SECTION 4

LEFT ABUTMENT:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pages Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. BASAL CONCRETE FILLETS</td>
<td>180 - 196</td>
</tr>
<tr>
<td>B. CUTOFF WALL</td>
<td>197 - 284</td>
</tr>
<tr>
<td>C. DOWNSTREAM RAVINE</td>
<td>285 - 291</td>
</tr>
<tr>
<td>D. EMBANKMENT CONTACT AREA</td>
<td>292 - 376</td>
</tr>
<tr>
<td>E. CUTOFF TRENCH</td>
<td>377 - 383</td>
</tr>
</tbody>
</table>
Left abutment cutoff wall final foundation, Hannibal Shale. Station 18+28, Elevation 548 feet. 19 August 1978

Left abutment cutoff wall final foundation, Hannibal Shale. Station 18+40, Elevation 548 feet. 19 August 1978
Left abutment cutoff wall final foundation, Hannibal Shale. Station 18+50, Elevation 547.5 feet. 18 August 1978

Left abutment cutoff wall final foundation, Hannibal Shale. Station 18+50, Elevation 547.5 feet. 18 August 1978
Left abutment cutoff wall final foundation. Hannibal Shale. Station 18+59, Elevation 547.5 feet. 18 August 1978

Left abutment cutoff wall final foundation. Hannibal Shale. Station 18+68, Elevation 547 feet. 18 August 1978
Left abutment cutoff wall final foundation. Hannibal Shale. Station 18+78, Elevation 547.6 feet. 17 August 1978

Left abutment cutoff wall final foundation. Hannibal Shale. Station 18+90, Elevation 548 feet. 17 August 1978
Left abutment cutoff wall final foundation, Hannibal Shale.
Station 19+00, Elevation 548 feet. 17 August 1978

Left abutment cutoff wall final foundation, Hannibal Shale.
Station 19+00, Elevation 548.5 feet. 16 August 1978
Left abutment cutoff wall final foundation, Hannibal Shale.
Station 19+16, Elevation 548 feet. 16 August 1978

Left abutment cutoff wall final foundation, Hannibal Shale.
Station 19+32, Elevation 548 feet. 16 August 1978
Left abutment cutoff wall final foundation. Hannibal Shale. Station 19+36, Elevation 549 feet. 15 August 1978

Left abutment cutoff wall final foundation. Hannibal Shale. Station 19+30, Elevation 549 feet. 14 August 1978
Left abutment cutoff wall final foundation, Hannibal Shale. Station 19+63, Elevation 550 feet. 14 August 1978
Left abutment cutoff wall final foundation, Hannibal Shale. Station 19+75, Elevation 550 feet. 14 August 1978

Left abutment cutoff wall final foundation, Hannibal Shale. Station 19+77, Elevation 548 feet. 12 August 1978
Left abutment cutoff wall final foundation, Hannibal Shale. Station 19+87, Elevation 548 feet. 12 August 1978

Left abutment cutoff wall final foundation, Hannibal Shale. Station 19+98, Elevation 550 feet. 11 August 1978
Left abutment cut-off wall final foundation. Hannibal Shale.
Station 19+98, Elevation 550 feet. 11 August 1978.
Cutoff wall, final foundation for concrete placement CW 1-1. 18 Sept. 1978.


Cutoff wall, final foundation for concrete placement CW 1-4. Station 20+00, Elevation 580 feet. 26 Sept. 1978.

Left abutment cutoff wall, cavity #2, Station 19+75, Offset downstream, Elevation 578 feet. 26 Sept. 1978.
Left abutment cutoff wall, cavity #2, Station 19+75, Elevation 581 feet. 26 Sept. 1978.

Left abutment cutoff wall, cavity #2, Station 19+75, Offset downstream, Elevation 590 feet. 26 Sept. 1978.
Left abutment cutoff wall, cavity #2, Station 19+75, Offset downstream, Elevation 590 feet. 26 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 1-5. Station 19+70, Elevation 590 feet, Offset upstream. 2 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 1-5. Station 19+90, Offset upstream, Elevation 590 feet. 2 Oct. 1978.
Cutoff wall, final foundation for concrete placement CW 1-5. Station 20+00, Offset upstream, Elevation 590 feet. 2 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 1-5. Station 19+70, Offset downstream, Elevation 590 feet. 2 Oct. 1978.
Left abutment cutoff wall, cavity #2. Station 19+75. Offset 25 feet downstream, Elevation 590 feet. 28 Sept. 1978.

Left abutment cutoff wall, cavity #2. Station 19+75. Offset 35 feet downstream, Elevation 590 feet. 28 Sept. 1978.
Left abutment cutoff wall, cavity #2, Station 19+75, Offset 35 feet downstream, Elevation 600 feet. 29 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 1-6. Station 20+00, Offset upstream. Elevation 600 feet. 4 Oct. 1978.
Cutoff wall, final foundation for concrete placement CW 1-6. Station 20+00, Offset downstream, Elevation 600 feet. 4 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 1-6. Station 19+70, Offset downstream, Elevation 600 feet. 4 Oct. 1978.
Left abutment cutoff wall, cavity #2, Station 19+75. Offset 25 feet downstream, Elevation 600 feet. 29 Sept. 1978.

Left abutment cutoff wall, cavity #2, Station 19+75. Offset 25 feet downstream, Elevation 650 feet. Overview from 50 feet upstream looking downstream. 28 Sept. 1978.
Left abutment cutoff wall, cavity #2, Station 19+75, Offset 25 feet downstream, Elevation 600 feet. 29 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 2-1. Station 19+69, Offset downstream, Elevation 552 feet. 21 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 2-2. Station 19+70, Offset downstream, Elevation 560 feet. 27 Sept. 1978.
Cutoff wall, final foundation for concrete placement CW 2-2. Station 19+40, Offset downstream, Elevation 560 feet. 27 September 1978

Cutoff wall, final foundation for concrete placement CW 2-3. Station 19+40, Offset upstream, Elevation 570 feet. 3 October 1978


Left abutment cutoff wall, cavity #1, Station 19+40, Offset 23 feet downstream, Elevation 587.9 feet. 2 Oct. 1978.
Cutoff wall, final foundation for concrete placement CW 2-6, Station 19+58, Offset downstream. Elevation 600 feet. 16 Oct. 1978.

Left abutment cutoff wall, cavity #1. Looking down upstream to downstream. 4 Oct. 1978.
Cutoff wall, final foundation for concrete placement CW 3-1. Station 19+39, Offset upstream, Elevation 550.5 feet. 22 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 3-1. Station 19+09, Offset downstream, Elevation 550.5 feet. 22 Sept. 1978.
Cutoff wall, final foundation for concrete placement CW 3-2. Station 19+40, Offset upstream, Elevation 560 feet. 28 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 3-2. Station 19+40, Offset downstream, Elevation 560 feet. 28 Sept. 1978.
Left abutment cutoff wall, cavity #1, Station 19+37, Offset 15 feet downstream, Elevation 570 feet. 29 Sept. 1978.


Cutoff wall, final foundation for concrete placement CW 4-1. Station 19+00, Offset upstream, Elevation 550.5 feet. 25 Sept. 1978.
Cutoff wall, final foundation for concrete placement CW 4-1. Station 19+09, Offset upstream, Elevation 550.5 feet. 25 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 4-1. Station 19+09, Offset downstream, Elevation 550.5 feet. 25 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 4-2. Station 19+09, Offset upstream, Elevation 560 feet. 30 Sept. 1978.
Cutoff wall, final foundation for concrete placement CW 4-2. Station 18+79, Offset upstream, Elevation 560 feet. 30 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 4-2. Station 18+79, Offset downstream, Elevation 560 feet. 30 Sept. 1978.
Cutoff wall, final foundation for concrete placement CW 4-2. Station 19+09, Offset downstream, Elevation 560 feet. 30 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 4-3. Station 18+80, Offset upstream, Elevation 570 feet. 6 Oct. 1978.
Cutoff wall, final foundation for concrete placement CW 4-3. Station 19+10, Offset upstream, Elevation 570 feet. 6 October 1978
Cutoff wall, final foundation for concrete placement CW 4-3. Station 18+80, Offset downstream, Elevation 570 feet. 6 Oct. 1978.


Left abutment cutoff wall, cavity #1. Looking down from top of cutoff trench into cavity, base of cavity elevation 600 feet. 12 Oct. 1978.
Left abutment cutoff wall, cavity #1, Station 19+20, Offset upstream, Elevation 600 feet. 12 Oct. 1978.

Left abutment cutoff wall, cavity #1, Station 19+20, Offset upstream, Elevation 600 feet. Looking at southwest face. 12 Oct. 1978.
Left abutment cutoff wall, cavity #6, Station 19+00, Offset upstream, Elevation 580-590 feet. 12 Oct. 1978.
Left abutment cutoff wall, cavity #1, Station 19+20, Offset upstream, Elevation 600 feet. 12 Oct. 1978.

Left abutment cutoff wall, cavity #6, Station 19+00, Offset upstream, Elevation 580 feet. 12 Oct. 1978.
Left abutment cutoff wall, cavity #6, Station 19+00. Offset upstream, Elevation 610 bench. 12 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 4-6. Station 18+80, Offset upstream, Elevation 600-610 feet. 20 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 4-6. Station 19+00, Offset downstream, Elevation 600-610 feet. 20 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 5-1. Station 18+43, Offset upstream, Elevation 449 feet. 27 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 5-1. Station 18+79, Offset upstream, Elevation 449 feet. 27 Sept. 1978.
Cutoff wall, final foundation for concrete placement CW 5-1. Station 18+43, Offset downstream, Elevation 449 feet. 27 Sept. 1978.

Cutoff wall, final foundation for concrete placement CW 5-2. Station 18+58, Offset upstream, Elevation 560-570 feet. 10 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 5-3. Station 18+44, Offset upstream, Elevation 570-580 feet. 14 October 1978


Cutoff wall, final foundation for concrete placement CW 5-5. Station 18+55, Offset upstream, Elevation 590-600 feet. 27 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 5-5. Station 18+72, Offset upstream, Elevation 590-600 feet. 27 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 5-6. Station 18+80, Offset upstream, Elevation 600-610 feet. 31 Oct. 1978.
Cutoff wall, final foundation for concrete placement CW 5-6. Station 18+80, Offset downstream, Elevation 600-610 feet. 31 Oct. 1978.

Cutoff wall, final foundation for concrete placement CW 6-1. Station 18+44, Offset upstream, Elevation 548.5-560 feet. 19 Oct. 1978.


Left abutment ravine. View to the northwest.

Left abutment downstream ravine. Ledge#1.
Left abutment downstream ravine, Ledge#2.

Left abutment downstream ravine, Ledge#3.
Left abutment downstream ravine, Ledge#4.

Left abutment downstream ravine, performing tuckpointing on large open joints. April 1978.
Left abutment downstream ravine, tuckpointing performed on large open joints and bedding planes. April 1978.

Left abutment downstream ravine, performing foundation preparation and dental excavation on large solutioned joints and cavities. 1 May 1978.
Photo showing left abutment downstream ravine foundation preparation and dental excavation; spring 1978.

Photo showing left abutment downstream ravine foundation preparation and dental excavation; 1 May 1978.
Photo shows foundation preparation and dental excavation on left abutment downstream ravine. 1 May 1978.

Left abutment downstream ravine, performing foundation preparation on solutioned joint at Station 18+33, Offset 175 feet downstream, Elevation 600 feet. July 1978

Performed foundation preparation and dental excavation on left abutment downstream ravine. Station 18+30, Offset 75 feet downstream. Elevation 585 feet. Jul. 1978