Summary Report of the Level I Documentation of Segments of the Grand Valley Canal, Mesa County, Colorado

by

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INTRODUCTION

The Grand Valley Irrigation Company (GVIC) has been funded through the Bureau of Reclamation's (BOR) Colorado River Basin Salinity Control Program to line two sections of the Grand Valley Canal with a polyvinyl chloride and geotextile liner covered with shotcrete and replace headgates with new concrete structures with punch-plate trash screens. The purpose of the project is to reduce the amount of salt and selenium entering the Colorado River. The project area is on private lands in Mesa County, Colorado. Because the project is a federal undertaking and is federally funded, various cultural resources laws apply, including Section 106 (54 U.S.C. § 306108) of the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 et seq.). These laws require that all significant cultural resources be identified prior to planned development, and are intended to insure that historic and prehistoric cultural resources important to our national heritage are not inadvertently harmed or destroyed by federally initiated or authorized actions. The canal was inventoried by Alpine Archaeological Consultants, Inc. (Alpine), of Montrose, Colorado, in 2016 (Harrison and Lindland 2016). A Memorandum of Agreement between the BOR, GVIC, and the Colorado State Historic Preservation Officer (SHPO) stipulated Level I Documentation as mitigation for adverse effects to 1.34 miles (mi.) (2.16 kilometers) of the Grand Valley Canal system. The specifications for Level I Documentation are presented in History Colorado Publication No. 1595 (History Colorado 2013). The GVIC hired Alpine to conduct the Level I Documentation and supplemental narratives and to present these data in a summary report.

Level I Documentation is the most basic form of site documentation and closely follows the survey and recordation requirements established by the Office of Archaeology and Historic Preservation, with the additional specification that the documentation be prepared on archival bond paper and that photographic materials be archival. Photographs are stipulated to be black-and-white prints or digital images printed on fiber paper or archival-quality resin paper. Although prints are acceptable in 3-x-5-inch (in.) or larger sizes, 4-x-6-in. prints are preferred by History Colorado (2013).

METHODS

The information used in the preparation of the Level I Documentation was gathered during the Class III cultural resource inventory by Trevor R. Lindland of Alpine between May 5 and May 6, 2016 (Harrison and Lindland 2016). The 1.34 mi. of the Grand Valley Canal system to be lined, including all of the associated water-control structures, was recorded using a Global Positioning System (GPS) unit capable of sub-meter accuracy. Documentation also included photographs and descriptions of the canal that focused on water control features. A list of maps and photographs are included in Appendix A. The maps and reproductions of photographs, themselves, are included in Appendix B.

LOCATION AND ENVIRONMENTAL SETTING

The inventoried canal segments are on GVIC-managed lands in the northwestern portion of Grand Junction and just east of Fruitvale, in Mesa County, Colorado (Figure 1). Elevations in the project area range from 4,600 ft. (1,402 m) to 4,685 ft. (1,428 m). The entire project area is within the Grand Valley of the Colorado Plateau physiographic province. The canal segments are underlain by Cretaceous-age sedimentary Mancos shale (Tweto 1979). Amid the more gentle terrain to the west, the shale is capped by soil that may be remnants of Pleistocene glacial deposits. Pleistocene gravel terraces of the Grand Valley comprise the land south of the canal. This is the rich farmland that was made productive by irrigation from the Grand Valley Canal system. Development and growth of Grand Junction since the 1970s has resulted in the conversion of the project area in the vicinity of Fruitvale and Grand Junction from farmland to a combination of rural residential and

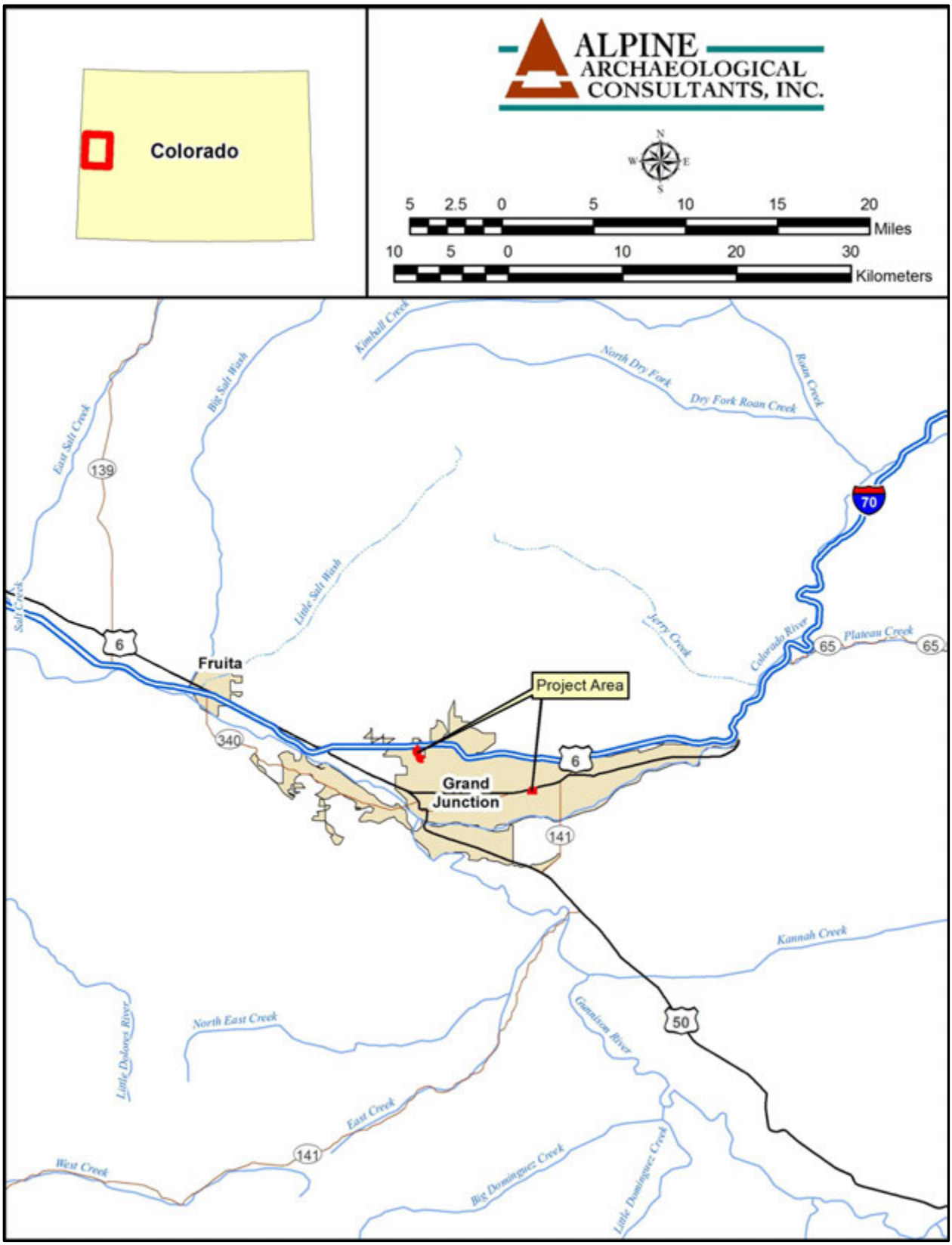

Figure 1. General location map of the project area.

rather high-density residential and commercial use. Vegetation away from commercial and residential development is mostly of weedy species that thrive in disturbed contexts, including cheatgrass and kochia. Vegetation along the canal is heavily managed to prevent it from becoming invasive and to maintain the structural integrity of the canal, no trees have been allowed to grow along the canal banks. Cottonwood, tamarisk, and Russian olive grow in riparian areas near the canal. The canal banks are primarily grass covered, but include areas of cattail, phragmites reed, kochia, horsetail, yarrow, heracleum, wild rose, aster, clover, thistle, and morning glory.

REGIONAL OVERVIEW OF CULTURE HISTORY

The following culture history is a brief synthesis of historical and prehistoric occupation in the Southern Rocky Mountains, including the current project area. It is based upon archaeological and historical work undertaken in and around the Southern Rocky Mountains. For more detail, see the Colorado prehistoric context for the northern Colorado River basin (Reed and Metcalf 1999) and the Colorado historical archaeology context (Church et al. 2007).

The mountains of Colorado may have been first inhabited, to a limited degree, as early as 10,000 B.C. by big game hunters representative of the Paleoindian Tradition. Evidence of this early Pleistocene occupation is rarely encountered in the region. With the end of the Pleistocene came climatic conditions very similar to those of the present. By about 5500 B.C., coinciding with this climatic moderation, there was a transition in subsistence and material culture to a new lifeway, termed the Archaic Tradition. Archaic peoples exploited a greater variety of plant and animal foodstuffs and manufactured tools that were quite distinct from those of their predecessors. Regionally, the Archaic period is very well represented archaeologically. At the time of Euroamerican contact, the primary aboriginal group in the project area was the Ute, living an Archaic-like lifestyle. The Utes were Numic speakers, who may have arrived in western Colorado as early as A.D. 1500. As a result of Euroamerican contact, the Utes acquired the horse and underwent rapid culture modification, similar to the assimilated Plains Indian tribes.

Western Colorado was designated as a reservation for the Utes as a result of the Treaty of 1868. In 1873, the San Juan Mountains were removed from the reservation as a result of the Brunot Agreement. The Brunot Agreement ultimately increased hostilities between Utes discordant with the removal and the Euroamericans responsible, culminating in the Meeker Massacre in 1879. The Meeker Massacre served as the catalyst for removing the White River and Uncompahgre (Tabeguache) Utes from western Colorado. By the end of 1881, the last of the Utes were restricted to reservations in northwestern Utah and southernmost Colorado.

The removal of the Utes from most of western Colorado opened the Grand and Uncompahgre valleys to settlement by Euroamericans; the increase in Euroamerican population in the area led to the founding of Montrose, Delta, and Grand Junction, followed by the expansion of the Denver and Rio Grande Railroad line from Gunnison through these new towns in 1882. Farming and ranching quickly took hold. The use of irrigation in the Grand Valley was vital to increase the fertility of the semiarid valley.

Prior to the construction of the Grand Valley Canal, 520.81 cubic feet per second (cfs) of water was appropriated on August 22, 1882 from the Colorado River for the purpose of irrigating the Grand Valley. The Grand River Ditch Company started construction of the Grand Valley Canal on January 10, 1883 to make use of the appropriated water (Grand Valley Irrigation Co. 2008). The company quickly ran out of money and was purchase by T. C. Henry, with the backing of the Travelers Insurance Company, completing the project in 1884 (Holleran 2005). The original diversion from the Colorado River was a wooden structure. The initial 17.12 mi. of the canal is now known as the Upper Mainline. When constructed, it was 25 to 30 ft. wide and carried water at a depth of 3 to 4 ft. At the end of the Upper Mainline, the canal was split into two canals by a

structure referred to as a divider. From this point, the northern branch of the canal continued along the same contour elevation to a point 3 mi. northwest of Fruita as the Highline, and the southern branch dropped 22 ft. and continued westward as the Mainline to its terminus at Big Salt Wash. These canals were completed by Henry in 1884. Later that year, the Mesa County Ditch was constructed, supplied by a feeder canal midway along the route of the Upper Mainline. Also constructed in 1884 was the Independent Ranchmen's Canal, which took water from the Mainline, a short distance below the divider. All of the canals were consolidated under the ownership of the Grand River Ditch Company in 1886, which was controlled by the Travelers Insurance Company. Financial difficulties resulted in the incorporation of the GVIC on January 7, 1894 to acquire the holdings of the Grand River Ditch Company, the Grand Valley Canal Company, the Mesa County Ditch Company, and the Independent Ranchmen's Ditch Association from the Travelers Insurance Company. The GVIC was organized as a cooperative, mutual ditch company, comprised of individual water users as shareholders of water stock; it continues to function in this manner to the present day.

During 1898 and 1899, the Kiefer Extension Ditch was constructed from the end of the Highline westward for 16 mi. Construction of the Kiefer Extension Ditch required enlargement of the Highline in 1901, so that additional water could be delivered to the Kiefer Extension. During the winter of 1900–1901, the wooden diversion on the Colorado River was replaced by a stone masonry diversion (Grand Valley Irrigation Co. 2008; Mead 1902). As a result of increased demand for water by irrigators, an additional 119.47 cfs was appropriated from the Colorado River on April 26, 1914 for delivery through the canal system (Grand Valley Irrigation Co. 2008). The canal system appears essentially the same as it did upon its completion in 1884 and as it did with the addition of the Kiefer Extension in 1898–1899 (Mead 1902). The extension was constructed by the Kiefer brothers (Frank, Ben, and Joe) of Loma and was predicated, not only by the need for water, but by the brothers' disappointment with the water prices being charged by the GVIC (Likes and Likes 1997). The Kiefer brothers devised a plan to utilize the waste water of the Grand Valley Canal to provide water to the western end, allowing an additional 10,000 acres of land to be brought under cultivation. The Kiefer Extension Canal was completed by the brothers in 1898. Although the water for the Kiefer Extension Canal was owned by the GVIC, the canal, itself, was controlled by a private organization owned by the Fruita Canal and Land Company. The Kiefer Canal remained a separate organization until January 1979, when it merged with the GVIC to better utilize water resources (Grand Valley Irrigation Co. 1994).

The Grand Valley Canal is a functioning water delivery system of 1880s design and engineering. Although maintained and upgraded in places through the years, the majority of the canal system operates and appears as it did when first constructed. Within the portions of the canal system inventoried for this project, the only differences from the original construction are modern sliding headgates for delivery to users along the route and concrete lining of the canal in a few locations. Through time, the growth of Grand Junction has altered the landscape through which the canal passes. When built, in the early to middle 1880s, the Grand Valley was just beginning to become settled and the canal facilitated agricultural development. The growth of Grand Junction since the 1970s has resulted in the greatest change in the canal setting within the current project area, with residential and commercial development expanding outward from the core of the city and replacing agricultural farmland.

DESCRIPTIONS OF THE GRAND VALLEY CANAL

5ME4680.66 – Upper Mainline of the Grand Valley Canal

Site Description

Site 5ME4680.66 is a 0.38-mi.-long (0.62-km) segment of the Upper Mainline of the Grand Valley Canal. The eastern end of the segment starts at the bridge at 31 Road (5ME11840) and runs west to Headgate ML133B southeast of the Interstate 70 Business Loop and the railroad tracks. The

segment is relatively straight, runs east to west, and passes through a residential and agricultural landscape. The recorded segment measures 20–30 ft. wide and is an earthen canal built in a cut-and-fill manner. The primary canal access road runs along the southern side of the canal and consists of a maintained dirt road. A faint two-track road also runs along northern side of the canal and provides access through private farmland. The easternmost portion of this road has been removed by a gravel lot and a residence. The vegetation consists mostly of grass growing on the banks of the canal, with some weedy species, such as cheatgrass and kochia, along more barren segments of the access roads. Trees have been continually removed along the canal, but cottonwoods, Siberian elm, and Russian olive are present nearby. The typical setting along the Upper Mainline of the Grand Valley Canal consists of a full canal passing through residential areas, with users served by headgates on the northern and southern sides of the canal's grass-covered banks, with some maintenance upgrades to headgates along the way. The documentation of the canal segment also resulted in the identification of nine headgates along its length. The headgates documented were all standard, handwheel-operated, lift-gate headgates. The headgates divert water from the canal to provide irrigation for individual water users. Data collected from each of the headgates is presented below in Table 1.

Historic Background

The Upper Mainline and Mainline portions of the Grand Valley Canal were part of the original water delivery system constructed in 1883 and 1884. See historical information in the Regional Overview of Culture History section presented above.

5ME4680.67 – Highline of the Grand Valley Canal

Site Description

Site 5ME4680.67 is a 0.97-mi.-long (1.56-km) segment of the Highline of the Grand Valley Canal. The southern end of the segment starts from the northern end of previously recorded segment 5ME4680.57, and runs in a general north-northwest direction to Beaver Lodge Road just south of Leach Creek. The segment has five major curves and runs through residential, commercial, and vacant lots. The canal measures 20–30 ft. wide and is entirely of earthen, cut-and-fill construction, with the exception of two locations that are reinforced with concrete-lined banks. Two bridges with no temporal affiliations were noted along the canal segment; one bridge serves as an access to a private residence. The primary canal access road runs along the western and southern sides of the canal and has been recently bladed along the northern portion of the segment. A faint two-track road runs along the eastern and northern sides of the canal, although residential construction has removed several sections of this road. Vegetation consists mostly of grass along the banks of the canal, with some weedy species, such as cheatgrass and kochia, along more barren segments of the access roads or commercial lots. Trees have not been allowed to grow along the canal, but cottonwoods, Siberian elm, and Russian olive are present nearby. The typical setting along the Highline of the Grand Valley Canal consists of a full canal passing through residential areas, with users served by headgates on the northern and southern sides of the canal's grass-covered banks, with some maintenance upgrades to headgates along the way.

The documentation of the canal segment also resulted in the identification of 19 headgates along its length. The headgates documented were all standard, handwheel-operated, lift-gate headgates. The headgates divert water from the canal to provide irrigation for individual water users. Data collected from each of the headgates is presented below in Table 2.

Historic Background

The Highline portion of the Grand Valley Canal was part of the original water delivery system constructed in 1884. See historical information in the Regional Overview of Culture History section presented above.

Table 1. Observed Modern Headgates along the Upper Mainline Segment 5ME4680.66.

Headgate Number	Canal Side	Handwheel Diameter (in.)	Gate Width (in.)	Stem Diameter (in.)	Notes	Markings
ML 120	South	10	15	¾	6-x-2½-ft. concrete slab walkway	ARMCO/OPEN/4106A
ML 120A	South	10	11½	¾	Two side-by-side 6-ft.-long planks (9-x-2-in.) walkway supported by a 2-x-4-in. board spanning two timber posts.	HYDRO/OPEN/22445A/22447A/701140
ML 121	South	10	11½	¾	5-ft.-long central plank walkway (11-x-2-in.) with 2-x-4-in. boards on each side of plank. Walkway supported by 2-x-4-in. spanning two timber posts.	WATERMAN/OPEN
ML 123	South	Missing	13	¾	4-ft.-long plank (10-x-2 in.) over a broken plank (10-x-2 in.) walkway supported by a 2-x-4-in. board spanning two timber posts.	22447A
ML 125	South	Missing	13	¾	4-ft-long plank (9-x-2 in.) on top of 2½-ft.-long plank (11-x-1½-in.) walkway with 31-in.-long main cross support (2-x-4-in.) spanning two timber posts. East timber degrading and an additional 2-x-4-in. board is used for support. Angled sheet metal with vertical steel support pipe is used as a diversion. Three vertical (2-x-4-in) boards support plank along bank.	22447A/701140
ML 128	South	10	9½	¾	4-ft.-long plank (12-x-2-in.) walkway supported 2-ft.-long timber (3½ in.) and two timber vertical supports. One vertical timber support plank along bank.	ARMCO/OPEN/22447A
ML 130	South	10	15	¾	5½-ft.-long dual plank (both 2-x-11-in) walkway embedded in bank and supported by two stacked 2-x-4-in. cross support boards (34 in.). Timber wedge on eastern side between plank and cross support. Two timber vertical supports.	ARMCO/OPEN/22445A
ML 133	South	Missing	11½	¾	4-ft.-long (11-x-2-in.) plank walkway embedded in bank, 2-ft.-long 2-x-4 in. cross support. Two timber vertical supports (4 in.), western timber is split and wrapped with metal wire.	ARMCO/22447A
ML 133B	South	Missing	11½	¾	39 in. (12-x-2-in.) plank walkway on top of two (8-x-2-in.) planks embedded in bank. Two planks (2-x-4-in.) cross two vertical timbers.	22447A

Table 2. Observed Modern Headgates along Segment 5ME4680.67.

Headgate Number	Canal Side	Handwheel Diameter (in.)	Gate Width (in.)	Stem Diameter (in.)	Notes	Markings
HL 30CC	North	10	9½	¾	5-ft.-long, 2-x-9-in. board and 2-x-11-in. board stacked two high and side by side.	HYDRO 22445A 701150 22447A 701140 OPEN
HL 31	South	10	9½	¾	5-ft.-long (2-x-9-in.) plank walkway embedded in bank, one vertical 2-x-4-in. and one horizontal 2-x-4-in. supporting plank at bank edge. 27-in.-long timber cross support and two vertical supports.	ARMCO LC49 ARMCO LC51 OPEN
HL 32	South	10	9½	¾	Headgate bolted/welded into iron brace on concrete headwall 3½-in. thick that extends 4 in. off bank. Brace bolted through concrete.	ARMCO LC49 OPEN 22447A 701140
HL 32B	South	10	9½	¾	4½-ft.-long dual 2-x-10-in. plank walkway, embedded in bank with stacked 2-x-4-in. cross support (28 in.) and two timber supports.	ARMCO 22445A OPEN ARMCO 4106A
HL 33AA	North	10	9½	¾		ARMCO 22445A ARMCO 4106A
HL 35	South-west	10	13	¾	Bolted to concrete headwall (approximately 3 ft. off bank); grate bolted to elbow brackets.	HYDRO 22445A 701150 ARMCO 4106A
HL 38	South	10	9½	¾	6-ft.-long, 12-x-2-in. walkway, embedded in bank with two vertical supports on bank and two stacked (2-x-4-in.) cross supports (2-ft.-long) with two vertical timber supports.	ARMCO LC40 ARMCO LC51 OPEN
HL 40	South	10	11½	¾	1 ft. off bank, sheet-metal diversion with two cast-iron pipe vertical supports.	ARMCO LC51 22445A
HL 42	West	10	9½	¾	3-ft.-long inclined 2-x-11-in. walkway embedded in bank with two vertical 2-x-4-in. supports on bank and a 28-in.-long timber for cross support with two vertical timber supports.	HYDRO 22445A 701150 ARMCO 22447A OPEN

Table 2. Observed Modern Headgates along Segment 5ME4680.67.

Headgate Number	Canal Side	Handwheel Diameter (in.)	Gate Width (in.)	Stem Diameter (in.)	Notes	Markings
HL 45	West	10	9½	¾	Concrete headwall immediately north of bridge (2½ in. thick).	HYDRO 701150 AB&I 22445A 22447A
HL 46PP	North	10	11	¾	4½-ft.-long (12-x-2-in.) walkway embedded in bank and supported by a 35-in.-long, 2-x-4-in. board with two vertical timber supports.	ARMCO 22445A ARMCO 4106A OPEN
HL 47	South	10	9 ½	¾	7½ ft. long 12-x-2-in. walkway with two vertical timbers on bank with 29-in. cross support with two vertical timber supports.	22445A 22447A OPEN
HL 50	South	10	11	¾	4½-ft. inclined 12-x-2-in. walkway embedded in bank with 17-in. cross support (2-x-4 in.) with two timber vertical supports.	ARMCO LC49 4106A
HL 52AA	North	10	9 ½	¾	3½-ft.-long (12-x-2-in.) walkway embedded in bank and supported by two stacked 2-x-4-in. boards with two vertical timber supports. Angle iron on eastern side.	AB& I 22445A HYDRO 701150 ARMCO 22447A
HL 55	South	10	11 ½	¾	2½-ft. (2-x-10-in.) plank walkway deeply embedded in bank with 21-in. cross support (2-x-4 in.) with two timber vertical supports.	ARMCO 4106A OPEN
HL 60	West	10	14	¾	Bolted to concrete headwall (approximately 3 ft. off bank); grate bolted to elbow brackets. "2002" imprinted in concrete.	OPEN WATERMAN
HL 60BB	West	10	9 ½	¾	Dual side-by-side 6-ft.-long plank (9½-x-2 in.) walkway with a vertical 2-x-4-in. board support along the bank.	ARMCO 22445A ARMCO LC51 OPEN
HL 61	West	10	9 ½	¾	Dual side-by-side planks (9½-x-2 in.) embedded in bank. Angle iron on southern side. 29-in. timber cut/flattened on top and bottom. Two vertical timbers (3½ x 4 in.).	ARMCO 22445A ARMCO 22447A OPEN
HL 62	West	10	9 ½	¾	Dual side-by-side 7-ft.-long planks (9½-x-2 in.) resting on horizontal 2-x-4-in. board. Two vertical timbers with an angle iron on the eastern side.	ARMCO 22445A ARMCO 4106A

SUMMARY

The Level I Documentation was performed on two segments totaling 1.34 mi. (2.16 km) of the Grand Valley Canal system in advance of lining the canal with a polyvinyl chloride and geotextile liner covered with shotcrete and replacing headgates with new concrete structures with punch-plate trash screens. This undertaking is part of the BOR's Basinwide Salinity Control Program. Along the Mainline of the Grand Valley Canal (5ME4680.66), nine headgates were documented; 17 headgates were documented along the Highline of the Grand Valley Canal (5ME4680.67). A list of maps and photographs are provided in Appendix A, along with maps and reproductions of photographs are included in Appendix B. Original archival black-and-white photographs are included with the documentation package to the Colorado SHPO.

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APPENDIX A

Level I Documentation: List of Maps and List of Photographs

List of Maps

Map 1: The Upper Mainline of the Grand Valley Canal (5ME4680.66) showing photographic points for headgates and the landscape. Headgates ML 120–ML 133B.

Map 2. The Highline of the Grand Valley Canal (5ME4680.67) showing photographic points for headgates and the landscape. Headgates HL 30CC–HL 62.

List of Photographs

Subject: The Upper Mainline of the Grand Valley Canal (5ME4680.66) and the Highline of the Grand Valley Canal (5ME4680.67).
Photographer: Trevor R. Lindland
Dates: May 5–May 6, 2016.

Photographs of the Upper Mainline of the Grand Valley Canal (5ME4680.66)

Photograph 1. Overview of the Upper Mainline of the Grand Valley Canal. Note headgate ML 120 to the left. View is to the west-southwest.

Photograph 2. Looking northward at headgate ML 120 and a bridge.

Photograph 3. Looking northeastward at headgate ML 121 (left) and headgate ML 120A (right).

Photograph 4. Overview of headgate ML 123 (note missing handwheel). View is to the northwest.

Photograph 5. Headgate ML 125, facing north-northeastward (note missing handwheel).

Photograph 6. Looking northwestward at headgate ML 128.

Photograph 7. Headgate ML 130. View is to the northwest.

Photograph 8. Overview of headgate ML 133 (note missing handwheel). View is to the north-northeast.

Photograph 9. Looking northeastward at headgate ML 133B (note missing handwheel).

Photograph 10. Overview of the Upper Mainline of the Grand Valley Canal (5ME4680.66). View is to the east.

Photographs of the Highline of the Grand Valley Canal (5ME4680.67)

Photograph 1. Overview of the Highline of the Grand Valley Canal (5ME4680.67). View is to the north-northwest.

Photograph 2. Looking south-southwestward at headgate HL 30CC.

Photograph 3. Headgate HL 31. View is to the northwest.

Photograph 4. Overview of headgate HL 32 facing northward.

Photograph 5. Looking north-northwestward at headgate HL 32B.

Photograph 6. Southeastward view of headgate HL 33AA.

Photograph 7. Looking north-northeastward at headgates HL 35 (right) and HL 38 (left).

Photograph 8. Overview of headgate HL 40 facing north-northeastward.

Photograph 9. Headgate HL 42. View is to the northeast.

Photograph 10. Overview of the Highline of the Grand Valley Canal (5ME4680.67). View is to the north.

Photograph 11. Headgate HL 45. View is to the west.

Photograph 12. Looking south-southeastward at headgate HL 46PP.

Photograph 13. Overview of headgate HL 47 facing north-northwestward.

Photograph 14. Headgate HL 50. View is to the east-northeast.

Photograph 15. Looking southward at headgate HL 52AA.

Photograph 16. Overview of the Highline of the Grand Valley Canal (5ME4680.67). View is to the east-southeast.

Photograph 17. Headgate HL 55. View is to the north-northwest.

Photograph 18. Overview of headgate HL 60 facing northeastward.

Photograph 19. Looking westward at headgate HL 60BB.

Photograph 20. Headgate HL 61. View is to the northeast.

Photograph 21. Overview of headgate HL 62 facing eastward.

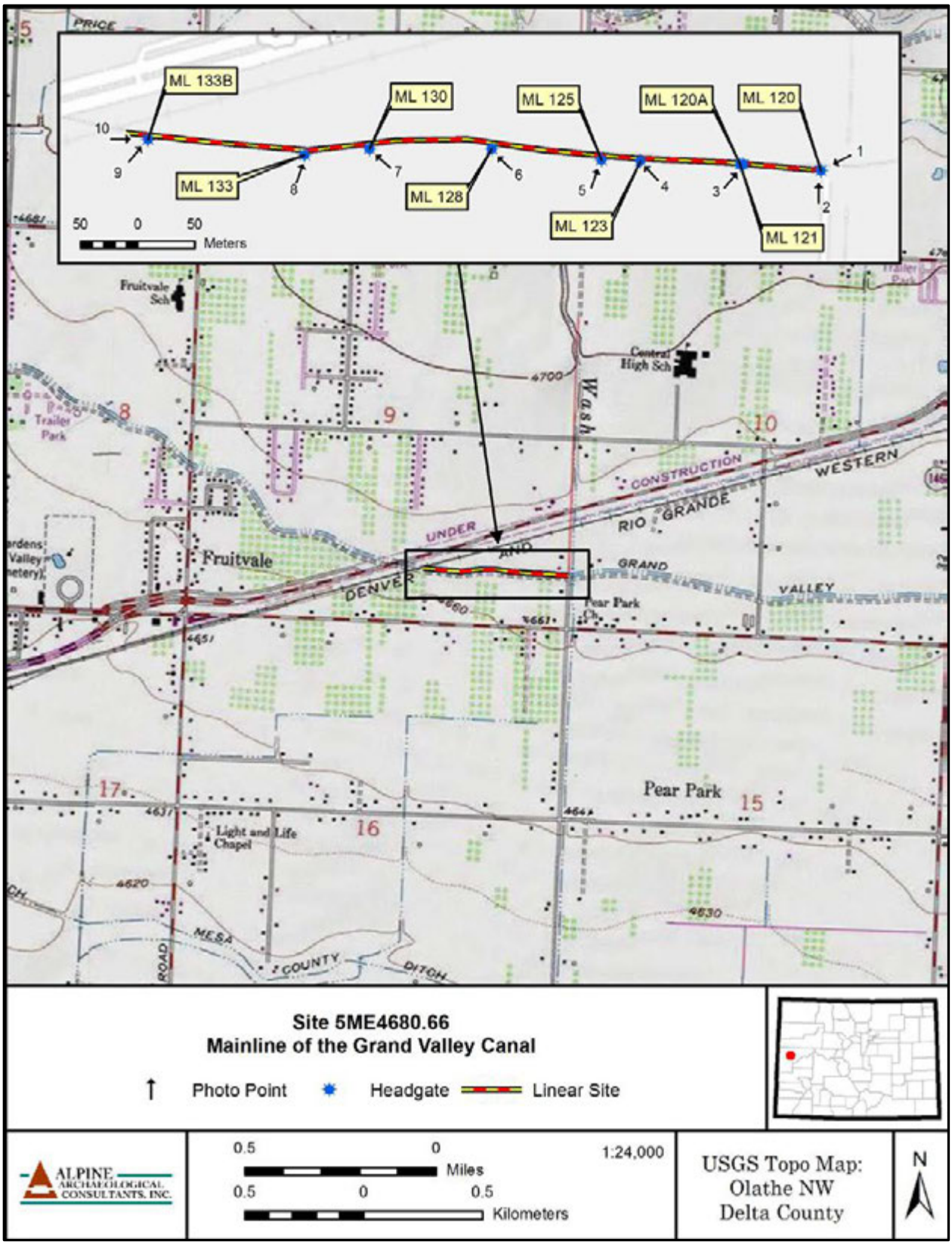
Photograph 22. Overview of the Highline of the Grand Valley Canal (5ME4680.67). View is to the north.

Photograph 23. Looking north-northwestward at an overview of the Highline of the Grand Valley Canal (5ME4680.67).

Photograph 24. Overview of the Highline of the Grand Valley Canal (5ME4680.67) facing south-southeastward.

APPENDIX B

Level I Documentation: Maps and Photographs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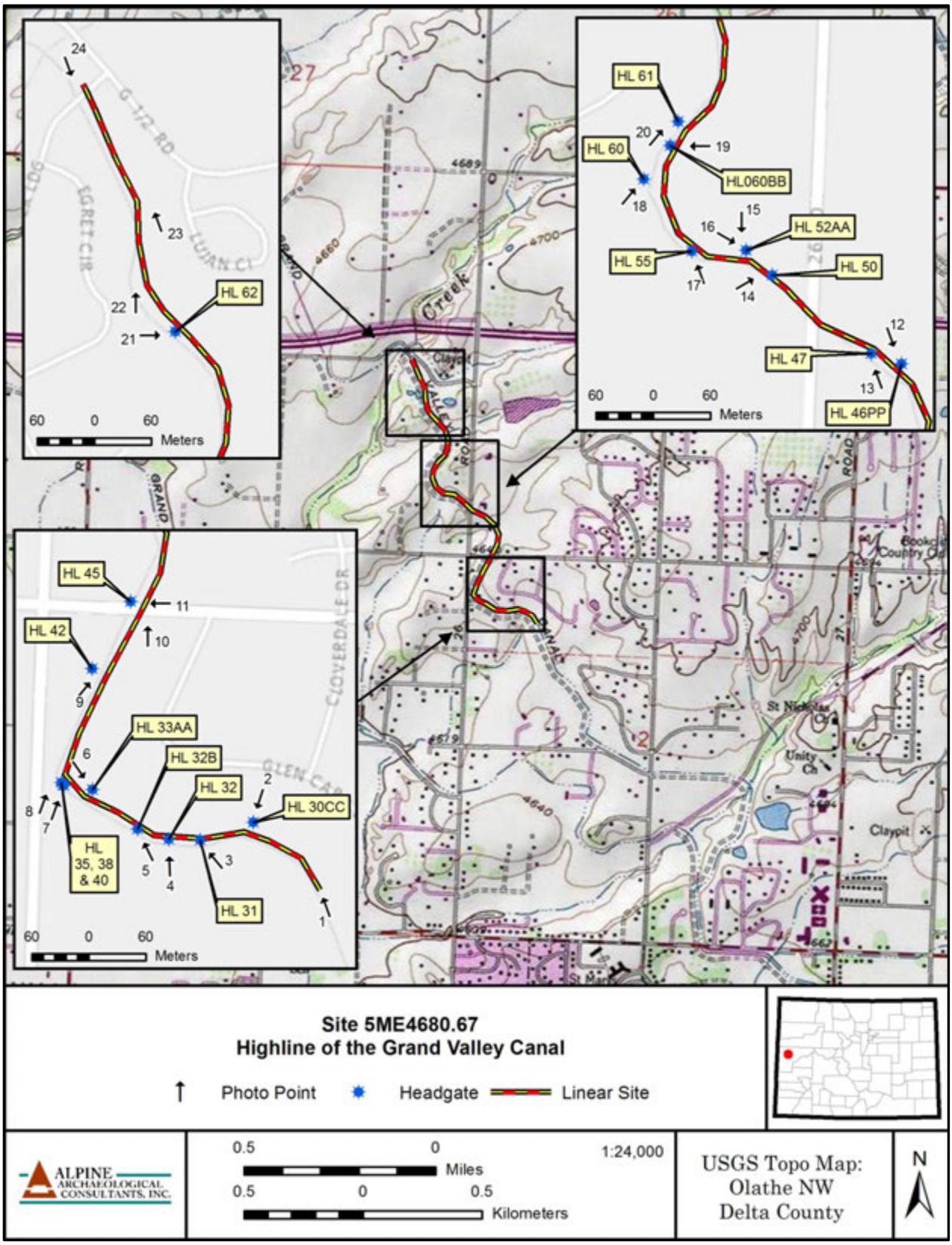
Map 1.


Site 5ME4680.67
Highline of the Grand Valley Canal
Photo Point
Headgate
Linear Site
ALPINE ARCHAEOLOGICAL CONSULTANTS, INC.
0.5 0 Miles
0.5 0 0.5 Kilometers
1:24,000
USGS Topo Map:
Olathe NW
Delta County
N
HL 61
HL 60
HL060BB
HL 52AA
HL 55
HL 50
HL 47
HL 46PP
HL 62
HL 45
HL 42
HL 33AA
HL 32B
HL 32
HL 30CC
HL 35, 38 & 40
HL 31
60 0 60 Meters

Map 2.

Mainline of the Grand Valley Canal (5ME4680.66)

Photograph 1.

Photograph 2.

Photograph 3.

Photograph 4.

Photograph 5.

Photograph 6.

Photograph 7.

Photograph 8.

Mainline of the Grand Valley Canal (5ME4680.66)

Photograph 9.

Photograph 10.

Highline of the Grand Valley Canal (5ME4680.67)

Photograph 1.

Photograph 2.

Photograph 3.

Photograph 4.

Photograph 5.

Photograph 6.

Photograph 7.

Photograph 8.

Photograph 9.

Photograph 10.

Photograph 11.

Photograph 12.

Photograph 13.

Photograph 14.

Highline of the Grand Valley Canal (5ME4680.67)

Photograph 15.

Photograph 16.

Photograph 17.

Photograph 18.

Photograph 19.

Photograph 20.

Highline of the Grand Valley Canal (5ME4680.67)

Photograph 21.

Photograph 22.

Highline of the Grand Valley Canal (5ME4680.67)

Photograph 23.

Photograph 24.

Highline of the Grand Valley Canal (5ME4680.67)