

United States Nuclear Regulatory Commission Official Hearing Exhibit In the Matter of:	CROW BUTTE RESOURCES, INC. (License Renewal for the In Situ Leach Facility, Crawford, Nebraska)	Identified: 8/18/2015 Withdrawn: Stricken:
	ASLBP #: 08-867-02-OLA-BD01 Docket #: 04008943 Exhibit #: NRC-054G-00-BD01 Admitted: 8/18/2015 Rejected: Other:	



Figure 63. 25DW361 Feature F8, dirt mound, facing west. Photograph taken by Shane Rosenthal, on 11/20/2010.



Figure 64. 25DW361 Feature F9, small foundation, facing east. Photograph taken by Shane Rosenthal, on 11/20/2010.



Figure 65. 25DW361 Feature F10, cement circle, facing north. Photograph taken by Shane Rosenthal, on 11/20/2010.



Figure 66. 25DW361 Feature F10, west wall, facing west. Photograph taken by Shane Rosenthal, on 11/20/2010.

## 25DW362 (2368-S008)

Site 25DW362 is a historic bridge located in Section 36T30N R51W, at a narrow crossing above an intermittent stream 68 feet west of Squaw Mound Road (**Figures 68 and 70**). The site measures 126 feet by 126 feet and covers an area of 12,206 square feet. Vegetation consists of ponderosa pine forest and mixed grasses affording 70 percent bare ground visibility. Impacts to the site include historic ranching and farming activities throughout the area and wind and water erosion. The site datum is a metal tag and GPS point attached to the north side of the eastern abutment of Feature 1.

Cultural materials include a 32-foot long beam bridge (Feature F1) that consists of a wooden deck and poured concrete abutments (**Figure 68 and 69**). The eastern abutment was reinforced by wooden planks extending 4 feet from the northern edge and placed against the stream bank to prevent erosion. The deck was constructed of milled joists at each end with surface planks running the span of the bridge perpendicular to the joists, of which only the northern half remains intact. No additional artifacts are associated with the structure. Several planks and other wood debris from the deck were observed down-slope in the streambed up to 50 feet north of the structure.

This historic bridge is a poorly preserved simply constructed wood plank and poured concrete structure that does not have a construction date or diagnostic artifacts associated with it or the location. National Register eligibility for any property, including historic period archeological sites, depends on integrity and significance. Integrity for a historic period archaeological site is based on the presence of features and whether or not they can tell us something about the location. Site 25DW362 does not retain enough integrity to qualify for the National Register. Lack of integrity alone, however, does not automatically exclude this site as eligible for the National Register. Significance was assessed following intensive survey and a historic records search that included a files search and architectural/structures property search conducted through the Nebraska SHPO; review of the National Register of Historic Places (NRHP) database for Dawes County, Nebraska; review of the National Historic Landmark inventory (NHL); review of General Land Office (GLO) Plats; and local literature review; that revealed sustained Euro-American historic occupation in this area occurred between 1890 to present day, and no leases or purchasers were found that can be associated with an important person or persons of "significance in history" or having an uncommon ethnic affiliation. Therefore, site 25DW362 does not possess enough significance to qualify for the National Register. ARCADIS believes this historic bridge may be the result of historic logging or ranching activities in the area as opposed to homesteading and recommends site 25DW362 **not eligible for listing on the NRHP and no further work is necessary.**

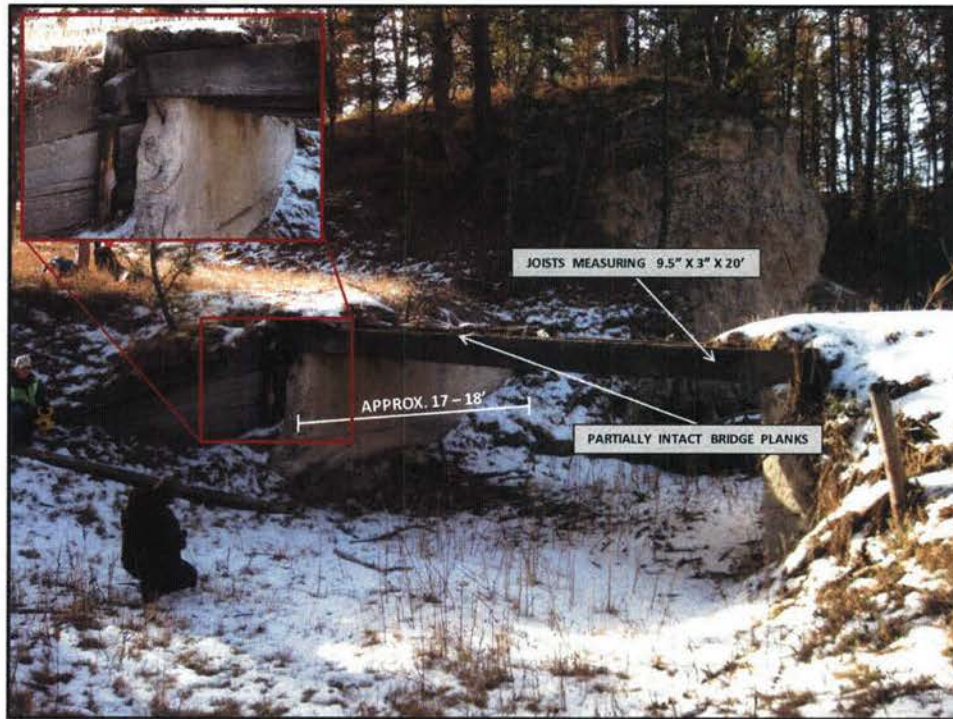


Figure 68. 25DW362, overview, facing southwest. Photograph taken by Russ Collett, on 12/02/2010.



Figure 69. 25DW362, abutment construction, facing south. Photograph taken by Russ Collett, on 12/02/2010.

## 25DW363 (2368-S009)

Site 25DW363 is a historic debris scatter located in Section 35 T30N R51W, in a drainage trending down-slope to the southwest and flowing into a larger south-trending drainage (**Figures 71 and 72**). The site measures 150 feet by 300 feet and covers an area of 6,564 square feet. Vegetation consists of sparse grasses and yucca above and across the drainage slopes and several ponderosa pine trees scattered along the drainage bottom affording 90 percent bare ground visibility. Sediments consist of very sandy loam intermixed with small gravels (10%) observed between zero to two meters below ground surface across the drainage cut-banks. Impacts to the site include historic ranching and farming activities throughout the area, grazing, and wind and water erosion. The site datum is a GPS point taken at the edge of the drainage along the northern site boundary.

Cultural materials consist of historic debris dumped and then scattered down an ephemeral drainage. Many artifacts have been buried from wind and water erosion and were observed eroding from the drainage cut-bank. Metal cultural materials include two Nebraska license plates ("69-T167 NEB 1925" and "69-930 NEB 1930"), one metal bucket, one wheel rim (23 inch diameter 2 inch wide), one branding iron, two metal strips (2 inches wide), two barbed wire pieces, one cast iron stove part, one cast iron machine part, one shovel blade, one decorative copper piece, and other miscellaneous metal debris. Ceramic cultural materials include one Bristol grey glaze stoneware shard, one semi-porcelain pink and white decal floral patterned scalloped plate rim (American white earthenware 1900 to present), and one brown glazed stoneware jug spout. Glass cultural materials include one aqua glass fragment and one green glass fragment. Tin cultural materials include one cooking oil can with spout, six tobacco cans, and one lard pail. One red brick was also observed. Diagnostic debris artifacts recorded at this site include the license plates (1925 and 1930), green glass and aqua glass, and the Bristol stoneware. Green glass was very versatile and used for many purposes that included wine and mineral bottles and dates from the 1860s to present day (Fike 2002; IMACS 1984). Aqua glass was very versatile and used for many purposes and dated from 1800 to 1910 (Fike 2002; IMACS 1984). Bristol glazed stoneware has been commercially available since the late 19th century (IMACS 1984).

This historic debris scatter represents a secondary context for artifacts commonly recorded in the area, but the National Register criteria does not dismiss resources as insignificant simply because there are numerous examples of the type. National Register eligibility for any property, including historic period archeological sites, depends on integrity and significance. Integrity for a historic period archaeological site is based on the presence of features and whether or not they can tell us something about the location. Based on the artifacts recorded, site 25DW363 is a single dump event with materials primarily dating from the late 1800s through the mid 1900s. Historic debris site 25DW363 does not retain enough integrity to qualify for the National Register. Lack of integrity alone, however, does not automatically exclude this site as eligible for the National Register. Significance was assessed following intensive survey and a historic records search that included a files search and architectural/structures property search conducted through the Nebraska SHPO; review of the National Register of Historic Places (NRHP) database for Dawes County, Nebraska; review of the National Historic Landmark inventory (NHL); review of General Land Office (GLO) Plats; and local literature review; that revealed sustained Euro-American historic occupation in this area occurred between 1890 to present day, and no leases or purchasers were found that can be associated with an important person or persons of "significance in history" or having an uncommon ethnic affiliation. Finally, there are no features associated with site 25DW363. Therefore, site 25DW363 does not possess enough significance to qualify for the National Register. Site 25DW363 is a common historic site likely associated

with historic and early modern ranching or farming activities in the region that ARCADIS recommends **not** eligible for listing on the NRHP and no further work is necessary.



Figure 71. 25DW363, overview, facing west. Photograph taken by Russ Collett, on 12/02/2010.

## 25DW364 (2368-S010)

Site 25DW364 is a historic cistern and debris dump located in Section 35 T30N R51W, on a broad flat bench on the southern slope of a large northwest to southeast-trending ridge top. The cistern is located 264 feet south of a modern stock pond with an electrical water pump and is east and adjacent to a well used two track road (**Figures 73 and 76**). The site measures 78 feet by 80 feet and covers an area of 4,796 square feet. Vegetation consists of a moderate covering of grasses affording 80 percent bare ground visibility. Sediments consists of shallow sandy loam intermixed with small gravels (10%) as observed across slope and along two-track road. Impacts to the site include historic ranching and farming activities throughout the area, grazing, and wind and water erosion. The site datum is a GPS point at the southeast corner of the cistern feature.

Cultural materials include one rectangular cistern feature filled with historic debris (**Figure 74**). Feature F1 is approximately 21 feet north to south by 17 feet east to west and approximately two feet deep. F1 is composed of poured concrete support walls (**Figure 75**) and a metal pipe set into a small round concrete block (3 feet diameter). All support walls have partially collapsed and F1 has been filled with miscellaneous ranching debris that includes wooden planks, wooden fence posts, metal wind mill parts, and barbed wire.

This historic cistern is a commonly recorded feature in the area, but the National Register criterion does not dismiss resources as insignificant simply because there are numerous examples of the type. National Register eligibility for any property, including historic period archeological sites, depends on integrity and significance. Integrity for a historic period archaeological site is based on the presence of features and whether or not they can tell us something about the location. Site 25DW364 is a single ranch cistern that does not retain enough integrity to qualify for the National Register. Lack of integrity alone, however, does not automatically exclude this site as eligible for the National Register. Significance was assessed following intensive survey and a historic records search that included a files search and architectural/structures property search conducted through the Nebraska SHPO; review of the National Register of Historic Places (NRHP) database for Dawes County, Nebraska; review of the National Historic Landmark inventory (NHL); review of General Land Office (GLO) Plats; and local literature review; that revealed sustained Euro-American historic occupation in this area occurred between 1890 to present day, and no leases or purchasers were found that can be associated with an important person or persons of "significance in history" or having an uncommon ethnic affiliation. Finally, the cistern feature at site 25DW364 lacks a unique design and any other unusual physical characteristic. Therefore, site 25DW364 does not possess enough significance to qualify for the National Register. Site 25DW364 is a common historic site likely associated with historic and early modern ranching or farming activities in the region that ARCADIS recommends **not eligible for listing on the NRHP and no further work is necessary.**



Figure 73. 25DW364, overview, facing southwest. Photograph taken by Russ Collett, on 12/02/2010.



Figure 74. 25DW364 Feature F1, cistern, facing east. Photograph taken by Russ Collett, on 12/02/2010.



Figure 75. 25DW364 Feature F1, southeast corner of cistern support walls, facing east. Photograph taken by Russ Collett, on 12/02/2010.

## 25DW365 (2368-S012)

Site 25DW365 is a historic homestead located in Section 2 T29N R51W, on a flat expanse above and east of a large northwest to southeast trending drainage and adjacent and west of Squaw Mound Road (**Figures 77 and 88**). The site measures 558 feet by 268 feet and covers an area of 104,962 square feet. Vegetation on the site is mixed, consisting of coniferous forest in the western portion of the property affording 80 percent bare ground visibility, deciduous trees and moderate grass cover in the southeastern portion of the site near the farmhouse affording 70 percent bare ground visibility, and a moderate to dense grass cover throughout the outbuilding and corral portion of the property affording an average 60 percent bare ground visibility. Sediments consist of sandy silt loam intermixed with small gravels (5%) as observed across slope and along drainage cut-banks west of structures. Impacts to the site include historic ranching and farming activities throughout the area, grazing, and wind and water erosion. The site datum is a GPS point taken from a utility pole north of the house (Feature F1).

Cultural features include a farmhouse (Feature F1), one outhouse (Feature F2), one laundry shed (Feature F7), one chicken coop (Feature F9), two storage/oil sheds (Features F4 and F8), one livestock shelter (Feature F10), and three historic/modern debris dumps (Features F3, F5, F6). Associated cultural materials include one 300-gallon propane tank, one 150-gallon diesel tank, one 200-gallon gas tank, utility poles, a stack of railroad ties, a stack of fence posts, several stock tanks, corrals, and farm machinery and debris scattered across site area.

The farmhouse (Feature F1) was constructed in a one and a half story front gable vernacular style with a square plan (24 ft. by 24 ft.) that includes a prominent front gable, a shed roof addition on the north side, and a fieldstone foundation (**Figures 77, 78, 79**). Vernacular style houses were popular in Dawes County, Nebraska, from the late nineteenth century to the mid-twentieth century, particularly in small towns, ranches, and farmsteads (The Louis Berger Group 2005). The farmhouse has four main rooms, including a kitchen, living room, and two bedrooms, with an additional mudroom and unfinished attic spaces. The structure does not have a porch. Concrete block steps lead up to the front door on the east face of the house, which overlooks the driveway and opens into a small mudroom (8 ft. by 6 ft.). A side door opens from the south side of the house into the kitchen. The farmhouse was formerly heated by a wood stove that has since been removed, leaving the remnants of a stovepipe in the interior wall of the living room (**Figure 78**). One 300-gallon propane tank is located 62 feet south of the structure (F1). Permanent 200-gallon gas and 150-gallon diesel tanks are located 77 feet southeast of the structure (F1) along the driveway. At the time of abandonment, the farmhouse had electricity, as indicated by outlets, lighting, and appliances remaining in the structure. The farmhouse also has relatively recent shag carpet. Since abandonment, the structure has been severely damaged by exposure to the elements, rendering it unsafe to enter. The ceiling in all rooms has at least partially collapsed, all windowpanes are broken, and the floor and walls are damaged and potentially unstable. Rodent and other small animal damage is also evident throughout the house interior.

Two outbuildings are located in the direct vicinity of the farmhouse, one wood frame outhouse (Feature F2) is located 40 feet to the west and one wood frame oil shed (Feature F4) is located 40 feet to the north (**Figure 79**). The outhouse (Feature F2) measures 4 feet by 4 feet and has one seat. There is a household debris pile (Feature F3) directly west of the outhouse in a small natural depression along the east side of the drainage (**Figure 80**). Feature F3 measures 16 feet by 15 feet and contains a set of wooden stairs, an overturned dog house or rabbit hutch, enamel drawers, a television, carpet remnants, metal cans, and a metal barrel. The oil/storage shed (Feature F4) measures 8 feet by 6 feet and has a door facing the north

side of the farmhouse. There is a pile of wooden posts stacked behind the oil shed to the north near a large farm implement.

A remnant fence line runs from the outhouse to the main debris dump. The main debris dump (Feature F5) is located 53 feet southwest of a small wood frame oil/storage shed (Feature F8). Feature F5 is located down-slope on the east side of the drainage and includes a large number of oil filters, oil cans and bottles, and sanitary cans, as well as two Nebraska license plates dated 1929 and 1959, a sewing machine, three wheel rims, an enamel tea pot, paint cans, aqua and clear glass, and other plastic and metal debris (**Figure 81**). There is a secondary debris pile (Feature F6) down-slope and on the east side of the drainage approximately 73 feet south of Feature F5. Feature F6 contains paint cans, oil cans, and other metal debris (**Figure 82**). Feature F8 is a small wood frame oil/storage shed measuring 5 feet by 5 feet (**Figure 81**).

A wood frame laundry shed (Feature F7) is located 52 feet north of oil/storage shed (Feature 8). Feature F7 measures 12 feet by 11 feet and has a door in the east wall that opens into a small metal enclosure with a stock tank that is south of a large wooden corral (**Figure 81, 83**). The washing room contains a washing machine, electrical outlets, and shelving. Between the washing shed (Feature F7) and oil shed (Feature 8) are farm implements including one Van Brunt grain drill (**Figure 86**), one John Deere rod weeder (**Figure 87**), and an enamel cooking stove. Van Brunt grain drills were manufactured as late as the 1940s, although the company was purchased by John Deere in 1911. John Deere rod weeders were first listed in the John Deere catalog in 1931 and continued to be manufactured into the late 1960s. The rod weeder photographed in Figure 87 was most likely built in the 1940s (William Lee, South Dakota State Agricultural Heritage Museum Exhibits/Restoration, personal communication 2011).

A chicken coop (Feature F9) is located 36 feet northeast of oil/storage shed (Feature F8) and main debris pile (Feature F5) (**Figure 84**). The chicken coop (Feature F9) measures 20 feet by 11 feet with a door located on the west wall. The south wall of F9 is composed nearly entirely of a row of small, low windows. A manure-spreading trailer is located just north of the coop adjacent to a pile of railroad ties.

A large, jumbled network of fences attaches to the main corral that runs north across the property, terminating at a rectangular wood frame animal shed (Feature F10) (**Figure 85**). The animal shed measures 28 feet by 20 feet with divider panels that open up to the south into a fenced enclosure.

Historic homestead site 25DW365 was probably occupied from the early to mid-1900s. This historic homestead consists of features and debris commonly recorded in the area, but the National Register criteria does not dismiss resources as insignificant simply because there are numerous examples of the type. National Register eligibility for any property, including historic period archeological sites, depends on integrity and significance. Integrity for a historic period archaeological site is based on the presence of features and whether or not they can tell us something about the location. Site 25DW365 is probably an early historic homestead that does not retain enough integrity to qualify for the National Register. Lack of integrity alone, however, does not automatically exclude this site as eligible for the National Register. Significance was assessed following intensive survey and a historic records search that included a files search and architectural/structures property search conducted through the Nebraska SHPO; review of the National Register of Historic Places (NRHP) database for Dawes County, Nebraska; review of the National Historic Landmark inventory (NHL); review of General Land Office (GLO) Plats; and local literature review; that revealed sustained Euro-American historic occupation in this area occurred between 1890 to present day, and no leases or purchasers were found that can be associated with an important person or persons of "significance in history" or having an uncommon ethnic affiliation. Finally, the features associated with site