Agreement Log #: KIF-10-003

Time-Critical Concurrence

Area:

Emory River, Segment, Dredge Areas G-64 thru G-69

Agreement:

Adjust Dredge Plan in Dredge Grid areas G-64 thru G-69 to minimize the removal of native materials from river bottom.

Friday, 02/26/2010, SES dredge Shirley began working in Grid area G-64. After initially encountering ash material, the dredge began to encounter clay and rock, with no visible ash in the dredge discharge.

At approx 1600 hrs the cut into the native clay and rock was suspended and the dredge was moved to Grid area G-65 in order to minimize removal of non ash materials.

1700 hrs, Friday, 02/26/2010 thru 0900 hrs Sunday, 02/28/2010, SES dredge Shirley continued from Grid area G-65 into Grid area G-66. Observation of the discharge from the dredge indicated a consistent sand matrix with no obvious ash. The dredge operation along the "G" grid line was stopped and the Shirley moved elsewhere. Visual observations were made of an exposed sand bar in Grids G-67, 68 and 69. The planned contours were not reached to avoid over-dredging.

Six cores were taken in the grids (one per grid) where sand was suspected. The results are attached and show that no ash or ash mixture greater than 50% ash is present. Therefore, the decision to not reach the original planned elevation holds.

Concurrence Comments:

Julie L Pfeiffer — 3/19/10
Jacobs Project Manager — Date

Michael T Scott — 3/19/10
Tennessee Valley Authority — Date

[signature] — 3/19/10
U. S. Environmental Protection Agency — Date

consulted w/ TDEC

Kingston Ash Recovery Project

Date: March 11, 2010

To: Julie Pfeffer

From: John Trimble

CC: File

Re: Concurrence KIF-10-003 Supplemental Data Request

The following items have been added to the KIF-10-003 file.

- Full Area Location Map showing location of grids
- Small Area Location Map showing location of grids and details of stream sediments (sand)
- Dredge Construction Manger's Daily Report for 2/25/10 which logs first instance of sand encounter above E-Trac grid.
- Shift Reports for Shirley 16" dredge for 2/26 day shift through 2/27/10 night shift with E-Trac printout
- E-Mail memo to Kevin Shaw dated March 11, 2010 requesting VibeCore sampling of area. Memo lists center coordinate of each 125' x 125' grid.

I discussed annotation of any future E-track printouts with Joe Burke who processes the SES dredge operation shift reports and briefed Kevin Shaw who is working with RSI to arrange for the VibeCore sampling. The VibeCore data will be added to the file and provided to TVA's GIS representative David A Hankins when available.

The VibeCore data is expected to confirm that the E-Trac targeted pre-spill channel elevations were set above true sediment elevation as the result of the between bathymetric cross section interpolation for Grids G-64 through G-69. The sampling data should also confirm what the aerial photo indicates regarding Grids G-67 through G-69 are which is that these grids are located over a sand bar. Grids G-67, G-68 and G-69 should fall under be excluded from non-time critical as as documented in Leo Francendense's memo and the USACE report as having minimal migration potential.

Legend

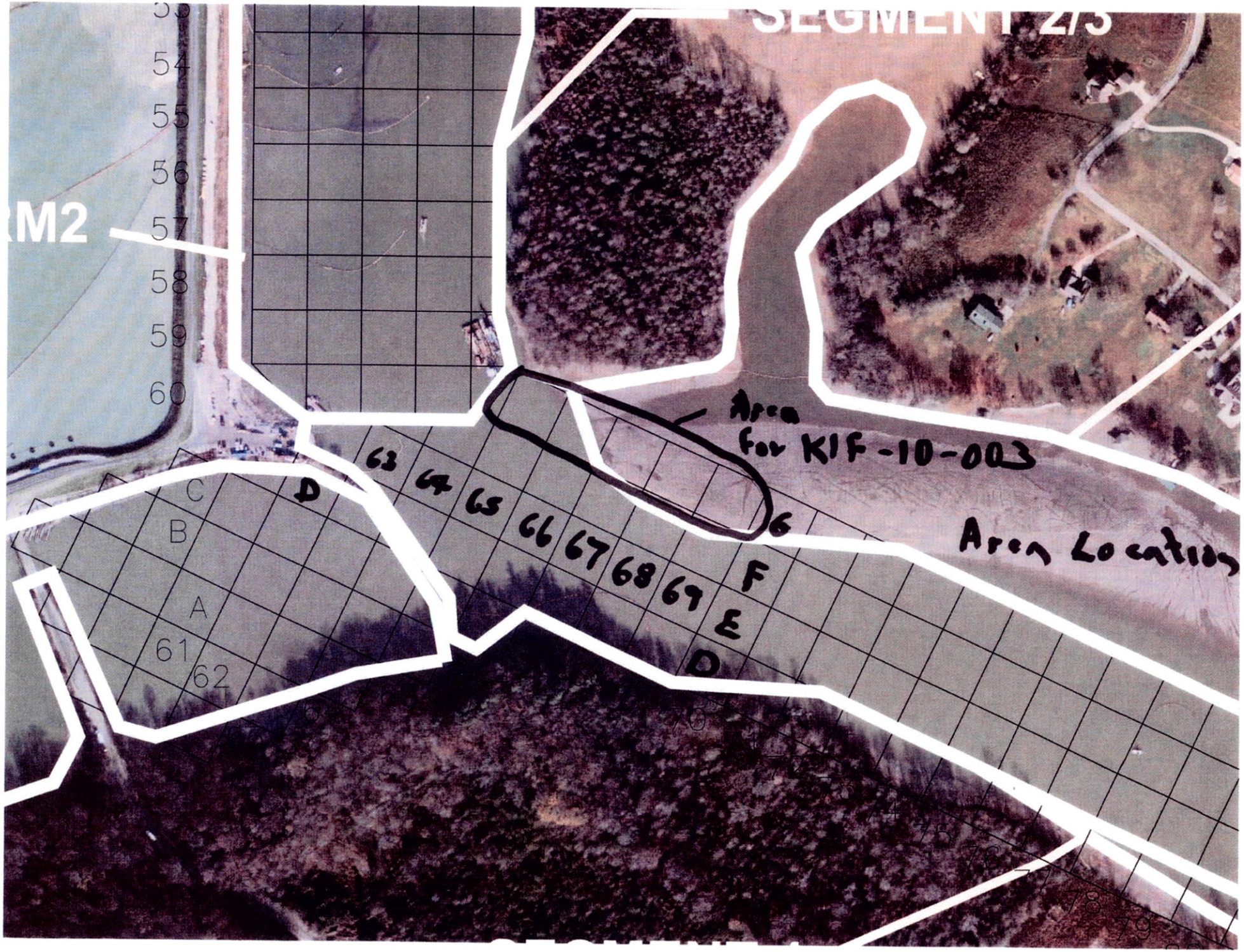
G-64 thru G-99

0 1000 2000

JACOBS

Grid Location Map For KIF-10-003

03/11/10	clong


SEGMENT 2/3
RM2
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Area for KIF-10-003
Area Location
63 64 65 66 67 68 69
C
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D
F
E
D
61
62

Trimble, John W

From: Trimble, John W
Sent: Thursday, March 11, 2010 9:01 AM
To: Shaw, J Kevin
Cc: Pfeffer, Julie; 'Francendese.leo@epa.gov'
Subject: Segment 4 VibeCore

Kevin,

Please arrange to test core at the following locations, following the standard sampling protocol. The last three coordinates are above water and may require using the land sampling protocol.

Center SES Grid G-64	N 2,443,560	E 554,135
Center SES Grid G-65	N 2,443,651	E 554,104
Center SES Grid G-66	N 2,443,764	E 554,051
Center SES Grid G-67	N 2,443,882	E 553,997
Center SES Grid G-68	N 2,443,990	E 553,945
Center SES Grid G-69	N 2,444,104	E 553,892

Thanks,
John Trimble
Construction Manager
Jacobs Field Services Inc.
928-200-2242

TVA JACOBS

Kingston Ash Recovery Project
Dredging and Ash Processing

Daily Report

REPORT DATE & DAY OF WEEK: Thursday 02/25/2010(24 hour Shift) WEATHER: cold/ cloudy

SAFETY/JSAS REVIEWED:

Night shift dredge crew tailgate stressed importance of lights on the boats. Foreman instructed all that boats were not operate without running lights

Jacobs Personnel :

Michael Goretski, Jimmy Davis, Steve Arington

VISITORS: (Identify by name, affiliation and purpose of visit)

ACTIVITIES OBSERVED IN CONFORMANCE WITH WORK PLAN: (Identify activities by Contractor and area)

Dredging –

Sevenson 16" dredge Kylee – Working in Segment 5. Problems with the gear box at near the end of shift

Sevenson 14" dredge McKenzie – Working in Segment 2. Bottom hard, low production.

Sevenson 16" dredge Shirley - Working in Segment 4. Cutting to loaded etrac surface but encountering much sand

Sevenson 14" dredge Adelyn – CAT mechanic on site to diagnose mechanical problems with booster pump on the barge

Matteson 20" dredge Sandpiper – offline- Matteson crew continues washing of steel dredge line at the lateral expansion area

Rim and Sluice Trenches .

Sevenson continues to dip rim ditch into secondary containment. Secondary containment area very full, causing back up in ability to remove materials from rim ditch.
Preventative maintenance on land based equipment.

Filter Press

Sevenson continues working on installation of new side rails for Press #2. TVA dredge in ash pond resumes operation @ 1600 hrs.

NONCONFORMING WORK: (Identify by Contractor and area)

none

VERBAL INSTRUCTIONS GIVEN OR RECEIVED: (Identify person instructions were given to or received from)

ISSUES: (Specify if assistance is needed to resolve issue)

No room to process material from the dewatering trench in the ball field.

PLANNED ACTIVITIES (Identify activities by Contractor and area)

SUBMITTED BY: Steven E Arington
DATE: 2/26/10

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge Shirley

Day Friday

Date 2-26-10

Dredge Shift: Day

Hours:

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
710	1130		3:20	1650	80	CC	spin dredge to stb side reset anchors for test, reset dredge, change 4 cutter teeth ck pump
							pumpchoke
11:30	12:35	1:05	:15				port anchor drug in
12:50	12:55	1:05	:50				pumpchoke
13:45	14:25	:40	1:20				port anchor drug in (hard to reset)
14:45	15:25	:40	2:05				clean cutterhead
1730	18:20	1:50	:15				shift change
18:35	19:10	:35					
			7:05				
		4:55	8:05	12:00	Total Hours		

Conditions:

Initial Flyash Thickness 1ft in G-64 Ft

Vegetation Light ☐ Medium ☐ Heavy ☐

Debris Light ☐ Medium ☐ Heavy ☒

# of Blockage Clears: 4

Area Dredged: G-64 (rocky)

Shift Start X 2443500 Y 554171 Ton 22055 Gal 622

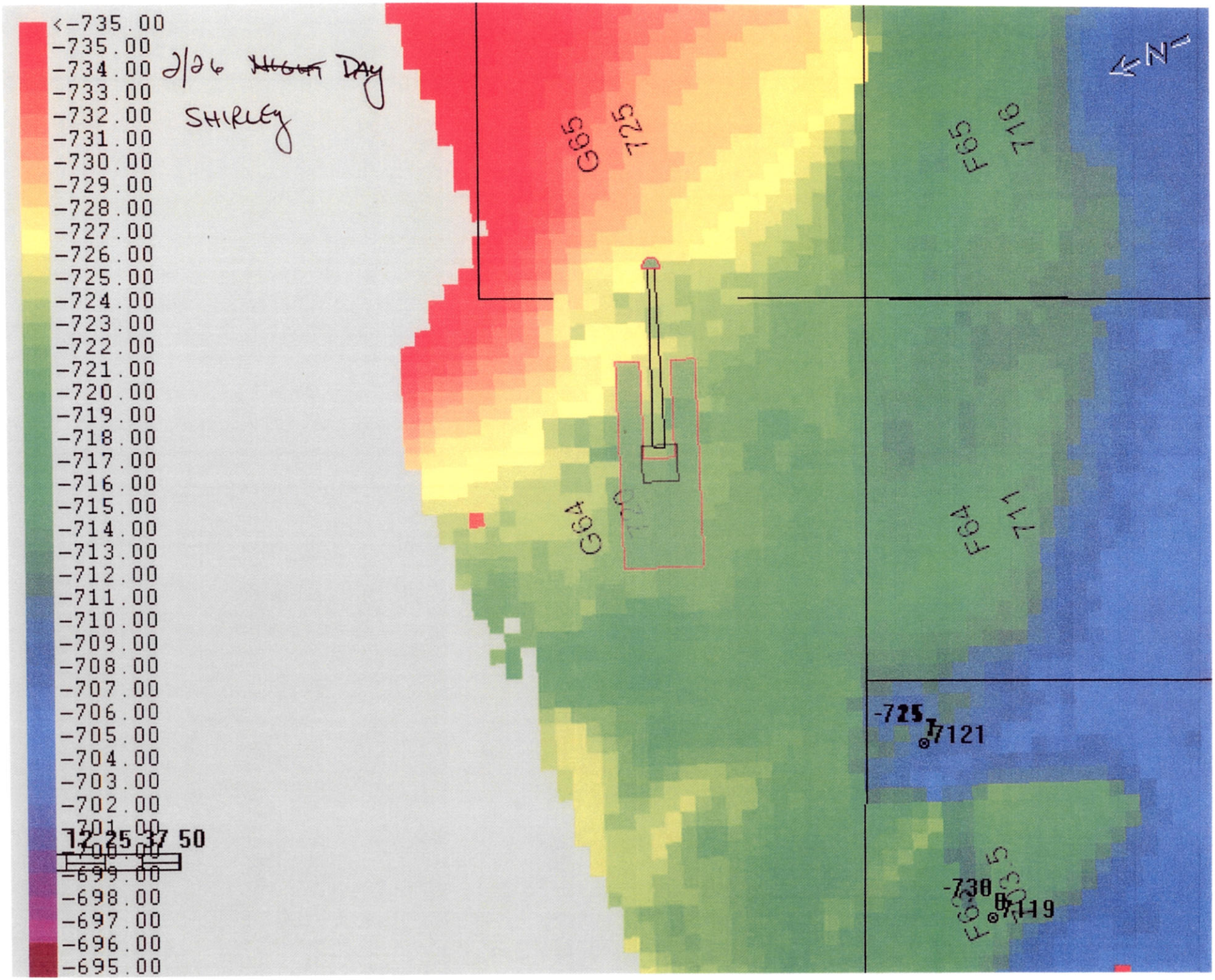
Shift End X 2443559 Y 554141 Ton 22559 Gal 895

Comments: move dredge ahead to Block G-65

Start # X 2443583 Y 554137

End # X 2443604 Y 554129

3ft material by 40ft wide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2/26 ~~HIGH~~ DAY
SHIRLEY
12 25 37 50
G65
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F65
716
G64
F64
717
-725
7121
-730
7119
N

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge: Shirley

Day: Friday

Date: 2-26-12

Dredge Shift: Nights

Hours: 462

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:10	7:10	0	35 min			DT RL	Checkout Dredge / grease
7:45	8:45	100	10				Clean out pump
8:55	9:15	20	10				Cleanout pump
925	1240	3 15	1-15	50			Down for anchors
155	430		10	16	90		Clean out pump
440	7:30	3 10					
		9 40	2 20	Total Hours		12	

Conditions:

Initial Flyash Thickness: 5 ft

Vegetation: Light ☐ Medium ☑ Heavy ☐

Debris: Light ☐ Medium ☑ Heavy ☐

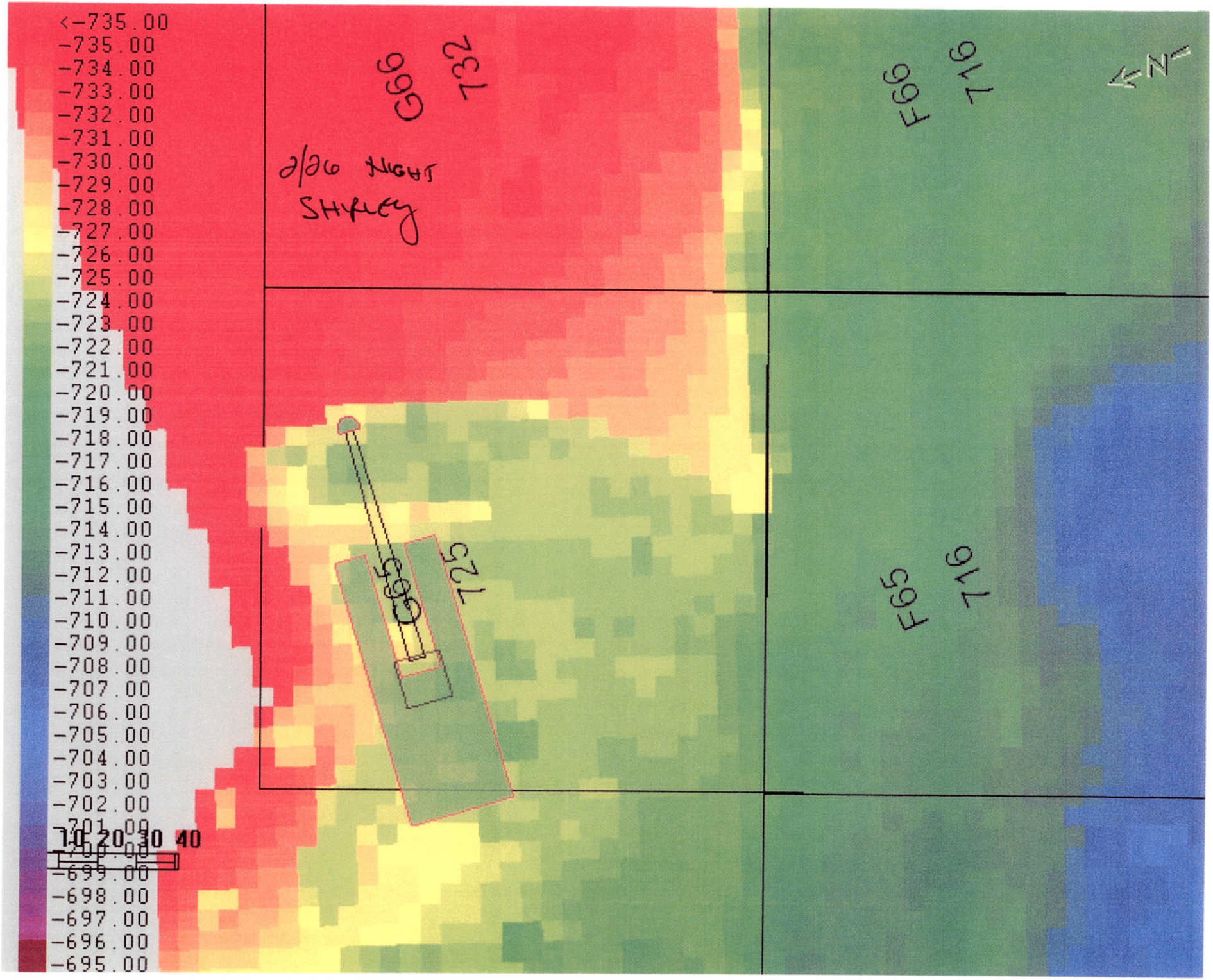
# of Blockage Clears: ____

Area Dredged: G-65

Shift Start: X 2443604 Y 554129 Ton 22559 Gal 895

Shift End: X 2443683 Y 554102 Ton 24894 GAL 1310

Comments: Hard digging on port side 25'



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10 20 30 40
G66
732
2/26 NIGHT
SHIRLEY
F66
716
N
G65
725
F65
716

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge Shirley

Day Saturday

Date 2-27-10

Dredge Shift: Day

Hours:

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
	7:10		1:35	1650	80	CE	move pipeline anchor + move stb anchor, service dra
[illegible]							get rock out of pump
8:45	15:15	6:30	:35				pump choke + clean cutterhead
15:50	16:10	:20	1:05				move anchors + clean out service water strainer
17:15	17:25	:10	:15				pump choke
17:40	19:00	1:20					pump choke / shift change
		8:20	3:30	11:50	Total Hours		

Conditions: G-65 G-66

Initial Flyash Thickness 6 + 3 Ft

Area Dredged: G-65 + G-66

Vegetation	Light	☐	Medium	☐	Heavy	☐	
Debris	Light	☒	Medium	☑	Heavy	☐	

# of Blockage Clears 4

Shift Start X 2443683 Y 554102

TON 24894

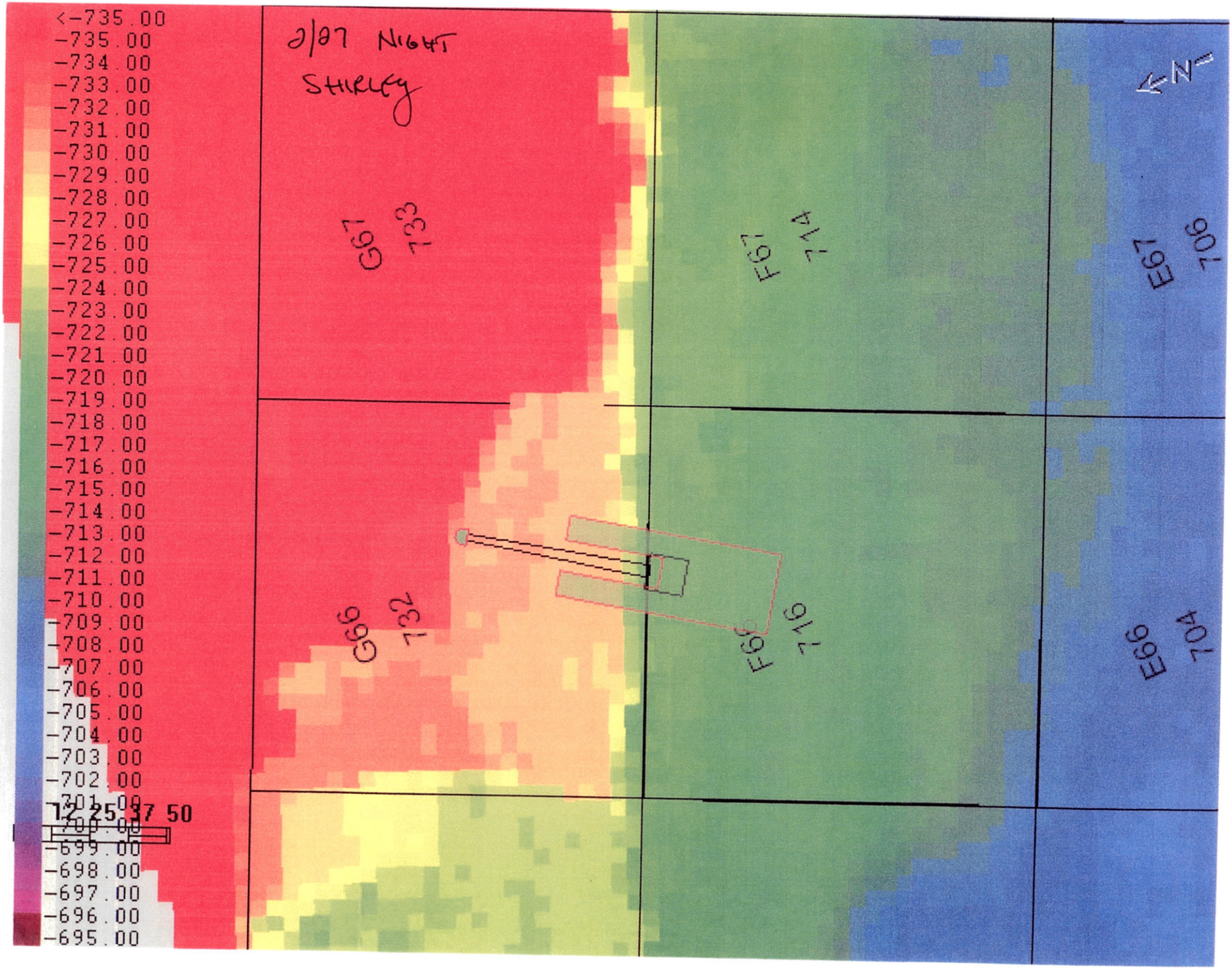
Gal 1310

Shift End X 2443743 Y 554058

TON 27242

Gal 1705

Comments:


2/27 NIGHT
SHIRLEY
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F67 714
E67 709
G66 732
F66 716
E66 704

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Day SAT

Date 2-27-10

Dredge Shirley

Dredge Shift: Nights

Hours: 486

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:10	7:50	0	40 min				Check out Dredge / grease
7:50	8:20	30	4 50 min				Reset Stbd Anchors / Move Dredge / Fix Spud cable
1:10	2:30	1 20 min	10 min				Clean Rock Box
2:40	3:15	35	15 min				Clean Rock Box
3:25	455	130	10	1658	83	Brian & Ralph	Clean Rock Box
505	7:10	2:51					
		555	65 min		Total Hours	12	

Conditions:

Initial Flyash Thickness 4/5 Ft

Vegetation Light ☐ Medium ☑ Heavy ☐

Debris Light ☐ Medium ☑ Heavy ☐

# of Blockage Clears

Area Dredged: 666

Shift Start X 2443743 Y 554058 Ton 27242 GAL 1705

Shift End X 2443713 Y 554015 Ton 27455 GAL 1806

Comments:

OVER

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge SHIRLEY

Day THURSDAY

Date 2-25-10

Dredge Shift: NIGHTS

Hours: ~~439~~

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
710	710		30			BRIAN	CHECK CUTTER TEETH & GREASED ALL GREASE FILLINGS OK check
740	845	55	10			RALPH	CLEAN OUT PUMP
855	1020	125	30				SHIFT PORT ANCHOR
1050	1235	145	410				CLEAN OUT PUMP & CUTTER HEAD &
~~1111111~~	~~1111111~~	~~TH~~	~~AH~~				MOVE DREDGE TO CUT G 64 BROKE STB SPUD WIRE
445	455	5	5				CLEAN OUT PUMP
500	520	20	10				CLEAN OUT PUMP
530	620	50	10				CLEAN OUT PUMP
~~630~~	655	25					CLEAN OUT PUMP
	710						
		~~60~~ 6	~~50~~ 6	Total Hours			

Conditions:

Initial Flyash Thickness _____ Ft

Vegetation Light ☐ Medium ☐ Heavy ☐

Debris Light ☐ Medium ☐ Heavy ☐

# of Blockage Clears _____

Comments:

Area Dredged: F68 | G 64

Shift Start X 2443944 | Shift End X 2443474

Y 553829 | Y 554182

TONS 20862 | 21921

gal 322 | 540

X 2444012 | X 2443500

Y 553794 | Y 554171

TONS 21918 | TONS 22055

gal 530 | gal 622

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge Shirley

Day Thursday
Date 2-25-10

Dredge Shift: DAY

Hours:

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:10	8:30		1:20	1650	80	CC	nightshift clean cutterhead, move anchors port
8:30	10:30	2:00	:30				slack in pipeline, service dredge
11:00	12:50	1:50	:15				pump choke & clean cutterhead
13:05	13:15	:10	:35				move port anchor
13:50	14:20	:30	:25				pump choke, test on computer clean cutter
14:45	14:55	:10	:20				pump choke
15:15	16:40	1:25	:35				pump choke
17:15	19:10	1:55					move anchors & change port pull cable, slack pipeline
							shift change
		8:00	4:00	12:00	Total Hours		

Conditions: 6ft material 75ft wide

Initial Flyash Thickness 6 Ft

Vegetation Light ☐ Medium ☐ Heavy ☐

Debris Light ☐ Medium ☑ Heavy ☐

# of Blockage Clears 4

Area Dredged: F67 & F68

Shift Start X 2443814 Y 553886

Start Tons 18131 gal

Shift End X 2443944 Y 553829

End 20862 gal

End 322

Comments:

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge Shirley

Day 2-28-10

Date Sunday

Dredge Shift: Day

Hours:

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:10	8:55	1:45	7:40	1650	80	CC	Flush line, repack pump, ck and tighten
							flange bolts on suction pipe inside dredge.
16:35	18:05	1:30	:20				move dredge to box A inside intake, service
18:25	19:10	:45					pump choke
							shift change
		4:00	8:00	12:00	Total Hours		

Conditions:

Initial Flyash Thickness _____ Ft

Vegetation	Light	☐	Medium	☐	Heavy	☐
Debris	Light	☒	Medium	☐	Heavy	☐

# of Blockage Clears: 1

Area Dredged: G-66

before move numbers

Shift Start X 2443765 Y 554048

TON 28752

Gal 2018

Shift End X 2443771 Y 554061

TON 29928

Gal 2230

After move numbers

Box A Intake X 2443120 Y 553707

X 2443080 Y 553692

Comments: G-66 5ft material

Intake material 3ft by 70 foot wide

4ft by 20 foot wide

Sevenson Environmental Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Dredge: SHIRLEY

Day: SUNDAY

Date: 2-28-10

Dredge Shift: NIGHTS

Hours:

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
710	710		30				CHECK CUTTER, OIL LEVEL & GREASE ALL FITTINGS
740	915	135	10				SHIFT PORT ANCHOR
925	930	005	10				SHIFT STB ANCHOR
940	535	755	10				SHIFT STB ANCHOR
545	550	005	20	1650	86		SHIFT PORT ANCHOR/Move old pipeline out of way
610	615	005	5			Brian Ball	CHECK ROCK BOX
620	700	40					
		1035	10	Total Hours			

Conditions:

Initial Flyash Thickness _____ Ft

Vegetation Light ☑ Medium ☐ Heavy ☐

Debris Light ☑ Medium ☐ Heavy ☐

# of Blockage Clears _____

Area Dredged: A – B

Shift Start X 2443080
Y 553693
TON 29928
Gal 2230

Shift End X 2442954
Y 553652
TONS 32516
GAL 2719

Comments:

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TVA
JACOBS

Vibecore Documentation

Date: 03/11/2010 Weather: Cloudy. Highs mid 60's. SW winds at 10 mph. Chance of rain 60% Location: Segment 4
River Flow: 551 cfs River Elevation: 735.82 at Watts Bar Dam
Crew: David Mathis, Travis Walls, Chad Fairless

Core #	Photo #	Tube Type	Core Coordinates	River Depth	Time
G-64	R0010351	6' Acrylic	N: 554145.36' E: 2443549.83'	16.5'	11:45

Deviations encountered:

Core Description	Interval (ft)
Orange clay with rock pieces. Approx. 20%. A very thin layer of brown fine sands mixed with	0-0.9
<50% ash on the surface. This layer is no more than 0.02' thick.	
Refusal Met	
Total Depth	.9'

Core #	Photo #	Tube Type	Core Coordinates	River Depth	Time
G-65	R0010352	6' Acrylic	N: 554111.64' E: 2443657.94'	12.4'	12:08

Deviations encountered:

Core Description	Interval (ft)
Clay and fine to medium grained brown sand mixed with <50% ash.	0-0.9
Orange clay. No ash.	0.9-1.4
Refusal met at heavy clay.	
Total Depth	1.4'

Core #	Photo #	Tube Type	Core Coordinates	River Depth	Time
G-66	R0010353	6' Acrylic	N: 554050.02' E: 2443766.68'	9.2'	12:27

Deviations encountered:

Core Description	Interval (ft)
Brown fine and medium sand mixed with <50% ash.	0-0.4
Orange clay mixed with pockets of <50% ash.	0.4-0.9
Orange clay. Few Cobbles. No ash.	0.9-1.4
	1.4-2.2
Total Depth	2.2'

Core #	Photo #	Tube Type	Core Coordinates	River Depth	Time
F-67	R0010354	6' Acrylic	N: 553910.51' E: 2443876.58'	15.8'	12:53

Deviations encountered: After the photo was taken and core extruded it became evident the top two layers were of the same material and lumped together.

Core Description	Interval (ft)
Orange and brown medium and fine grained sands. No ash	0-1.7
Medium brown sand mixed with <50% Coal pieces. <10% Organics.	1.7-2.4
Total Depth	2.4'

Core #	Photo #	Tube Type	Core Coordinates	River Depth	Time
F-68	R0010355	6' Acrylic	N: 553890.91' E: 2443996.51'	12.6'	13:19

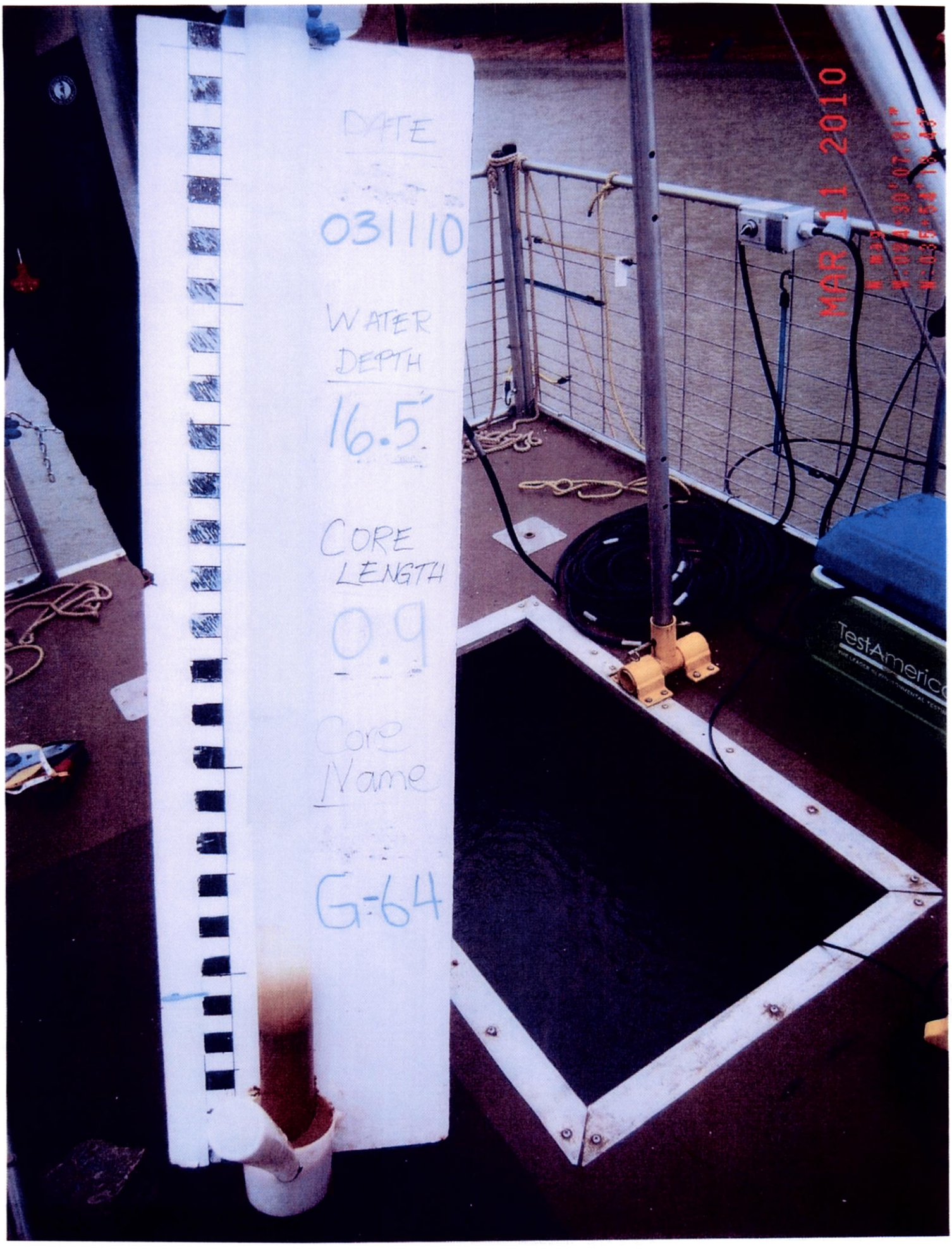
Deviations encountered:

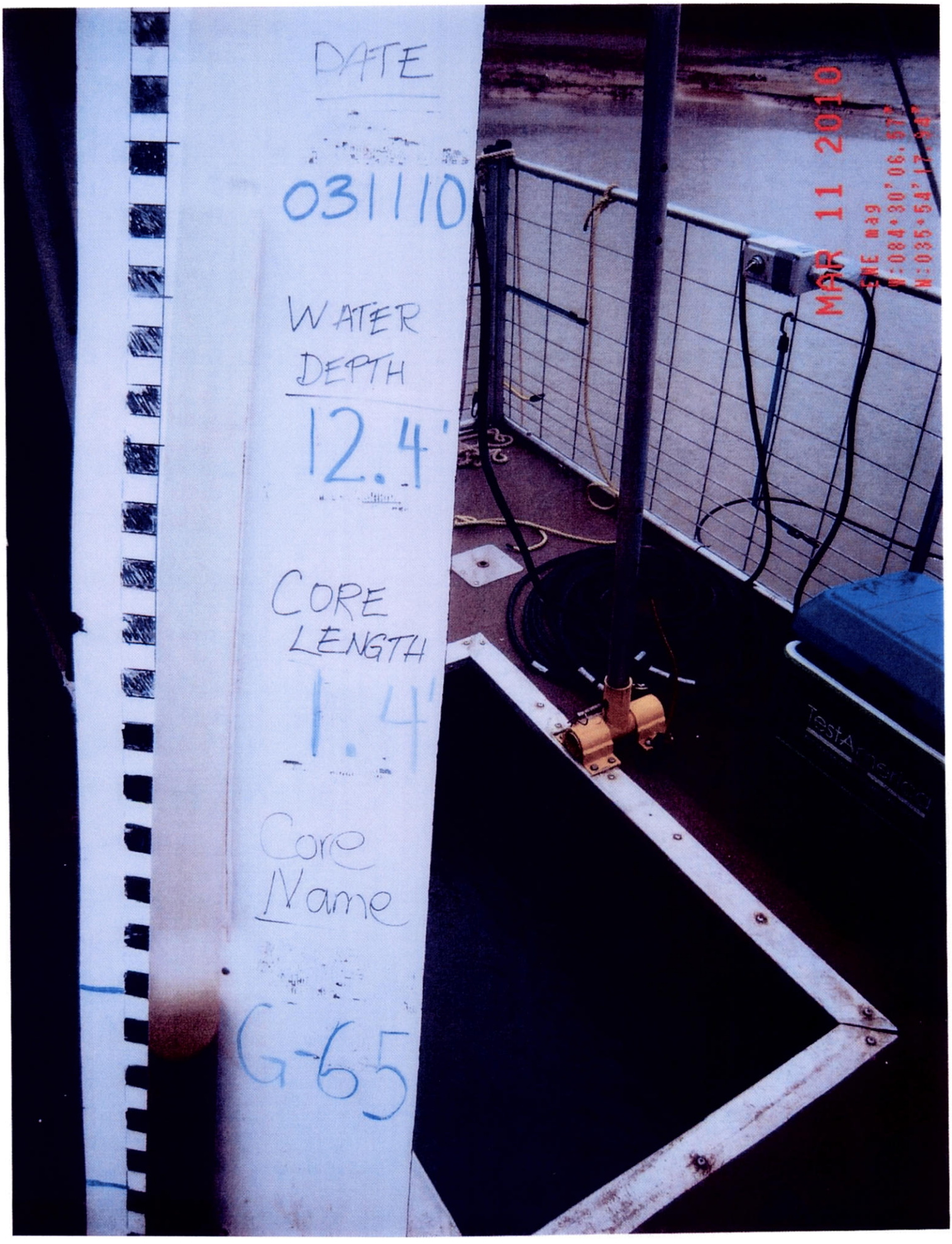
Core Description	Interval (ft)
Brown fine and medium grained sands mixed with native fines. Approx 20% organics and 20% coal pieces. No ash.	0-0.6
Orange sandy clay. No ash.	0.6-4.0
Total Depth	4.'

Core #	Photo #	Tube Type	Core Coordinates	River Depth	Time
F-69	R0010356	6' Acrylic	N: 553840.84' E: 2444118.02'	10.4'	13:32

Deviations encountered:

Core Description	Interval (ft)
Brown medium and fine sands mixed with native fines. No ash.	0-0.6
Orange sandy clay. No ash.	0.6-2.9
Total Depth	2.9'


DATE
031110
WATER DEPTH
16.5'
CORE LENGTH
0.9'
Core Name
G-64
MAR 11 2010
TestAmerica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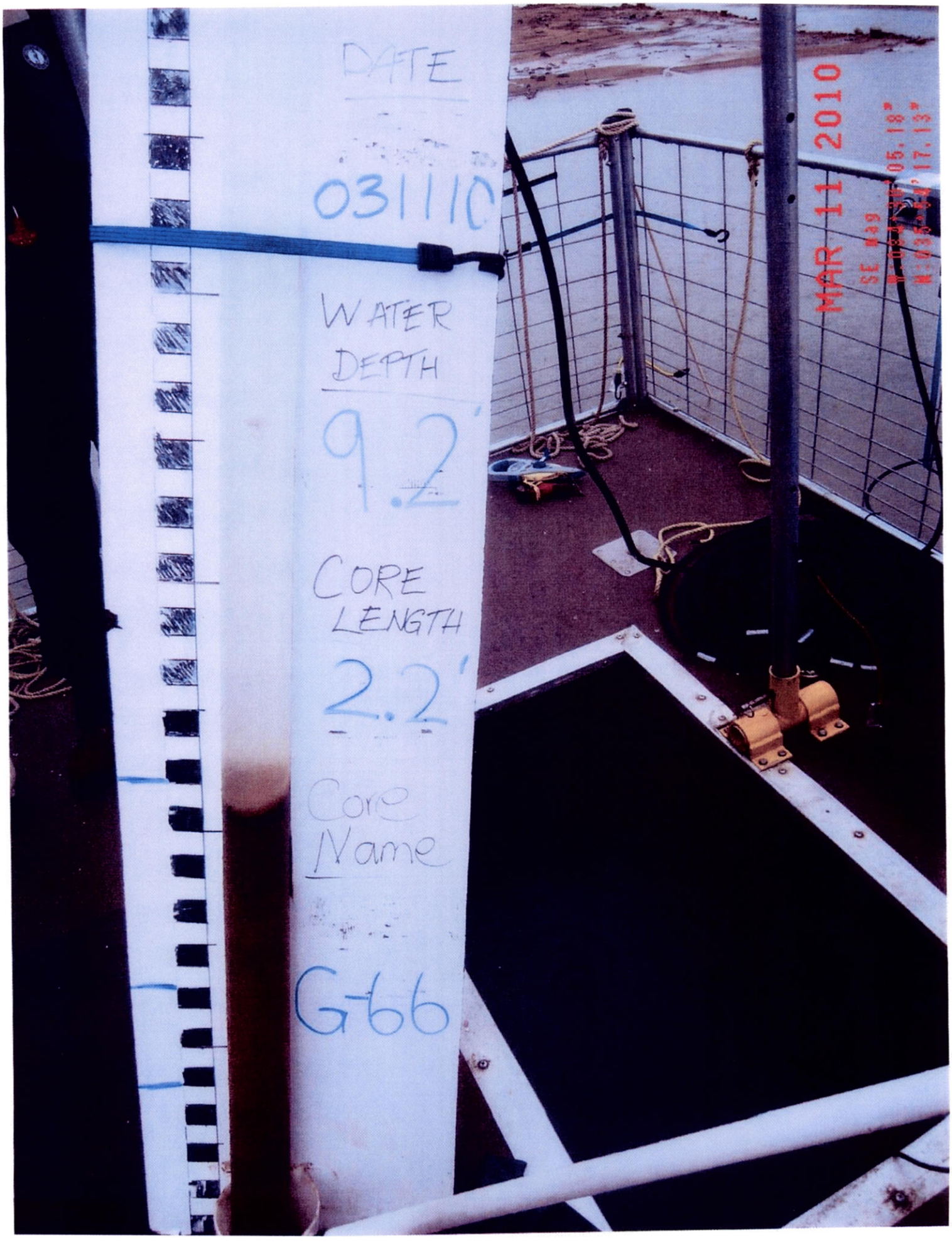
031110
WATER
DEPTH
12.4'
CORE
LENGTH
1.4'
Core
Name
G-65
MAR 11 2010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WATER
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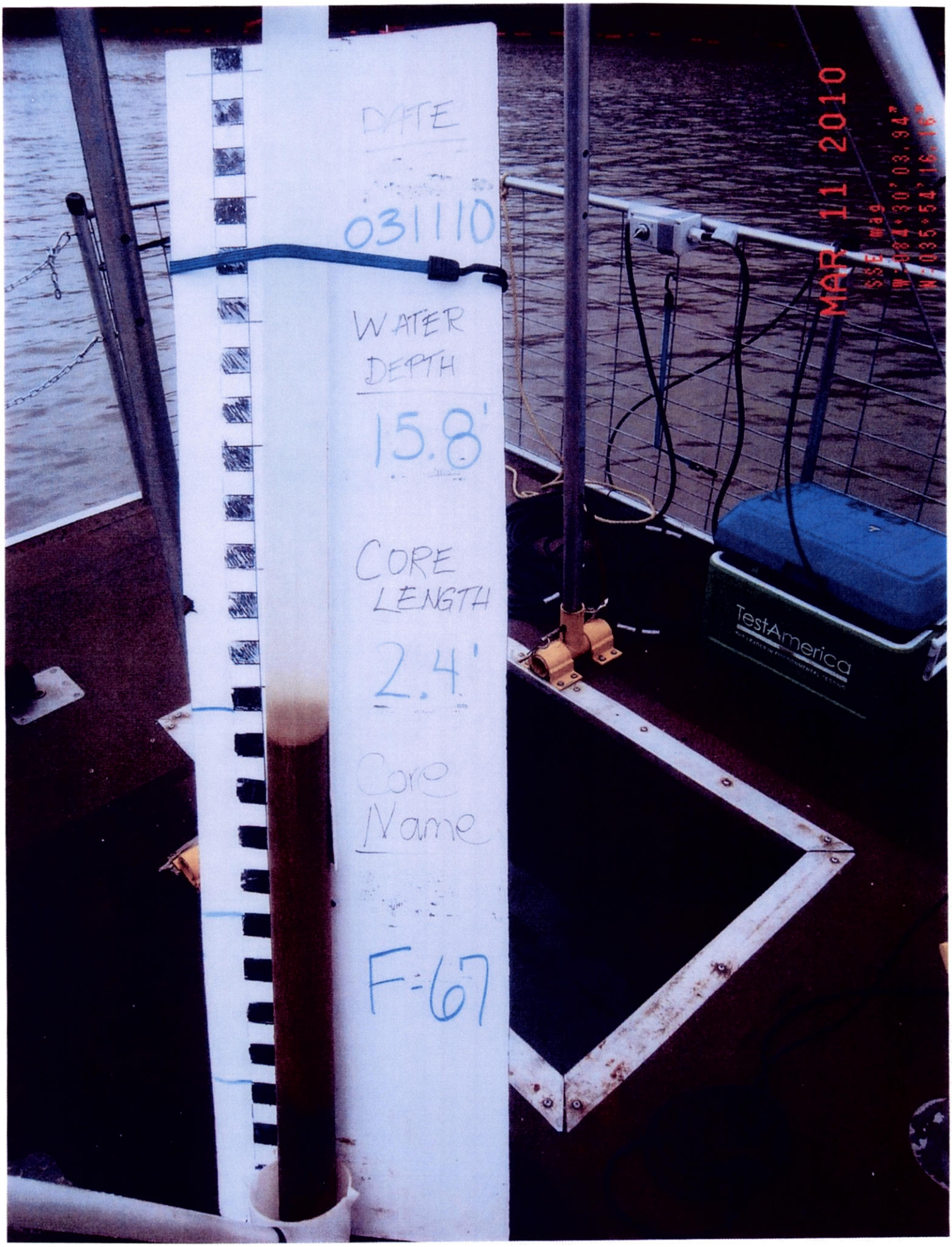
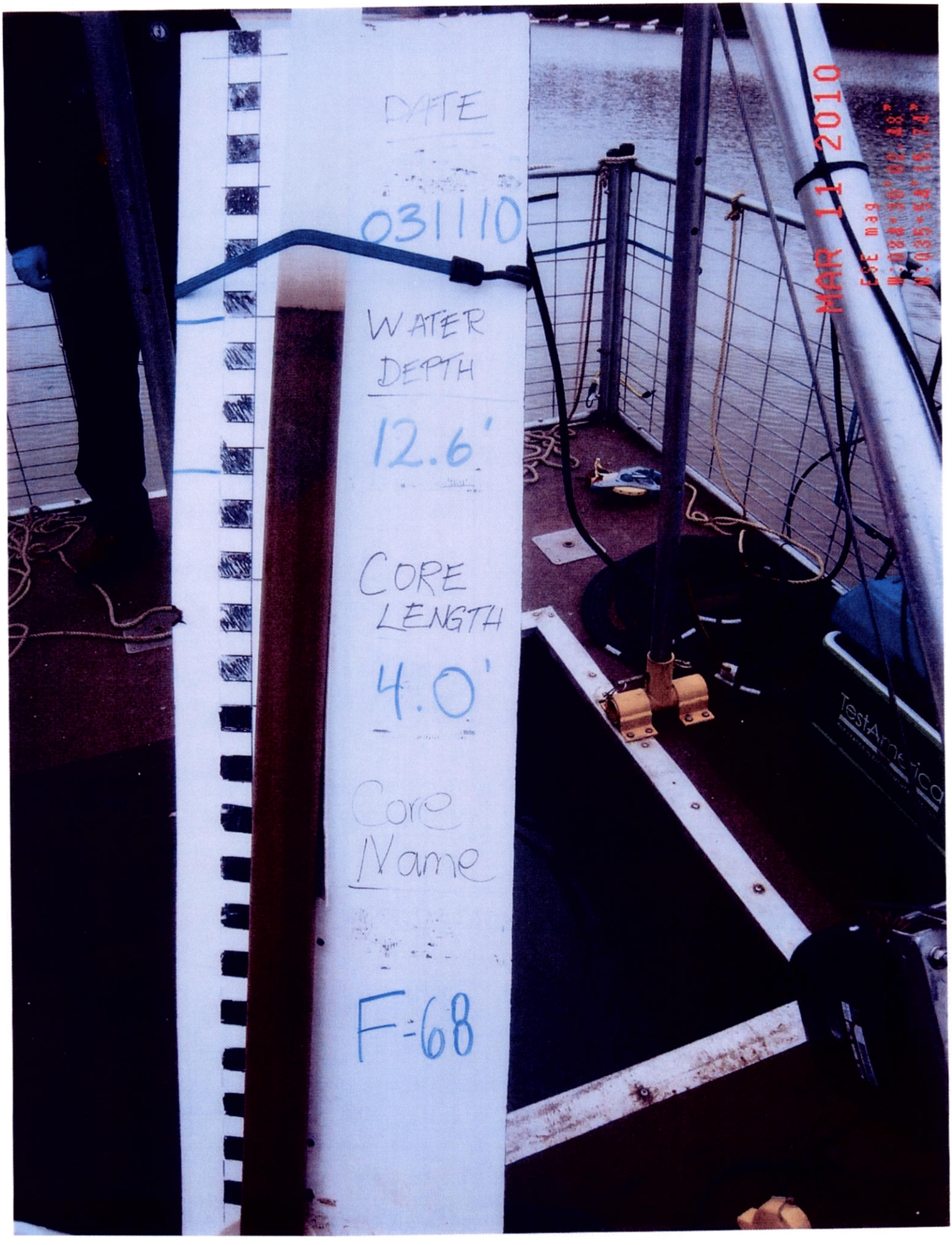
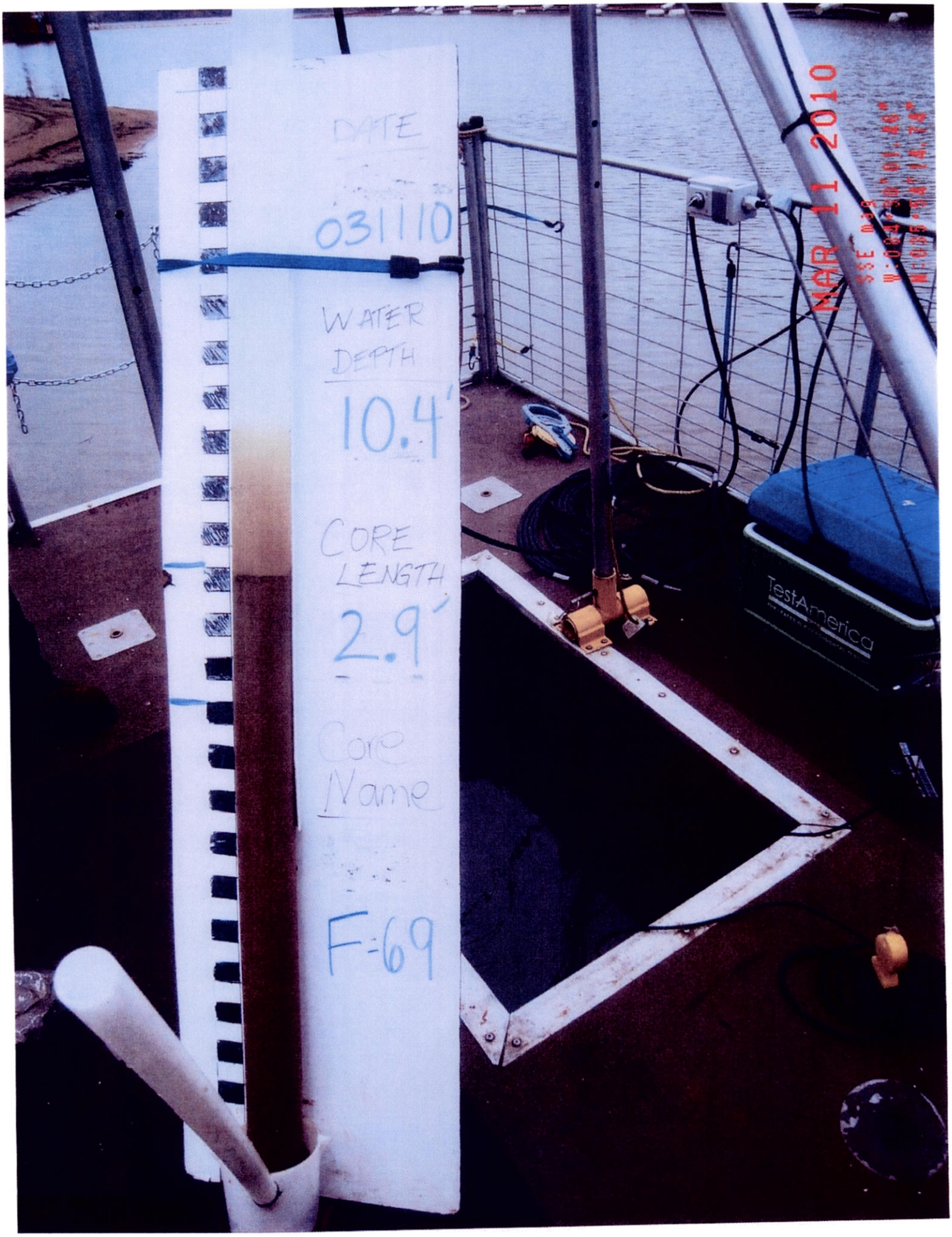
9.2'
CORE
LENGTH
2.2'
Core
Name
G-66
MAR 11 2010


DATE
031110
WATER DEPTH
15.8'
CORE LENGTH
2.4'
Core Name
F-67
MAR 11 2010
SSE #99 W-084°30'03.94" W-035°54'15.16"
TestAmerica


DATE
031110
WATER DEPTH
12.6'
CORE LENGTH
4.0'
Core Name
F-68
MAR 11 2010
TestAmerica


DATE
031110
WATER DEPTH
10.4'
CORE LENGTH
2.9'
Core Name
F-69
MAR 11 2010
TestAmerica