

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

Pre-construction - 2001

August 2001

Flood event showing water
across the site.





September - October 2001

Flood event showing damage to site.







Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

October 18, 2001

Construction Activities Begin



DCP0961 - View looking West upstream of the cap, at erosion channels caused by the flood.



DCP0963 - General site view east of well MN-1 Piez



DCP0962 - General site view looking across the site at well MN-1 Piez



DCP0964 - General overview of the site looking downstream (northeast)



DCP0965 - View looking west, at erosion channels caused by the flood. (Located southern side of concrete foundation)



DCP0967 - View of the stream bank before clearing operations



DCP0966 - General view of the site looking West, (Notice perched water lower right in picture)



DCP0968 - View looking west, at erosion channels caused by the flood. (Located downstream of site)

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
October 22, 2001



DCP0969 - Equipment used on site, a Walker Caterpillar CS-563D Roller



DCP0971 - Equipment used on site, a Walker Caterpillar 325B Track Hoe



DCP0970 - Equipment used on site, a Walker Caterpillar D6R Dozer



DCP0972 - General view of site, looking East, (Downstream) along the center line of the job



DCP0973 - General view looking West, (Downstream) along Arbuckle creek after clearing operations



DCP0975 - Surveyors (Instrument person) setting limit and grade stakes for the cap



DCP0974 - General view of site looking west, (Upstream) along Arbuckle creek after clearing operations



DCP0987 - Track Hoe clearing brush to enable the surveyors to lay out and stake the drainage features on the site.



DCP0989 - Track Hoe excavating new drainage feature per drawings. (Found ditch intercepted a gas main, relocated entrance to Arbuckle creek)

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
October 23, 2001



DCP0989 - Track Hoe excavating new drainage feature per drawings. (Found ditch intercepted a gas main, relocated entrance to Arbuckle creek)



DCP0992 - View of Manhole cover found after looking for several hours



DCP0991 - Track Hoe scratching the surface looking for a manhole cover from Arbuckle P.S.D.



DCP0994 - Cat Dozer grading and compacting manhole search area

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
October 24, 2001



DCP1001 - View of the Rock Truck dumping stone in the new stockpile location



DCP1003 - General site view upstream, looking Northwest (left to right)



DCP1002 - General view looking West (upstream) of site operations



DCP1004 - General site view upstream, looking North (left to right)



DCP1005 - General site view Downstream, looking Northeast (left to right)



DCP1009 - View of Rock Truck placing stumps and roots in a cell



DCP1006 - General site view Downstream, looking Northeast (left to right)



DCP1010 - General view of cell containing the tree roots

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

October 25, 2001



DCP01012 - Health and Safety from Pinnacle Environ. Checking area with a PID



DCP01017 - Health and Safety from Triad checking MW-2 PIEZ with PID meter after casing removal



DCP01013 - General view of Triad's drill rig removing well MW-6 PIEZ

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
October 26, 2001



DCP01020 - Track Hoe excavating for the equipment decon pad



DCP01022 - General view of the site looking Northeast, (Downstream)



DCP01021 - Health and Safety from Pinnacle Environ. Checking excavation for equipment decon with a PID

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
October 29, 2001



DCP01024 - Close up view of the excavation of the sheet Pile alignment



DCP01026 – View of the excavation looking West, (upstream)

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
October 30, 2001



DCP01032 - Richard Baileys 20 ton dump truck delivering sub base material



DCP01035 - General view of the area covered this date with sub base material.



DCP01033 - D6R Dozer spreading sub base material, while CS5630 roller compacts the general site

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

October 31, 2001



DCP01039 - General view of grading and compaction operations on the sub base Materials



DCP01048 - Water truck wetting sub grade material for better compaction and dust control



DCP01047 - Water truck spraying water on the access roads off site and on to maintain dust control

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 1, 2001



DCP01054 - View of a personnel /Data Ram, instrument measures the dust in the area



DCP01056 - View of Track Hoe cutting the slope on the edge of cap



DCP01055 - Dozer placing sub grade material on the Western section of the site



DCP01057 - Dozer scarifying the sub grade before the next lift



DCP01060 - IT28G off road fork unloading Sheet pile materials



DCP01062 - Track Hoe cutting the slope on the Eastern section of the sheet pile wall



DCP01061 - Close up of the sheet pile being unloading



DCP01063 - Close up view of the Track Hoe e/cutting the slope for the cap excavation



DCP01075 - Ahern personnel cutting 32-foot sheets into 16-foot sheet. Also cutting lifting eyes for driving



DCP01077 - View of the Track Hoe placing fill in the sheet pile alignment trench and trucks delivering soil

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 2, 2001



DCP01083 - Ahern equipment and personnel moving 32 foot sheets into position to be cut



DCP01086 - General view looking downstream (east) at the site



DCP01084 - View of Track Hoe placing backfill into the trench for the sheet pile wall

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 5, 2001



11. 5. 2001

DCP01091 - View of the tag on the sheet pile



11. 5. 2001

DCP01099 - Ahern personnel and fork lift moving and stacking sheet prepared for driving



11. 5. 2001

DCP01094 - Dozer scarifying the fill, before placing the next lift



11. 5. 2001

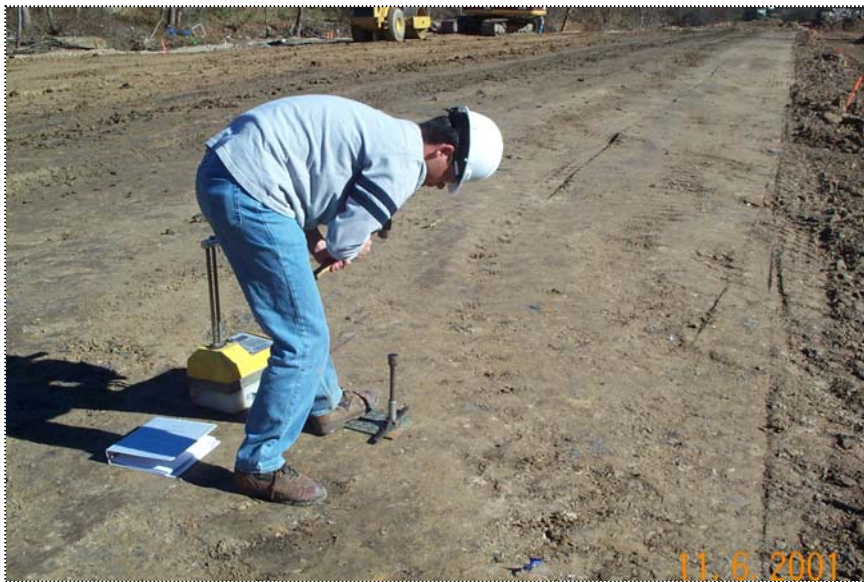
DCP01103 - Track hoe placing sub grade material on the sheet pile alignment

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 6, 2001



DCP1115 - View of Protest INC. Personnel performing compaction testing on the Northern section of the site



DCP1118 - View of edge of cap cut on the southwest section of the site



DCP1117 - Dozer making cut along Arbuckle creek

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 7, 2001



DCP1122 - Sheet pile lifting shackle with disconnect



DCP1123 - Ahern moving crane to west sheet pile wing wall



DCP1128 - Ahern personnel stick first sheet



DCP1130 - Potesta Inc. personnel preparing to test the sub base



DCP1129 - View of the soil test equipment used to check soil density and moisture



DCP1131 - Ahern personnel driving first sheet at level C



DCP1132 - Ahern personnel driving second sheet at level C



DCP1135 - Ahern ground personnel guiding sheet into position



DCP1134 - Crane move sheet into position on the sheet pile wall



DCP1136 - View of the sheet starting in interlock



DCP1139 - Ahern personnel tack welding sheet 1 and 2, so they can plumb the sheets



DCP1142 - Ahern personnel guiding sheet into interlock

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 8, 2001



DCP1150 - View of the construction of the 2nd decon pad. Truck dumping stone for the base of the pad



DCP1153 - View of Ahern personnel driving piling at level C



DCP1151 - Track Hoe placing stone for the base of the decon pad



DCP1154 - Health & Safety testing area with PID



DCP1156 - Dozer spreading sub grade material on south central area of the site



DCP1159 - View of driving operations at level D



DCP1158 - Close up of view of level used to check sheets for plumb



DCP1160 - Ahern personnel checking sheet for plumb before driving



DCP1163 - Track hoe compacting new clean stone on the decon pad

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 9, 2001



DCP1164 - General view of the Southern section of the site. The dozer is scarifying the Eastern half, while the roller compacts the Western



DCP1169 - Ahern personnel aligning a sheet on the line and motioning to the crane to stick the sheet



DCP1168 - Ahern personnel driving sheet pile



DCP1170 - Ahern personnel directing crane operator to move the boom to plumb the sheet



DCP1171 - General view of the Southwestern section of the site. The dozer is scarifying the central section of the southern half, while the roller compacts the edge of cap after applying water



DCP1180 - Dozer spreading sub grade material from Richard Bailey's barrow area



DCP1179 - General view of the southern half of the site, before and after compaction by the roller



DCP1181 - General view of the sheet pile wall

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 12, 2001



DCP1203 - View of dozer removing frozen soil from the Northwest fill area



DCP1208 - Ahern pluming a sheet before driving



DCP1204 - View of sheets cut by Ahern's pile driver



DCP1209 - Close up view of Vibratory hammer clamped to a sheet during driving operations



DCP1210 - Dozer scarifying frozen soil at the access to the fill



DCP1213 - Track Hoe placing stone on the filter fabric



DCP1212 - WasteTron personnel laying filter fabric in the stone ditch. Two pieces were installed to fit across the ditch



DCP1215 - View of Tech preparing test hole for the nuclear density gage



DCP1216 - View of Tech preparing test hole for the nuclear density gage



DCP1220 - Close up view of track hoe placing stone on the filter fabric, (stone ditch)



DCP1219 - View of step cut by the track hoe for the sheet pile wall

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 13, 2001



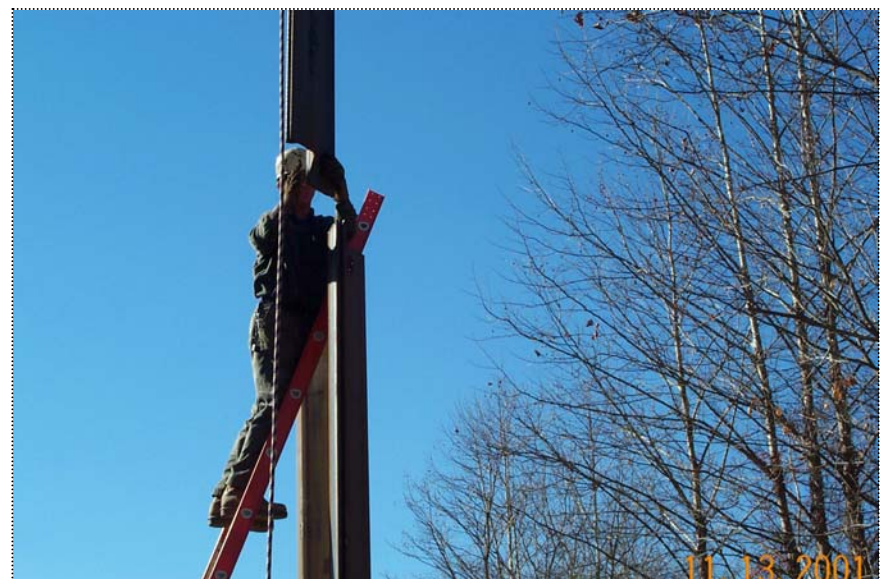
DCP1222 - View of the Stone placed in the Western 125 feet of the stone Ditch



DCP1235 - General view of the sheet alignment. The orange line is used to maintain the correct alignment for the wall



DCP1233 - General view of site activities by WasteTron and Ahern



DCP1236 - Ahern's Pile Driver guides a sheet into the interlock of the one adjacent



DCP1237 - Track Hoe rough out the next section on the stone ditch



DCP1239 - General view of the Southern section of the site



DCP1238 - General view of the Northern section of the site

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 14, 2001



DCP1241 - Ahern personnel cutting the sheets to grade



DCP1244 - View of a soil sample taken using a hand split spoon sampler. The ridges shown on the bottom edge are from the sampler



DCP1243 - View of the Arbuckle Creek side of the sheet pile wall during cutting operations



DCP1248 - View of the Coal Mine directly across from the site

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
November 15, 2001



DCP1253 - Track Hoe removing cut sheets from the sheet pile wall



DCP1256 - General view of site operations



DCP1254 - Ahern Personnel cutting sheets to final grade



DCP1257 - Track Hoe removing 12-inch beam that laid across Arbuckle Creek



DCP1258 - View of Track Hoe removing a 4-inch pipe that laid across Arbuckle Creek



DCP1262 - Ahern removing the last of the cut sheets from the cap



DCP1261 - WasteTron personnel marking cut/fills on each sheet of the sheet pile wall



DCP1265 - Close up view of the Track Hoe removing excess soil from the edge of the sheet pile wall

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 16, 2001



DCP1270 - Track Hoe pulling trees, rail road ties and other materials on the east edge of the sub base for loading



DCP1275 - Triad personnel trying to pull the casing on MW-7



DCP1271 - View of the materials to be loaded on the two Jar-Bet trucks and delivered to Sycamore Landfill



DCP1276 - View of the MW-7's casing coming out of the ground



DCP1277 - View of the filter and stand pipe, approximately 14 feet



DCP1280 - Health and Safety checking bore hole with PID



DCP1278 - Triad's drill setup to drill new well SS-12 at the West end of the site



DCP1281 - View looking down the hole for new well SS-12



DCP1282 - Triad personnel assembling the casing for the well



DCP1284 - Well SS-12 with casing installed and Triad placing filter pack



DCP1283 - 50 LB bag of filter sand for the filter pack



DCP1285 - Information on the Screen for the wells



11.16.2001

DCP1286 - View of the bentonite tablets for well SS-12



11.16.2001

DCP1288 - Triad personnel adding water to hydrate the bentonite



11.16.2001

DCP1287 - Triad personnel placing bentonite tablets in the bore hole around the stand pipe



11.16.2001

DCP1289 - Triad personnel installing additional stand pipe on SS-12



DCP1290 - Triad drilling on Well MW-2 first hole



DCP1296 - Triad's driller using a GPS for well location



DCP1291 - View looking down the hole for well SS-14



DCP1297 - WasteTron's track hoe excavating for the stone ditch



DCP1302 - Well MW-2 after installation of 6-inch PVC and concrete



DCP1306 - Triad personnel placing concrete around MW-6



DCP1304 - View of Well SS-14 after installation of 6-inch PVC and concrete



DCP1307 - Triad personnel placing dry cement around SS-12



DCP1308 - View of Well MW-12 after installation of 6-inch PVC and concrete



DCP1310 - Water flowing out of the north facing bank on the stone ditch



DCP1309 - View along the excavation for the stone ditch

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
November 17, 2001



DCP1314 - WasteTron personnel placing filter fabric in the newly excavated Stone Ditch



DCP1317 - View of Track Hoe placing stone on filter fabric



DCP1315 - View of the overlap in the sheets of filter fabric



DCP1318 - View of over all site operations



DCP1319 - WasteTron personnel laying out filter fabric for the length of the ditch



DCP1322 - View looking East, (down stream) of the installed Stone Ditch



DCP1321 - WasteTron personnel installing a section of filter fabric in the excavation for the Stone Ditch

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
November 19, 2001



DCP1325 - View of truck dumping cap material in front of the dozer



DCP1327 - Track Hoe removing excess cap material from around the wells



DCP1326 - Dozer scarifying the sub grade, preparing it to receive the first lift of cap material, (Southern half of the site)



DCP1329 - General shot of Track Hoe making adjustments in the material next to the sheet pile wall



DCP1331 - Rodney Roberts removing roots from the cap material



DCP1336 - Dozer tracking the edge of the lift. This to bond sections and to break up large pieces of material



DCP1332 - Dozer spreading cap material in a lift



DCP1339 - Track Hoe starting to excavate the upstream ditch

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library
November 27, 2001



DCP1381 - General view of the site after the rain this weekend.
WasteTron personnel checking the site for soft spots due to the rain



DCP1384 - Dozer and roll grading and compacting/sealing the site.
Preparing the site for the expected heavy rains this evening (11/27/01).



DCP1382 - Dozer tracking/grading the Northern section of the site



DCP1385 - General view of the Northern area next to the sheet pile wall



DCP1386 - Close up view of the of the roll compacting/sealing the cap material



DCP1388 - WasteTron Personnel preparing to decon the Track Hoe



DCP1387 - General view of the area compacted/sealed by the roller



DCP1389 - WasteTron Personnel removing the gross materials by use of a shovel on the Track Hoe



DCP1390 - Pinnacle health and safety swipe testing the roller



DCP1393 - Pinnacle health and safety swipe testing the bucket of the track Hoe



DCP1392 - Pinnacle health and safety swipe testing the track of the track Hoe

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

November 28, 2001



DCP1396 - General view of the site, before site operations began



DCP1403 - Dozer spreading material on the southern section of the site



DCP1397 - Load of soil being dumped in front of the dozer for spreading



DCP1404 - Track Hoe pulling material up against the outside of the sheet pile wall

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

December 3, 2001



DCP1433 - General view looking downstream at the Southern half of the cap



DCP1436 - View of Northwest section of the site, of the dozer spreading, while a Richard Bailey truck delivering cap material



DCP1434 - General view looking downstream at the Northern half of the cap



DCP1437 - General view of site operations, dozer spreading/tracking material on the southern half of the site, while roller compacts the soil on the Northern half of the site



DCP1438 - View of Mountain State personnel installing grade stakes along the stone ditch for the cap material

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

December 4, 2001



DCP1441 - General view of the Southern section of the site after compaction



DCP1446 - Mountain State checking grade on the southern half of the site



DCP1442 - Protesta tech preparing to start a compaction test



DCP1449 - Dozer grading the cap material on the Northern half of the site



DCP1450 - General view of site operations



DCP1454 - WasteTron personnel driving the stake for the nuclear density meter



DCP1451 - Dozer grading around the wells on the Western end of the site

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

December 5, 2001



DCP1456 - Dozer tracking cap fill before placing more



DCP1458 - Richard Bailey truck dumping cap material in front of the dozer



DCP1457 - WasteTron personnel rolling out filter fabric for the east portion of the stone ditch



DCP1459 - WasteTron personnel un-rolling the filter fabric for the stone ditch



DCP1460 - Dozer spreading fill next to the western end of the stone ditch



DCP1462 - Stone being dumped into the ditch



DCP1461 - General view of the filter fabric in the east side of the stone ditch



DCP1464 - Track Hoe spreading stone on the filter fabric in the ditch



DCP1466 - Dozer grading the center section of the site, next to the center line



DCP1468 - Water truck placing moisture on the cap material before rolling



DCP1467 - Mountain State surveyors cross section the site



DCP1469 - Gary Cooper covered the decon pad with cap material

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

December 11-19, 2001



Installation of South Ditch



Seaming Liner Sections together



Unrolling liner



Liner Crew



Location of Manhole on Southside



Southeast side of riprap ditch

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

December 21- 22, 2001



Final Surveying



Western Portion of Cap, Shows Barrier



Southern Portion of Cap, shows drainage ditch



View of Cap, looking west



View of Northeastern corner of cap
(Gasline is adjacent to this area)



View of Cap and Sheet Pile Wall, looking east

Shaffer Equipment Company Minden, WV

Project No. 4807

Photo Library

Post-construction - 2002

January 2002

Post-construction without
stone slope protection along
Arbuckle Creek







April 2002

Post-construction without
stone slope protection
without Arbuckle Creek





May 2002

Post-construction without
stone slope protection along
Arbuckle Creek





September 30, 2002

Stone Slope Placement Along
Arbuckle Creek



Stone Delivery



Completed View



Stone Placement

December 2002

Post-construction with stone
slope protection in place
along Arbuckle Creek

