CAI-2008-30

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Surface River Coal River Loading Facility

Drowning Accident

December 29, 2008

Ireland River Loading Facility
Consolidation Coal Company
Moundsville, Marshall County, West Virginia
MSHA ID No. 46-01438

Accident Investigators

Michael P. Stark
Civil Engineer

Robert Talbert
Coal Mine Safety and Health Inspector

Jerry Vance
Educational Field Service
Mine Health and Safety Specialist (Training)

Originating Office - Mine Safety and Health Administration
604 Cheat Road, Morgantown, West Virginia 26505
Bob E. Cornett, District 3 Manager

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PHOTO OF ACCIDENT SCENE

* after the recovery operation had taken place

OVERVIEW

On Monday, December 29, 2008, at approximately 9:30 p.m., a 57 year old Preparation Plant Foreman (Mark McIntyre) was determined to be missing. He apparently fell from a barge into the Ohio River at the Ireland River Loading Facility.

GENERAL INFORMATION

The Ireland River Loading Facility is operated by Consolidation Coal Company and is located in Moundsville, Marshall County, West Virginia. There are 19 hourly employees at the site. Management of the workforce is provided by a foreman from the nearby McElroy Preparation Plant. The plant is operated by McElroy Coal Company, a subsidiary of Consolidation Coal Company. The facility normally loads coal from the McElroy Preparation Plant onto the river barges; three shifts per day, six days per week. Coal is the only product transported at this facility. The coal is transported from the preparation plant to the loadout facility by a conveyor belt along West Virginia State Route 2.

The company officials are listed below:
David Kelly….General Superintendent, McElroy Mine & Ireland River Loading Facility
Jack Price…… .Safety Supervisor, McElroy Mine & Ireland River Loading Facility
Dave Cain…...Ireland River Loading Facility Miners' Representative, UMWA

An MSHA Safety and Health Inspection (E01) was in progress at the time of the accident. The last MSHA Safety and Health Inspection was completed on July 11, 2008. The national Non-Fatal Days Lost (NFDL) incident rate for 2008 was 4.36. The NFDL rate was 0.00 for the Ireland River Loading Facility in 2008.

DESCRIPTION OF ACCIDENT

On Monday, December 29, 2008, Mark McIntyre, a 57 year old foreman from the McElroy Preparation Plant, MSHA I.D. No. 46-01437, was determined to be missing and was later recovered from the Ohio River. McIntyre arrived at the Ireland River Loading Facility at 5:30 p.m. (all times are approximate). He was assigned the task of examining the storage area of each barge located at the Ireland River Loading Facility for water, to determine if the water needed to be pumped out, and then examine the conveyor belts from the loadout back to the preparation plant near the end of the shift. Management from the McElroy Preparation Plant supervises the Ireland River Loading Facility as part of their regular duties.

From 5:30 p.m., until the accident occurred, McIntyre inspected barges as assigned. At approximately 9:10 p.m., McIntyre exited the break room. Witnesses including Bill Wise, Ireland River Loading Facility Control Room Operator and Larry Whetzel, facility deckhand, observed McIntyre traveling onto the load line to inspect barges that had just been added. The last time he was seen was between 9:25 p.m., and 9:30 p.m., on the upstream end of the

2nd empty barge in-line to be loaded. The Quarto Harbor Tugboat was nearby and in the process of moving a partially loaded barge into position to have its water pumped out. Raymond Robinson, a deckhand working on the tugboat also observed McIntyre around 9:30 p.m. Due to the location of the barges and the proximity of the control room, it would be difficult, but not impossible for a person to exit the barges without being observed by the control room operator. When the Quarto Harbor Tugboat operator and Robinson returned to the dock, they noticed McIntyre was missing and asked Wise what had happened to him. Wise first checked by radio with the other deckhand, who did not see him. He then called the McElroy Preparation Plant control room, which attempted to contact him by portable radio with no success. During the investigation it was first reported that the victim had a McElroy Preparation Plant radio on his person. After interviewing Jeff Seckman, McElroy Preparation Plant Foreman, who accompanied the victim to the loadout facility that evening, it was revealed that McIntyre had no radio or other means of communication with the preparation plant or other loadout facility personnel.

When the victim was determined to be missing, the loadout personnel made a search of the entire facility. Next, preparation plant personnel were sent to walk the conveyor belts from the plant to the loadout facility. Thereafter, the harbor tugboat started searching the river. The tugboat also notified other boats in the area of the incident and to be on the lookout for the victim.

By 11:00 p.m., a decision was made by the loadout personnel to start pulling the barges one by one off of the line to be loaded. After those barges were secured, six partially loaded barges located approximately 300 yards downstream were moved. There were five tugboats in the area assisting with the movement of the barges and searching the water for the victim. The Quarto, the Kimberly (another Consol Harbor Tugboat), an American Electric Power (AEP) Tugboat from downriver, the Robert Murray Tugboat from the loadout facility across the river, and the Champion Tugboat were all involved in the recovery operation. After the third partially loaded barge was removed, McIntyre was spotted in the water and removed by workers on the Quarto Tugboat at approximately 2:35 a.m., December 30, 2008. (See Appendix C for barge locations). McIntyre was wearing his life jacket. There were no attempts to revive the victim. The victim was taken by EMS to Reynolds Hospital in Glen Dale, West Virginia where he was pronounced dead. He was then transferred to the State Medical Examiners Office in Charleston, West Virginia.

INVESTIGATION OF THE ACCIDENT

William "Bill" Darios, MSHA St. Clairsville Field Office Supervisor, was notified of the accident at his residence at approximately 1:00 a.m., on December 30, 2008, by Jack Price, Safety Supervisor. Price informed Darios that a person was missing and may have fallen into the river. MSHA personnel were sent to the facility on Wednesday morning December 30, 2008. Bill Darios and Robert Talbert of the St. Clairsville office were joined by Michael Stark from the District Office. A 103(k) Order was issued to insure the safety of all persons

during the recovery of the victim and accident investigation. The investigation was conducted in conjunction with the West Virginia Office of Miners' Health, Safety and Training (WVOMHST) and the Coast Guard, which has authority over all navigable water ways in the United States.

Interviews were conducted with five persons on December 30, 2008, and one additional person was interviewed on December 31, 2008. Other documents and evidence were collected from Consolidation Coal Company and the McElroy Preparation Plant. Jerry Vance, Educational Field Service, Mine Safety and Health Specialist (Training) reviewed the training records. The on-site portion of the investigation was completed on January 7, 2009.

DISCUSSION

The accident was not observed by anyone. Consequently, the actual course of events that led up to the victim falling into the Ohio River could not be determined.

The training records of the victim were reviewed on January 7, 2009. The records indicated the victim was provided Newly Employed Experienced Miner Training on October 22, 2007, and October 23, 2007, for the McElroy Coal Company, McElroy Preparation Plant, MSHA I.D. No. 46-01437. The records provided also indicate the victim was provided Hazard Training on October 23, 2007, for the McElroy Preparation Plant and the Ireland River Loading Facility.

Charles Schucht, Preparation Plant Superintendent, provided the requisite training to the victim. During interviews conducted on January 7, 2009 with Schucht, it was revealed the subject training consisted of watching a video for mine specific hazards of the McElroy Preparation Plant and a question and answer session. Schucht was asked if he traveled to the Ireland River Loading Facility to conduct any hazard training and he stated he had not.

The McElroy Hazard Training Video was viewed by MSHA Accident Investigators and it was determined the video did not contain any hazard recognition associated with the site specific hazards observed at the Ireland River Loading Facility. The practice of mixing employees from both sites together during training, led to confusion as to who was required to be trained and mistakes on completion of MSHA training forms.

Several flood lights are used to illuminate the area, but the work area on the barges is relatively dark so that cap lamps or other type of lighting is necessary. When the subject of lighting was discussed during the investigation, several miners stated that the more area lighting could be added, but it would also have a detrimental affect because the light would shine directly in your eyes when you are walking back toward the dock to see what is in front of you. The victim was found wearing a cap light put together with a cord and head piece from an approved cap light that was taped to a 6-Volt lantern battery. The adequacy of

the illumination provided by the cap light could not be evaluated since it had been submerged in the water.

The weather at the time of accident was windy and cold with no precipitation. The United States Army Corp of Engineers reported that the mean (median) river flow on December 29, 2008 was 117,000 cubic feet per second (CFS). The 30 year average river velocity for the month of December is 55,000 CFS. The reported velocity for the water was 3.4 feet per second (FPS) or 2.3 miles per hour (MPH) and the average for the month of December is 1.7 FPS or 1.1 MPH. The river had crested on December 26, 2008 and was falling back to normal range. The United States Coast Guard, which participated in the investigation, provided air and water temperature information for the accident date. The air temperature on the night of the accident was 35 degrees Fahrenheit and the water temperature was 39 degrees Fahrenheit.

A schematic (found in Appendices D & E) shows the relatively narrow walkways and several protrusions in the walkway. These include manholes and gunwales. When empty, the barge protrudes from the water approximately 11 feet. The barges are approximately 195 feet long and 35 feet wide. One end of the barge is flat and the other end has a curved end, which is called a rake. The rake is designed to help the barge move through the water. The victim was last observed on the rake end. It cannot be determined specifically when or how the victim entered the water. According to the Coroner's Report, the victim died from drowning.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. During the analysis, root causes were identified that, if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below is a root cause identified during the analysis and their corresponding corrective actions implemented to prevent a recurrence of this type of accident:
Root Cause: Adequate hazard training was not provided to the victim.

Corrective Action: During the inspection, it appeared as though the miners working at the river loading facility had been systematically treated as employees of the McElroy Preparation Plant. All employees of the Ireland River Loading Facility were given Experienced Miner Training using a newly approved training plan that addressed specific hazards associated with the loadout.

CONCLUSION

Due to the lack of conclusive evidence, it could not be determined why or how Mark McIntyre fell into the Ohio River and drowned as he was performing his assigned duties.

Bob E. Cornett
District Manager

10-27-09
Date

ENFORCEMENT ACTIONS

1. A 103(k) Order No. 7141838 was issued to Consolidation Coal Company to ensure the health and safety of all miners until an examination and an investigation could be completed.

A fatal accident occurred at the operation on December 29, 2008 when a miner was attempting to check the amount of water in the barges before they were loaded. This order is issued to assure the safety of all persons at this operation. This order prohibits all activity at the Ireland load out area until MSHA has determined that it is safe to resume normal operation in this area. The mine operator shall obtain prior approval from an authorized representative for all action to recover and/or reestablish operation to the affected area.

2. A 104(a) Citation No. 6610556 was issued for 30 CFR, § 48.31(a), for the operator's failure to provide site specific training.

During the investigation after a fatal accident that occurred on December 29, 2008, it was revealed that the victim did not receive adequate hazard training for the Ireland Loadout Facility.

It was determined the employees of the Ireland Loadout facility were systematically treated as employees of the McElroy Preparation Plant (I.D. 46-01437) for the purpose of training even though the work and the hazards associated with each site are different and distinct. The training was not specific to the hazards normally encountered by the loadout employees.

APPENDIX A – Victim Information

Accident Investigation Data - Victim Information

Event Number: 6 2 5 4 3 0 2

U.S. Department of Labor
Mine Safety and Health Administration

Victim Information: 1

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:
Mark D. McIntyre	M	57	01 Fatal

5. Date(MM/DD/YY) and Time(24 Hr.) Of Death:	6. Date and Time Started:
a. Date: 12/29/2008 b.Time: 21:30	a. Date: 12/29/2008 b.Time: 16:00

7. Regular Job Title:	8. Work Activity when Injured:	9. Was this work activity part of regular job?
149 Supervisory/management/foreman/boss	037 Investigate Storage Area	Yes X No

10. Experience	Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days
a. This Work Activity:	0	0	0	b. Regular Job Title:	28	0	0	c: This Mine:	1	8	0	d. Total Mining:	37	0	0

11. What Directly Inflicted Injury or Illness?	12. Nature of Injury or Illness:
126 Water	110 Asphyxia/strangulation/drowning/suffocat

13. Training Deficiencies:
Hazard: X New/Newly-Employed Experienced Miner: Annual: Task:

14. Company of Employment: (If different from production operator)
Operator
Independent Contractor ID: (if applicable)

15. On-site Emergency Medical Treatment:
Not Applicable: First-Aid: CPR: EMT: Medical Professional: None: X

16. Part 50 Document Control Number: (form 7000-1) 220090120079 17. Union Affiliation of Victim: 2555 United Mine Workers of Amer.

MSHA Form 7000-50b, Mar 2008 Printed 10/27/2009 10:38:22 AM

APPENDIX B – Persons Participating in the Investigation

Listed below are the persons furnishing information and/or present during the investigation:

MINING COMPANY OFFICIALS

Kevin Weber ..... Consol Energy, Ohio Valley Operations, Manager of Safety
Richard Marlowe .....Consol Corporate Safety, Director Safety Awareness
Todd Moore ..... Consol Corporate Safety, Director Safety Awareness
Jack Price ..... McElroy Safety Supervisor
Drew Dally..... McElroy Safety Supervisor
Jason Adkins..... McElroy Supervisor of Human Resources
Robert Klatt..... Consol Energy Consultant Industrial Relations - HR
Michael Somales..... CESE River Operations, General Manager
David Podurgiel. ..... Absolute Zero Mentor, River Operations

MINE SAFETY and HEALTH ADMINISTRATION

Michael Stark ..... Civil Engineer
Robert Talbert..... Coal Mine Safety & Health Inspector
Joseph Darios…….... Supervisory Coal Mine Safety & Health Inspector
Jerry Vance..... Educational Field Service, MH&S Specialist (Training)

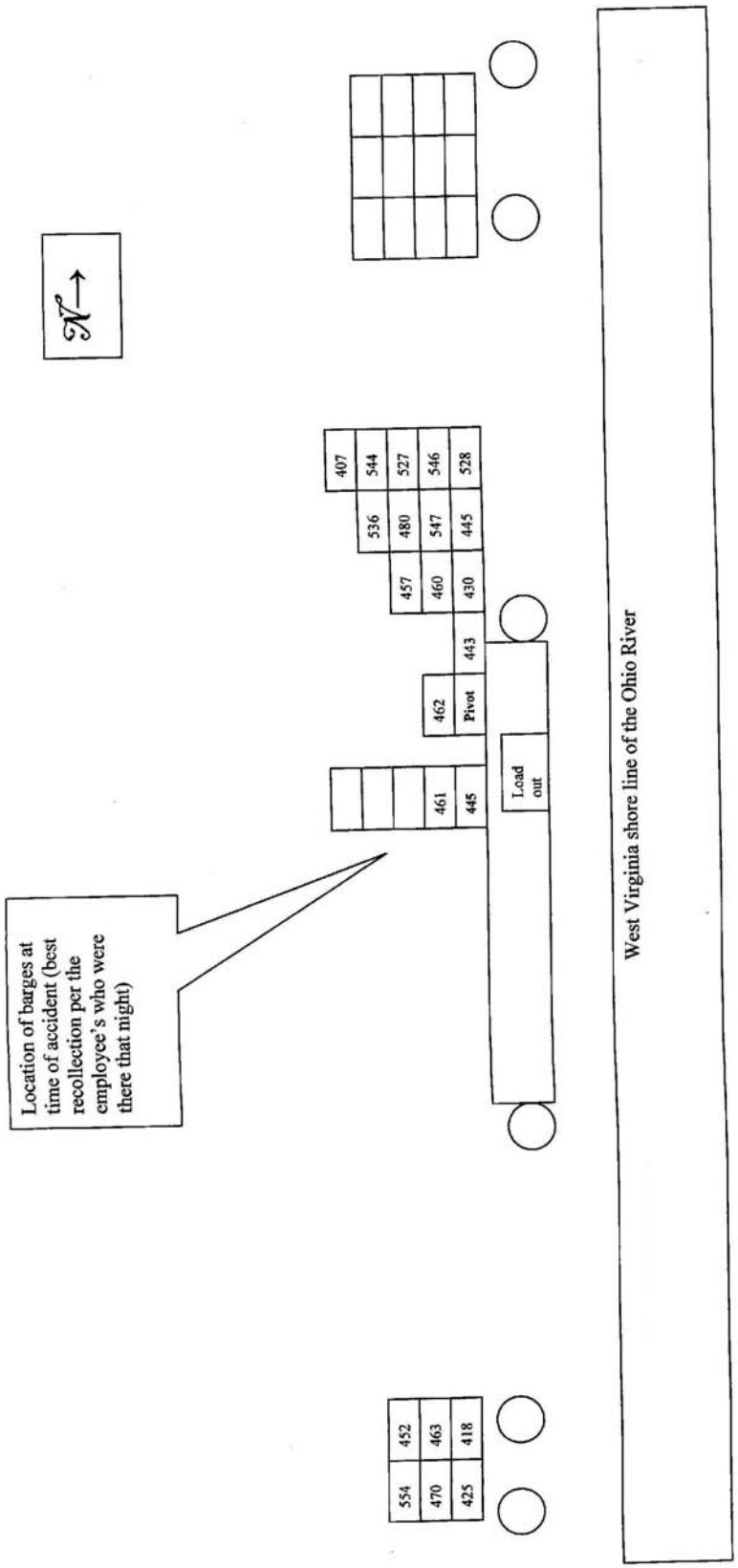
UNITED MINE WORKERS OF AMERICA

Rich Eddy..... UMWA International Vice President
Roy Clark..... Safety Committee
Larry Vucelich ..... UMWA International Representative
Clemmy Allen ..... UMWA R-I Director
Ron Bowersox..... UMWA Safety

UNITED STATES COAST GUARD

CW04 Todd C. Talasky ..... United States Coast Guard

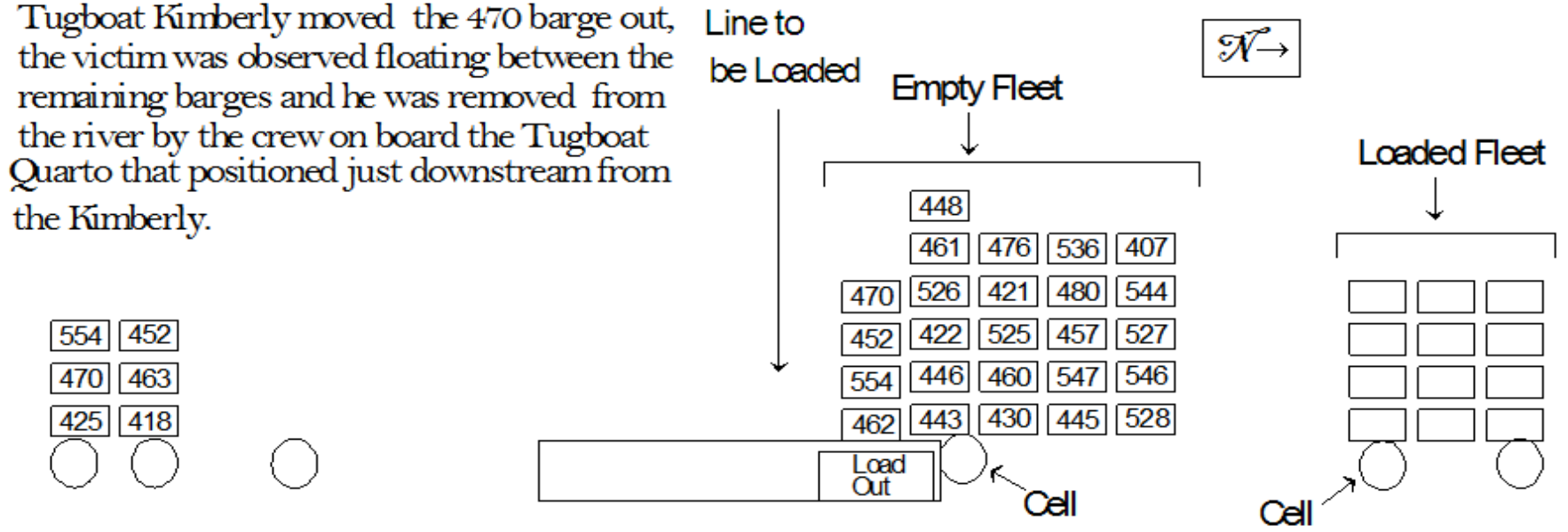
APPENDIX C – Barge Locations before Recovery



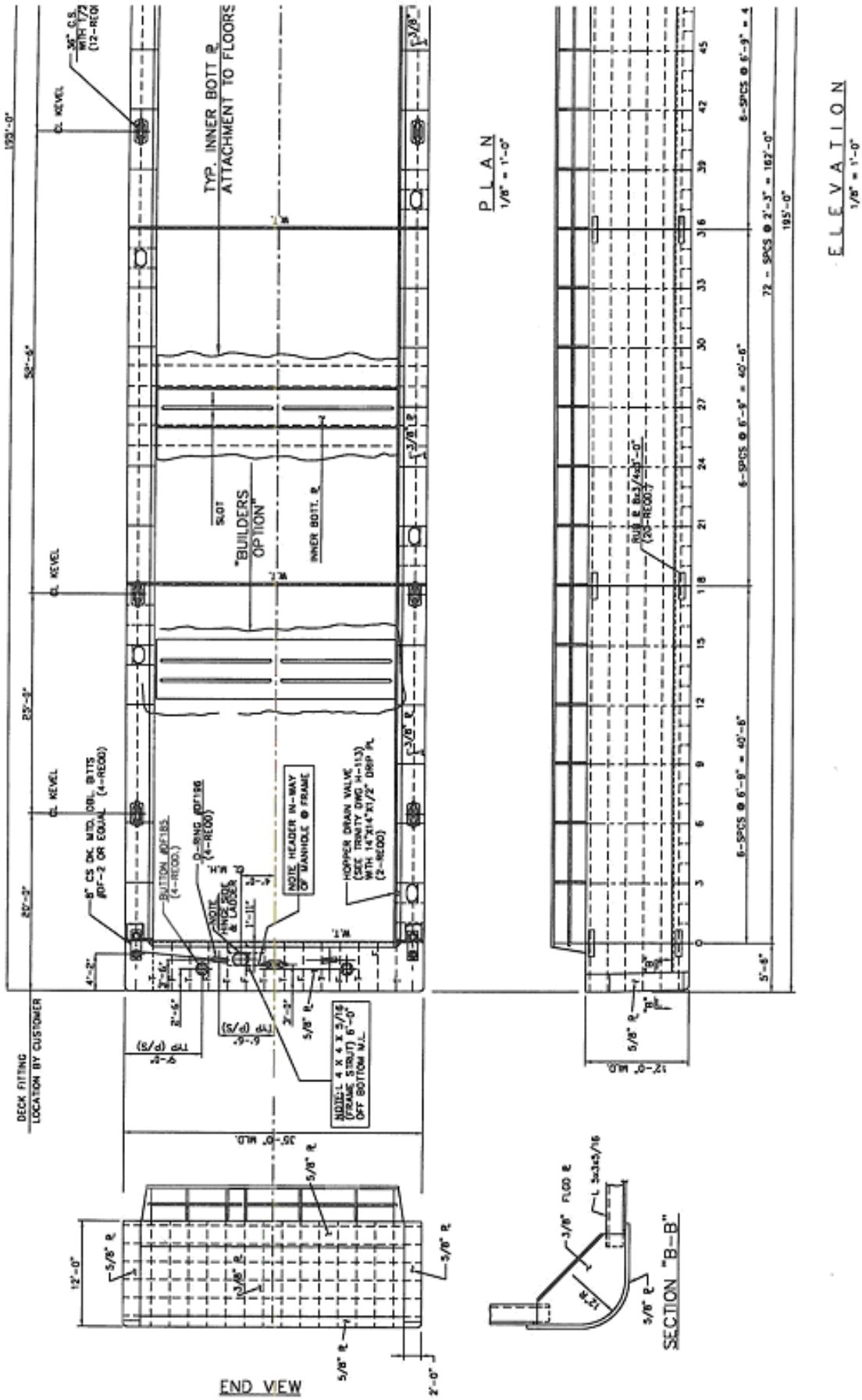
Location of Barges after Recovery

The Ohio River flows south

The Tugboat Quarto moved the 554 barge upstream and secured it. Then the Tugboat Champion moved the 452 barge up. Then the Tugboat Kimberly moved the 470 barge out, the victim was observed floating between the remaining barges and he was removed from the river by the crew on board the Tugboat Quarto that positioned just downstream from the Kimberly.



APPENDIX E – Stern of Barge



APPENDIX F – Bow of Barge