Uploaded to the VFC Website

February 2014

This Document has been provided to you courtesy of Veterans-For-Change!

Feel free to pass to any veteran who might be able to use this information!

For thousands more files like this and hundreds of links to useful information, and hundreds of "Frequently Asked Questions, please go to:

Veterans-For-Change

Veterans-For-Change is a A 501(c)(3) Non-Profit Organizaton
Tax ID #27-3820181
CA Incorporation ID #3340400
CA Dept. of Charities ID #: CT-0190794

If Veterans don't help Veterans, who will?

We appreciate all donations to continue to provide information and services to Veterans and their families.

https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&hosted_button_id=WGT2M5UTB9A78

Note: VFC is not liable for source information in this document, it is merely provided as a courtesy to our members & subscribers.

PAGE 1 OF 1

LOG OF BORING AREA 41 B-060

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/3/03 15:30
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/3/03 21:05
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push / COORDINATES
SAMPLING METHOD: Geoprobe Sampler / SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■ / CASING MATERIAL / DIAMETER	SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl): WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE	

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0			0.7 / 80	CC060SS01		SS	0	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~5% gravel, ~55% fine to coarse sand, ~40% fines, moist; dense; fill soil.	0	NO WELL INSTALLED
			1.1									
1			0.7 / 80			SS	1	CL		LEAN CLAY with Sand (CL): red (2.5YR 4/6), ~20% fine to medium sand, ~80% fines, moist; stiff; fill soil.	1	
				CC060BS01				ML		SILT (ML): brownish yellow (10YR 6/6), ~100% fines, moist; medium dense; native soil.		
2			1 / 0.7 / 90				2				2	
3			1.5 / 100				3				3	
4			0.7 / 100				4				4	
5							5			End of Borehole at 4.7 m.	5	
6							6				6	
7							7				7	
8							8				8	

BORING LOG METRIC_UNITS_CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

701

PAGE 1 OF 1

LOG OF BORING AREA 41 B-061

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI	DATE & TIME STARTED: 4/3/03 14:10	
LOCATION: Camp Carroll, Taegu, Republic of Korea		DATE & TIME FINISHED: 4/3/03 15:00	COORDINATES
LOGGED BY: [redacted] bb	REVIEWED BY	DRILLING METHOD: Direct-Push	
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp		SIZE / TYPE OF BIT	SURFACE ELEVATION / DATUM: mean sea level
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE		
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER	SCREEN Type: Material: Length: Diameter: Slot Size:	GROUNDWATER SURFACE / DATE
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	PRODUCT SURFACE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0							0	CL		SANDY LEAN CLAY (CL): red (2.5YR 4/6) 50% mottled with yellowish red (5YR 4/6), ~50% fine to coarse sand, ~50% fines, moist; medium stiff; dense; fill soil.
1			1 / 60				1	SC		CLAYEY SAND (SC): strong brown(7.5YR 4.5/6), ~60% fine to coarse sand, ~40% fines, moist; dense; becomes more friable at 1.0 meter bgs.
2			1 / 90				2			
3			3				3			
4			1	CC061BS01		SS	4			
5							5			End of Borehole at 5.0 m.
6							6			
7							7			
8							8			

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0	NO WELL INSTALLED
1	
2	
3	
4	
5	
6	
7	
8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

902

LOG OF BORING AREA 41 B-062

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/3/03 15:05
LOGGED BY: [redacted] b6	REVIEWED BY:
DATE & TIME FINISHED: 4/3/03 15:09	COORDINATES
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SURFACE ELEVATION	DATUM: mean sea level
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE
SIZE / TYPE OF BIT	
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER
SCREEN Type: Material: Length: Diameter: Slot Size:	
ELEVATION OF (msl)	WELL COVER
TOP OF WELL CASING	TOP & BOTTOM OF SCREEN
PRODUCT SURFACE	GROUNDWATER SURFACE
DATE	

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0			1 / 90	CC062SS01		SS	0	CL / SC		SANDY LEAN CLAY (CL): red (2.5YR 4/6), ~50% fine to coarse sand, ~50% fines, fill soil. CLAYEY SAND (SC): very pale brown (10YR 8/4) 50% mottled with yellowish brown (10YR 5/4), ~60% fine to coarse sand, ~40% fines, moist; dense.	0	NO WELL INSTALLED
1							1			End of Borehole at 1.0 m.	1	
2							2				2	
3							3				3	
4							4				4	
5							5				5	
6							6				6	
7							7				7	
8							8				8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

905

PAGE 1 OF 1

LOG OF BORING AREA 41 B-063

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/4/03 09:10
LOGGED BY: [redacted] bb	REVIEWED BY:
	DATE & TIME FINISHED: 4/4/03 09:20
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE:
	SIZE / TYPE OF BIT:
	COORDINATES:
	SURFACE ELEVATION: DATUM: mean sea level

WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER	SCREEN Type:	Material:	Length:	Diameter:	Slot Size:
ELEVATION OF (msl)	WELL COVER	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	PRODUCT SURFACE	GROUNDWATER SURFACE	DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
												NO WELL INSTALLED
			0.7 / 80	CC063SS01		SS		SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~5% gravel, ~55% fine to coarse sand, ~40% fines, moist; dense; fill soil.		
								GC		CLAYEY GRAVEL with Sand (GC): strong brown (7.5YR 5/6), ~60% gravel, ~20% sand, ~20% fines, moist; dense; fill soil.		
								SC		CLAYEY SAND (SC): strong brown(7.5YR 4.5/6), ~5% fine gravel, ~75% fine to coarse sand, ~20% fines, moist; dense.		
			1.5 / 70									
										End of Borehole at 2.3 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF BORING AREA 41 B-064

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/4/03 10:45
LOGGED BY: [redacted] ib6	REVIEWED BY / DATE & TIME FINISHED: 4/4/03 10:48
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER / SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl): WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE	COORDINATES / SURFACE ELEVATION / DATUM: mean sea level

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0			0.7 / 80	Not sampled			0	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~55% fine to medium sand, ~45% fines, moist; dense; quartz veining at 0.1 to 0.4 meters bgs.	0	NO WELL INSTALLED
										End of Borehole at 0.8 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1636.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF BORING AREA 41 B-065

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/3/03 15:10
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/3/03 15:25
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER / SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level

SURFACE CONDITION:

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0			0.1 0.7 / 80	CC065SS01		SS	0	CL		SANDY LEAN CLAY (CL): red (2.5YR 4/6) 50% mottled with yellowish red (5YR 4/6), ~50% fine to coarse sand, ~50% fines, some dark staining at 0.2 to 0.3 meters bgs; fill soil.
						SS		SC		CLAYEY SAND (SC): strong brown (7.5YR 5/8), ~60% fine to coarse sand, ~40% fines, moist; dense.
1			1.2 0.8 / 80	CC065BS01			1			
										End of Borehole at 1.5 m.
2							2			
3							3			
4							4			
5							5			
6							6			
7							7			
8							8			

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0	NO WELL INSTALLED
1	
2	
3	
4	
5	
6	
7	
8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

bb

LOG OF BORING AREA 41 B-067

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/4/03 13:00
LOGGED BY: [redacted] b6	REVIEWED BY:
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DATE & TIME FINISHED: 4/4/03 13:30
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE:
DRILLING METHOD: Direct-Push	SIZE / TYPE OF BIT:
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER
SCREEN Type: Material: Length: Diameter: Slot Size:	
ELEVATION OF (msl): WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE	

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0			0.7 / 80	CC067SS01		SS	0	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 4/6), ~40% fine to coarse sand, ~60% fines, moist; stiff.	0	NO WELL INSTALLED
1			1.4 / 70				2	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~55% fine to medium sand, ~45% fines, moist; dense; highly weathered.	2	
3			1.8 / 80				4			End of Borehole at 4.0 m.	4	
5							6				6	
7							8				8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF BORING AREA 41 B-068

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/4/03 13:40
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/4/03 13:50
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING

COORDINATES

SURFACE ELEVATION / DATUM: mean sea level

SCREEN — Type: / Material: / Length: / Diameter: / Slot Size:

TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0			0.7 / 00				0	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 4/6), ~40% fine to coarse sand, ~60% fines, moist; stiff; fill soil.
1							1	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~55% fine to medium sand, ~45% fines, moist; dense; highly weathered.
2			1.4 / 80				2			End of Borehole at 2.2 m.
3							3			
4							4			
5							5			
6							6			
7							7			
8							8			

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0	NO WELL INSTALLED
1	
2	
3	
4	
5	
6	
7	
8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

908

PAGE 1 OF 1

LOG OF BORING AREA 41 B-069

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/4/03 14:00
LOGGED BY: [redacted] bl	REVIEWED BY / DATE & TIME FINISHED: 4/4/03 14:10
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER / SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl): WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN	PRODUCT SURFACE / GROUNDWATER SURFACE / DATE
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0			0.7 / 80	CC069SS01		SS	0	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~60% fine to coarse sand, ~40% fines, moist; dense; fill soil.
1			1.4 / 80				1	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~55% fine to medium sand, ~45% fines, moist; dense; highly weathered.
2							2			End of Borehole at 2.2 m.
3							3			
4							4			
5							5			
6							6			
7							7			
8							8			

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0	NO WELL INSTALLED
1	
2	
3	
4	
5	
6	
7	
8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

069

LOG OF BORING AREA 41 B-070

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/4/03 14:16
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/4/03 14:30
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING

COORDINATES

SURFACE ELEVATION / DATUM: mean sea level

SCREEN — Type: / Material: / Length: / Diameter: / Slot Size:

TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0							0	SC		CLAYEY SAND (SC): dark greenish gray(5GY 4/1), ~60% fine to coarse sand, ~40% fines, moist; dense; fill soil.
			0.7 / 80			SS		SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~60% fine to coarse sand, ~40% fines, moist; dense; fill soil.
1							1			
			1.4 / 80	CC070SS01				SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~55% fine to medium sand, ~45% fines, moist; dense; highly weathered.
2							2			End of Borehole at 2.2 m.
3							3			
4							4			
5							5			
6							6			
7							7			
8							8			

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
0	NO WELL INSTALLED
1	
2	
3	
4	
5	
6	
7	
8	

BORING LOG METRIC JNITS CAMP CARROLL AREA D AND AREA 41.GP_ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

9/0

LOG OF WELL AREA D #12

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/13/03 09:29
LOGGED BY: [redacted] 66	REVIEWED BY / DATE & TIME FINISHED: 4/13/03 11:40
DRILLING CONTRACTOR / DRILLER: FED / [redacted] 66	DRILLING METHOD: Hollow-Stem Auger
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer
	SIZE / TYPE OF BIT: 8"
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES ■ NO	CASING MATERIAL / DIAMETER: Sch 40 PVC / 2"
SCREEN: Type: Slotted Material: PVC Length: 6.1 m Diameter: 2" Slot Size:	
ELEVATION OF (msl): WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN: m / m / PRODUCT SURFACE / GROUNDWATER SURFACE	DATE: 4/13/2003

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
		2/16/20/20	0.6098 / 75					SC		CLAYEY SAND with Gravel (SC): strong brown (7.5YR 5/6) 50% mottled with reddish yellow(7.5YR 7/6), ~15% gravel, ~50% sand, ~35% fines, low, moist; dense; fill material.
		11/14/9/9	0.6098 / 100					SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~10% gravel, ~60% medium to coarse sand, ~30% fines, moist; dense.
1							1	CL		SANDY LEAN CLAY (CL): reddish yellow(7.5YR 7/8), ~30% sand, ~70% fines, stiff to very stiff.
		4/6/9/9	0.6098 / 100					SC		CLAYEY SAND (SC): brown (7.5YR 5/4), ~10% gravel, ~60% medium to coarse sand, ~30% fines, moist; medium dense.
2		6/6/5	0.6098 / 78				2	CL		SANDY LEAN CLAY (CL): yellowish red (5YR 5/6), ~20% sand, ~80% fines, medium to low, moist; stiff.
		4/5/8/8	0.6098 / 91					SC		CLAYEY SAND (SC): brown (7.5YR 4/4), ~10% fine gravel, ~70% sand, ~20% fines, medium dense.
3		2/8/7/7	0.6098 / 88				3			
		4/5/3/5	0.6098 / 88					SC		CLAYEY SAND (SC): dark reddish brown(5YR 2.5/2), ~70% medium to fine sand, ~30% fines, moist; medium dense.
4							4			
		2/2/2/5	0.6098 / 71					CL		SANDY LEAN CLAY (CL): yellowish red (5YR 5/6), moist; soft.
5							5			
								CL		SANDY LEAN CLAY (CL): yellowish red (5YR 5/6), ~20% sand, ~80% fines, medium to low, moist; very stiff.
6		9/10/7/6	0.6098 / 88				6	SC		CLAYEY SAND (SC): olive (5Y 5/3), ~70% sand, ~30% fines, stiff; fill material.
7							7			
								CL		SILTY CLAY with Sand (CL): dark yellowish brown (10YR 3/4), ~20% sand, ~80% fines, fill material.
8		1/3/2/3	0.6098 / 100				8	CL		SILTY CLAY with Sand (CL): olive brown (2.5Y 4/4), ~20% sand, ~80% fines, wet; fill material.

DEPTH (meters bgs)

WELL CONSTRUCTION DETAILS

PVC Top Cap

1/2" Dia. Bentonite Pellets

Filter Pack

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

911

LOG OF WELL AREA D #12

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/13/03 09:29
LOGGED BY: [redacted] bc	REVIEWED BY
	DATE & TIME FINISHED: 4/13/03 11:40

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
10		2/3/6/5	0.6098 / 96				10	CL		SANDY SILTY CLAY (CL): strong brown (7.5YR 5/8), ~20% sand, ~80% fines, wet; native soil.	10	Slotted PVC Casing
11		3/4/8/10	0.6098 / 75				11	SC		CLAYEY SAND (SC): brownish yellow (10YR 6/6), ~60% fine to medium sand, ~40% fines, wet.	11	
12		2/3/5/9	0.6098 / 0				12			End of Borehole at 12.5 m.	12	Threaded PVC End Cap
13							13				13	
14							14				14	
15							15				15	
16							16				10	
17							17				17	
18							18				18	
19							19				19	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

912

LOG OF WELL AREA D #24

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/8/03 09:00
LOGGED BY: [redacted] 66	REVIEWED BY: DATE & TIME FINISHED: 4/8/03 11:00
DRILLING CONTRACTOR / DRILLER: FED / [redacted] 66	DRILLING METHOD: Hollow-Stem Auger; COORDINATES
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer; SIZE / TYPE OF BIT: 8"; SURFACE ELEVATION; DATUM: mean sea level
WELL INSTALLED? YES ■ NO	CASING MATERIAL / DIAMETER: Sch 40 PVC / 2"; SCREEN Type: Slotted Material: PVC Length: 6.1 m Diameter: 2" Slot Size:
ELEVATION OF (msl)	WELL COVER; TOP OF WELL CASING; TOP & BOTTOM OF SCREEN m / m; PRODUCT SURFACE; GROUNDWATER SURFACE; DATE: 4/10/2003

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0		7/5/6/11	0.6098 / 75				0	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6) 50% mottled with strong brown (7.5YR 5/6), ~5% gravel, ~65% fine to coarse sand, ~30% fines, moist; medium dense; fill material.
1		12/15/12/9	0.6098 / 75				1	SC		SILTY, CLAYEY SAND (SC): yellowish brown (10YR 5/4) 50% mottled with yellowish brown (10YR 5/6), ~5% gravel, ~60% sand, ~35% fines, medium dense; fill material.
		7/6/5/5	0.6098 / 70					SC		SILTY, CLAYEY SAND (SC): dark yellowish brown (10YR 4/6), ~20% fine to coarse, subangular gravel, ~50% sand, ~30% fines, medium dense; fill material.
2		4/6/5/10	0.6098 / 80				2	SC		SILTY, CLAYEY SAND (SC): dark yellowish brown (10YR 4/6), ~35% fine to coarse, subangular gravel, ~40% sand, ~25% fines, medium dense; fill material.
		6/6/7/13	0.6098 / 65					SC		SILTY, CLAYEY SAND (SC): dark yellowish brown (10YR 4/6), ~10% fine to coarse, subangular gravel, ~60% sand, ~30% fines, medium dense.
3		5/11/8/5	0.6098 / 0				3	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6) 50% mottled with strong brown (7.5YR 5/8), ~10% fine to coarse, subangular gravel, ~60% sand, ~30% fines, medium stiff.
		1/4/0/6	0.6098 / 50					CL		SILTY CLAY with Sand (CL): strong brown (7.5YR 5/8), ~25% sand, ~75% fines, stiff.
4		2/8/0/11	0.6098 / 100				4	SC		SILTY, CLAYEY SAND (SC): yellowish red (5YR 4/6) 50% mottled with yellowish red (5YR 5/6), ~60% sand, ~40% fines, medium dense.
		4/4/3/4	0.6098 / 80 0.4878 / 100	CC-024BS-0		SS		SC		SILTY, CLAYEY SAND (SC): yellowish red (5YR 5/6), ~60% sand, ~40% fines.
5							5	SC		SILTY, CLAYEY SAND (SC): brown (7.5YR 5/4), ~60% sand, ~40% fines, loose to dense.
		2/4/8/8	0.6098 / 70							

WELL CONSTRUCTION DETAILS

DEPTH (meters bgs)

PVC Top Cap

1/2" Dia. Bentonite Pellets

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

913

LOG OF WELL AREA D #24

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/8/03 09:00
LOGGED BY: [redacted] b6	DATE & TIME FINISHED: 4/8/03 11:00
REVIEWED BY:	

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)
10		1/3/4/5	0.6098 / 100	CC-024BS-02		SS	10	SC		SILTY, CLAYEY SAND (SC): olive brown (2.5Y 4/4).	10
								CL		SILTY CLAY with Sand (CL): dark yellowish brown (10YR 4/4), ~15% fine to medium sand, ~85% fines, medium, soft to medium stiff.	
11		3/10/15/12	0.6098 / 70				11	SC		SILTY, CLAYEY SAND (SC): yellowish brown (10YR 5/4) 50% mottled with yellowish brown (10YR 5/6), ~60% sand, ~40% fines, medium dense.	11
12							12	CL		SILTY CLAY with Sand (CL): yellow (10YR 7/6), ~20% coarse to fine sand, ~80% fines, medium stiff; native soil.	12
13		3/6/9/12	0.6098 / 60				13			End of Borehole at 13.7 m.	13
14							14				14
15							15				15
16							16				16
17							17				17
18							18				18
19							19				19

WELL CONSTRUCTION DETAILS

Slotted PVC Casing

Filter Pack

Threaded PVC End Cap

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1-836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

214

LOG OF WELL AREA D #37

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/12/03 08:12
LOGGED BY: [redacted] bb	REVIEWED BY: DATE & TIME FINISHED: 4/12/03 10:45
DRILLING CONTRACTOR / DRILLER: FED / [redacted] bb	DRILLING METHOD: Hollow-Stem Auger; COORDINATES
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer; SIZE / TYPE OF BIT: 8"; SURFACE ELEVATION; DATUM: mean sea level
WELL INSTALLED? YES ■ NO	CASING MATERIAL / DIAMETER: Sch 40 PVC / 2"; SCREEN Type: Slotted Material: PVC Length: 6.1 m Diameter: 2" Slot Size:
ELEVATION OF (msl): WELL COVER: TOP OF WELL CASING: TOP & BOTTOM OF SCREEN: m / m; PRODUCT SURFACE; GROUNDWATER SURFACE; DATE: 4/12/2003	

SURFACE CONDITION:

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
		10/13/11/9	0.6098 / 60					SC		SILTY, CLAYEY SAND with Gravel (SC): yellowish brown (10YR 5/4), ~20% fine to coarse gravel, ~50% sand, ~30% fines.
								SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~10% fine to coarse gravel, ~60% sand, ~30% fines, moist; medium dense.
1		8/10/15/14	0.6098 / 100				1	SC		SILTY, CLAYEY SAND (SC): dark brown (7.5YR 3/3), ~10% gravel, ~60% sand, ~30% fines, medium dense; fill material.
		8/7/8/7	0.6098 / 100					SC		SILTY, CLAYEY SAND with Gravel (SC): brown (7.5YR 4/4), ~20% fine gravel, ~50% sand, ~30% fines, medium dense; fill material.
2		9/11/7	0.6098 / 50	CC-037SB-01		SS	2	SM		SILTY, CLAYEY SAND with Gravel (SM): greenish gray (GLEY1 5/5GY), ~20% gravel, ~80% medium to coarse sand, ~20% fines, medium dense; fill material.
		4/6/6/9	0.6098 / 100	CC-037SB-01		SS		CL		SILTY CLAY (CL): yellowish red (5YR 5/6), ~100% fines, stiff.
3							3	SM		SILTY, CLAYEY SAND (SM): greenish gray (GLEY1 5/5GY), ~70% medium to coarse sand, ~30% fines, moist; stiff; fill material.
		7/9/6/10	0.6098 / 90					CL		SILTY CLAY (CL): greenish gray (GLEY1 5/5GY), ~70% medium to coarse sand, ~30% fines, moist; stiff; fill material.
4		5/6/7/7	0.6098 / 80				4			
		2/4/4/5	0.6098 / 10							
5							5			
6		4/7/7/8	0.6098 / 65 0.3964 / 100	CC-037SB-02		SS	6	CL		SILTY CLAY (CL): olive brown (2.5Y 4/3), ~10% sand, ~90% fines, chemical odor; soil staining noted at 20 feet bgs; fill material.
								CL		SILTY CLAY (CL): reddish yellow(5YR 6/8) 50% grades to olive brown (2.5Y 4/3), ~10% sand, ~90% fines, stiff; fill material.
7							7	CL		SILTY CLAY (CL): reddish yellow(5YR 6/8), ~100% fines, medium, chemical odor; moist; medium stiff.
8		1/3/2/3	0.6098 / 60				8	CL		SANDY LEAN CLAY (CL): light yellowish brown (10YR 6/4), ~30% sand, ~70% fines, medium, moist.

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
1	PVC Top Cap
2	
3	
4	1/2" Dia. Bentonite Pellets
5	
6	
7	
8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF WELL AREA D #37

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/12/03 08:12
LOGGED BY: [redacted] b6	DATE & TIME FINISHED: 4/12/03 10:45
REVIEWED BY	

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
10		10/15/18/20	0.6098 / 55				10	SC		CLAYEY SAND (SC): greenish gray (GLEY1 5/5GY), ~60% sand, ~40% fines, low, moist; medium dense.	10	Filter Pack; Slotted PVC Casing
11		9/18/27/30	0.6098 / 50				11	SC		CLAYEY SAND (SC): yellowish brown (10YR 5/4), ~60% sand, ~40% fines, wet; medium dense.	11	
12		5/20/28/35	0.6098 / 60				12	SC		CLAYEY SAND (SC): yellowish brown (10YR 5/4), ~70% fine to medium sand, ~30% fines, wet; dense.	12	
13							13			End of Borehole at 13.1 m.	13	Threaded PVC End Cap
14							14				14	
15							15				15	
16							16				16	
17							17				17	
18							18				18	
19							19				19	

BORING LOG METRIC_JNITS CAMP CARROLL AREA D AND AREA 41.GP_ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

9/6

LOG OF WELL AREA D #38

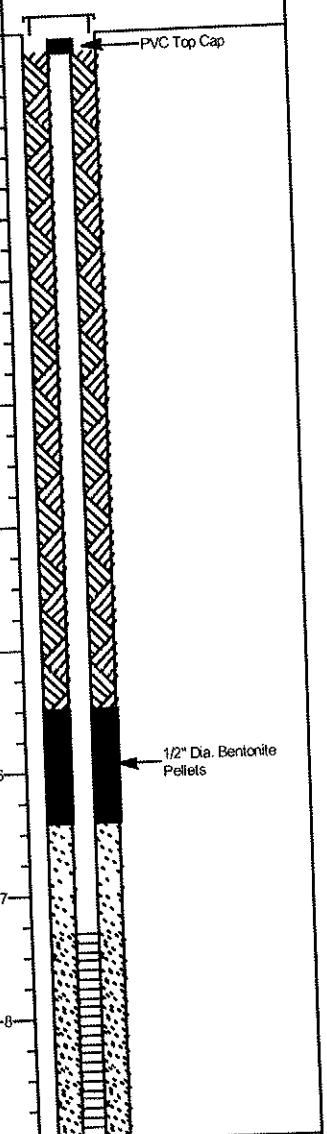
BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/14/03 08:05
LOGGED BY: [redacted] b6	REVIEWED BY:	DATE & TIME FINISHED: 4/14/03 14:00
DRILLING CONTRACTOR / DRILLER: FED [redacted] b6	DRILLING METHOD: Hollow-Stem Auger	COORDINATES:
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer	SIZE / TYPE OF BIT: 8"	SURFACE ELEVATION: DATUM: mean sea level
WELL INSTALLED? YES ■ NO	CASING MATERIAL / DIAMETER: Sch 40 PVC / 2"	SCREEN: Type: Slotted Material: PVC Length: 6.1 m Diameter: 2" Slot Size:	DATE: 4/14/2003
ELEVATION OF (msl): WELL COVER: TOP OF WELL CASING:	TOP & BOTTOM OF SCREEN: m / m	PRODUCT SURFACE:	GROUNDWATER SURFACE:

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0		8/11/9/6	0.6098 / 54				0	SC		CLAYEY SAND (SC): dark grayish brown(10YR 4/2), ~10% gravel, ~60% medium to coarse sand, ~30% fines, moist.
1		5/9/6/5	0.6098 / 75				1	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 5/8), ~0% gravel, ~30% medium sand, ~70% fines, moist; increasing sand content at 0.9 meters bgs (40%sand, 60% fines).
2		2/5/10/11	0.6098 / 62			SS	2	SC		CLAYEY SAND (SC): reddish yellow(7.5YR 6/6) 20% grades to reddish yellow(7.5YR 6/6), ~0% gravel, ~60% medium to coarse sand, ~40% fines, moist; very dense.
		7/12/15	0.6098 / 78	CC-038BS-0						
3		9/14/15/20	0.6098 / 83	CC-038BS-0		SS	3			
		7/18/23/26	0.6098 / 83							
4		23/28/27/2	0.6098 / 92				4			
		4/31/14/3	0.6098							
5		15/56	0.3049 / 45				5			
6		4/30/35/5	0.6098 / 82				6			
7							7	SM		SILTY, CLAYEY SAND (SM): reddish yellow(7.5YR 6/6) 0%, ~0% gravel, ~60% medium to coarse sand, ~40% fines, moist.
8							8			

WELL CONSTRUCTION DETAILS



BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1636.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

917

LOG OF WELL AREA D #38

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/14/03 08:05
LOGGED BY: [redacted] b6	REVIEWED BY
	DATE & TIME FINISHED: 4/14/03 14:00

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
			0.3049 / 100							Refusal. No Recovery.		Filter Pack; Slotted PVC Casing; Threaded PVC End Cap
										End of Borehole at 13.7 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF WELL AREA D #39

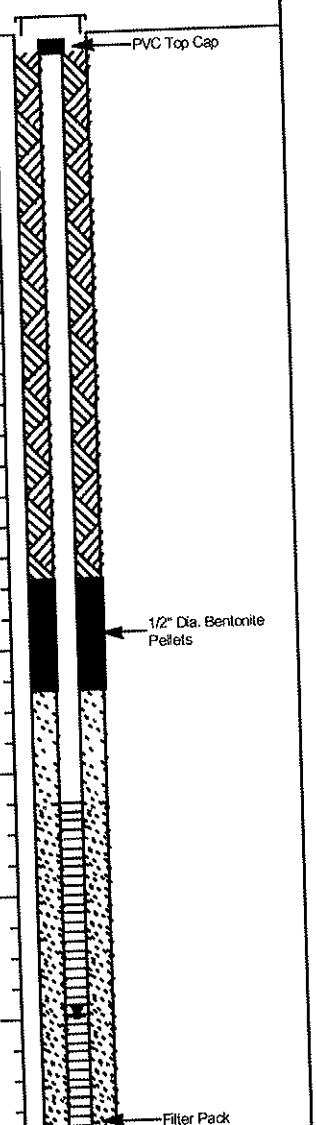
BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/12/03 13:21
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/12/03 16:05
DRILLING CONTRACTOR / DRILLER: FED [redacted] bb	DRILLING METHOD: Hollow-Stem Auger
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer
	SIZE / TYPE OF BIT: 8"
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES ■ NO	CASING MATERIAL / DIAMETER: Sch 40 PVC / 2"
SCREEN: Type: Slotted Material: PVC Length: 6.1 m Diameter: 2" Slot Size:	
ELEVATION OF (msl) / WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN: m / m / PRODUCT SURFACE / GROUNDWATER SURFACE	DATE: 4/13/2003

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
0		1/20/20/18	0.6098 / 90				0	SC		CLAYEY SAND (SC): yellow (10YR 7/6), ~10% gravel, ~60% medium to coarse sand, ~30% fines, low, moist; dense; fill material.
1		7/9/7/8	0.6098 / 100				1	SC		CLAYEY SAND (SC): brownish yellow (10YR 6/6), ~50% sand, ~50% fines, moist; medium dense; fill material.
		6/12/13/12	0.6098 / 70					SC		CLAYEY SAND with Gravel (SC): brownish yellow (10YR 6/6), ~20% gravel, ~50% sand, ~50% fines, moist; fill material.
2		10/10/11	0.6098				2	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~10% gravel, ~60% medium to coarse sand, ~30% fines, moist; medium dense; fill material.
		3/9/8/5	0.6098 / 60					CL		SILTY CLAY (CL): strong brown (7.5YR 5/6), ~20% sand, ~80% fines, medium, moist; stiff; fill material.
3		4/7/9/11	0.6098 / 100				3	SC		CLAYEY SAND (SC): yellowish brown (10YR 5/4), ~60% medium to coarse sand, ~40% fines, medium dense; fill material.
		4/6/5/7	0.6098 / 70					SC		CLAYEY SAND (SC): reddish yellow(5YR 6/6) 50% grades to yellow (10YR 7/6), ~50% sand, ~50% fines, low to medium, dry; fill material.
4							4	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~60% medium to coarse sand, ~40% fines, low, medium dense; fill material.
5		4/5/5/4	0.6098 / 40				5			
6							6	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~10% fine gravel, ~60% sand, ~30% fines, no odor; moist; medium dense; fill material.
7		6/7/7/6	0.6098 / 0				7			
8							8	CL		SANDY LEAN CLAY (CL): dark greenish gray (GLEY1 4/5GY), ~30% medium to fine sand, ~70% fines, moist to wet; medium stiff.
		3/3/4/5	0.6098 / 40							

WELL CONSTRUCTION DETAILS



BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1336.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

9/19

LOG OF WELL AREA D #39

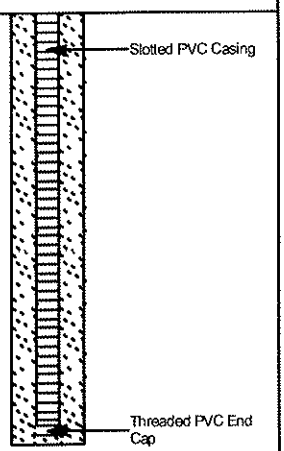
BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME	
	Camp Carroll Area D and Area 41 RI	
LOCATION		DATE & TIME STARTED
Camp Carroll, Taegu, Republic of Korea		4/12/03 13:21
LOGGED BY [redacted] b6	REVIEWED BY	DATE & TIME FINISHED
		4/12/03 16:05

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)
10		1/2/4/5	0.6098 / 100				10	CL		SILTY CLAY (CL): yellowish brown (10YR 5/8) 20% with secondary mineralization gray(2.5Y 6/1), ~10% fine to very fine sand, ~90% fines, medium, wet; medium stiff.	10
11		8/8/9/11	0.6098 / 70				11	CL		SANDY LEAN CLAY (CL): brownish yellow (10YR 6/8) 20% grades to yellowish brown (10YR 5/4), 30% fine to medium sand, ~70% fines, no odor; wet; very stiff.	11
12		2/3/6/7	0.6098 / 0				12	CL		SANDY LEAN CLAY (CL): pale yellow (2.5Y 7/4), ~20% medium to coarse sand, ~80% fines, wet; stiff.	12
										End of Borehole at 12.5 m.	

WELL CONSTRUCTION DETAILS



BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GP. ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

920

LOG OF BORING AREA D #40

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/15/03 10:25
LOGGED BY: [redacted] bb	REVIEWED BY: DATE & TIME FINISHED: 4/15/03 13:30
DRILLING CONTRACTOR / DRILLER: FED / [redacted] bb	DRILLING METHOD: Hollow-Stem Auger; COORDINATES
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer; SIZE / TYPE OF BIT: 8"; SURFACE ELEVATION; DATUM: mean sea level
WELL INSTALLED? YES NO ■	CASING MATERIAL / DIAMETER; SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl)	WELL COVER; TOP OF WELL CASING; TOP & BOTTOM OF SCREEN; PRODUCT SURFACE; GROUNDWATER SURFACE; DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS: NO WELL INSTALLED
0		7/7/10/17	0.6098 / 70				0	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6) 20% grades to brownish yellow (10YR 6/6), ~70% medium to coarse sand, ~30% fines, slight chemical odor; moist; medium dense; increasing clay content at 1.22 meters bgs (60% sand, 40% fines).	0	
1		10/6/7/7	0.6098 / 100			SS	1				1	
2		6/12/13/12 9/10/6	1.067 1.067 / 90	CC-040SS-03			2				2	
3		7/10/10/11	0.6098 / 100				3	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 5/6) 50% grades to strong brown (7.5YR 5/8), ~40% medium to fine sand, ~60% fines, stiff to soft; increasing clay content at 3.5 meters bgs (30% sand, 70% fines).	3	
4		10/11/7/8	0.6098 / 60				4				4	
5		2/2/3/4	0.6098 / 50				5	SM		SILTY SAND (SM): yellowish brown (10YR 5/6), ~80% medium sand, ~20% fines, medium stiff.	5	
6		1/4/5/5	0.6098 / 0				6	CL		SANDY LEAN CLAY (CL): yellowish brown (10YR 5/4) 50% grades to dark grayish brown(2.5Y 4/2), ~30% medium sand, ~70% fines, medium stiff to soft; increasing clay content at 6.1 meters bgs (20% sand, 80% fines).	6	
7		2/2/4/5	0.6098 / 0 0.6098 / 0	CC-040BS-02		SS	7	SC		CLAYEY SAND (SC): reddish yellow(7.5YR 6/6), ~60% medium sand, ~40% fines, medium dense to dense.	7	
8		4/6/11/14	0.6098 / 0				8				8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND APEA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

921

LOG OF BORING AREA D #40

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/15/03 10:25
LOGGED BY: [redacted] bb	REVIEWED BY
	DATE & TIME FINISHED: 4/15/03 13:30

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
		1/18/25/33	0.6098 / 0							End of Borehole at 9.8 m.		NO WELL INSTALLED

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1636.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

PAGE 1 OF 1

LOG OF BORING AREA D B-006

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI		
LOCATION: Camp Carroll, Taegu, Republic of Korea		DATE & TIME STARTED: 4/1/03 14:20	
LOGGED BY: [redacted] bb	REVIEWED BY	DATE & TIME FINISHED: 4/1/03 15:50	
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp		DRILLING METHOD: Direct-Push	COORDINATES
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE	SIZE / TYPE OF BIT	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER	SCREEN Type: Material: Length: Diameter: Slot Size:	
ELEVATION OF (msl)	WELL COVER	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
										Preprobe. No recovery.		NO WELL INSTALLED
1	<0.1						1	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~5% fine gravel, ~70% fine to medium sand, ~25% fines, moist; medium dense; contains some coarse sand.	1	
2			1.5 / 80				2	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), with some cobbles at 2.3 meters.	2	
3	<0.1		1.5 / 90				3	SC-SM		SILTY, CLAYEY SAND (SC-SM): strong brown (7.5YR 5/6), ~70% fine to medium, angular sand, ~30% fines, moist; dense; appears to be weathered granite (saprolite) with angular quartz and feldspars, mica..	3	
4						SS	4				4	
5			1.5 / 80 1.2 / 100	CC0060S07			5	SC		SILTY, CLAYEY SAND (SC): red (2.5YR 4/6), ~65% fine to medium sand, ~35% fines, moist; dense.	5	
								SM		SILTY SAND (SM): yellowish brown (10YR 5/4), ~65% fine to medium sand, ~35% fines, moist.		
								SC		CLAYEY SAND (SC): yellowish red (5YR 4/6) 50% to yellowish red (5YR 5/6), ~60% fine to medium sand, ~40% fines, moist; dense.		
6	<0.1					SS	6	SC		CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~60% fine to medium, subrounded to subangular sand, ~40% fines, moist; dense.	0	
			1.5 / 100	CC0060S08								
7	<0.1						7	SC		CLAYEY SAND (SC): dark grayish brown(2.5Y 4/2), ~60% fine to medium sand, ~40% fines, moist to wet; dense.	7	
8			1.5 / 65				8	CL		SANDY LEAN CLAY (CL): dark grayish brown(2.5Y 4/2), ~40% fine to medium sand, ~60% fines, medium wet.	8	
										End of Borehole at 0.5 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1536.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

PAGE 1 OF 1

LOG OF BORING AREA D B-010

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/1/03 09:20
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/1/03 12:30
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER / SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
										Preprobe. No recovery.		NO WELL INSTALLED
	<0.1		0.6			SS		SM		SILTY SAND (SM): strong brown (7.5YR 5/6), ~0% gravel, ~80% fine to coarse sand, ~15% fines, moist; medium dense, some cobbles at 0.8 to 0.9 meters.		
1			1.1 / 80 1 / 100	CC010SS01			1	SM		SILTY SAND (SM): strong brown (7.5YR 5/6), ~5% gravel, ~80% fine to coarse sand, ~15% fines, moist; dense, manganese oxide noted at 2.1 meters.	1	
2			1.2 / 80				2	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 5/6) 10% mottled with white (10YR 8/1), ~5% gravel, ~35% fine to medium sand, ~60% fines, low to medium, moist; firm.	2	
3			1.3 / 80				3	SC-SM		SILTY, CLAYEY SAND (SC-SM): strong brown (7.5YR 5/6), ~65% fine to medium sand, ~35% fines, moist; dense.	3	
4							4	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 5/6), ~35% fine to medium sand, ~65% fines, medium, moist; firm.	4	
5						SS	5	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~65% fine to medium sand, ~35% fines, moist; dense.	5	
			1.1 / 95 1 / 100	CC010BS01				SC		SILTY, CLAYEY SAND (SC): olive gray(5Y 4/2), ~65% fine to medium sand, ~35% fines, moist; dense.		
								SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~65% medium to coarse sand, ~35% fines, moist; dense.		
6							6	SC		SILTY, CLAYEY SAND (SC): yellowish brown (10YR 5/4), ~65% fine to medium sand, ~35% fines, moist, dense.	6	
								SC		SILTY, CLAYEY SAND (SC): red (2.5YR 4/6) 50% and olive brown (2.5Y 4/4), ~65% fine to medium sand, ~35% fines, moist; dense.		
7			1.5 / 100				7	CL		SANDY LEAN CLAY (CL): dark yellowish brown (10YR 4/4), ~35% fine to medium sand, ~65% fines, medium, moist; micaceous.	7	
						SS		SC		SANDY LEAN CLAY (SC): dark yellowish brown (10YR 4/4), ~50% fine to medium sand, ~50% fines, low to medium, moist to wet.		
8			1.3 / 100 1 / 100	CC010BS02			8				8	
										End of Borehole at 8.6 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

924

LOG OF BORING AREA D B-017

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/2/03 08:20
LOGGED BY: [redacted] bb	REVIEWED BY / DATE & TIME FINISHED: 4/2/03 10:30
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push; COORDINATES
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE; SIZE / TYPE OF BIT; SURFACE ELEVATION; DATUM: mean sea level
WELL INSTALLED? YES NO ■	CASING MATERIAL / DIAMETER; SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl)	WELL COVER; TOP OF WELL CASING; TOP & BOTTOM OF SCREEN; PRODUCT SURFACE; GROUNDWATER SURFACE; DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
										Preprobe. No recovery.		NO WELL INSTALLED
1	<0.1		1.5 / 70	CC017SS01		SS	1	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~10% fine to coarse, angular gravel, ~70% fine to coarse sand, ~20% fines, moist; dense; fill soil.	1	
2			1.05 / 100				2	SC		SILTY, CLAYEY SAND (SC): yellowish brown (10YR 5/6), ~10% fine to coarse, angular gravel, ~70% fine to coarse sand, ~20% fines, moist; dense; fill soil.	2	
3			1.5 / 80				3	CL		SILTY CLAY with Sand (CL): strong brown (7.5YR 5/8), ~10% fine to coarse, angular gravel, ~70% fine to coarse sand, ~20% fines, low to medium, moist; firm; fill soil.	3	
								CL		SILTY CLAY with Sand (CL): yellowish red (5YR 5/8), ~10% fine to coarse, angular gravel, ~70% fine to coarse sand, ~20% fines, low to medium, moist; firm; fill soil.		
4							4	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~5% fine gravel, ~60% fine to coarse, subangular to subrounded sand, ~35% fines, moist; dense; fill soil.	4	
5			1.5 / 80				5	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~55% fine to coarse sand, ~45% fines, moist; firm; fill soil.	5	
6			1.5 / 70				6				6	
7							7	GM SC		GRAVEL with Silt and Sand (GM): dark brown (10YR 3/3), ~50% fine to coarse, angular gravel, ~30% sand, ~20% fines.	7	
								SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), fill soil.		
										SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~5% fine gravel, ~60% fine to coarse sand, ~35% fines, moist; dense.		
8			1.5 / 60				8				8	
								CL		SILTY CLAY with Sand (CL): dark greenish gray(5G 4/1), fine to medium sand, low, moist.		
								CH		SANDY LEAN CLAY (CH): yellowish red (5YR 5/8), ~30% fine to medium sand, ~70% fines, high, wet.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

925

LOG OF BORING AREA D B-017

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME	
	Camp Carroll Area D and Area 41 RI	
LOCATION		DATE & TIME STARTED
Camp Carroll, Taegu, Republic of Korea		4/2/03 08:20
LOGGED BY [redacted] 66	REVIEWED BY	DATE & TIME FINISHED
		4/2/03 10:30

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
												NO WELL INSTALLED
			1.5 / 90					CH		SANDY LEAN CLAY (CH): olive brown (2.5Y 4/3), ~30% fine to medium sand, ~70% fines, high, wet.		
10							10	CH		SANDY LEAN CLAY (CH): dark brown (10YR 3/3), ~20% fine to medium sand, ~80% fines, high, wet.	10	
										End of Borehole at 10.0 m.		
11							11				11	
12							12				12	
13							13				13	
14							14				14	
15							15				15	
16							16				16	
17							17				17	
18							18				18	
19							19				19	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

926

LOG OF BORING AREA D B-018

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI	
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/2/03 10:40	
LOGGED BY: [redacted] bb	REVIEWED BY	DATE & TIME FINISHED: 4/2/03 14:05
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push	COORDINATES
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE	SIZE / TYPE OF BIT: SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER	SCREEN Type: Material: Length: Diameter: Slot Size:
ELEVATION OF (msl)	WELL COVER	TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
												NO WELL INSTALLED
0			1 / 100				0	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~10% fine gravel, ~60% fine to coarse sand, ~30% fines, moist; medium dense to dense; fill soil.	0	
1							1	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~20% fine to coarse gravel, ~55% fine to coarse sand, ~25% fines, moist; very dense.	1	
2			1.5 / 70 1.05 / 100	CC018SS01		SS	2				2	
3			1.5 / 0				3			No recovery.	3	
4			0.5 / 0				4				4	
5			1.5 / 80 1.2 / 100	CC018BS01		SS	5	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~5% fine gravel, ~50% fine to coarse sand, ~45% fines, moist; medium dense.	5	
6			1.5 / 50				6	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~10% fine gravel, ~50% fine to coarse sand, ~40% fines, moist; increased quartzite gravels.	6	
7							7	SC		SANDY LEAN CLAY (SC): strong brown (7.5YR 4/6), fine to coarse sand, moist; increased moisture content; fill soil.	7	
8			1.6 / 60 0.9 / 100	CC018BS02		SS	8				8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

927

LOG OF BORING AREA D B-022

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/2/03 14:10
LOGGED BY: [redacted] bG	REVIEWED BY / DATE & TIME FINISHED: 4/2/03 16:10
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
WELL INSTALLED? YES NO ■	CASING MATERIAL / DIAMETER
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING

COORDINATES

SURFACE ELEVATION DATUM: mean sea level

SCREEN — Type: Material: Length: Diameter: Slot Size:

TOP & BOTTOM OF SCREEN PRODUCT SURFACE GROUNDWATER SURFACE DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS: NO WELL INSTALLED
0			1 / 80			SS	0	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~60% fine to coarse sand, ~40% fines, moist; medium dense, fill soil.	0	
1			1.5 / 80 1.2 / 100	CC022SS01			1				1	
2			1.5 / 65				2				2	
3			1.5 / 80 1.2 / 100	CC022BS01		SS	3	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~60% fine to coarse sand, ~40% fines, moist; hard, medium dense, fill soil.	3	
4			1.7 / 30				4	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 5/8), ~45% fine to coarse sand, ~55% fines, low, moist; medium dense, fill soil.	4	
5			1.5 / 80 1.2 / 100	SS022BS02		SS	5	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/8), ~75% fine to coarse sand, ~25% fines, wet; dense.	5	
6			1.5 / 65				6	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 5/8), ~40% fine to coarse sand, ~60% fines, low to medium, moist to wet.	6	
7							7				7	
8							8				8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

928

LOG OF BORING AREA D B-022

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME	
	Camp Carroll Area D and Area 41 RI	
LOCATION		DATE & TIME STARTED
Camp Carroll, Taegu, Republic of Korea		4/2/03 14:10
LOGGED BY [redacted] 16	REVIEWED BY	DATE & TIME FINISHED
		4/2/03 16:10

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
										End of Borehole at 9.5 m.		NO WELL INSTALLED

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1636.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF BORING AREA D B-026

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/1/03 16:00
LOGGED BY: [redacted], bb	REVIEWED BY / DATE & TIME FINISHED: 4/1/03 17:40
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER
SCREEN Type: Material: Length: Diameter: Slot Size:	
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
										Preprobe. No recovery.		NO WELL INSTALLED
1			1.5 / 100	CC026SS01		SS	1	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~5% gravel, ~65% fine to medium sand, ~30% fines, moist; dense.	1	
2	<0.1						2				2	
3			1.5 / 100	CC026BS01		SS	3	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~10% gravel, ~60% fine to coarse sand, ~30% fines, moist; dense.	3	
4							4	SC		SILTY, CLAYEY SAND (SC): olive gray(5Y 4/2), ~10% gravel, ~60% fine to coarse sand, ~30% fines, moist; dense.	4	
5			1.5 / 0				5			No recovery.	5	
6			1.5 / 90				6	SC		SILTY, CLAYEY SAND (SC): dark greenish gray(5GY 4/1) 50% mottled with yellowish brown (10YR 5/4), ~60% fine to medium sand, ~40% fines, moist; dense.	6	
								SC		SILTY, CLAYEY SAND (SC): dark greenish gray(5G 4/1) 50% mottled with greenish gray(5G 5/1), ~60% fine to coarse sand, ~40% fines, moist; dense.		
7			0.5 / 100	CC026BS02		SS	7	CL		SANDY LEAN CLAY (CL): very dark grayish brown(2.5Y 3/2) 50% mottled with dark grayish brown(2.5Y 4/2), ~15% fine to coarse sand, ~85% fines, medium, moist; firm.	7	
								CH		LEAN CLAY (CH): dark brown (10YR 3/3), ~5% fine to medium sand, ~95% fines, high, wet.		
8			1.5 / 100				8	CH		LEAN CLAY (CH): dark brown (10YR 3/3), ~3% fine to medium sand, ~97% fines, high, wet.	8	
										End of Borehole at 8.5 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1636.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

930

LOG OF BORING AREA D B-027

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/3/03 07:45
LOGGED BY: [redacted] b6	REVIEWED BY:
DATE & TIME FINISHED: 4/3/03 03:45	COORDINATES:
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SURFACE ELEVATION:	DATUM: mean sea level
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE:
SIZE / TYPE OF BIT:	SCREEN Type: Material: Length: Diameter: Slot Size:
WELL INSTALLED? YES NO ■	CASING MATERIAL / DIAMETER:
ELEVATION OF (msl): WELL COVER: TOP OF WELL CASING: TOP & BOTTOM OF SCREEN: PRODUCT SURFACE: GROUNDWATER SURFACE: DATE:	

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
								SC		SILTY, CLAYEY SAND (SC): dark yellowish brown (10YR 4/6), ~5% fine to coarse gravel, ~75% fine to coarse sand, ~20% fines, moist; medium dense; fill soil.		NO WELL INSTALLED
			1 / 100					CL		SANDY LEAN CLAY (CL): yellowish red (5YR 5/8), ~45% fine to coarse sand, ~55% fines, low, moist; firm.		
			1.5 / 40					CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 4/6), ~40% fine to coarse sand, ~60% fines, low, moist; firm.		
			1.5 / 60			SS		CL		SANDY LEAN CLAY (CL): dark greenish gray(5GY 4/1), ~40% fine to coarse sand, ~60% fines, medium, moist, firm; high biotite and muscovite content.		
			0.9 / 100	CC027BS01				CL		SANDY LEAN CLAY (CL): dark greenish gray(5GY 4/1), ~20% fine sand, ~80% fines, medium to high, moist; firm; micaceous.		
			0.5 / 20					CL		SANDY LEAN CLAY (CL): dark greenish gray(5GY 4/1), ~20% fine sand, ~80% fines, medium to high, moist; firm; micaceous.		
			0.5 / 0							No recovery.		
			1.5 / 55			SS		CL		SANDY LEAN CLAY (CL): olive (5Y 4/3) 33% to yellowish brown (10YR 5/8) and 33% and reddish brown(5YR 5/4), fine to medium sand, medium, moist; firm; varigated.		
			0.825 / 100	CC027RS01				CL		SANDY LEAN CLAY (CL): reddish yellow(7.5YR 6/8) 50% mottled with brownish yellow (10YR 6/8), fine to medium sand, low, moist; firm; varigated; saprolite - angular quartz, feldspars weathering to clay, low mica content, some manganese.		
			0.5 / 50							End of Borehole at 7.0 m.		

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

931

LOG OF BORING AREA D B-028

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/2/03 16:15
LOGGED BY: [redacted] 66	REVIEWED BY / DATE & TIME FINISHED: 4/2/03 17:30
DRILLING CONTRACTOR / DRILLER: Beautiful Environmental Corp	DRILLING METHOD: Direct-Push
SAMPLING METHOD: Geoprobe Sampler	SAMPLE HAMMER TYPE / SIZE / TYPE OF BIT
COORDINATES	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES / NO ■	CASING MATERIAL / DIAMETER
SCREEN Type: Material: Length: Diameter: Slot Size:	
ELEVATION OF (msl)	WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE / DATE

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
												NO WELL INSTALLED
0			1 / 100				0	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~3% fine gravel, ~60% fine to coarse sand, ~37% fines, moist; dense; fill soil.	0	
1			1.5 / 80				1	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~15% fine gravel, ~55% fine to coarse sand, ~30% fines, moist; dense; fill soil.	1	
2			1.5 / 90				2	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~3% fine gravel, ~60% fine to coarse sand, ~37% fines, moist; dense; fill soil.	2	
3							3	CL		SANDY LEAN CLAY (CL): strong brown (7.5YR 4/6), ~20% fine to coarse sand, ~80% fines, low, moist; firm; fill soil.	3	
4			1.5 / 90	CC028BS01		SS	4	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~65% fine to coarse sand, ~35% fines, moist; dense; fill soil.	4	
5			1.35 / 100				5	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6), ~55% fine to coarse sand, ~45% fines, moist; dense; fill soil.	5	
6			1.5 / 40				6	SC		SILTY, CLAYEY SAND (SC): dark greenish gray(5GY 4/1), ~5% fine, angular gravel, ~50% fine to coarse sand, ~45% fines, moist; dense; fill soil.	6	
7			1.5 / 65	CC028BS02		SS	7	SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 4/6) 10% mottled with dark greenish gray(5GY 4/1), ~55% fine to coarse sand, ~45% fines, moist; firm.	7	
8			0.975 / 100				8			End of Borehole at 8.5 m.	8	

BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1636.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

738

LOG OF WELL AREA D MW-001

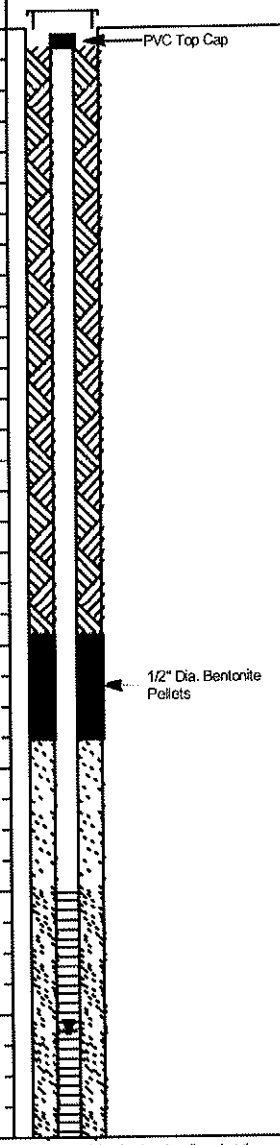
BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/8/03 15:35
LOGGED BY: [redacted] b6	REVIEWED BY:
DATE & TIME FINISHED: 4/9/03 16:30	
DRILLING CONTRACTOR / DRILLER: FED / [redacted] b6	DRILLING METHOD: Hollow-Stem Auger
COORDINATES	
SAMPLING METHOD: Split-Spoon Sampler	SAMPLE HAMMER TYPE: Hydraulic Hammer
SIZE / TYPE OF BIT: 8"	SURFACE ELEVATION / DATUM: mean sea level
WELL INSTALLED? YES ■ NO	CASING MATERIAL / DIAMETER: Sch 40 PVC / 2"
SCREEN: Type: Slotted Material: PVC Length: 6.1 m Diameter: 2" Slot Size:	
ELEVATION OF (msl) / WELL COVER / TOP OF WELL CASING / TOP & BOTTOM OF SCREEN / PRODUCT SURFACE / GROUNDWATER SURFACE	DATE: 4/10/2003
	m / m

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION	DEPTH (meters bgs)
		10/11/11/14	0.6098 / 80					SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/6), ~10% fine to coarse gravel, ~60% medium to fine sand, ~30% fines, moist to dry; fill material.	
1		9/14/16/14	0.6098 / 100				1	SC		SILTY, CLAYEY SAND with Gravel (SC): dark yellowish brown (10YR 4/6), ~20% fine to coarse gravel, ~60% sand, ~20% fines, dry; fill material.	1
								SC		SILTY, CLAYEY SAND with Gravel (SC): dark yellowish brown (10YR 4/6), ~30% coarse gravel, ~40% sand, ~30% fines, fill material.	
		9/11/8/9	0.6098 / 100					SC		SILTY, CLAYEY SAND with Gravel (SC): dark yellowish brown (10YR 4/6), ~40% coarse gravel, ~50% sand, ~40% fines, fill material.	
2		6/10/14	0.6098 / 0				2	SC		SILTY, CLAYEY SAND (SC): yellow (10YR 7/6), ~10% gravel, ~50% sand, ~40% fines, cobbles at 2.3 meters; fill material.	2
		7/9/6/8	0.6098 / 70					SC		SILTY, CLAYEY SAND (SC): reddish yellow(5YR 6/6), ~10% gravel, ~50% sand, ~40% fines, dry; fill material.	
3		5/6/8/11	0.6098 / 80				3	SC		SILTY, CLAYEY SAND (SC): reddish yellow(7.5YR 6/6), ~60% sand, ~40% fines, medium dense; plant roots at 3.4 meters; fill material.	3
								SC		SILTY, CLAYEY SAND (SC): strong brown (7.5YR 5/8), ~60% sand, ~40% fines, fill material.	
4		5/6/8/10	0.6098 / 80				4	SC		SILTY, CLAYEY SAND (SC): yellowish red (5YR 5/8), ~60% sand, ~40% fines, fill material.	4
5		2/3/3/4	0.6098 / 40				5				5
6		3/4/7/7	0.6098 / 80 0.4878 / 100	CC-001BS-0		SS	6	SC		SILTY, CLAYEY SAND (SC): reddish yellow(7.5YR 7/8), ~50% sand, ~50% fines, native soil.	6
7							7				7
8		2/5/5/8	0.6098 / 60				8	SC		SILTY, CLAYEY SAND (SC): yellow (10YR 7/6), ~50% fine to medium sand, ~50% fines, moist to wet; medium dense; native soil.	8

WELL CONSTRUCTION DETAILS



BORING LOG METRIC UNITS CAMP CARROLL AREA D AND AREA 41.GP_ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

LOG OF WELL AREA D MW-001

BOREHOLE / WELL LOCATION SKETCH MAP

N

PROJECT NO.	PROJECT NAME: Camp Carroll Area D and Area 41 RI
LOCATION: Camp Carroll, Taegu, Republic of Korea	DATE & TIME STARTED: 4/8/03 15:35
LOGGED BY: [redacted] b6	REVIEWED BY
	DATE & TIME FINISHED: 4/9/03 16:30

DEPTH (meters bgs)	PID (ppmv)	BLOWS / DRIVE	DRIVE / RECOVERY (meters / %)	LAB SAMPLE ID	EXTENT	SAMPLE TYPE	DEPTH (meters bgs)	USCS	GRAPHIC LOG	SURFACE CONDITION: / LITHOLOGIC DESCRIPTION
10		3/5/9/9	0.6098 / 65				10			
11		4/8/10/15	0.6098 / 100				11			
12							12	SC		SILTY, CLAYEY SAND (SC): very pale brown (10YR 7/4), ~50% medium to fine sand, ~50% fines, wet; medium dense to dense; native soil.
13		5/9/14/17	0.6098 / 80				13			End of Borehole at 13.1 m.
14							14			
15							15			
16							16			
17							17			
18							18			
19							19			

DEPTH (meters bgs)	WELL CONSTRUCTION DETAILS
10	Filter Pack; Slotted PVC Casing
13	Threaded PVC End Cap

BORING LOG METRIC_JNITS CAMP CARROLL AREA D AND AREA 41.GPJ ACE_1836.GDT 16/9/03

This log is part of the report prepared for the named project and should be read together with that report for complete information. This summary applies only at the location of this boring / well and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

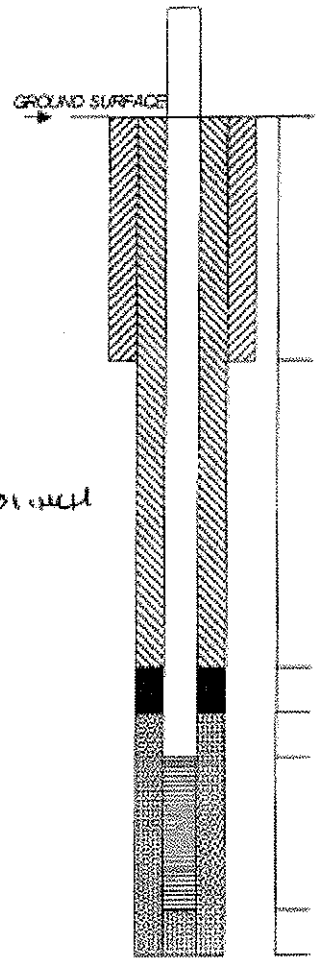
WELL COMPLETION RECORD

MO-463

JOB NO.: Area D WELL NO. # 24 HYDROGEOLOGIST: [redacted] bb

CLIENT: [redacted] DRILLER: [redacted] bb

WELL LOCATION: bb 24 bb DATE/TIME: 1250 / 4/8/03



Well Head Elevation _____ 4/4/03, CP

Ground Surface Elev. 265' from TOC

Well Head Completion Method

Flush mount Traffic Box

Drilling Method/Rig Type HSA

DETAILS OF CONSTRUCTION

Date Completed 4/4/03

Borehole Diameter (in.) 8"

Type and Size of Casing (in.) 2" PVC

Type and Size of Screen (in.) 2"

Screen Perforation Diameter (in.) ~~0.01~~ 0.01 Slot

Screen Length (ft.) 20'

Centralizer Depths (ft.) -

Completion Technique

1. Type of Filter Pack and Placement Method

0.4 - 0.8 MM

2. Type of Bentonite and Placement Method

Bagged 1/2" Pellets

3. Type of Grout Mixture and Placement Method

Bags / Cement

Description of Potential Problems With Well

Development Technique

Surface Casing: Type N/A

Diameter -

Length -

MATERIALS

Cement (sks.) _____

Filter Pack Material (ft.³) 1.5 BAG (25 Kg/BAG)

Casing Material (ft.) 40

Bentonite (ft.³) 1.5 BUCKETS 5G

Top of Bentonite Seal 15 ft.

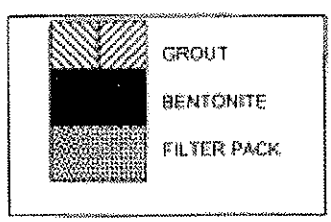
Top of Filter Pack 17.5 ft.

Top of Screen 19.5 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

Bottom of Screen 39.5 ft.

Bottom of Hole 45 ft.



SAND PACK MIN 1 1/2

25 Kg/BAG

1 1/2 BUCKET (5 GAL) BENTONITE

PELLETS 1/2 DIA

STOPPED 4/8/03 1445

WILL GROUT AT LATER TIME

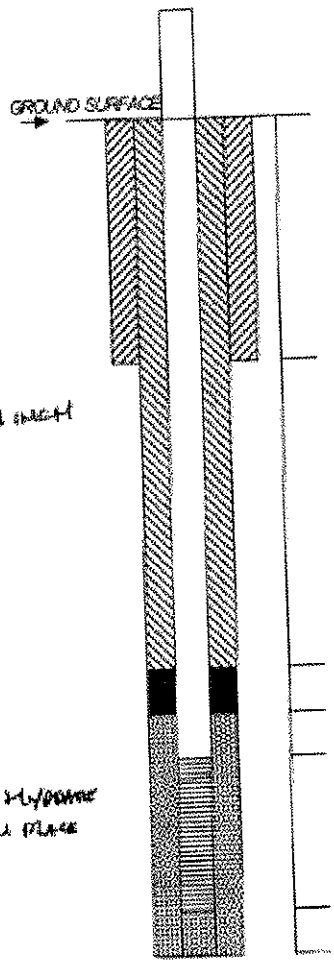
935

WELL COMPLETION RECORD

JOB NO.: Area "D" Camp Cooper WELL NO. #24 MW3-4464 HYDROGEOLOGIST: [redacted] b6

CLIENT: Ford / [redacted] b6 DRILLER: Ford Mo. [redacted] b6

WELL LOCATION: Area-D, Loc # 24 DATE/TIME: 4/2/03



Well Head Elevation

Ground Surface Elev.

Well Head Completion Method

HSA / CME

Drilling Method/Rig Type

Surface Casing: Type Flush Mount

Diameter —

Length —

DETAILS OF CONSTRUCTION

Date Completed 4/2/03

Borehole Diameter (in.) 8"

Type and Size of Casing (in.) 2" PVC

Type and Size of Screen (in.) #10 0.01 inch Slot

Screen Perforation Diameter (in.) 2"

Screen Length (ft.) 20'

Centralizer Depths (ft.) —

Completion Technique

1. Type of Filter Pack and Placement Method

0.4 - 0.8 mm

2. Type of Bentonite and Placement Method

Bag 1/2" Pellets Poured Dry Hydrate in Place

3. Type of Grout Mixture and Placement Method

Cement / Bentonite

Description of Potential Problems With Well:

Development Technique

MATERIALS

Cement (sks.)

Filter Pack Material (ft.^{3}) 9 3/4 bags 22.5 kg

Casing Material (ft.) 20

Bentonite (ft.^{3}) 1 1/2 Bucket

Top of Bentonite Seal 16.1 ft.

Top of Filter Pack 19.4 ft. 2 1/2 bags

Top of Screen 23.0 ft.

Bottom of Screen 43.0 ft.

Bottom of Hole 43.5 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT

BENTONITE

FILTER PACK

Added 8 Total

Sand 1/2 Total 11

Bent: 8 1 1/2 Bucket Hydrate w/ 5 Gallons H2O

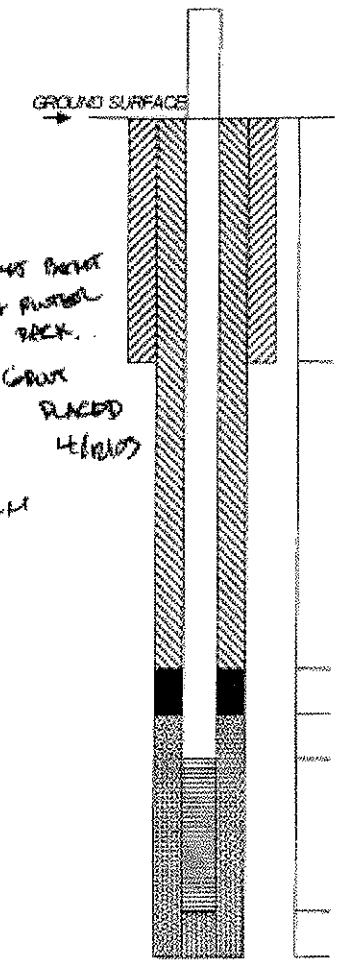
936

WELL COMPLETION RECORD

JOB NO.: Arco D WELL NO. ~~#57~~ MOS-465 HYDROGEOLOGIST: [redacted] bb

CLIENT: Exxon DRILLER: Mr. [redacted] bb

WELL LOCATION: #57 DATE/TIME: 4/12/03



Well Head Elevation

Ground Surface Elev.

Well Head Completion Method: FLUSH MOUNT TRAFFIC BOX

Drilling Method/Rig Type: HSA

Surface Casing: Type NA, Diameter —, Length —

MATERIALS

Cement (sks.)

Filter Pack Material (ft.³): 9.5 BAG

Casing Material (ft.): 45

Bentonite (ft.³): 1 1/2 BUCKET

DETAILS OF CONSTRUCTION

Date Completed: 4/8/03

Borehole Diameter (in.): 8" HAND AUGER & PUSHED BACK.

Type and Size of Casing (in.): 2" PVC

Type and Size of Screen (in.): 2" PVC

Screen Perforation Diameter (in.): 0.01 INCH

Screen Length (ft.): 20'

Centralizer Depths (ft.): NA

Completion Technique

1. Type of Filter Pack and Placement Method: 0.4 - 0.8 mm SILICA
2. Type of Bentonite and Placement Method: 1/2" BARRED POCKETS
3. Type of Grout Mixture and Placement Method:

Description of Potential Problems With Well:

Development Technique

Top of Bentonite Seal: 16.5 ft. ~ 16.5

Top of Filter Pack: 19.5 ft. ~ 19.5

Top of Screen: 22.5 ft.

Bottom of Screen: 42.5 ft.

Bottom of Hole: 43 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT
BENTONITE
FILTER PACK

2.5 750 KG / BAG

SAND: ||||

BENT: ||||

DRUM: 1 1/5

20 LITERS H2O

937

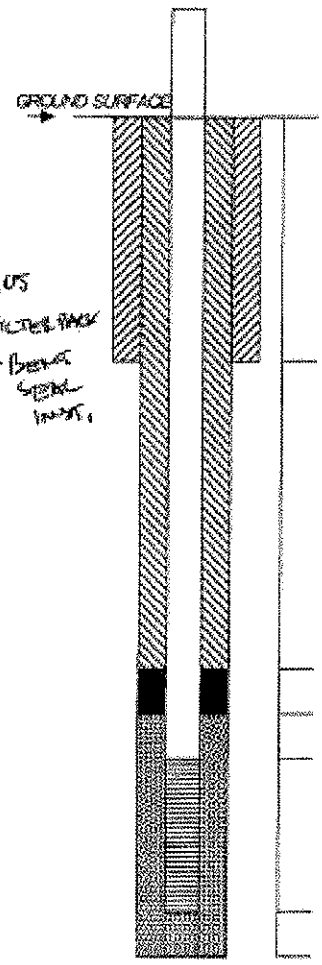
WELL COMPLETION RECORD

MO3-406

JOB NO.: Alcoa D WELL NO. #5 HYDROGEOLOGIST: [redacted] bb

CLIENT: Fluor DRILLER: Mr. [redacted] bb

WELL LOCATION: #5 DATE/TIME: 4/12/03, 1615



Well Head Elevation

Ground Surface Elev.

Well Head Completion Method: Flush mount traffic

Drilling Method/Rig Type: HSA Rig

Surface Casing: Type NA, Diameter —, Length —

DETAILS OF CONSTRUCTION

Date Completed: 4/12/03 0905

Borehole Diameter (in.): 10"

Type and Size of Casing (in.): 2" PVC

Type and Size of Screen (in.): 2" PVC

Screen Perforation Diameter (in.): 0.01 inch

Screen Length (ft.): 20'

Centralizer Depths (ft.): NA

Completion Technique

1. Type of Filter Pack and Placement Method: 0.4 - 0.8 mm silica
2. Type of Bentonite and Placement Method: 1/2" Baroid Pellets
3. Type of Grout Mixture and Placement Method

Description of Potential Problems With Well.

Development Technique

25KB / BAG

SAND - 1 TH 1 1/1

BUCKET - 1 TH

BENT - 1 1/2

MATERIALS

Cement (sks.)

Filter Pack Material (ft.³)

Casing Material (ft.)

Bentonite (ft.³)

Top of Bentonite Seal: 14.5 ft.

Top of Filter Pack: 17.5 ft.

Top of Screen: 20.5 ft.

Bottom of Screen: 40.5 ft.

Bottom of Hole: 41 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT

BENTONITE

FILTER PACK

938

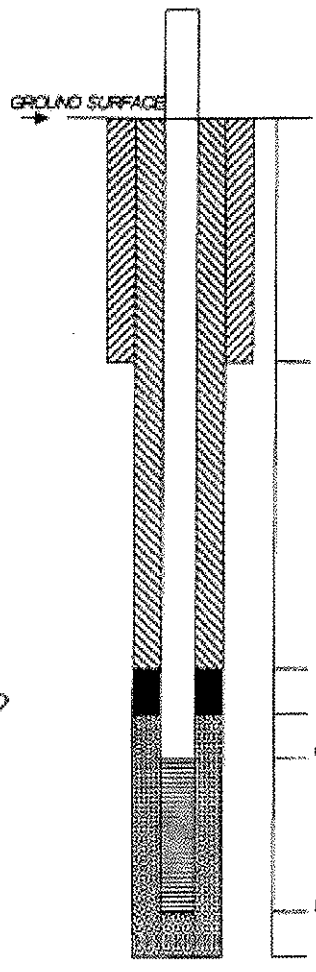
WELL COMPLETION RECORD

NAD 27

JOB NO.: Area D WELL NO. # 12 HYDROGEOLOGIST: [redacted] bb

CLIENT: FED DRILLER: [redacted] bb /FED

WELL LOCATION: 2/12 DATE/TIME: 4/13/03, 1300



Well Head Elevation

Ground Surface Elev.

Well Head Completion Method

Flush Mount Traffic Box

Drilling Method/Rig Type HSA / Geoprobe

DETAILS OF CONSTRUCTION

Date Completed 4/13/03, 1403

Borehole Diameter (in.) 8"

Type and Size of Casing (in.) 2" PVC

Type and Size of Screen (in.) 2" PVC

Screen Perforation Diameter (in.) 0.01 inch

Screen Length (ft.) 20'

Centralizer Depths (ft.) NA

Completion Technique

1. Type of Filter Pack and Placement Method
   0.4 - 0.8 mm Silica Sand
2. Type of Bentonite and Placement Method
   1/4" Baroid Pellets
3. Type of Grout Mixture and Placement Method

Description of Potential Problems With Well:

Development Technique

Surface Casing: Type NA

Diameter —

Length —

MATERIALS

Cement (sks.) 1

Filter Pack Material (ft.^{3}) 9 SACK

Casing Material (ft.) 20

Bentonite (ft.^{3}) 1 1/2 Bucket

Top of Bentonite Seal 14.5 ft.

Top of Filter Pack 17.5 ft. 17.4

Top of Screen 20.5 ft.

Bottom of Screen 40.5 ft.

Bottom of Hole 41 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT

BENTONITE

FILTER PACK

Sand: MW 111

Auger: TH 1f

Bent: 1 1/5 Bucket

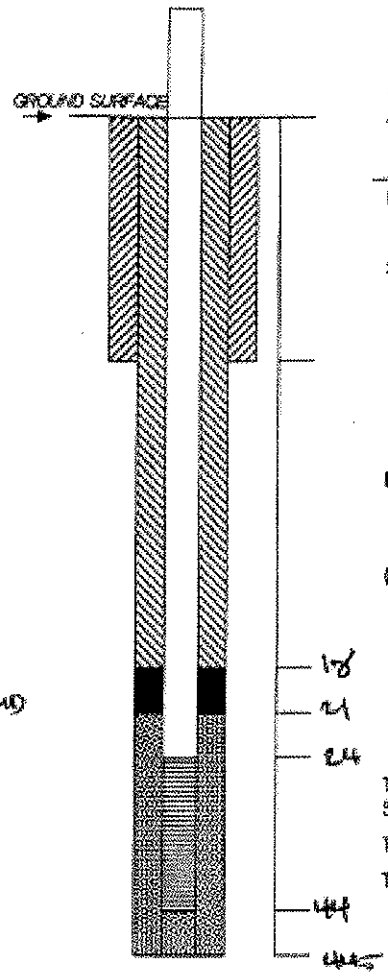
WELL COMPLETION RECORD

MO-468

JOB NO.: [redacted] WELL NO. #38 HYDROGEOLOGIST: [redacted] bb

CLIENT: FMD DRILLER: Mr. [redacted] bb

WELL LOCATION: Area D # 38 DATE/TIME: 4/14/03, 1600



Well Head Elevation

Ground Surface Elev.

Well Head Completion Method

Environment Protection Box

Drilling Method/Rig Type Mob / Geoprobe

DETAILS OF CONSTRUCTION

Date Completed 4/14/03

Borehole Diameter (in.) 6"

Type and Size of Casing (in.) 2" PVC

Type and Size of Screen (in.) 2" PVC

Screen Perforation Diameter (in.) 0.01 inch

Screen Length (ft.) 20

Centralizer Depths (ft.) —

Completion Technique

1. Type of Filter Pack and Placement Method
   0.4 - 0.8 mm SILICA SAND
2. Type of Bentonite and Placement Method
   1/4" Bags Poured
3. Type of Grout Mixture and Placement Method

Description of Potential Problems With Well:

Development Technique

Surface Casing: Type NA

Diameter —

Length —

MATERIALS

Cement (sks.)

Filter Pack Material (ft.^{3}) 6 Bags · 150 Lbs

Casing Material (ft.) 20'

Bentonite (ft.^{3}) 1 Bucket = 5 Gal

Top of Bentonite Seal 18 ft.

Top of Filter Pack 21 ft.

Top of Screen 24 ft.

Bottom of Screen 44 ft.

Bottom of Hole 45.5 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT

BENTONITE

FILTER PACK

Name: [illegible]

Project: 1

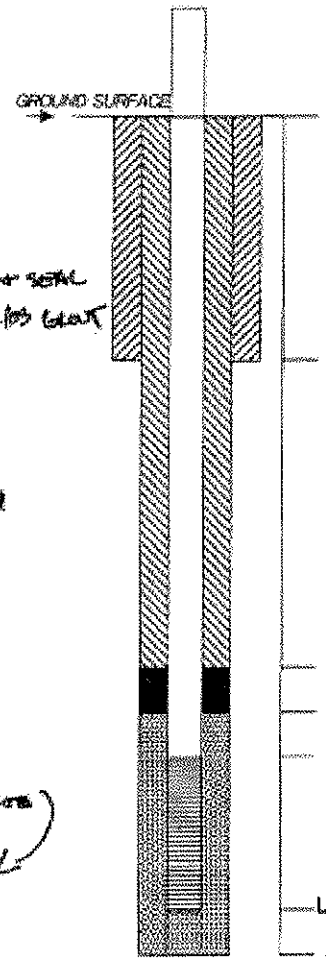
940

WELL COMPLETION RECORD

JOB NO.: AQUA-LM WELL NO. MW-03 - 4-10 54 HYDROGEOLOGIST: [redacted] 66

CLIENT: FED DRILLER: MR. [redacted] 66

WELL LOCATION: AREA 41 LOC #54 DATE/TIME: 4/10/03, 14-24



Well Head Elevation

Ground Surface Elev.

Well Head Completion Method FLUSH MOUNT TRAFFIC MOUNT

Drilling Method/Rig Type HOLLOW - STEM - AUGER DRILL RIG HSA/CME

DETAILS OF CONSTRUCTION

Date Completed 4/10/03 GROUT + SEAL

Borehole Diameter (in.) 8" 4/14/03 GROUT

Type and Size of Casing (in.) 2" PVC

Type and Size of Screen (in.) 2" PVC

Screen Perforation Diameter (in.) 0.01 INCH

Screen Length (ft.) 20'

Centralizer Depths (ft.) -

Completion Technique

1. Type of Filter Pack and Placement Method
   0.4-0.8 mm SILICA
2. Type of Bentonite and Placement Method
   PORTLAND CEMENT / BENTONITE
3. Type of Grout Mixture and Placement Method
   BACKFILL 1/2" PELLETS

Description of Potential Problems With Well:

Development Technique

Surface Casing: Type N/A

Diameter -

Length -

MATERIALS

Cement (sks.) 10 SACKS GR

Filter Pack Material (ft.³) 10 SACKS 250 LB

Casing Material (ft.) 45+25'+20'

Bentonite (ft.³) 1/2" BUCKET

Top of Bentonite Seal 17.7 ft. ~ 17.7

Top of Filter Pack 20.7 ft. ~ 20.7

Top of Screen 23.87 ft.

Bottom of Screen 45.8 ft.

Bottom of Hole 44.2 ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT

BENTONITE

FILTER PACK

SAND: 1 1/4 1 1/4

AUGER: 1 1/4 1 1

BENT.: 12 1/2 1 1/5

4/10/03 15:53, BENT. SEAL IS PLACED. GROUT TO FOLLOW 4/14

HYDRATE 4 GALLONS FOR H20

941

MW3-421

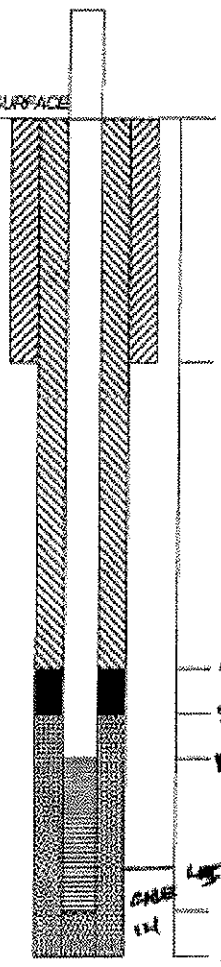
WELL COMPLETION RECORD

JOB NO.: 4P0B4421 CAMP CAPRON WELL NO. MW 66 HYDROGEOLOGIST: [redacted] bb

CLIENT: FWD DRILLER: MW [redacted] bb

WELL LOCATION: AREA 41 LOC: 66 DATE/TIME: 4/4/03 1510

FILTER PACK & BENTONITE INSTALLED 4/4/03 1540



DETAILS OF CONSTRUCTION

Date Completed	4/4/03 1630
Borehole Diameter (in.)	6"
Type and Size of Casing (in.)	2"
Type and Size of Screen (in.)	2" PVC
Screen Perforation Diameter (in.)	10 SLOT (0.01 INCH)
Screen Length (ft.)	25'
Centralizer Depths (ft.)	—

Completion Technique

1. Type of Filter Pack and Placement Method
   0.4 - 0.8 MM SILICA
2. Type of Bentonite and Placement Method
   BAGGED 1/4" PELLETS HYDRATE IN PLACE
3. Type of Grout Mixture and Placement Method
   PORTLAND / BENTONITE

Description of Potential Problems With Well:
PARTIAL COLLAPSE CASING IN 20'-45' FILTER PACK NOT HOMOGENEOUS 45'-49' (DEPTH)

Development Technique

STAND 11'

BOREHOLE 1

Well Head Elevation

Ground Surface Elev.

Well Head Completion Method
FLUSH MOUNT

Drilling Method/Rig Type CME/HSA

Surface Casing: Type N/A
Diameter —
Length —

MATERIALS

Cement (sks.)	
Filter Pack Material (ft.³)	45 1/2 BAGS = 21.8 ft³
Casing Material (ft.)	50' 45'+2.5'
Bentonite (ft.³)	1 BUCKET

Top of Bentonite Seal	18.5	ft.
Top of Filter Pack	21.5	ft.
Top of Screen	24	ft. 24.5
Bottom of Screen	49	ft.
Bottom of Hole	49.5	ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT
BENTONITE
FILTER PACK

25
7 4 5
+ 2

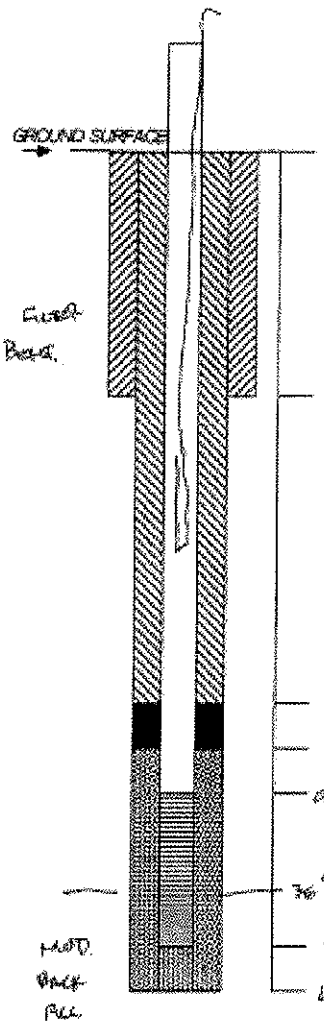
MW-402

WELL COMPLETION RECORD

JOB NO.: Arcadis WI WELL NO. #53 HYDROGEOLOGIST: [redacted] bb

CLIENT: Shell DRILLER: SAR [redacted] bb

WELL LOCATION: Arcadis #53 DATE/TIME: 4/15/03, 0930



Well Head Elevation _____

Ground Surface Elev. _____

Well Head Completion Method

Flush Mount Traffic

Drilling Method/Rig Type HSA

Surface Casing: Type None

Diameter —

Length —

DETAILS OF CONSTRUCTION

Date Completed 4/15/03 0930 Cured

Borehole Diameter (in.) 8" ø Boring

Type and Size of Casing (in.) 2" PVC

Type and Size of Screen (in.) 2" PVC

Screen Perforation Diameter (in.) 0.01 inch

Screen Length (ft.) 30'

Centralizer Depths (ft.) NA

Completion Technique

1. Type of Filter Pack and Placement Method

   0.4 - 0.8 mm Silica Sand

2. Type of Bentonite and Placement Method

   1/4" Bent. Pellets

3. Type of Grout Mixture and Placement Method

Description of Potential Problems With Well:

Mud cuttings to 36'

Surface not flush mount well

Development

Development Technique

MATERIALS

Cement (sks.) _____

Filter Pack Material (ft.^{3}) 10 x 45kg + 2.50 x 25kg

Casing Material (ft.) 30'

Bentonite (ft.^{3}) 1 Bucket

Top of Bentonite Seal	3.5	ft.
Top of Filter Pack	6.5	ft.
Top of Screen	9.5	ft.
Bottom of Screen	39.5	ft.
Bottom of Hole	40	ft.

NOTE: ALL DEPTHS ARE REFERENCED TO GROUND SURFACE

GROUT

BENTONITE

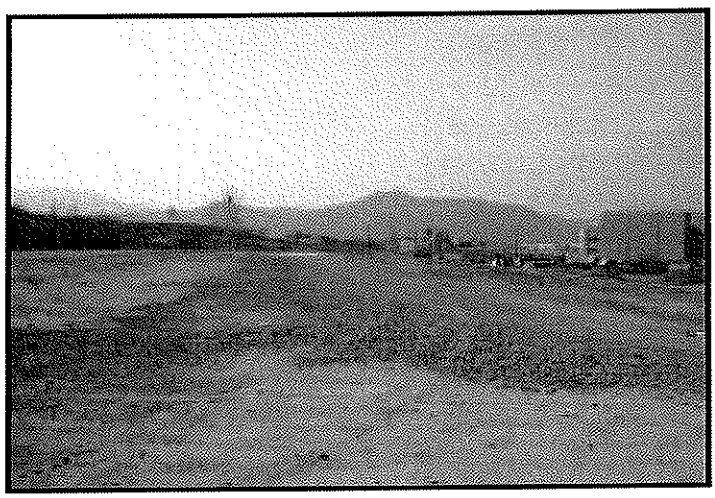
FILTER PACK

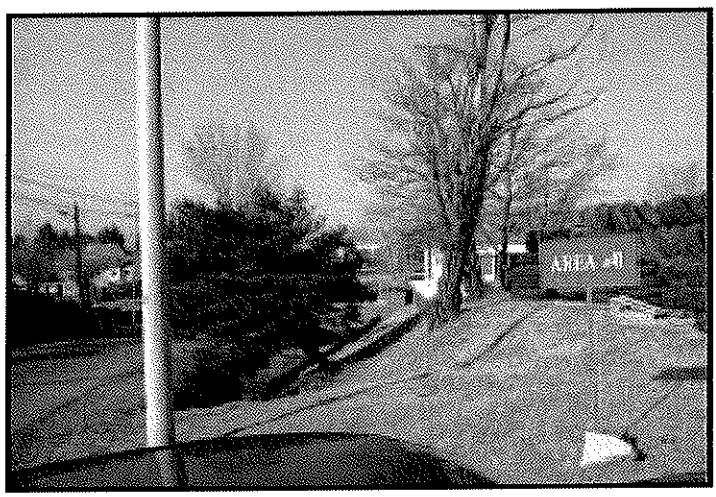
Sand Filter Pack

943

Appendix D

Photographic Records





Appendix E

Rainfall Records, Water Level Measurements,

and Aquifer Testing Results

Camp Carroll Area D WATER LEVEL

	LOCATION									
	M03-463 (NO. 24)			M03-461 (NO. 01)			M03-465 (NO. 37)			
	North 3983282.40			North 3983364.10			North 3983361.10			
	East 447709.20			East 447705.50			East 447646.40			
	Cap 48.75			Cap 49.93			Cap 51.02			
	Casing Top 48.55			Casing Top 49.79			Casing Top 50.90			
	GL 48.74			GL 49.92			GL 50.99			
DATE	TIME	WATER	Sealevel	TIME	WATER	Sea	TIME	WATER	Sea	Rainfall
2003-04-07	-			-			-			7.5
2003-04-08	-			-			-			6.5
2003-04-09	9:30	8.077	40.473	9:00			-			-
	-			10:20	8.717	41.073	-			-
2003-04-10	8:35	8.394	40.156	8:35	8.148	41.642	-			-
2003-04-11	16:40	7.990	40.560	16:30	8.299	41.491	-			2.0
	-			-			-			-
2003-04-12	14:20	8.020	40.530	14:10	8.289	41.501	-			-
	-			-			16:30	9.381	41.519	-
2003-04-13	8:00	8.135	40.415	7:54	8.352	41.438	7:46	9.440	41.460	-
	13:30	8.105	40.445	13:20	8.333	41.457	13:12	9.423	41.477	-
2003-04-14	9:45	8.165	40.385	9:34	8.362	41.428	9:24	9.457	41.443	-
2003-04-15	10:14	8.220	40.330	10:35	8.395	41.395	10:30	9.480	41.420	-
2003-04-16	9:20	8.246	40.304	9:03	8.410	41.380	8:57	9.502	41.398	-
2003-04-17	8:57	8.130	40.420	8:00	8.400	41.390	7:43	9.495	41.405	-
2003-04-18	8:33	8.092	40.458	8:22	8.370	41.420	8:14	9.460	41.440	16.5
2003-04-19	-			-			-			11.0
2003-04-20	-			-			-			9.5
2003-04-21	15:00	8.086	40.470	15:05	8.392	41.398	17:10	9.488	41.412	-
2003-04-22	-			9:23	8.542	41.248	10:45	9.525	41.375	-
2003-04-23	-			17:00	8.375	41.415	17:10	9.410	41.490	28.0
2003-04-24	-			-			-			3.0
2003-04-25	14:50	7.790	40.850	9:50	8.295	41.495	8:20	9.370	41.530	47.5
2003-04-26	7:42	7.870	40.680	8:05	8.330	41.460	-			-
2003-04-27	-			8:45	8.320	41.470	-			-
2003-04-28	8:57	7.513	41.037	9:05	8.294	41.496	8:49	9.358	41.542	-
2003-04-29	-			-			-			18.5
2003-05-25	-			-			-			57.5
2003-05-26	-			-			-			4.0
2003-05-27	-			-			-			-
2003-05-28	9:40	7.040	41.510	9:50	7.859	41.931	9:47	8.916	41.984	-
2003-05-29	8:29	6.963	41.587	8:37	7.851	41.939	8:43	8.899	42.001	5.5
2003-05-30	-			-			-			111.5
2003-05-31	-			-			-			0.2
2003-06-01	-			-			-			-
2003-06-02	9:18	6.893	41.745	9:32	7.755	42.005	9:43	8.836	42.080	-
2003-06-03	-			-			-			-
2003-06-04	-			-			-			-
2003-06-05	-			-			-			73.5
2003-08-18	-			-			-			30.5
2003-08-19	-			-			-			5.0
2003-08-20	12:01	6.124	42.476	12:07	6.788	43.002	11:44	7.792	43.108	
AVERAGE		7.775	40.778		8.223	41.567		9.248	41.652	

947

Camp Carroll Area D WATER LEVEL

	LOCATION									
	MW-466 (NO. 39)			MW-467 (NO. 12)			MW-468 (NO. 38)			
	North 3983301.60 East 447734.10 Cap 49.74 Casing Top 49.58 GL 49.72			North 3983326.08 East 447718.70 Cap 49.94 Casing Top 49.79 GL 49.93			North 3983390.10 East 447754.30 Cap 51.57 Casing Top 51.41 GL 51.55			
DATE	TIME	WATER	Sea Level	TIME	WATER	Sea level	TIME	WATER	Sea level	Rainfall
2003-04-07	-			-			-			7.5
2003-04-08	-			-			-			6.5
2003-04-09	-			-			-			-
	-			-			-			-
2003-04-10	-			-			-			2.0
2003-04-11	-			-			-			-
2003-04-12	-			-			-			-
	-			-			-			-
2003-04-13	7:40	8,010	41,570	-			-			-
	13:35	7,660	41,920				-			-
2003-04-14	9:50	7,845	41,735	9:42	8,460	41,330				-
2003-04-15	10:20	7,890	41,690	10:25	8,485	41,305	-			-
2003-04-16	9:13	7,915	41,665	9:08	8,515	41,275	8:45	9,498	41,912	-
2003-04-17	7:54	7,898	41,682	7:52	8,495	41,295	7:45	9,488	41,922	-
2003-04-18	8:29	8,145	41,435	8:26	8,452	41,338	8:12	9,455	41,955	16.5
2003-04-19	-			-			-			11.0
2003-04-20	-			-			-			9.5
2003-04-21	15:48	8,160	41,420	16:30	8,485	41,305	17:15	9,495	41,915	-
2003-04-22	9:30	8,470	41,110	9:28	8,590	41,200	8:52	9,495	41,915	-
2003-04-23	17:05	7,990	41,590	-			17:17	9,445	41,965	28.0
2003-04-24	-			-			-			3.0
2003-04-25	14:40	7,900	41,680	14:44	8,280	41,510	8:50	9,435	41,975	47.5
2003-04-26	7:38	8,095	41,485	7:34	8,370	41,420	8:00	9,490	41,920	-
2003-04-27	12:43	7,866	41,720	9:01	8,255	41,535	8:40	9,485	41,925	-
2003-04-28	8:53	7,833	41,747	-			8:45	9,489	41,921	-
2003-04-29	-			-			-			18.5
2003-05-25	-			-						57.5
2003-05-26	-			-						4.0
2003-05-27	-			-						-
2003-05-28	9:37	7,369	42,211	9:44	7,842	41,948	9:34	9,195	42,215	-
2003-05-29	9:01	7,332	42,248	8:33	7,813	41,977	8:40	9,172	42,238	5.5
2003-05-30	-			-						111.5
2003-05-31	-			-						0.2
2003-06-01	-			-						-
2003-06-02	9:10	7,185	42,395	9:23	7,698	42,092	9:38	9,135	42,275	-
2003-06-03	-			-			-			-
2003-06-04	-			-			-			-
2003-06-05	-			-			-			73.5
2003-08-18	-			-			-			30.5
2003-08-19	-			-			-			5.0
2003-08-20	11:54	6,262	43,318	12:03	6,740	43,050	11:45	8,118	43,296	
AVERAGE		7,768	41,812		8,177	41,613		9,314	42,096	

948

Camp Carroll Area D WATER LEVEL

	LOCATION									
	AHW-23									
	North East Cap Casing Top GL	42.69 42.02		North East Cap Casing Top GL			North East Cap Casing Top GL			
DATE	TIME	WATER	Sea level	TIME	WATER	REMARK	TIME	WATER	REMARK	Rainfall
2003-04-07	-	-								7.5
2003-04-08										6.5
2003-04-09										-
2003-04-10										-
2003-04-11										2.0
2003-04-12										-
2003-04-13										-
2003-04-14										-
2003-04-15										-
2003-04-16										-
2003-04-17										-
2003-04-18										16.5
2003-04-19										11.0
2003-04-20										9.5
2003-04-21										-
2003-04-22										-
2003-04-23										28.0
2003-04-24										3.0
2003-04-25										47.5
2003-04-26	11:05	5.137	37.563							-
2003-04-27	8:30	5.130	37.569							-
2003-04-28	-									-
2003-04-29	-									18.5
2003-05-25	-									57.5
2003-05-26	-									4.0
2003-05-27	-									-
2003-05-28	-									-
2003-05-29	-									5.5
2003-05-30	-									111.5
2003-05-31	-									0.2
2003-06-01	-									-
2003-06-02										-
2003-06-03	-									-
2003-06-04	-									-
2003-06-05	-									-
2003-08-18	-					TOC				73.5
2003-08-19	-					TOC				30.5
2003-08-20	12:13	3.548	39.142			TOC				5.0
AVERAGE		4.607	38.088							

Camp Carroll Area 41 WATER LEVEL

	LOCATION									
	M03-470 (NO. 54)			M03-472 (NO. 66)			M03-471 (NO. 53)			
	North 3982893.30 East 446660.60 Cap 39.41 Casing Top 39.30 GL 39.40			North 3982909.10 East 446653.90 Cap 39.48 Casing Top 39.36 GL 39.47			North 3982915.90 East 446680.10 Cap 39.78 Casing Top 39.64 GL 39.74			
DATE	TIME	WATER LEVEL(M)	Sealevel	TIME	WATER LEVEL(M)	Sea level	TIME	WATER LEVEL(M)	Sea level	Rainfall (mm)
2003-04-03	-			-			-			-
2003-04-07	-			-			-			7.5
2003-04-08	-			-			-			6.5
2003-04-10	13:10	10.668	28.636	-			- -			- -
2003-04-11	13:30 -	10.385	28.919				- -			2.0
2003-04-14	10:10 15:18	10.330 10.358	28.974 28.946	10:05 15:24	10.458 10.408	28.902 28.960	- -			- -
2003-04-15	7:36 -	10.390	28.914	7:37 -	10.440	28.920	7:33	4.220	34.890	- -
2003-04-17	13:29	10.403	28.901	13:27	10.435	28.925	13:24	4.472	35.138	-
2003-04-18	9:00	10.375	28.929	10:09	10.420	28.940	10:58	4.460	35.150	16.5
2003-04-19	-			-			-			11.0
2003-04-20	-			-			-			9.5
2003-04-23	9:24	10.385	28.919	9:29	10.430	28.930	9:20	4.370	35.240	28.0
2003-04-24	8:11	10.350	28.954	8:05	10.450	28.910	8:25	4.360	35.250	3.0
2003-04-25	-			-			-			47.5
2003-04-28	9:35	10.130	29.174	9:40	10.260	29.100	9:30	4.240	35.370	-
2003-04-29	-			-			-			18.5
2003-05-25	-						-			52.5
2003-05-26	-						-			4.0
2003-05-27	-						-			-
2003-05-28	-						-			-
2003-05-29	-						-			5.5
2003-05-30	-						-			111.5
2003-05-31	-						-			0.2
2003-06-01	-						-			-
2003-06-02	-						-			-
2003-06-03	9:25	9.578	29.726	13:20	9.670	29.690	14:00	4.170	35.490	- -
2003-06-04	-			12:27	9.766	29.660	-			
2003-06-05	-			-			-			-
2003-08-18	-			-			-			73.5
2003-08-19	-			-			-			30.5
2003-08-20	10:40	7.943	31.361	10:45	8.212	31.148	10:35	3.723	35.887	5.0
AVERAGE		10.108	29.196		10.080	29.280		4.308	35.302	

Camp Carroll Area 41 WATER LEVEL

	LOCATION									
	MW14									
	North East Cap Casing Top 38.50 GL 38.83			North East Cap Casing Top GL			North East Cap Casing Top GL			
DATE	TIME	WATER LEVEL(M)	Sea level	TIME	WATER LEVEL(M)	REMARK	TIME	WATER LEVEL(M)	REMARK	Rainfall (mm)
2003-04-03	10:30	6.472	29.028							-
2003-04-07	-									7.5
2003-04-08	-									6.5
2003-04-10	9:55	6.666	28.834							-
	-									
2003-04-11	13:15	6.450	29.050							2.0
	-									
2003-04-14	10:15	6.509	28.991							-
	15:30	6.475	29.025							-
2003-04-15	-									-
	-									-
2003-04-17	7:49	6.522	28.978							-
2003-04-18	13:35	6.530	28.970							16.5
2003-04-19	-									11.0
2003-04-20	-									9.5
2003-04-23	9:38	6.370	29.130							28.0
2003-04-24	8:40	6.510	28.990							3.0
2003-04-25	-									42.5
2003-04-28	9:36	6.880	28.620							-
2003-04-29	-									18.5
2003-05-25	-									57.5
2003-05-26	-									4.0
2003-05-27	-									-
2003-05-28	-									-
2003-05-29	-									5.5
2003-05-30	-									111.5
2003-05-31	-									0.2
2003-06-01	-									-
2003-06-02	-									-
2003-06-03	13:28	6.260	29.240							-
2003-06-04	9:42	6.553	28.947							-
2003-06-05	-									-
2003-08-18	-					TOC				23.5
2003-08-19	-					TOC				30.5
2003-08-20	10:50	4.613	30.887			TOC				5.0
AVERAGE		6.349	29.151							

Appendix F

Laboratory Results and COC Documentation

Laboratory Results

Attached CD
File name: DV_23833.mdb

954

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

PAGE 1 OF 3

(1) CLIENT: Samsung / FED / MNA

CONTACT: [redacted] bb PHONE NO: [redacted] bb

PROJECT: [illegible] PWSID#:

REPORTS TO: [redacted] bb 4/11/03

[redacted] FAX NO: [redacted] bb

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

(2) (3)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	Preservatives Used	Analysis Required: TPH-G (8015M)	TPH-D (8015M)	SVOC (8270C)	Organochlorine Pesticides (8081A)	PCBs (8082)	Chlorinated Herbicides (8151A)	RCRA 8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC010SS01	4/1/03	1028	S	8	G		✓	✓	✓	✓	✓	✓	✓	✓		No dioxin analysis
	CC004SS01		1053		8			✓	✓	✓	✓	✓	✓	✓	✓		
	CC001SS01		1103		8			✓	✓	✓	✓	✓	✓	✓	✓		
	CC007SS01		1115		8			✓	✓	✓	✓	✓	✓	✓	✓		
	CC010BS01		1140		8+1			✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC018SS01		1130		7			✓	✓	✓	✓	✓	✓	✓			
	CC009SS01		1145		7			✓	✓	✓	✓	✓	✓	✓			
	CC013SS01		1200		7			✓	✓	✓	✓	✓	✓	✓			
	CC107SS01		1115		8			✓	✓	✓	✓	✓	✓	✓	✓		
	CC010BS02		1220		8	G		✓	✓	✓	✓	✓	✓	✓	✓		

(5) Collected/Relinquished By: (1) Samsung [redacted] bb — Date: 1 April 03 — Time: 1810 — Received By:

Relinquished By: (2) — Date — Time — Received By:

Relinquished By: (3) — Date — Time — Received By:

Relinquished By: (4) — Date — Time — Received For Laboratory By:

(4) Shipping Carrier: DHL — Shipping Tracking No.: — Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal (Circle): INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

Standard TAT

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8656 Fax: (907) 474-9685

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

PAGE 2 OF 3

(1) CLIENT: Samsung/FED/MNA
CONTACT: [redacted] 66 PHONE NO: [redacted] 66
PROJECT: MNA 10/04 PWSID#:
REPORTS TO: [redacted] 66 FAX NO: [redacted] 66
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

(2)

LAB #	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	(3) TPH-G (AK101M)	TPH-D (AK102M)	SVOC (8270C)	Pest-Herbicide (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA Empty	Dioxin (8290)	VOC (8260B)	REMARKS
	CC015SS01	4/1/03	1420	S	7	C	✓	✓	✓	✓	✓	✓	✓			
	CC003SS01	"	1440	"	7	"	✓	✓	✓	✓	✓	✓	✓			
	CC103SS01	"	1440	"	7	"	✓	✓	✓	✓	✓	✓	✓			
	CC004SS01	"	1429	"	7	"	✓	✓	✓	✓	✓	✓	✓			1429
	CC019SS01	"	1515	"	7	"	✓	✓	✓	✓	✓	✓	✓			1515
	CC006SS01	"	1500	"	8	"	✓	✓	✓	✓	✓	✓	✓	N/A	✓	1500 No dioxin
	CC[illegible]B[illegible]2	"	1515	"	8	"	✓	✓	✓	✓	✓	✓	✓	✓	✓	1515
	CC026SS01	"	1615	"	7	G	✓	✓	✓	✓	✓	✓	✓			
	CC020SS01	"	1620	"	7	C	✓	✓	✓	✓	✓	✓	✓			
	CC025SS01	"	1636	"	7	C	✓	✓	✓	✓	✓	✓	✓			

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Samsung [redacted] 66	1 April 03	1810	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)
Shipping Carrier: DHL
Shipping Ticket No:
Temperature °C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:
Standard TAT

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

PAGE 3 OF 3

(1) CLIENT: Stanley/FEDI MNA
CONTACT: [redacted] bb PHONE NO: [redacted]
PROJECT: MNA 10164 PWSID#:
REPORTS TO: [redacted] bb
FAX NO: [redacted] bb
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

(2)

Lab No.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	(3) Analysis Required: TPH-G (AK101)	TPH-D (AK103)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC0235S01	4/1/03	1715	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC0215S01	"	1658	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC0268BS02	"	1714	S	9	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC026BS01	"	1631	S	8	C		✓	✓	✓	✓	✓	✓	✓		✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] bb	1 April 03	1910	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)
Shipping Carrier: DHL
Shipping Tracking No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:
Standard TAT

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

• Alaska • Maryland
• Michigan • New Jersey
• West Virginia • New Orleans
www.cteesi.com

(1)
CLIENT: Samsung / FEDI MNA
CONTACT: [redacted] PHONE NO: [redacted]
PROJECT: MNA 10114 PWSID#:
REPORTS TO: [redacted] FAX NO: [redacted]
INVOICE TO: MNA QUOTE# P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 3

(2)

Lab No.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	(3) Analysis Required: TPH-G (AK101)	TPH-D (AK103)	SVOC (8270C)	PAH (8270C SIM)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Dioxin (2290)	VOC (8260B)	REMARKS
	CC 001 SS01	4/1/03	1103	S	1	C					✓						
	CC 006 SS01	4/1/03	1429		1				✓								
	CC 107 SS01	4/1/03	1115		1							✓					
	CC 015 SS01	4/1/03	1420		1		✓										
	CC 017 SS01	4/2/03	0843		7	C	✓	✓	✓	✓	✓	✓	✓				
	CC 017 BS01	4/2/03	0915		8	C	✓	✓	✓	✓	✓	✓	✓		✓		
	CC 029 SS01	4/2/03	0925		7	C	✓	✓	✓	✓	✓	✓	✓				
	CC 030 SS01	4/2/03	1030		7	C	✓	✓	✓	✓	✓	✓	✓				
	CC 031 SS01	4/2/03	1047		7	C	✓	✓	✓	✓	✓	✓	✓				
	CC 017 BS02	4/2/03	0935		8	C	✓	✓	✓	✓	✓	✓	✓		✓		

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted]	4/2/03	1405	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)
Shipping Carrier: DHL Cr. Temperature Cr:
Shipping Tracking #:
Data Deliverables:
Level I Level II Level III EDD Type:
Check if Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler
0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: Samsung/FED/MNA

CONTACT: [redacted] bb PHONE NO: [redacted] bb

PROJECT: MNA 10144 PWSID#:

REPORTS TO: [redacted] bb

FAX NO: [redacted] bb

INVOICE TO: MNA

QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 2 OF 3

(2)

Lab No.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3) TPH-G (AK95m)	TPH-D (AK15m)	SVOC (M270)	PetHydro (mod)	PCBs (M8082)	Herbicides (M8151A)	RCRA Metals (6)	Dioxin (M1613)	VOC (M8260B)	REMARKS
	CC017BS03	4/2/03	1030	S	9	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC032SS01	4/2/03	1109	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC018SS01	4/2/03	1110	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC018BS01	4/2/03	1320	S	7	C		✓	✓	✓	✓	✓	✓	✓		✓	
	CC018BS02	4/2/03	1400	S	6	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	~~CC018BS~~ CC118BS02	4/2/03	1400	S	6	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC014SS01	4/2/03	1400	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC114SS01	4/2/03	1400	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC022SS01	4/2/03	1430	S	7	C		✓	✓	✓	✓	✓	✓	✓			
	CC035SS01	4/2/03	1500	S	7	C		✓	✓	✓	✓	✓	✓	✓			

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Samsung [redacted] bb	4/2/03	1805	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Hand

Shipping Tracking #:

Temperature °C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Maryland
- Michigan
- New Jersey
- West Virginia
- New Orleans

www.cteesi.com

PAGE 3 OF 3

(1) CLIENT: Samsung / EDD / MJA

CONTACT: [redacted] bb PHONE NO: [redacted]

PROJECT: MJA 10104 PWSID#:

REPORTS TO: [redacted] bb

FAX NO: [redacted] bb

INVOICE TO: MJA

QUOTE#

P.O. NUMBER:

CT&E Reference:

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	(3) Analysis Required: TPH-G (AK101)	TPH-D (AK102)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC022BS01	4/2/03	1545	S	6	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC028BS01	4/2/03	1653	S	5	C		✓	✓	✓	✓	✓	✓	✓		✓	
	CC128BS01	4/2/03	1653	S	5	C		✓	✓	✓	✓	✓	✓	✓		✓	
	CC029BS02	4/2/03	1710	S	6	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Trip blank	4/2/03	—	W	2	—		✓								✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Samsung [redacted] bb	4/6/03	1805	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: DHL

Shipping Tracking No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

• Alaska • Maryland
• Michigan • New Jersey
• West Virginia • New Orleans
www.ctesi.com

(1) CLIENT: Samsung/FEDI MNA
CONTACT: M. Nok PHONE NO: [redacted] b6
PROJECT: MNA 10/UV PWSID#:
REPORTS TO: [redacted] b6 FAX NO: ([redacted] b6
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E [redacted]

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	(3) Analysis Required: TPH-G (AK101M)	TPH-D (AK102M)	SVOC (8270C)	Perchlorate (6850A)	PCBs (8082)	Hydrazine (8015M)	Regd metals (6010B)	Diesel (AK102)	VOC (8260B)	REMARKS
	CC027BS01	4/3/03	0811	S	5	C	✓	✓	✓	✓	✓	✓	✓		✓	
	CC027BS02	4/3/03	0847	S	6	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC052SS01	4/3/03	1340	S	5	C	✓	✓	✓	✓	✓	✓	✓			
	CC061SS01	4/3/03	1430	S	5	C	✓	✓	✓	✓	✓	✓	✓			
	CC061BS01	4/3/03	1440	S	6	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC161BS01	4/3/03	1440	S	6	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC062SS01	4/3/03	1500	S	5	C	✓	✓	✓	✓	✓	✓	✓			
	CC065SS01	4/3/03	1500	S	3	C		✓	✓	✓			✓			
	CC065BS01	4/3/03	1515	S	5	C	✓	✓	✓	✓	✓	✓	✓		✓	
	CC060SS01	4/3/03	1540	S	5	C	✓	✓	✓	✓	✓	✓	✓			

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Jeremy [redacted] b6	4/3/03	1730	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4) Shipping Carrier: FedEx
Shipping Tracking #s:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

PAGE 2 OF 2

(1)
CLIENT: Samsung/ FED/ MNA b6 [redacted]@aloha.net
CONTACT: [redacted] b6 PHONE NO: [redacted] b6
PROJECT: MNA 101LY-Ce Small PWSID#:
REPORTS TO: [redacted] b6 b6
FAX NO: [redacted] b6 b6
INVOICE TO: MNA
QUOTE#
P.O. NUMBER:

CT&E Reference:

(2)

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3) TPH-G (AK101)	TPH-D (AK102)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Diesel (AK102)	VOC (8260B)	REMARKS
CC060BS01	4/3/03	1550	S	6	C		✓	✓	✓	✓	✓	✓	✓		✓	
							✓	✓	✓		✓	✓	✓			

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Lemieux, [redacted] b6	4/3/03	17:30	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)
Shipping Carrier: FedEx
Airbill/ Ticket No.:
Temperature On Receipt:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Samsung/FEDI MNA [redacted]@alohanet
CONTACT: [redacted] b6 PHONE NO: [redacted] b6
PROJECT: MNA Ponds - Co. Camp PWSID#:
REPORTS TO: [redacted] b6 FAX NO: [redacted] b6
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 2

(2)

LAB #	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	TPH-D (AK15m)	TPH-D (AK15m)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	~~0~~ CC063SS01	414103	0905	S	5	C	✓	✓	✓	✓	✓	✓	✓			
	CC063BS01	414103	0920	S	5	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC058SS01	414103	0925	S	3	C		✓	✓	✓		✓	✓			
	CC158SS01	414103	0925	S	3	C		✓	✓	✓		✓	✓			
	CC058BS01	414103	0935	S	5	C	✓	✓	✓	✓	✓	✓	✓		✓	
	CC056SS01	414103	0935	S	5	C	✓	✓	✓	✓	✓	✓	✓			
	CC055SS01	414103	1003	S	5	C	✓	✓	✓	✓	✓	✓	✓	✓		
	CC051SS01	414103	1010	S	6	C	✓	✓	✓	✓	✓	✓	✓	✓		
	CC057SS01	414103	1045	S	4	C	✓	✓	✓	✓	✓	✓	✓			
	CC157SS01	414103	1045	S	4	C	✓	✓	✓	✓	✓	✓	✓			

(3) Preservatives Used / Analysis Required

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted]	414103	17:00	
Relinquished By: (2) [redacted] b6	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4) Shipping Carrier: DHL
Shipping Tracking No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Samsung/ FED/ MNA [redacted]@alohanet

CONTACT: [redacted] bb PHONE NO: [redacted]

PROJECT: MNA 10144 - Cp. Carroll PWSID#: bb

REPORTS TO: [redacted] bb

bb FAX NO: [redacted] bb

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	(3) Analysis Required: TPH-G (AK101m)	TPH-D (AK101m)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC059SS01	4/4/03	1050	S	4	C		✓	✓	✓	✓	✓	✓	✓			
	CC067SS01	4/4/03	1305	S	6	C		✓	✓	✓	✓	✓	✓	✓	✓		
	~~CC068SS01~~ CC069SS01	4/4/03	1400	S	4	C		✓	✓	✓	✓	✓	✓	✓			
	CC070SS01	4/4/03	1446	S	4	C		✓	✓	✓	✓	✓	✓	✓			

(5)

	Date	Time	Received By:
Collected/Relinquished By: (1) [redacted]	4/4/03	17:00	
Relinquished By: (2) [redacted] bb	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: DHL

Shipping Tracking No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-3656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

• Alaska • Maryland
• Michigan • New Jersey
• West Virginia • New Orleans
www.cteesi.com

PAGE 1 OF 1

(1) CLIENT: Samsung / FED / MNA [redacted]@aloha.net
CONTACT: [redacted] PHONE NO: [redacted]
PROJECT: MNA 10144 - Cp. Carroll PWSID#:
REPORTS TO: [redacted] FAX NO: [redacted]
INVOICE TO: MNA QUOTE# P.O. NUMBER:

CT&E Reference:

(2)

Lab No.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	Preservatives Used	Analysis Required (3) TPH-G (AK101)	TPH-D (AK102)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC024BS01	4/8/03	0950	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC024BS02	4/8/03	1030	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC024BS03	4/8/03	1057	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	

(5)

	Date	Time	
Collected/Relinquished By: (1) [redacted]	4/8/03	1535	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: DHL Temperature °C:
Shipping Ticket No:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seals (Circle): INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler
0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

CT&E Reference:

PAGE 1 OF 1

(1) CLIENT: Samsung/FED/MNA [redacted]@aloha.net
CONTACT: [redacted] b6 PHONE NO: [redacted] b6
PROJECT: MNA 10144 - CO. Carroll PWSID#:
REPORTS TO: [redacted] b6 FAX NO: [redacted] b6
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	TPH-G (8015m)	TPH-D (8015m)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC001BS01	4/9/03	0820	S	5	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC080BS01	4/9/03	1040	S	5	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC180BS01	4/9/03	1040	S	4	C	✓	✓	✓	✓	✓	✓	✓		✓	
	~~CC007SS01~~ Cho 4/9/03 CC054SS01	4/9/03	1340	S	3	C		✓	✓	✓	✓	✓	✓			
	~~CC007BS01~~ Cho 4/9/03 CC054BS01	4/9/03	1540	S	4	C	✓	✓	✓	✓	✓	✓	✓		✓	

(5)

Collected/Relinquished By: (1) [redacted]	Date 4/9/03	Time 19:00	Received By:
Relinquished By: (2) b6	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)
Shipping Carrier: DHL
Shipping Bill No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Samsung/FEDI MNA [redacted]@alaska.net
CONTACT: [redacted] PHONE NO: [redacted]
PROJECT: MNA Joint - Co Carroll PWSID#:
REPORTS TO: [redacted] FAX NO: [redacted]
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE (C = COMP, G = GRAB)	(3) Preservatives Used / Analysis Required: TPH-G (AK101)	TPH-D (AK103)	SVOC (8270C)	PAH (8270C SIM)	PCBs (8082)	Herbicides (8151A)	RCRA Metals	Dioxin (8290)	VOC (8260B)	REMARKS
	CC066SS01	4/11/03	0820	S	5	C	✓	✓	✓	✓	✓	✓	✓	✓		
	CC066BS01	4/11/03	0905	S	5	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC066BS02	4/11/03	1135	S	4	C	✓	✓	✓	✓	✓	✓	✓		✓	

(5)

	Date	Time	Received By:
Collected/Relinquished By: (1) [redacted]	4/11/03	1415	
Relinquished By: (2) [redacted]	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4) Shipping Carrier: DHL
Shipping Ticket No:
Temperature, C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requestec Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

6-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

PAGE 1 OF 1

(1) CLIENT: Samsung/ FED / MNA [redacted]@aloha.net

CONTACT: [redacted] PHONE NO: [redacted]

PROJECT: MNA Inlet - Co. Carroll PWSID#:

REPORTS TO: [redacted] FAX NO: [redacted]

INVOICE TO: MNA QUOTE# P.O. NUMBER:

CT&E Reference:

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3) TPH-D (AK 102)	TPH-D (AK 103)	SVOC (8270C)	PAH (8310)	PCBs (8082)	Pesticides (8081A)	Resin Acids (8270C)	Dioxin (8290)	VOC (8260B)	REMARKS
	~~CC031B501~~	~~04/12/03~~	0855		Cho	4/12/03											
	CC031B501	04/12/03	0855	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	CC031B502	04/12/03	0955	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted]	4/12/03	1350	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: DHL Temperature C:

Sample Taken by:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle) INTACT: BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Samm/FED/MUA b6 @alaska.net

CONTACT: [redacted] b6 PHONE: [redacted] b6

PROJECT: MUA/Olive Cr Canal PWSID#:

REPORTS TO: [redacted] b6 b6

FAX NO: [redacted] b6

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)	REMARKS
	CC038501	9/14/03	0830	S	5	C		✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	9/14/03	1040	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: DHL Temperature C:

Shipping Ticket No:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Samuel FED/MNA b6 @alaska.net
CONTACT: [redacted] b6 PHONE NO: [redacted] b6
PROJECT: Tonn - Gr. Carroll PWSID#:
REPORTS TO: [redacted] b6 b6
FAX NO: [redacted] b6
INVOICE TO: MNA QUOTE# P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2) (3)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required: TPH-DRO (AK102)	TPH-GRO (AK101)	SVOC (8270D)	PAH Ultra (8270D)	PCBs (Low)	Herbicides (8151A)	RCRA Metals (6010B/7470A)	Chlorinated Pesticides (8081B)	VOC (8260B Low)	REMARKS
	CC040SS01	4/15/03	1105	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓		
	CC040BS01	4/15/03	1215	S	5	C		✓	✓	✓	✓	✓	✓	✓	✓	✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted]	4/15/03	14:00	
Relinquished By: (2) b6	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: UPS Temperature C:
Shipping Ticket No:
Data Deliverables: Chain of Custody Seal: (Circle)
Level I Level II Level III EDD Type: INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: Tonsina T. / MNA b6 [redacted] b6 Subcontract

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: MNA 10144 - Gp. Cond. PWSID#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3) Metals (Hg)	REMARKS
	CC001SS01	5/21/03	1105	Soil	1	C		✓	
	CC001BS01	5/20/03	1215	S	1	C		✓	
	CC004SS01	5/21/03	1355	S	1	C		✓	
	CC010SS01	5/21/03	1420	S	1	C		✓	
	CC015SS01	5/21/03	1008	S	1	C		✓	
	CC010BS01	5/21/03	1530	S	1	C		✓	
	CC010BS02	5/21/03	1556	S	1	C		✓	
	CC025SS01	5/21/03	1002	S	1	C		✓	
	CC019SS01	5/21/03	1459	S	1	C		✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	5/21/03	1715	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: FEDEX

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

LAB

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Sarcum / TEM / MNA (redacted) CONTACT: (redacted) PHONE NO: (redacted)
PROJECT: MNA 10144 Ct Condt PWSID#:
REPORTS TO: (redacted) FAX NO: (redacted)
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3) TPH-G (8015)	VOC (8260)	Lead/TPB (6010A + 6020)	Naphthalene (8260)	Methanol (8015)	BTEX (8260)	TPH-D (8015)	Lead (6020)	Lead Analysis	REMARKS
	CC-056-NS-01	5/20/10	12:30	Water	13	G		✓	✓	✓	✓	✓	✓	✓		✓	
	HCl Trip	"	"	HCl	1												

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
(redacted)	5/21/10	15:45	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex
Shipping Ticket No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8655 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

• Alaska • Maryland
• Michigan • New Jersey
• West Virginia • New Orleans

www.cteesi.com

(1)

CLIENT: Samsung / FHD / MNA [redacted]
CONTACT: [redacted] PHONE NO: [redacted]
PROJECT: MNA N144 - GP Expand PWSID#:
REPORTS TO: [redacted] FAX NO: [redacted]
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3) Methane (RSK-175)	REMARKS
	CC015SS01	5/24/22	1225	S	1	C		✓	
	CC002SS01	5/25/22	1412	S	1	C		✓	
	CC004SS01	5/24/22	1440	S	1	C		✓	
	CC006SS01	5/24/22	1510	S	1	C		✓	
	CC004FD01	5/24/22	1524	S	1	C		✓	
	CC006BS02	5/25/22	1532	S	1	C		✓	
	CC015SS01	5/24/22	1425	S	1	C		✓	
	TP			W	1				

(5)

Collected/Relinquished By: (1) [redacted]	Date 5/25/22	Time 10:30	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex
Shipping Ticket No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

• Alaska • Maryland
• Michigan • New Jersey
• West Virginia • New Orleans

www.cteesi.com

(1)

CLIENT: Seward / FED / MNA [redacted] Ordnance et
CONTACT: [redacted] PHONE NO: [redacted]
PROJECT: MNA Live Fire Small PWSID#:
REPORTS TO: [redacted] FAX NO: [redacted]
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE (C = COMP, G = GRAB)
	CC 001 WSC1	5/23/16	1255	W	14	C
	KC TP	5/24/16		KC	3	
	CL 024 RC1	5/24/16	1145	W	15	

Preservatives Used

Analysis Required (3)

TH-S (GRAB)	VOC (GRAB)	Ign/Hep (soil)	Mn/Fe (GRAB)	Hexavalent (GRAB)	SVOC (GRAB)	TPH-DRO/RRO	PCDD/F (soil)	Dioxin (GRAB)	Extra	REMARKS
✓	✓	✓	✓	✓	✓	✓	✓		✓	Extra 25A
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Extra 25A

hLb

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted]	5/24/16	1530	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex
Shipping Ticket No:

Temperature C:

Data Deliverables:
Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8556 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: Samsung / TED / MNA [redacted]@alaska.net
CONTACT: [redacted] b6 PHONE NO: [redacted] b6
PROJECT: MNA 10144 - G. Cumulli PWSID#:
REPORTS TO: [redacted] b6 FAX NO: [redacted] b6
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)	REMARKS
	CC026SS01	5/29/03	1110	S	1	C		✓	
	CC032SS01	5/29/03	1015	S	1	C		✓	
	CC021BS01	5/29/03	1035	S	1	C		✓	
	CC030SS01	5/29/03	1055	S	1	C		✓	
	~~CC021BS01 Dup~~	~~5/29/03~~	~~Hot~~	S	1	C		✓	
	CC021BS02-1	5/29/03	1105	S	1	C		✓	
	CC021BS02-2	5/29/03	1105	S	1	C		✓	
	CC035~~BS~~SS01	5/29/03	1130	S	1	C		✓	
	CC040SS01	5/29/03	1148	S	1	C		✓	
	CC040BS01	5/29/03	1322	S	1	C		✓	

SLS SLS

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	5/29/03	13:31	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex
Shipping Ticket No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: Samsung / TED / MNA

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: MNA 10Ha - Cleanup PWSID#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: MNA QUOTE# P.O. NUMBER:

CT&E Reference:

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)	REMARKS
	CC02955C1	5/29/09	1500	S	1	C	V		
	CC02155C1	5/29/09	1536	S	1	C	V		
	CC02 55C1	5/29/09	1551	S	1	C	V		
	CC02555C1	5/29/09	1625	S	1	C	V		
	CC03955C1	5/29/09	1654	S	1	C	V		
	CC03 55C1	5/29/09	1718	S	1	C	V		
	CC03BSC2	5/29/09	1748	S	1	C	V		
	TP			N	1				

9/16

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	5/29/09	1930	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: [redacted] b6

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: MNA [illegible] PWS D#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB
	CC039WS01	5/29/03	1235	W	14	
	CC012WS01	5/29/03	1925	W	17	
	HCl TF	5/29/03			2	

Preservatives Used

Analysis Required (3)

TPH-G (WI-G)	VOC (8260B)	PAH/PCB (8270C)	Metals (6010B)	Hydrides (6010A)	SVOC (8270C)	TPH-A (OA-2)	Dioxin (8290)	RCRA 8 metals	REMARKS
V	V	V	V	V	V	V		V	4 mL-VOA, 1L-AG, 500
V	V	V	V	V	V	V		V	"

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	5/29/03	19:20	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

LLB

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: Samsung / TEC / MNA b6 @ attbi.net
CONTACT: [redacted] b6 PHONE [redacted] b6
PROJECT: MNA 10144 - Gp. Corrosk PWSID#:
REPORTS TO: [redacted] b6 FAX NO: [redacted] b6
INVOICE TO: MNA QUOTE#
P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)	REMARKS
	CC005S01	6/2/03	1131	S	1	C		VOC (8260B)	
	CC009S01	6/2/03	1059	S	1	C		VOC (8260B)	
	CC014S01	6/2/03	1123	S	1	C		VOC (8260B)	
	CC023BS01	6/2/03	1200	S	2	C		VOC (8260B) MW-1 (TMB)	
	CC123BS01	6/2/03	1200	S	2	C		VOC (8260B) MW-1 (TMB)	
	CC023BS02	6/2/03	1231	S	2	C		VOC (8260B) MW-1 (TMB)	
	CC105S01	6/2/03	1131	S	1	C		VOC (8260B)	
	CC109S01	6/2/03	1159	S	1	C		VOC (8260B)	
	CC114S01	6/2/03	1122	S	1	C		VOC (8260B)	
	CC017S01	6/2/03	1205	S	1	C		VOC (8260B)	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	6/2/03	1700	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex
Shipping Ticket No:
Temperature C:
Data Deliverables:
Level I Level II Level III EDD Type:
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:

8266

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler
0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

666

(1)

CLIENT: Samara / TEDY MNT b6 [redacted] b6

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: MNA 1144 - [redacted] PWSID#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)										REMARKS
	CCOMW301	4/2/03	1516	S	1	C		✓	✓									
	CCOMW302	4/2/03	1417	S	1	C		✓	✓									
	CCOMW303	4/2/03	1317	S	1	C		✓	✓									
	CCOMW304	4/2/03	1456	S	1	C		✓										
	CCOMW305	4/2/03	1218	S	1	C		✓	✓									
	CCOMW306	4/2/03	1118	S	1	C		✓	✓									
	CCOMW307	4/2/03	1018	S	1	C		✓	✓									
	CCOMW308	4/2/03	1318	S	1	C		✓	✓									
	CCOMW309	4/2/03	1418	S	1	C		✓	✓									
	CCOMW310	4/2/03	1518	S	1	C		✓	✓									

(5)

Collected/Relinquished By: (1) [redacted] b6	Date 4/2/03	Time	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fed Ex Hotex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1) CLIENT: [redacted] b6

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: [redacted] PWSID#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: [redacted] QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Preservatives Used

Analysis Required (3)

TPH-G (AK101)	VOC (CHOB)	Pesticides (8081A/PCB)	Arsenic (6010)	Herbicides (8151A)	SVOC (8270C)	TPH-D (AK102)	DRO (8015)	EDB (8011) Analysis	REMARKS
✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓		✓	

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6	[redacted]	[redacted]	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

086

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

1

CLIENT: [redacted]
CONTACT [redacted] PHONE NO: [redacted]
PROJECT: [redacted] PWSID#:
REPORTS TO: [redacted] FAX NO: [redacted]
INVOICE TO: [redacted] QUOTE#
P.O NUMBER:

CT&E Reference:

PAGE ___ OF ___

2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required ③	REMARKS

5

Collected/Relinquished By: (1) [redacted]	Date	Time	Received By:
Relinquished By: (2) [redacted]	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

4

Shipping Carrier:
Shipping Ticket No:
Temperature C:

Data Deliverables:
Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: Samsung / TED / MNA [redacted] alpha, not

CONTACT: [redacted] PHONE NO: [redacted]

PROJECT: MNA 10144 - Cp, Cn, all PWSID#:

REPORTS TO: [redacted] FAX NO: [redacted]

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)	REMARKS

(5)

Collected/Relinquished By: (1) [redacted]	Date	Time	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier:

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT:

CONTACT: [redacted] b6 PHONE NO [redacted] b6

PROJECT: PWSID#:

REPORTS TO [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 3 OF 3

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB

Preservatives Used

Analysis Required (3)

TPH-G (8015) | VOC (8260) | PetHCs (8015) | MCalkan (8015) | Hexane (8015) | SVOC (8270) | TPH-V (8015) | Lead (6020) | Lead Scrnble | REMARKS

✓		✓	✓	✓	✓	✓		✓	
✓		✓	✓	✓	✓	✓		✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓		✓	
✓	✓	✓	✓	✓	✓	✓		✓	
✓	✓	✓	✓	✓	✓	✓		✓	
✓	✓	✓	✓	✓	✓	✓		✓	
✓	✓	✓	✓	✓	✓	✓		✓	
✓	✓	✓	✓	✓	✓	✓		✓	

(5)

Collected/Relinquished By: (1) [redacted] b6	Date	Time	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9585

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.ctesi.com

(1) CLIENT: Samsung / TAEU / MNA [redacted] b6 client

CONTACT: [redacted] b6 PHONE NO: (907) 444-9214 b6

PROJECT: MNA 1044 - Ch. Comfl PWSID#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used	Analysis Required (3)	REMARKS
	[illegible]	[illegible]							
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		V V V V V V V V V		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				

b26

(5)

Collected/Relinquished By: (1) [redacted] b6	Date [illegible]	Time [illegible]	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8655 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: Samsung / TED / MNA [redacted] @[redacted].net

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: MNA 10144 - Gp. Cumul PWSID#:

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: MNA QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB
	[illegible]					
	[illegible]					
	[illegible]					
	[illegible]					
	[illegible]					
	[illegible]					

Preservatives Used

Analysis Required (3)

TPH-G (8015)	VOC (8260)	Pest/PCB (8081/8082)	Metals (6010)	Hg (7470)	SVOC (8270)	TPH-D (8015)	DRO/RRO (8015)	PCB (8082 only)	REMARKS
✓		✓	✓	✓	✓	✓		✓	
✓		✓	✓	✓	✓	✓		✓	
✓		✓	✓	✓	✓	✓	✓	✓	
✓		✓	✓	✓	✓	✓	✓	✓	
✓		✓	✓	✓	✓	✓	✓	✓	

(5)

	Date	Time	Received By:
Collected/Relinquished By: (1) [redacted] b6	6/6/23		
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Fedex

Shipping Ticket No:

Temperature C:

Data Deliverables:

Level I Level II Level III EDD Type:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

S&S

200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

- Alaska
- Michigan
- West Virginia
- Maryland
- New Jersey
- New Orleans

www.cteesi.com

(1)

CLIENT: [redacted] b6

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: PWSID#:

REPORTS TO: [redacted] b6

FAX NO: [redacted] b6

INVOICE TO:

QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE ____ OF ____

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used / Analysis Required (3)	REMARKS

(5)

Collected/Relinquished By: (1) [redacted] b6	Date	Time	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: FedEx	Temperature C:
Shipping Ticket No:	
Data Deliverables: Level I Level II Level III EDD Type:	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and Special Instructions:	

200 W. Potter Drive **Anchorage, AK 99518** Te : (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9665

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
Laboratory Division

• Alaska • Maryland
• Michigan • New Jersey
• West Virginia • New Orleans

www.cteesi.com

(1)

CLIENT: [redacted] b6

CONTACT: [redacted] b6 PHONE NO: [redacted] b6

PROJECT: [redacted] PWSID#

REPORTS TO: [redacted] b6 FAX NO: [redacted] b6

INVOICE TO: [redacted]

QUOTE#

P.O. NUMBER:

CT&E Reference:

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB
	[redacted]					
	[redacted]					
	[redacted]					

Preservatives Used

Analysis Required (3)

TPH-G (AK101) | VOC (8260B) | PetVOC (AK101/8260B) | Aviation Gas (AK101) | Jet Fuel (AK101) | cVOC (8260B) | TPH-D (AK102) | Lubricants (AK103) | EDB (8011/504.1)

REMARKS

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[redacted] b6			
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:

(4)

Shipping Carrier: Temperature C:

Shipping Ticket No:

Data Deliverables: Chain of Custody Seal: (Circle)

Level I Level II Level III EDD Type: INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-9656 Fax: (907) 474-9685

White - Retained by Lab (Project File) Yellow - Returned with Report Pink - Retained by Sampler

0-720

L86

[redacted]

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

STAT ERN PRINT

STL

Client: Samsung/FED/MNA	Project Manager: [redacted] b6	Date: 4/1/03	Chain of Custody Number: 01210
Address: [redacted] b6	Telephone Number (Area Code)/Fax Number: [redacted] b6	Lab Number:	Page: 1 of 1
City: AIEA / State: HI / Zip Code: 96701	Site Contact: [redacted] b6	Lab Contact: [redacted] b6	Analysis (Attach list if more space is needed)
Project Name and Location (State): IQ144 Ca. Carroll, Korea	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	# of cont.	TPH-Gx (Poisn)	TPH-D (Poisn)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	ACRA & methyl	Dioxin (1290)	Voc (8260B)
CC 207 SS01	4/1/03	1115				✓	✓						8	✓	✓	✓	✓	✓	✓	✓	✓	
CC 203 SS01	4/1/03	1440				✓	✓						6	✓	✓	✓	✓	✓	✓	✓		

Special Instructions/ Conditions of Receipt

Cooler: ☒ Yes ☐ No Cooler Temp: ____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☒ 10 Days ☐ 15 Days ☐ Other ____

QC Requirements (Specify):

1. Relinquished By: [redacted] b6	Date: 1 Apr. 2003	Time: 1655	1. Received By:	Date / Time
2. Relinquished By:	Date	Time	2. Received By:	Date / Time
3. Relinquished By:	Date	Time	3. Received By:	Date / Time

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

[redacted]

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SOUTHERN TRENT

STL

Client: Samsung / FEDI MUA

Project Manager: [redacted] b6

Date: 4/2/03

Chain of Custody Number: 01211

Address: [redacted] b6

Telephone Number (Area Code)/Fax Number: [redacted] b6

Lab Number:

Page 1 of 1

City: Aiea | State: HI | Zip Code: 96701

Lab Contact: [redacted] b6

Project Name and Location (State): MUA Location Co. Carroll, Korea

Carrier/Waybill Number: DHL

Contract/Purchase Order/Quote No.:

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	# of cont.	Analysis: TPH-G (AK101)	TPH-D (AK102)	SVOC (8270C)	Pest. Cl's (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Barium (6010B)	VOC (8260B)	Special Instructions/ Conditions of Receipt
CC 214 SS01	4/2/03	1400				✓	✓						7	✓	✓	✓	✓	✓	✓	✓		✓	
CC 222 BS01	4/2/03	1545				✓	✓						6	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CC 228 BS02	4/2/03	1910				✓	✓						5	✓	✓	✓	✓	✓	✓	✓		✓	
Trip Blank	4/2/03	—		✓									1	✓								✓	

Cooler: ☑ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☑ Other standard

QC Requirements (Specify):

		Date	Time
1. Relinquished By	[redacted] b6	4/2/03	1805
2. Relinquished By			
3. Relinquished By			

	Date	Time
1. Received By		
2. Received By		
3. Received By		

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

[redacted]

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SEVERN TRENT STL

Client: Samsung / FEDI / MVA	Project Manager: [redacted] b6	Date: 4/23/03	Chain of Custody Number: 01213
Address: [redacted] b6	Telephone Number (Area Code)/Fax Number: [redacted] b6	Lab Number:	Page 1 of 1
City: Aiea / State: HI / Zip Code: 96701	Site Contact: [redacted] b6	Lab Contact: [redacted] b6	Analysis (Attach list if more space is needed)
Project Name and Location (State): Iolani C. Carroll, Korea	Carrier/Waybill Number: DHL		
Contract/Purchase Order/Quote No.			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Other	# of cont.	TPH-G (8015M)	TPH-D (8015M)	SVOC (8270C)	Arsenics (6010B)	PAHs (8270C)	Metals (6010B)	RCRA Metals	Dioxin (8290)	VOC (8260B)
CC22403501	4/23/03	0911				✓	✓							5	✓	✓	✓	✓	✓	✓	✓		✓
CC26/B201	4/23/03	1440				✓	✓							6	✓	✓	✓	✓	✓	✓	✓	✓	✓

Special Instructions/ Conditions of Receipt

Cooler: ☑ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☑ Other Standard

QC Requirements (Specify)

1. Relinquished By: [redacted] b6	Date: 4/23/03	Time: 19:30	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

[redacted]

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SEVERN TRENT STL

Client: SamSung/FED/MNA

Project Manager: [redacted] b6

Date: 4/3/03

Chain of Custody Number: 01215

Address: [redacted] b6

Telephone Number (Area Code)/Fax Number: [redacted] b6

Lab Number:

Page 1 of 1

City: Aiea | State: HI | Zip Code: 96701

Site Contact: [redacted] | Lab Contact: [redacted] b6

Project Name and Location (State): MNA 10144 - Camp Carroll, Korea

Carrier/Waybill Number: DHL

Contract/Purchase Order/Quote No.:

Analysis (Attach list if more space is needed)

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	# of cntrs	TPH-G (8015m)	TPH-D (8015m)	SVOC (8270C)	Pesticides (8081A)	PCBs (8082)	Herbicides (8151A)	RCRA 8 metals	Diesel (8015B)	VOC (8260B)
CC256 SS01	4/4/03	0935				V	V						5	V	V	V	V	V	V	V		
CC259 SS01	4/4/03	1050				V	V						4	V	V	V	V	V	V	V		

Special Instructions/ Conditions of Receipt

Cooler: ☑ Yes ☐ No Cooler Temp:

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (Business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☑ Other standard

QC Requirements (Specify):

1. Relinquished By: [redacted] b6	Date: 4/4/03	Time: 19:00	1. Received By:	Date / Time
2. Relinquished By	Date	Time	2. Received By	Date / Time
3. Relinquished By	Date	Time	3. Received By	Date / Time

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

[redacted] b6

SEVERN TRENT STL

Client: Samsung / F&O / MMA

Project Manager: [redacted] b6 — Site Contact: [redacted] b6 — Lab Contact: [redacted] b6

Date: 6/4/03

Chain of Custody Number: 01217

Address: [redacted] b6

Telephone Number (Area Code)/Fax Number: [redacted] b6

Lab Number:

City: Area 41 — State: — Zip Code: 96301

Page 1 of

Project Name and Location (State): IONY - Pt Carroll, Korea

Carrier/Waybill Number: DHL

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	# of cont.	TPH-Diesel (8015)	TPH-Gasoline (8015)	SVOC (full scan)	Benzene, Toluene, Ethylbenzene, Xylenes (8021)	PCBs (8082)	Hydrocarbons (418.1)	RCRA 8 Metals	Diesel (8270)	VOC (8260)	Metals (6010)	Special Instructions/ Conditions of Receipt
CC 203501	6/2/03	1031				✓							1										✓	
CC 206501	6/2/03	1059				✓							1										✓	
CC 214501	6/2/03	1122				✓							1										✓	
CC 228B502	6/2/03	1231				✓							1										✓	

Cooler: ☑ Yes ☐ No Cooler Temp:

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☑ Other Standard

QC Requirements (Specify)

1. Relinquished By: [redacted] b6	Date: 6/2/03	Time: 20:00	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

STL-3274-580 (12/02)

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SEVERN TRENT STL

Client: Samsung/ESI/Mink

Address: [redacted] b6

City: Aiea | State: HI | Zip Code: 96701

Project Manager: [redacted] b6

Telephone Number (Area Code)/Fax: [redacted] b6

Site Contact: [redacted] b6

Lab Contact: [redacted] b6

Carrier/Waybill Number: Fedex

Project Name and Location (State): IOTUN - Co. Carroll, Korea

Contract/Purchase Order/Quote No.:

Date: 6/2/03

Chain of Custody Number: 01218

Lab Number:

Page 1 of 1

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	# of Cont.	Analysis (Attach list if more space is needed): TPH-G (8015)	TPH-D (8015)	SVOC (8270)	Pesticides (8081)	PCBs (8082)	Herbicides (8151)	BTEX (8021)	RCRA Metals	Dioxin (8290)	VOC (8260)	Mercury (7471)	Special Instructions/ Conditions of Receipt
CC-SED-01	6/2/03	1400		✓									1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
TP	6/2/03	1410		✓		✓							1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Cooler: ☑ Yes ☐ No Cooler Temp:

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☑ Other Standard

QC Requirements (Specify):

1. Relinquished By: [redacted] b6	Date: 6/2/03	Time: 1700	1. Received By:	Date / Time
2. Relinquished By	Date	Time	2. Received By	Date / Time
3. Relinquished By	Date	Time	3. Received By	Date / Time

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL2274-580 (12/02)

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SEVERN TRENT STL

Client	Project Manager [redacted] b6	Date 6/2/03	Chain of Custody Number 01216
Address [redacted] b6	Telephone Number (Area Code)/Fax Number [redacted] b6	Lab Number	Page 1 of 1
City	State / Zip Code	Site Contact [redacted] b6	Lab Contact [redacted] b6
Project Name and Location (State)	Carrier/Waybill Number	Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No.			Special Instructions/ Conditions of Receipt

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Other	TPH - 418.1 (Liquid)	TPH - 418.1 (Soil)	BTEX - 8020 (Liquid)	BTEX - 8020 (Soil)	Cl - 325.2 (Liquid)	Cl - 9253 (Soil)	Phenols - 420.2 (Liquid)	Phenols - 9066 (Soil)	Diesel - 8015 (Liquid)	Diesel - 8015 (Soil)	VOA - 8260 (Liquid)	VOA - 8260 (Soil)
[redacted]	[redacted]																								
[redacted]	[redacted]																								
[redacted]	[redacted]	10:40				✓							1												✓
[redacted]	[redacted]	10:45				✓							1												✓
[redacted]	[redacted]	10:49				✓							1												✓
[redacted]	[redacted]	10:55				✓							1												✓
[redacted]	[redacted]	11:05				✓							1												✓
[redacted]	[redacted]	[redacted]				✓							1												✓
[redacted]	[redacted]	[redacted]				✓							1												✓

b6

Cooler: ☑ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By [redacted] b6	[redacted]	10:40	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

Appendix G

Data Validation Report

DATA ASSESSMENT FOR
CAMP CARROLL AREA D AND AREA 41 SITE INVESTIGATIONS
CAMP CARROLL, KOREA

DACA81-00-D-0049
Task Order #24

Field Sampling: April-June, 2003

Data Review Dates: July-August, 2003

Reviewer:

[redacted] b6
[redacted] & Associates, L.L.C.
98-099 Uao Place #1101
Aiea, HI 96701
Tel: [redacted] b6
Fax: [redacted] b6
Email: [redacted] b6

TABLE OF CONTENTS

TABLES

1. INTRODUCTION

This project involved an effort to determine the sources of hazardous and toxic waste contamination at Area 41 and Area D in Camp Carroll, Korea. The overall purpose of this data acquisition is to determine the extent and volumes of surface and subsurface soil contamination within the two former landfills. The sampling was designed to understand the following:

- Sources of contamination and migration pathways
- Extent and amount of surface and subsurface soil contamination at Area 41 and Area D
- Extent of contaminated groundwater at Area D
- Remedial alternatives at Area 41 and Area D

This data assessment was performed on 15 primary sample delivery groups (SDGs) and seven (7) QA SDGs to evaluate data usability.

Table 1. Sample Delivery Groups Reviewed

Laboratory	SDG No.	Laboratory	SDG No.
CT&E/SGS, Alaska	1031851	**STL, Seattle**	113100
	1031972		112983
	1032224		112915
	1032133		112974
	1032164		114073
	1032180		114050
	1033164		112899
	1033073		
	1033105		
	1033166		
	1033211		
	1033200		
	1033224		
	1033197		
	1033071		

2. CONTRACT LABORATORIES

SGS Environmental Services, Inc. (a.k.a. CT&E), was the primary laboratory for the project and performed the following analyses:

- Total petroleum hydrocarbons as gasoline (TPH-G) by EPA method 8015B/8021B

- TPH as diesel & oil (TPH-D&O) by EPA method 8015B
- Semivolatile organic compounds (SVOC) by EPA method 8270
- Pesticides by EPA method 8081A
- Polychlorinated biphenyls (PCBs) by EPA method 8082
- RCRA 8 metals by EPA method 6020 (As, Ba, Cd, Cr, Pb, Se, Ag) and 7470/E245.1 (Hg)
- Volatile organic compounds (VOC) by EPA method 8260B
- Herbicides by EPA method 8151A – by Columbia Analytical Services, Redding, CA
- Malathion by EPA method 8141 – by Columbia Analytical Services, Redding, CA
- Dioxins by EPA method 8290 – by Paradigm Analytical Laboratories, Wilmington, NC

Severn Trent Laboratories (STL) Seattle was the QA laboratory for this project and performed the same analyses. Dioxin analysis was performed by STL Sacramento laboratory.

3. DATA ASSESSMENT

The assessment included data check for technical holding times for extraction & analysis and laboratory quality control (QC) data: method blanks; laboratory control samples (LCS); matrix spike and matrix duplicate samples (MS/MSD); surrogate recoveries. Detailed check of instrument calibration and calculations was not performed.

3.1 Initial Inspection of Data

A total of 17 SGS (primary & QC) and seven STL (QA) sample delivery groups contained 844 and 121 analyses, respectively (Table 2). The initial inspection of data included a review of analyses requested and technical holding times.

Two sample shipments (Ref. # 1032224 & 1032225) were delayed. The sample shipment (Ref. 1032224) arrived in the CT&E Alaska laboratory on day 13 after collection, and another sample shipment (Ref. 1032225) arrived past holding times for all analyses. TPH-G, VOC, and herbicide analyses were cancelled for the 1032224 samples, and all analyses were cancelled for the 1032225 samples. In addition, herbicide analysis for eight samples was not performed due to an oversight (samples not logged in) of Columbia Analytical Services, a subcontract laboratory of SGS (Table 3). The laboratory QC data provided for each analysis are summarized in Table 4.

Table 2. Total Number Analytes in Sample Delivery Groups

SDG	TPH-G	TPH-D & O	SVOC	Pesticides	PCBs	Herbicides	RCRA 8 Metals	Dioxin	VOC	Malathion	Total analytes
CT&E 1031820	25	24	24	24	24	24	24	8	6	0	183
CT&E 1031902	12	12	12	12	12	12	12	3	7	0	94
CT&E 1031851	23	21	20	21	20	21	20	5	12	0	163
CT&E 1031972	3	3	3	3	3	3	3	3	3	0	27
CT&E 1032224	0	3	3	3	3	0	3	2	0	0	17
CT&E 1032133	2	2	2	2	2	2	2	2	2	0	18
CT&E 1032164	1	1	1	1	1	1	1	1	1	0	9
CT&E 1032180	2	2	2	2	2	2	2	2	1	0	17
CT&E 1033164	0	0	0	0	0	0	0	0	12	20	32
CT&E 1033073(CAS)	0	0	0	0	0	0	0	0	0	16	16
CT&E 1033105	3	2	2	2	2	2	2	0	3	19	37
CT&E 1033166	3	3	3	3	3	3	3	2	3	3	29
CT&E 1033211	3	3	3	3	3	3	3	2	3	3	29
CT&E 1033200	1	1	1	1	1	1	1	0	1	1	9
CT&E 1033224	8	5	5	5	5	8	5	3	3	15	62
CT&E 1033197	8	8	8	8	8	0	8	1	7	18	74
CT&E 1033071	3	3	3	3	3	3	3	1	3	3	28
Total	97	93	92	93	92	85	92	35	67	98	**844**
STL 113100	5	5	5	5	5	5	5	2	5	0	42
STL 112983	3	2	2	2	2	2	2	0	0	0	15
STL 112915	4	3	3	3	3	3	3	1	3	0	26
STL 112974	2	2	2	2	2	2	2	1	2	0	17
STL 114073	0	0	0	0	0	0	0	0	0	5	5
STL 114050	2	1	1	1	1	1	1	1	2	5	16
STL 112899	2	2	2	2	2	2	2	1	0	0	15
Total	16	13	13	13	13	13	13	5	12	10	**121**

1000