3.8 HISTORIC AND CULTURAL RESOURCES

Reports containing information regarding historic, cultural, and paleontological resources for the Nichols Ranch ISR Project are discussed in detail in Addendums 3A, 3B and 3C. Addendum 3A contains the cultural resource report for the Hank Unit. Addendum 3B contains the results of a paleontological survey conducted for the Nichols Ranch ISR Project. Addendum 3C contains the results of an 80-acre block inventory that was completed for a previously uninventoried area in the Hank Unit. All addendums are considered confidential and not for public disclosure under 10 CFR 2.390. Please refer to the affidavit regarding the withholding of this information from public disclosure.

3.8.1 Cultural Resources

Class I Literature Search for Uranerz Energy Corporation's Nichols Ranch ISR Project Permit

File searches were conducted from November 2007 through January 2010, through the Cultural Records Office of the Wyoming State Historic Preservation Office (SHPO) for Sections 7, 8, 17, 18, and 20, T43N, R76W; Sections 30 and 31, T44N, R75W; and Sections 5-8, T43N, R75W. Uranerz Energy Corporation's proposed Nichols Ranch ISR Project occurs within these legal descriptions.

Twelve projects have been conducted within the sections listed above for nine block and three block/linear surveys (Table 3-4a). A few recent projects have not been accessioned into the SHPO database; therefore, they do not have accession numbers in Table 3-5. Fifty-four sites have been recorded in the 11 sections listed above. Of these, 46 sites are prehistoric, five sites are historic, and three site are multicomponent prehistoric/historic. The sites are summarized in Table 3-5. Of the prehistoric sites, 15 are eligible for listing on the National Register of Historic Places (NRHP), 21 are not eligible, ten are not eligible with SHPO concurrence, and one (Site 48CA6153) is unevaluated with SHPO concurrence. The five historic sites are not eligible, one (Site 48JO2951) with SHPO concurrence. Of the three multicomponent sites, one (Site 48CA268, Pumpkin Buttes Traditional Cultural Property [TCP]) is eligible for the NRHP with SHPO concurrence, and two are not eligible with SHPO concurrence.

Table 3-4a Previous Cultural Resource Inventories Within or near Uranerz Energy Corporation's Nichols Ranch ISR Project Permit Area.

Accession No.	Project Name	Contractor [1]	Type [2]	Legal Location
76-352-0	Brown's Ranch Uranium Mine	OWSA	B	Section 6, T43N, R75W
77-1-0	Brown's Ranch Uranium Mine	OWSA	B	Section 30, T44N, R75W
79-680-0	Brown's Ranch Uranium Mine	PE	B/L	Section 6, T43N, R75W
80-1209-0	Fed BZ 1	AS	B/L	Section 7, T43N, R76W
81-2054-0	Fed B-R-1	AC	B	Section 6, T43N, R75W
81-2054-0	Parker Fed 34-6 Testing	AEC	B	Section 17, T48N, R71W
4-2191-0	East Bullwhacker CBM POD	SWCA	B	Section 20, T43N, R76W
6-1350-0	Dry Willow CBM POD #1	SWCA	B	Section 31, T44N, R75W
6-1350-2	Dry Willow POD 1 Supplement	SWCA	B	Section 31, T44N, R75W
6-1465-0	Dry Willow POD Block Survey	Arcadis	B	Section 20, T43N, R76W
n/a	80-Acre Parcel in Hank Unit	TRC	B	Section 5, T43N, R76W
n/a	Tex Draw	WLS	B	Sections 7, 8, 17, 18, 20 T43N, R76W

1 AC = Archeo Consultants; Arcadis = Arcadis U.S. Inc.; AEC = Archaeological Energy Consulting; AS = Archaeological Services; OWSA = Office of the Wyoming State Archaeologist; PE = Powers Elevation, TRC = TRC Environmental Corporation, WLS = Western Land Services

2 B = block; B/L = combination block/linear, n/a = Not applicable

Table 3-5 Previously Recorded Sites Within or near Uranerz Energy Corporation's Nichols Ranch ISR Project Permit Area.

Site No.	Legal Location			Site Type	Landowner	NRHP Eligibility Status [1]	Time Period [2]	Accession No. [3]
	Township	Range	Section					
48CA268 [4, 5]	43N, 44N	75W	4, 5, 6, 8, 31	TCP	BLM/Private	E/SHPO	P/H	5-1851
48CA379 [5]	44N	75W	31	Lithic scatter	Private	NE/SHPO	P	6-1350
48CA5386 [5]	43N	76W	8	Lithic scatter	Private	NE	P	--
48CA5390 [5]	43N	76W	17	Lithic scatter	Private	NE/SHPO	P	--
48CA5391 [5]	43N	76W	17	Lithic scatter	Private	E/SHPO	P	--
48CA5393 [5]	43N	76W	20	Inscription	Private	NE/SHPO	P	--
48CA5392	43N	76W	20	Lithic scatter	Private	NE/SHPO	P	--
48CA5406 [5]	43N	76W	17	Lithic scatter	Private	NE/SHPO	P	--

Table 3-5 (Continued)

Site No.	Legal Location Township	Range	Section	Site Type	Landowner	NRHP Eligibility Status [1]	Time Period [2]	Accession No. [3]
48CA6146 [5]	44N	75W	31	Open camp	BLM	NE/SHPO	P	6-1350
48CA6147 [5]	44N	75W	31	Open camp/trash scatter	BLM	NE/SHPO	P/H	6-1350
48CA6148 [5]	44N	75W	31	Lithic scatter	BLM	NE/SHPO	P	6-1350
48CA6149 [5]	44N	75W	31	Lithic scatter	BLM	NE/SHPO	P	6-1350
48CA6150	44N	75W	30	Lithic scatter	Private	NE/SHPO	P	6-1350
48CA6151 [5]	44N	75W	30	Lithic scatter	Private	NE/SHPO	P	6-1350
48CA6153	44N	75W	30	Open camp	Private	U/SHPO	P	6-1350
48CA6155	44N	75W	30	Lithic scatter	Private	NE/SHPO	P	6-1350
48CA6342 [5]	43N	75W	6	Open camp	BLM	NE	P	--
48CA6343 [5]	43N	75W	6	Open camp	BLM	NE	P	--
48CA6344 [5]	43N	75W	6	Open camp	BLM	NE	P	--
48CA6345 [5]	43N	75W	6	Open camp	BLM	NE	P	--
48CA6474	43N	75W	8	Rockshelter	Private	E	P	--
48CA6475 [5]	43N	75W	7	Open camp	Private	E	P	--
48CA6476	43N	75W	8	Open camp	Private	E	P	--
48CA6477	43N	75W	7	Lithic scatter	Private	NE	P	--
48CA6478	43N	75W	8	Open camp	Private	E	P	--
48CA6479	43N	75W	8	Open camp	Private	E	P	--
48CA6480	43N	75W	8	Open camp	Private	E	P	--
48CA6481	43N	75W	8	Open camp	Private	E	P	--
48CA6489	43N	75W	8	Open camp	Private	E	P	--
48CA6490 [5]	43N	75W	6, 7	Open camp	Private	E	P	--
48CA6491 [5]	43N	75W	7	Lithic scatter	Private	NE	P	--
48CA6498 [5]	43N	75W	8	Lithic scatter	Private	NE	P	--
48CA6499 [5]	43N	75W	6, 7	Lithic scatter	Private	NE	P	--
48CA6748 [5]	43N	75W	6	Open camp	BLM	E	P	--
48CA6749 [5]	43N	75W	6	Lithic scatter	Private	NE	P	--
48CA6750 [5]	44N	75W	31	Lithic scatter	BLM	NE	P	--
48CA6751 [5]	44N	75W	31	Open camp	BLM	E	P	--
48CA6752 [5]	44N	75W	31	Open camp	BLM	NE	P	--
48CA6753 [5]	44N	75W	31	Open camp	BLM	E	P	--

Table 3-5 (Continued)

Site No.	Legal Location			Site Type	Landowner	NRHP Eligibility Status [1]	Time Period [2]	Accession No. [3]
	Township	Range	Section					
48CA6754 [5]	44N	75W	31	Lithic scatter	BLM	E	P	--
48CA6926 [5]	43N	75W	5	Lithic scatter	Private	NE	P	--
48CA6927 [5]	43N	75W	5	Open camp	Private	E	P	--
48JO2944 [5]	43N	76W	8	Trash scatter	Private	NE	H	--
48JO2945	43N	76W	8	Trash scatter	Private	NE	H	--
48JO2946 [5]	43N	76W	7, 8	Open camp	Private	NE	P	--
48JO2947	43N	76W	7	Lithic scatter	Private	NE	P	--
48JO2948 [5]	43N	76W	17	Lithic scatter	Private	NE	P	--
48JO2949 [5]	43N	76W	17	Trash scatter	Private	NE	H	--
48JO2950 [5]	43N	76W	17	Trash scatter	Private	NE	H	--
48JO2951	43N	76W	18	Homestead	Private	NE/SHPO	H	--
48JO2953 [5]	43N	76W	20	Lithic scatter/ building remains	Private	NE/SHPO	P/H	--
48JO2957 [5]	43N	76W	17	Lithic scatter	Private	NE	P	--
48JO2959	43N	76W	18	Lithic scatter	Private	NE	P	--
48JO2960	43N	76W	18	Lithic scatter	Private	NE	P	--

1 E = eligible; NE = not eligible; E/SHPO = eligible with SHPO concurrence; NE/SHPO = not eligible with SHPO concurrence; U/SHPO = unevaluated with SHPO concurrence.
2 H = historic; P = prehistoric; P/H = multicomponent prehistoric/historic.
3 -- = sites that are not yet accessioned with projects, sites associated with projects that have not yet been accessioned in the cultural records office, and sites with projects that do not extend into this section.
4 48CA268 was not listed in the SHPO database at the time of file search.
5 Site is located in the permit boundary and illustrated on Exhibit 3-1.

The entire area encompassed by the Nichols Ranch Unit permit boundary (within Sections 7, 8, 17, 18, and 20, T43N, R76W) was inventoried at the Class III level by Western Land Services, Sheridan, Wyoming, for the Tex Draw CBM POD, which has been approved by the BLM (personal communication, December 22, 2009, with Clint Crago, Archaeologist, BLM Buffalo Field Office).

Within the Hank Unit permit boundary, all of Section 30 and all but the SENE, NESE, and SESE of Section 31 were inventoried for the Dry Willow 1 POD, which has been approved by BLM

(personal communication, November 21, 2007, with Clint Crago, Archaeologist, BLM Buffalo Field Office). The SENE, NESE, and SESE of Section 31 were inventoried in 2007 for the Uranerz Energy Corporation's Hank In-situ Uranium Project, but it has not been reviewed by BLM. All of Sections 6-8 T43N, R75W, were inventoried at the Class III level in 2006 by Arcadis U.S., Inc. for the Dry Willow Phase 4 POD.

Impact Assessment/Project Effect to Cultural Resources

Of the 54 sites previously identified within and near the Nichols Ranch and Hank Units, 37 of these sites are located within the permit boundary of the Nichols Ranch and Hank Units (13 sites are in the Nichols Ranch Unit and 24 sites are in the Hank Unit (see Table 3-5 and Exhibit 2-1). Of these 37 sites within the Nichols Ranch permit area, 9 sites are eligible for the NRHP: one within the Nichols Ranch Unit and 8 within the Hank Unit. They include multicomponent Site 48CA268 (Pumpkin Buttes TCP), which occurs within and adjacent to the east side of the Hank Unit (Exhibit 2-1).

Project Effects to Cultural Resource Sites within the Nichols Ranch Unit

There is one NRHP-eligible cultural resource site within the Nichols Ranch Unit and there will be no adverse effects to NRHP-eligible cultural resource (Site 48CA5390). Uranerz will avoid this site during ground disturbing activities and there will be no adverse effects to this site. To provide further protection to the one NRHP eligible site that is located within or near the projected wellfield (specifically site 48CA5391), Uranerz will delineate this site and will mark it with green colored plastic snow fence material. The fencing material will not be highly visible and no signs will be installed but the fencing material will protect this site from inadvertent disturbance. Uranerz will also provide small openings (6 to 8 ft) in the fencing to allow livestock and wildlife to move freely in, out, and through the site.

In addition, the Nichols Unit will not adversely affect the setting, feeling, and association of Site 48CA268 because it occurs almost 5.0 mi west of the Pumpkin Buttes TCP (see Exhibit 2-1). The Programmatic Agreement prepared for this site has determined that only ground disturbing activities within 2.0 mi of the appropriate base elevations of Site 48CA268 will have an adverse effect to the contributing setting surrounding the TCP. Therefore, project-related activities in the Nichols Ranch Unit will not have an adverse effect to Site 48CA268.

Project Effects to Cultural Resources within the Hank Unit

There are eight NRHP-eligible cultural resource sites within the Nichols Ranch Unit and there will be no adverse effects to any of the eight NRHP-eligible cultural resources (see Table 3-5a). Uranerz will avoid these sites during ground disturbing activities and there will be no adverse effects to any of these sites. To provide further protection to the two eligible sites that are located within the projected wellfield (specifically sites 48CA6754 and 48CA6727), Uranerz will delineate these sites and will mark them with green colored plastic snow fence material. The fencing material will not be highly visible and no signs will be installed but the fencing material will protect these sites from inadvertent disturbance. Uranerz will also provide small openings (6 to 8 ft) in the fencing to allow livestock and wildlife to move freely in, out, and through the site.

Additionally, Uranerz will comply with the mitigation measures stipulated in the 2009 Programmatic Agreement for in-situ uranium operations for the Pumpkin Butte TCP. Detailed information concerning specific mitigation measures is presented in Section 2.4.4 of the Technical report. Therefore, there will be no adverse effect to the Pumpkin Butte TCP (Site 48CA268) from project-related activities in the Hank Unit. Table 3-5a summarizes the NRHP eligibility and project effect to the eight NRHP-eligible sites.

Table 3-5a NRHP-eligible Sites within the Hank Unit.

Site Number	Time Period	NRHP Eligibility	Project Effects
48CA268	Prehistoric/Historic	Eligible	No adverse effect with avoidance
48CA6475	Prehistoric	Eligible	No adverse effect with avoidance
48CA6490	Prehistoric	Eligible	No adverse effect with avoidance
48CA6748	Prehistoric	Eligible	No adverse effect with avoidance
48CA6751	Prehistoric	Eligible	No adverse effect with avoidance
48CA6753	Prehistoric	Eligible	No adverse effect with avoidance
48CA6754	Prehistoric	Eligible	No adverse effect with avoidance
48CA6927	Prehistoric	Eligible	No adverse effect with avoidance

3.8.2 Paleontological Resources

A paleontological survey was conducted for the Nichols Ranch ISR Project. From the survey performed, the Nichols Ranch ISR Project was concluded to have no major impact to significant fossil remains because of the geology and poor exposures of fossil bearing sediments. One recommendation from the survey is to have a monitor present to oversee any major ground disturbing events when more than a few feet of surface are removed. Uranerz Energy Corporation will comply with this recommendation when conducting any construction that will involve the removal of several feet of soil. Additionally, if any fossil remains are found during