Mine Waste
GPS-6
Camera 5

"Rite in the Rain"®
ALL-WEATHER
ENVIRONMENTAL
No. 550

ON-SITE MINE WASTE

WENNER & BUTCHER

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Part # 101641

Becky Wenner
Paula Butcher

GPS #6 RW
Camera #~~4~~ 5

Mine Waste
Field Book

DATE

Libby Montana 10/11/07
RI/FS OU3

0800 All three teams mob to office discuss PPE changes, load ice and equipment.
1000 RLW, PMB don Level C PPE and depart for OU3
1100 RLW, PMB arrive at MS-01 set up for sampling.
1115 PMB samples MS-01, grab sample roadway location.

Index ID **P1-00370**

GPS Coordinates
X Coordinate 1110615952
Y coordinate 5365985
elevation 889m
accuracy ±10ft
Picture# 548

Libby, Montana 10/11/07
RI/FS OU3

1135 RLW, PNB arrive at MS-02
begin set up for sampling.
1145 PNB begins sampling, grab
sample, roadway location.
Index ID: **P1-00371**

GPS Coordinates
X coordinate 11U 0616110
Y coordinate 5366338
elevation 865m
accuracy ±14 ft.
Picture # 545

Libby, Montana 10/11/07
RI/FS ~~OU~~ OU3

1200 RLW / PNB arrive at MS-3.
Sampling location is marked
by a stake.
1215 PNB samples MS-3, grab
sample, roadway location
Index ID: **P1-00372**

GPS coordinates:
X coordinate 11U 0616300
Y coordinate 5366712
elevation 899 m
accuracy ± 9ft
Picture # 543
Duplicate Idex # **P1-00373**

~~GP~~ RLW
Conor from COM observes/audits
Sampling activities at MS-3.
1240 RLW/ PNB mobs back to
decon area, arranges to
meet Jeff and John Garr
1400 Decon completed, mob
for PPE decon at decon trailer
off-site.

Libby, Montana Date 10/11/07 ~~10/12/07~~
RI/FS OU3

1540 Mob to office to discuss lessons learned for tomorrow

1600 Trip blank labeled at " ~~1100 8 RWB~~ 1110072RWB" with time of 1600

Index ID: **P1-00374**

Location: Libby, Montana Date: 10/12/07
Project Office: RI/FS OU3

1000 RLW/PNB arrive at MS-13, measure off 3x3' area off of road to measure

1015 PNB collects sample

Index ID #: **P1-00365**

GPS Coordinates:
X coordinate 1144 0617120
Y coordinate 5366102
elevation 1143m
accuracy ±9ft.

Picture # 541

Libby, Montana 10/12/07
RI/FS OU3

1025 RLW/PNB locate MS-10.
PNB sets up plastic shuting
and 3x3' grab sampling area.
1035 PNB samples MS-10
Index ID: **P1-00366**

GPS Coordinates
x coordinate 0617129
y coordinate 5366406
elevation 1115m
accuracy = 9ft.
Picture # 540

Libby, Montana 10/12/07
RI/FS OU3

1050 RLW/PNB arrive at MS-11
PNB sets up plastic
shuting and 3x3' sample
area. Duplicate to be collected
here
Parent Index ID# **P1-00367**

Duplicate Index ID# **P1-00368**

1100 PNB samples MS-11 and
duplicate
GPS Coordinates
x coordinate 0617086
y coordinate 5366385
elevation 1114m
accuracy ±9ft.
Picture # 539

Libby, Montana 10/12/07
RI/FS OU3

1130 RLW/PNB arrive at MS-12. PNB sets up plastic sheeting and 3x3' sample area

1145 PNB samples MS-12

Index ID#: **P1-00369**

GPS Coordinates

x coordinate ~~0~~ 0617047

y coordinate ~~5366214~~ 5366217

elevation 1105 m

accurracy ±9ft.

Picture # 538

Libby, Montana 10/12/07
RI/FS OU3

1200 RLW/PNB arrive at MS-25. PNB prepares sheeting and ~~3x3'~~ 3x3' sample area

1210 PNB samples MS-25

Index ID# **P1-00362**

GPS Coordinates

x coordinate 0617469

y coordinate 5365939

elevation 1177 ~~ft~~ m

accuracy ±10ft.

Picture #537

Libby, Montana 10/12/07
RI/FS OU3

1215 RLW/PNB arrive at MS-35
PNB sets up plastic sheeting
and 3x3' sample area
1220 PNB samples MS-35
Index ID # P1-00363

GPS Coordinates
x coordinate 0617795
y coordinate 5366104
elevation 1190 m
accuracy ± 11 ft
Picture # 535
1245 Mob to decon

Libby, Montana 10/12/07
RI/FS OU3

15:30 RLW/PNB arrive at MS-33.
PNB sets up plastic ~~set~~ RLW sheeting
1540 PNB samples MS-33
Index ID#: P1-00364

GPS Coordinates
x coordinate ~~0~~ RLW 0618453
y coordinate 5365486
elevation 1243m
accuracy ±12 ft
Picture #530

Libby, Montana 10/12/07
RI/FS OU3

1615 RLW/PNB to MS-36. PNB sets up sheeting and 3x3' sample area
1620 PNB samples MS-36
Index ID# **P1-00375**

GPS Coordinates
X coord 0618104
y coord 5366123
elevation 1201
accuracy ±10ft
Picture # 530

Libby, Montana 10/12/07
RI/FS OU3

1630 RLW/PNB arrive at MS-37
PNB sets up plastic sheeting and 3x3' sample area
1640 PNB samples MS-37
Index ID# **P1-00376**

GPS Coordinates
X Coord 0618346
y coord 5366192
elevation 1197m
accuracy ±12ft
Picture # 529

Libby, Montana 10/12/07
RI/FS OU3

1650 RLW / PNB arrive at MS-38
PNB sets up sheeting - 3x3' area
1655 PNB Samples MS-38
Idex ID# P1-00377

GPS coordinates
X coord 0618114
Y coord 5365926
elevation 1223
accuracy ±9ft
RLW ~~Pictu~~ Picture# 528
1730 Enter site decon
1800 Enter off-site decon
1830 Back to office to prepare for tomorrow
2000 OFFSITE

Libby, Montana 10/13/07
RI/FS OU3

0920 RLW/PNB arrive at MS-21
CDM has stake mislabeled at MS-33. Sample is labeled as MS-21 per GPS. PNB sets up sample 3x3' area and plastic sheeting.
0930 PNB collects MS-21
RLW ~~Idex~~ Index ID# P1-00378

GPS Coordinates
X coord. 0618452
Y coord. 5365462
elevation 1247m
accuracy ±9ft.
Picture # 525

Libby, Montana 10/13/07
RI/FS OU3

0945 RLW/PNB arrive at MS-22. Point on GPS appears to be incorrect, but stake positively confirms location with map. PNB sets up 3x3' sample area & plastic sheeting

0950 PNB samples MS-22

Idex ID# **P1-00379**

GPS coordinates
x coord 0618297
y coord 5365935 RLW
elevation 1253m
accuracy ±9ft
Picture# ~~523~~ 524

Libby, Montana 10/13/07
RI/FS OU3

1020 RLW/PNB arrive at MS-31
PNB sets up plastic sheeting & 3x3' sample area

1030 PNB samples MS-31

Index ID# **P1-00389**

GPS Coordinates
x coord. 0618317
y coord. 5365912
elevation 1252m
accuracy ±10ft.
Picture# 523

Libby, Montana 10/13/07
RI/FS OU3

1040 RLW/PNB arrive at MS-23. PNB sets up 3x3' sample area + plastic sheeting

1045 PNB samples MS-23

~~Idex~~ RLW Index ID# **P1-00340**

GPS coordinates
x coord 0617891
y coord 5365806
elevation 1209m
accuracy ±9ft

Picture# 521

Libby, Montana 10/13/07
RI/FS OU3

1110 RLW/PNB arrive at MS-19. Point appears to be incorrect in GPS but stake positively identifies point per map. PNB sets up 3x3' sampling area + plastic sheeting

1115 PNB samples MS-19

Index ID# **P1-00341**

GPS coordinates
x coord 0618178
y coord 5364915
elevation 1199m
accuracy ±10ft

Picture#: 520

Libby, Montana 10/13/07
RI/FS OU3

1130 RLW/PNB arrive at MS-30
PNB sets up plastic sheeting + 3x3'
1140 PNB samples MS-30
Index ID# **P1-00342**

GPS coordinates
X coord 0618311
Y coord 5364856
elevation 1204m
accuracy ±9ft
Picture# 11

Libby, Montana 10/13/07
RI/FS OU3

1205 RLW/PNB arrive at MS-17.
PNB sets up 3x3' sampling area + plastic sheet
1210 PNB samples ~~MS-17~~ RLW MS-17
Index ID# **P1-00343**

GPS Coordinates
X coord.
Y coord.
elevation
accuracy
Picture # 520

Libby, Montana 10/13/07
RI/FS OU3

1230 RLW/PNB arrive at MS-34. PNB sets up sample area and plastic sheeting (3x3' area)
1235 PNB samples MS-34
Index # P1-00344

GPS Coordinates
X coord 0617770
y coord 5365512
elevation 1126 m
accuracy ±19ft
~~Picture #~~ RLW ~~Picture~~ # 518

Libby, Montana 10/13/07
RI/FS OU3

1250 RLW / PNB arrive at MS-14. Point is moved 7 ft NW of Original designation due to steep incline. PNB sets up 3x3' sample area and plastic sheeting.
1300 PNB samples MS-14
Index ID # P1-00345

GPS coordinates
x coord 0617821
y coord 5365171
elevation 1121m
accuracy ±9ft
Picture # 517
Trip Blank Index ID # P1-00346
collected at 1500

1345 Enter site decon
1415 Enter off-site decon

Libby, Montana 10/14/07
RI/FS OU3

0915 RLW/PNB arrive at MS-20.
stake has been knocked down
but GPS & map positively confirm
location. PNB sets up plastic
sheeting + 3x3' sample area
0920 PNB samples MS-20
GPS Coordinates
x coord. 0618617
y coord. 5365127
elevation 1266m
accuracy ± 9ft
Picture # 10
Index ID# P1-00350

Libby, Montana
RI/FS OU3

0940 RLW/PNB arrive at MS-30
Point is moved 5ft SE
due to steep terrain.
PNB sets up plastic sheeting
and 3x3' sample area
0945 PNB samples MS-30
Index ID# P1-00351
GPS Coordinates
x coord 0618565
y coord 5365012
elevation 1266m
accuracy ±9ft
Picture # 9

Libby, Montana 10/14/07
RI/FS OU3

1015 RLW/PNB arrive at MS-18.
PNB sets up plastic sheeting and
3x3' sample area
1020 PNB samples MS-18
Index ID# **P1-00352**

GPS Coordinates
x coord ~~0617~~ RLW 0617637
y coord 5365657
elevation 1172m
accuracy ~~RLW~~ ±9ft

Picture # 7

Libby, Montana 10/14/07
RI/FS OU3

1045 RLW/PNB arrive at MS-24
PNB prepares plastic sheeting
and 3x3' sample area.
1050 PNB samples MS-24
Index ID# **P1-00353**

GPS Coordinates
x coord 0617090
y coord 5365583
elevation 1198m
accuracy ±9ft.

Picture # 6

Index ID# for Trip Blk. **P1-00354**

Trip Blank time 14:00 on 10/14/07
Station ID: 141007RW01

Libby, Montana 10/14/07
RI/FS OU3

1200 RW/PNB mob to decon
1330 OFFsite OU3 to decon trailer for decon
1430 Offsite to field office.
END OF DAY

Libby, Montana 10/14/07
RI/FS OU3

1400: ~~Collect~~ PE sample for Solid Organic PEM (PCB) *AS1069*
INDEX ID: **P1-00295**
Station ID: DC-1

1455: PE Sample for Soil Metals PES (TAL Metals) *SM00025*
INDEX ID: **P1-00296**
Station ID: DC-1

1500: PE Sample for Soil SVOCs *SS0796*
INDEX ID: **P1-00297**
STATION ID: DC-1

— END OF DAY —

Libby, Montana 10/15/07
RI/FS OU3

1110 RLW/PNB & Connor O'Loughlin (CHO)
arrive at MS-29. PNB sets
up plastic sheeting and 3x3'
sample area
1115 PNB samples MS-29
Index ID# **P1-00298**

GPS Coordinates
x coord 0617332
y Coord 5365380
elevation 1139m
accuracy ±9ft
picture # ~~6~~ RLW 5

Libby, Montana 10/15/07
RI/FS OU3

1140 RLW/PNB/CHO arrive at MS-28
Point is not GPSed but stake
and map positively identify.
1145 PNB samples MS-28 and
duplicate is collected
Index ID - Parent sample
P1-00290

Duplicate Index ID **P1-00291**

GPS Coordinates
x coord 0617206
y coord 5365343
elevation 1129m
accuracy ±9ft
Picture # 4

Libby, Montana 10/15/07
RI/FS OU3

1225 ~~arrive~~ RW RW/ PNB/ CHO arrive at MS-27. PNB sets up 3x3' sample area.

1230 PNB set RW samples MS-27

Index ID# P1-00299

GPS coordinates
X coord 0617078
y coord 5365359
elevation 1127m
accuracy ± 9ft

Picture# 3

Libby, Montana 10/15/07
RI/FS OU3

1245 RW/PNB/CHO arrive at MS-26. PNB sets up 3x3' sample area.

1250 PNB samples MS-26

Index ID# P1-00292

GPS coordinates
X coord 0616938
y coord 5365397
elevation 1120m
accuracy ± 12ft

Picture#: 2

1630 PNB prepares VOC/HCl for trip blank, as there are no more MeOH VOAs for VPH coolers

Trip Blank sample ID: ~~1~~15 1007RW01

Index ID: P1-00293

END OF DAY

Libby, Montana 10/16/07
RI/FS OU3

0800 PNB will be wearing an excursion
and full day personal air monitoring
pump.
Excursion-02E Serial # 108495
Full Day-02P Serial # 101689
0935 All day shift personal air monitor
for PNB started.
1035 Excursion air monitor turned
on, begin composite sampling
at MS-6e
VOC grab sample collected here.
GPS coordinates
x coord 0617206
y coord 5366773
elevation 1017m
accuracy ±11ft.
Index ID# P1-00355

Picture # 2
1105 Excursion air sample monitor turned off
1115 Transect location MS-06h GPS:
x coord 0616926
y coord 5366615 accuracy ± 12ft.
elevation 1002 m

Libby, Montana 10/16/07
RI/FS OU3

1140 End of coarse tailings pile found.
Field determination made to
relocate MS-06a to this location
MS-6b, MS-6c, & MS-6d will
spaced out accordingly
Start Transect GPS coordinates
x coord 0617526
y coord 5366882
elevation 1000m
accuracy ±10ft.
1250 ~~AHW~~ RLW/PNB/CHO arrive at
MS-7a. Point is shifted
east in a field determination
to collect a sample closer
1255 MS-7A is collected. VPH is
grab sampled at this location.
Index ID: **P1-00294**

composite sample is collected at
this location.
GPS coordinates
X coord 0617528 accuracy ±9ft
y coord 5367056
elevation 950m Picture# 5,6

Libby, Montana 10/16/07
RI/FS OU3

1300 PNB/RW/ CHO arrive at MS-9a.
1305 PNB collects grab VPH sample and composite sample
Index ID# P1-00356

GPS coordinates
X coord. 0617260
y coord 5367199
elevation 920m
accuracy ±9ft
Picture# 514

Libby, Montana 10/16/07
RI/FS OU3

1415 RW/PNB/CHO arrive at MS-08a
1420 PNB samples a composite and grab samble for VPH.
Index ID# P1-00330

GPS coordinates - beginning of transect
x coord 0617385
y coord 5367113
elevation 926m
accuracy ±9ft
Picture # 516
1610 PNB personal air monitoring pump shut off
1700 VOC trip blank prepared for Mine Waste Sediment sampling
Index ID# P1-00331

Sample ID: 161007RW01
1700 All day air sample monitor reling. to Jack Storace, 30 min excursion pump left on mine, will be brought down tomorrow
END OF DAY

Libby, Montana 10/17/07
RI/FS OU3

0850 RLW/PNB arrive at MS-09e
PNB collects composite. RLW
mark point w/stake
0901 RLW/PNB arrive at M-08e.
PNB collects composite, RLW
marks point w/stake
0915 RLW/PNB arrive at MS-09f.
PNB collects composite, RLW
stakes/marks points in GPS
0925 RLW/PNB arrive at MS-08f. PNB
composite samples and RLW stakes/
marks with GPS.
0940 CHO from COM joins RLW/PNB for
composite sampling at MS-07f.
PNB collects composite sample, RLW
stakes/marks point on GPS
1010 RLW/PNB/CHO arrive at transect
MS-05. ~~VOC~~ VOCs + VPH will
be collected MS-05c
1030 RLW/PNB/CHO arrive at MS-05c
VOCs/VPH grab sample collected.
Composite sample collected also

Index ID # P1-00357

Libby, Montana 10/17/07
RI/FS OU3

GPS Coordinates - VOC/VPH grab location
x coord 0616779
y coord 5367015
elevation 877m
accuracy ±9ft.
Picture #
MS-05A Transect start GPS coords
x coord 0616935
y coord 5367100
elevation 875m
accuracy ±11ft
1145 RLW/CHO/PNB arrive at MS-9H
~~9~~ RLW MS-9H end transect GPS coord.
x coord 0616754
y coord 5366779
elevation 899m
accuracy ±10ft
1220 RLW/CHO/PNB arrive at MS-8H
MS-8H end transect GPS coordinates
x coord 0616823
y coord 5366736
elevation 926m
accuracy ±10ft

Libby Montana 10/17/07 ~~10/18/07~~ RW
RI/FS OU3

1245 RW/CHO/PNB arrive at MS-7H
MS-7H end transect GPS coordinates
x coord 0616855
y coord 5366688
elevation 950m
accuracy ±9ft
1408 RW/CHO/PNB arrive at MS-05H.
MS-05 End transect GPS location
x coord 0616594
y coord 5366800
elevation 867m
accuracy ±15ft
1500 at OU3 decon
1530 at offsite decon
1600 Trip Blank ID: 171007RW01
Index ID: **P1-00358**

Libby, Montana 10/18/07
RI/FS OU3

0840 RW/PNB arrive at MS-4g.
Begin setup for parent and dup sampling
0900 VOCs/VPH grab samples collected at MS-04g
GPS coordinates for VOC/VPH
x coord 0616405
y coord 5366737
elevation 867m
accuracy ±10ft
Index ID Parent sample
P1-00332
Index ID Duplicate sample
P1-00333
Picture # 518
MS-04 Beginning transect GPS location
x coord 0616591
y coord 5366588
elevation 884m
accuracy ±15ft

Libby Montana 10/18/07
RI/FS 043

MS-04 end transect GPS location
x coord 0616369
y coord 5366766
elevation 884m
accuracy ±15ft
12:00 Trip blank for MeOH preserved
VOCs/VPH ~~pe~~ Raw prepared
Index ID:
P1-00359

Back at Decon Trailer
OFFSITE, END OF DAY

Sheet No.: MS1- 5

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 3

Location ID: MS- 01 Sampling Date: 10/11/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: ~~DWR~~ PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	**P1-00370**		
Matrix (circle one):	Surface Soil Tailings Waste Rock (Roadway) Other _____	Surface Soil Tailings Waste Rock Roadway Other _____	Surface Soil Tailings Waste Rock Roadway Other _____
Sample Time (hh:mm)	1115		
Sample Type (circle one):	(Grab) Composite # of Comp: ____	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): _____ End Depth (in): _____	Start Depth (in): _____ End Depth (in): _____
Field QC Type (circle one):	(FS) (field sample) FD (field duplicate) For FD, Parent ID: _____ PE (perf. eval.) ID: _____	FS (field sample) FD (field duplicate) For FD, Parent ID: _____ PE (perf. eval.) ID: _____	FS (field sample) FD (field duplicate) For FD, Parent ID: _____ PE (perf. eval.) ID: _____
Transect Start Location or Grab Sample Location	X coord: 1140615958 m Y coord: 5365985 m Elevation: 839 m	X coord: _____ m Y coord: _____ m Elevation: _____ m	X coord: _____ m Y coord: _____ m Elevation: _____ m
Transect End Location	X coord: _____ m Y coord: _____ m Elevation: _____ m	X coord: _____ m Y coord: _____ m Elevation: _____ m	X coord: _____ m Y coord: _____ m Elevation: _____ m
Field Comments:	accuracy ±10ft TB P1-00374 111007RW01 1600		
Entered by (Provide initials): RLW		**Validated by (Provide initials):** SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 4

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 4

☐ Check box if GPS information has been recorded previously

Location ID: MS- 08 Sampling Date: 10/11/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00371		
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	11:45		
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 11U 0616110 m Y coord: 5366338 m Elevation: RLW ~~865f~~ 865 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accurracy ±14 ft. TB P1-00374 111007RW01 1600		

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 6

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 5 ☐ Check box if GPS information has been recorded previously

Location ID: MS- 3 Sampling Date: 10/11/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments: Station marked with stake

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00372	P1-00373	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other ____	Surface Soil Tailings Waste Rock Roadway Other ____	Surface Soil Tailings Waste Rock Roadway Other ____
Sample Time (hh:mm)	12:15	12:15	
Sample Type (circle one):	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): ____ End Depth (in): ____
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____	FS (field sample) FD (field duplicate) For FD, Parent ID: P1-00372 PE (perf. eval.) ID: ____	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____
Transect Start Location or Grab Sample Location	X coord: 1111 0616300 m Y coord: 5366712 m Elevation: 899 m	X coord: 1111 0616300 m Y coord: 5366712 m Elevation: 899 m	X coord: ____ m Y coord: ____ m Elevation: ____ m
Transect End Location	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m
Field Comments:	accuracy ± 9ft TB - P1-00374 111007RW01 1600		
Entered by (Provide initials): RW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 7

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 6

☐ Check box if GPS information has been recorded previously

Station ID: MS- NA Sampling Date: 10/11/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	RLW ~~PI-00073~~ PI-00374		
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway (Other) TRIP BLANK	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1600		
Sample Type (circle one):	(Grab) Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: TRIP BLANK PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	Sample ID 111007RW01 1600 Cooler ID 111007RW01		
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 93

Station ID: MS- 4 Sampling Date: 10/18/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00332	P1-00333	P1-00359
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other Trip Blank
Sample Time (hh:mm)	09:00	09:00	12:00
Sample Type (circle one):	Grab Composite # of Comp: 8	Grab Composite # of Comp: 8	Grab Composite ~~NA~~ SFB 11/19/07 # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 12"	Start Depth (in): 0" End Depth (in): 12"	Start Depth (in): NA End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: P1-00332 PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0616591 m Y coord: 5366588 m Elevation: 884 m	X coord: 0616591 m Y coord: 5366588 m Elevation: 884 m	X coord: m Y coord: m Elevation: m
accuracy ±15ft			
Transect End Location	X coord: 0616369 m Y coord: 5366766 m Elevation: 884 m	X coord: 0616369 m Y coord: 5366766 m Elevation: 884 m	X coord: m Y coord: m Elevation: m
accuracy ±15ft			
Field Comments:	VOC/RPH collected at 49 GPS coords: x coord 0616405 y coord 5366737 elevation 867m		Sample ID: 181007RW01 Cooler ID
Entered by (Provide initials): PNW		Validated by (Provide initials): SFB	

accuracy ±10ft

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Wast Page No: 40

Station ID: MS- 5 Sampling Date: 10/17/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00357	P1-00358 Cooler ID 17/007 RWD1	
Matrix (circle one):	Surface Soil (Tailings) Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway (Other) Trip Blank	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	10:30	16:00	
Sample Type (circle one):	Grab (Composite) # of Comp: 8	(Grab) Composite SFB 11/19/07 # of Comp: NA	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 12"	Start Depth (in): NA End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	(FS) (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: TRIP BLANK PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location accuracy ±11ft	X coord: 0616835 m Y coord: 5367108 m Elevation: 875 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location accuracy ±10ft	X coord: ~~0616855~~ RW m Y coord: ~~5366800~~ RW m Elevation: ~~850m~~ RW m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	VOCs / VPH collected at MS-05c X coord 0616779 y coord 5367015 elevation 877m accuracy ±9ft	X coord 0616594 y coord 5366800 elevation 867m accuracy ±15ft	TB = P1-00358

Entered by (Provide initials): RW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 36

Station ID: MS- 06 Sampling Date: 10/16/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00355	P1-00331	
Matrix (circle one):	Surface Soil (Tailings) Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway (Other) Trip Blank	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	10:35	17:00	
Sample Type (circle one):	Grab (Composite) # of Comp: 8	(Grab) NA SFB 11/9/07 Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): ~~6~~ RW 12"	Start Depth (in): NA End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	(FS) (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: TRIP BLANK PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617526 m Y coord: 5366882 m accuracy ± 10ft Elevation: 1000m m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: ~~0611169~~ RW 0616926 m Y coord: 5366615 m accuracy ± 12ft Elevation: 1002 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	Grab sample for VOC collected at MS-06e GPS coords X coord 0617206 y coord 5366773 elevation 1017m accuracy ±11ft	Sample ID: 161007RW01 Cooler ID	

Entered by (Provide initials): RW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

11/19/07 SFB

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 37

Station ID: MS- 7 Sampling Date: 10/16/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00294	P1-00331	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	17:55	1700	
Sample Type (circle one):	Grab Composite # of Comp: 8	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 12"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BO PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location accuracy ± 9ft	X coord: 0617527 m Y coord: 5367056 m Elevation: 950m m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: 0616855 m Y coord: 5366608 m Elevation: 950m m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	~~TB=P1-00358~~ SFB	TB = P1-00331 161007 RW01 Cooler ID	

Entered by (Provide initials): RW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

SFB 11/19/07 80

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0 SFB
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: MineWaste Page No: 39

Station ID: MS- 08 Sampling Date: 10/16/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00330	TB P1-00331	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	14:20	1700	
Sample Type (circle one):	Grab Composite # of Comp: 8	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 12"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location accuracy ±9ft	X coord: 0617385 m Y coord: 5367113 m Elevation: 926 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location accuracy ±10ft	X coord: 0616823 m Y coord: 5366736 m Elevation: ±10ft m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	Grab sample for VPH collected at MS-08a center	TB = P1-00331 SFB 11/19/07 ~~TB = P1-00358~~ Cooler ID 161007RW01	

Entered by (Provide initials): RW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

11/19/07 SFB

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 38

Station ID: MS- 9 Sampling Date: 10/16/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00356	TB P1-00331 SFB 11/19/07	
Matrix (circle one):	Surface Soil (Tailings) Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway (Other) TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	13:05	1700	
Sample Type (circle one):	Grab (Composite) # of Comp: 8	(Grab) Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 12"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	(FS) (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip Bl PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617260 m Y coord: 5367199 m accuracy 198 ±9 ~~920~~ 903 Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location accuracy ±10ft ~~accuracy~~	X coord: 0616754 m Y coord: 5366779 m Elevation: 899m m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	VPH sample (grab sample) collected at MS-09A - beginning of transect.	161007RW01 Cooler ID ~~TB= P1-00358~~ SFB	

Entered by (Provide initials): RW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 8

☐ Check box if GPS information has been recorded previously

Location ID: MS- ~~040~~ 10 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00366	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	10:35	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617189 m Y coord: 5366405 m Elevation: 1115 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9ft. TB = P1-00387	121007RW01 Cooler ID	

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 9

☐ Check box if GPS information has been recorded previously

Location ID: MS- 11 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00367	P1-00368	P1-00387
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB
Sample Time (hh:mm)	11:00	11:00	1845
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: P1-00367 PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip Bl PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617086 m Y coord: 5366325 m Elevation: 1114 m	X coord: 0617086 m Y coord: 5366325 m Elevation: 1114 m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±9ft RLW TB = P1-00387		Coolers ID 121007 RW01

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine waste Page No: 10

☐ Check box if GPS information has been recorded previously

Station ID: MS- 19 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	**P1-00369**	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	11:45	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617047 m Y coord: 5366217 m Elevation: 1105 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±9ft. TB = P1-00387	Cooler ID 121007RW01	
Entered by (Provide initials): RLW		**Validated by (Provide initials):** SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 14

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 7

☐ Check box if GPS information has been recorded previously

Location ID: MS- 13 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: AN B

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00365	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	10:15	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BL PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617120 m Y coord: 5366122 m Elevation: 1143 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±9ft. P1-00387 TB = ~~P1-00365~~ SFB	Cooler ID 12,007RW01	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 25

Station ID: MS- 14 Sampling Date: 10/13/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	PI-00345	PI-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1300	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip Bl PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617821 m Y coord: 5365171 m Elevation: 1121 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9 ft TB= PI-00346	Cooler ID 13/007RW01	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Sediment Page No: 28

Station ID: MS- 15 Sampling Date: 10-17-07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: DA / IA

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00206	P1-00339 TRIP BLANK	
Matrix (circle one):	(Surface Soil) Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway (Other) Trip BLANK	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1140	0830	
Sample Type (circle one):	(Grab) Composite # of Comp:	(Grab) Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 2"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type SFB (circle one):	(FS) (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) Trip BLANK For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or (Grab Sample Location)	X coord: 0616888 m Y coord: 5365249 m Elevation: 1046 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	Sampled Right @ STAKE	Cooler ID 171007DA01	

Entered by (Provide initials): DA

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Sediment Page No: 27

Station ID: MS- 16 Sampling Date: 10-17-07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: DM / JH

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00205	P1-00339 Trip Blank	
Matrix (circle one):	(Surface Soil) Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway (Other) TRIP BLANK	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1055	0830	
Sample Type (circle one):	(Grab) Composite # of Comp:	(Grab) Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 26" SFB	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	(FS) (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) Trip BLANK For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or (Grab Sample Location)	X coord: 0617203 m Y coord: 5365214 m Elevation: 1071 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:		Cooler ID 171007DA01	
Entered by (Provide initials):	DM	Validated by (Provide initials):	SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: MineWaste Page No: 23

Location ID: MS- 17 Sampling Date: 10/13/01

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00343	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	12:10	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617649 m Y coord: 5365092 m Elevation: 1121 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9ft TB= P1-00346	Cooler ID 13/007RW01	

Entered by (Provide initials): RW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 50

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 28

Station ID: MS- 18 Sampling Date: 10/14/01

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00352	P1-00354	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	10:20	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617637 m Y coord: 5365657 m Elevation: 1172 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy: ± 9 ft SFB ~~TB = P1-0035~~ TB = P1-00354	Cooler ID = 141007RW01	

Entered by (Provide initials): AWN **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 24

Location ID: MS- 19 Sampling Date: 10/13/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00341	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1115	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618170 m Y coord: 5364915 m Elevation: 1199 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±10ft TB = P1-00346	Cooler ID 131007RW01	

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 26

Station ID: MS- 20 Sampling Date: 10/14/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00350	P1-00354	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	09:20	1400	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618617 m Y coord: 5365127 m Elevation: 1266 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	~~TB = P1-00354~~ SFB accuracy: ±9ft. TB 141007RW01 TB = P1-00354	Cooler ID 141007RW01	
Entered by (Provide initials): RW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 37

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 17

Location ID: MS- 21 Sampling Date: 10/13/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00378	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	09:30	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip B PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618452 m Y coord: 5365496 m Elevation: 1247 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±9ft TB = P1-00346	Cooler ID 13,007RW01	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 18

Location ID: MS- 22 Sampling Date: 10/13/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00379	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	09:50	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BO PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618297 m Y coord: 5365935 m Elevation: 1253 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9 ft. TB = P1-00346	Cooler ID 131007RW01	

Entered by (Provide initials): MW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 20

☐ Check box if GPS information has been recorded previously

Location ID: MS- 23 Sampling Date: 10/13/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: DNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00340	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1045	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617891 m Y coord: 5365806 m Elevation: 1209m m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9ft TB = P1-00346	Cooler ID 13/007RW01	

Entered by (Provide initials): RWN **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 29

Station ID: MS- 24 Sampling Date: 10/14/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00353	P1-00354	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	10:50	1400	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip Bl PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617090 m Y coord: 5365583 m Elevation: 1198 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy: ±9ft TB = P1-00354	Cooler ID 141007 RW01	
Entered by (Provide initials): RW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 20

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 11 ☐ Check box if GPS information has been recorded previously

Location ID: MS- 25 Sampling Date: 10/12/07 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00362	P1- 00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	12:10	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: TripB PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617469 m Y coord: 5365929 m Elevation: 1171 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	±10 ft accuracy P1-~~00362~~ 00387 SFB	Cooler ID= 121007RW01	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 35

Station ID: MS- 26 Sampling Date: 10/15/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00292	P1-00293	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	12:50	1630	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: RLW 0616938 m Y coord: 5365397 m Elevation: 1126 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±12 ft TB = P1-00293	Cooler ID 151007RW01	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 34

Station ID: MS- 27 Sampling Date: 10/15/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00299	P1-00293	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other ____	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other ____
Sample Time (hh:mm)	12:30	16:30	
Sample Type (circle one):	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): ____ End Depth (in): ____	Start Depth (in): ____ End Depth (in): ____
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____
Transect Start Location or Grab Sample Location	X coord: 0617078 m Y coord: 5365359 m Elevation: 1127 m	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m
Transect End Location	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m
Field Comments:	accuracy ±9 ft TB = P1-00293	Cooler ID 151007RW01	

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 33

Station ID: MS- 28 Sampling Date: 10/15/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00290	P1-00291	P1-00293
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB
Sample Time (hh:mm)	11:45	11:45	16:30
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: P1-00290 PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617206 m Y coord: 5365343 m Elevation: 1129 m	X coord: 0617206 m Y coord: 5365343 m Elevation: 1129 m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±9ft TB = P1-00293	TB = P1-00293	Cooler ID 151007RW01

Entered by (Provide initials): RLW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: MineWaste Page No: 32

Station ID: MS- 29 Sampling Date: ~~10/15~~ RW 10/15/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00298	P1-00293	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	11:15	16:30	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): NA End Depth (in): NA	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: TRIP BLANK PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617332 m Y coord: 5365380 m Elevation: 1139 m	X coord: m Y coord: NA m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy: ± 9ft. TB = P1-00293	Hce / VOC VOA used because no MeOH VOAs are available	

Entered by (Provide initials): RW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 28

Location ID: MS- 30 Sampling Date: 10/13/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00342	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	11:40	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618311 m Y coord: 5364685 m Elevation: 1204 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9ft TB = ~~P1-00364~~ P1-00346	SFB 10/30/07 Cooler ID 131007RW01	
Entered by (Provide initials): PNW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 39

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 19

Location ID: MS- 31 Sampling Date: 10/13/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	**P1-00389**	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1030	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618317 m Y coord: 5365912 m Elevation: 1258 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 10ft TB = P1-00346	Cooler ID 131007RW01	

Entered by (Provide initials): RJW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 27

☐ Check box if GPS information has been recorded previously

Station ID: MS- 32 Sampling Date: 10/14/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00351	P1-00354	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other Trip Blank	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	09:45	14:00	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: TRIP BLANK PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618565 m Y coord: 5365012 m Elevation: 1266 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy: 1 9ft TB = P1-00354	Station ID: 141007RW01 Cooler ID	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

SFB

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 13

☐ Check box if GPS information has been recorded previously

Location ID: MS- 33 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00364	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	15:40	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip B PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618453 m Y coord: 5365486 m Elevation: 1243 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ±12 ft. TB = P1-00387	Cooler ID 12/007 RW01	

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 24

☐ Check box if GPS information has been recorded previously

Location ID: MS- 34 Sampling Date: 10/13/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00344	P1-00346	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1235	1500	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BL PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617710 m Y coord: 5365518 m Elevation: 1126 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy: ± 19ft TB = P1-00346	Cooler ID 131007RW01	

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 12

☐ Check box if GPS information has been recorded previously

Location ID: MS- 35 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00363	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	RLW ~~12:10~~ 12:20	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0617795 m Y coord: 5366104 m Elevation: 1190 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	Murray Hill ft. TB = P1-00387	Cooler ID 121007RW01	

Entered by (Provide initials): RLW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 14 ☐ Check box if GPS information has been recorded previously

Location ID: MS- 36 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00375	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1600	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618104 m Y coord: 5366123 m Elevation: 1201 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 10ft. TB = P1-00387	Cooler ID 121007RW01	

Entered by (Provide initials): LWN **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 15 ☐ Check box if GPS information has been recorded previously

Location ID: MS- 37 Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00376	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other ____	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other ____
Sample Time (hh:mm)	16:40	1845	
Sample Type (circle one):	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____	Grab Composite # of Comp: ____
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): ____ End Depth (in): ____	Start Depth (in): ____ End Depth (in): ____
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip BD PE (perf. eval.) ID: ____	FS (field sample) FD (field duplicate) For FD, Parent ID: ____ PE (perf. eval.) ID: ____
Transect Start Location or Grab Sample Location	X coord: 0618346 m Y coord: 5366198 m Elevation: 1197 m	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m
Transect End Location	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m	X coord: ____ m Y coord: ____ m Elevation: ____ m
Field Comments:	Accuracy ±10 ft. TB = P1-00387	Cooler ID 121007RW01	
Entered by (Provide initials): RLW		Validated by (Provide initials): SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 26

☐ Check box if GPS information has been recorded previously

Station ID: MS- NA Sampling Date: 10/12/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: RLW

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	RLW PI-00387 PI-3		
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other TRIP BLANK	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1845		
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite SFB 11/15/07 # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) TRIP BLANK For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	Sample ID 121007RW01 Cooler ID		
Entered by (Provide initials): RLW		**Validated by (Provide initials):** SFB	

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 25

☐ Check box if GPS information has been recorded previously

Station ID: MS- NA Sampling Date: 10/13/07

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	PI-00346		
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other Trip Blank	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	15:00		
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip Blank PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	TRIP BLANK Sample ID / Cooler ID 131007RW01		

Entered by (Provide initials): RW **Validated by (Provide initials):** SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

Sheet No.: MS1- 25

LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 16

Location ID: MS- 38 Sampling Date: 10/12/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: PNB

Station Comments:

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00377	P1-00387	
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other	Surface Soil Tailings Waste Rock Roadway Other TB	Surface Soil Tailings Waste Rock Roadway Other
Sample Time (hh:mm)	1655	1845	
Sample Type (circle one):	Grab Composite # of Comp:	Grab Composite # of Comp:	Grab Composite # of Comp:
Sample Depth	Start Depth (in): 0" End Depth (in): 6"	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: Trip Bl PE (perf. eval.) ID:	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID:
Transect Start Location or Grab Sample Location	X coord: 0618114 m Y coord: 5365920 m Elevation: 1223 m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	accuracy ± 9ft TB=P100387	Cooler ID 121007RW01	

red by (Provide initials): RLW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

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LIBBY OU3 PHASE 1 FIELD SAMPLE DATA SHEET (FSDS) rev0
MINE WASTE AND SOIL-LIKE MATERIALS

Field Logbook No: Mine Waste Page No: 31

Station ID: ~~MS-~~ DC-1 Sampling Date: 10/14/07

☐ Check box if GPS information has been recorded previously

GPS Coordinate System: UTM Zone 11 North, WGS84 datum, meters Elevation Coordinate System: WGS84, meters

Sampling Team: MWH Sampler Initials: ~~AJA~~ PNB

Station Comments: SFB 11/19/07

Data Item	Sample 1	Sample 2	Sample 3
Index ID (place pre-printed label in field provided)	P1-00295	P1-00296	P1-00297
Matrix (circle one):	Surface Soil Tailings Waste Rock Roadway Other QA Material	Surface Soil Tailings Waste Rock Roadway Other QA MATERIAL	Surface Soil Tailings Waste Rock Roadway Other QA Material
Sample Time (hh:mm)	14:00	1455	1500
Sample Type (circle one):	Grab Composite NA # of Comp:	Grab Composite NA # of Comp:	Grab Composite NA # of Comp:
Sample Depth	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):	Start Depth (in): End Depth (in):
Field QC Type (circle one):	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID: AS1069	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID: SM00025	FS (field sample) FD (field duplicate) For FD, Parent ID: PE (perf. eval.) ID: SS0796
Transect Start Location or Grab Sample Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Transect End Location	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m	X coord: m Y coord: m Elevation: m
Field Comments:	PE SAMPLE	PE sample	PE Sample
	PESAMPLE TB=P1-00354 1400 Cooler ID 141007RW01		

Entered by (Provide initials): RLW

Validated by (Provide initials): SFB

For Data Entry Completion (Provide Initials)	Completed by SFB	QC by

LIBBY OU
Loc ID MS-01
DATE 10/11/07
TIME 1115
MINE WASTE
10.11.2007 11:22

LIBBY OU-3
Loc ID MS-2
DATE 10/11/07
TIME 11:45
MINE WASTE
10.11.2007 11:49

LIBBY OU-3
LOC ID
MS-3
(DUPLICATE)
DATE
10/11/07
TIME
12:15
MINE WASTE
10.11.2007 12:32

MS-4G
LIBBY OU-3
Loc ID
MS-4
(DUPLICATE)
DATE
10/18/07
TIME
09:00
10.18.2007 09:10

LIBBY OU-3
Loc ID
MS-07
DATE
10/16/07
TIME
12:55
MINE WASTE
10.16.2007 14:00

LIBBY OU-3
Loc ID
MS-08
DATE
10/16/07
TIME
14:20
MINE WASTE
10.16.2007 14:17

LIBBY OU-3
MS-09
Loc ID
10/16/07
DATE
13:05
TIME
MINE WASTE
10.16.2007 14:51

LIBBY OU-3
Loc ID MS-10
DATE 10/12/07
TIME 10:35
MINE WASTE
10.12.2007 10:38

LIBBY OU-3
Loc ID
MS-11
(DUPLICATE)
DATE
10/12/07
TIME
1100
MINE WASTE
10.12.2007 11:10

LIBBY OU-3
Loc ID MS-12
DATE 10/12/07
TIME 11:45
MINE WASTE
10.12.2007 11:45

LIBBY OU-3
LOC ID
MS-13
DATE
10/12/07
TIME
10:15
MINE WASTE
10.12.2007 10:06

LIBBY OU-3
LOC ID
MS-14
DATE
10/13/07
TIME
1300
MINE WASTE
10.13.2007 13:01

LIBBY OU-3
SL MS-15
DATE 10-17-07
TIME 1140
SEDIMENT
10.17.2007 11:43

LIBBY OU-3
SL MS-16
DATE 10-17-07
TIME 1055
SEDIMENT
MW-16
10.17.2007 11:02

LIBBY OU-3
Loc ID MS-17
DATE 10/13/07
TIME 12:10
MINE WASTE
10.13.2007 12:18

MW-19
LIBBY OU-3
Loc ID MS-19
DATE 10/13/07
TIME 11:15
MINE WASTE
10:13:2007 11:26

MW-33
LIBBY OU-3
Loc ID MS-21
DATE 10/13/07
TIME 09:30
MINE WASTE
10.13.2007 09:30

LOC ID
MS-22
DATE
10/13/07
TIME
09:50
MINE WASTE
10.13.2007 10:05

LIBBY OU-3
LOC ID MS-23
DATE 10/13/07
TIME 10:45
MINE WASTE
10.13.2007 10:54

MW-43
LIBBY OU-3
Loc ID
MS-25
DATE
10/12/07
IME
12:10
10.12.2007 12:06

MW-31
LIBBY OU-3
Loc ID
MS-31
DATE
10/13/07
TIME
1030
10.13.2007 10:25

LIBBY OU-3
Loc ID MS-33
DATE 10/12/07
TIME 15:40
MINE WASTE
10.12.2007 15:38

LIBBY OU-3
LOC ID
MS-34
DATE
10/13/07
TIME
12:35
MINE WASTE
10.13.2007 12:37

35
LIBBY OU-3
Loc ID MS-35
DATE 10/12/07
TIME 12:10
10.12.2007 12:23

MW-3
LIBBY OU-3
Loc ID
MS-36
DATE
10/12/07
TIME
16:20
MINE WASTE
10.12.2007 16:21

LIBBY OU
Loc ID
MW-37
DATE
10/12/07
TIME
16:40
MINE WAS
MW-37
10.12.2007 16:37

MW-30
Sample ID
MS-38
Date 10/12/07
Time 16:55
10.12.2007 16:55