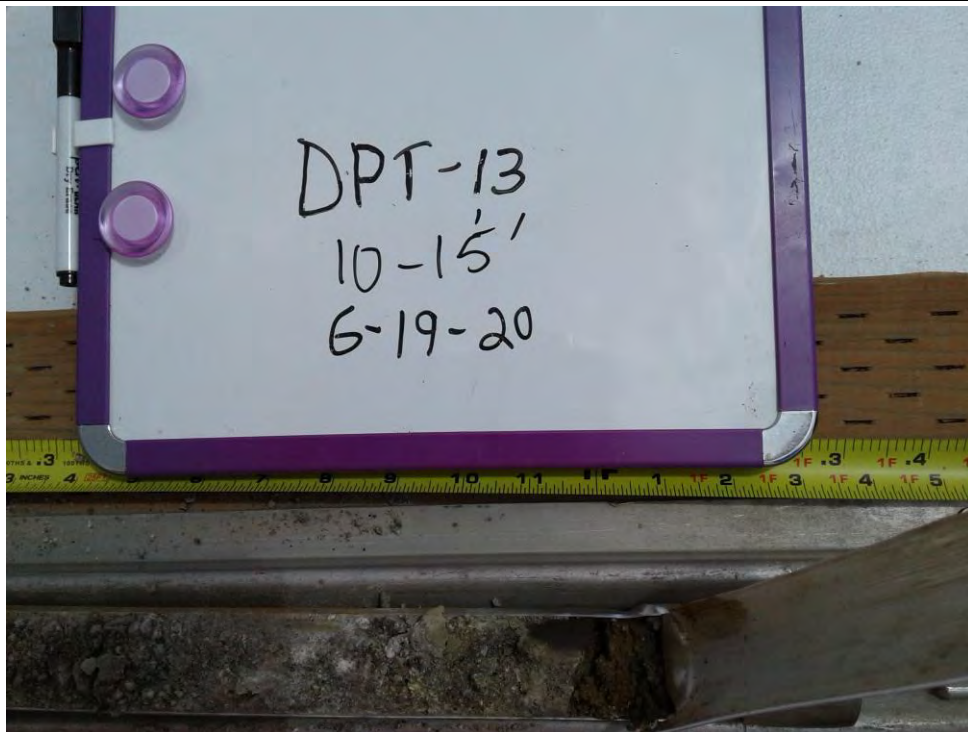


Photo Number: 62

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

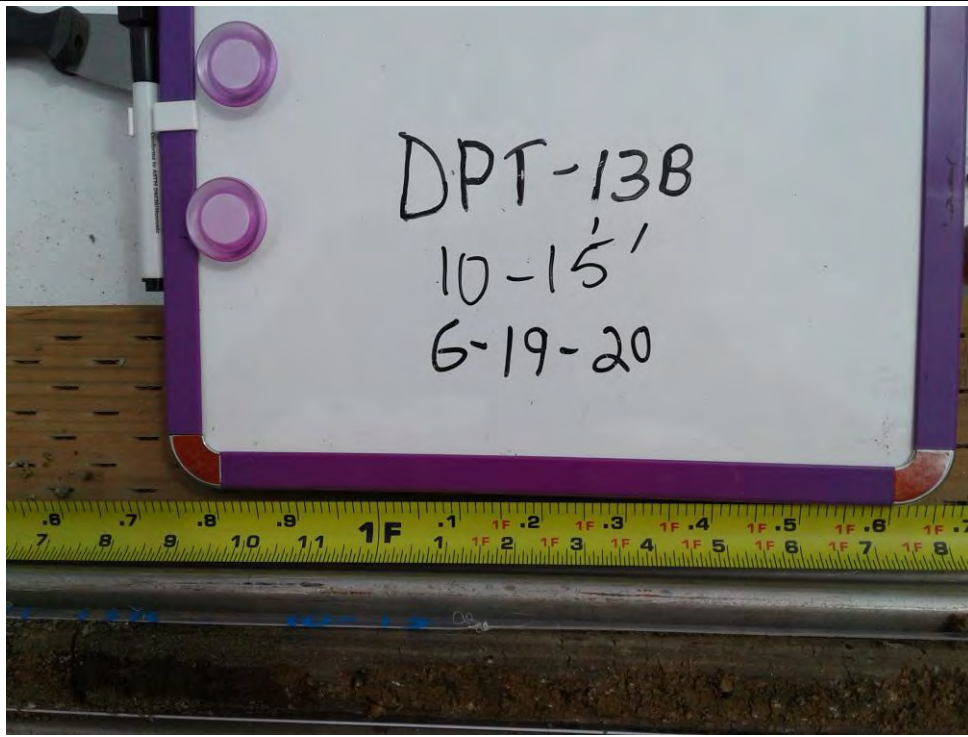


Photo Number: 63

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

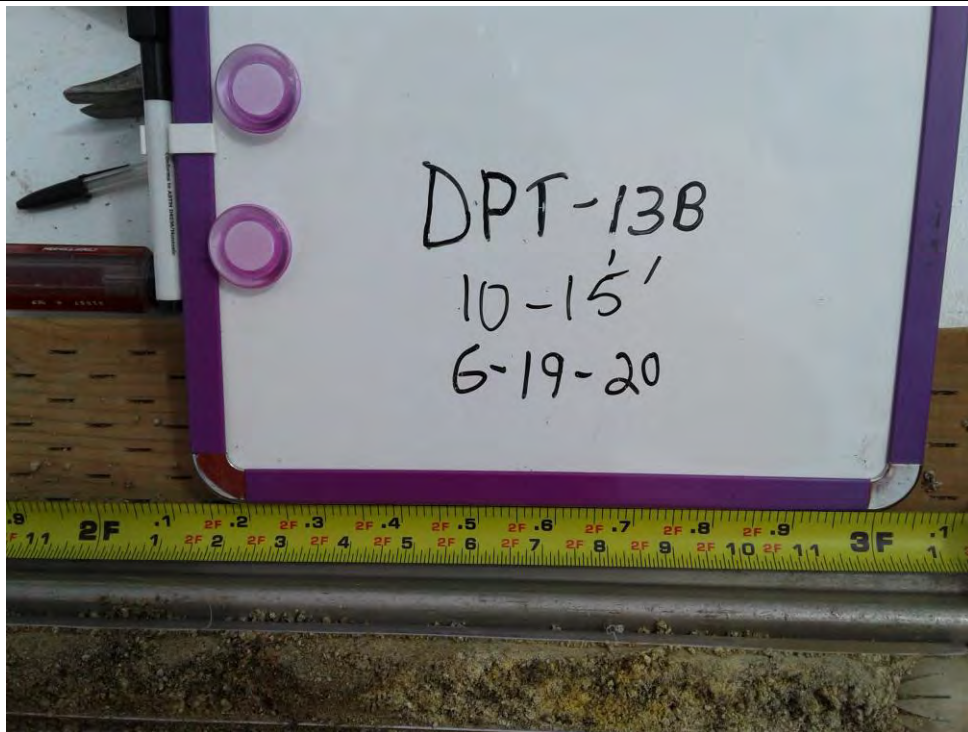


Photo Number: 64

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 65

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 66

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

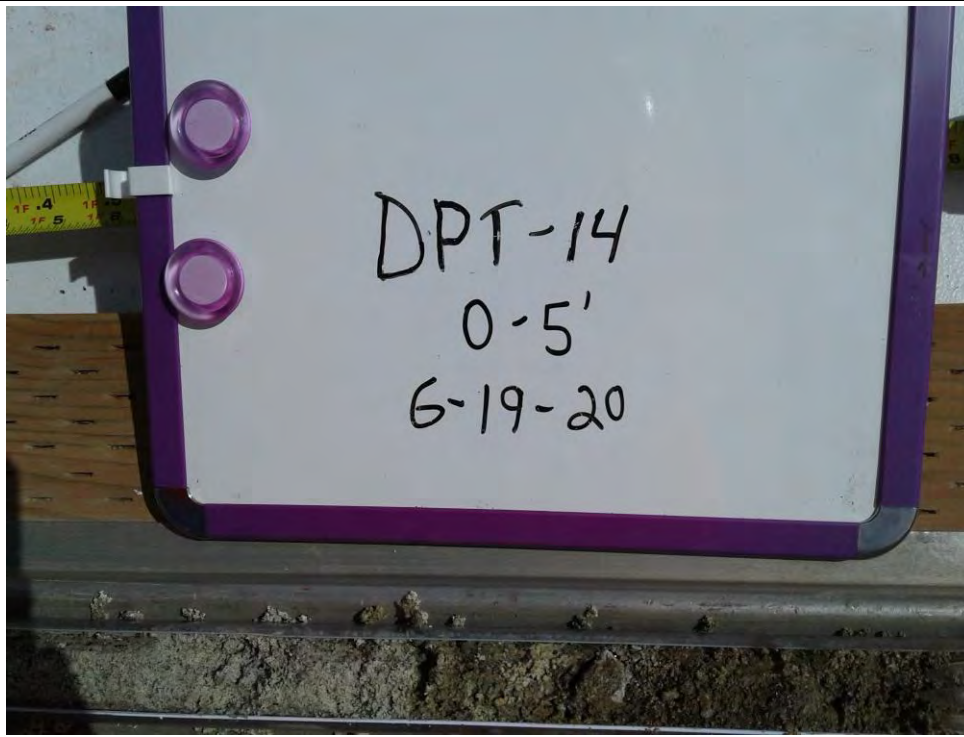


Photo Number: 67

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

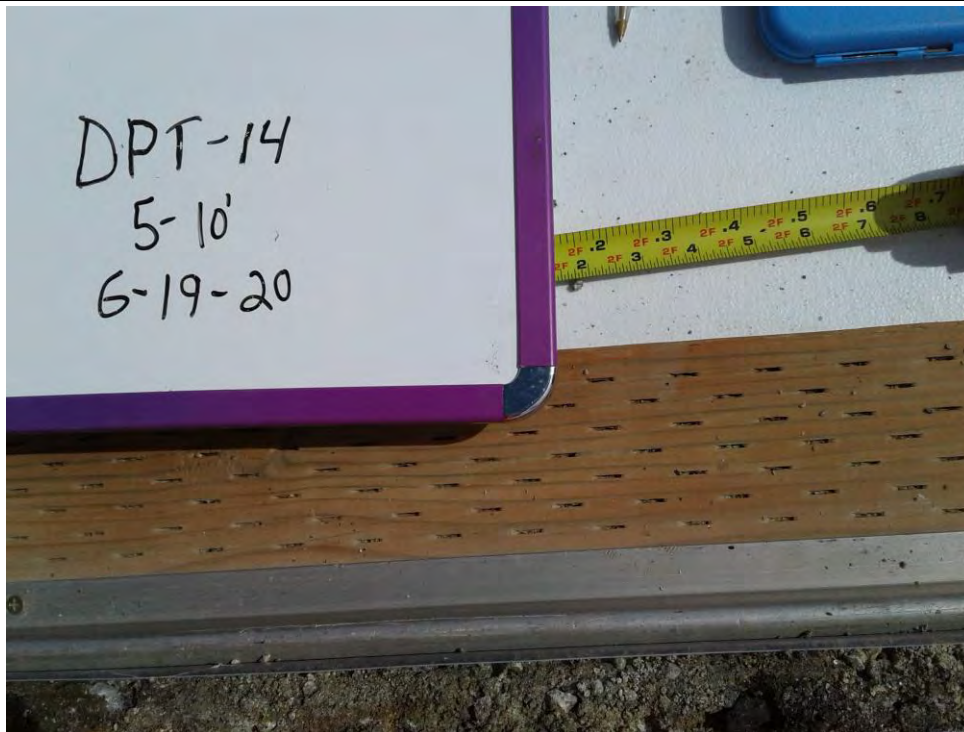


Photo Number: 68

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

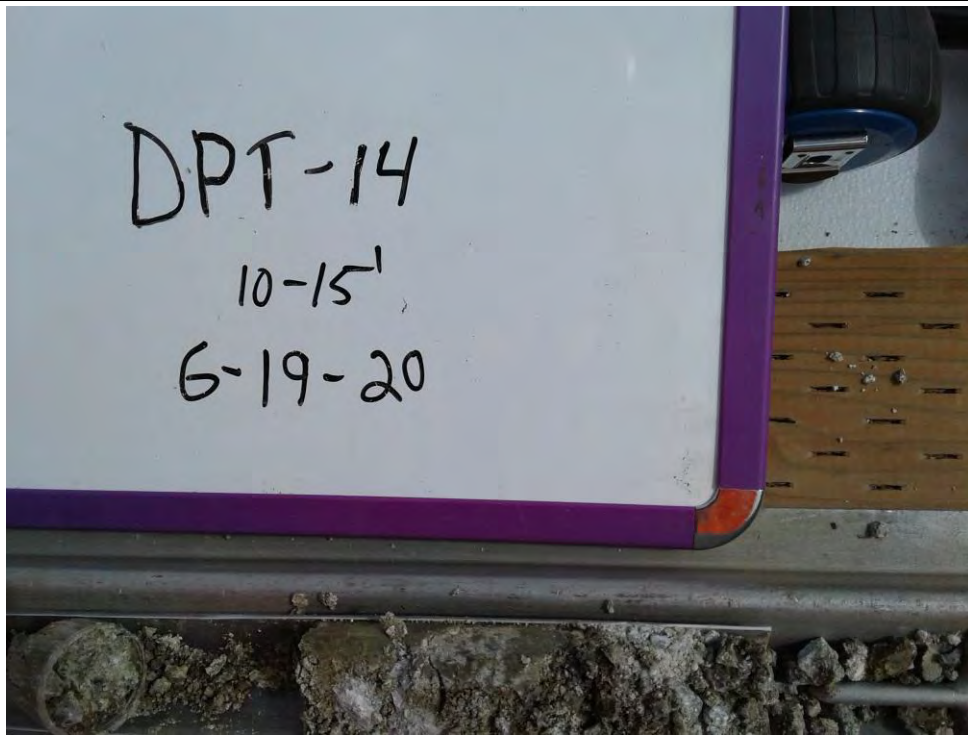


Photo Number: 69

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 70

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

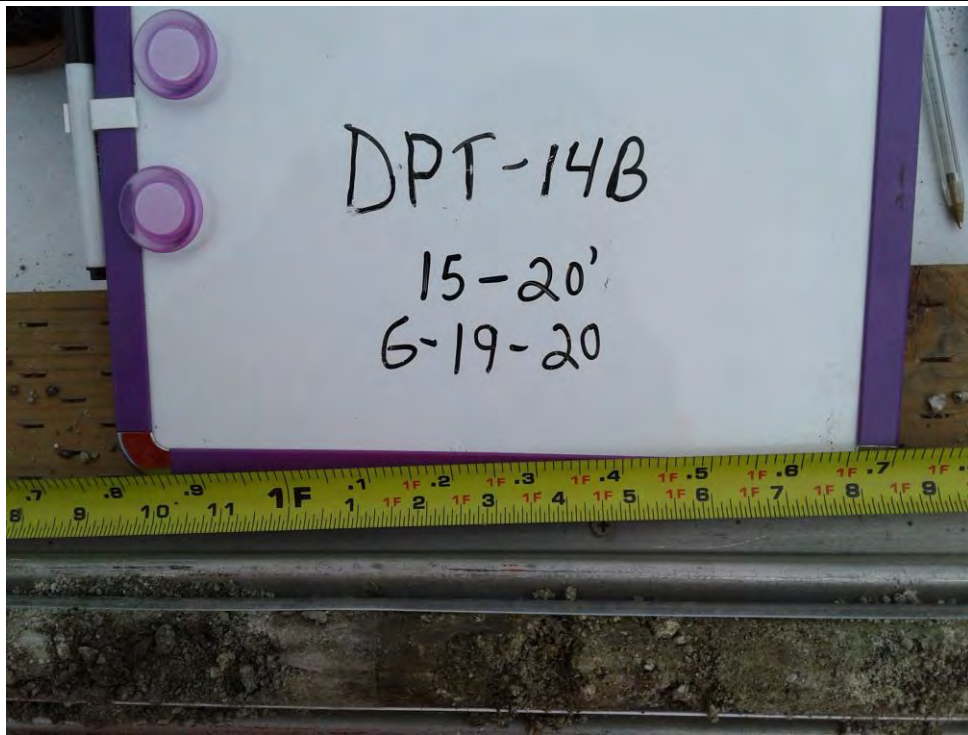


Photo Number: 71

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 72

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 73

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 74

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 75

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 76

Date: 6/19/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 77

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 78

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 79

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 80

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

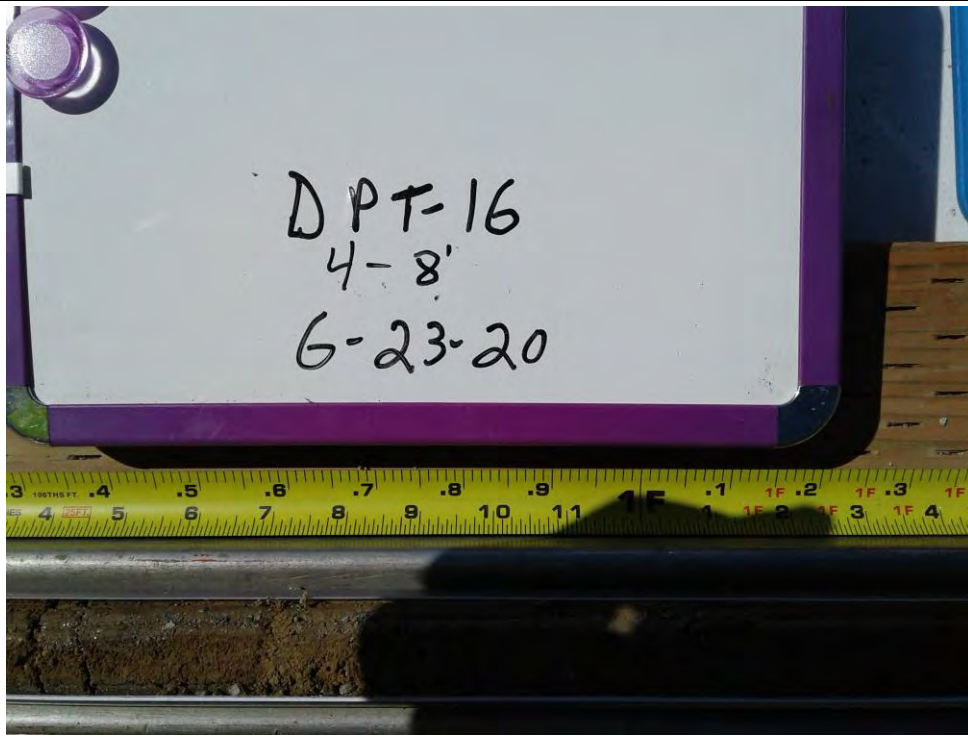


Photo Number: 81

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

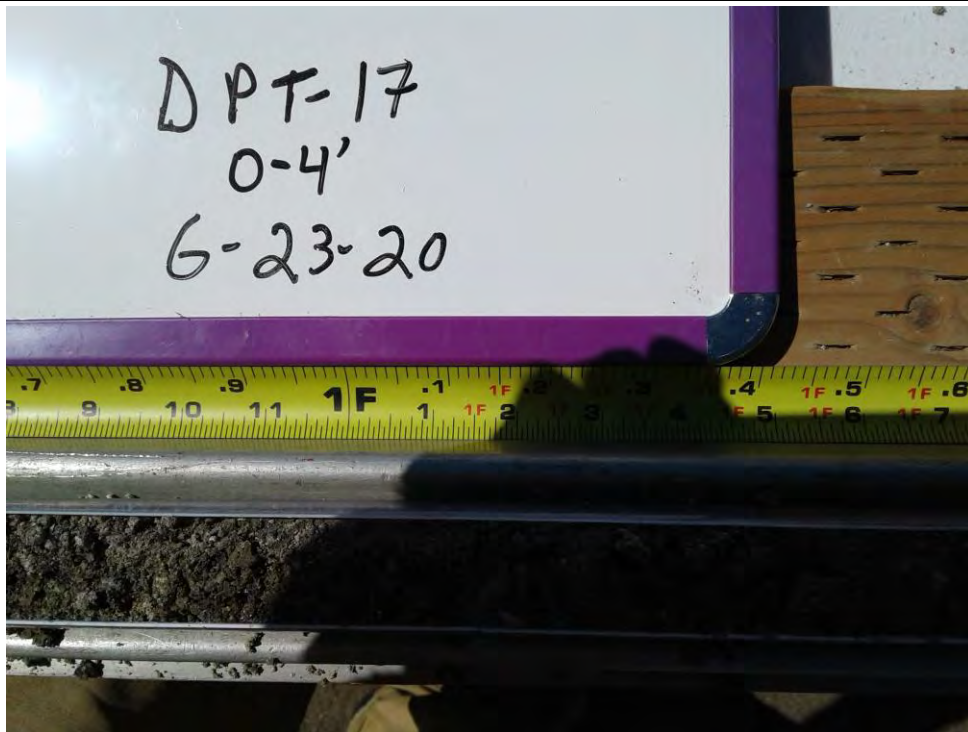


Photo Number: 82

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 83

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 84

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

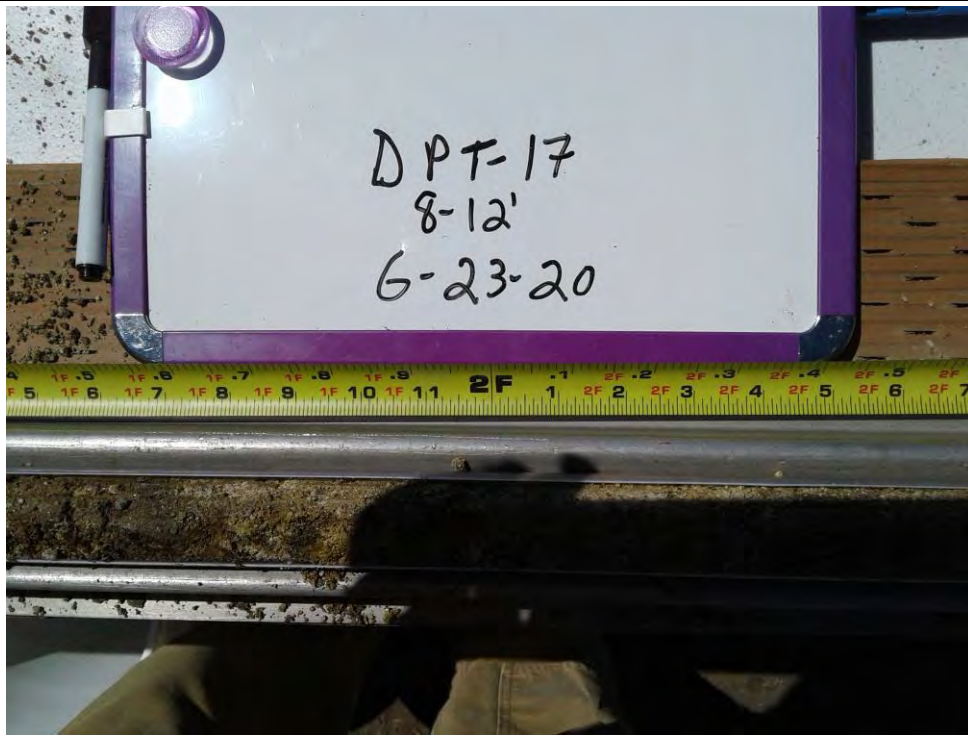


Photo Number: 85

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 86

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

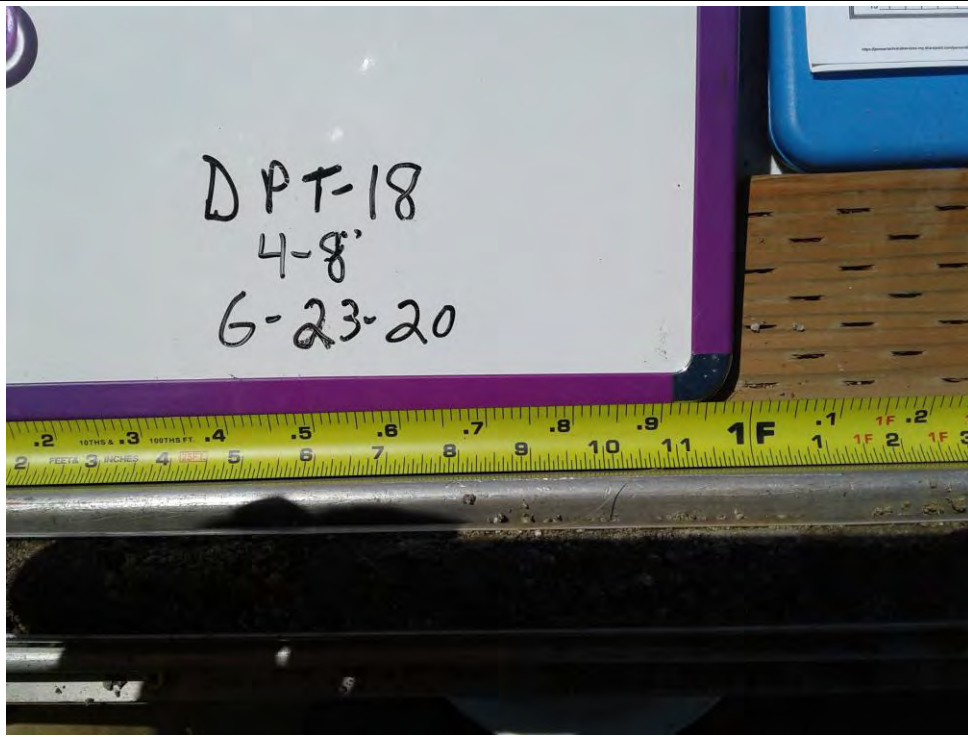


Photo Number: 87

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

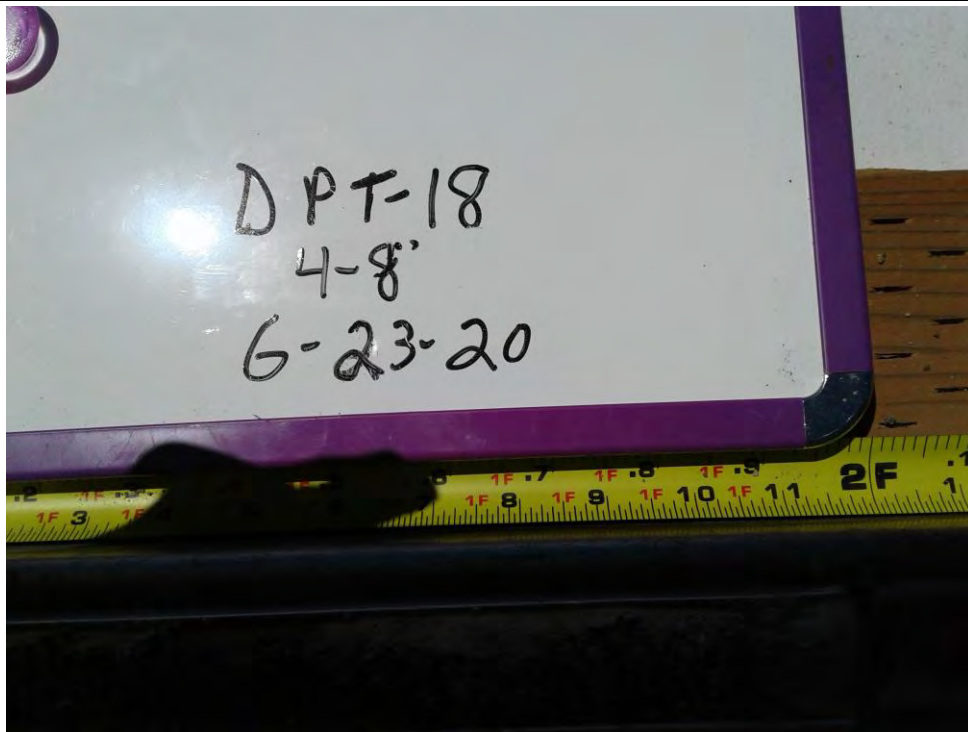


Photo Number: 88

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

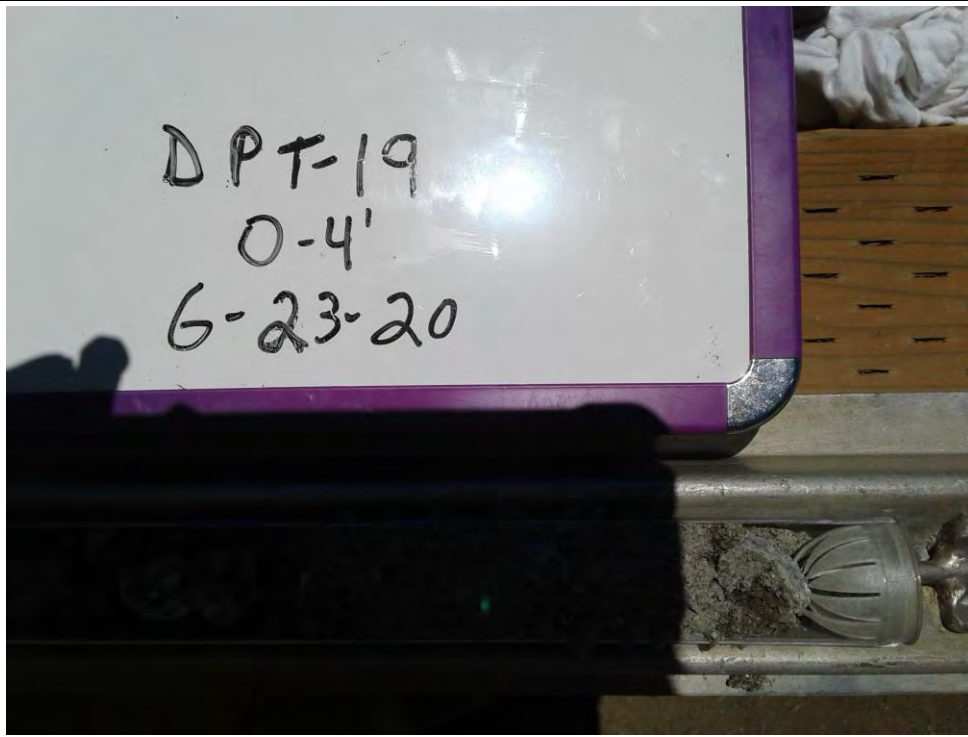


Photo Number: 89

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

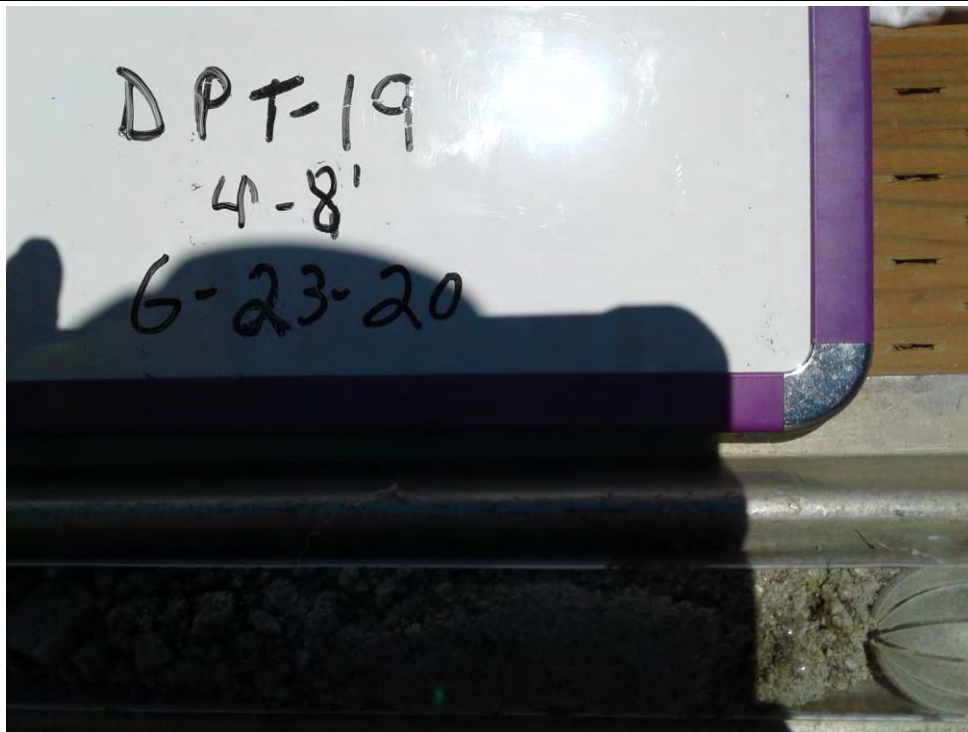


Photo Number: 90

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 91

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

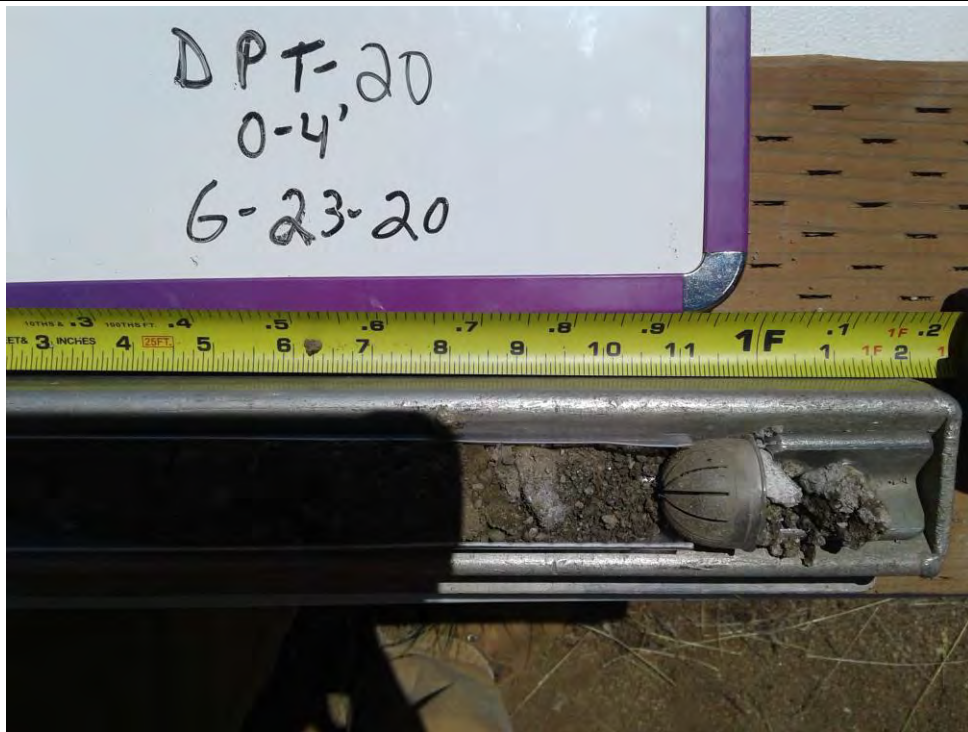


Photo Number: 92

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 93

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

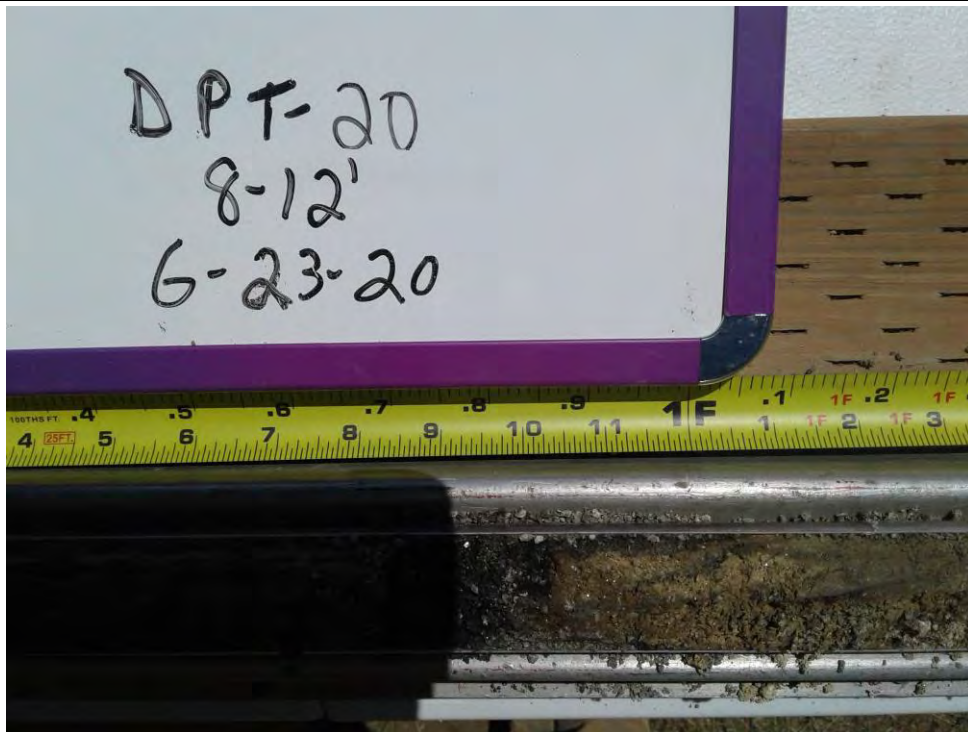


Photo Number: 94

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

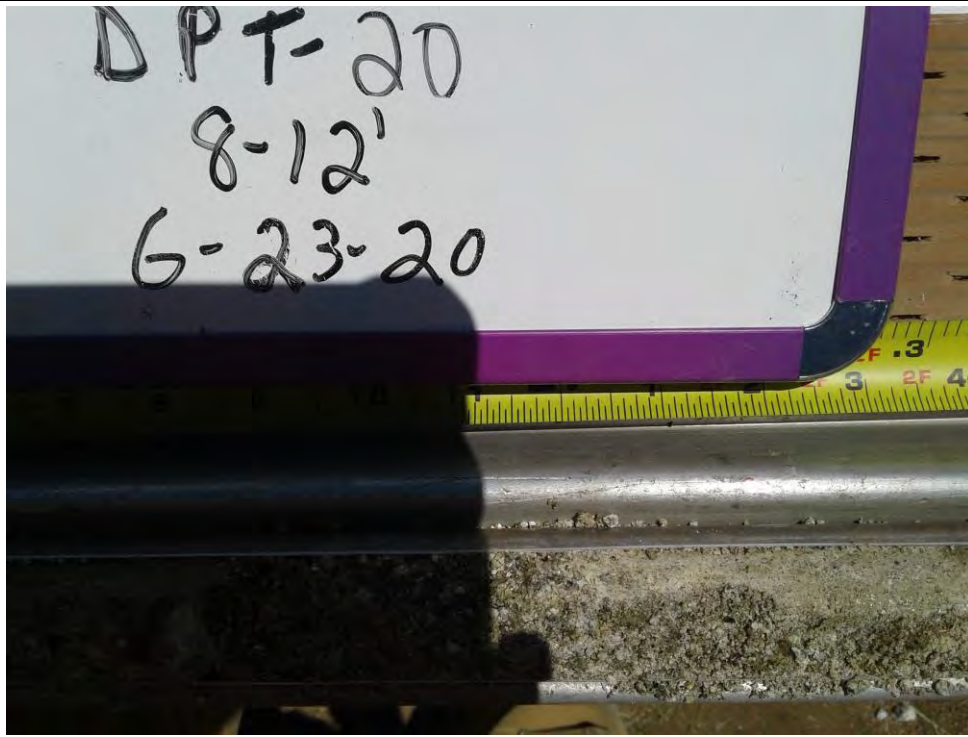


Photo Number: 95

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 96

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

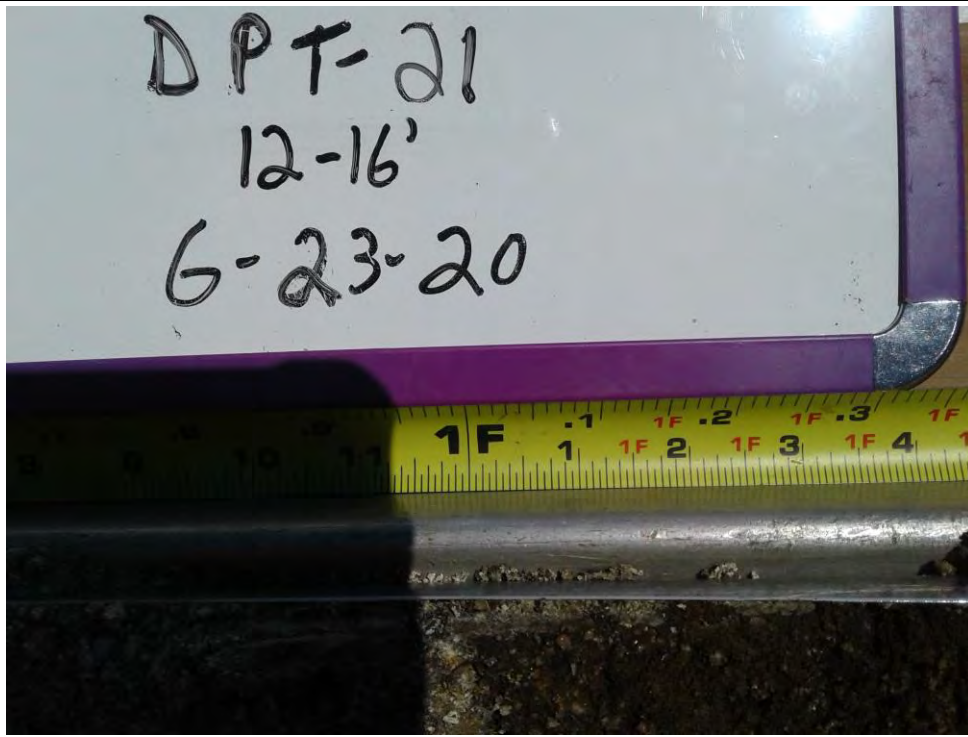


Photo Number: 97

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 98

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

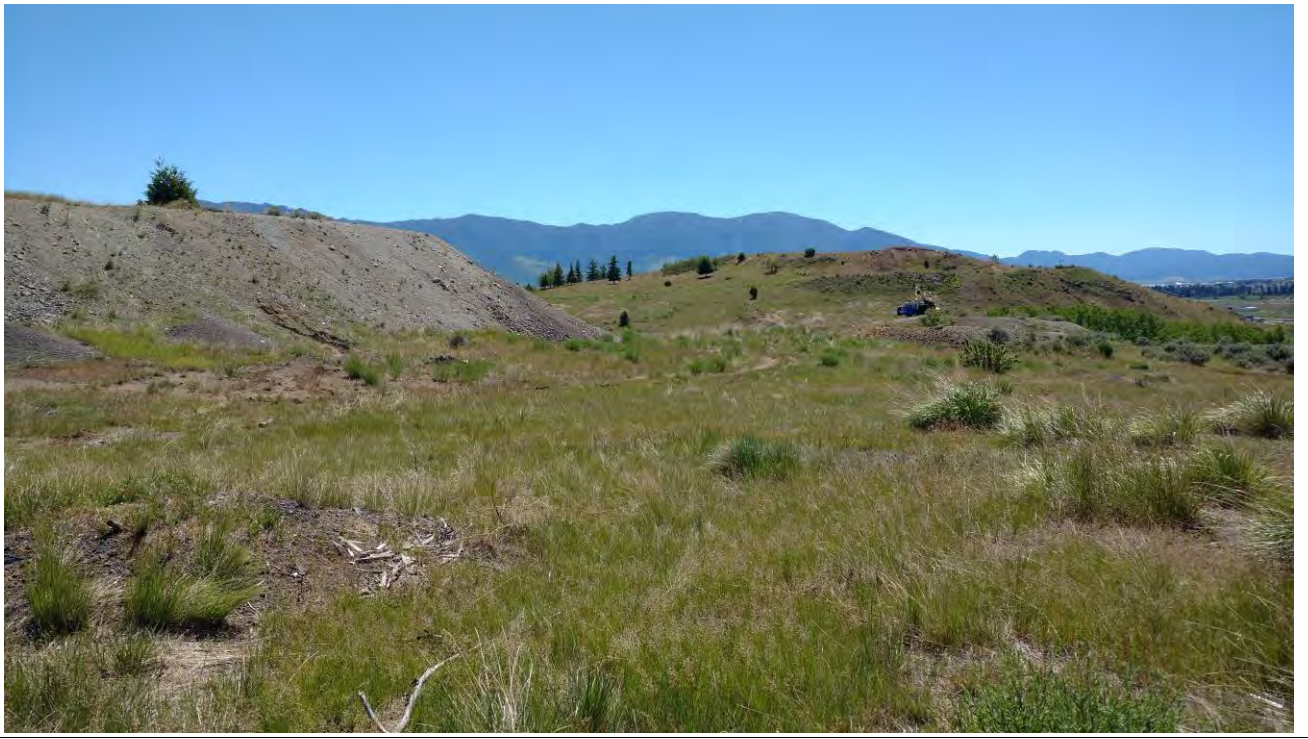


Photo Number: 99

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 100

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 101

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

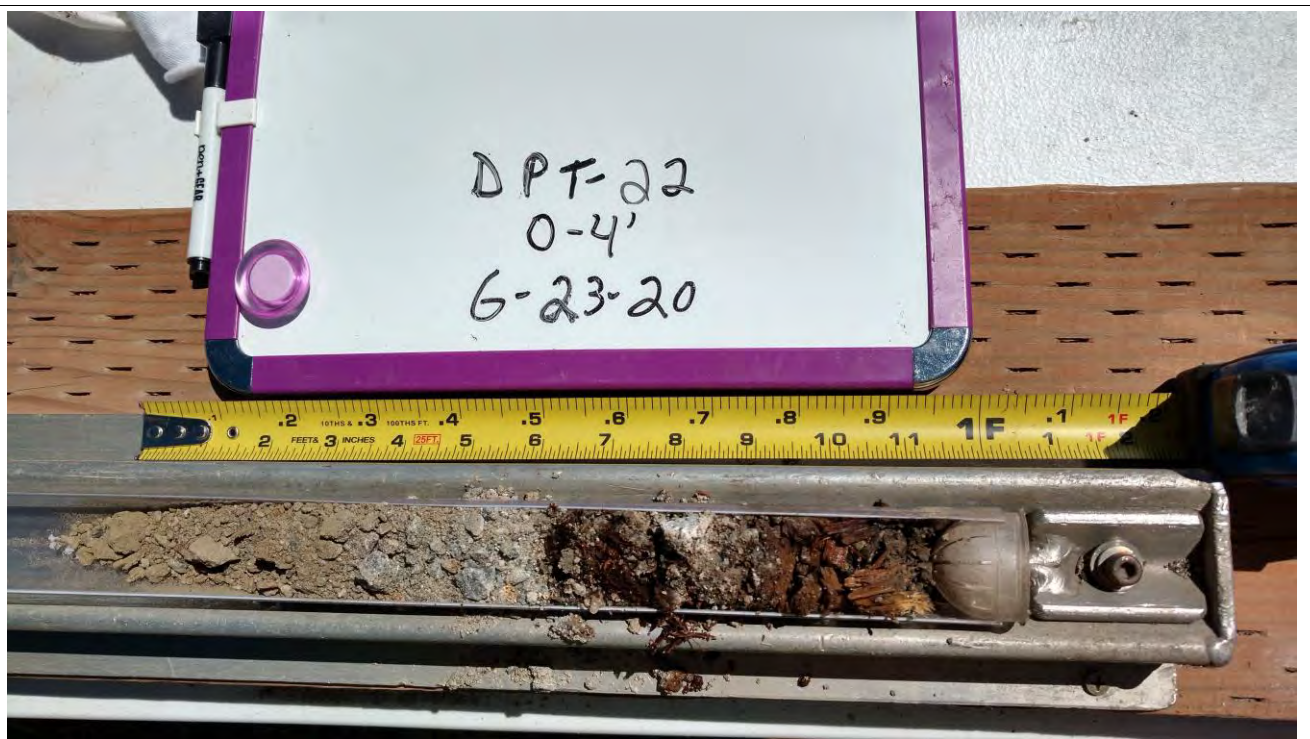


Photo Number: 102

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

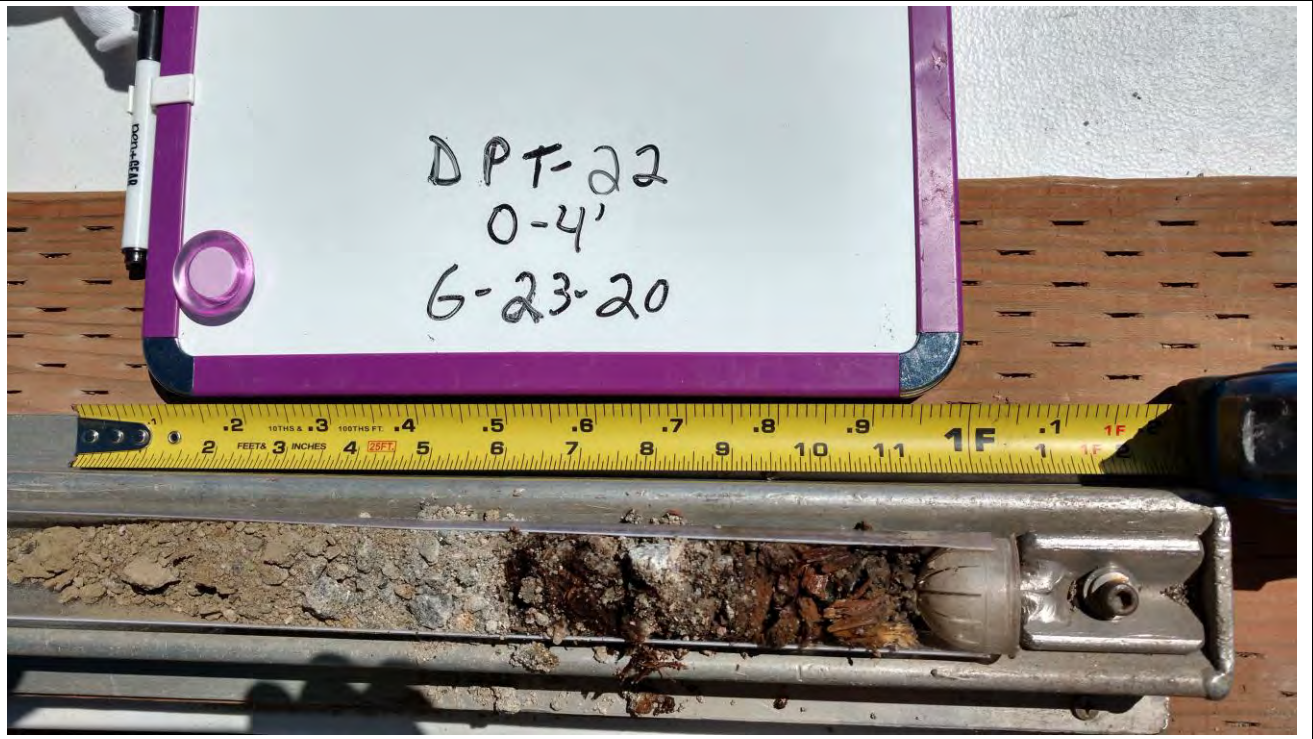


Photo Number: 103

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

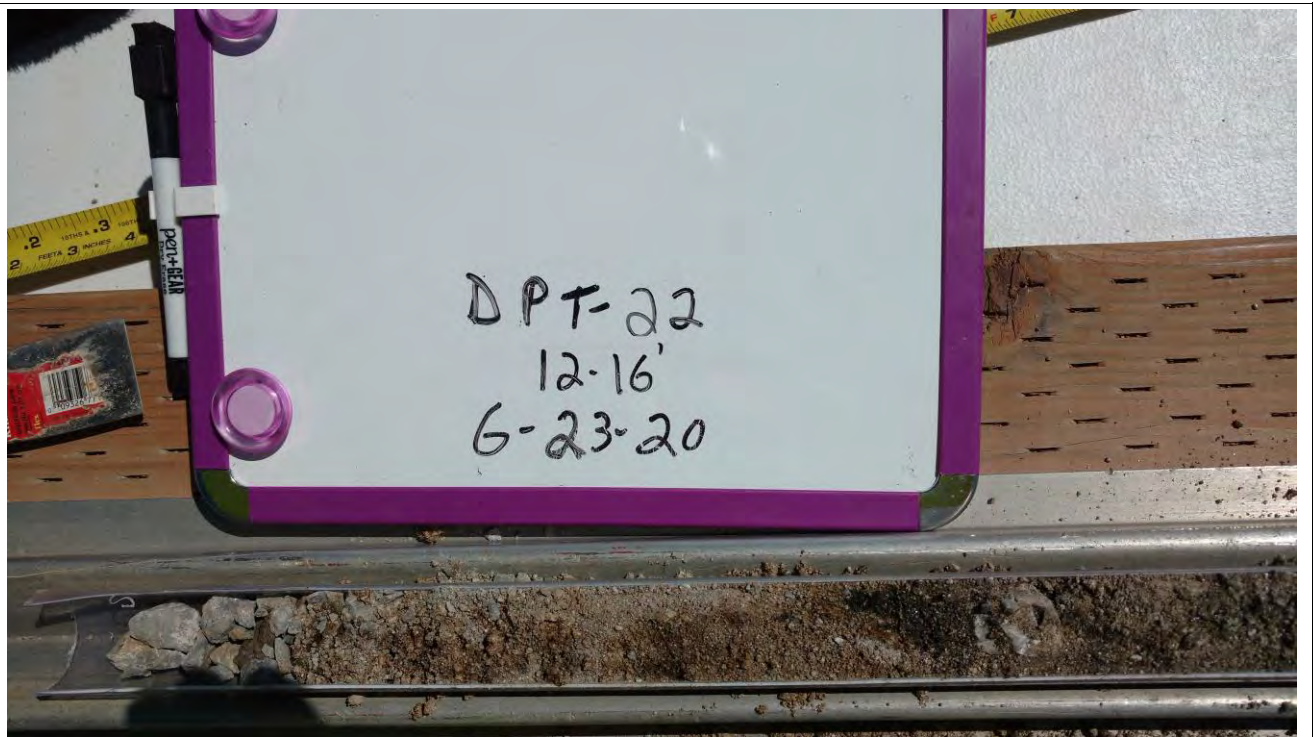


Photo Number: 104

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

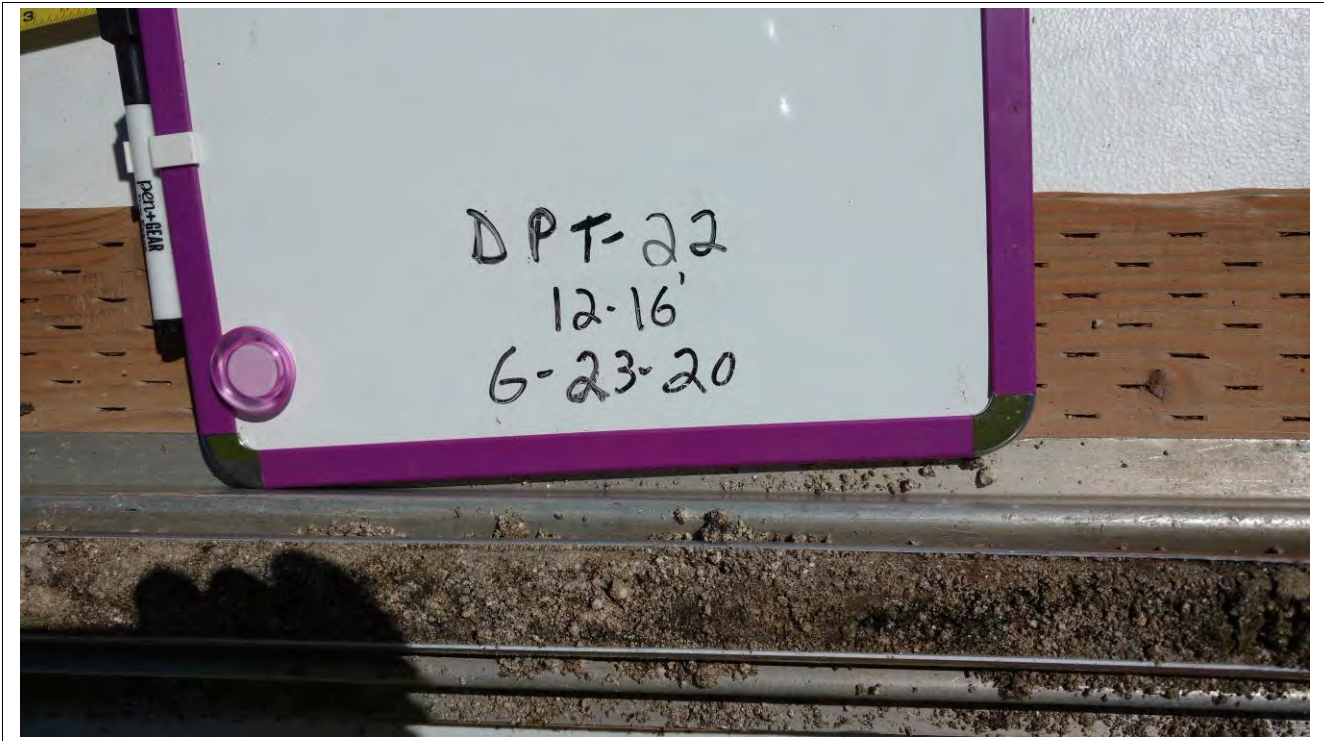


Photo Number: 105

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

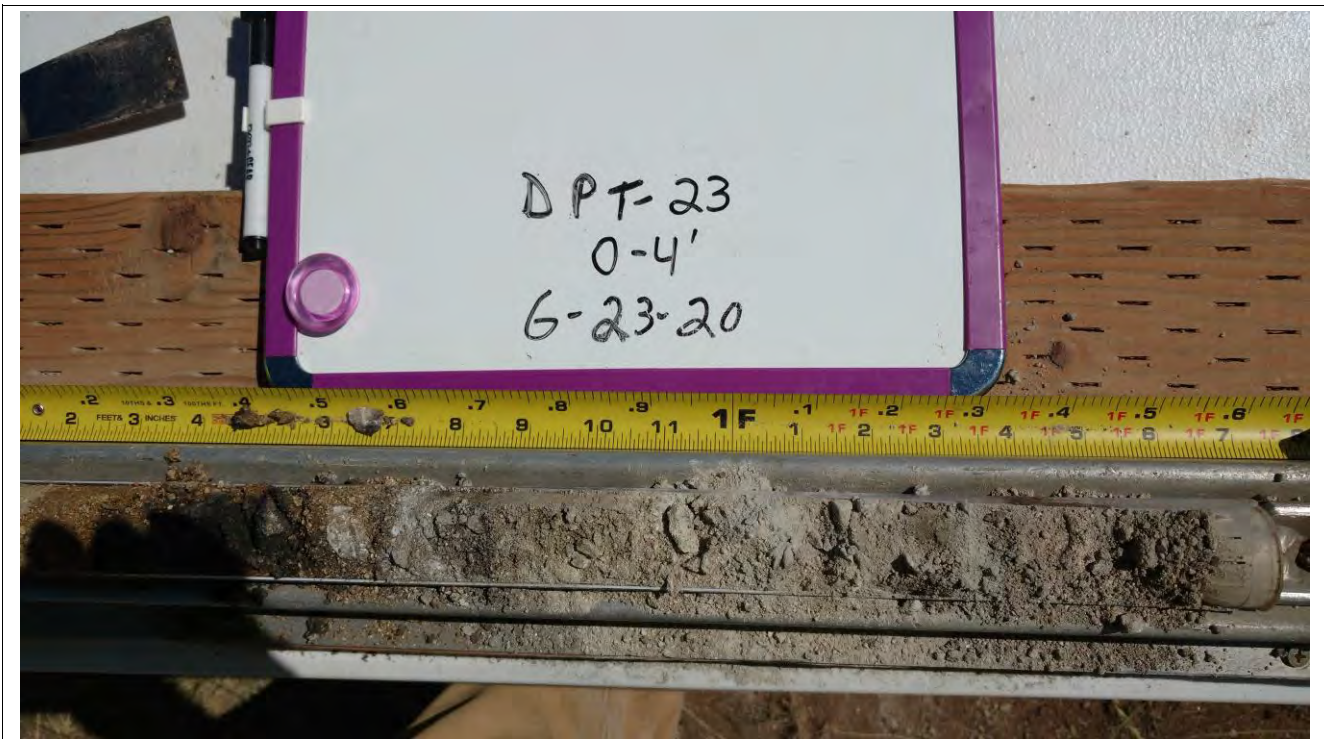


Photo Number: 106

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

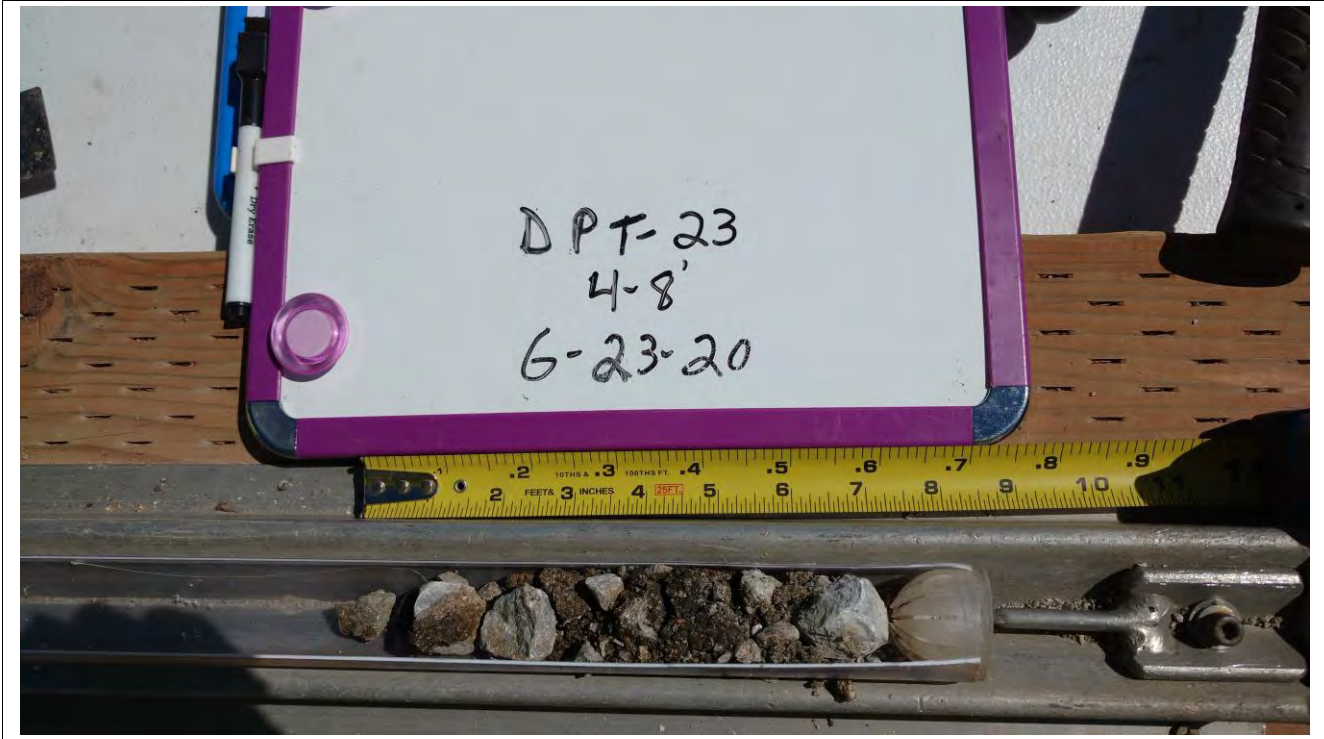


Photo Number: 107

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

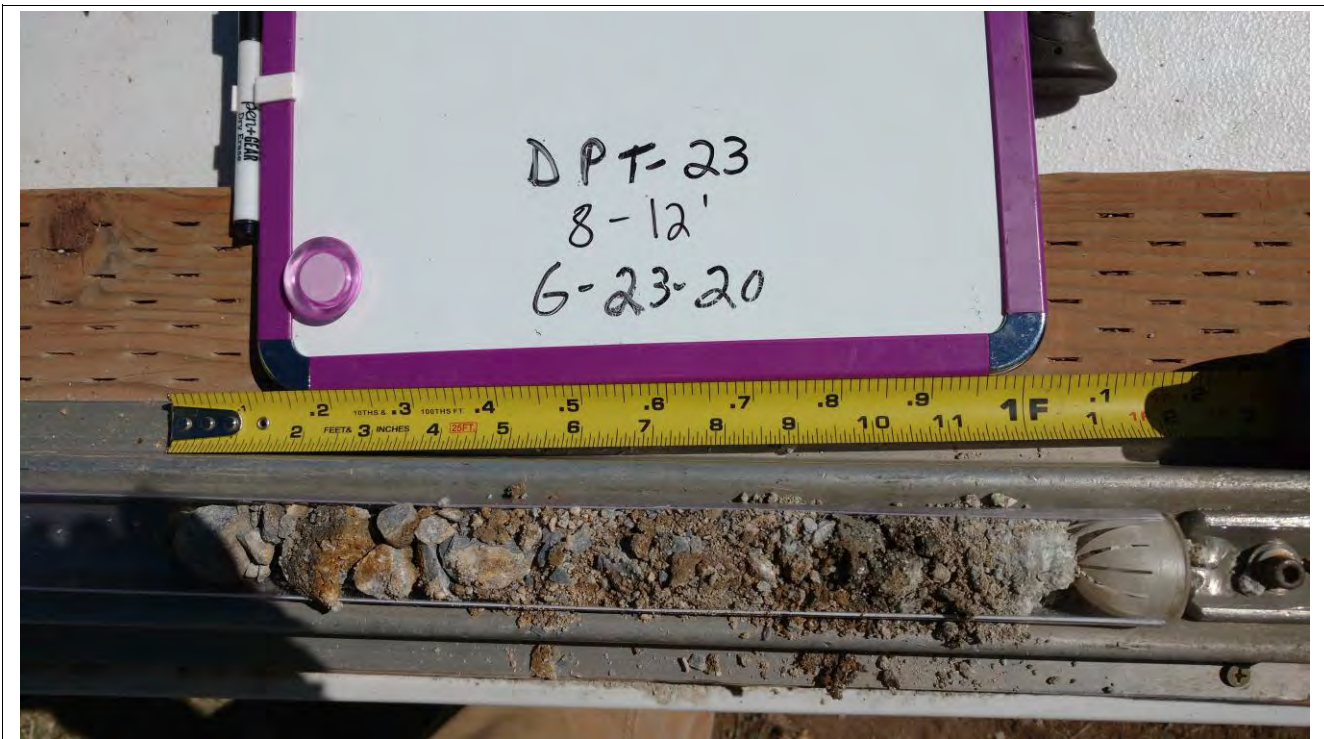


Photo Number: 108

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 109

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 110

Date: 6/23/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 111

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 112

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 113

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 114

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

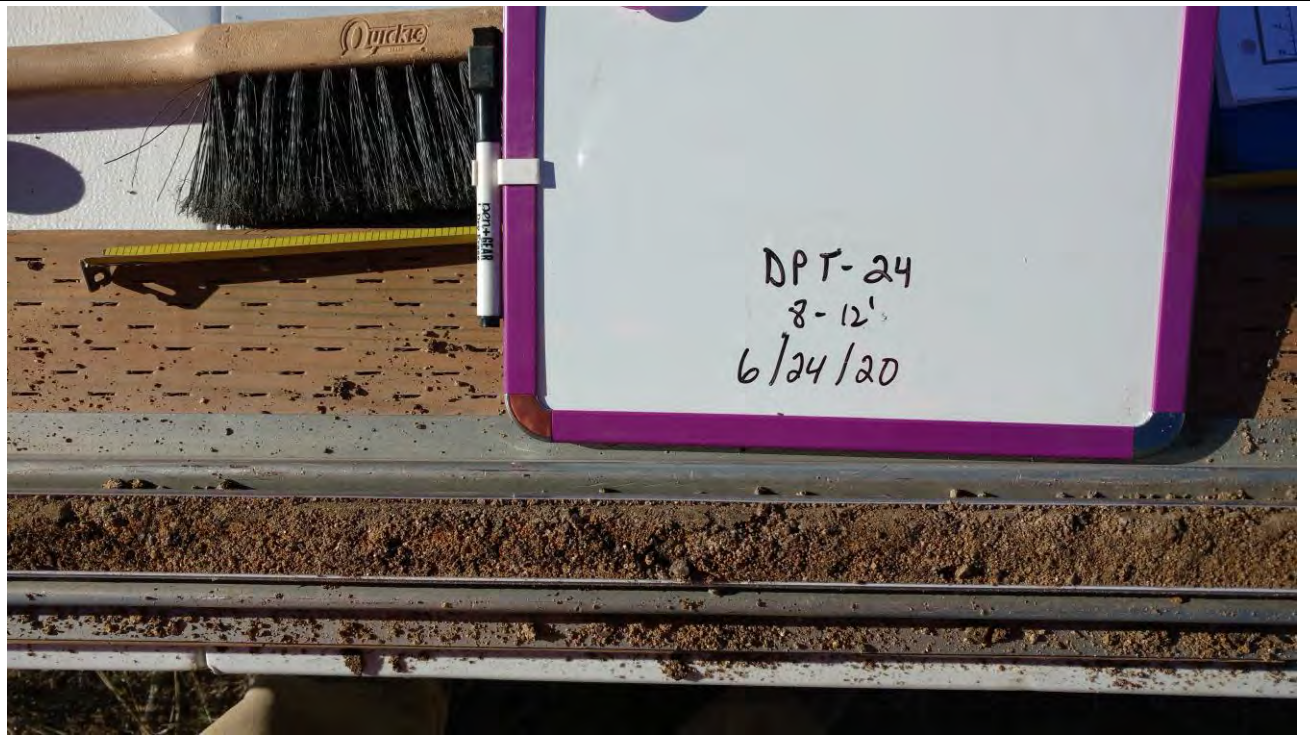


Photo Number: 115

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

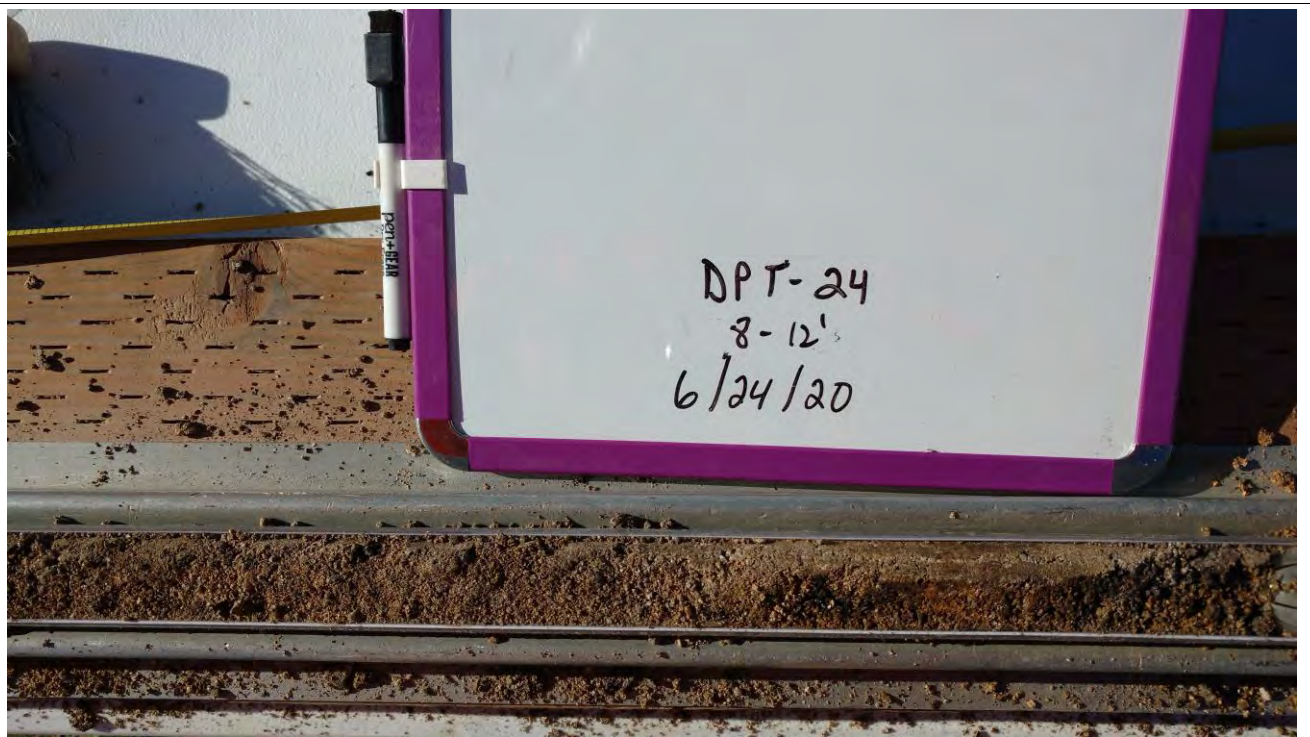


Photo Number: 116

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 117

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 118

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

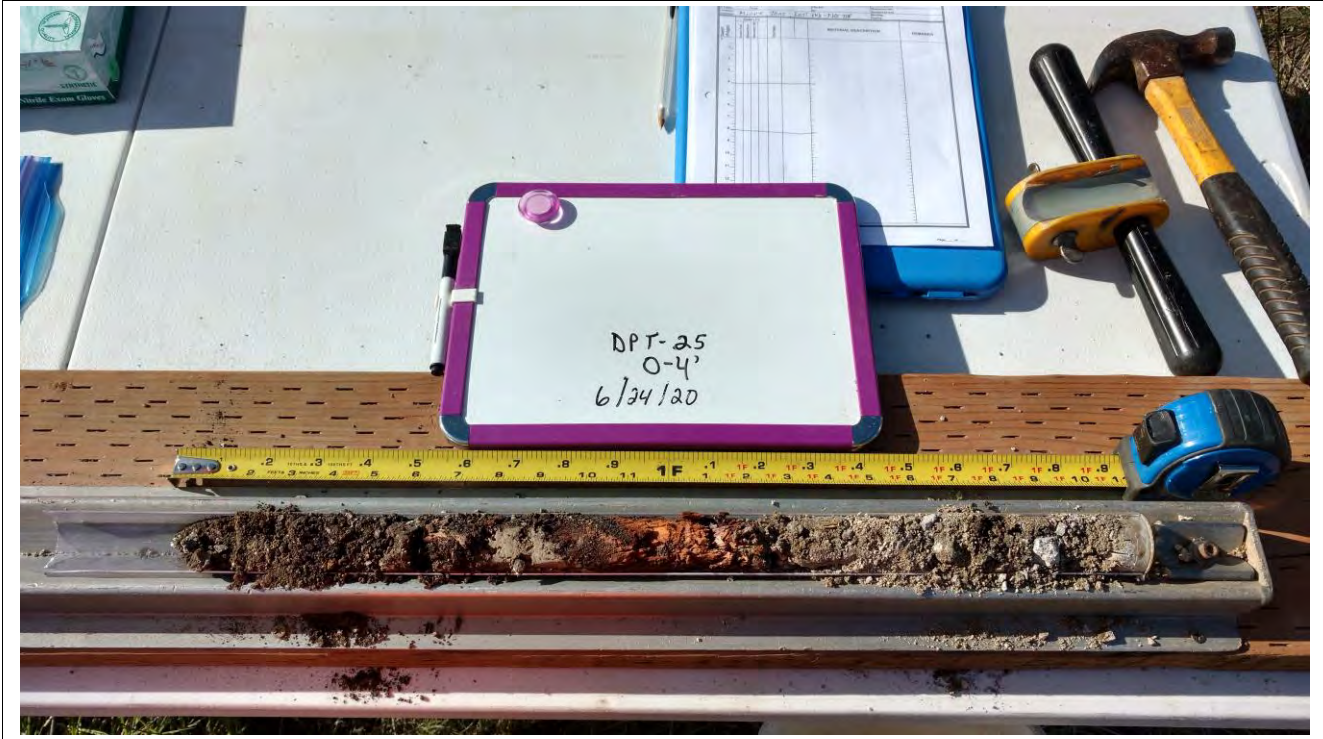


Photo Number: 119

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 120

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 121

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

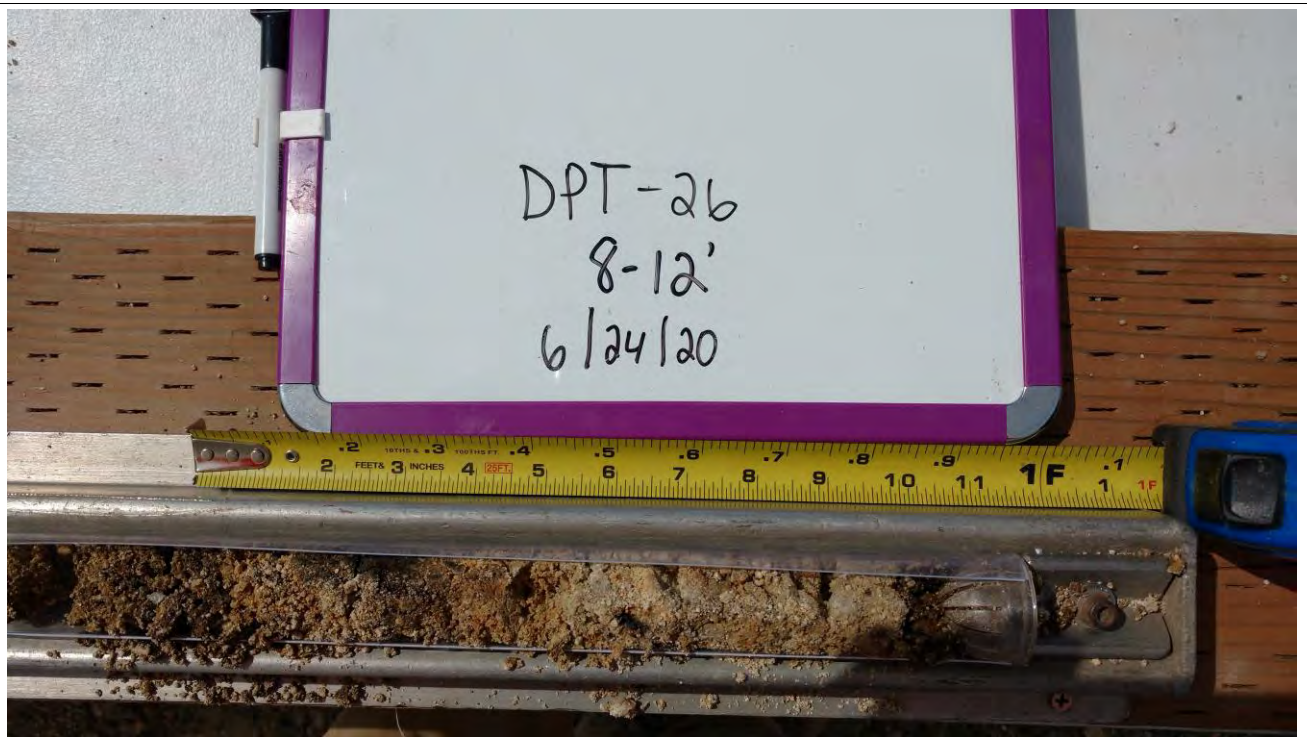


Photo Number: 122

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 123

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 124

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 125

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

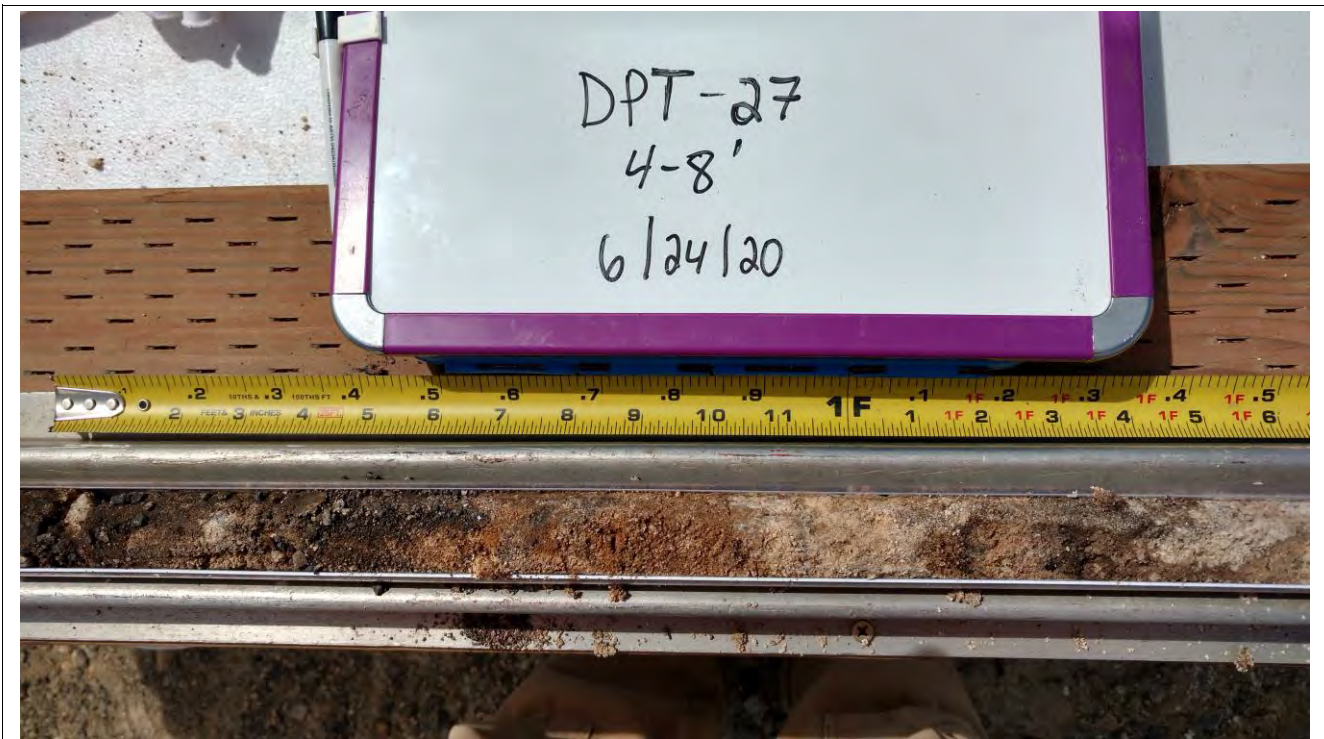


Photo Number: 126

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 127

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 128

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

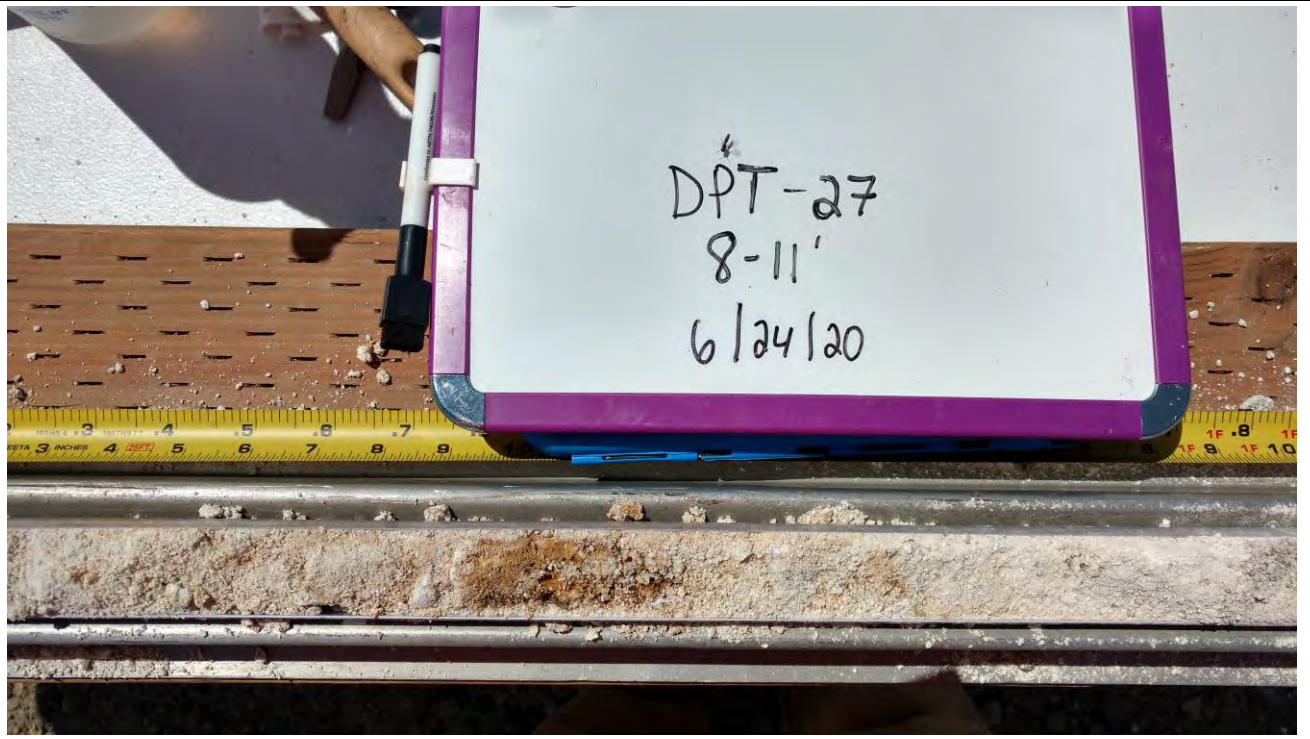


Photo Number: 129

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 130

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

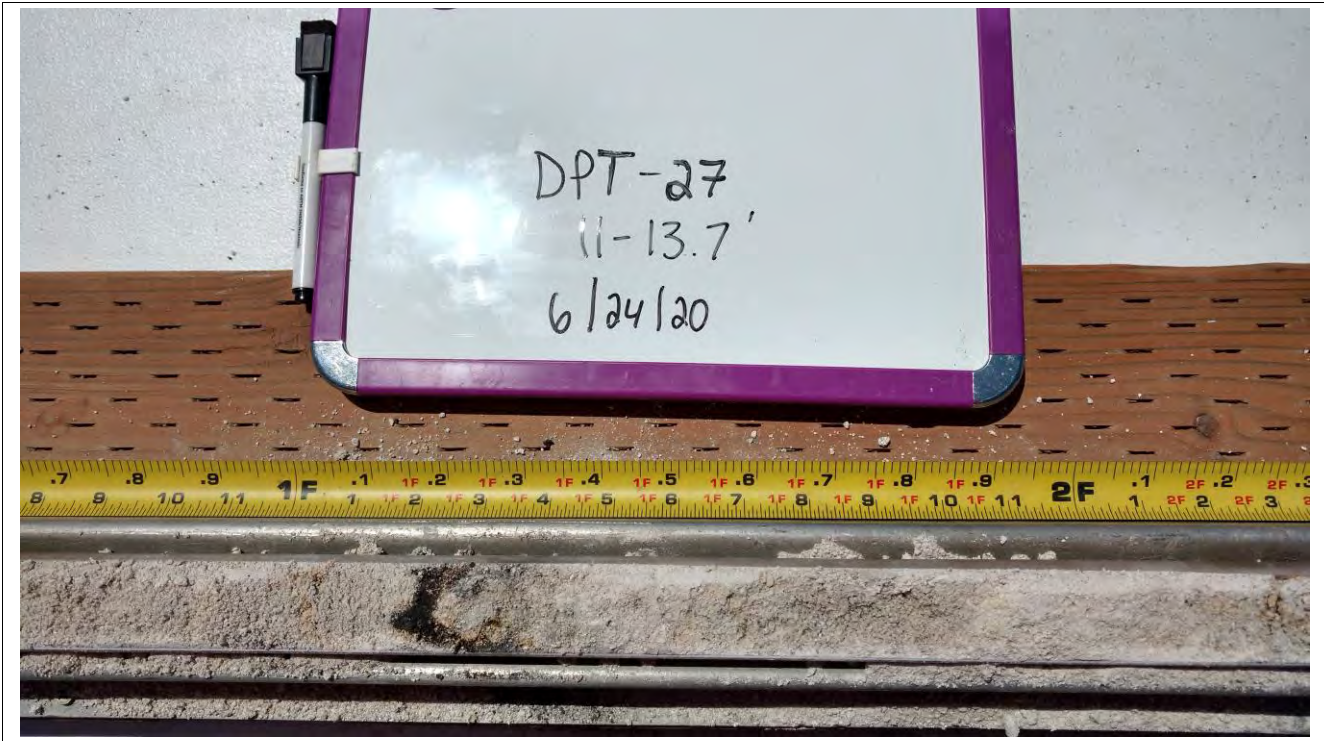


Photo Number: 131

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 132

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 133

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 134

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

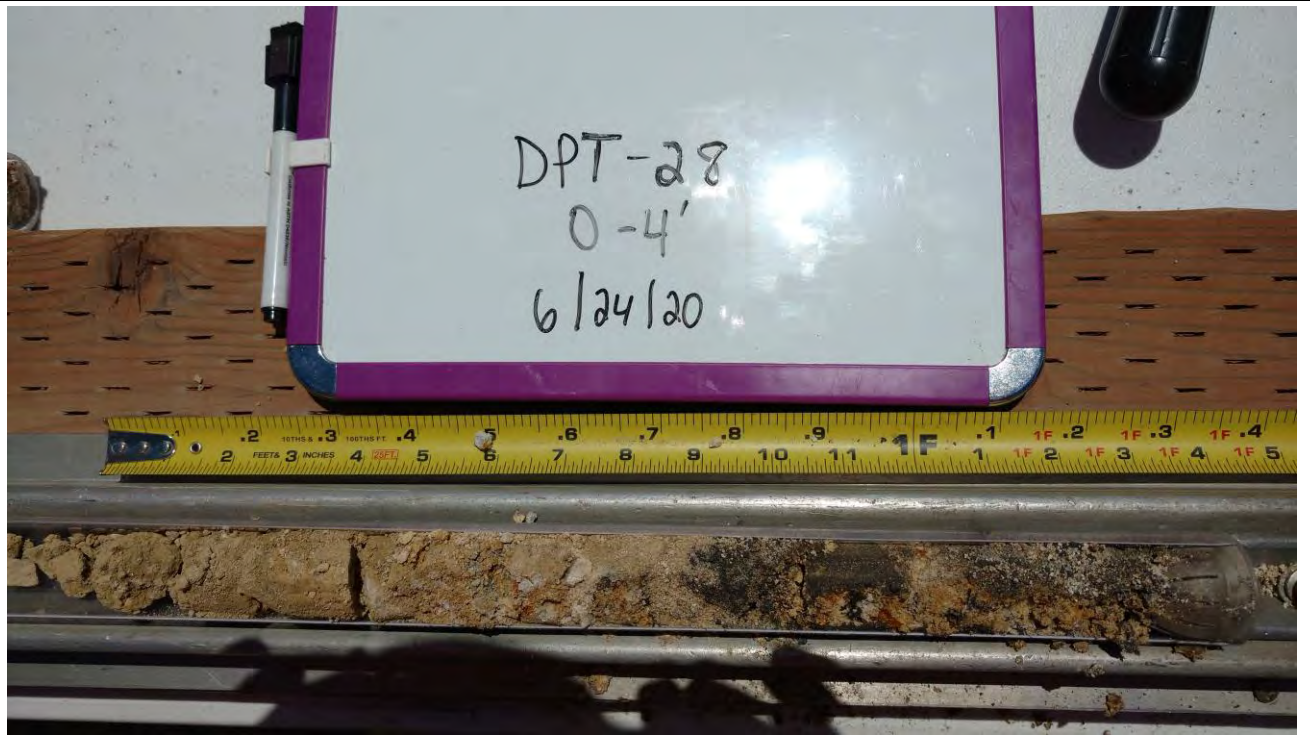


Photo Number: 135

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

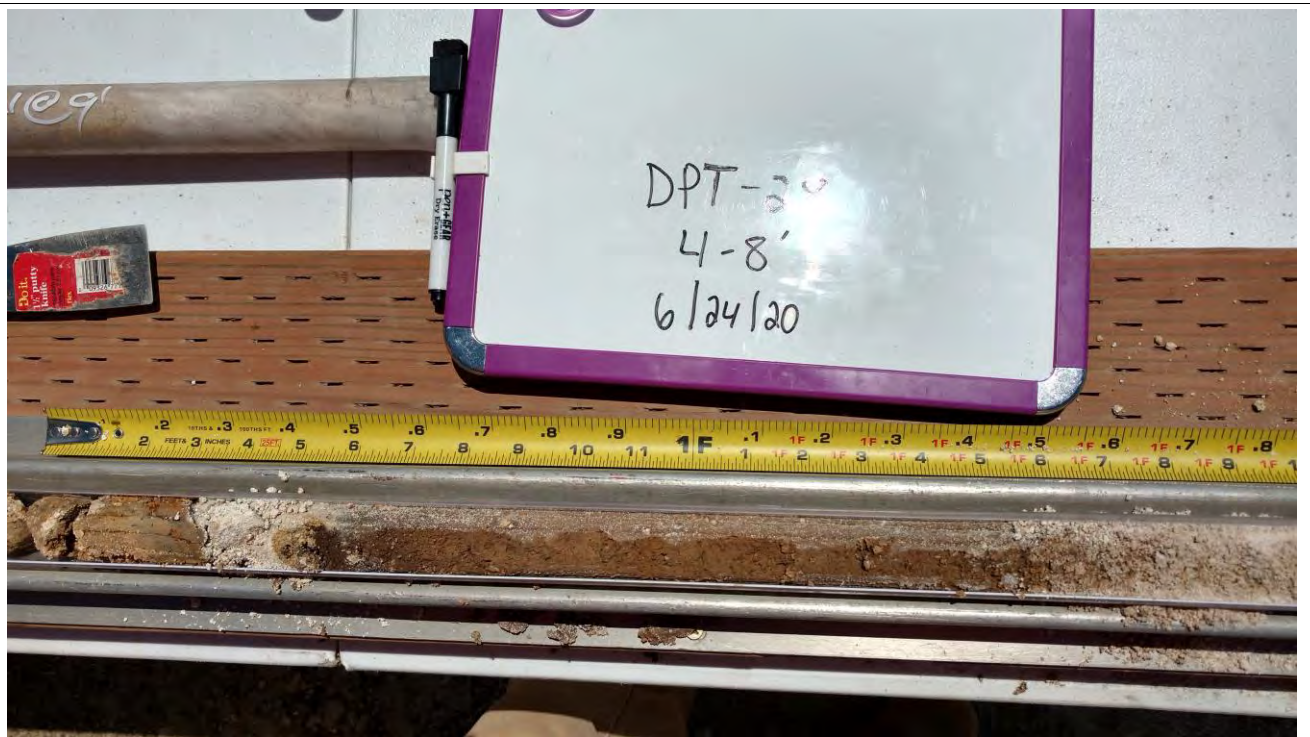


Photo Number: 136

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

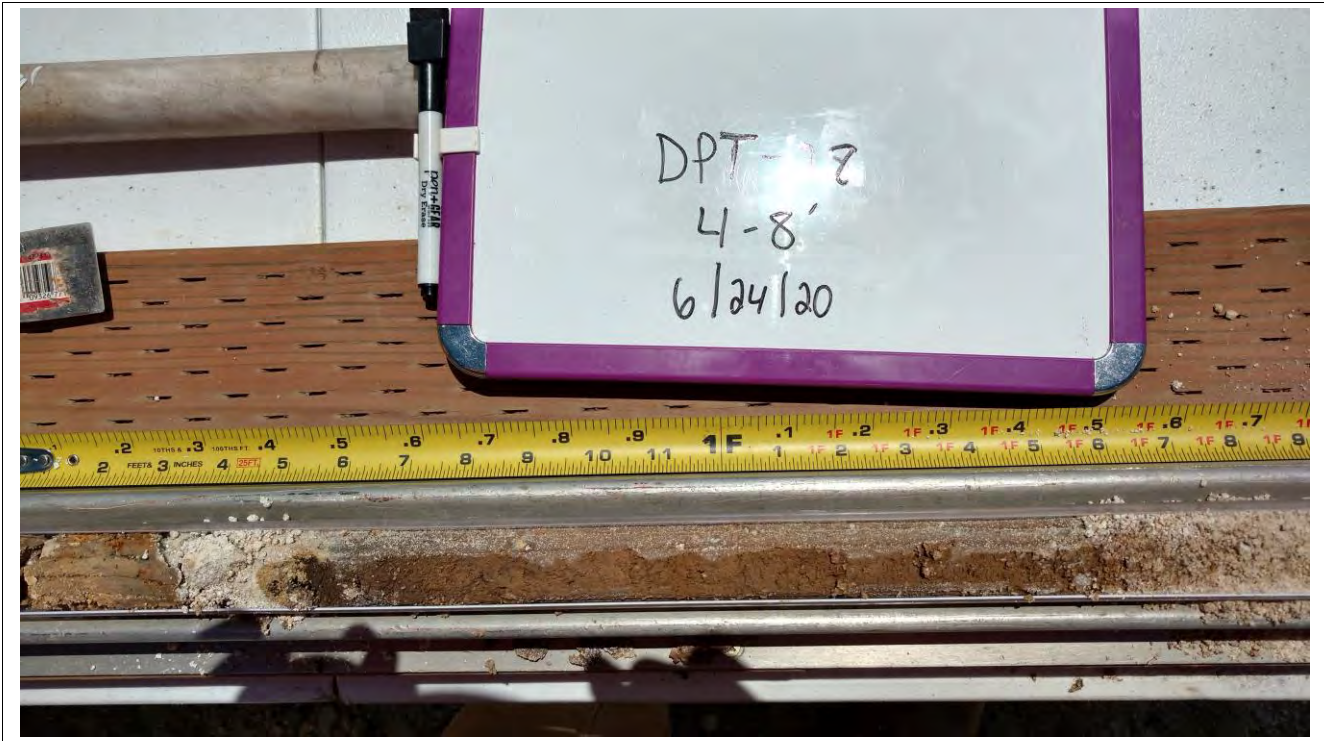


Photo Number: 137

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

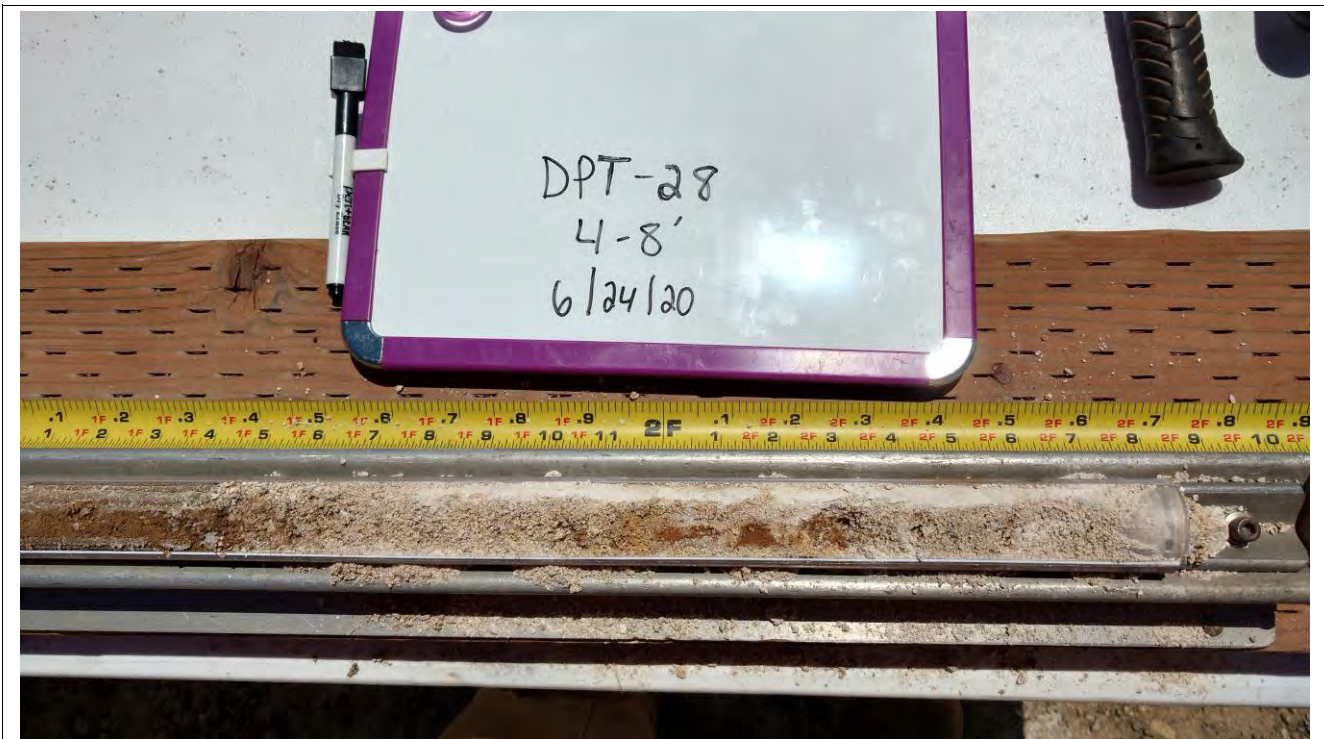


Photo Number: 138

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 139

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 140

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 141

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

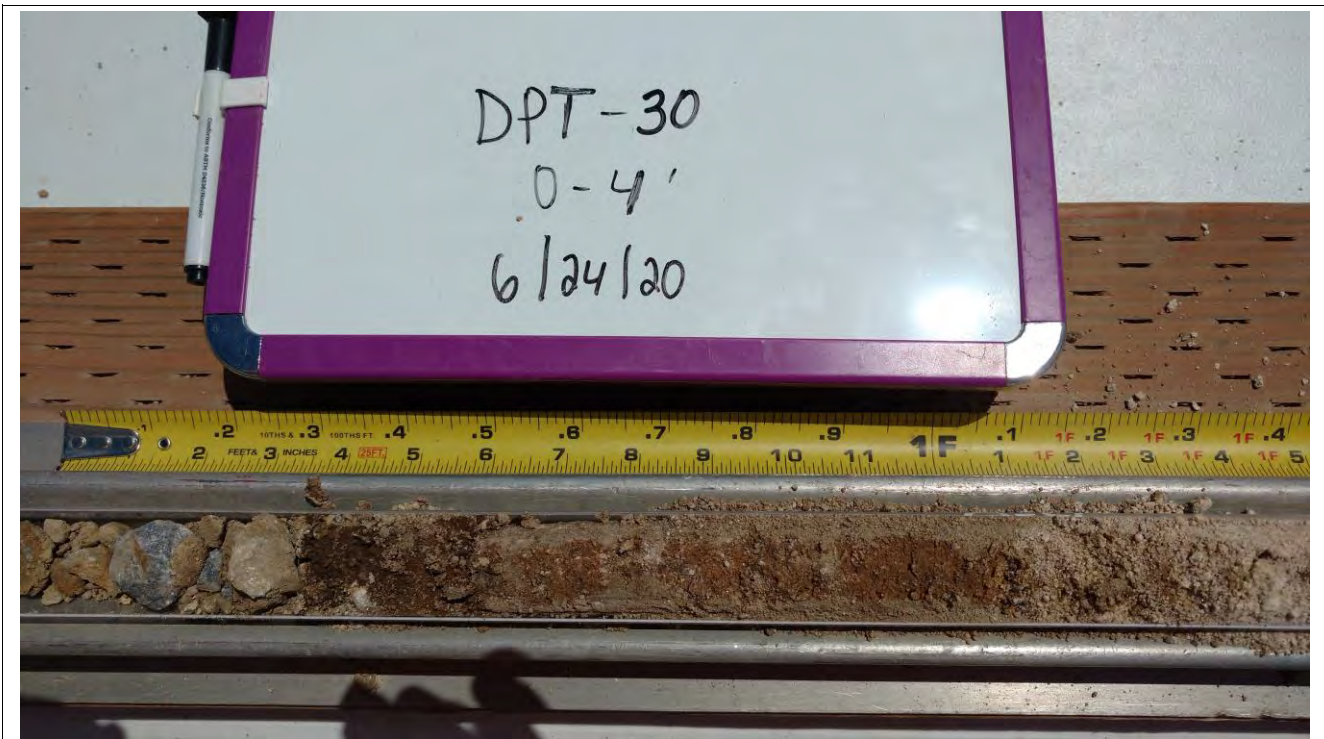


Photo Number: 142

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

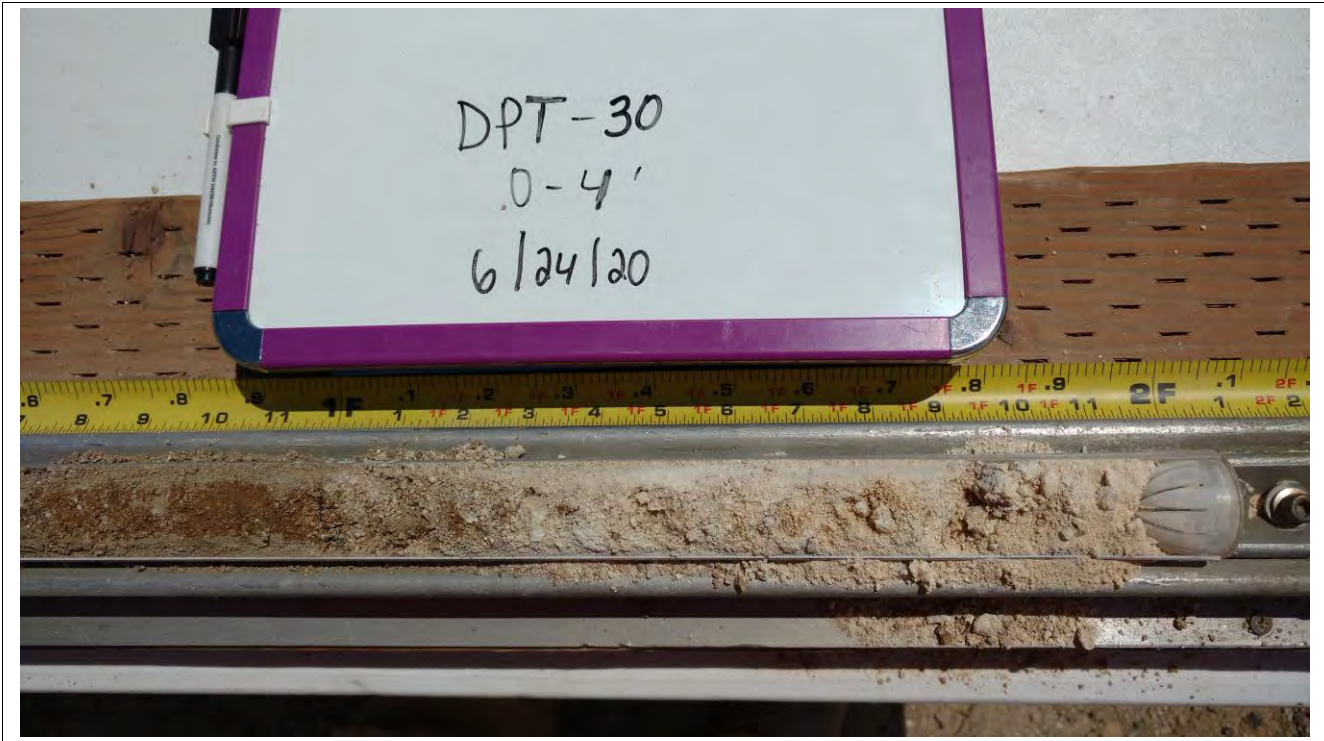


Photo Number: 143

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 144

Date: 6/24/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 145

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

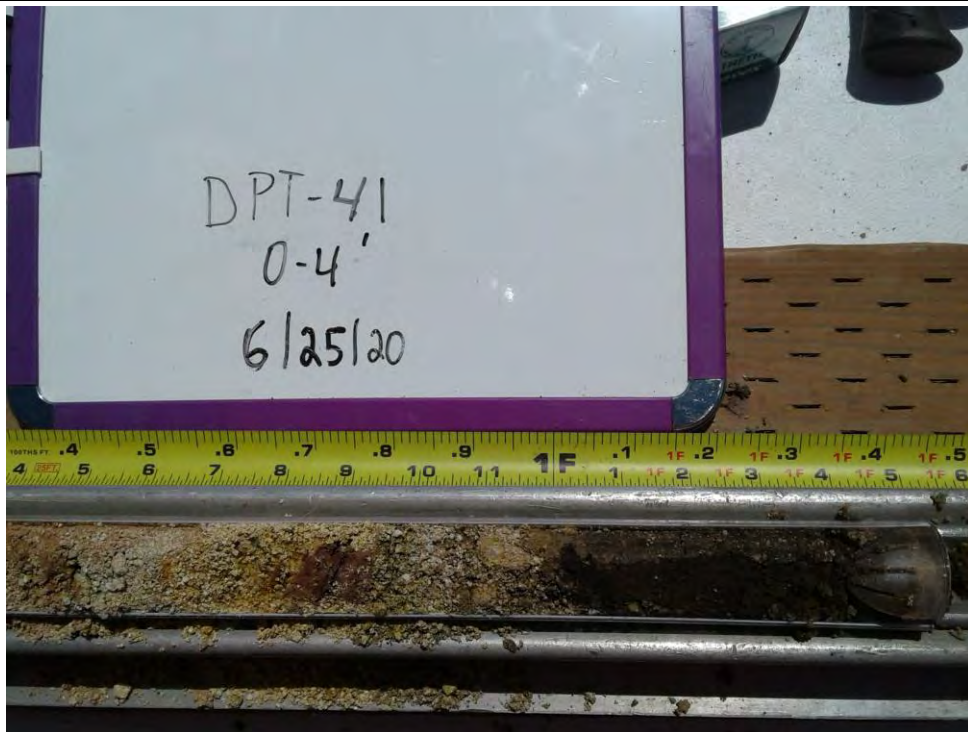


Photo Number: 146

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

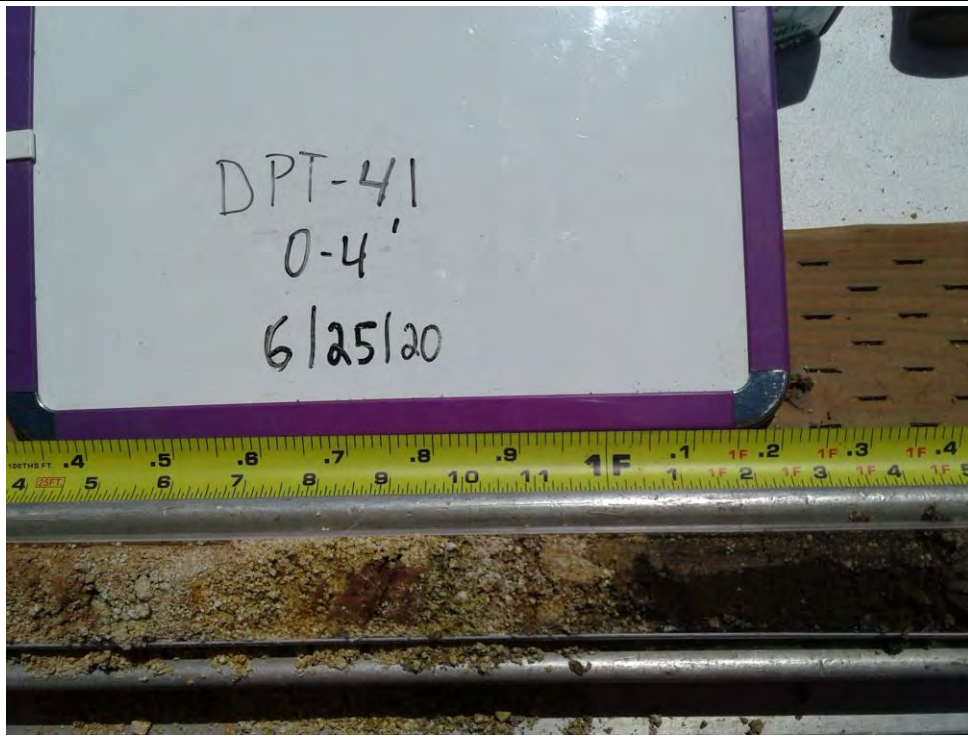


Photo Number: 147

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

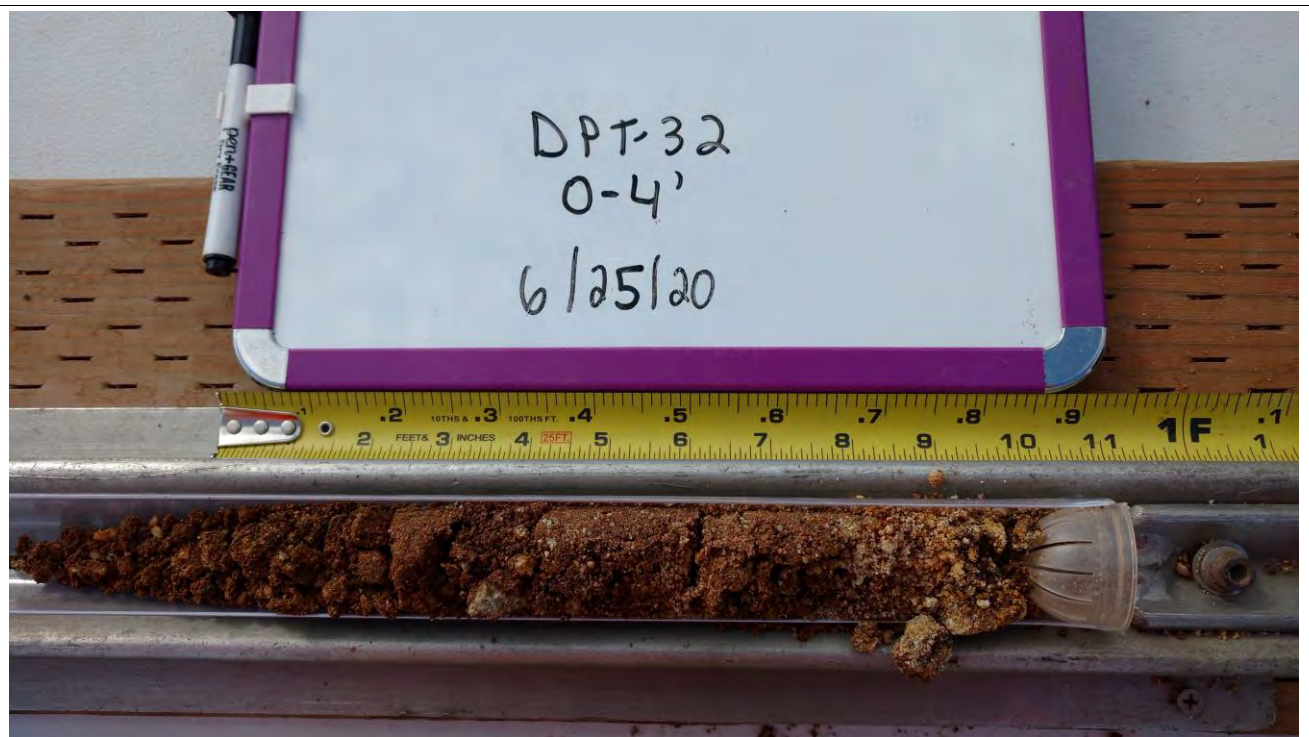


Photo Number: 148

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 149

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 150

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 151

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 152

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 153

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 154

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 155

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 156

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



DPT-34
0-4'
6/25/20

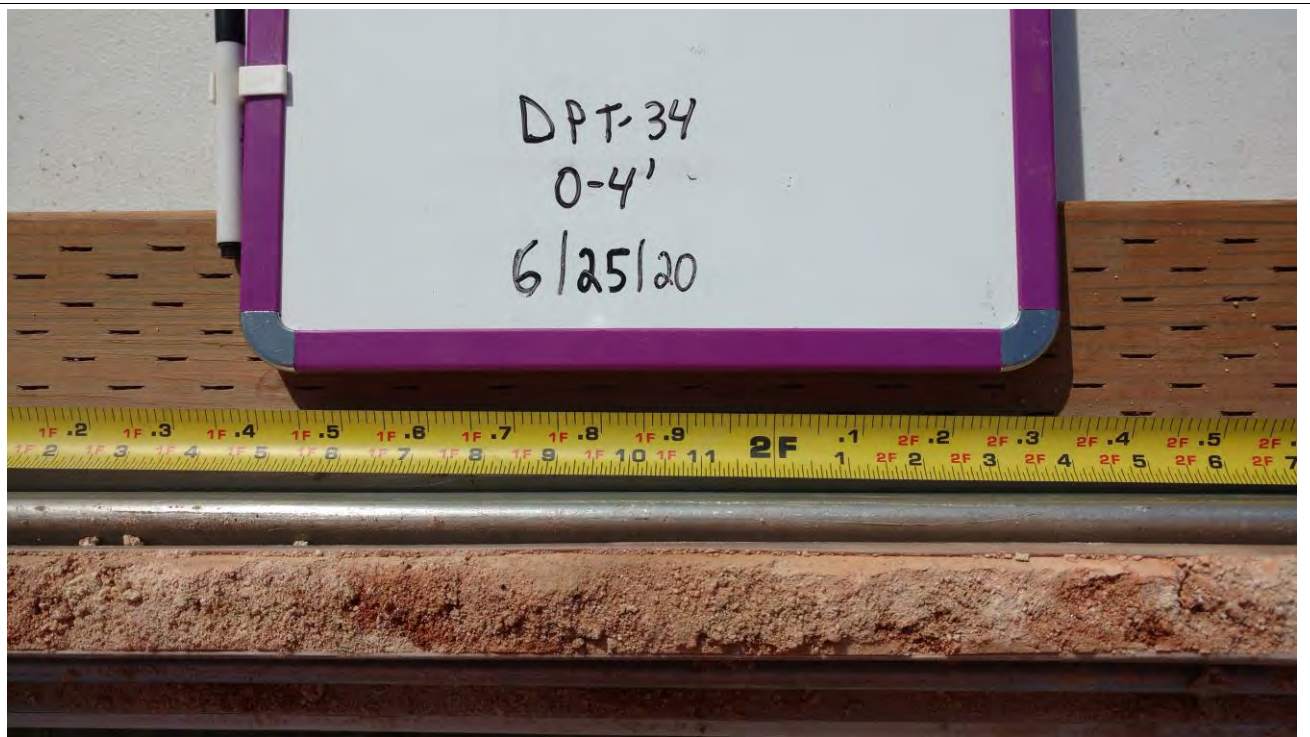


Photo Number: 157

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



DPT-34
0-4'
6/25/20



Photo Number: 158

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 159

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 160

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

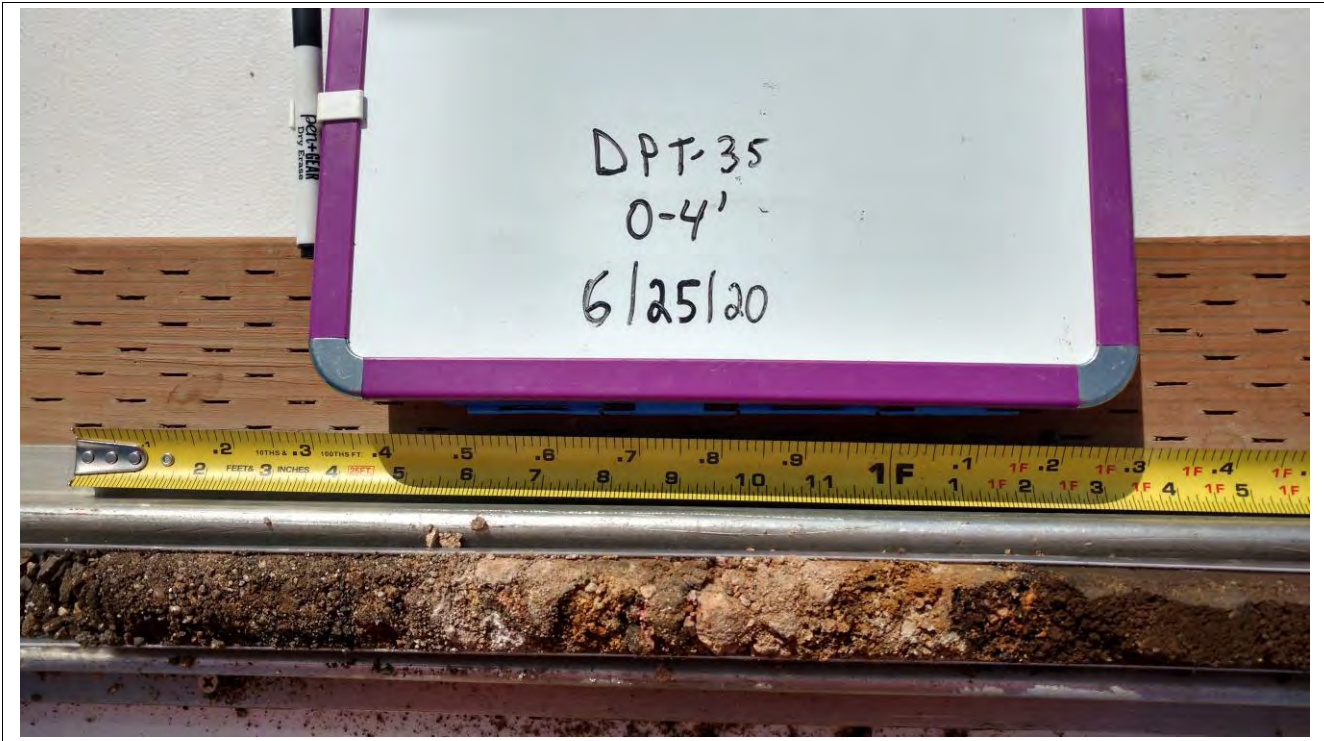


Photo Number: 161

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 162

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

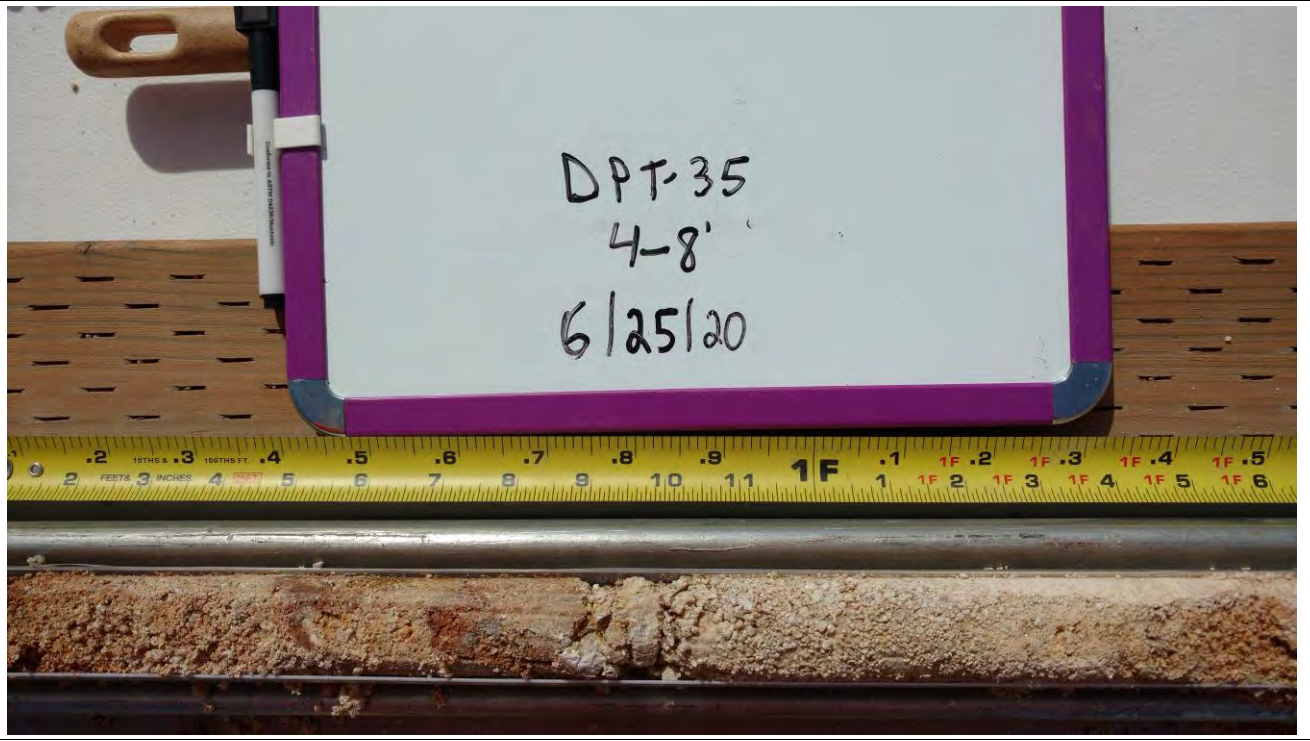


Photo Number: 163

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

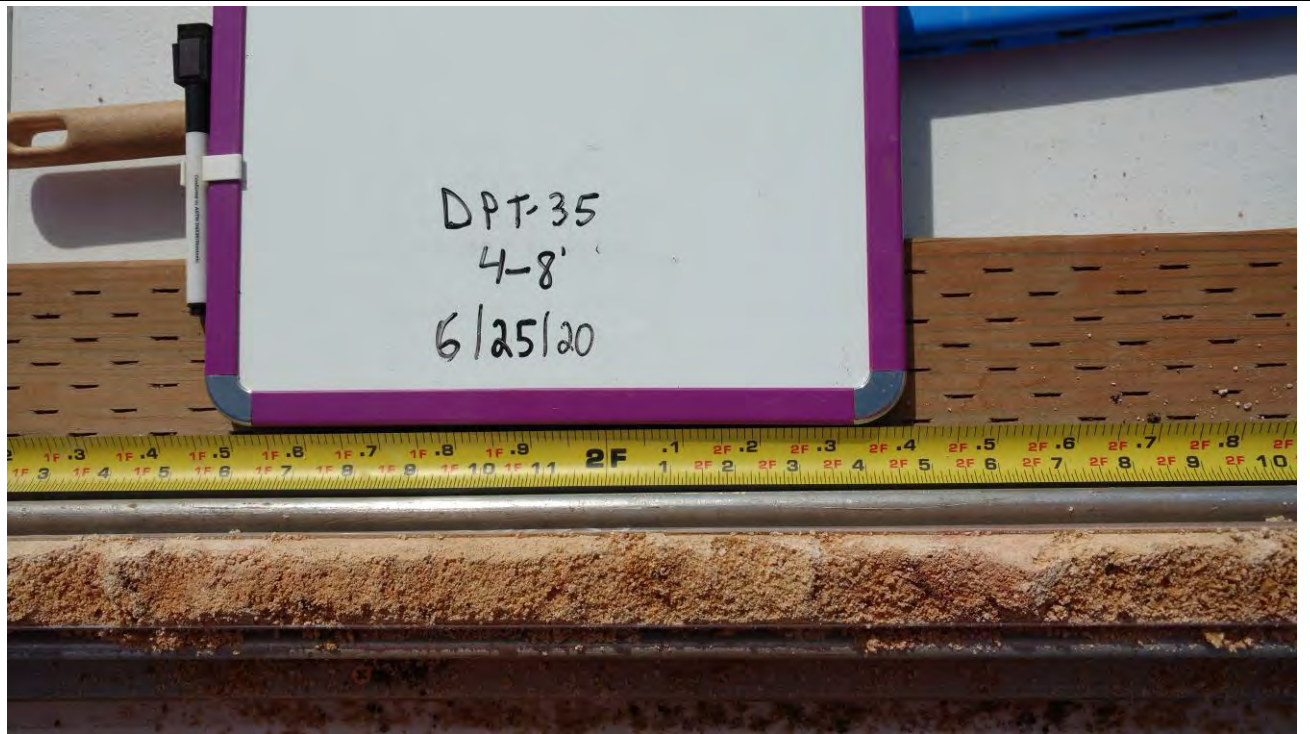


Photo Number: 164

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 165

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 166

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

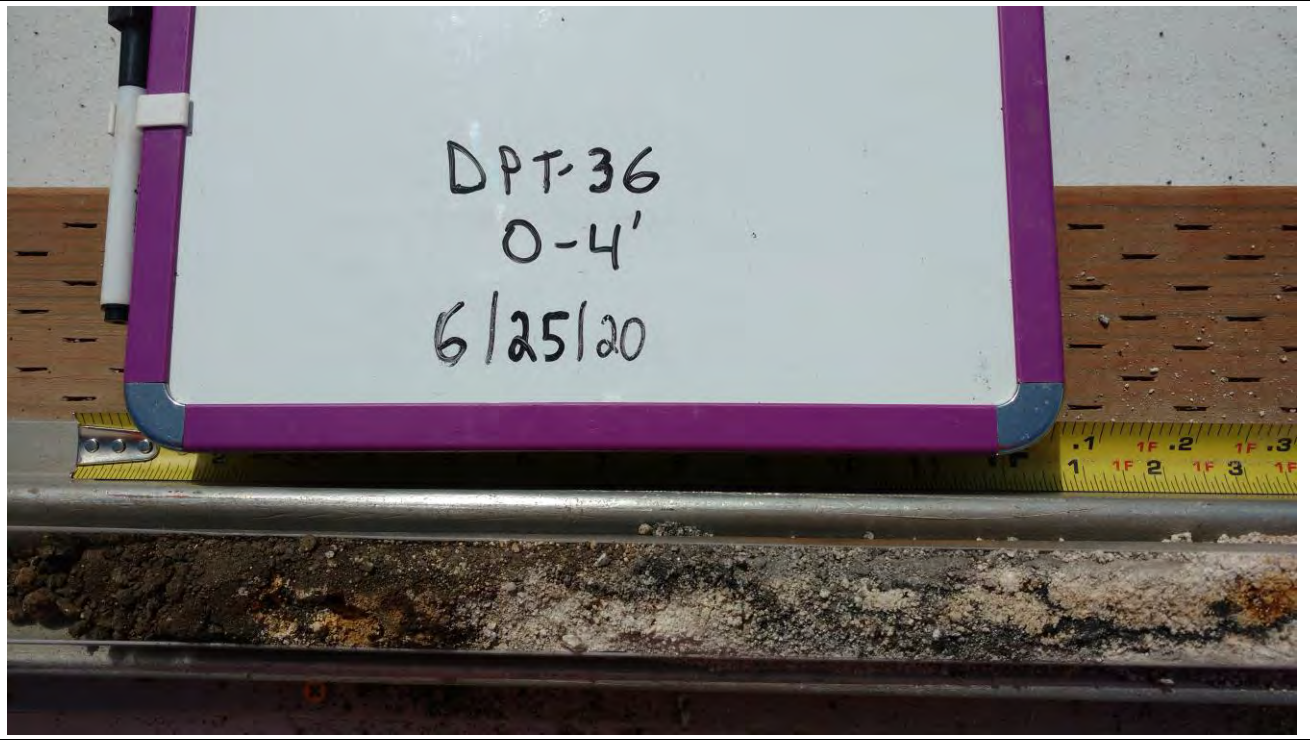


Photo Number: 167

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

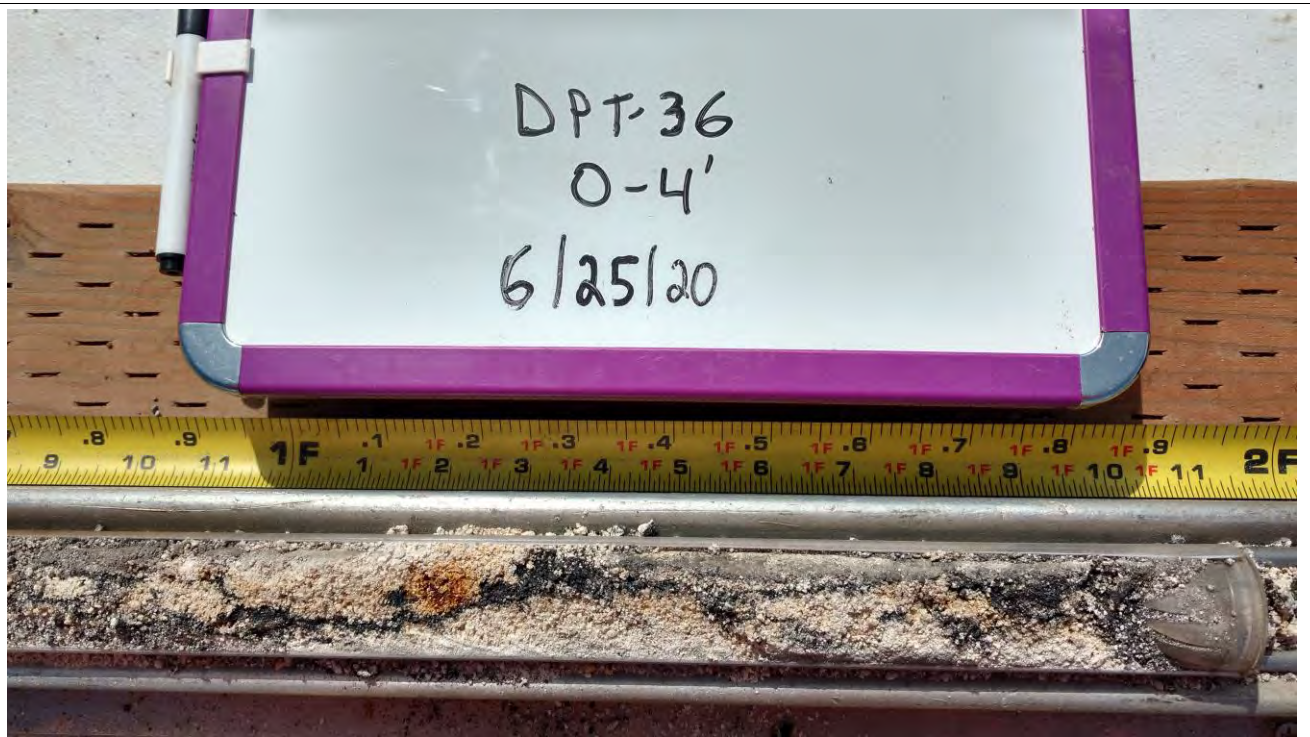


Photo Number: 168

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 169

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

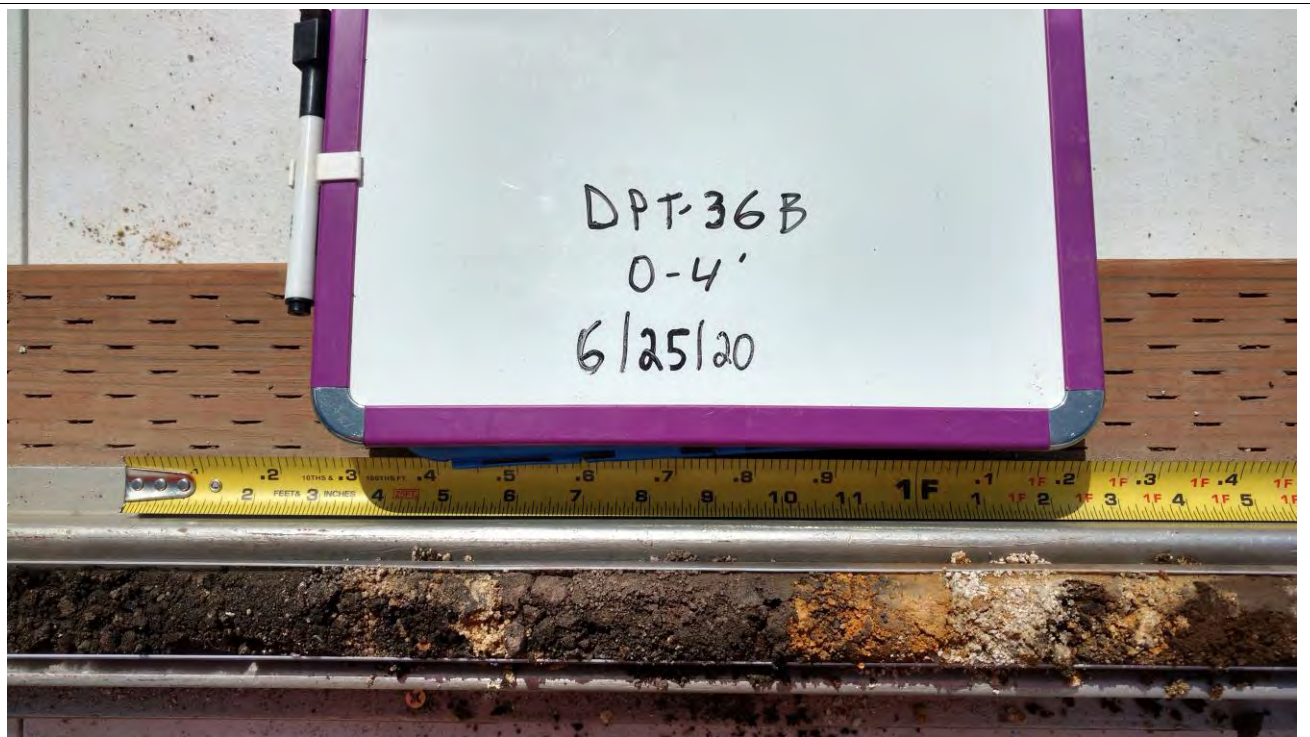


Photo Number: 170

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 171

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 172

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

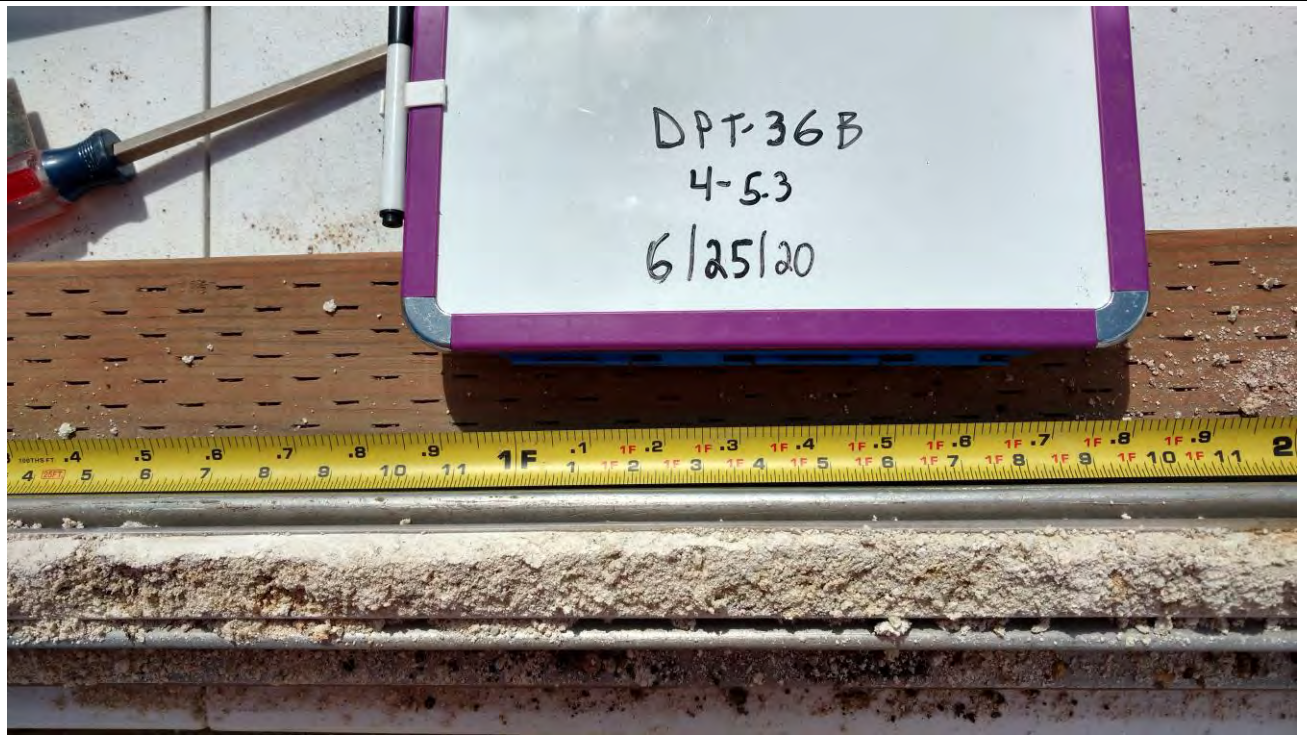


Photo Number: 173

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

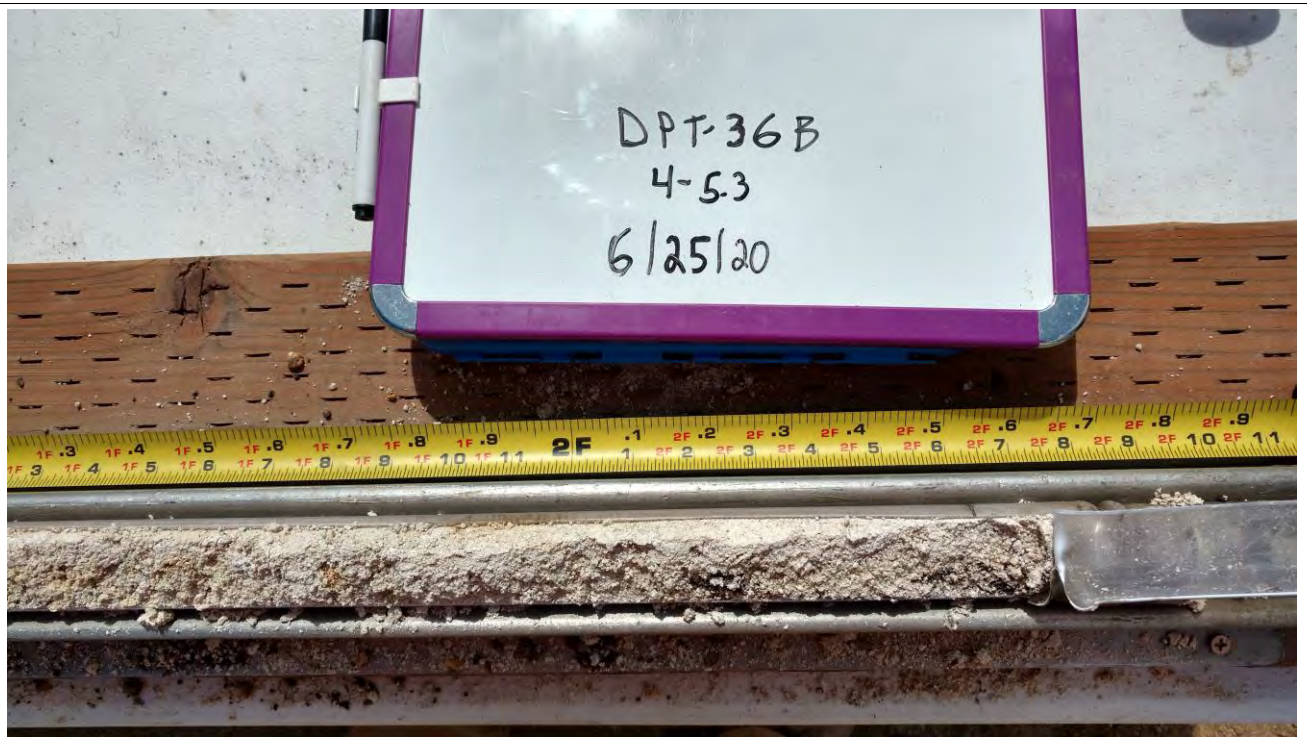


Photo Number: 174

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 175

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

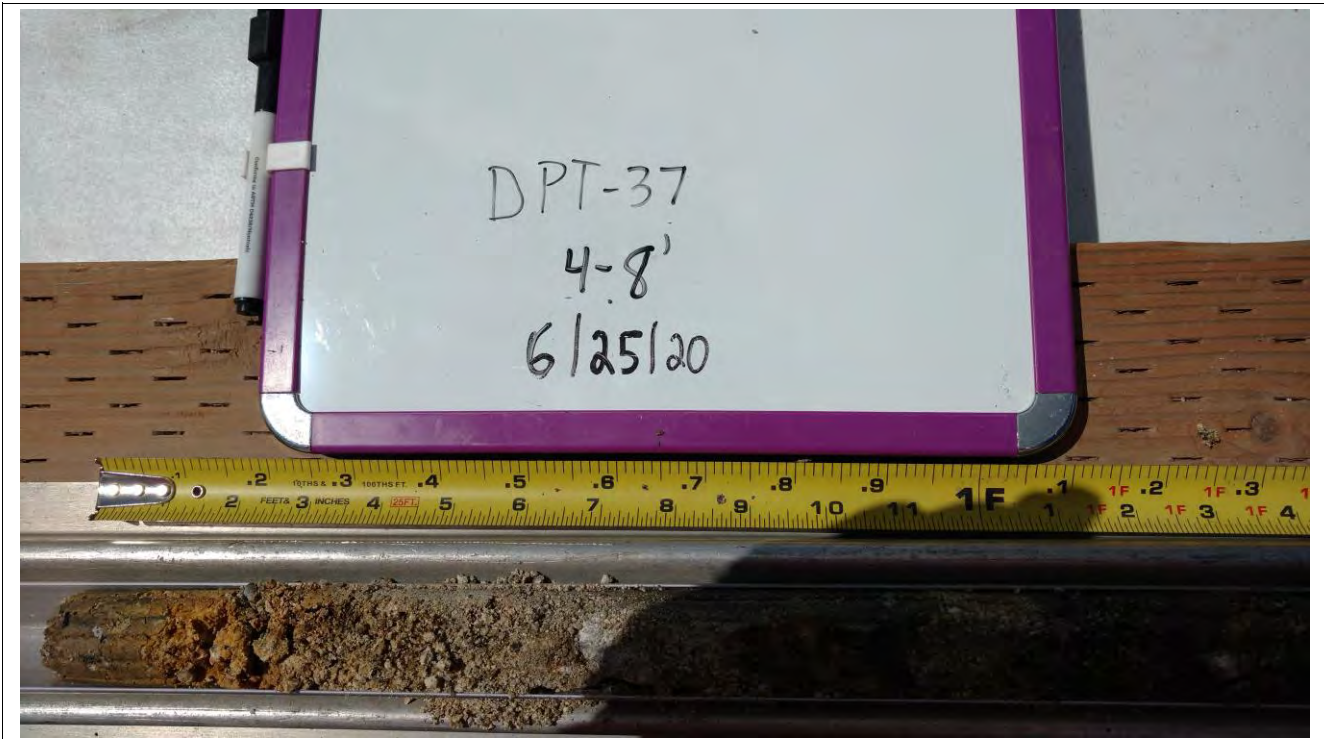


Photo Number: 176

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

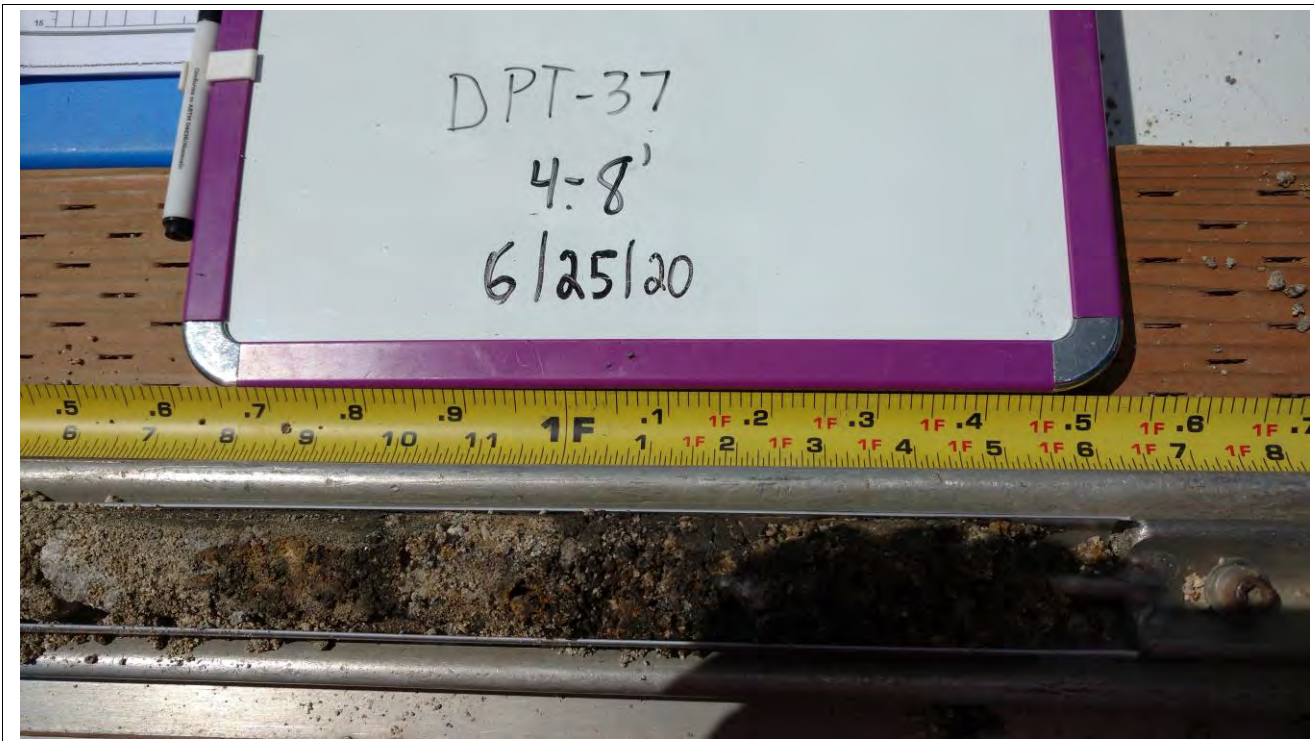


Photo Number: 177

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

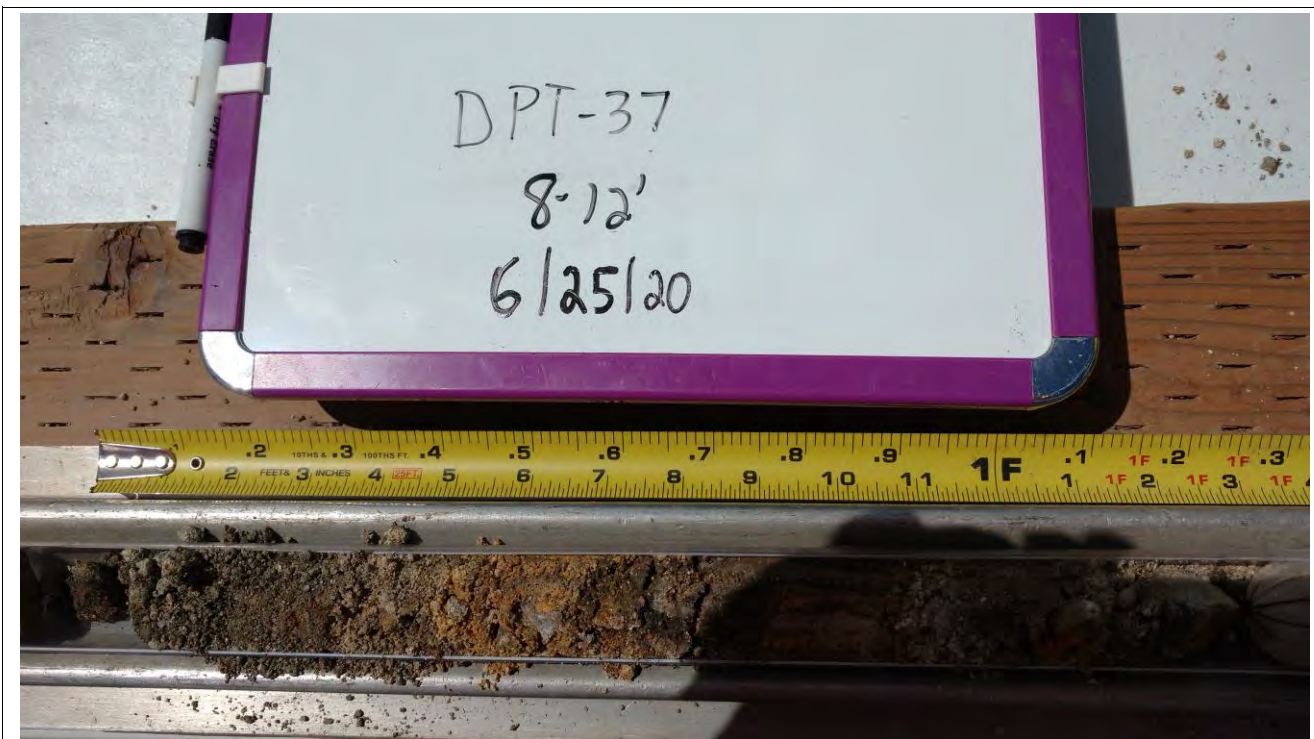


Photo Number: 178

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 179

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 180

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

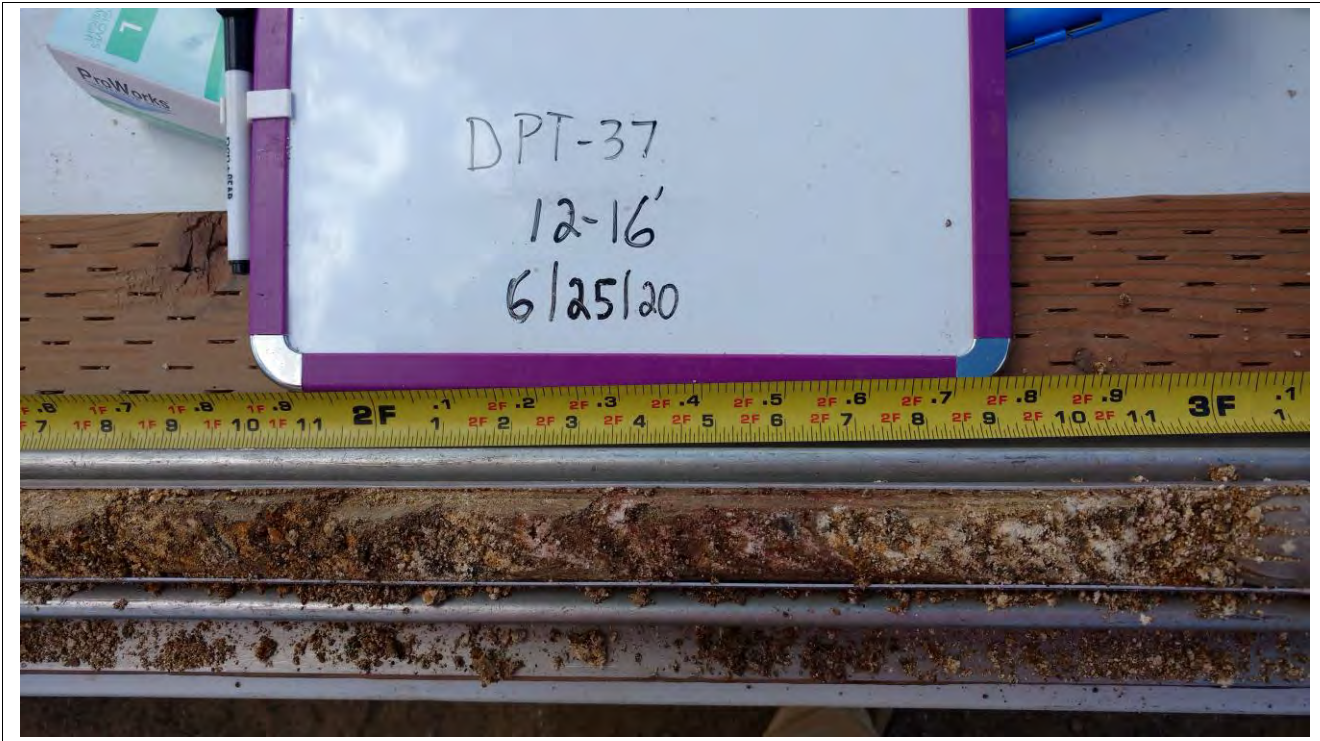


Photo Number: 181

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 182

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 183

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

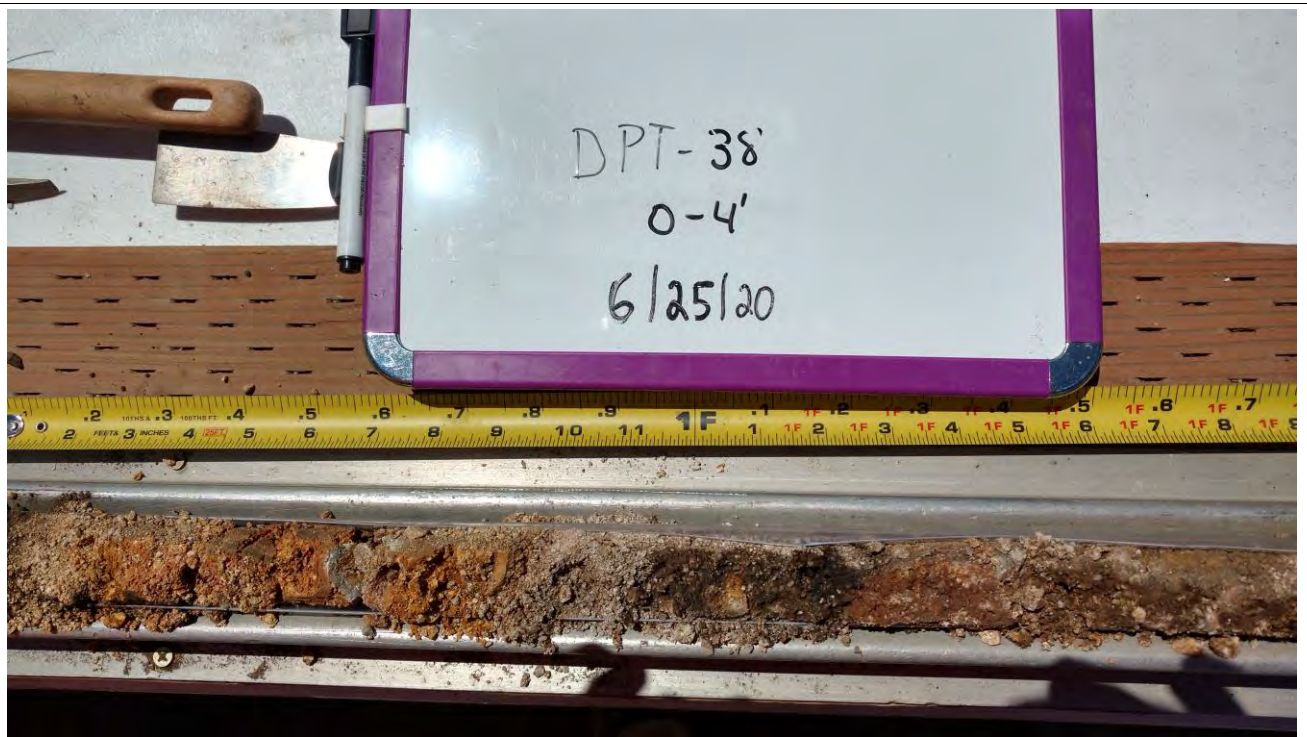


Photo Number: 184

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 185

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

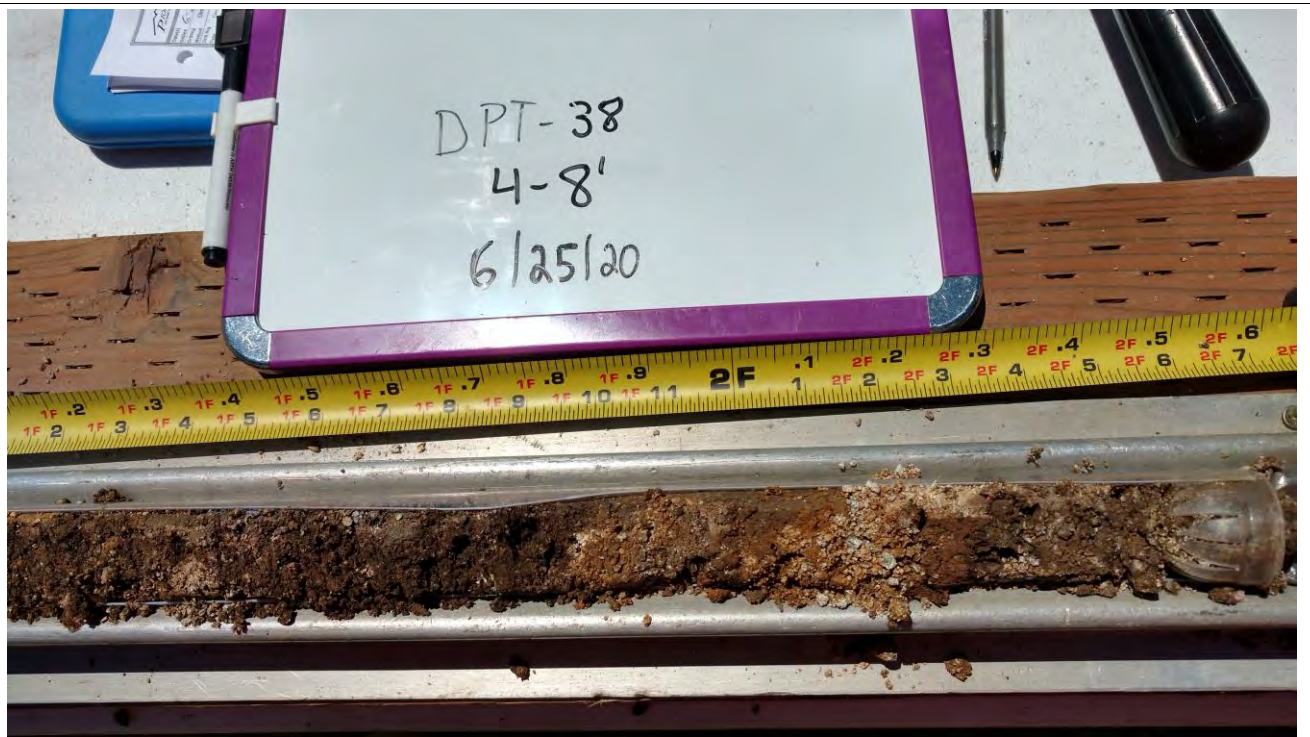


Photo Number: 186

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

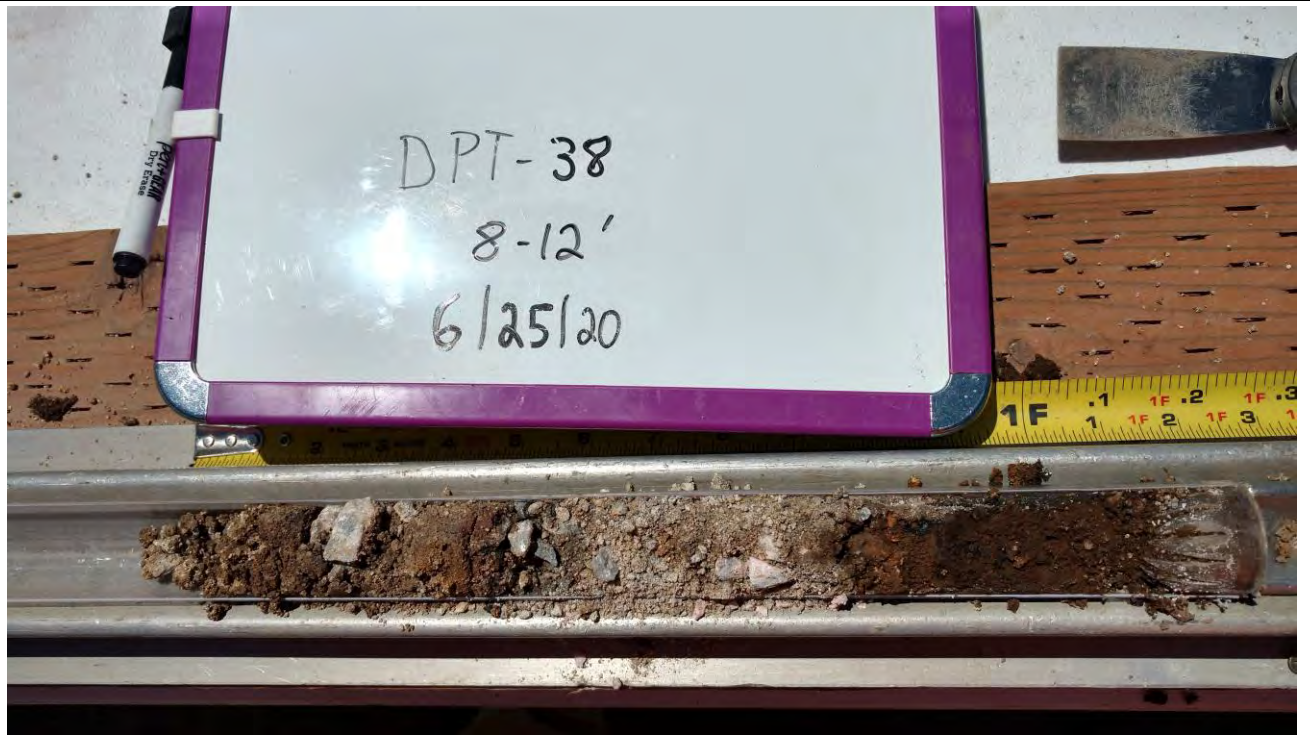


Photo Number: 187

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

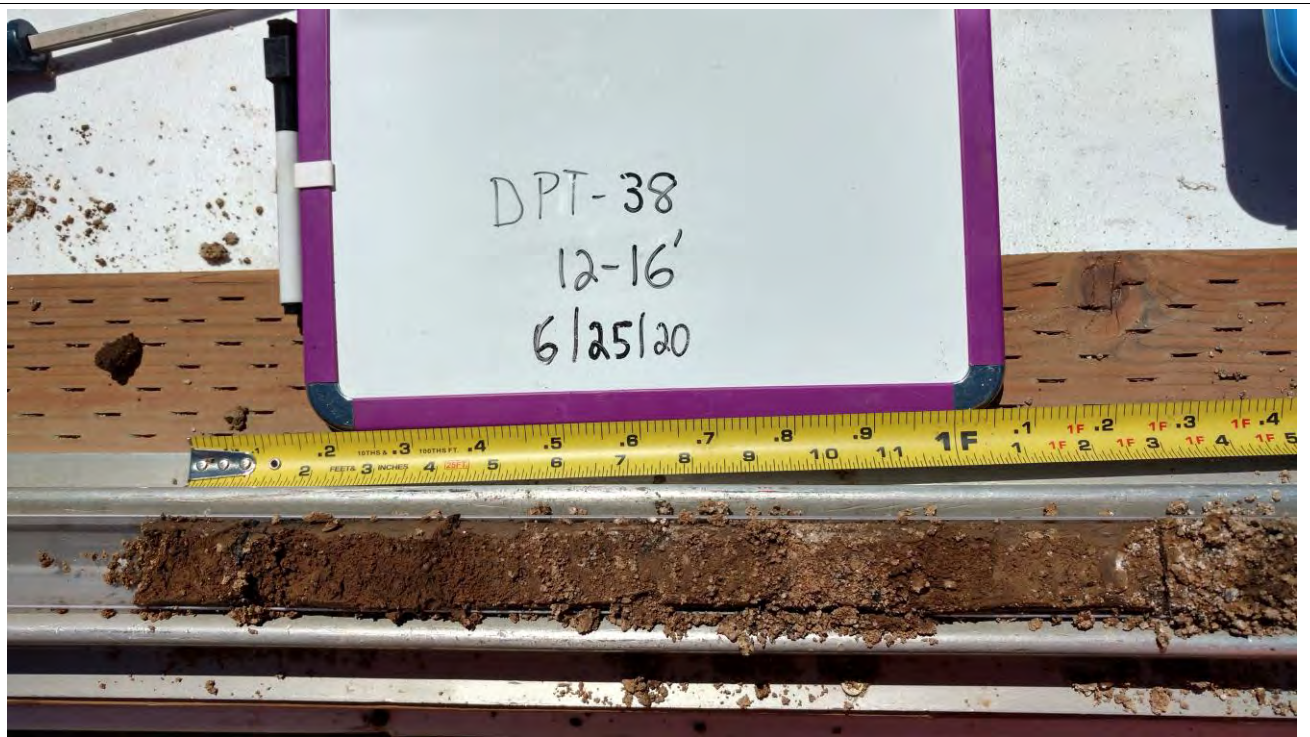


Photo Number: 188

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 189

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 190

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

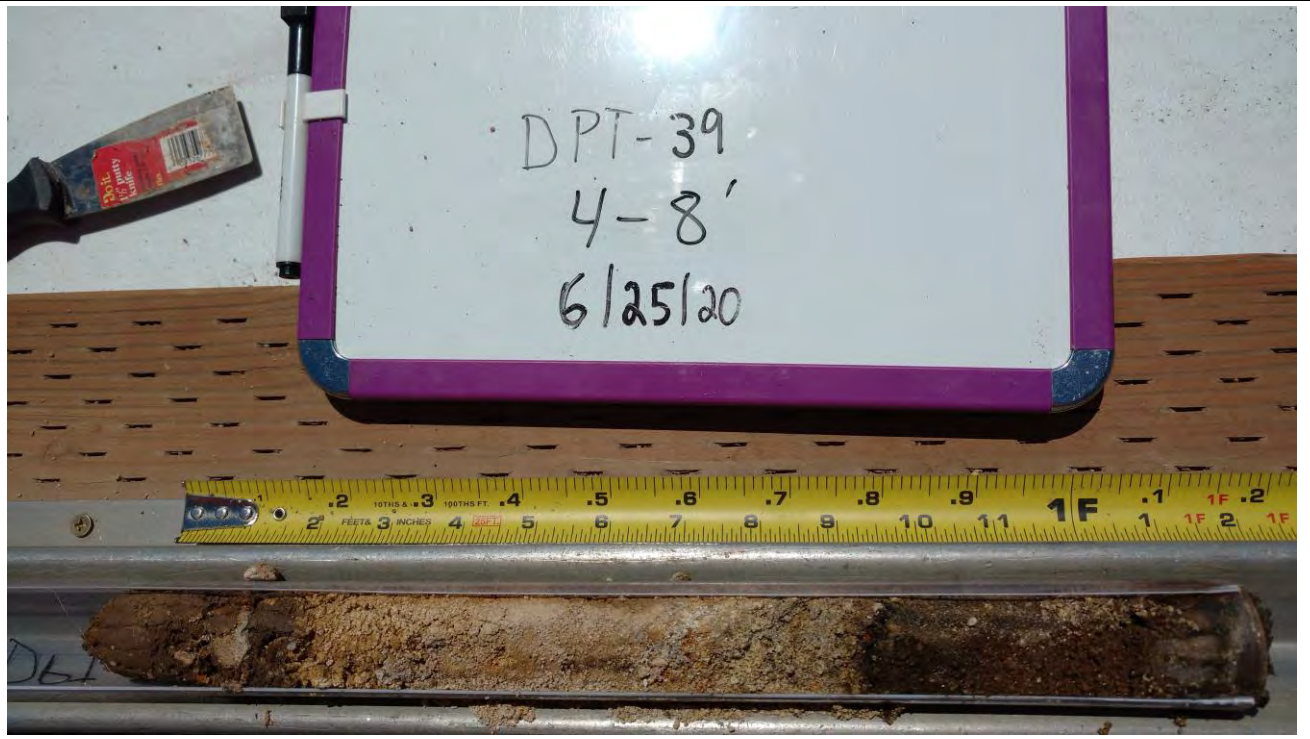


Photo Number: 191

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

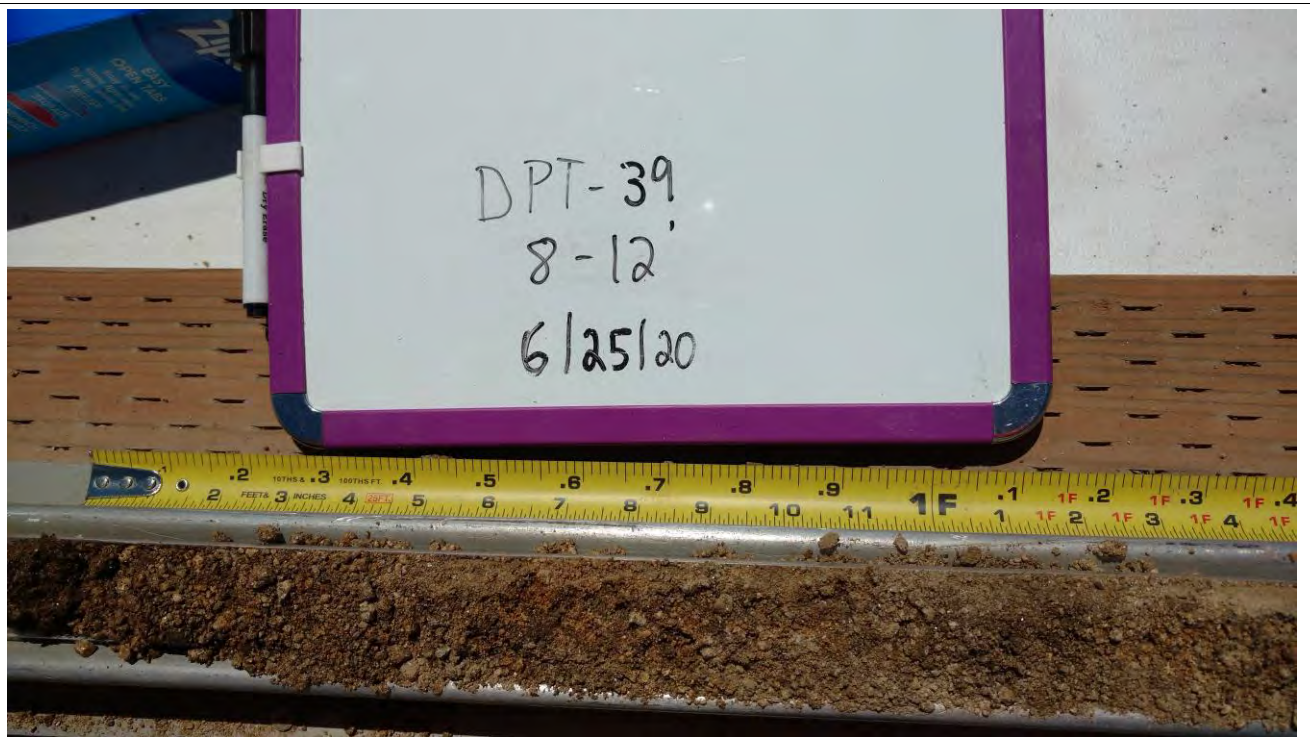


Photo Number: 192

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 193

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

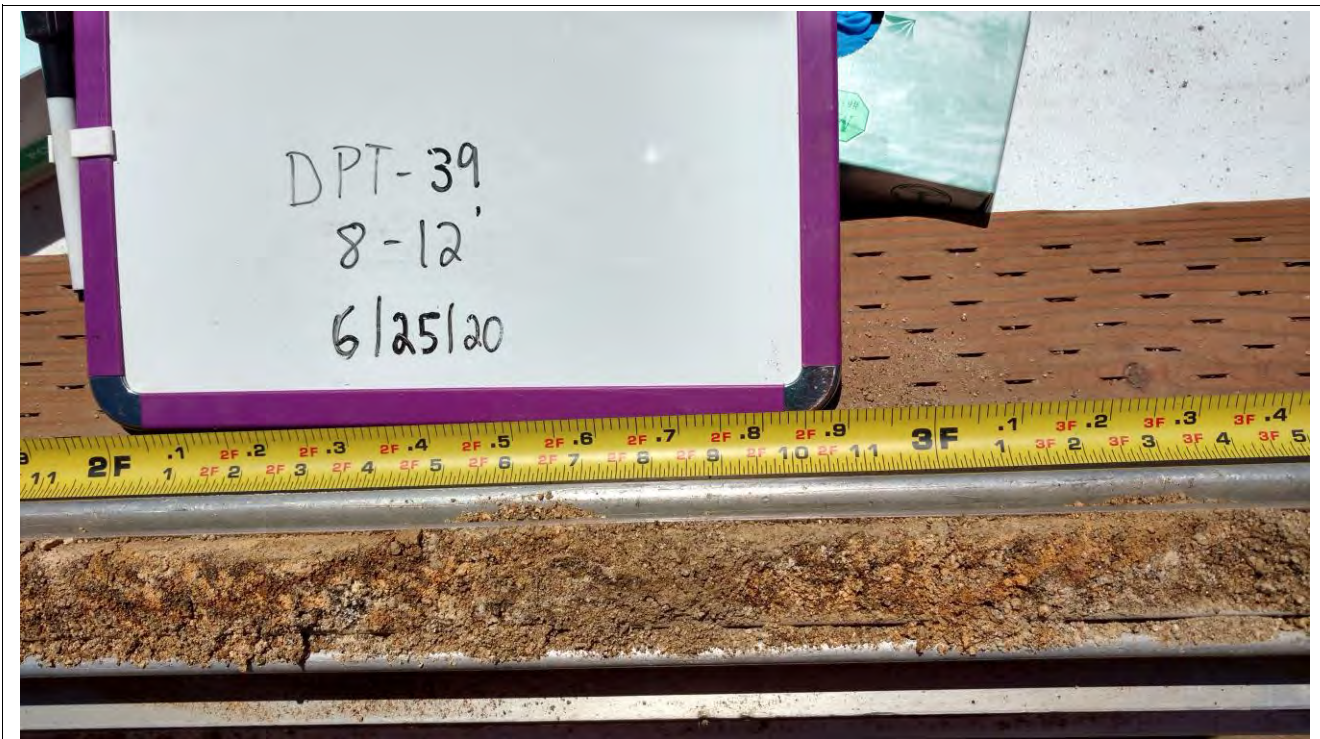


Photo Number: 194

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

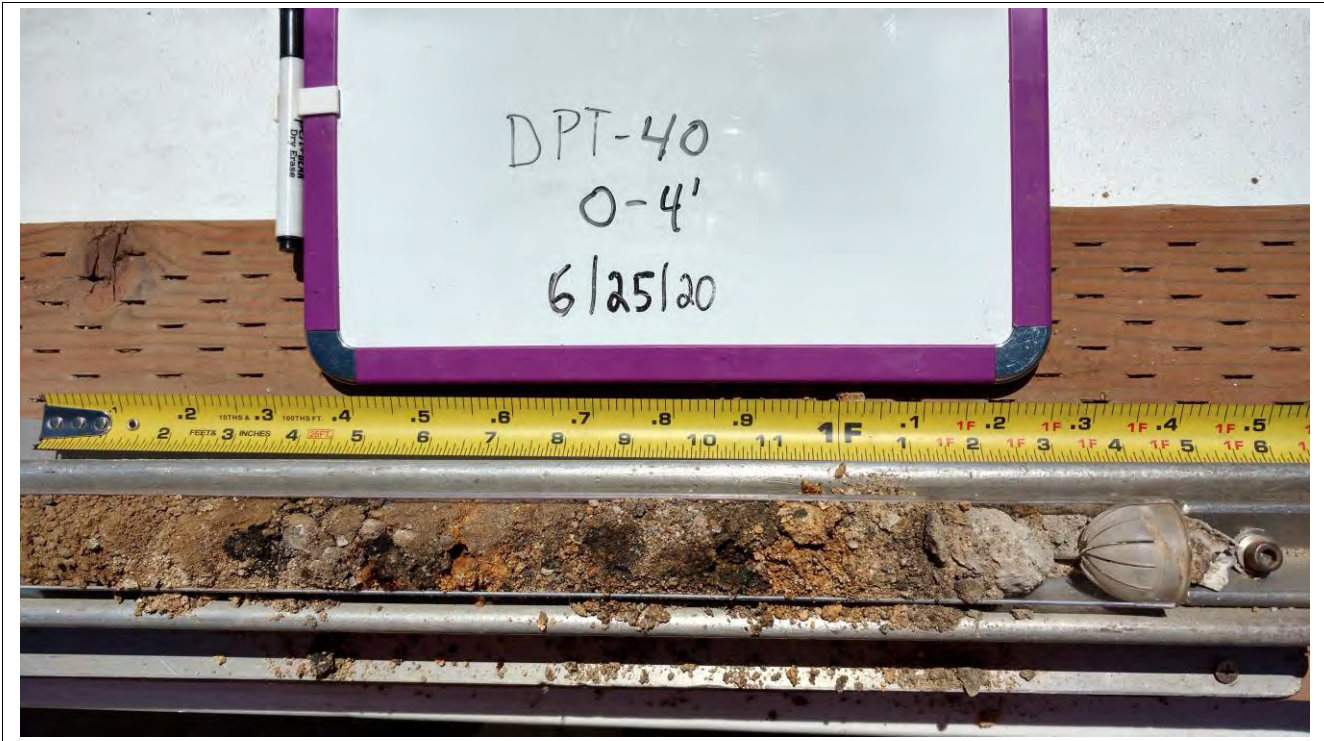


Photo Number: 195

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 196

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

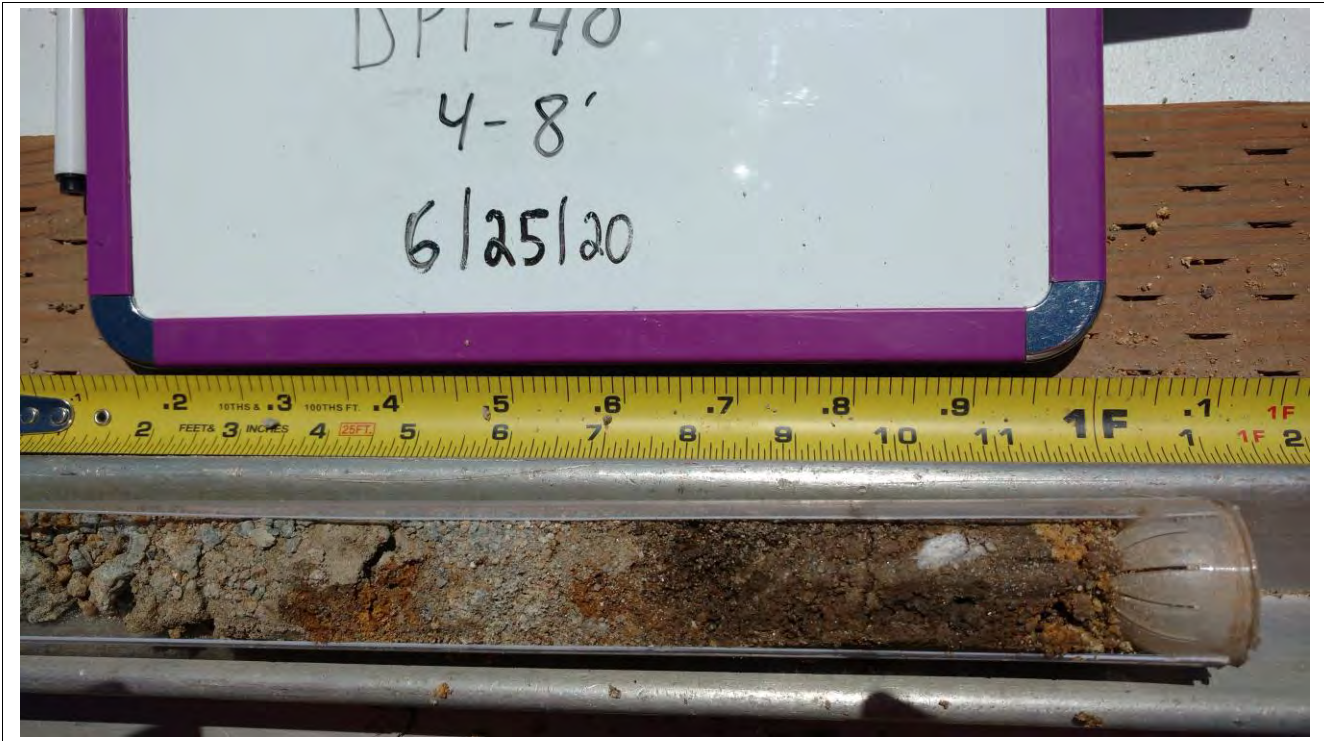


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Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

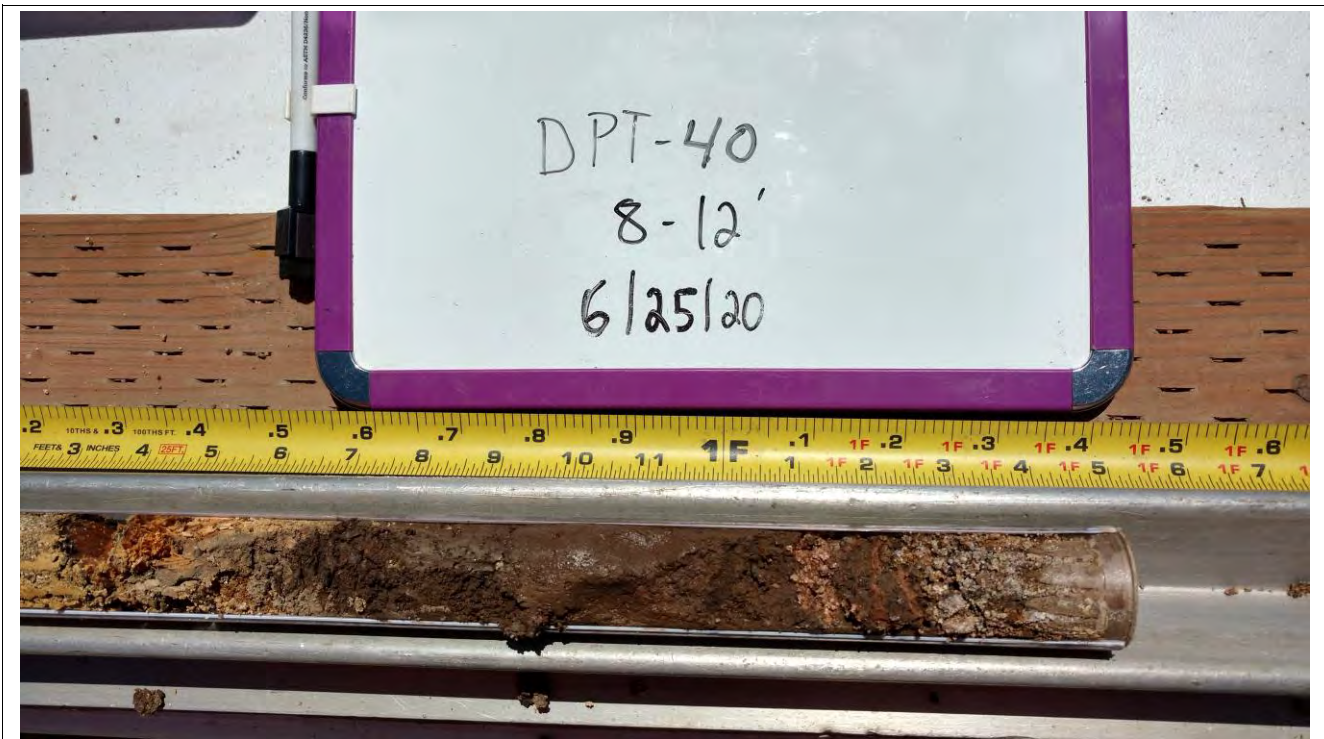


Photo Number: 198

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 199

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

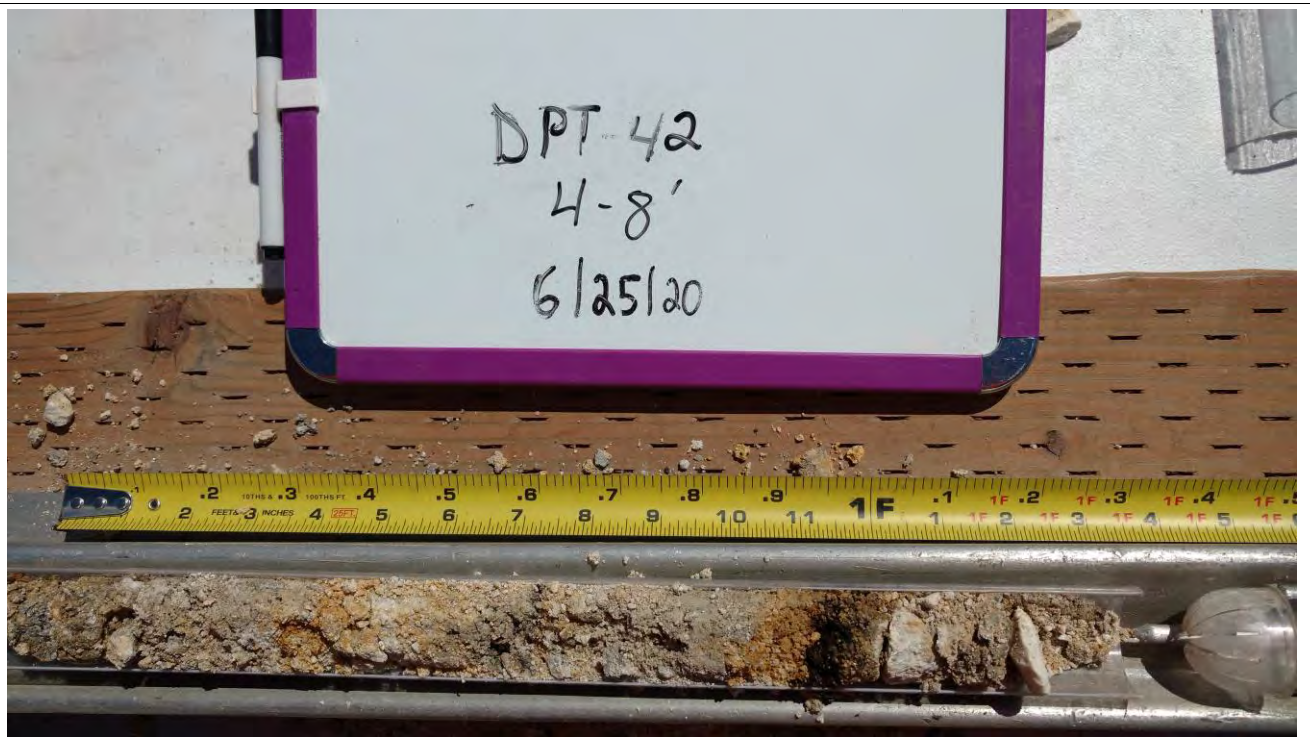


Photo Number: 200

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 201

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 202

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

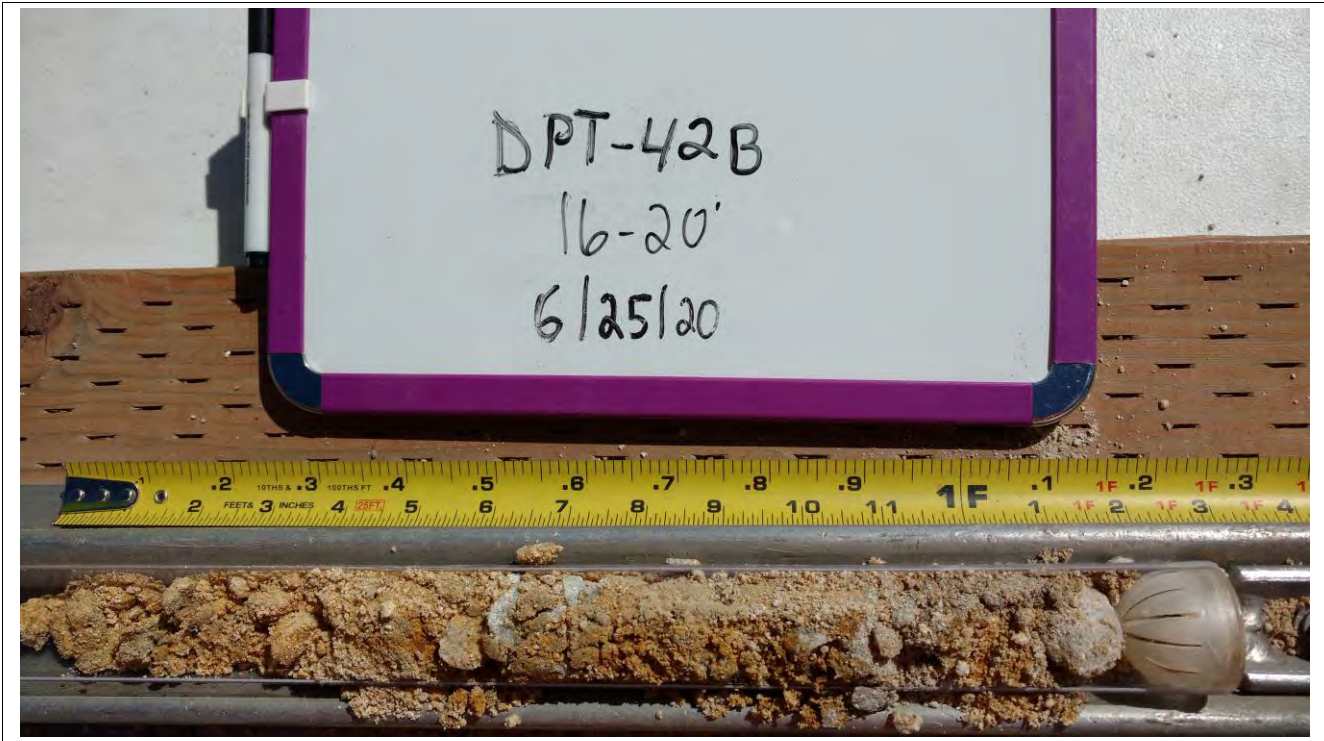


Photo Number: 203

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 204

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

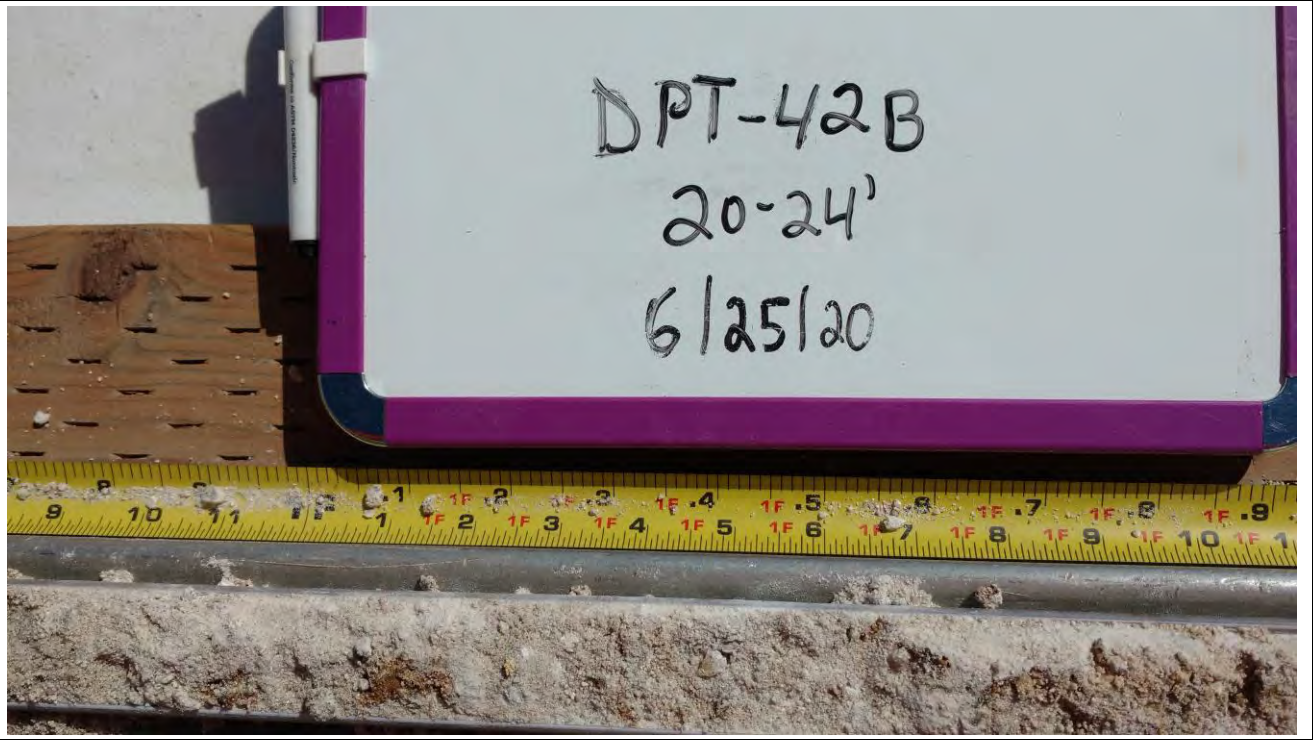


Photo Number: 205

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 206

Date: 6/25/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 207

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

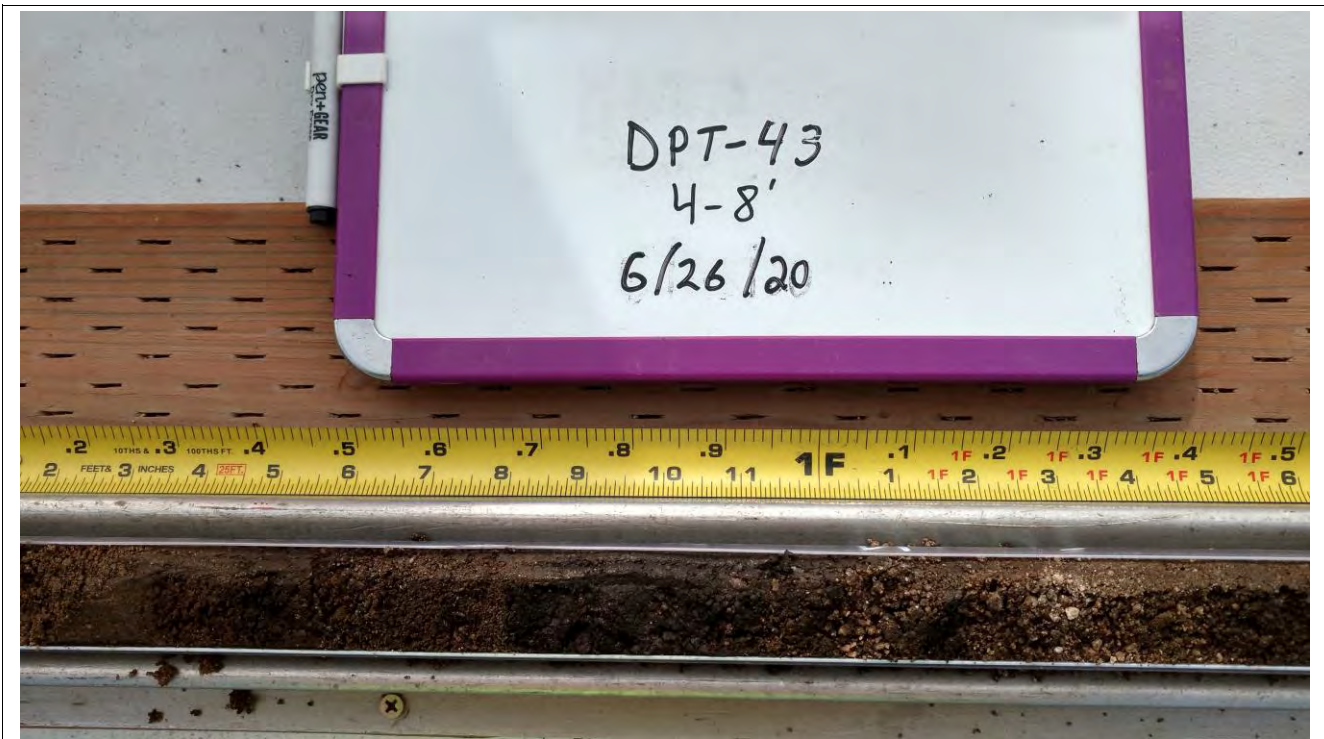


Photo Number: 208

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 209

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 210

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

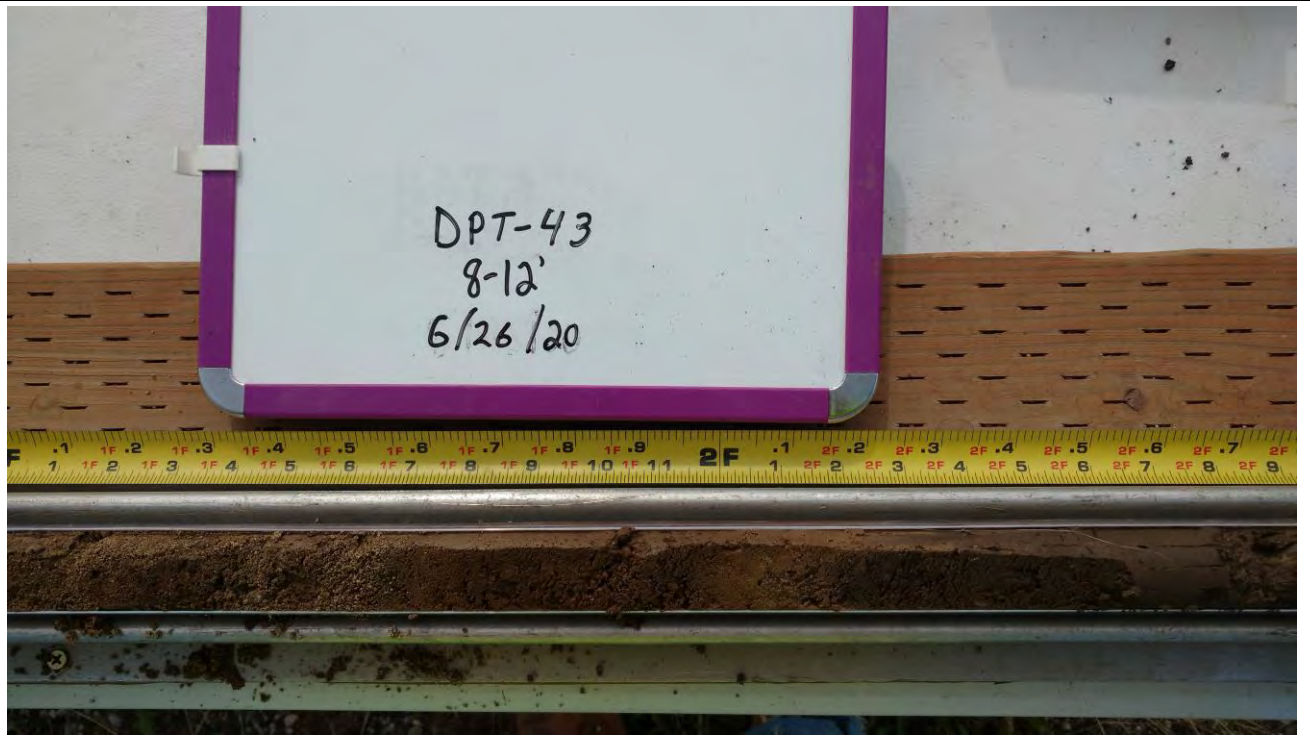


Photo Number: 211

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 212

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 213

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

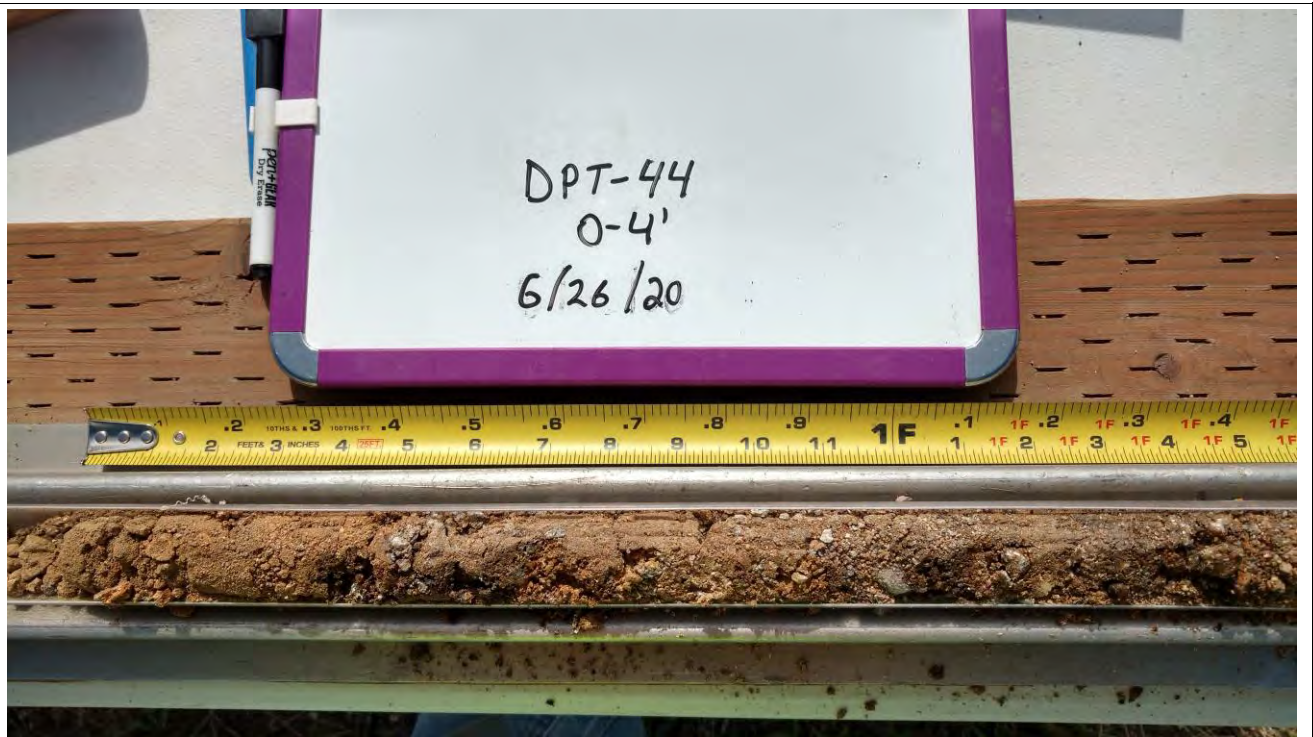


Photo Number: 214

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 215

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

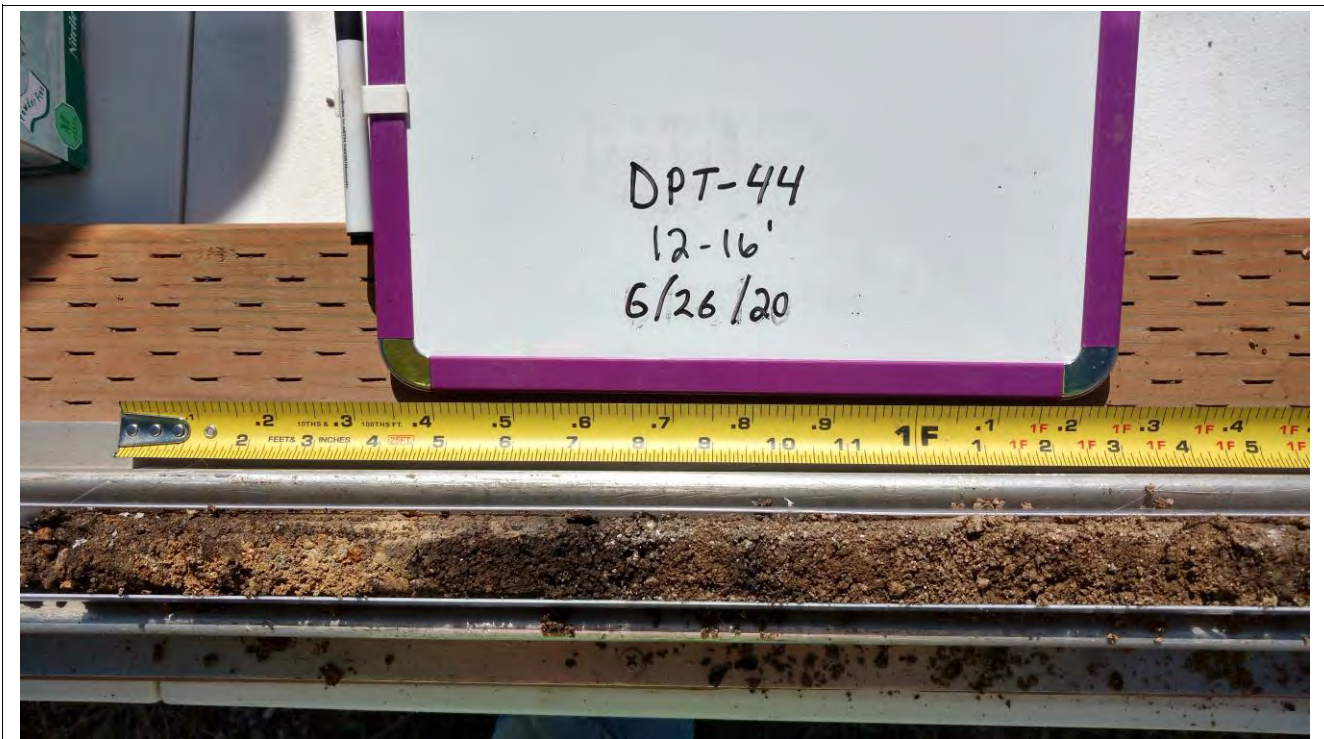


Photo Number: 216

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 217

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 218

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

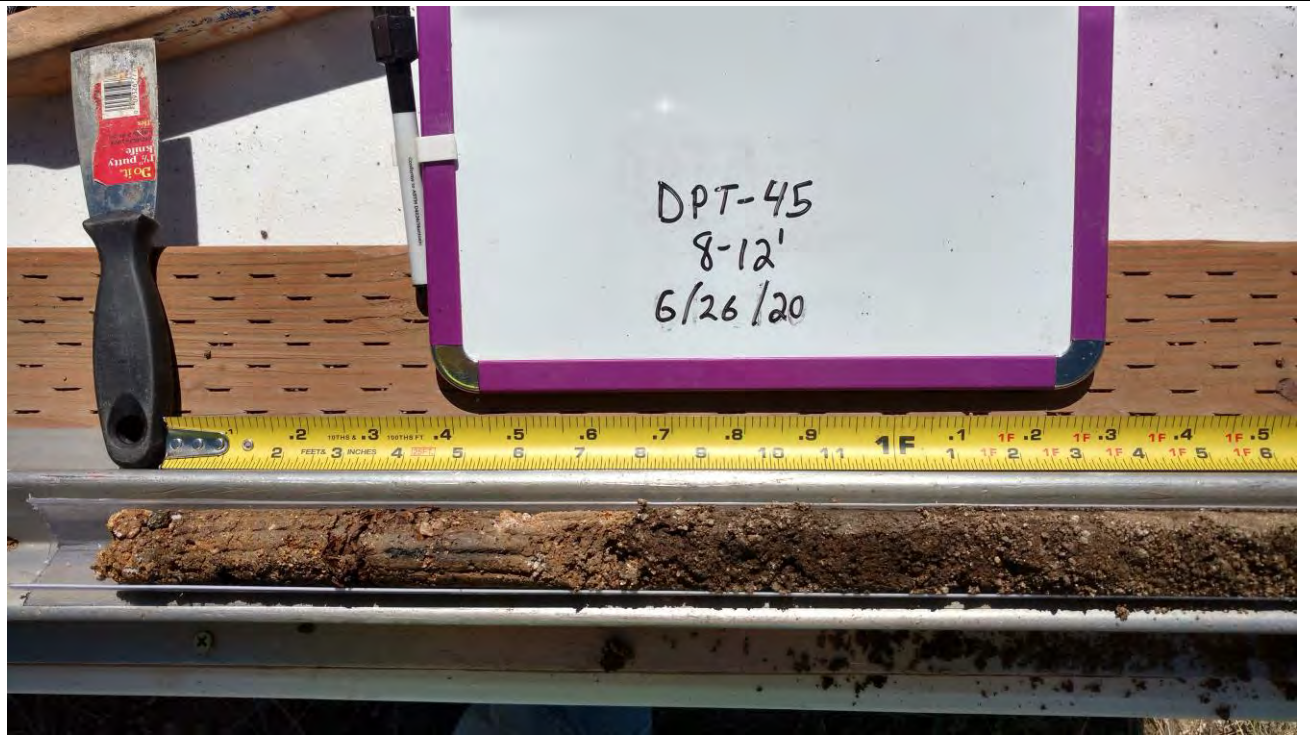


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Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

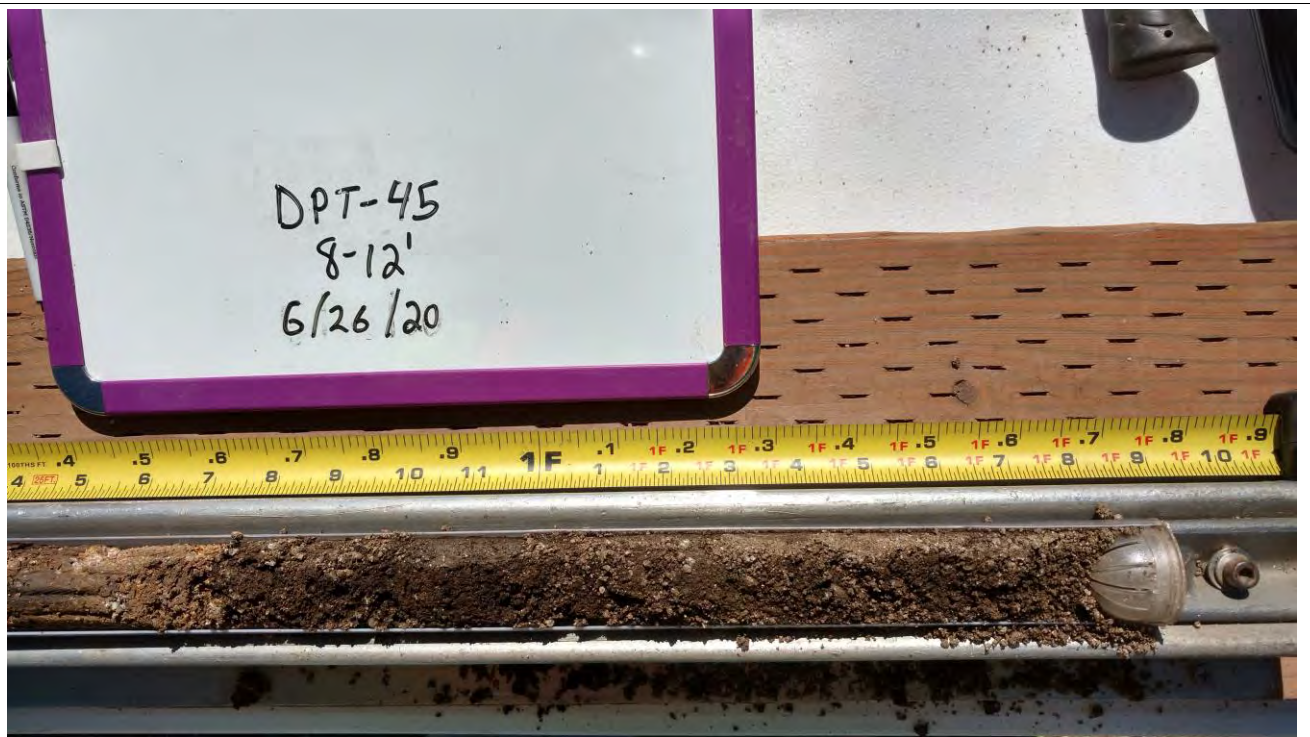


Photo Number: 220

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 221

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 222

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

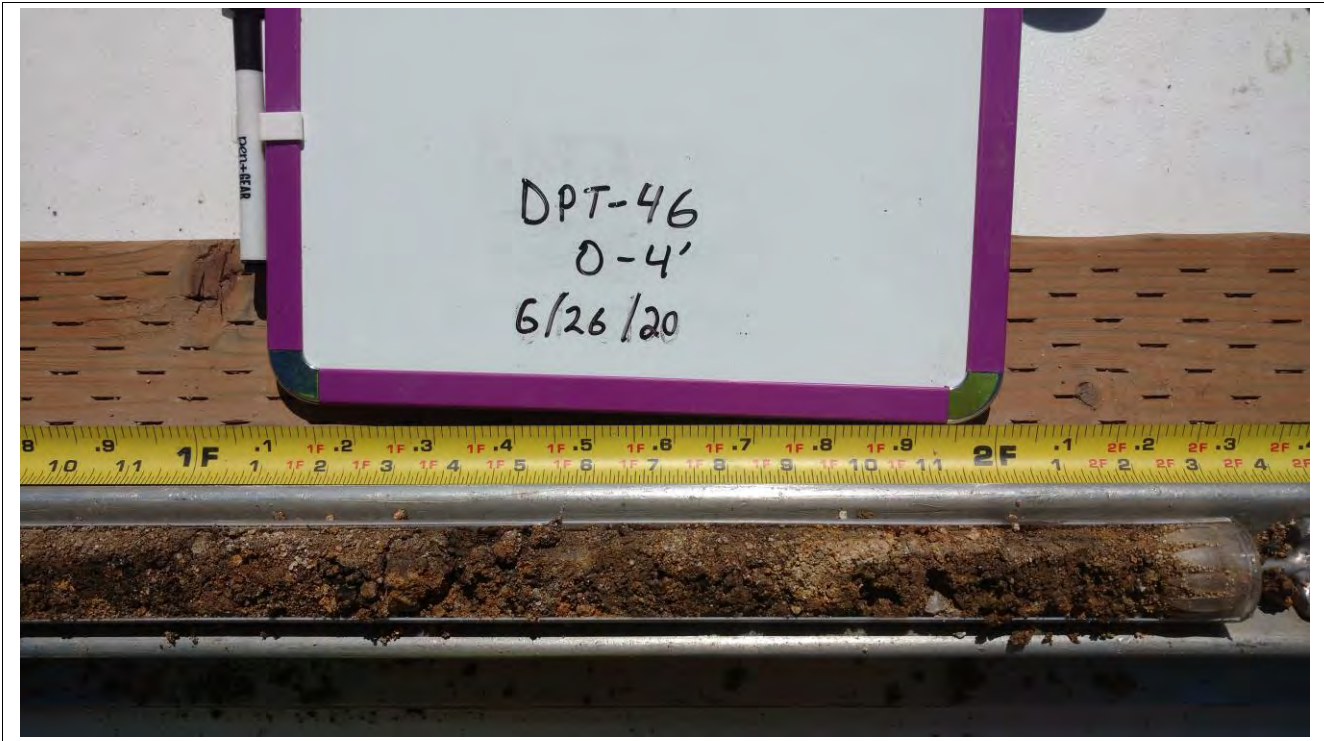


Photo Number: 223

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 224

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

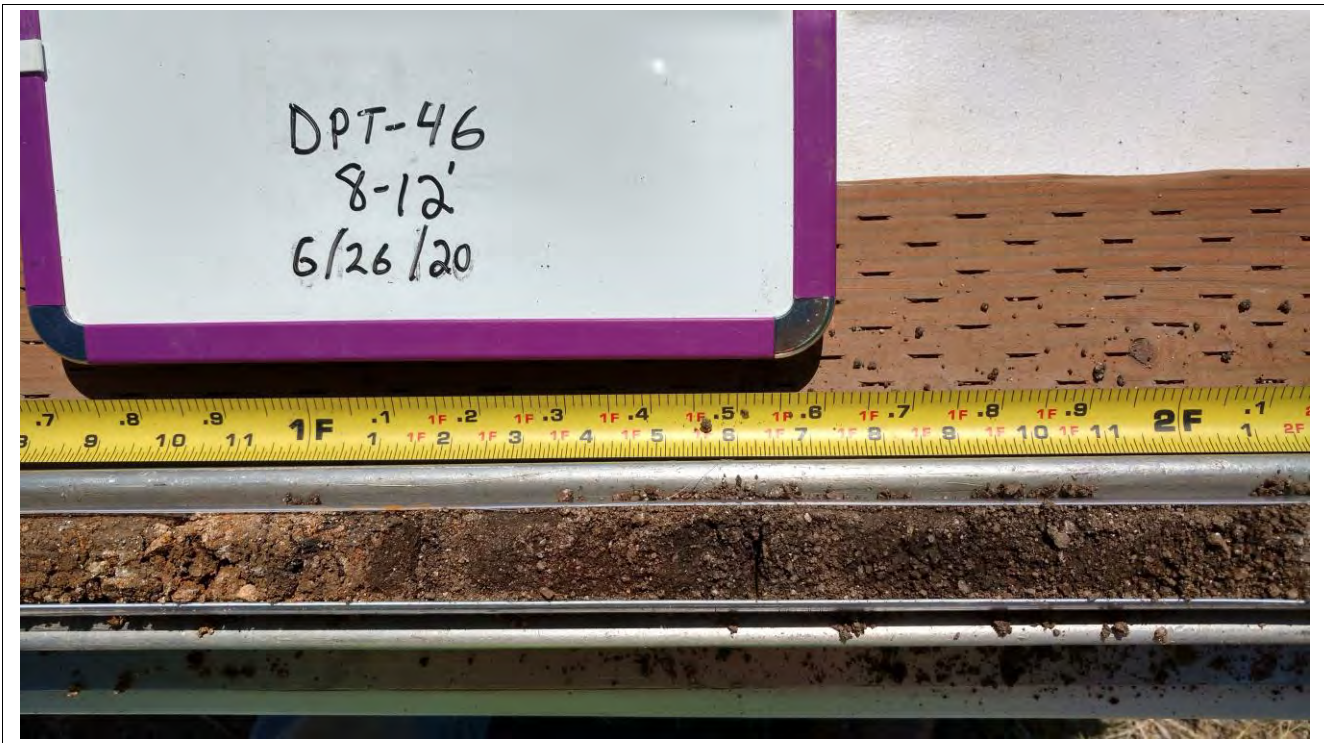


Photo Number: 225

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 226

Date: 6/26/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 227

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 228

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 229

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

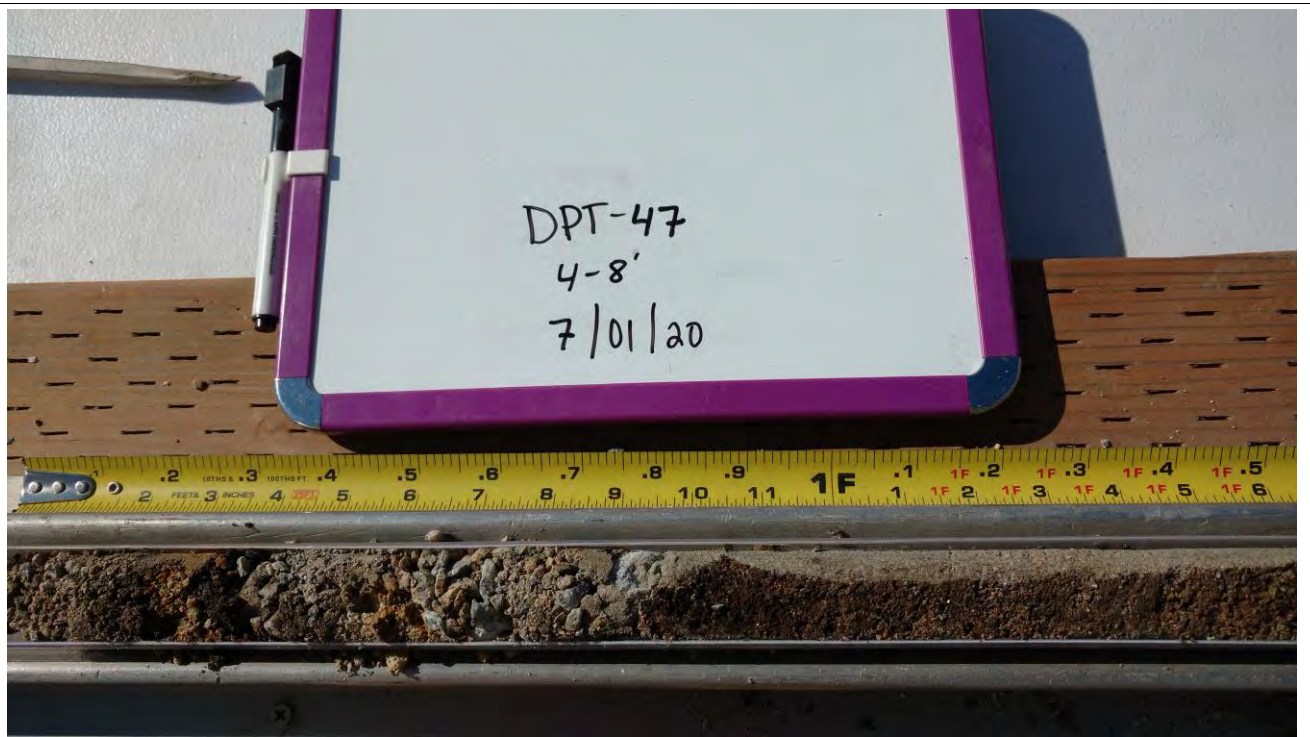


Photo Number: 230

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 231

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 232

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 233

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 234

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 235

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

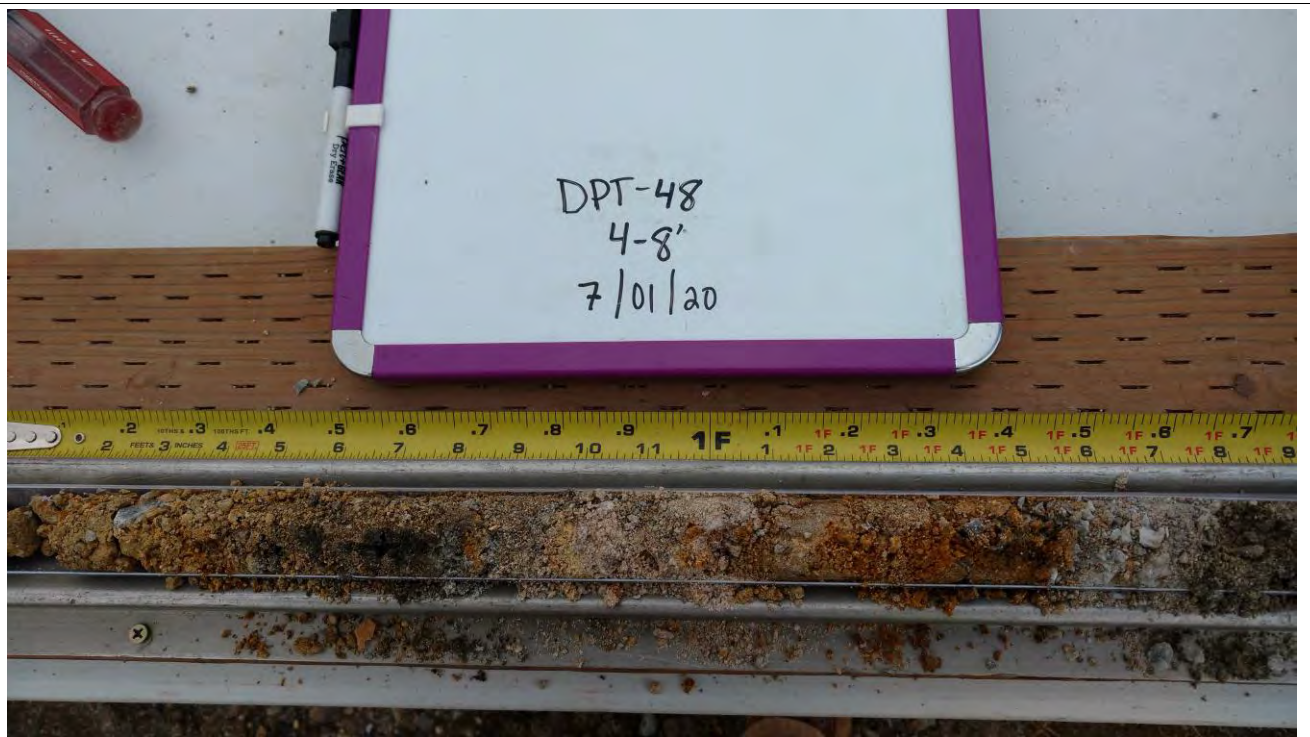


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Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 237

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

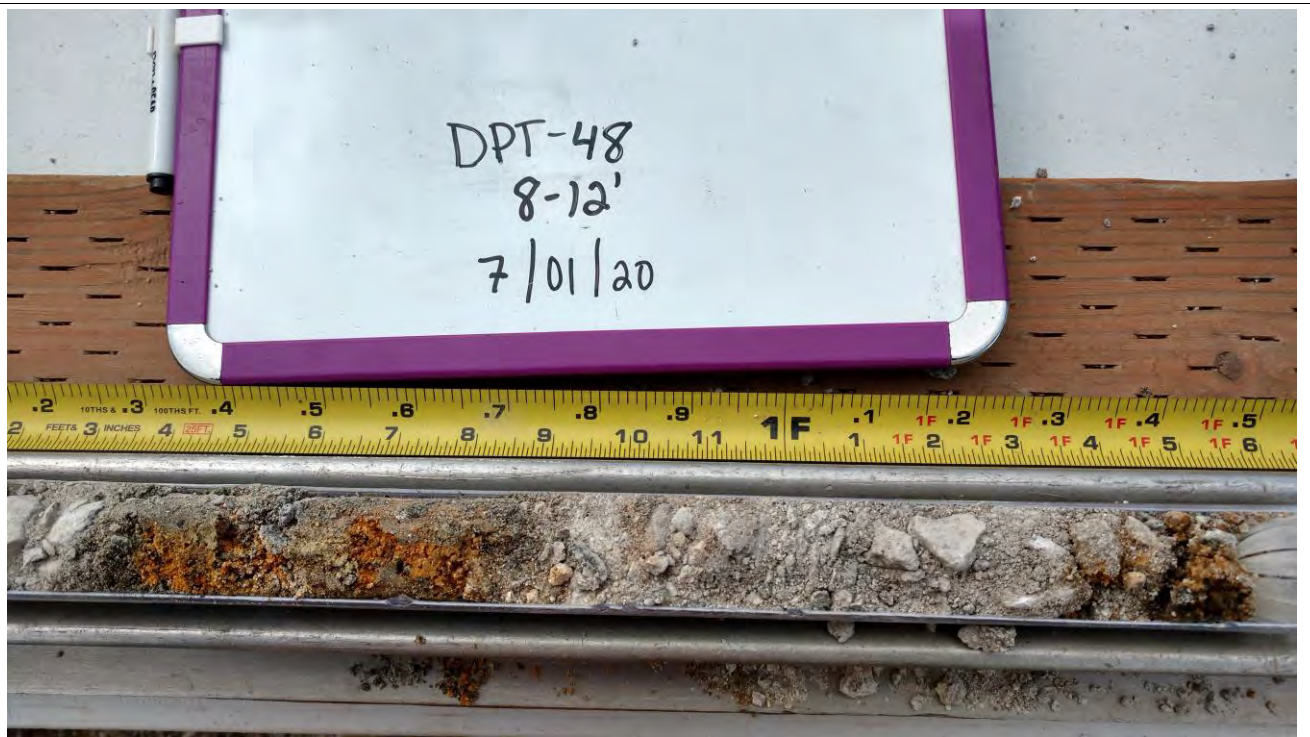


Photo Number: 238

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 239

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 240

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 241
Date: 7/1/2020
Description: DPT Photo
Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 242
Date: 7/1/2020
Description: DPT Photo
Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 243

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

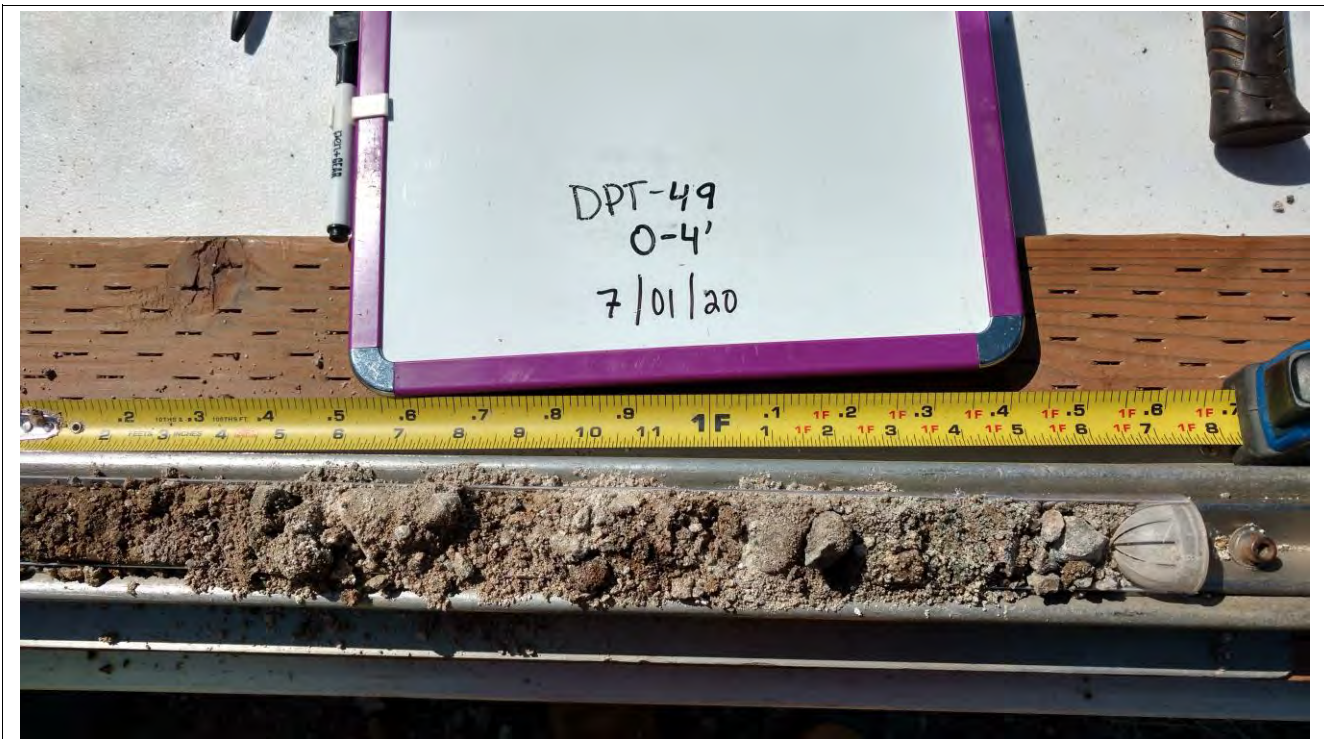


Photo Number: 244

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 245

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 246

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 247

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

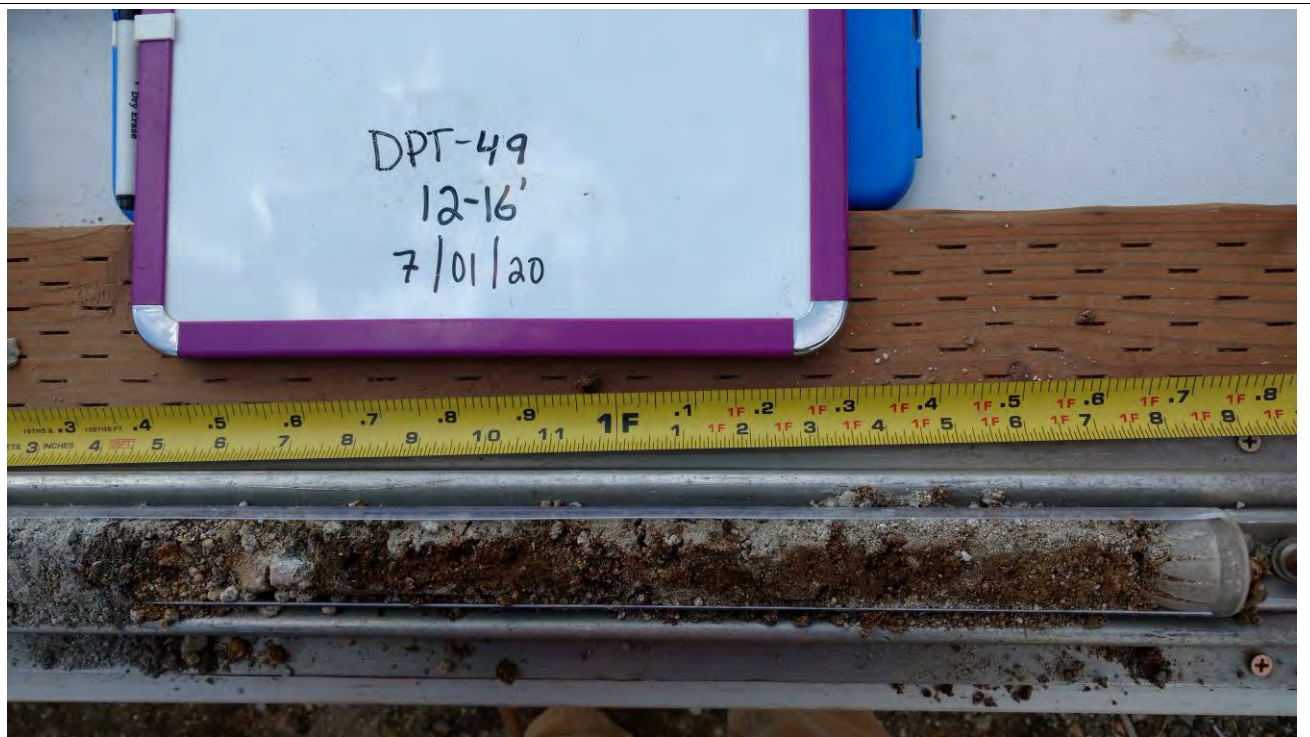


Photo Number: 248

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 249

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 250

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 251

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 252

Date: 7/1/2020

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Photo Number: 253

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

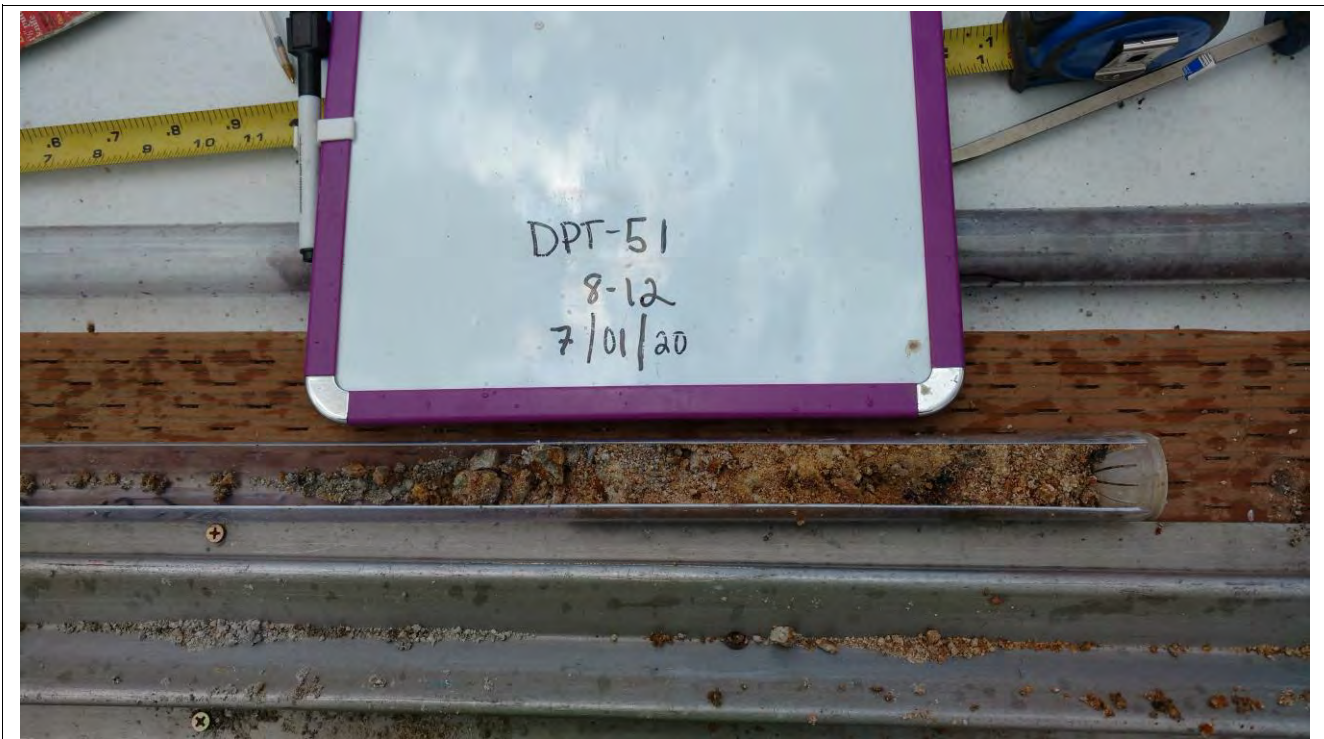


Photo Number: 254

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 255

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 256

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 257

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 258

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 259

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

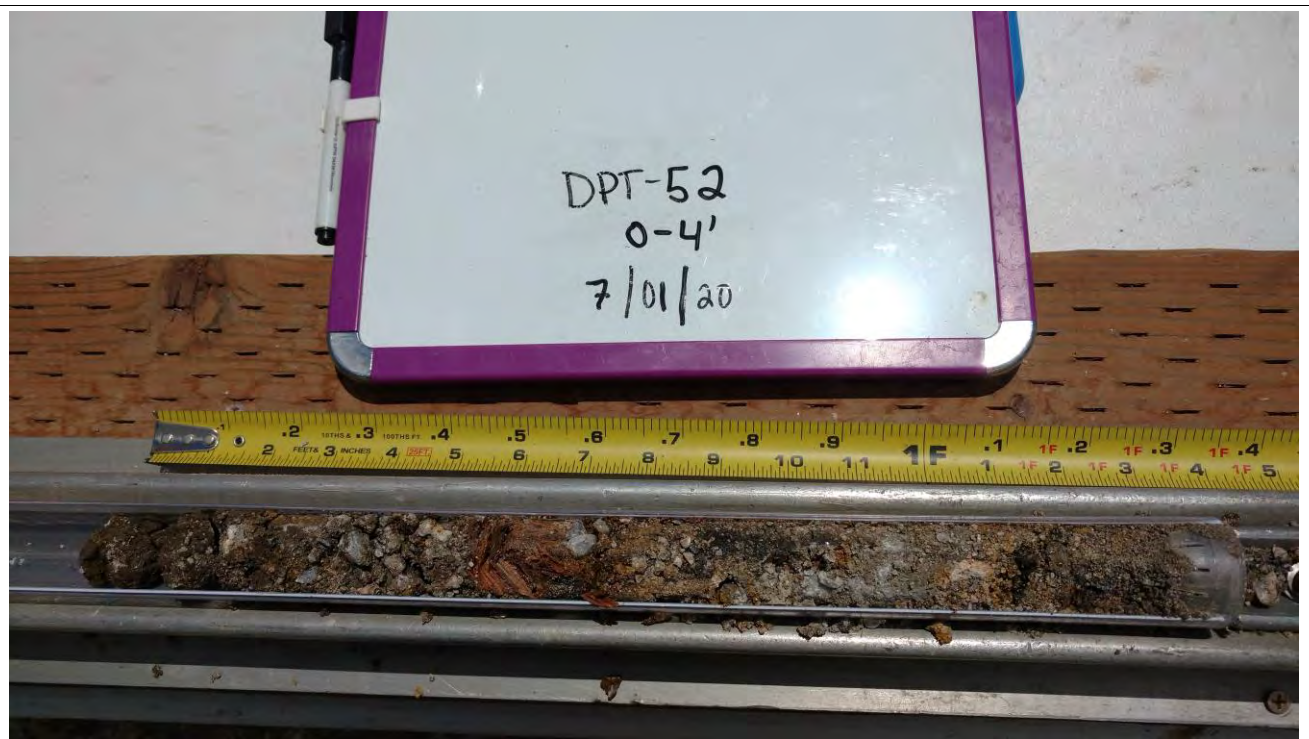


Photo Number: 260

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 261

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 262

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 263
Date: 7/1/2020
Description: DPT Photo
Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 264
Date: 7/1/2020
Description: DPT Photo
Project: WSSOU RI DSR DPT Investigation Photos

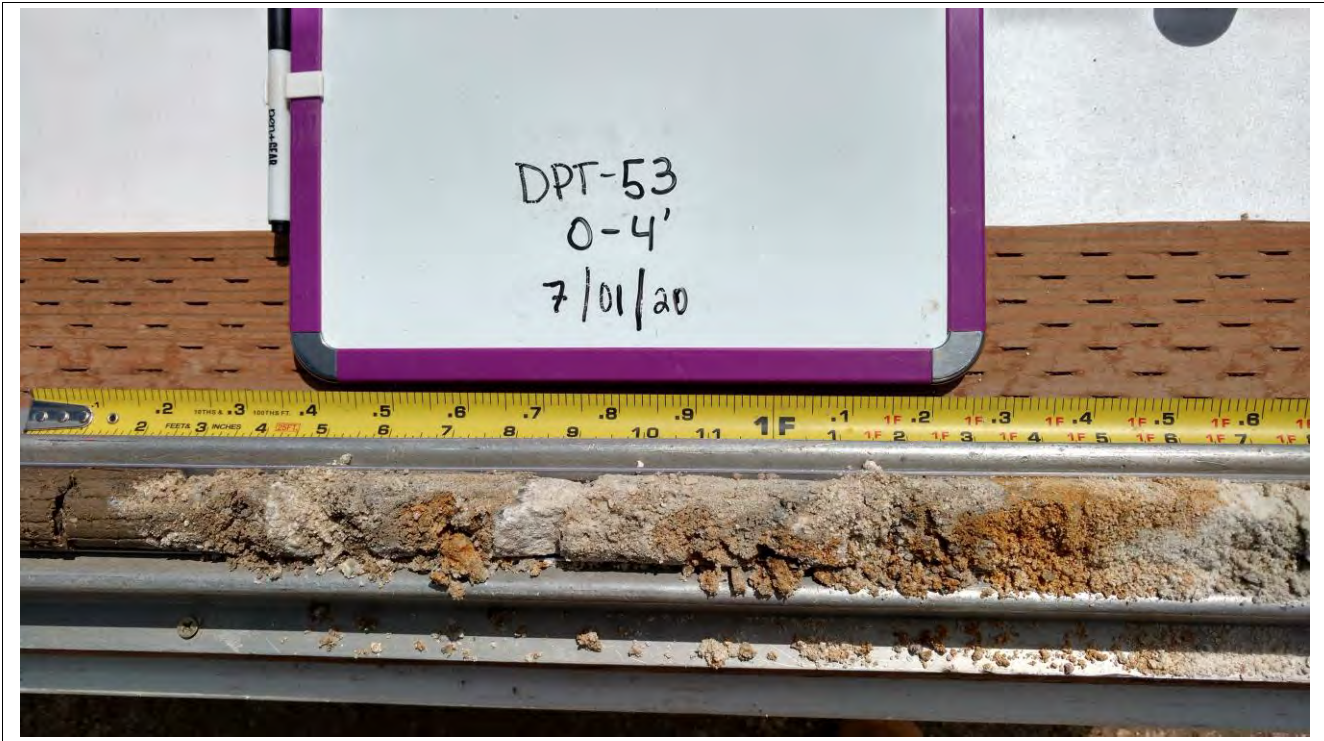


Photo Number: 265

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 266

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 267

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 268

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 269

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

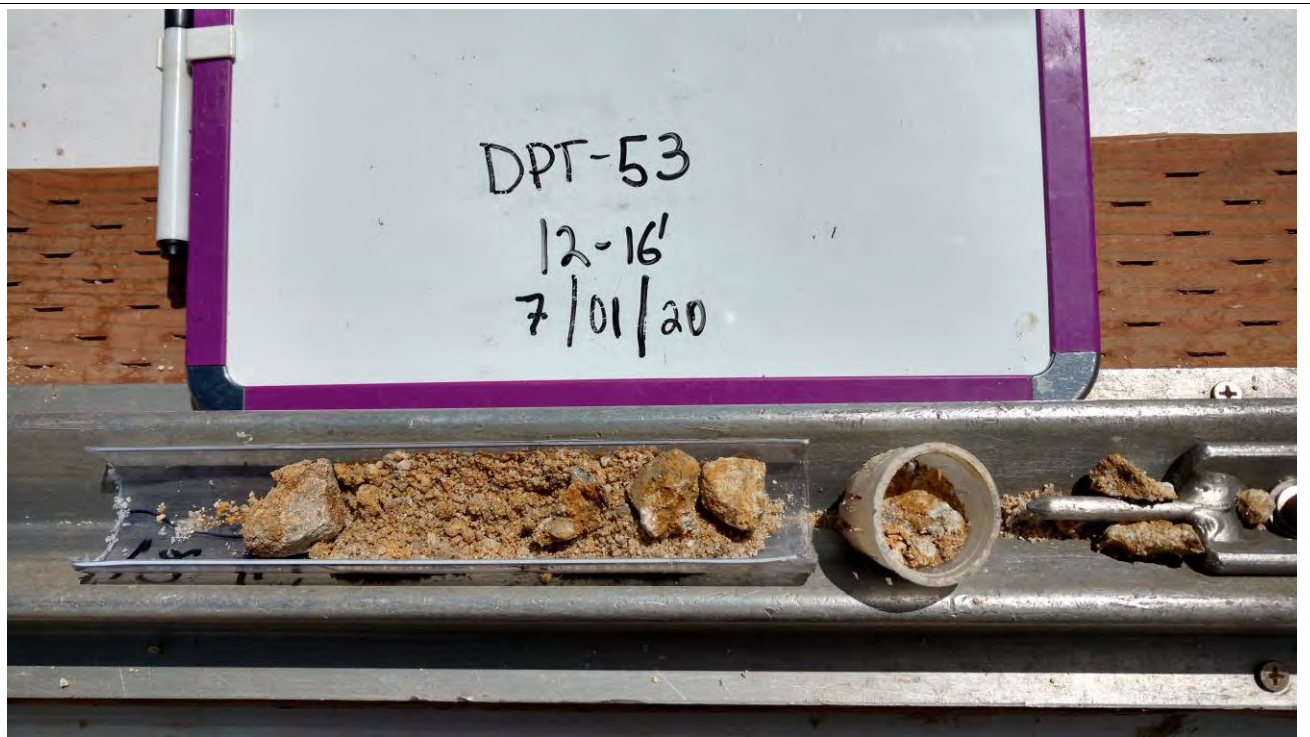


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Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

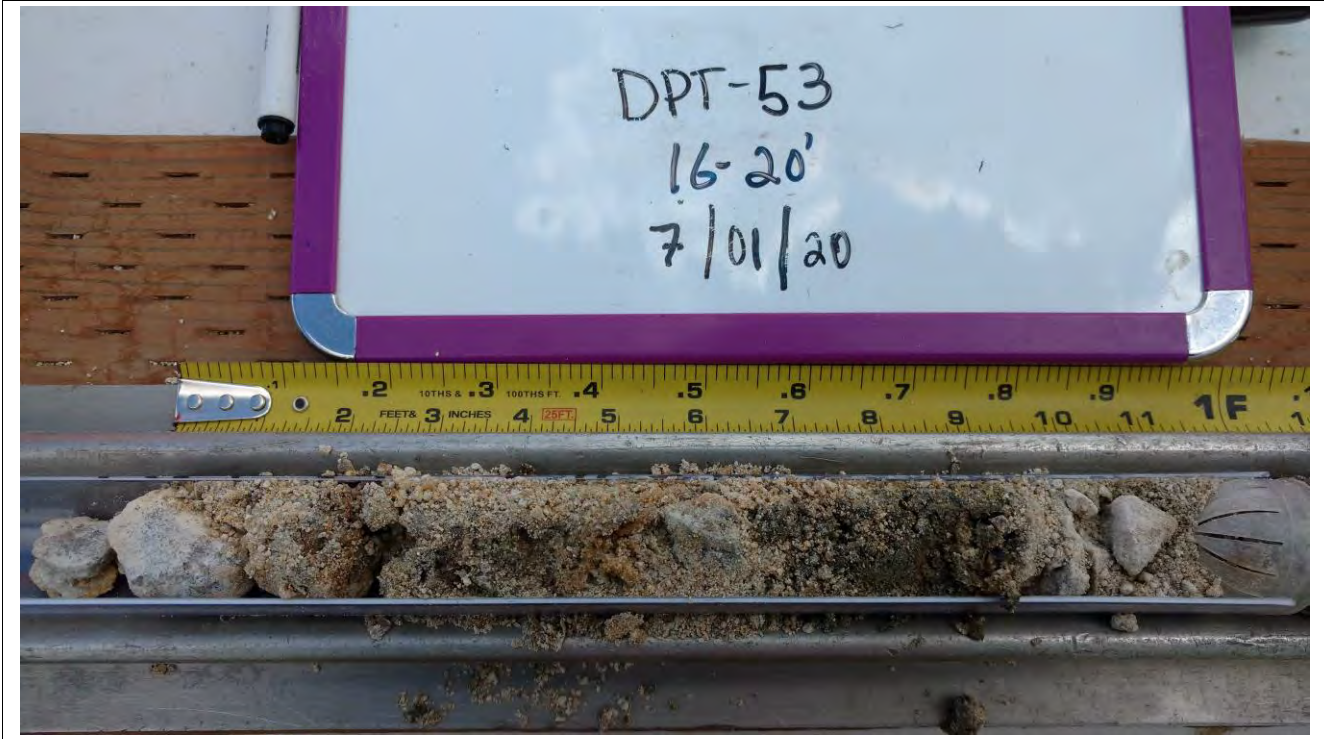


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Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

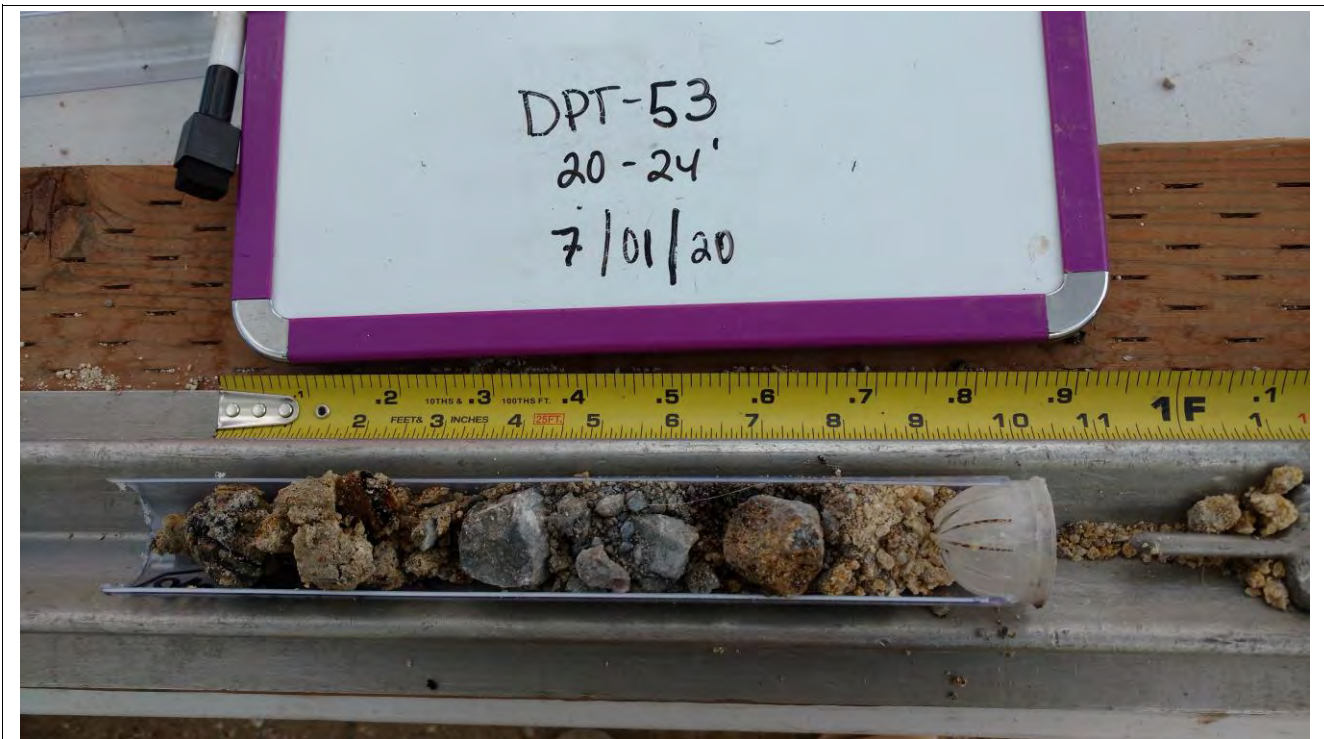


Photo Number: 272

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 273

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

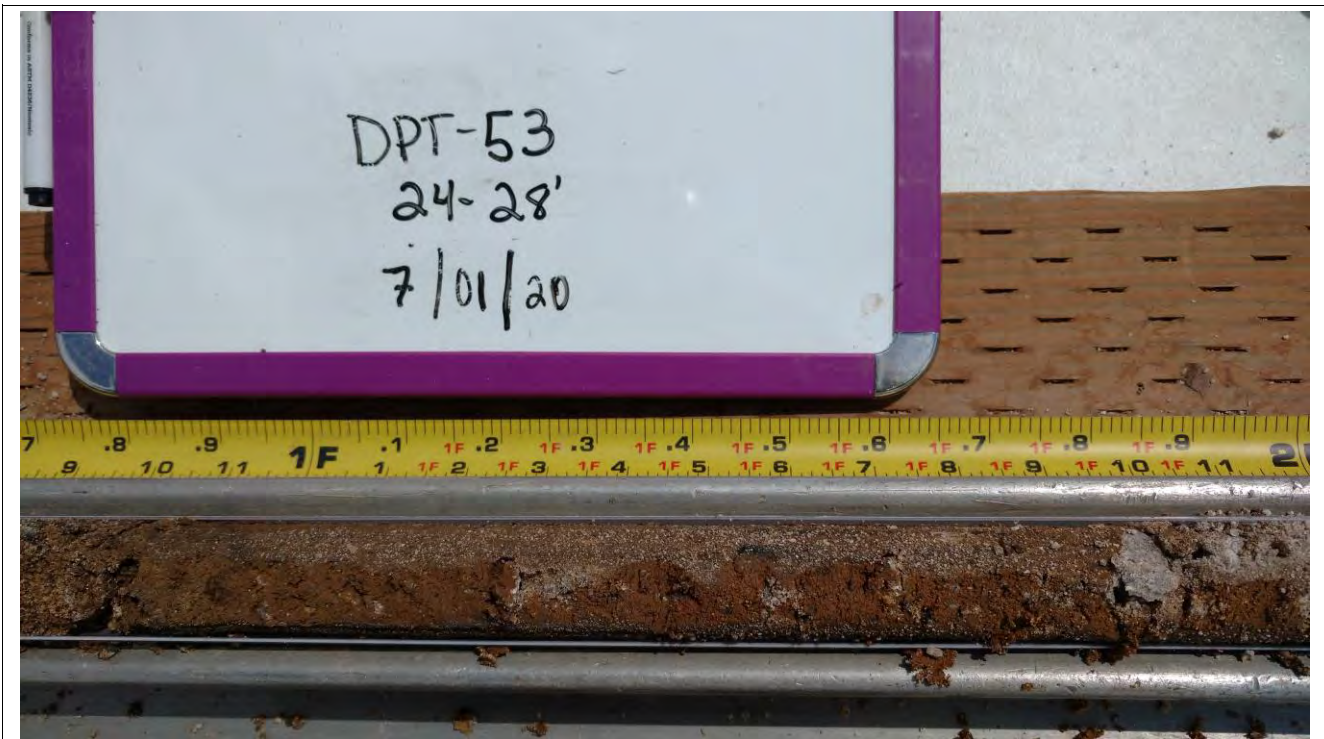


Photo Number: 274

Date: 7/1/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 275

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 276

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

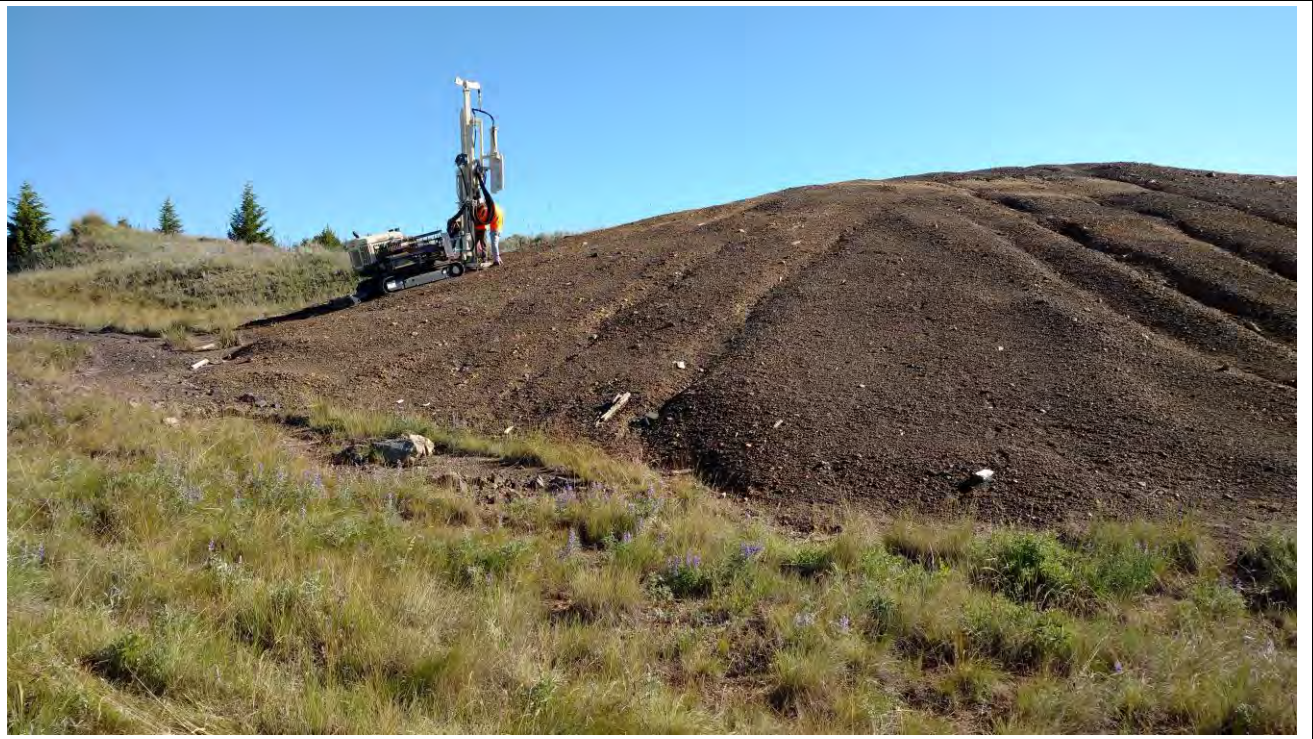


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Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

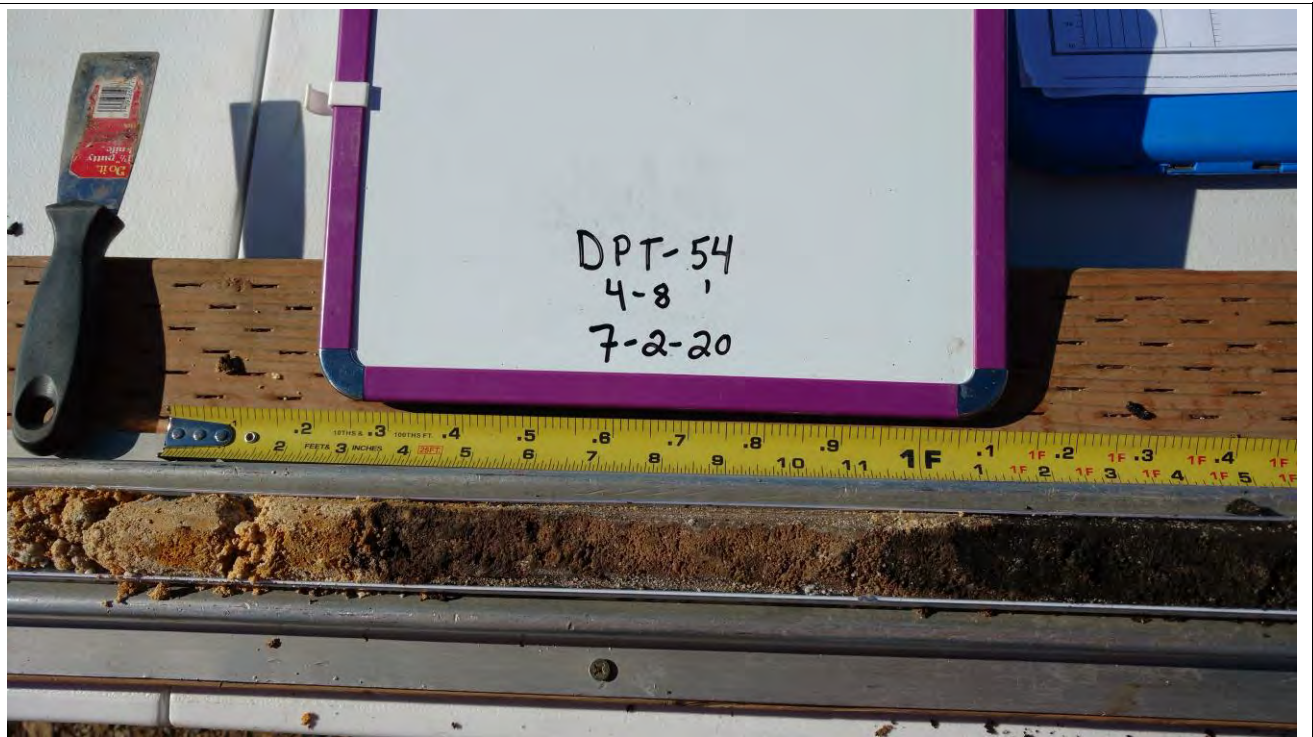


Photo Number: 278

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 279

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 280

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 281

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 282

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 283

Date: 7/2/2020

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Photo Number: 284

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

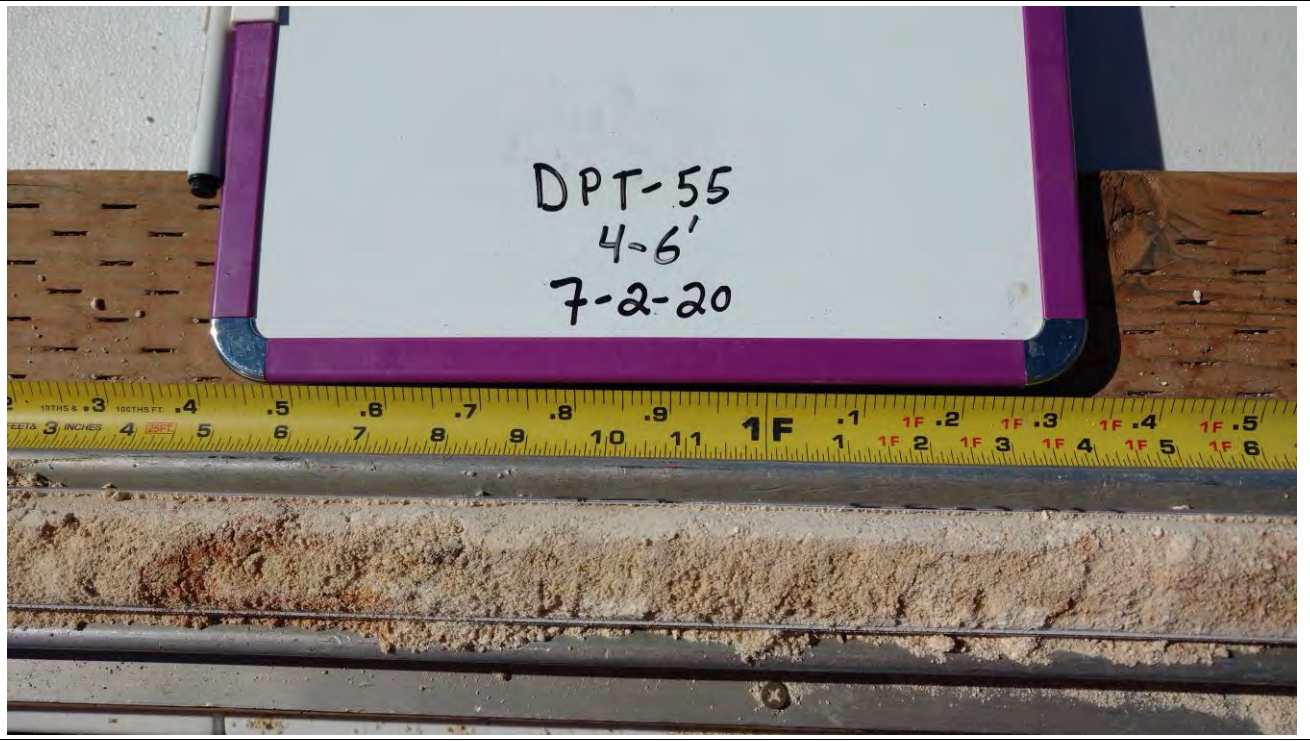


Photo Number: 285

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 286

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 287

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 288

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 289

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 290

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 291

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 292

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 293

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 294

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 295

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 296

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 297

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 298

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 299

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 300

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 301

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 302

Date: 7/2/2020

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Photo Number: 303

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

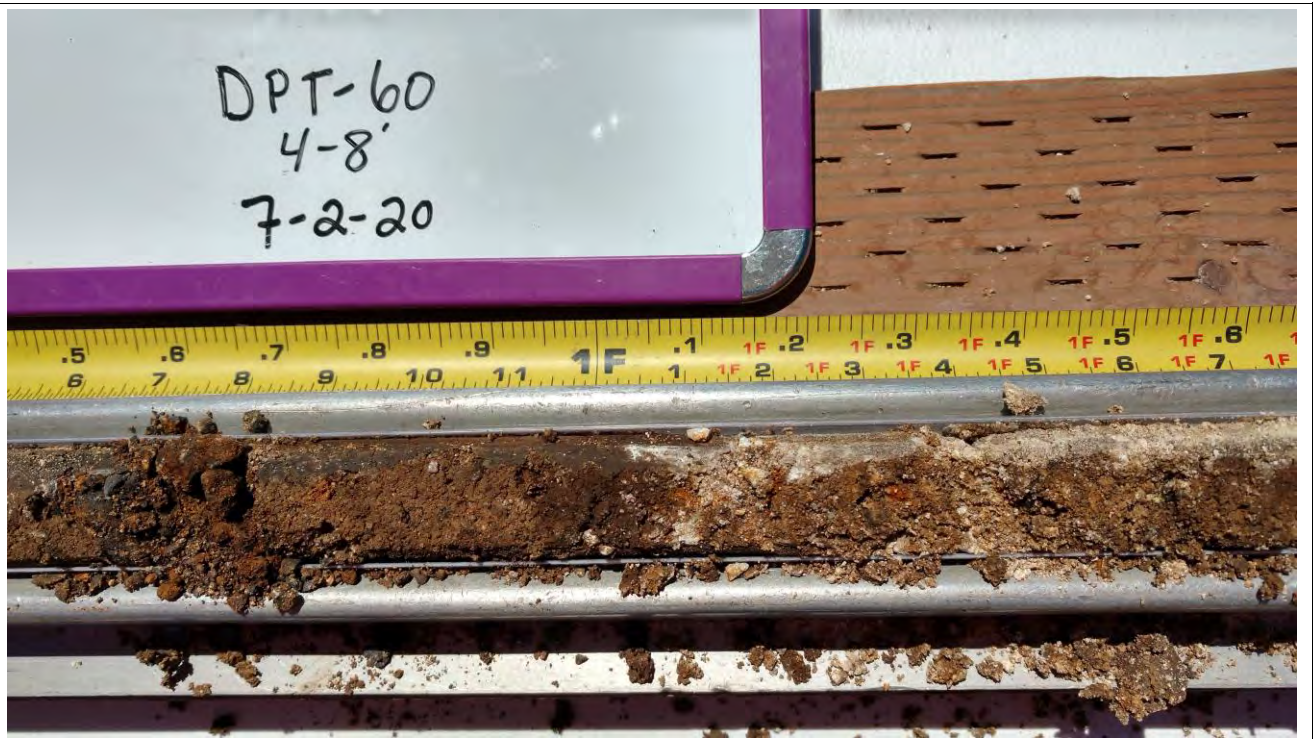


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Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

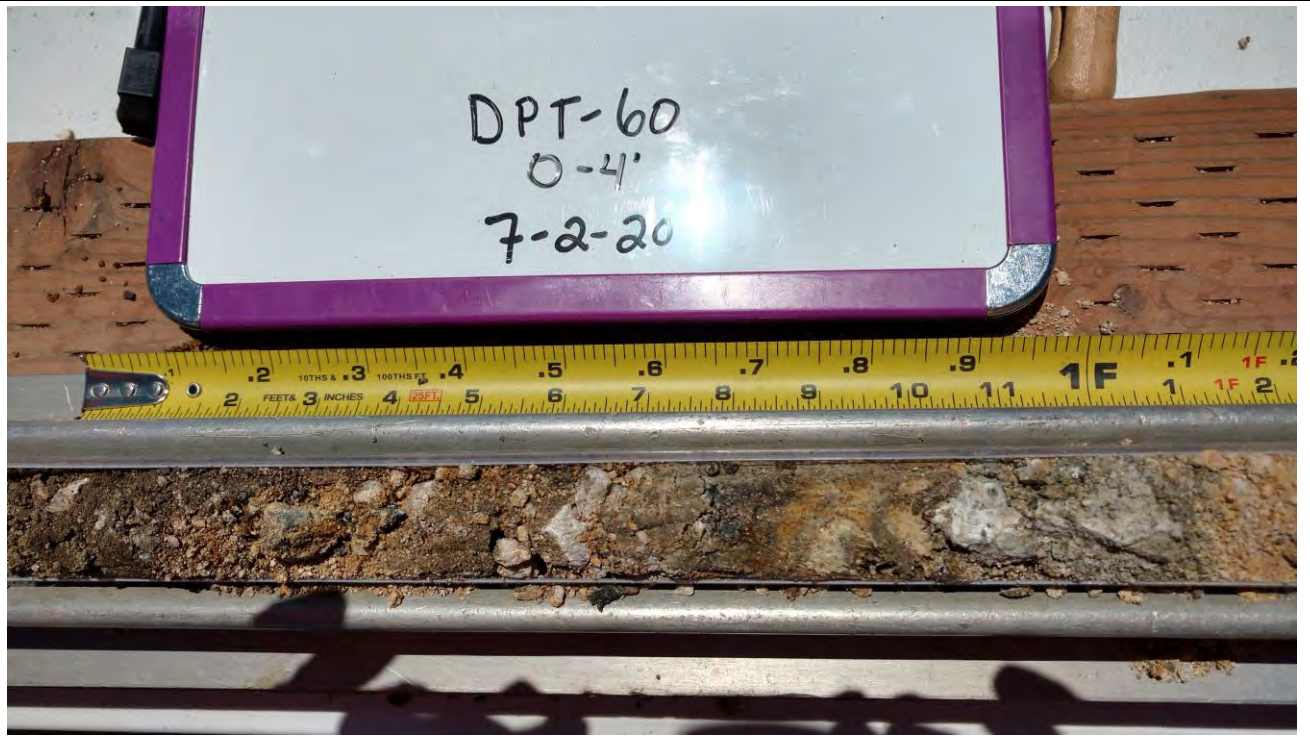


Photo Number: 305

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 306

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

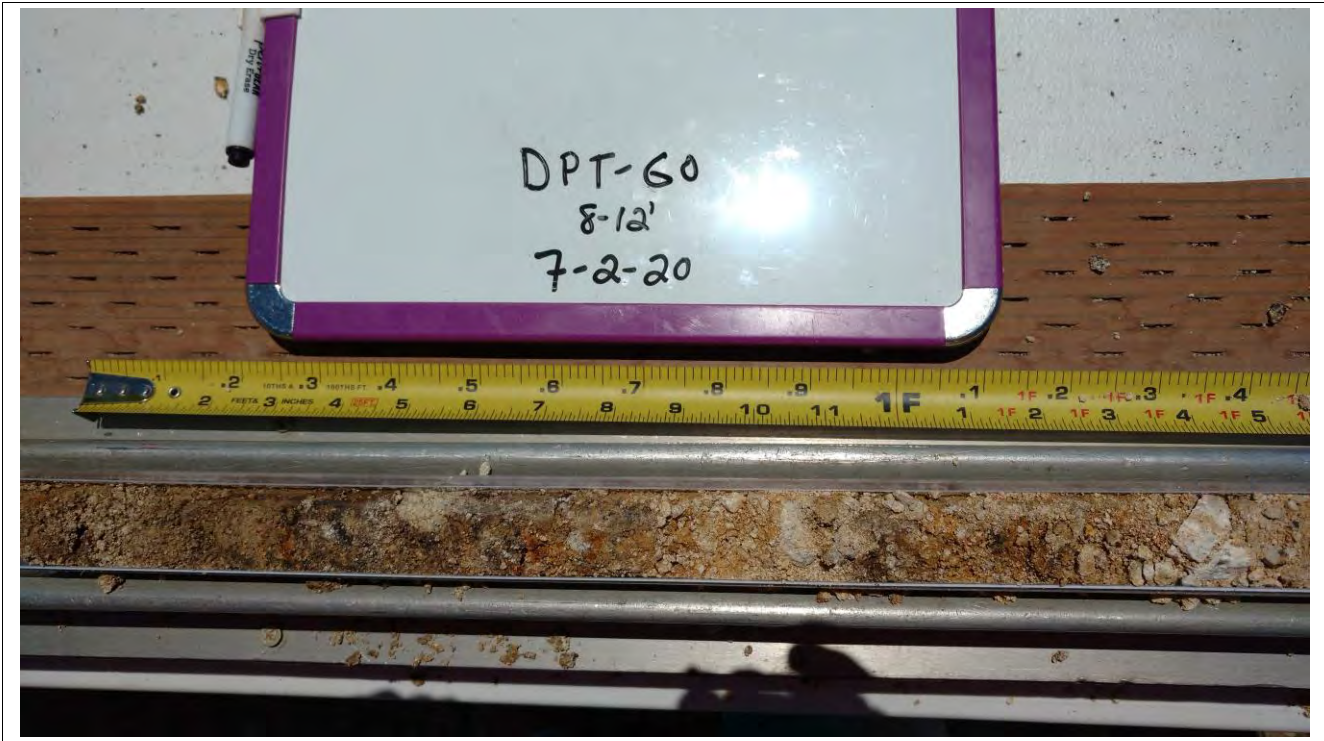


Photo Number: 307

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 308

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

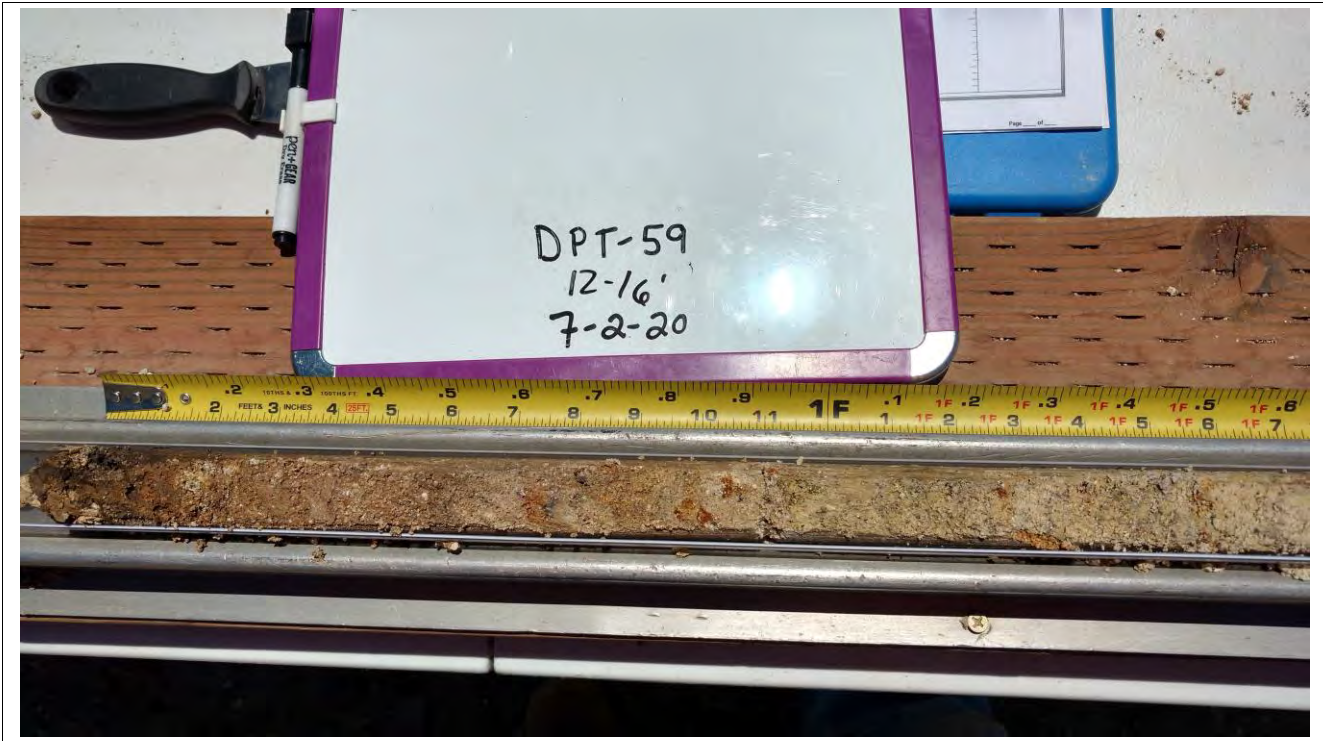


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Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

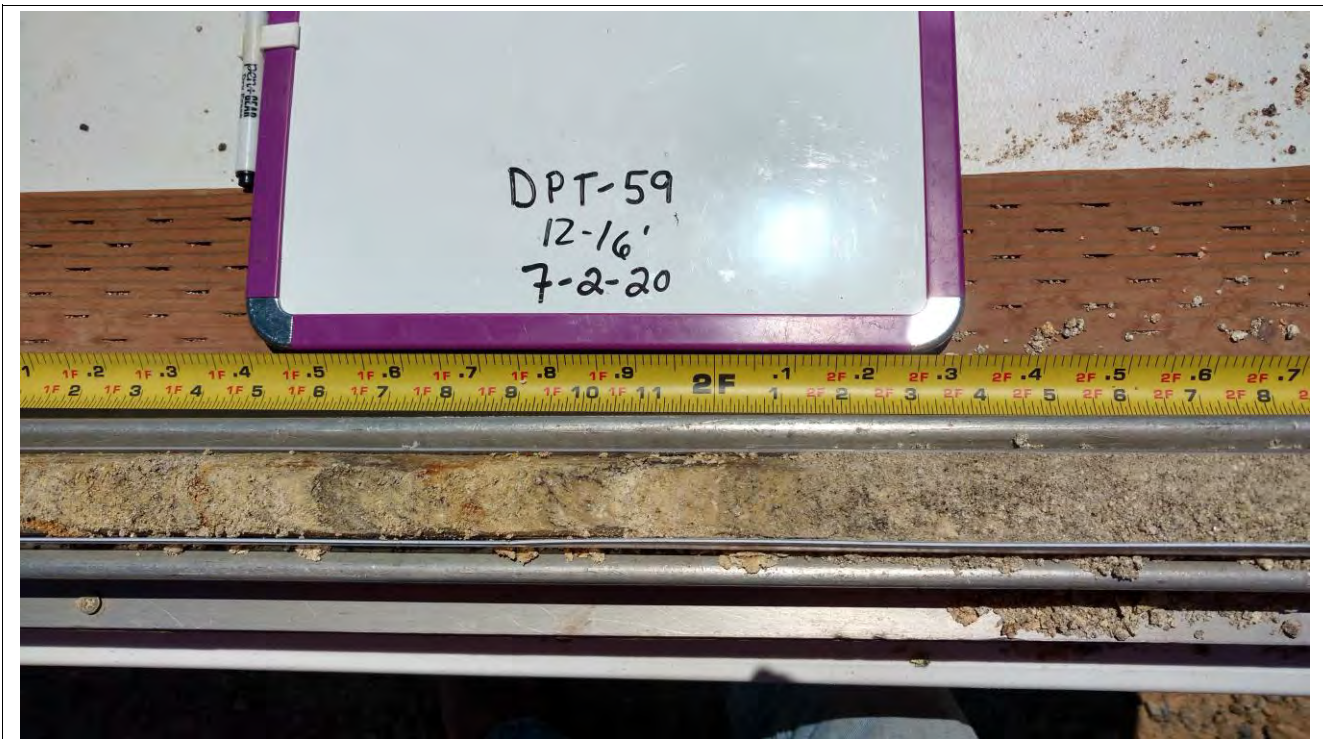


Photo Number: 310

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 311

Date: 7/2/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 312

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 313

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 314

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 315

Date: 7/6/2020

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Photo Number: 316

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

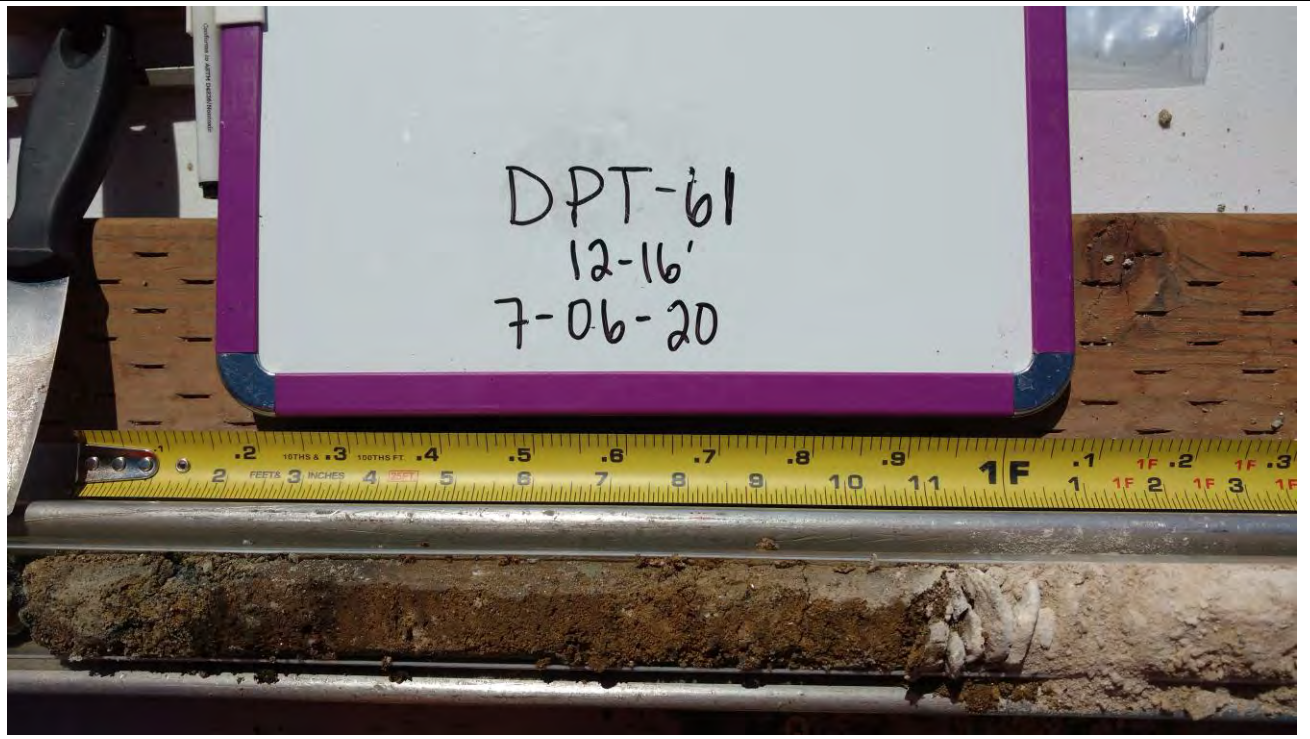


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Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

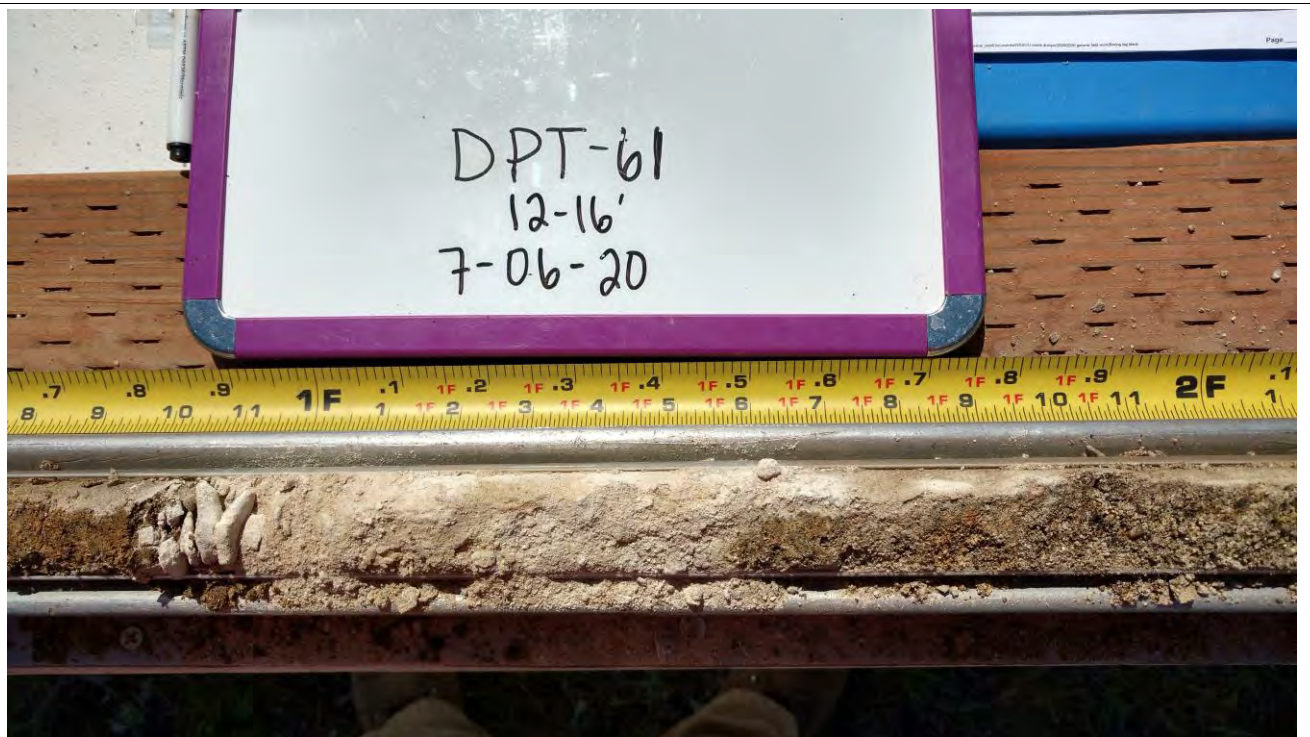


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Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

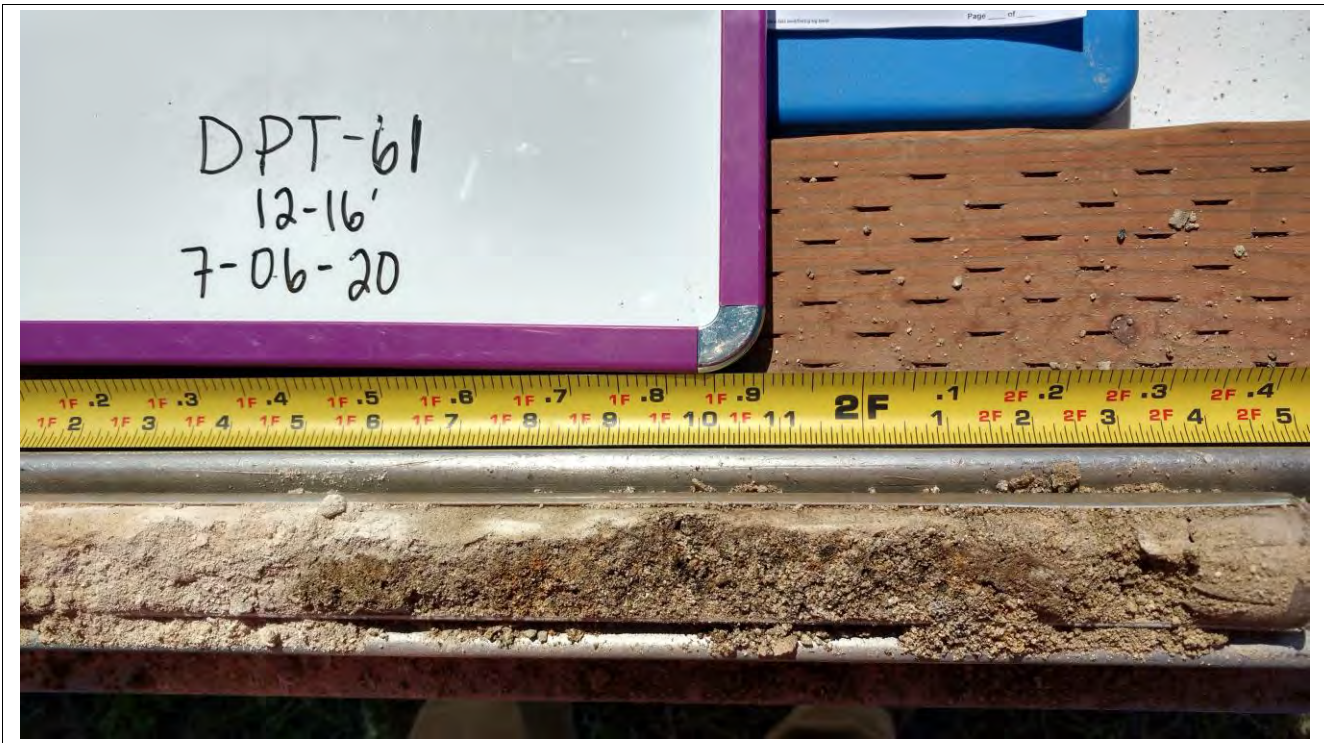


Photo Number: 319

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 320

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 321

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 322

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 323

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 324

Date: 7/6/2020

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Photo Number: 325

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

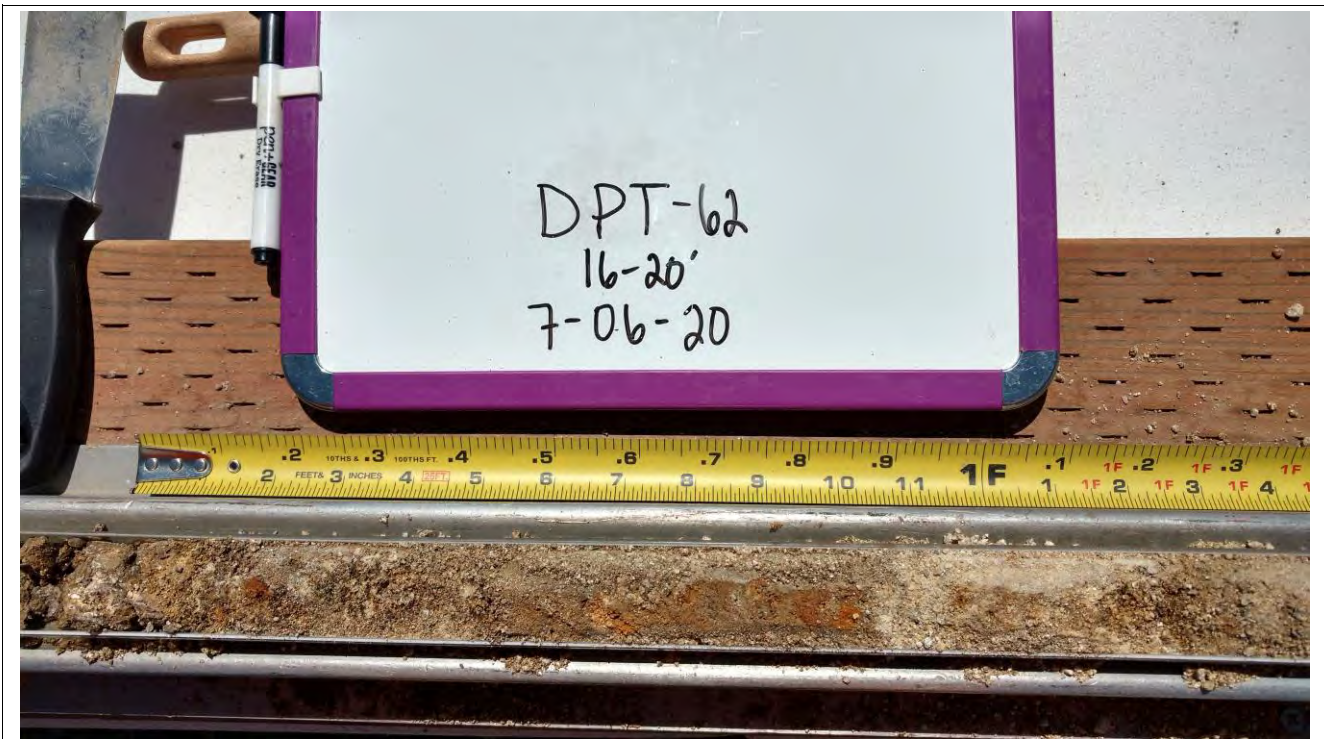


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Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

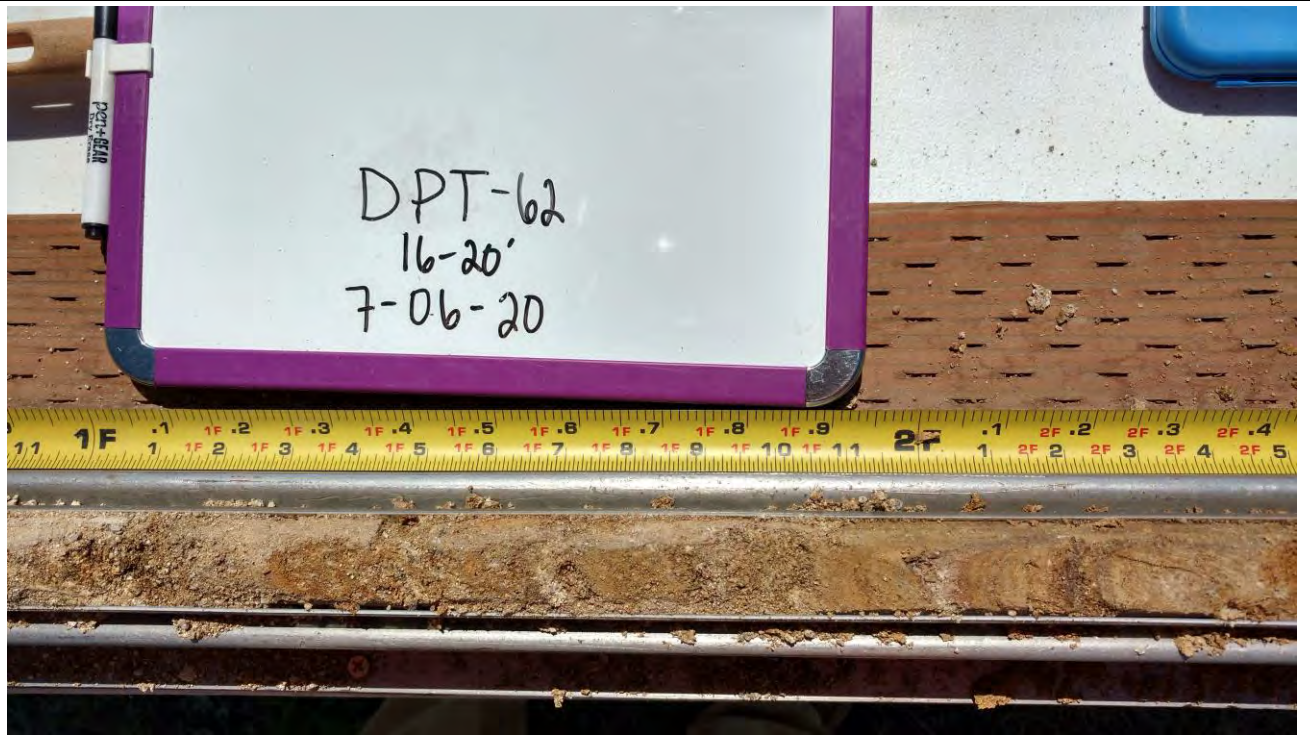


Photo Number: 327

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 328

Date: 7/6/2020

Description: DPT Photo

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Photo Number: 329

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

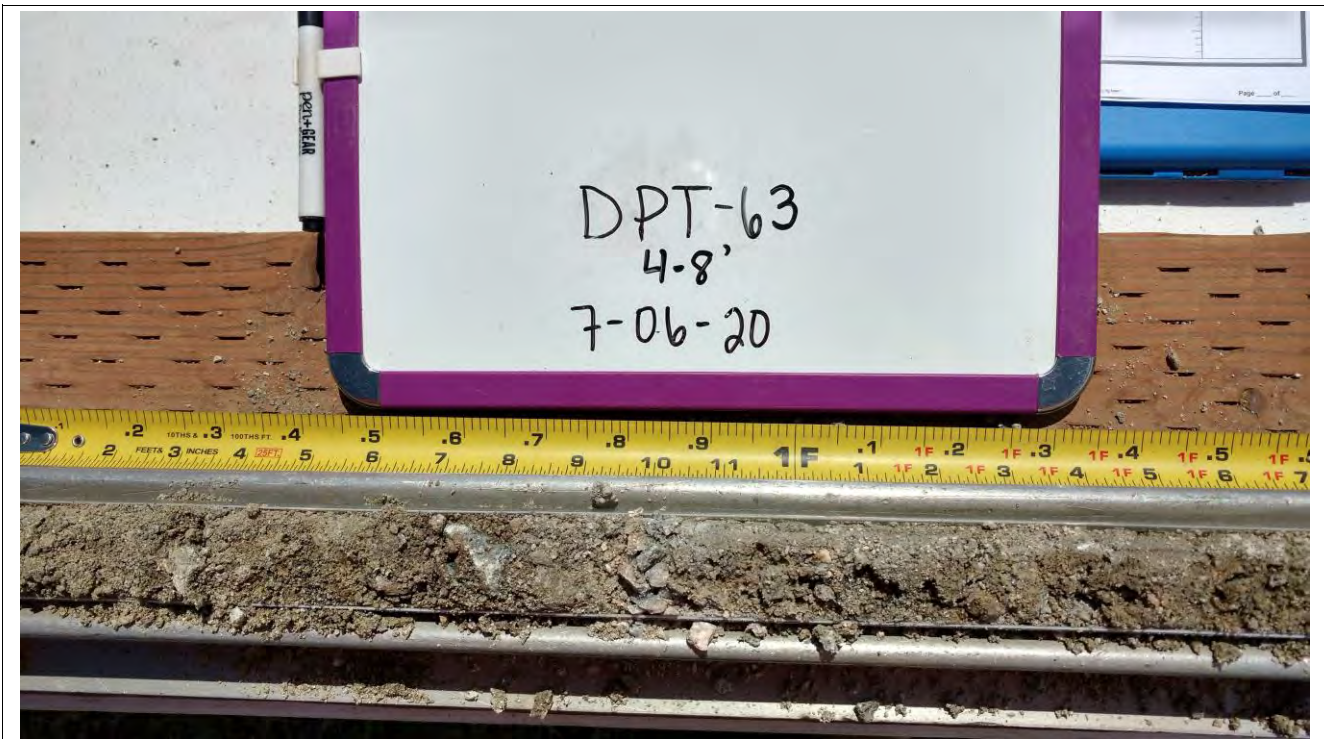


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Project: WSSOU RI DSR DPT Investigation Photos

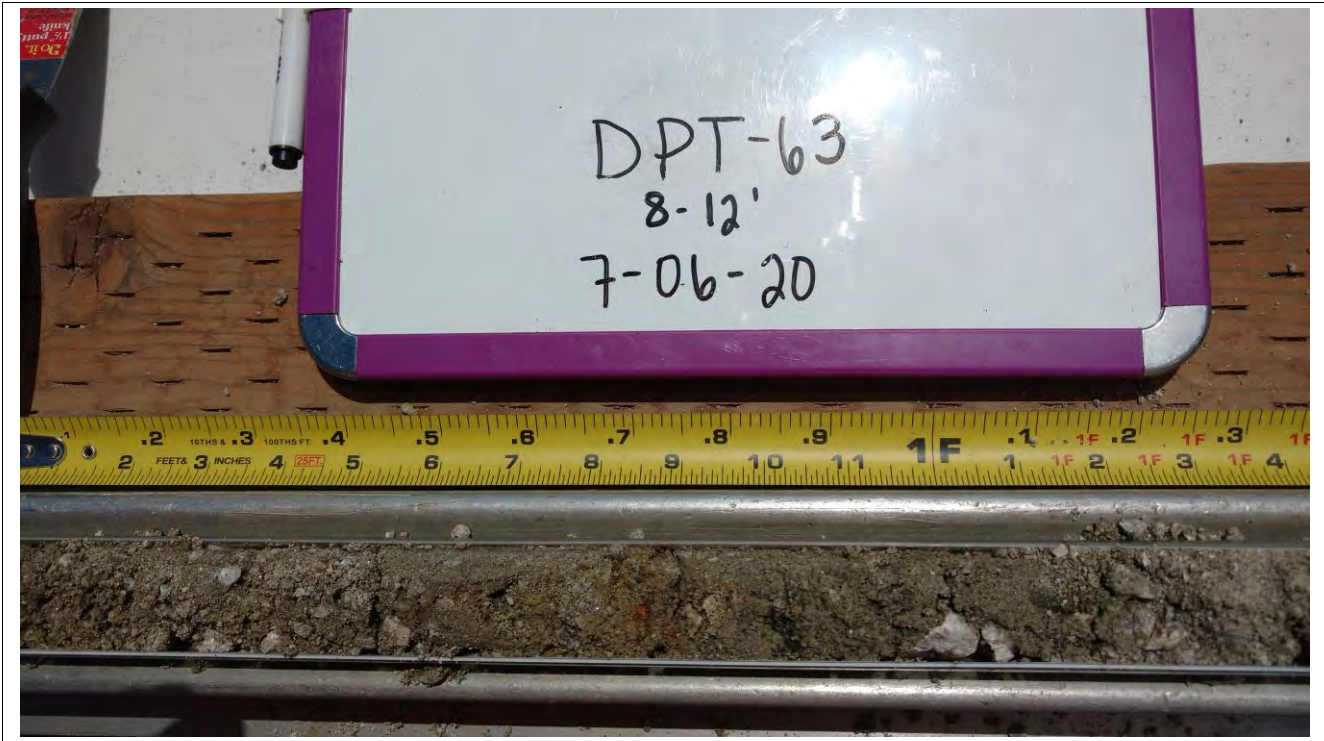


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Project: WSSOU RI DSR DPT Investigation Photos

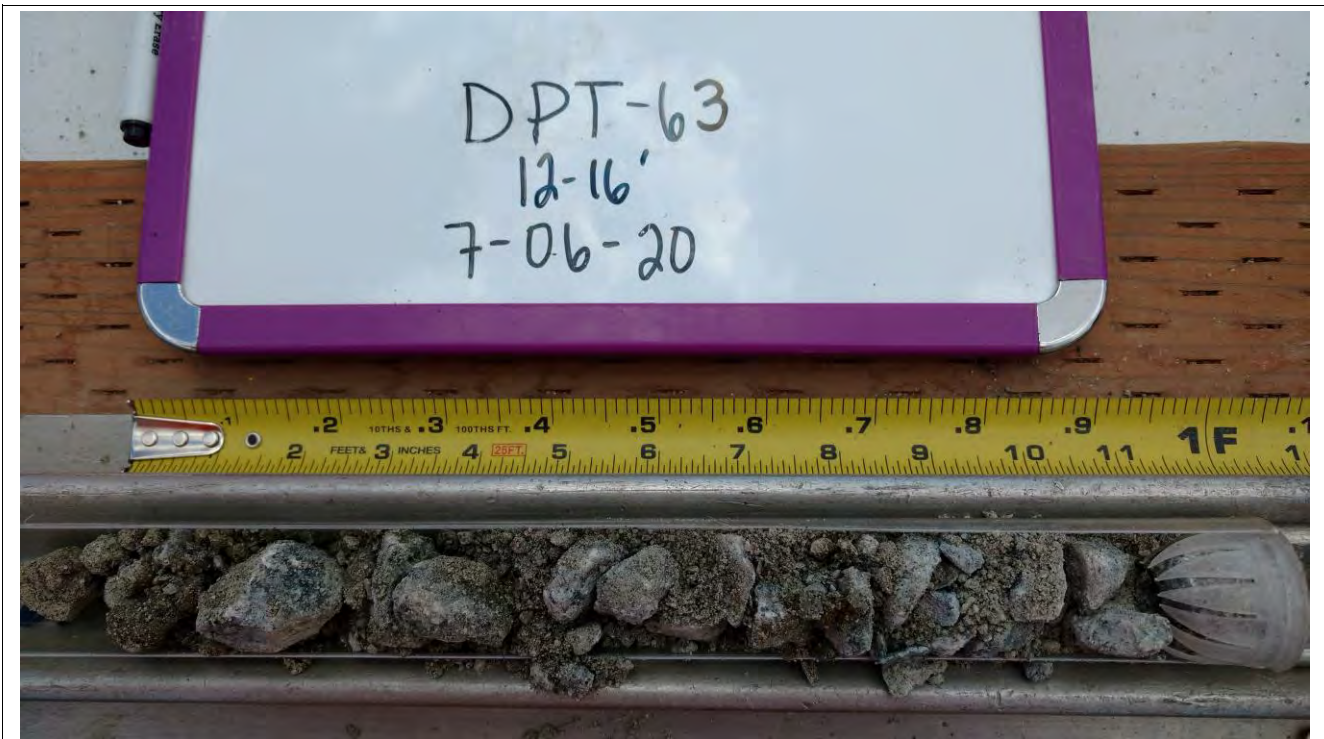


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Date: 7/6/2020

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Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 333

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

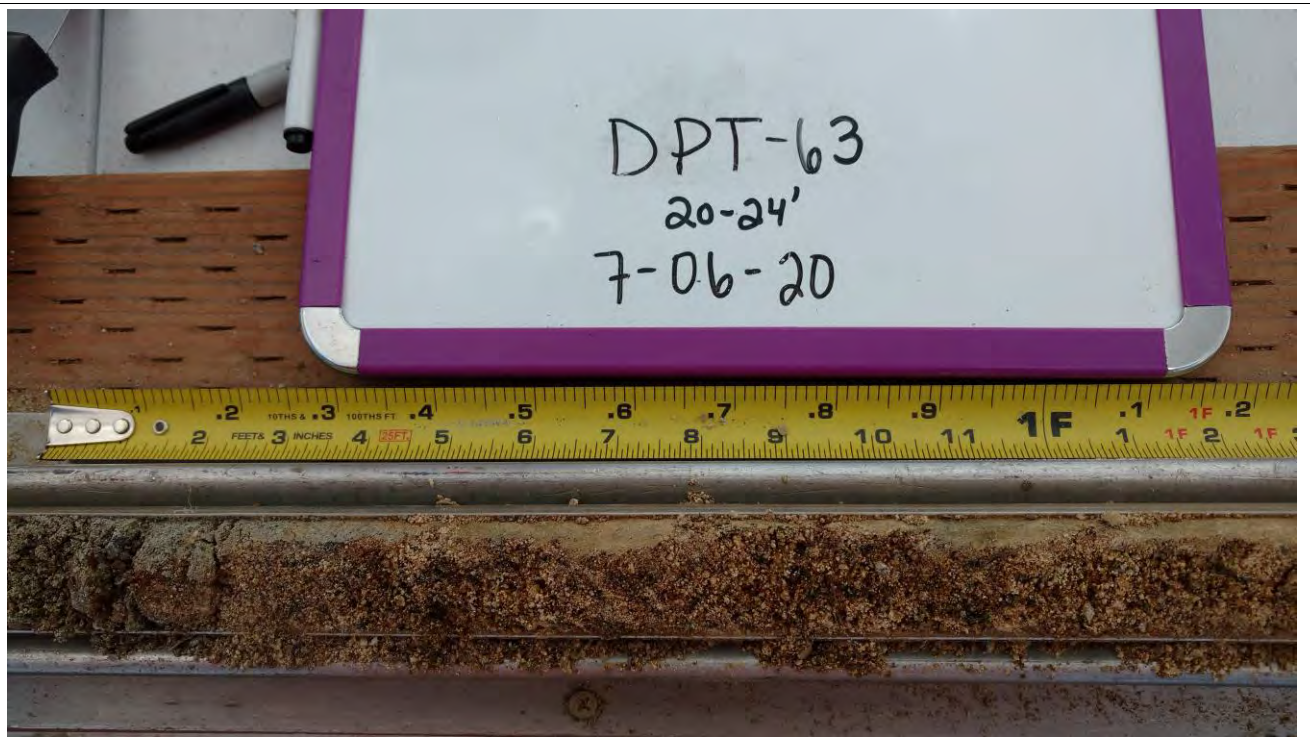


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Date: 7/6/2020

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Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 335

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

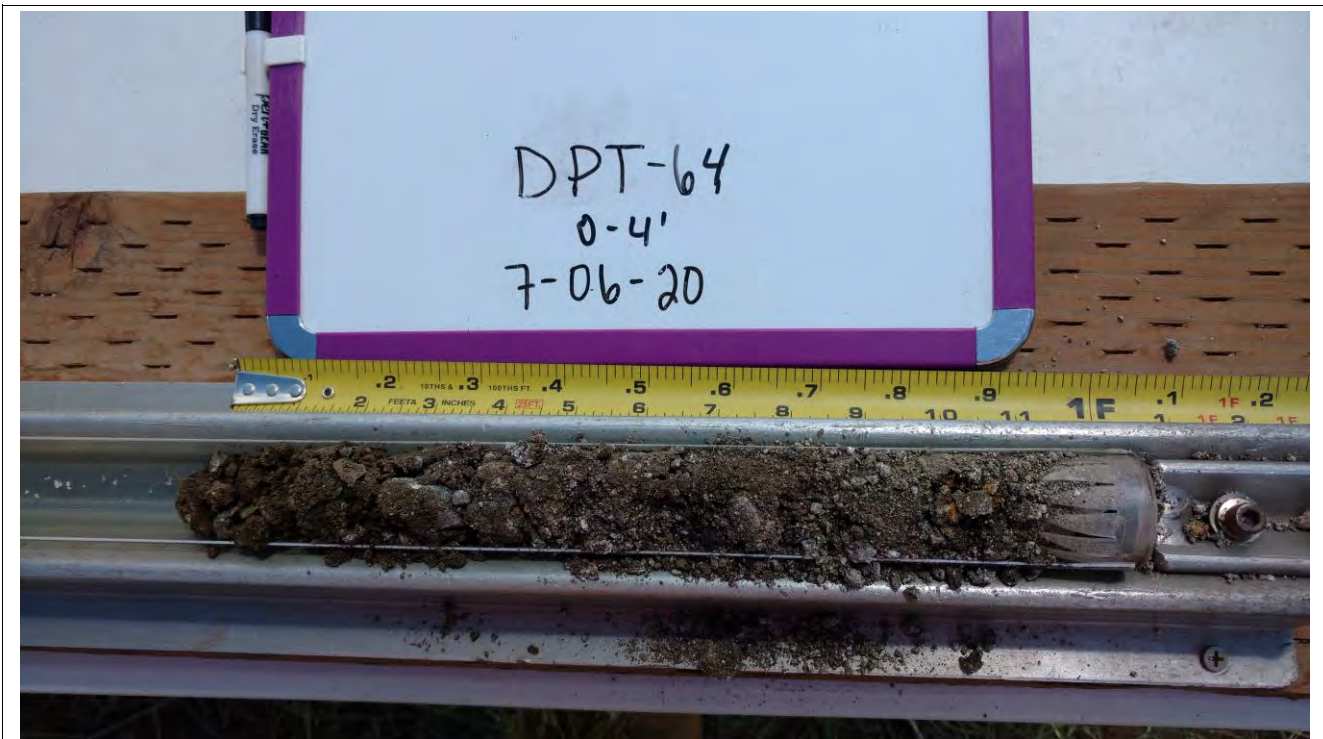


Photo Number: 336

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 337

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

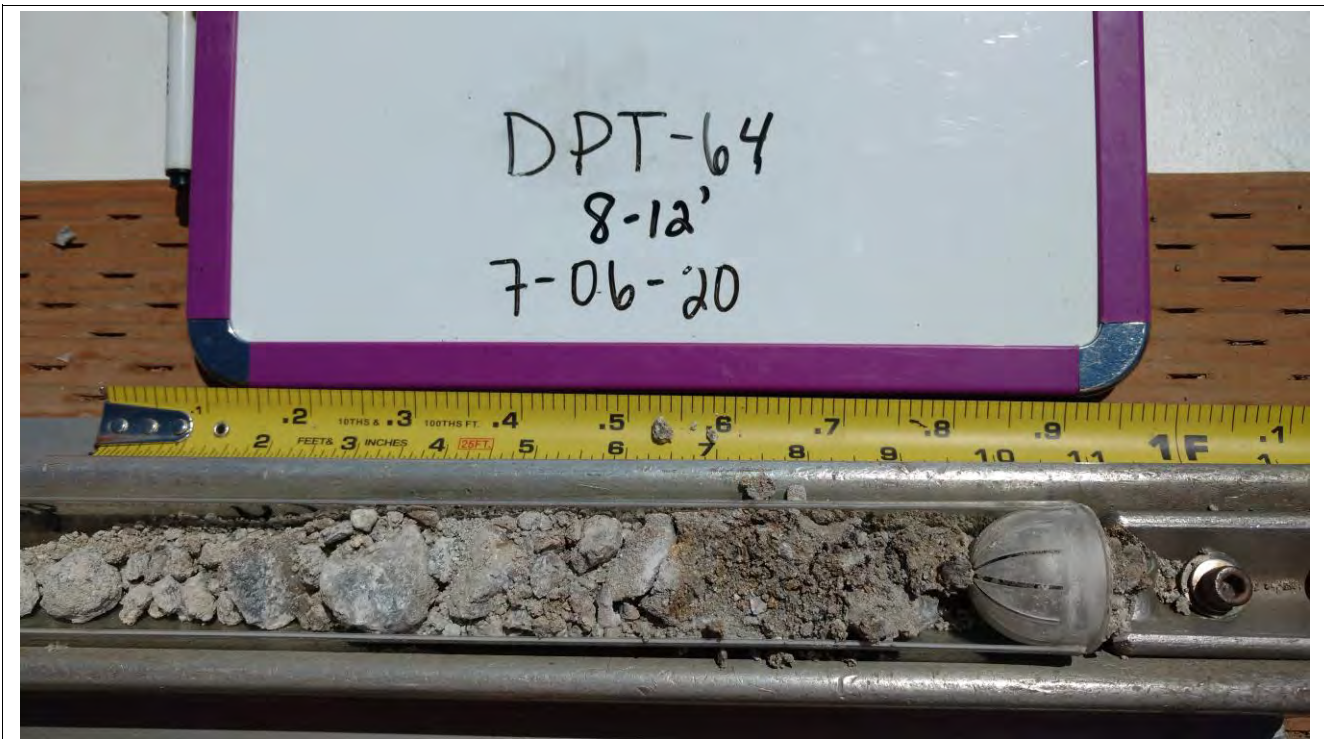


Photo Number: 338

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 339

Date: 7/6/2020

Description: DPT Photo

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Photo Number: 340

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

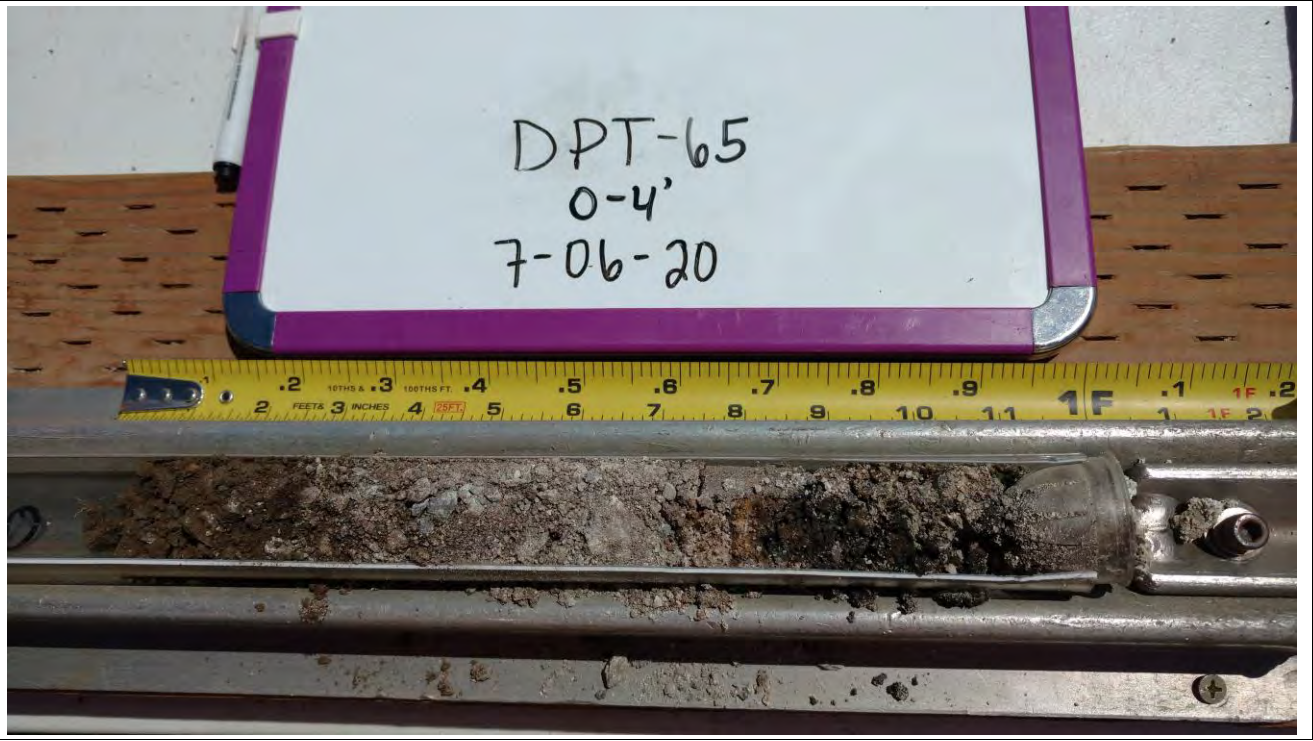


Photo Number: 341

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 342

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 343

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 344

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 345

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 346

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 347

Date: 7/6/2020

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Photo Number: 348

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

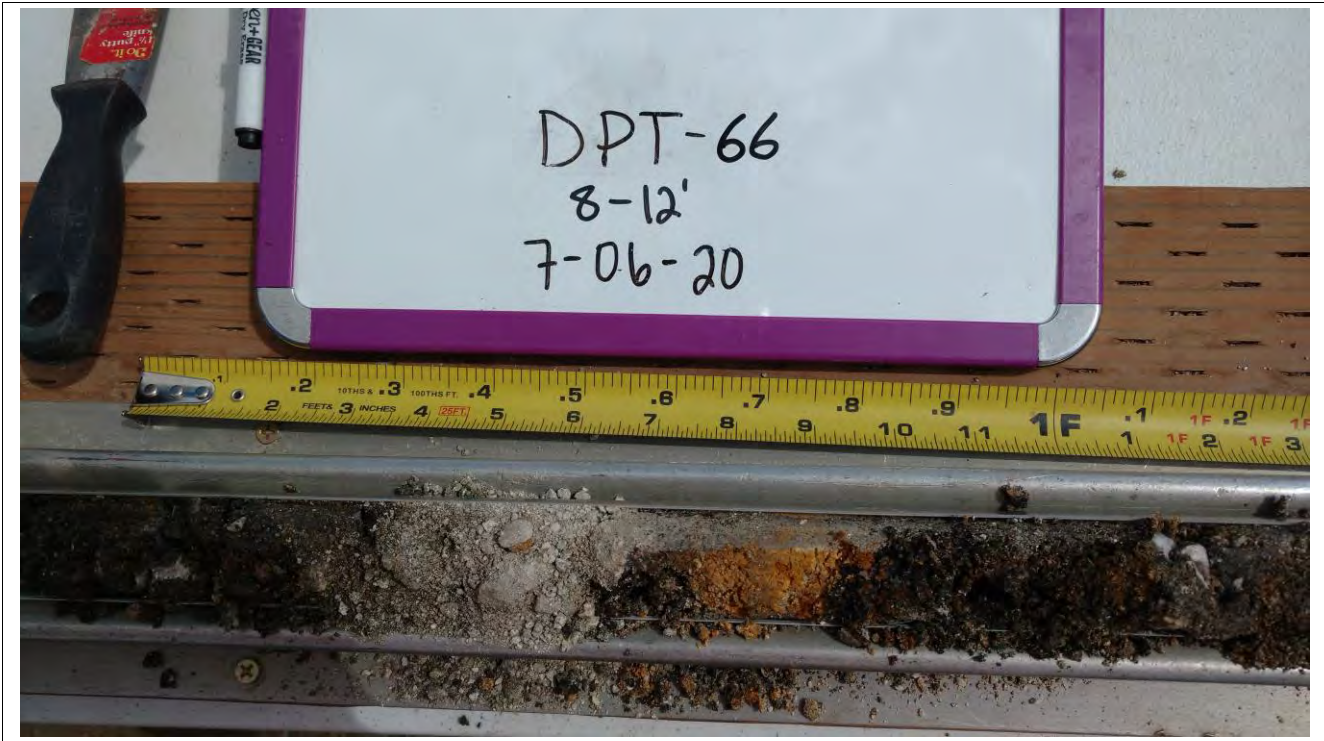


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Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

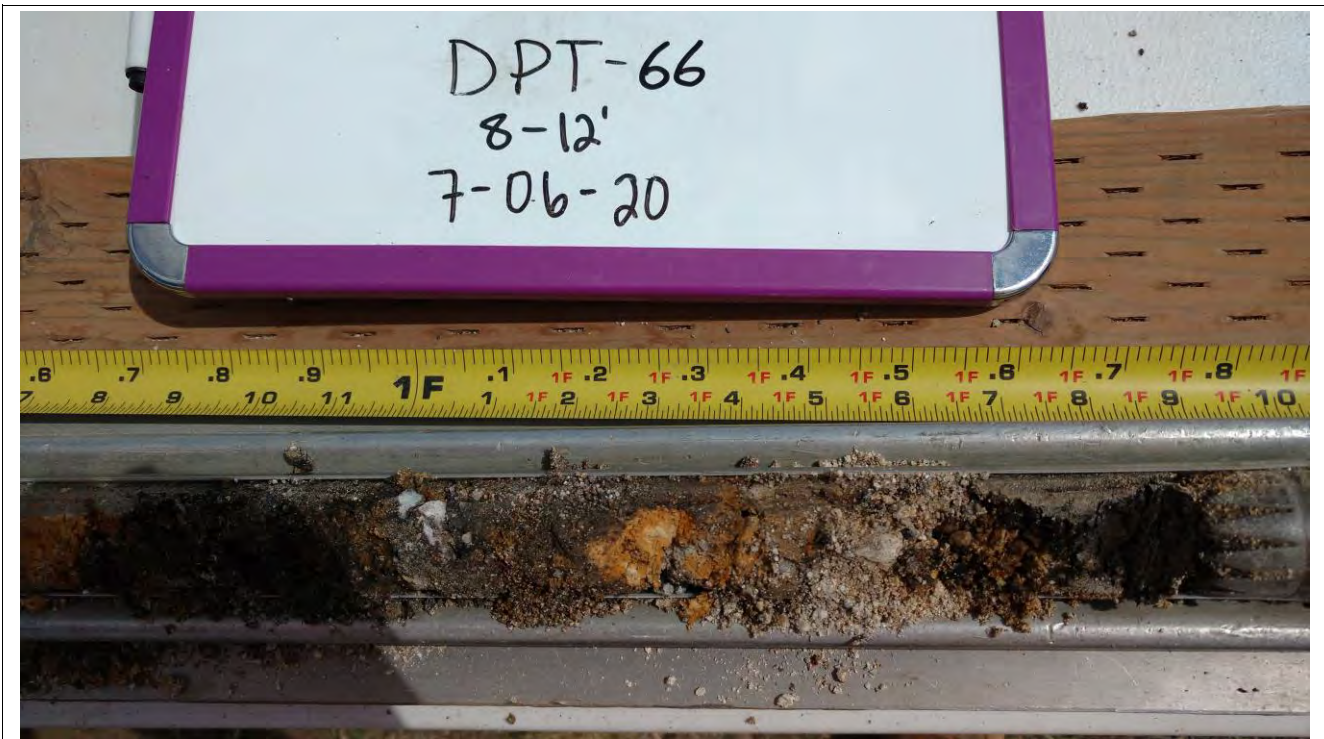


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Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

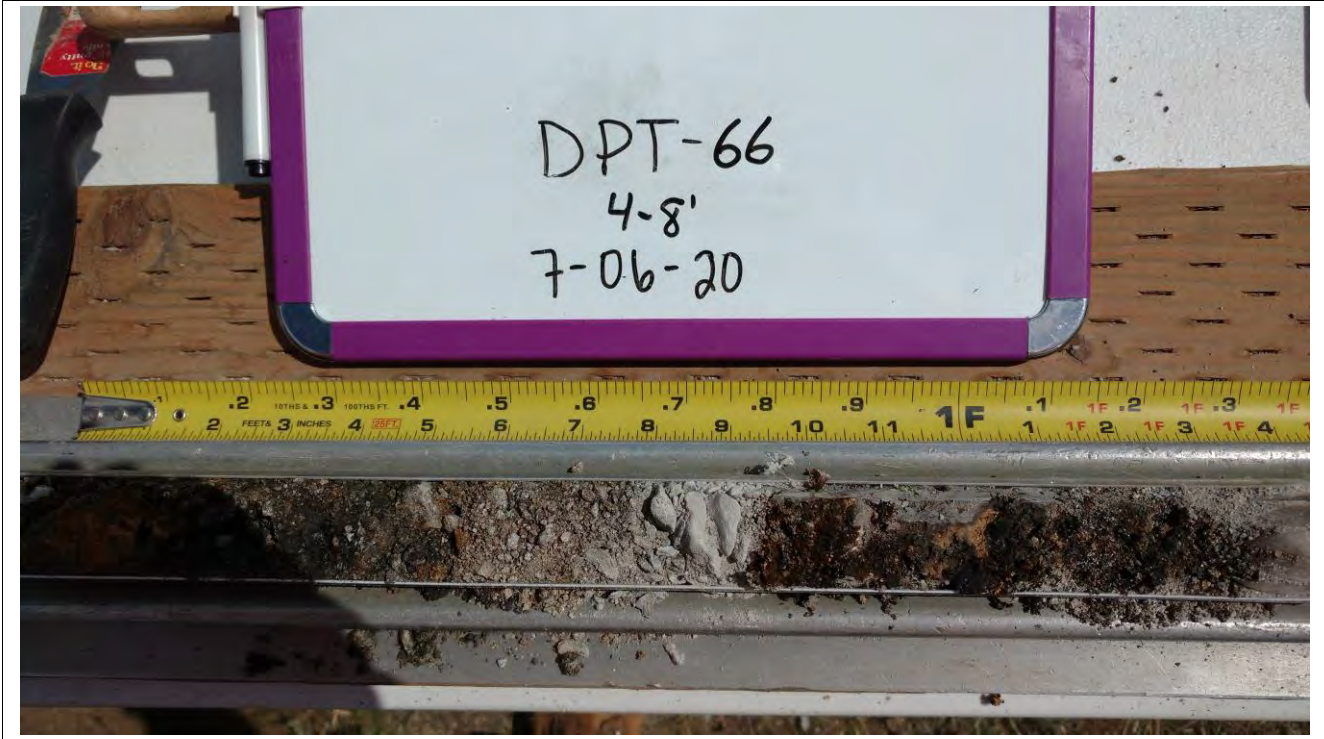


Photo Number: 351

Date: 7/6/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 352

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 353

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

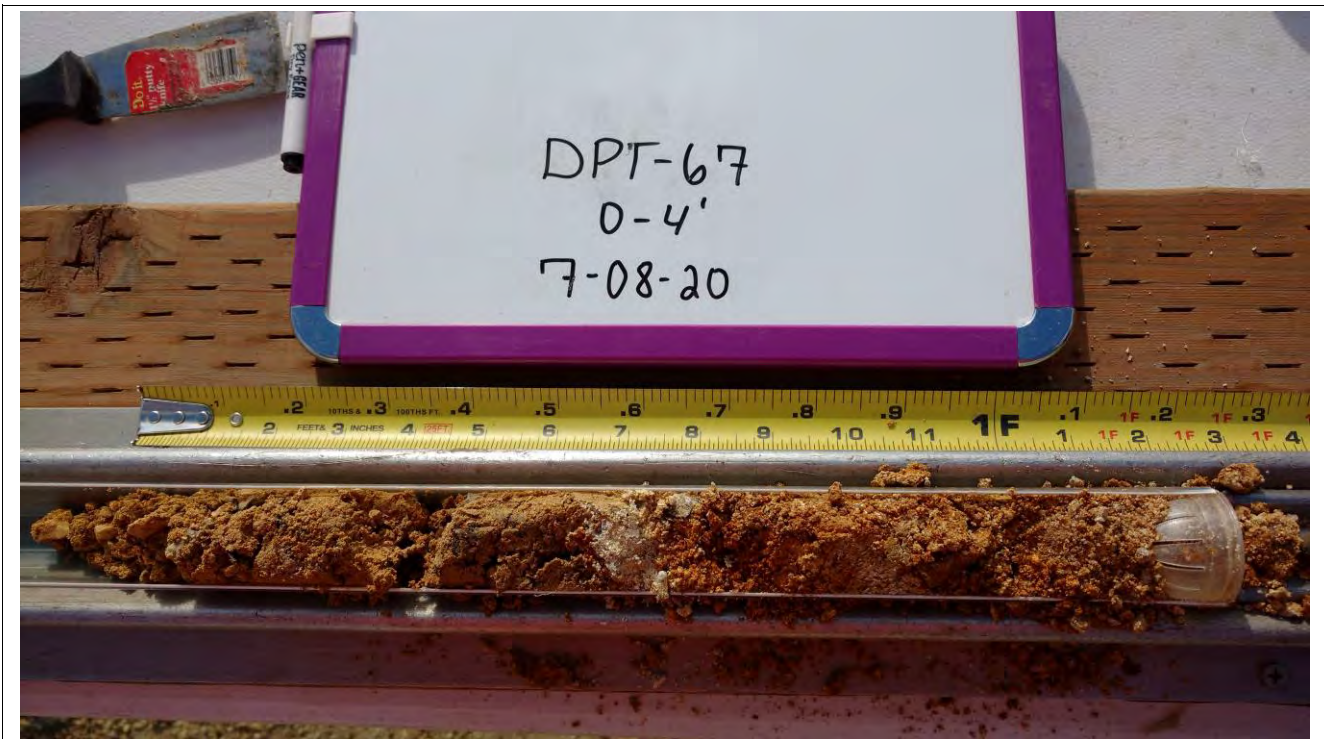


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Date: 7/8/2020

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Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 355

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

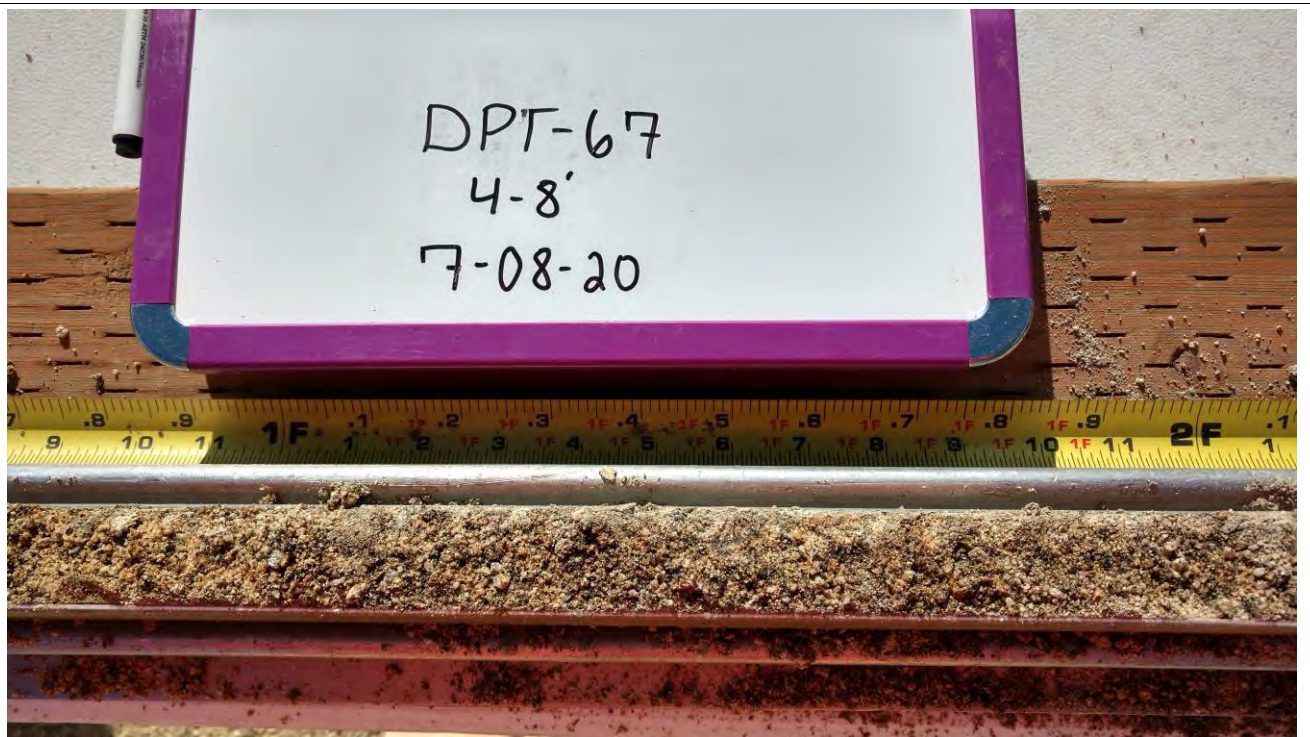


Photo Number: 356

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 357

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 358

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 359

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 360

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 361

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

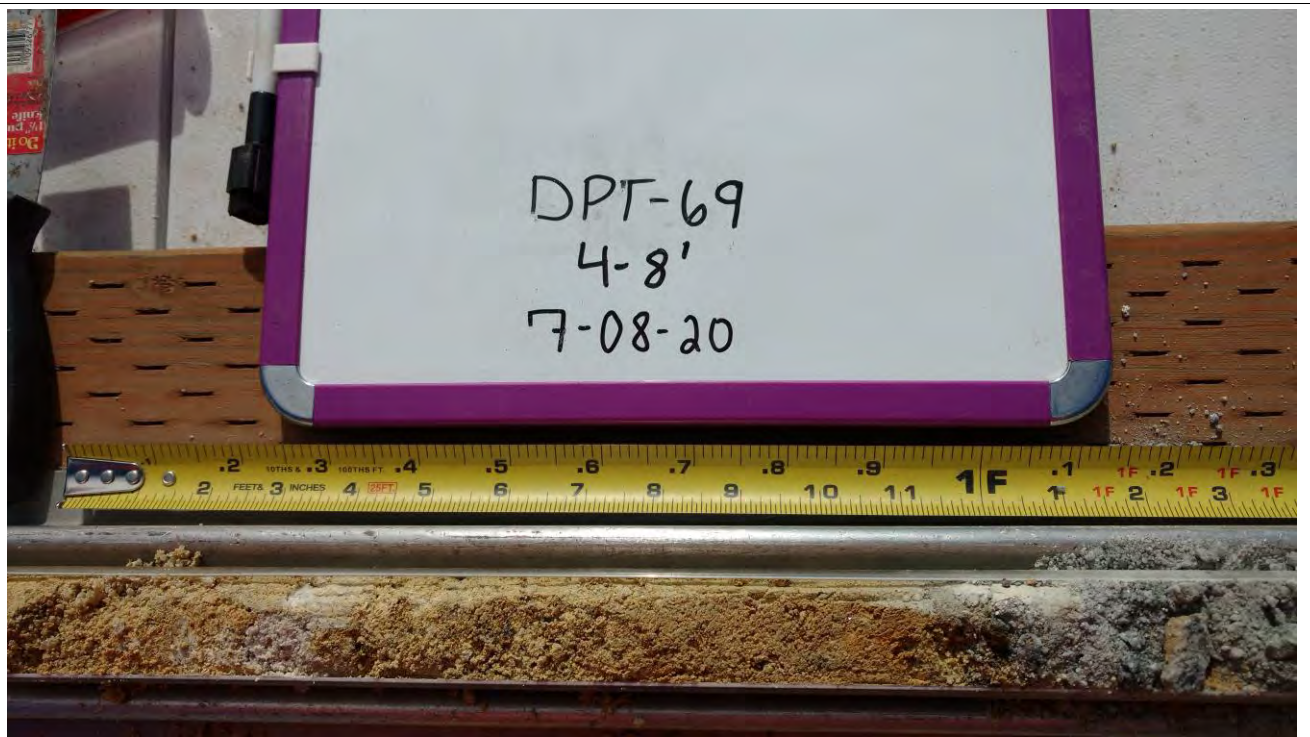


Photo Number: 362

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 363

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 364

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 365

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 366

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

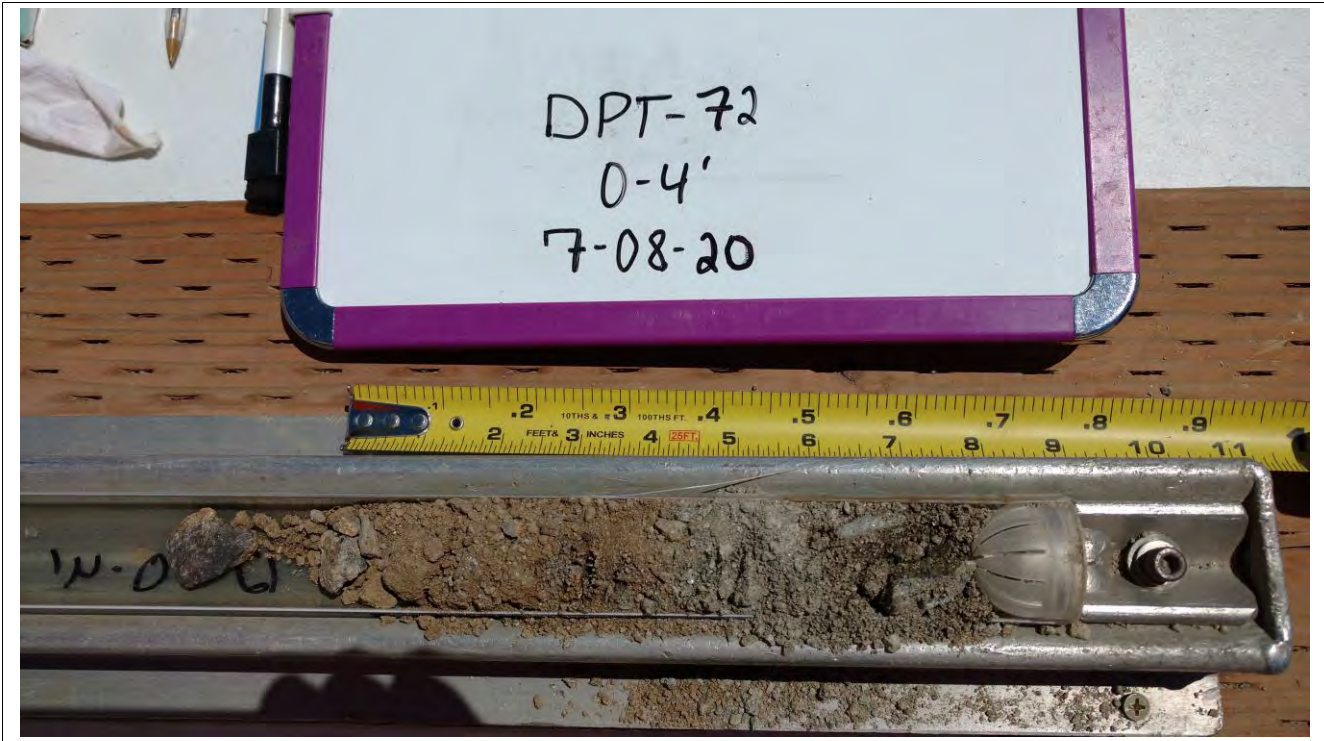


Photo Number: 367

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 368

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

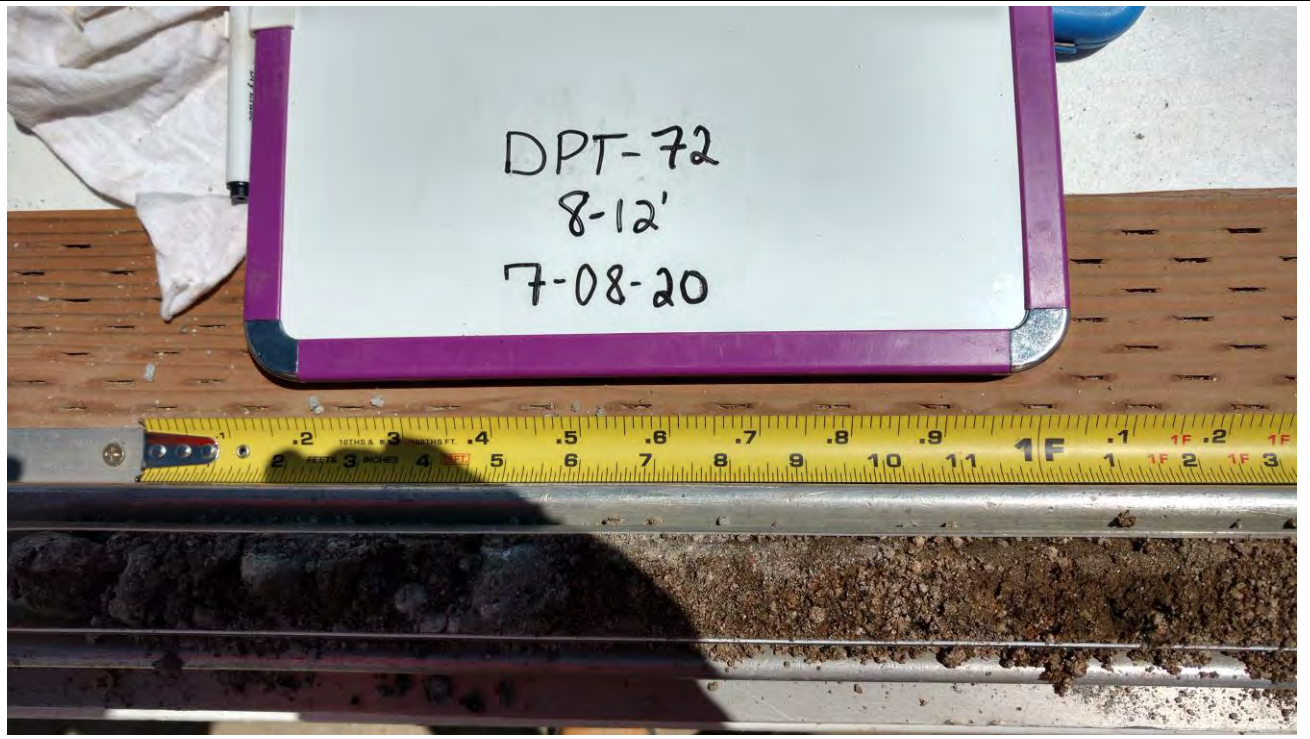


Photo Number: 369

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 370

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 371

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

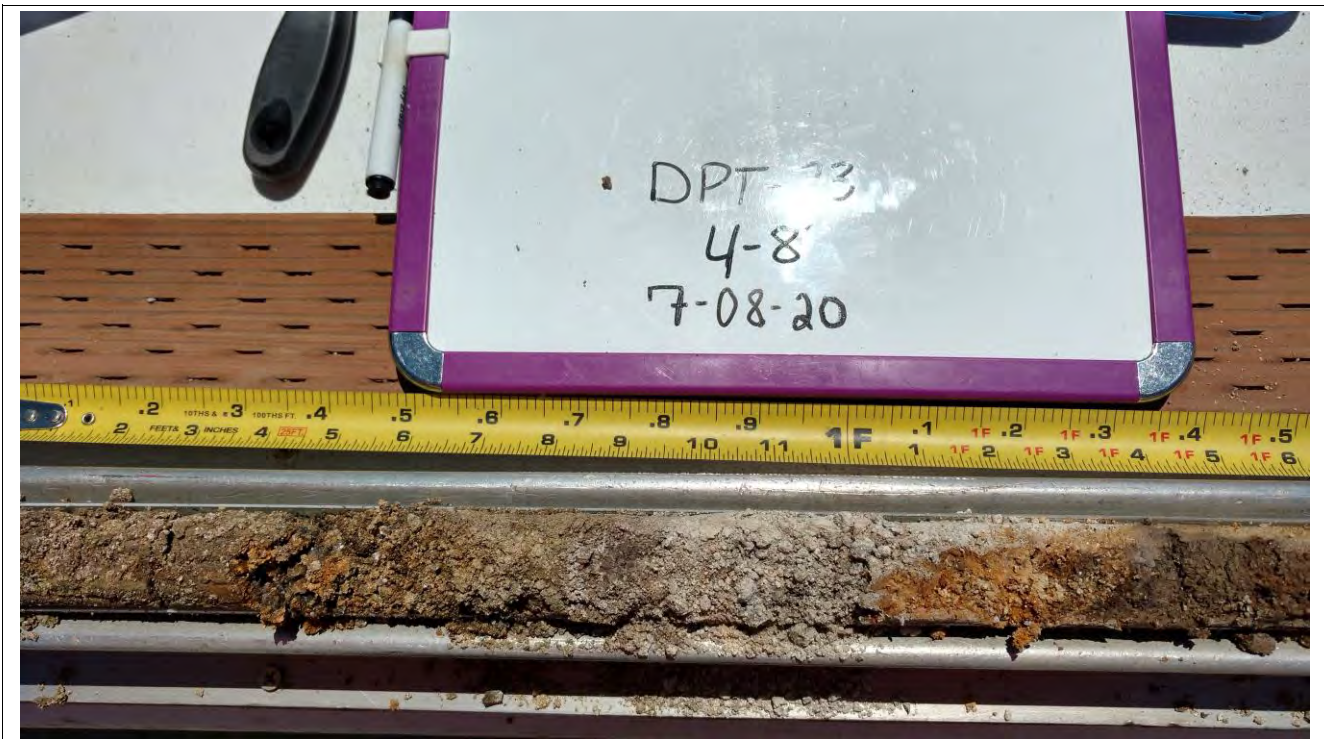


Photo Number: 372

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 373

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

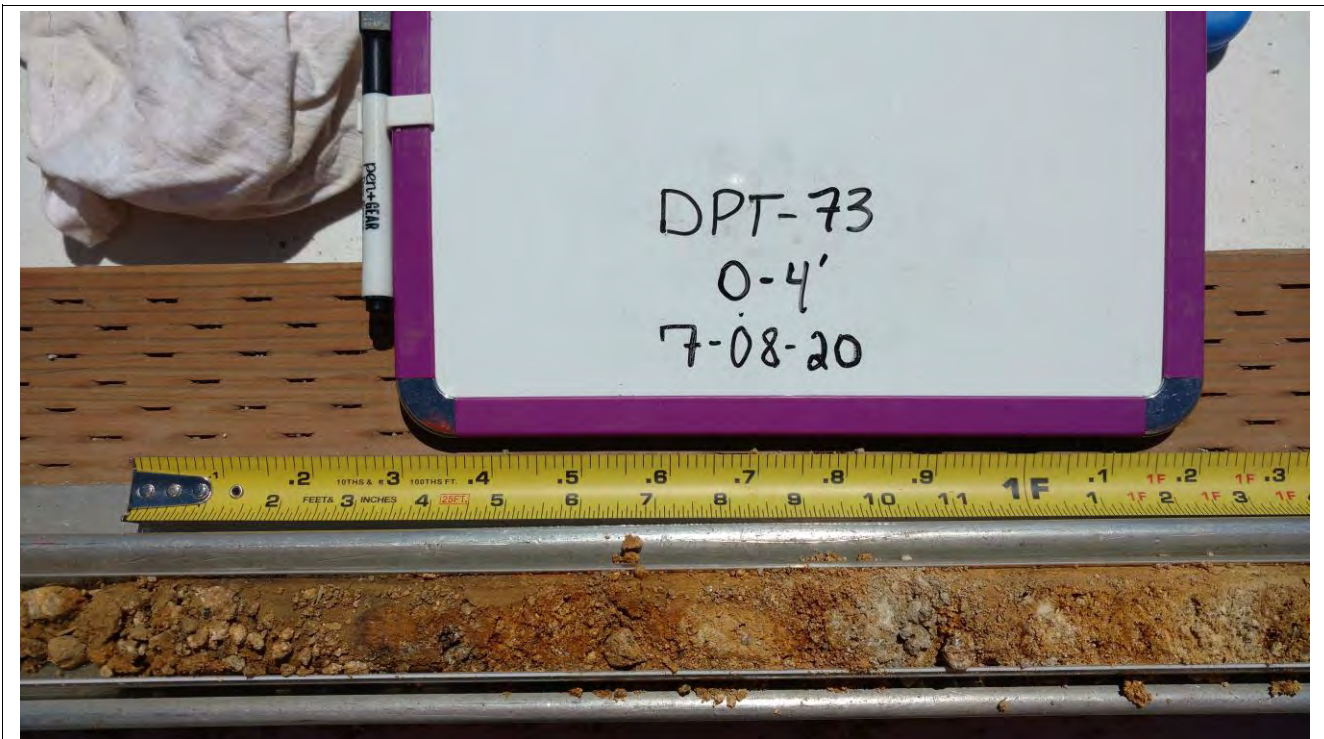


Photo Number: 374

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 375

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 376

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 377

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

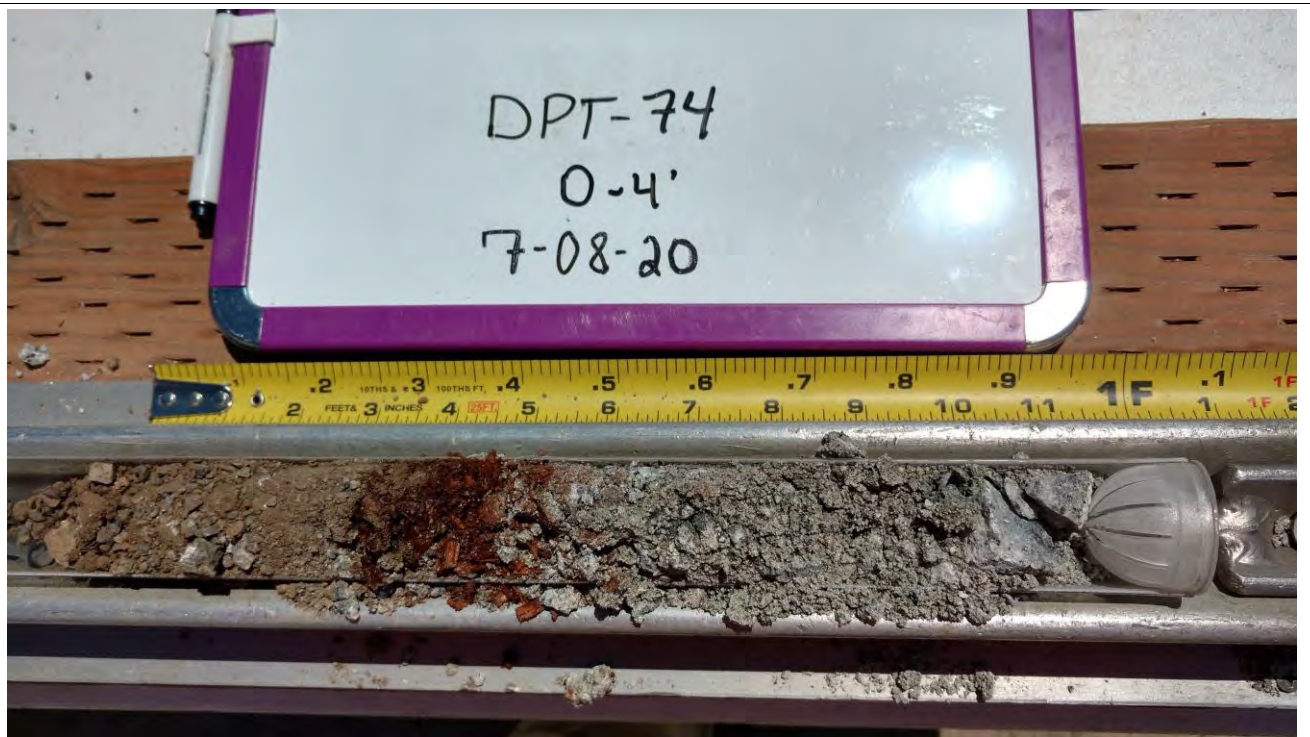


Photo Number: 378

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 379

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 380

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 381

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 382

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 383

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 384

Date: 7/8/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 385

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 386

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

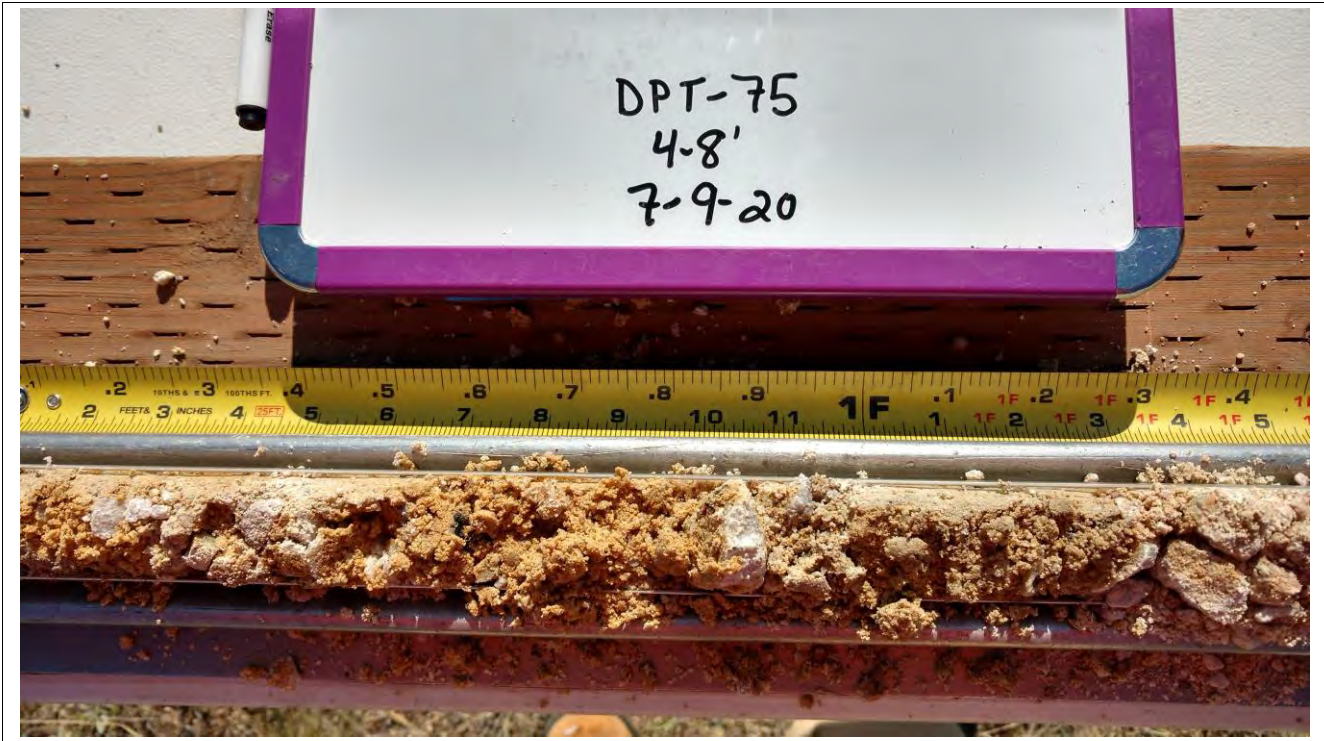


Photo Number: 387

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

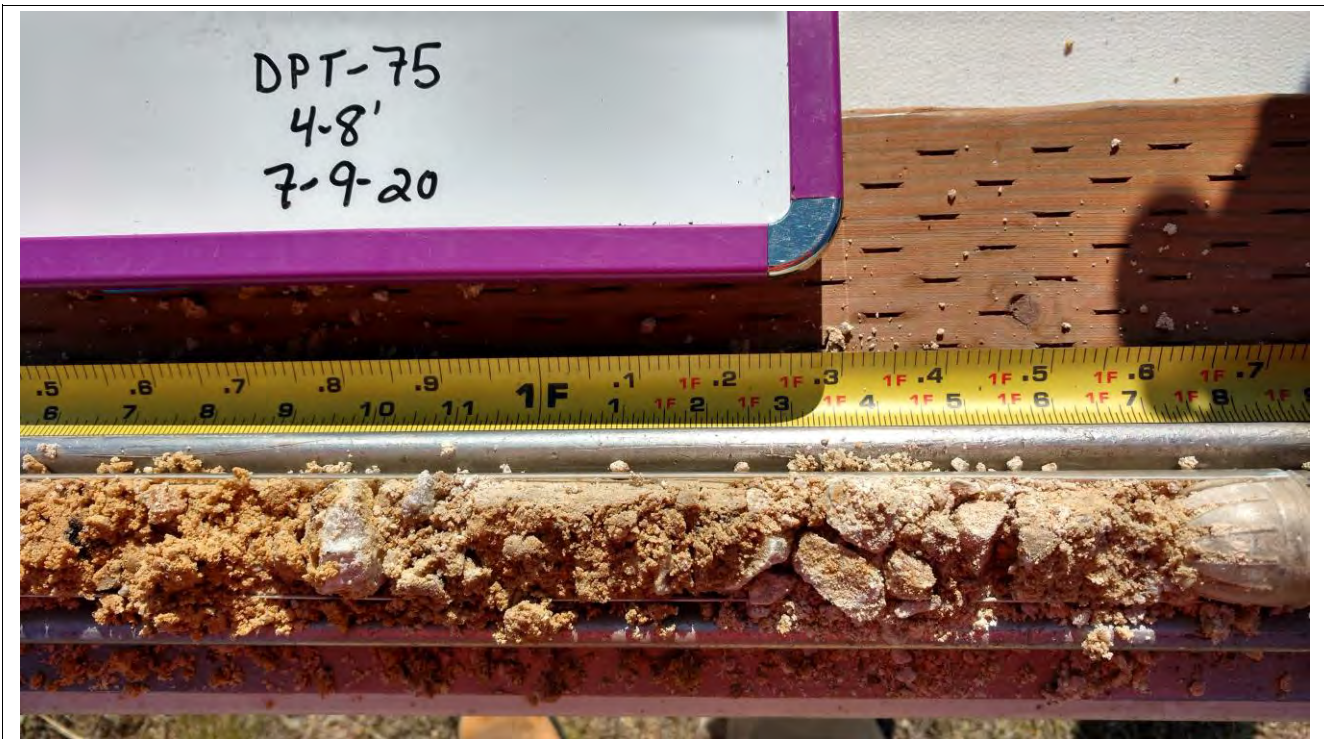


Photo Number: 388

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

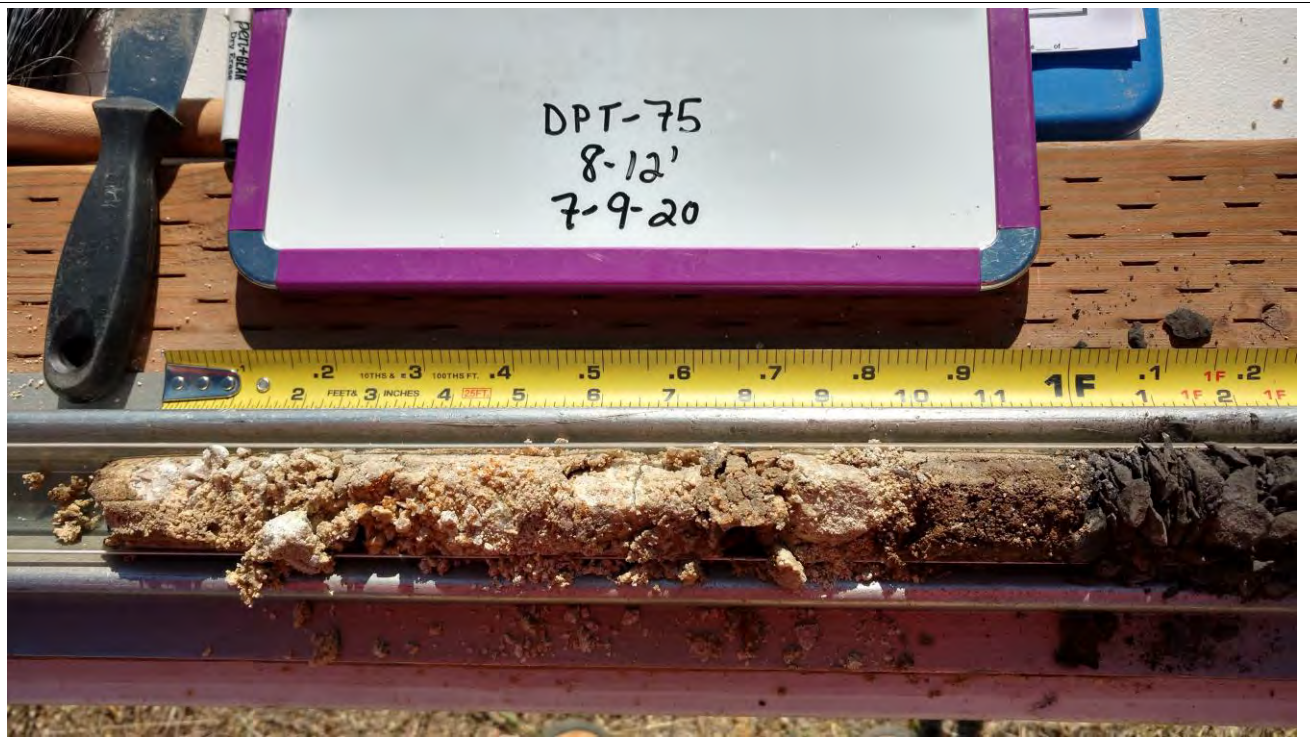


Photo Number: 389

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos

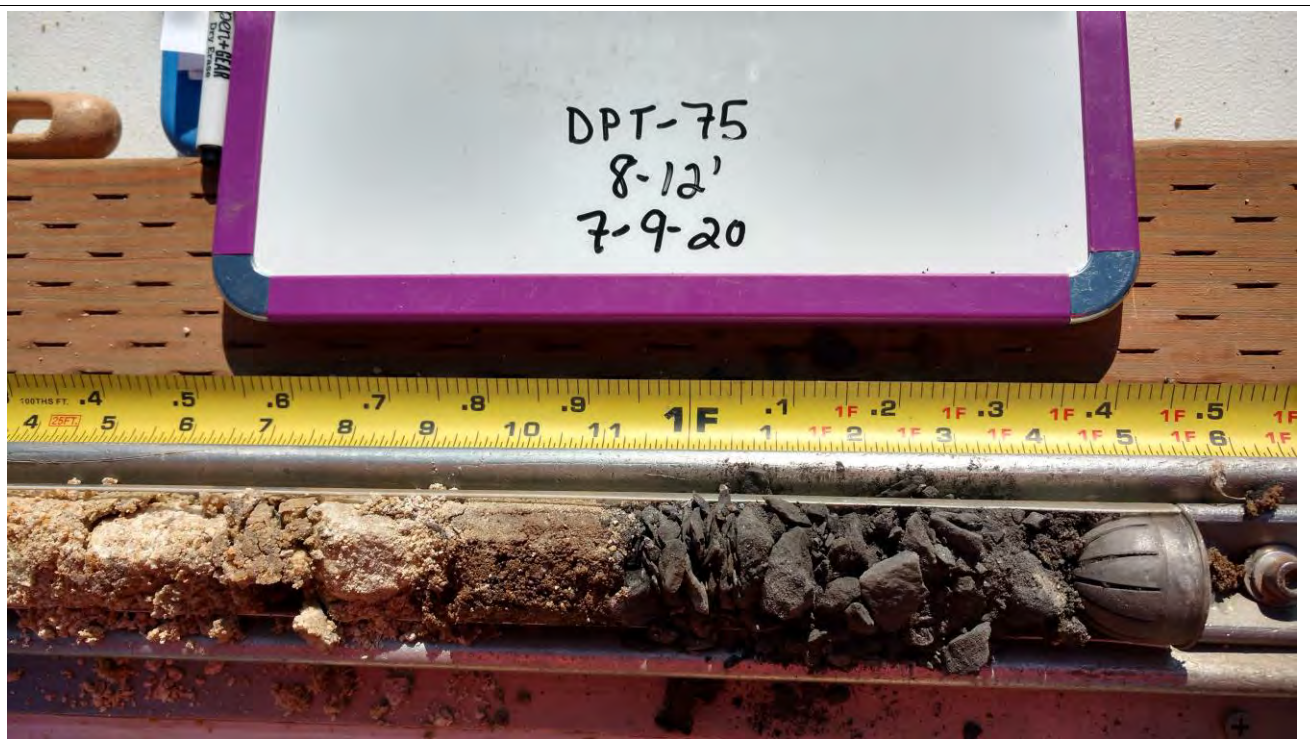


Photo Number: 390

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 391

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 392

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 393

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 394

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 395

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 396

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 397

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 398

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 399

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 400

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 401

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 402

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 403

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 404

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 405

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 406

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 407

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 408

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 409

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos



Photo Number: 410

Date: 7/9/2020

Description: DPT Photo

Project: WSSOU RI DSR DPT Investigation Photos