UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

LISTING OF GEOCHEMICAL DATA, AND ASSESSMENT OF VARIABILITY FOR PLANTS AND SOILS AT THE KENDRICK RECLAMATION PROJECT AREA, WYOMING

by

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Open-File Report 89-652

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1989

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INTRODUCTION

The Kendrick Reclamation Project Area (KRPA) was one of nine areas (Severson, Wilson, and McNeal, 1987) selected for a field screening study in 1986 to investigate the possibility of elevated trace element concentrations in irrigation drainage return flow. Based on the findings of the field screening study (Peterson, Jones, and Morton, 1988), the Department of Interior-Irrigation Drainage Task Group selected KRPA as one of four areas for more detailed study. The detailed studies were to meet the following goals; (1) to determine whether irrigation induced water quality problems exist, and if so, (2) to provide the scientific understanding to mitigate or resolve identified problems. The working objective for each detailed study was defined as, **Determine the extent, magnitude, and effects of contaminants associated with agricultural drainage, and where effects are documented, the sources and exposure pathways which cause contamination.**

In the 1930's, the Bureau of Reclamation began the Kendrick irrigation and drainage project in Natrona County, Wyoming (fig. 1). An approximately 24,000 acre area near Casper, Wyoming has been under irrigation since about 1946. The present studies are concerned with defining the concentration, distribution, and variability of major and trace elements in agricultural and native plants and soils of the KRPA. This report contains information on the field and laboratory methods, quality assurance and control of laboratory determinations, an assessment of geochemical variability, and a listing of the analytical results. Previously published reports discuss, in detail, selenium in plants and soils (Erdman and others, 1989), and lateral and depth variability of chemical composition of soils (Severson and others, 1989).

METHODS

Field Sampling

Irrigated agricultural soils are confined to two dominant geologic units, Quaternary alluvium and Cretaceous Cody Shale. Surrounding the agricultural areas are uncultivated native soils developed on a variety of geologic units, including several marine Late Cretaceous formations containing carbonaceous shales and coals (Mesaverde, Lance, Meeteeste, and Niobrara) and several Tertiary formations containing bentonite, claystone, shale, and sand- or siltstone (White River, Wind River, and Fort Union). Separate sampling plans were developed for the irrigated agricultural lands and the surrounding uncultivated native lands. Field sampling was conducted by scientists from the U.S. Geological Survey during the spring and summer of 1988.

Alfalfa and Agricultural Soils

The objective for this part of the study was to collect samples from presently or previously irrigated fields on a grid-interval that would allow the preparation of geochemical maps showing trace element spatial distribution in alfalfa and agricultural soils throughout the irrigated lands. The most efficient sampling plan and optimum grid size depends on knowledge of the spatial variability occurring over increments of distance on the landscape for the sampling media and the trace elements of interest. Because this information was not available for the KRPA, a grid size of one mile was chosen based on studies of trace element spatial variablilty in the Northern Great Plains (Severson and Tidball, 1976) and the San Joaquin Valley (Severson and others, 1987).

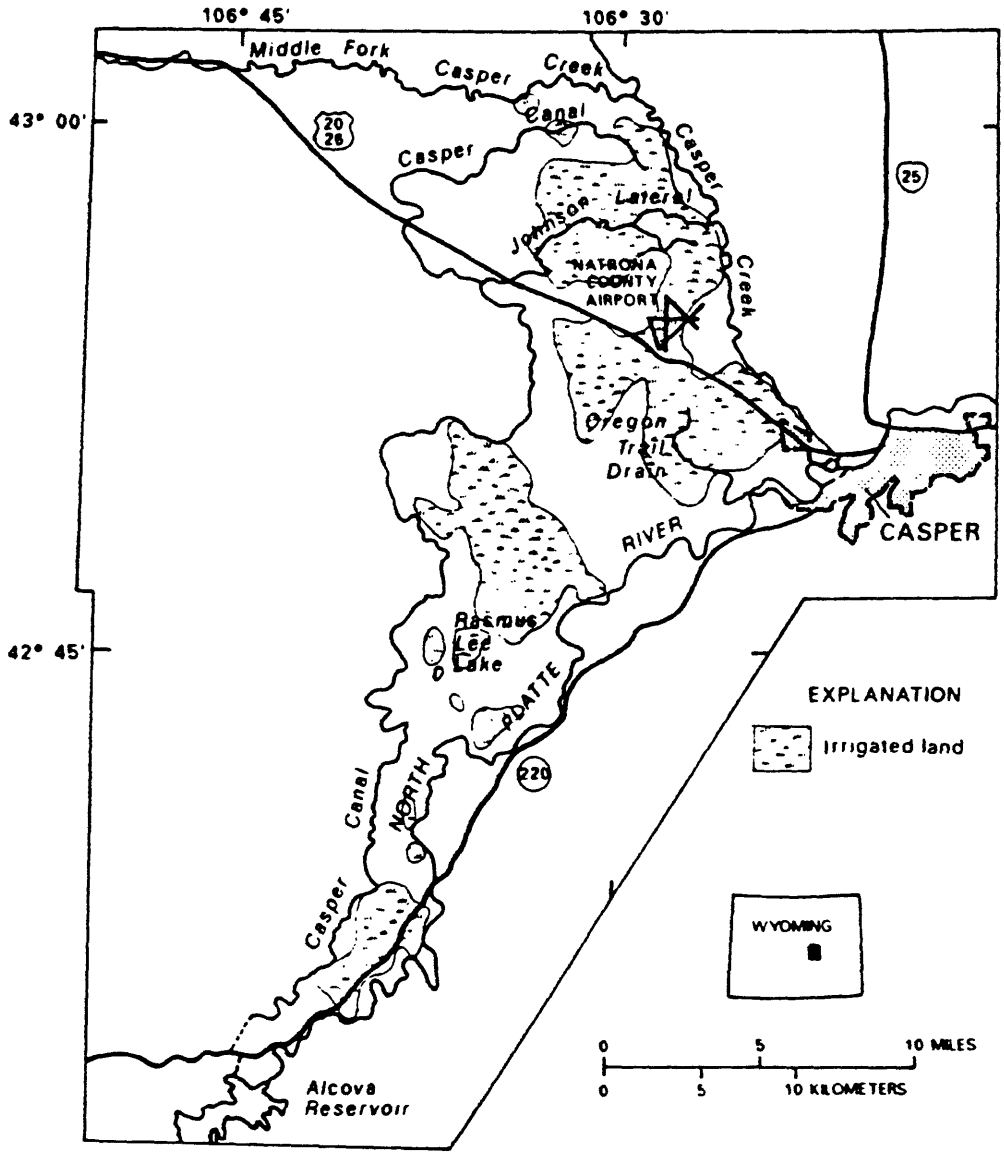

Figure 1.--Index map showing location of the Kendrick Reclamation Project Area

The Kendrick Reclamation Project encompasses about 24,000 irrigated acres (approximately 38 square miles). However, only portions of a given section are under irrigation, and the parcels of irrigated land are not contiguous. The target sampling population was defined as parcels of irrigated land of 40 or more acres in size within a section; 110 sections met this criterion.

In June, 1988, samples of soils were collected from 109 fields and alfalfa (Medicago sativa L.), at the 10% bloom stage, from 105 fields (fig. 2). At each location, two sites approximately 100 meters apart were chosen for sampling. A 3.5 inch diameter bucket auger was used to obtain a soil sample from the surface to a depth of approximately one meter at each site. Each alfalfa sample consisted of several plants within a few meters of the soil sample location. At each of the two sites within a sampling location, the one-meter soil sample was mixed and a 1 kg sample collected. The two samples of soil from a single location were composited in the laboratory after the soil had been air dried and disaggregated to minus 10 mesh. Similarly, the field pairs of alfalfa were blended to make a single composite sample. For eight soil and seven alfalfa randomly selected locations, the two profiles, or two alfalfa samples, were not composited but analyzed individually. This subset of samples was used to estimate within location (field) variation. The composite samples of soil from each of the 109 locations, and composite samples of alfalfa from each of the 105 locations, were used for chemical analyses.

Sagebrush and Native Soils

A stratified random sampling design was used to assess variation in trace element content of sagebrush and native soil among and within geologic units identified on a geologic map (Lageson, 1980) as occurring within the KRPA. The study area occupied 25 townships. Twelve of the 25 townships were selected randomly for sampling. For each of the geologic units occurring in each township, two locations were selected randomly for sampling. The actual sampling was done at the pre-selected sites where they were accessible, and as close as possible where accessibility was limited (fig. 3).

At each site, a 3.5 inch bucket auger was used to obtain a native soil sample from the surface to a depth of approximately one meter. The one meter section was mixed in the field and a 1 kg sample collected. Big sagebrush (Artemisia tridentata Nutt.) was also collected when present at the soil sampling locations. The previous year's growth (new growth had not yet emerged) was clipped from several shrubs within a 10-m radius of the soil sampling location.

Miscellaneous Soil, Rock Outcrop, and Salt Samples

Grab samples of rocks, soils, and salt accumulations were collected at various locations based on field observations of some unusual characteristic. Rock outcrop was sampled by taking a channel sample with a rock hammer. The entire sample was crushed to about 10 mesh in a mechanical jaw crusher and a split ground to pass 80 mesh. The ground split was analyzed in the same fashion as the soils for the rest of the study. Grab soil samples were collected from a depth of 0-6 inches and prepared and analyzed in the same manner as the soils for the rest of the study. Two grab samples of salt accumulations from the soil surface of the banks of Rasmus Lee Lake were collected. These samples also were treated as soil.

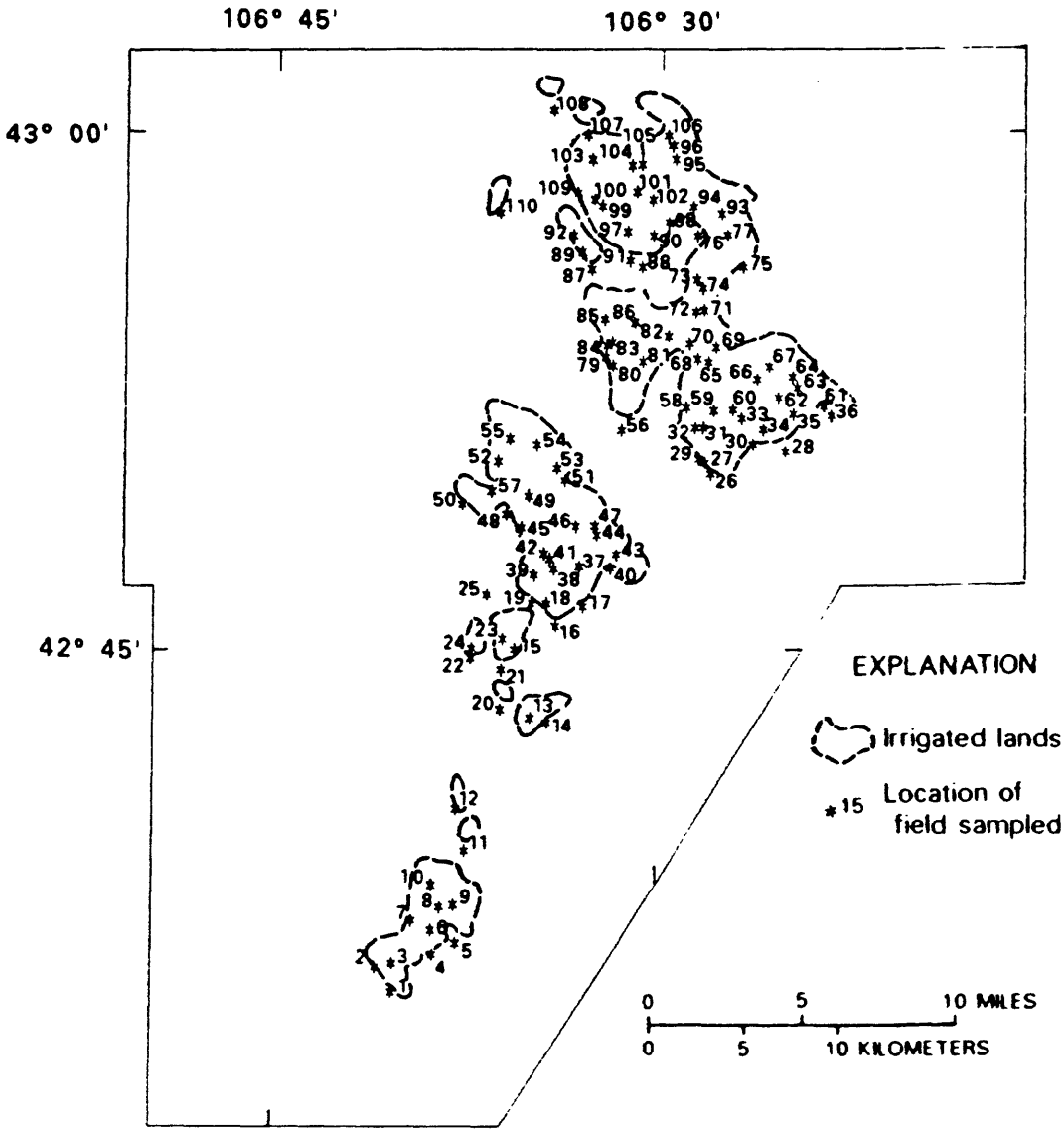

Figure 2.--Map showing locations of sampling sites for agricultural soils and alfalfa at the Kendrick Reclamation Project Area.

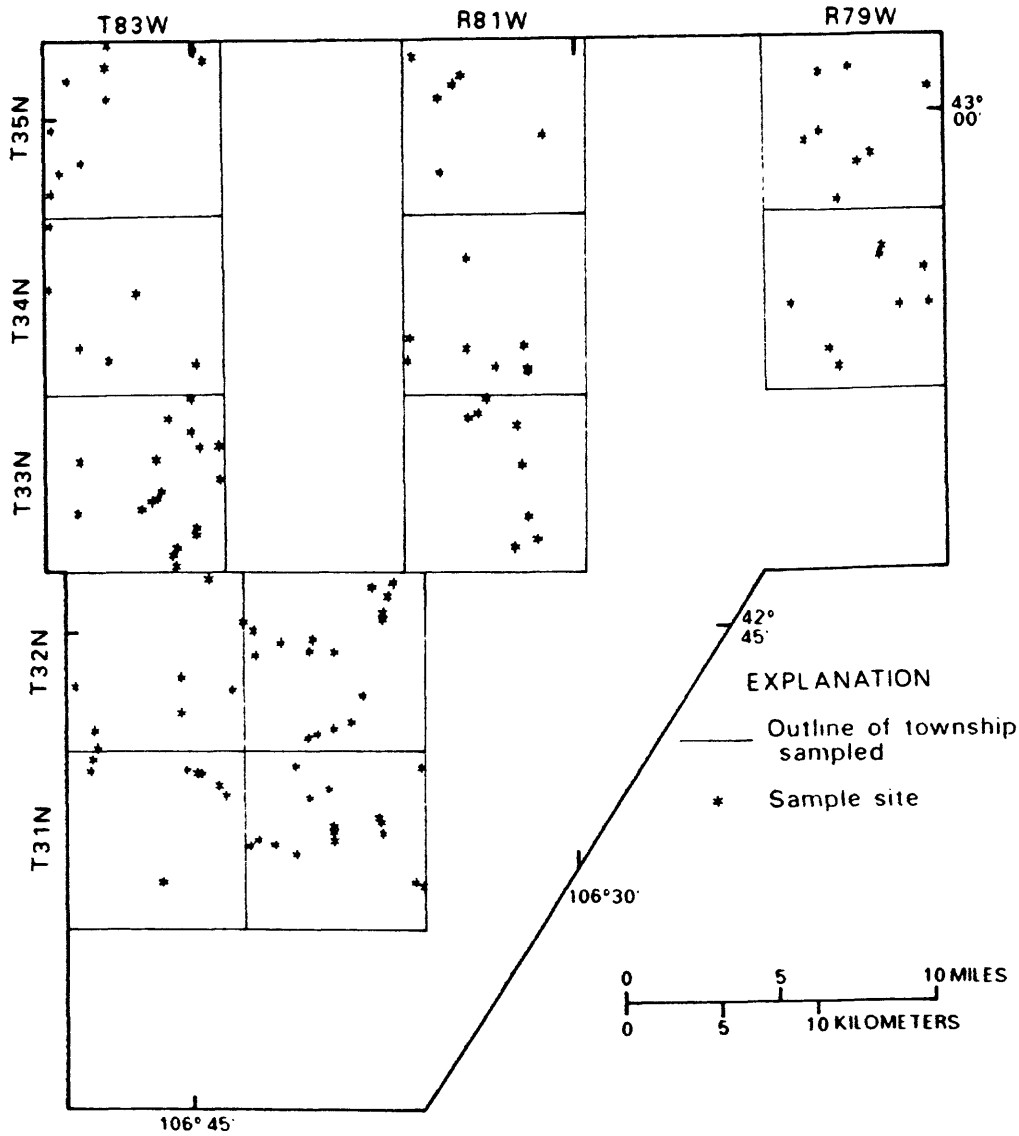

Figure 3.--Map showing locations of sampling sites for native soils and sagebrush at the Kendrick Reclamation Project Area.

Laboratory Methods

All samples were mailed to the U.S. Geological Survey laboratories in Denver for preparation and analysis. The soil samples were air dried under forced air at ambient temperatures. The dried samples were disaggregated with a mechanical mortar and pestle and the minus 10 mesh (2 mm) material sieved and saved for analyses. A split of the minus 2mm material was ground in a ceramic plate grinder to minus 100 mesh, and this material was used for all chemical analysis.

All plant samples were washed to remove possible surface contamination, dried, and pulverized to less-than two millimeters in a Wiley mill. The washed samples were dried at ambient temperature for 24 hours followed by 15 minutes in a microwave oven. A 4 g aliquot of each plant sample was homogenized and then ashed in an electric muffle furnace at 450 ^{0}C for 24 h.

Chemical analyses were performed by two main techniques, inductively coupled plasma atomic emission spectroscopy (ICP-AES) and continuous-flow hydride-generation atomic absorption spectroscopy (HGAAS). Additional determinations are described under the heading "**Miscellaneous determinations**"

Inductively Coupled Plasma Atomic Emission Spectroscopy

Samples were analyzed simultaneously for 38 elements using ICP-AES. Each soil sample (0.200g) and plant sample (0.100g of plant ash) was dissolved using a low-temperature digestion with concentrated hydrochloric, hydrofluoric, nitric, and perchloric acids (Crock and others, 1983). The acidic sample solution was taken to dryness and the residue was dissolved with 1mL of aqua regia and then diluted to 10g with demineralized water. Reagent blanks, reference materials, and sample replicates were all digested by the same procedure and analyzed at the same time as the samples. The elements determined and their determination limits are shown in table 1. The elements Ag, Au, Bi, Cd, Ho, Sn, Ta, and U were below detection in all samples. The relative standard deviation (RSD) for replicate determinations of most elements is five percent or less.

Continuous Flow Hydride Generation Atomic Absorption Spectroscopy

Arsenic in soils and plants and selenium in soils were determined by HGAAS (Crock and Lichte, 1982; Sanzolone and Chao, 1987). A 0.25 gram of soil sample was digested with nitric, perchloric, and hydrofluoric acids. After digestion, the sample was diluted to 50mL with 6N HCl. Arsenic and selenium were determined independently using specifically designed continuous flow systems. In the procedure, the sample solution was reacted with sodium borohydride in order to generate the gaseous hydrides which were swept into the heated quartz furnace of an atomic absorption spectrometer. Arsenic and selenium were determined using an aqueous standard calibration curve. Determination limits for arsenic and selenium are shown in table 1. The RSD for the determination of both elements was about ten percent.

Arsenic in the vegetation was determined by HGAAS (Crock and Lichte, 1982) . A 1.00 gram plant sample was digested with nitric and perchloric acids and 30 percent hydrogen peroxide. After digestion, the clear solution was diluted to 50 mL with 6 N HCL. Arsenic was then determined in the same fashion as for soil. An in-house standard alfalfa sample and a National Bureau of Standards standard Citrus Leaves were carried through the entire proceedure. Unfortunately, both the standards and the majority of the samples were below the detection limit of 0.05 part per million (ppm).

Miscellaneous Determinations

Mercury in soil was determined using an automated continuous-flow cold-vapor atomic absorption spectroscopic method (Kennedy and Crock, 1987). A 0.100 g sample was digested with nitric acid and sodium dichromate in a closed teflon bottle and then diluted to 12 mL with deionized water. The solution was reacted with a sulfuric acid-hydroxylamine hydrochloride solution and stannous chloride solution in a continuous-flow system. The gaseous mercury was separated in a phase separator and swept into a quartz cell of an atomic absorption spectrometer. Mercury was determined using an aqueous standard calibration curve.

Soil pH was determined by a 1:1 water extraction of the soil according to the method given in Crock and Severson (1980). A standard 1:1 (20 g soil to 20 g demineralized-deionized water) extraction was made and the solution pH measured using a standard pH meter calibrated with pH 7 and pH 10 buffer solutions.

Hot water extractable boron in soil was done by a 1:5 (soil:water) hot water extract of the soil according to the method given in Crock and Severson (1980). Five grams of soil were mixed with 25 mL of demineralized water in a 50 mL polyethylene centrifuge tube, capped and placed in boiling water for one hour. The mixture was shaken occasionally. The sample was then centrifuged at 2500 RPM for 10 minutes, the clear liquid decanted, filtered through 0.45 micron filter disks, acidified with concentrated nitric acid, and then the boron content measured using ICAP-AES under standard conditions.

Fluorometric Determinations

Selenium in vegetation was determined fluorometrically after complexing with 2,3-diaminonapthlene and extracted into an organic solvent (Harms and Ward, 1975). One gram of dried, ground vegetation was digested with 10 mL nitric and 2 mL perchloric acid; hydrogen peroxide was used to help break down resistant waxes. After digestion, the Se (VI) was reduced to Se (IV) using hot hydrochloric acid. Selenite was complexed with 2,3-diaminonapthlene and the complex extracted into cyclohexane. The fluorescence of the cyclohexane extract is measured and is proportional to the amount of selenium present. The limit of determination is 0.01 ppm with a relative standard deviation of 10-15 percent.

Quality Control

Soil Materials

Statistical techniques and reference samples were used to assess accuracy and precision of chemical analysis. Samples from each of the three studies were selected at random to be split into two parts and analyzed separately to estimate errors associated with sample preparation and analysis. The samples from each study, plus sample splits, were arranged in a randomized sequence and prepared and analyzed in that sequence to convert any systematic errors in preparation and analysis to random errors and to estimate relative laboratory precision. Reference samples of USGS SCo-1 Cody Shale were inserted at random intervals into the sample sequence to estimate laboratory accuracy. Reported consensus values from the literature, when compared with our laboratory determinations (table 2), show that the determinations were highly accurate.

Plant Materials

Several biological standard reference materials from the National Bureau of Standards were analyzed for selenium by the method listed above. Gladney (1980) analyzed these same materials by neutron activation analysis. The close agreement between the certified values, the values determined by Gladney (1980), and those determined by the U.S. Geological Survey laboratories are shown in table 3.

RESULTS

Irrigated Land

Agricultural Soils

A large proportion of the analytical values were below the limit of determination for mercury (74:135), molybdenum (118:135), and niobium (125:135) so these elements are excluded from this discussion. For other elements that were not highly censored, the "less than" values were replaced for analysis-of-variance computations with arbitrary numbers equal to 0.7 multiplied by the detection limit. Such replacement values were made for ytterbium (10:135) and selenium (5:135). These replacements are justified because their small number does not affect the statistical tests and does not affect the interpretation of the data.

Analysis of variance for the analytical results from the grid sampling (table 4) shows that relative imprecision, expressed as percentage of variance between analyses, is less than 50 percent for all remaining variables. The magnitude of this variance component affects subsequent discussions and interpretations of the data because it indicates whether or not the reported differences in element concentation from sample to sample are related to natural variation or variation in laboratory preparation and analysis.

Variation among grid units (fields) exceeds 50 percent for 28 of the 32 variables listed (table 4) while the remaining four variables exhibit most of their variation within grid units. Therefore, it is feasibile to prepare contour maps showing spatial distribution of element concentration for the soils of irrigated agricultural lands for these 28 variables and be reasonably certain that the map patterns would accurately represent natural soil variability. For the remaining four variables (pH, As, Ba, and Pb) additional sampling using a grid size smaller than one mile would be necessary to prepare stable contour maps.

Alfalfa

A large proportion of the analytical values were below the limit of determination for arsenic (125:126), cerium (123:126), gallium (125:126), neodymium (91:126), scandium (93:126), titanium (123:126), and vanadium (125:126) so these elements are excluded from this discussion. For other elements that were not highly censored, the "less than" values were replaced for analysis-of-variance computations with arbitrary numbers equal to 0.7 multiplied by the detection limit. Such replacement values were made for aluminum (1:126), cobalt (4:126), lanthanum (5:126), lithium (11:126), and lead (24:126).

Relative imprecision (table 5, between analysis variance) was greater than 50 percent for only one element, lanthanum. This element is excluded

from furthur interpretation because its natural variation is obscured by procedural errors.

Variation among grid units (table 5) exceeded 50 percent for 17 of the 20 remaining elements. The other three elements exhibit most of their variation within grid units. Contour maps showing spatial distribution of element (or ash) concentration for these 17 variables should accurately represent their natural variability. For Ba, Co, and Na, additional sampling would be necessary to prepare contour maps showing their spatial distribution on the landscape.

Geologic Units

Native Soils

A large proportion of the analytical values were below the limit of determination for molybdenum (130:139), and niobium (101:139) so these elements are excluded from this discussion. For other elements that were not highly censored, the "less than" values were replaced with arbitrary numbers for analysis-of-variance computations equal to 0.7 multiplied by the detection limit. Such replacement values were made for beryllium (8:139), scandium (4:139), thorium (3:139), selenium (11:139), and ytterbium (25:139).

Relative imprecision, as indicated by percentage of variance between analytical duplicate samples (table 6), is excessive for barium and potassium. No intrepretations are made for these elements because their natural variation is dominated by variation due to sample preparation and analysis. For the remaining variables, most of the variation measured is associated with natural differences between geologic units sampled within several townships.

Fourteen geologic units were identified in the twelve townships selected randomly for sampling. All geologic units did not occur in each township. The distribution of geologic units sampled within each township is given in table 7. Analysis of variance for the variables measured in soil samples from these geologic units (table 6) suggest a more complicated pattern than from the grid sampling of irrigated agricultural soils. A major proportion (>50 %) of the variation is associated with a single category for only five elements (Ca, Ga, Mn, Pb, and Th). However, an F-test of the variance components show statistically significant differences between geologic units, townships, and sample locations for most variables. This suggests that, in general, the geologic units differ from one another in their chemical composition but any one geologic unit is not uniform in its composition from township to township or from sample to sample within a township.

Sagebrush

A large proportion of the analytical values was below the limit of determination for arsenic (105:111), cadmium (51:111), cerium (79:111), neodymium (69:111), scandium (87:111), thoruim (107:111), vanadium (53:111), and yttrium (77:111) so these elements are excluded from this discussion. For other elements that were not highly censored, the "less than" values were replaced for analysis-or-variance computations with arbitrary numbers equal to 0.7 multiplied by the detection limit. Such replacement values were made for cobalt (5:111), lanthanum (2:111), lithium (4:111), molybdenum (1:111), and lead (1:111).

Relative imprecision (table 8, variance between duplicate laboratory analyses) is excessive (>50 percent) for Co and Na. Further interpretations

for these elements are not made because their natural variability is obscured by laboratory or other procedural errors.

Interpretations for elements in sagebrush among geologic units and at various sampling intervals within geologic units are similar to those given above for native soils. Sagebrush grown on different geologic units differs in its composition from one unit to another for the nine elements identified as being statistically significant among geologic units in table 8. Most elements (and ash) show their greatest variation among sample locations, indicating differences in sagebrush composition from sample to sample collected within locations within a township.

Miscellaneous Soil, Rock Outcrop, and Salt Samples

We intended to sample outcrop for each of the geologic units represented in the study area, but this was not possible due to the lack of exposure. None of the rock samples proved to be anomalous in any element of interest for this study (table A5).

The grab samples of soils (table A6) all show low levels of Se, As, and B and other metals are similar to other native soils collected.

Table A7 shows the elemental concentrations of two samples of salt accumulation by the Rasmus Lee Lake beaches. These samples were white and did have a small amount of contamination from lake sediments. These samples do contain elevated levels of Se that occurred in a mixture of sodium carbonate-bicarbonate salts.

ACKNOWLEDGEMENTS

Sample preparation and analysis for these soil and plant samples were conducted by P. H. Briggs, Tom Peacock, and Phil Hagaman, all with the U.S. Geological Survey in Denver, Colorado.

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Table 1.--Listing of approximate limits of determination for pH and elements reported.

Analytical method	Medium	Determination limit	Variables
Continuous flow hydride generation	Soil	0.1 ppm	As, Se
	Plant[1]	0.05 ppm	As
Induction coupled plasma	Soil and Plant[2,3]	2.0 ppm	Ag, Cd, La, Li, Mo, Ni, Sc, Sr, V, Y
		0.05 %	Al, Ca, Fe, K, Mg, Na, P, Ti
		1.0 ppm	Ba, Be, Co, Cr, Cu, Yb
		4.0 ppm	Ce, Ga, Ho, Mn, Nb, Nd, Pb, Th, Zn
		8.0 ppm	Au
		10 ppm	Bi
		20 ppm	Sn
		40 ppm	Ta
		100 ppm	U
Hot-water extract	Soil	0.4 ppm	B
Continuous flow cold vapor	Soil	0.02 ppm	Hg
Water slurry	Soil	0.1 units	pH
Fluorometric	Plant[1]	0.01 ppm	Se

[1] Determined on dry plant material.
[2] Determined on plant ash.
[3] Sample mass for plants was one-half that for soils, so determination limits are twice those listed for soils.

Table 2.--Analysis of U.S. Geological Survey reference material SCo-1 (Cody shale).

Variable, unit of measure	Recommended value[a]	Determined values for SCo-1 Cody Shale						Mean	Standard Deviation
Al, %	7.23 ± 0.11	6.7	6.5	6.3	7.0	6.7	7.1	6.7	0.30
As, ppm	12.4 ± 1.4	14	14	14	11	12	13	13	1.2
B, ppm	---	---	4.2	3.2	3.2	3.6	3.1	3.5	0.46
Ba, ppm	570 ± 30	530	540	520	520	550	560	540	16
Be, ppm	1.84 ± 0.20	2	2	2	2	2	2	2	0
Ca, %	1.87 ± 0.14	1.8	1.9	1.9	1.8	1.9	1.8	1.85	0.05
Ce, ppm	62 ± 6	52	48	48	53	52	53	51	2.4
Co, ppm	10.5 ± 0.8	12	11	12	13	13	12	12	0.8
Cr, ppm	68 ± 5	75	70	71	84	60	78	73	8
Cu, ppm	28.7 ± 1.9	28	27	26	29	28	30	28	1.4
Fe, %	3.59 ± 0.13	3.4	3.2	3.2	3.6	3.4	3.6	3.40	0.18
Ga, ppm	15 ± 3	16	15	17	17	17	17	17	1
K, %	2.30 ± 0.07	2.1	2.0	1.6	2.2	2.1	2.2	2.0	0.2
La, ppm	29.5 ± 1.1	29	27	28	31	31	31	30	2
Li, ppm	45 ± 3	43	41	41	47	44	47	44	3
Mg, %	1.64 ± 0.11	1.5	1.5	1.5	1.6	1.6	1.6	1.55	0.05
Mn, ppm	408 ± 30	360	350	350	390	370	390	370	18
Na, %	0.667± 0.046	0.66	0.71	0.75	0.69	0.71	0.66	0.70	0.03
Nd, ppm	26 ± 2	26	23	24	26	27	26	25	2
Ni, ppm	27 ± 4	26	23	24	27	26	27	26	2
P, %	0.090± 0.009	0.09	0.09	0.08	0.09	0.08	0.09	0.087	0.005
Pb, ppm	31 ± 3	28	28	26	32	28	27	28	2
Sc, ppm	10.8 ± 1.1	11	10	10	11	11	12	11	1
Se, ppm	0.89 ± 0.06	0.7	0.7	0.9	1.0	0.8	0.8	0.8	0.1
Sr, ppm	174 ± 16	160	160	160	170	160	170	163	5
Th, ppm	9.7 ± 0.5	8	8	8	10	8	9	8.5	1
Ti, %	0.376± 0.039	0.29	0.27	0.28	0.32	0.28	0.32	0.29	0.02
V, ppm	131 ± 13	120	120	120	130	130	130	125	5
Y, ppm	26 ± 4	16	15	16	18	17	17	17	1
Yb, ppm	2.27 ± 0.24	2	2	2	2	2	2	2	0
Zn, ppm	103 ± 8	95	88	88	99	96	100	94	5

[a]Gladney and Roelandts, 1988

Table 3.--Analysis of National Bureau of Standards reference plant materials for selenium.

Reference material	National Bureau of Standards Certified values Selenium	Gladney (1980) Recommended values Selenium	U.S. Geological Survey Determined values Selenium
#1567 Wheat flour	1.1±(0.2)	1.12±(0.01)	0.97
#1571 Orchard leaves	0.08±(0.01)	0.08±(0.009)	0.075
#1575 Pine needles	----	0.049±(0.004)	0.056
#1570 Spinach	----	0.039±(0.015)	0.032
#1572 Citrus leaves	0.025	----	0.040 0.037 0.040 0.038 0.035

Table 4. Site and analytical variance for pH and elements measured in agricultural soils from sampling irrigated land at the Kendrick Reclamation Project Area

Variable, unit of measure	Total log10 variance	Percentage of variance: Among grids	Within grids	Between analysis
pH[1]	0.05068	27.6	68.7*	3.7
Al, %	0.00278	68.1*	0.0	31.9
As, ppm	0.03715	30.0	60.8*	9.2
B, ppm	0.05182	54.1	37.8*	8.1
Ba, ppm	0.07479	0.0	98.3*	1.7
Be, ppm	0.02524	66.3*	0.0	33.7
Ca, %	0.06872	90.2*	9.3*	0.5
Ce, ppm	0.00622	72.6*	16.6*	10.8
Co, ppm	0.01604	86.8*	11.6*	1.6
Cr, ppm	0.02918	92.1*	0.0	7.9
Cu, ppm	0.03152	84.7*	12.6*	2.7
Fe, %	0.01708	92.5*	6.1*	1.4
Ga, ppm	0.00413	57.3	24.6	18.1
K, %	0.00545	55.9*	0.0	44.1
La, ppm	0.00517	59.4	26.2*	14.4
Li, ppm	0.03433	94.6*	4.4*	1.0
Mg, %	0.03984	94.5*	4.6*	0.9
Mn, ppm	0.01607	58.3	40.2*	1.5
Na, %	0.02439	68.8*	0.0	31.2
Nd, ppm	0.00761	79.0*	11.9	9.1
Ni, ppm	0.03098	93.8*	1.0	5.2
P, %	0.01990	72.9*	17.3*	9.8
Pb, ppm	0.00932	0.0	88.6*	11.4
Sc, ppm	0.02075	91.1*	8.2*	1.7
Se, ppm	0.20131	74.7*	12.7	12.6
Sr, ppm	0.00974	73.8*	21.5*	4.7
Th, ppm	0.01090	70.6*	0.0	29.4
Ti, %	0.03317	50.1*	0.0	49.9
V, ppm	0.04967	97.0*	2.4*	0.6
Y, ppm	0.00998	88.0*	0.4	11.6
Yb, ppm	0.03491	63.0*	0.0	37.0
Zn, ppm	0.03483	89.0*	10.2*	0.8

* Statistically significant at the 0.05 probability level.

[1] pH measured in standard units, data not converted to logarithms.

Table 5. Site and analytical variance for ash and elements measured in alfalfa from sampling irrigated lands at the Kendrick Reclamation Project Area

Variable, unit of measure	Total log10 variance	Percentage of variance: Among grids	Within grids	Between analysis
Ash, %	0.00353	78.1	17.6*	4.3
Al, %	0.07722	48.4	43.1*	8.5
Ba, ppm	0.02703	25.0	68.2*	6.8
Ca, %	0.00648	66.4	32.4*	1.2
Co, ppm	0.02362	0.0	62.0*	38.0
Cr, ppm	0.02769	73.0	16.1*	10.2
Cu, ppm	0.00641	64.5	31.5*	4.0
Fe, %	0.01039	59.6	34.5*	5.9
K, %	0.01588	48.2*	20.6	31.2
La, ppm	0.01435	0.0	0.0	100.0
Li, ppm	0.13554	58.6	41.1*	0.3
Mg, %	0.01066	89.3*	9.9*	0.9
Mn, ppm	0.00914	74.1	24.6*	1.3
Mo, ppm	0.03320	62.0	37.6*	0.4
Na, %	0.05818	7.5	92.4*	0.1
Ni, ppm	0.02768	64.3	32.4*	3.3
P, %	0.00645	62.9	33.5*	3.6
Pb, ppm	0.07514	86.4*	9.0*	4.6
Se, ppm	0.26549	60.4	38.8*	0.7
Sr, ppm	0.01370	75.2	24.3*	0.5
Zn, ppm	0.00920	67.2	28.8*	4.0

* Statistically significant at the 0.05 probability level.

Table 6. Site and analytical variance for pH and elements measured in native soils from sampling geologic units at the Kendrick Reclamation Project Area

Variable, unit of measure	Total log10 variance	Percentage of variance among: Geologic units	Townships	Sample locations	Laboratory analyses
pH[1]	0.17465	18.9*	0.0	77.5*	3.6
Al, %	0.00730	21.8*	12.8	30.5	34.9
As, ppm	0.06616	28.4*	28.7*	30.4*	12.5
B, ppm	0.05635	4.8	15.1	37.7	42.4
Ba, ppm	0.02554	0.0	12.5	0.8	86.7
Be, ppm	0.02638	23.4*	9.5	47.6*	20.5
Ca, %	0.11418	18.0*	26.1*	55.1*	0.8
Ce, ppm	0.02074	39.5*	7.0	33.9*	19.6
Co, ppm	0.02682	18.7*	25.9*	49.7*	5.7
Cr, ppm	0.04289	17.8*	31.6*	44.9*	5.7
Cu, ppm	0.06065	25.9*	15.6*	43.7*	14.8
Fe, %	0.03053	26.6*	23.3*	46.5*	3.6
Ga, ppm	0.01059	26.1*	9.6	56.6*	7.7
K, %	0.01182	9.7	22.2*	0.0	68.1
La, ppm	0.02034	43.0*	7.8	31.4*	17.8
Li, ppm	0.04859	25.0*	22.6*	48.5*	3.9
Mg, %	0.07339	28.4*	22.3*	47.6*	1.7
Mn, ppm	0.03862	23.5*	20.5*	50.7*	5.3
Na, %	0.07387	10.7*	15.0*	0.0	74.3
Nd, ppm	0.02159	37.1*	10.5	40.1*	12.3
Ni, ppm	0.04363	16.9*	36.4*	43.6*	3.1
P, %	0.03987	33.0*	19.0*	42.3*	5.7
Pb, ppm	0.00916	25.5*	15.2*	50.1*	9.2
Sc, ppm	0.03894	23.2*	23.3*	45.3*	8.2
Se, ppm	0.17407	33.9*	10.5	45.1*	10.5
Sr, ppm	0.02577	13.7*	33.1*	43.3*	9.9
Th, ppm	0.05189	54.9*	11.7*	18.2*	15.2
Ti, %	0.02971	21.1*	16.8*	9.6	46.5
V, ppm	0.05597	20.6*	37.7*	38.4*	3.3
Y, ppm	0.02291	36.1*	8.4	42.9*	12.7
Yb, ppm	0.03688	29.9*	0.0	40.9*	29.2
Zn, ppm	0.05912	27.4*	24.0*	46.0*	2.6

[1] Measured in standard units, not transformed to logarithms.

* Statistically significant at the 0.05 probability level.

Table 7. Distribution of geologic units sampled from randomly selected townships at the Kendrick Reclamation Project Area.

[Numbers in body of table indicate number of samples collected from each geologic unit within each township. Explanation of geologic units: Qal, Quatenary alluvium; Qs, Quaternary sand dunes; Twru; Tertiary White River upper unit; Twrl, Tertiary White River lower unit; Twdr, Wind River Formation; Tfu, Tertiary Fort Union Formation; Kl, Cretaceous Lance Formation; Kfh, Cretaceous Fox Hills sandstone; Kml, Cretaceous Meeteetse Formation; Kmv, Cretaceous Mesaverde Formation; Kc, Cretaceous Cody shale; Ks, Cretaceous Steele shale; Kf, Cretaceous Frontier Formation; Kmt, Cretaceous Mowry and Thermopilis shale.]

Township North	Range West	Geologic Units													
				---Twr---				----Klml-----				--Kc--			
		Qal	Qs	Twru	Twrl	Twdr	Tfu	Kl	Kfh	Kml	Kmv	Kc	Ks	Kf	Kmt
35	79	-	2	-	-	-	-	-	2	2	2	-	-	-	-
35	81	2	2	-	-	-	-	-	-	-	-	2	-	-	-
35	83	2	2	-	-	-	-	-	-	-	-	2	-	2	2
34	83	-	-	-	-	-	-	-	-	-	-	2	-	2	2
34	81	2	2	-	-	-	-	-	-	-	-	2	-	2	-
34	79	-	2	-	-	-	-	-	-	2	2	2	-	-	-
33	81	2	-	-	-	-	-	-	-	-	-	2	-	2	2
33	83	2	-	-	-	2	2	2	-	2	2	2	-	2	2
32	83	2	-	-	2	2	2	-	-	-	-	-	-	-	-
32	82	2	-	-	-	2	2	2	-	2	2	2	-	2	-
31	82	2	-	-	2	2	1	2	-	2	3	-	2	-	-
31	83	2	-	2	2	2	-	-	-	-	-	-	-	-	-

Table 8. Site and analytical variance for ash and elements measured in sagebrush from sampling geologic units at the Kendrick Reclamation Project Area

Variable, unit of measure	Total log10 variance	Percentage of variance among: Geologic units	Townships	Sample locations	Laboratory analyses
Ash, %	0.00261	0.0	14.3	63.1*	22.6
Al, %	0.07112	5.1	35.0*	56.6*	3.3
Ba, ppm	0.01403	22.2*	8.2	60.3*	9.3
Ca, %	0.00321	0.0	2.2	88.7*	9.1
Co, ppm	0.02007	10.6*	13.1	0.0	76.3
Cr, ppm	0.01171	8.3*	1.8	47.3	42.6
Cu, ppm	0.01003	0.0	5.5	81.9*	12.6
Fe, %	0.02590	9.2	22.5*	67.5*	0.8
K, %	0.00164	0.0	0.0	90.0*	10.0
La, ppm	0.01939	20.6*	30.0*	23.7	25.7
Li, ppm	0.08248	24.2*	13.1	61.6*	1.1
Mg, %	0.00778	0.0	28.4*	69.7*	1.9
Mn, ppm	0.02376	0.2	4.6	94.4*	0.8
Na, %	0.07387	10.7*	15.0*	0.0	74.3
Mo, ppm	0.03127	0.0	28.6*	68.9*	2.5
Na, ppm	0.01672	32.6*	13.5	53.1*	0.8
Ni, ppm	0.04951	1.8	1.0	82.3*	14.9
P, %	0.00950	11.2	28.6*	58.4*	1.8
Pb, ppm	0.01445	13.0	20.4*	17.2	49.4
Se, ppm	0.17404	9.8*	17.7	69.8*	2.7
Sr, ppm	0.01040	0.0	20.8	78.0*	1.2
Ti, %	0.06498	8.1	27.3*	58.0*	6.6
Zn, ppm	0.02497	20.3*	30.6*	48.0*	1.1

* Statistically significant at the 0.05 probability level.

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area

["R" prefix denotes analytical splits; #1 and #2 suffix denotes uncomposited samples from two sites within a field]

Sample ID	Latitude	Longitude	pH	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm
K001S	423507	1064018	7.9	5.7	11	2.6	660	2	4.6	50
K002S	423550	1064057	7.9	5.8	8.8	1.7	710	2	3.8	53
R002S	423550	1064057	7.9	6.0	9.2	2.2	630	2	3.8	52
K003S	423556	1064015	7.9	5.0	4.9	0.6	660	1	3.4	46
K004S	423611	1063841	8.0	5.3	5.5	0.7	700	2	3.4	67
K005S	423631	1063747	9.4	5.4	2.9	2.3	1100	2	3.3	57
K006S	423653	1063846	7.7	6.0	5.4	0.6	650	2	3.6	72
K007S1	423709	1063931	8.0	5.8	3.4	0.8	800	2	2.9	57
K007S2	423709	1063931	8.2	5.6	2.3	0.9	850	2	3.5	62
K008S	423733	1063824	8.1	4.9	3.4	0.9	680	1	2.3	57
K009S	423738	1063753	8.0	5.2	4.6	0.6	770	2	4.0	57
K010S	423810	1063844	8.1	5.5	6.3	0.6	660	2	2.0	56
K011S1	423910	1063726	8.2	4.3	8.2	0.8	440	1	1.6	57
K011S2	423710	1063726	8.3	4.5	6.6	0.7	450	1	2.0	55
R011S2	423910	1063726	8.3	4.3	5.6	0.8	440	1	1.8	60
K012S	424021	1063750	8.1	7.2	11	2.3	570	2	1.4	63
K013S	424300	1063458	8.1	4.8	5.6	0.8	670	1	3.0	41
R013S	424300	1063458	8.2	4.6	5.1	0.7	640	1	2.8	38
K014S	424251	1063418	8.2	4.9	4.4	0.6	670	1	1.7	51
K015S	424458	1063534	8.0	6.1	5.5	1.2	670	2	1.1	56
K016S	424538	1063359	8.2	5.5	6.6	1.0	600	2	2.4	50
K017S	424611	1063256	8.1	4.6	4.4	0.9	540	1	4.2	42
R017S	424611	1063256	8.1	4.5	4.3	0.7	530	1	4.2	42
K018S	424617	1063421	8.1	5.4	3.9	0.8	630	1	2.7	50
R018S	424617	1063421	8.1	5.3	3.8	0.8	640	1	2.4	48
K019S	424617	1063454	8.1	5.3	4.3	0.6	610	1	1.5	52
K020S	424314	1063606	8.2	5.6	11	0.6	660	2	5.1	54
K021S	424423	1063605	8.0	4.7	5.4	0.8	810	1	1.4	54
K022S	424443	1063715	7.6	5.7	15	1.1	690	2	1.7	63
K023S	424516	1063603	8.1	5.8	6.2	1.7	660	2	3.9	59
K024S	424459	1063713	8.0	5.6	9.5	0.8	670	2	2.2	58
K025S	424632	1063638	8.2	5.4	3.2	1.3	620	1	1.9	54
K026S	425001	1062802	8.3	4.5	4.0	0.8	600	1	1.0	51
R026S	425001	1062802	8.2	4.5	4.9	0.7	580	1	1.1	39
K027S	425020	1062816	8.0	4.7	6.8	0.6	560	1	1.7	58
K028S	425039	1062504	7.7	5.3	15	1.0	850	2	8.8	48
K029S	425026	1062829	8.1	5.2	5.6	0.7	590	2	1.8	61
R029S	425026	1062829	8.1	5.4	5.8	0.6	580	1	2.0	64
K030S	425051	1062621	7.9	5.2	3.0	1.3	640	2	1.8	63
K031S	425121	1062819	8.1	4.9	4.6	1.0	610	1	1.7	49
K032S	425121	1062838	8.0	4.3	4.8	0.7	610	1	0.9	50
K033S	425137	1062647	8.3	4.9	3.3	1.5	630	1	1.6	40
K034S	425118	1062556	8.1	4.6	4.0	0.7	670	1	2.0	44
K035S	425145	1062445	8.0	4.5	2.9	0.9	620	1	1.3	38
K036S	425142	1062316	8.3	4.6	4.2	0.8	820	1	1.2	50

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	pH	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm
K037S	424721	1063305	7.8	5.3	2.9	0.6	630	1	0.65	43
K038S	424717	1063405	8.3	5.3	6.6	1.1	670	1	3.3	36
R038S	424717	1063405	8.2	5.3	9.6	0.7	660	2	3.3	40
K039S	424706	1063451	8.0	5.2	3.4	0.8	640	1	0.6	50
K040S	424718	1063154	8.2	4.6	3.0	0.7	670	1	2.5	32
K041S	424734	1063413	8.0	6.4	13	1.1	760	2	3.4	56
R041S	424734	1063413	8.1	6.2	11	1.3	750	2	3.4	53
K041S1	424734	1063413	8.1	6.1	14	1.1	730	2	3.4	52
K041S2	424734	1063413	8.3	6.4	9.1	1.6	800	2	3.4	56
K042S	424743	1063427	8.2	5.3	3.2	0.8	660	1	1.3	37
K043S	424742	1063139	8.1	4.8	3.4	0.9	610	1	3.1	43
K044S	424816	1063226	8.3	5.3	6.3	1.7	570	2	2.0	56
K045S	424828	1063521	8.0	5.5	8.4	0.7	670	2	2.7	68
K046S	424830	1063315	7.7	5.1	7.6	1.5	550	2	0.54	52
K047S	424832	1063231	8.0	5.3	6.9	0.7	600	2	1.4	55
K048S	424851	1063556	7.9	5.2	9.6	2.0	640	2	2.3	57
R048S	424851	1063556	8.0	5.3	6.5	1.8	640	2	2.3	56
K048S1	424851	1063556	8.2	4.7	5.2	1.0	610	1	2.3	61
K048S2	424851	1063556	7.8	5.7	6.9	1.1	640	2	2.2	58
K049S	424922	1063505	7.6	5.3	6.9	0.9	660	1	2.0	44
K050S	424908	1063738	8.1	5.0	5.5	1.0	590	2	1.3	57
K051S	424949	1063342	8.1	5.5	5.0	1.2	590	2	0.91	59
K052S	425023	1063616	8.1	5.7	6.7	1.8	620	2	1.3	68
K053S	425010	1063400	7.9	4.9	6.8	1.0	590	1	0.63	50
K054S	425052	1063445	8.2	5.3	6.7	1.4	590	2	0.89	61
K055S1	425102	1063547	7.5	5.4	5.3	1.0	600	2	0.6	50
R055S1	425102	1063547	7.5	5.4	3.9	0.8	600	2	0.6	53
K055S2	425102	1063547	8.0	5.6	7.0	2.0	590	2	0.85	61
K056S	425117	1063130	8.0	5.1	6.2	1.8	570	1	2.0	48
K057S1	424931	1063630	8.1	5.6	8.8	1.3	810	2	1.2	65
K057S2	424931	1063630	7.9	5.9	6.4	1.9	790	2	0.85	49
K058S	425157	1062859	8.1	5.9	8.8	0.9	690	2	2.1	55
K059S	425152	1062754	8.2	5.9	8.7	6.1	620	2	2.1	52
K060S	425153	1062709	8.1	5.3	6.9	3.0	620	1	2.1	52
K061S	425158	1062335	8.1	5.0	8.3	1.1	820	1	1.7	41
K062S	425214	1062520	8.5	4.7	3.2	1.8	630	1	2.3	41
K063S	425231	1062437	8.2	4.7	3.9	0.6	650	1	1.9	35
K064S	425250	1062449	8.2	4.7	4.9	1.0	680	1	2.1	49
K065S1	425317	1062808	8.3	4.5	2.7	1.1	630	1	1.5	37
K065S2	425317	1062808	8.3	4.6	9.4	0.6	630	1	0.9	39
K066S	425246	1062610	8.3	4.9	2.8	1.0	700	1	3.7	40
K067S	425309	1062543	8.2	4.8	2.1	0.7	640	1	0.8	46
K068S	425323	1062833	8.3	5.2	5.9	0.7	680	1	1.9	40
K069S	425343	1062749	8.2	5.2	4.7	1.4	700	1	2.0	42
K070S	425349	1062852	8.6	5.0	5.1	1.2	730	1	2.0	38

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	pH	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm
K071S	425447	1062820	8.4	4.8	3.0	0.8	660	1	1.2	31
K072S	425444	1062839	7.8	7.6	15	2.2	1000	2	1.1	63
R072S	425444	1062839	7.8	7.6	14	3.4	970	2	1.1	64
K073S	425540	1062835	8.2	4.8	9.8	2.1	680	1	2.3	37
K074S	425525	1062821	8.4	4.3	4.7	0.9	640	1	1.8	30
K075S	425601	1062645	7.9	4.5	4.3	0.6	670	1	0.84	49
K076S	425656	1062837	7.7	4.6	6.5	0.8	370	1	3.1	39
K077S	425658	1062725	8.1	4.8	6.6	2.8	760	1	3.0	41
K079S	425326	1063208	8.0	4.5	2.2	0.6	620	1	0.52	36
K080S	425311	1063150	8.0	4.7	9.6	0.8	610	1	1.2	62
K081S	425318	1063042	7.8	6.5	7.4	3.3	610	2	2.0	64
K082S	425402	1062943	8.2	4.7	4.4	1.8	630	1	1.2	37
K083S	425352	1063154	7.9	6.1	10	0.8	610	2	1.8	64
K084S	425347	1063206	8.0	5.2	7.9	0.9	640	1	1.1	47
K085S	425432	1063210	7.8	5.0	10	0.9	690	1	5.7	49
K086S	425559	1063241	8.1	4.9	9.2	0.9	720	1	4.2	50
K087S	425559	1063241	8.0	3.8	10	3.4	240	1	5.6	46
R087S	425559	1063241	8.0	5.5	10	3.3	370	2	5.7	49
K088S	425602	1063044	7.9	5.9	11	2.2	790	2	2.3	54
K089S1	425628	1063305	8.2	5.5	11	4.9	77	2	6.8	47
K089S2	425657	1063020	8.0	5.5	13	2.4	780	2	5.9	54
R089S2	425657	1063020	8.1	5.7	10	2.4	770	2	6.2	52
K090S	425657	1063020	8.0	5.6	7.8	2.7	790	2	3.4	53
K091S	425613	1063113	7.7	5.4	6.8	2.0	390	2	3.1	49
K092S	425657	1063325	7.8	5.4	9.7	1.5	250	2	5.9	43
K093S	425735	1062738	8.3	5.1	6.1	1.1	730	2	4.2	50
K094S	425746	1062845	8.1	4.9	8.9	0.6	750	1	3.8	45
K095S	425909	1062928	8.1	4.2	6.8	0.5	730	1	2.2	34
K096S	425909	1063928	7.8	5.1	6.8	1.1	780	1	3.5	53
K097S	425704	1063119	8.0	5.6	9.0	2.5	570	2	5.3	51
K098S	425720	1062944	8.1	4.5	6.9	0.7	770	1	3.2	41
K099S	425748	1063218	7.9	4.8	7.1	2.0	820	1	4.8	45
R099S	425748	1063218	7.9	5.1	7.4	2.1	750	1	5.0	45
K100S	425759	1063237	8.0	4.8	10	2.1	710	1	5.1	42
K101S	425813	1063059	8.0	6.1	8.8	2.7	170	2	2.3	55
K102S	425759	1063022	8.0	4.7	8.4	0.9	760	1	3.3	38
K103S	425909	1063242	8.2	4.8	6.3	0.7	730	1	3.9	46
K104S	425859	1063111	8.4	5.4	8.4	2.0	720	2	2.3	52
K105S	425901	1063046	8.0	5.5	6.9	1.5	690	2	2.5	59
R105S	425901	1063046	8.0	5.4	7.5	1.3	690	2	2.5	57
K106S	425951	1062946	8.0	4.8	6.8	0.8	670	1	2.4	52
K107S	425952	1063253	7.8	4.4	4.7	0.8	680	1	3.0	45
K108S	430036	1063413	8.2	5.3	6.2	0.9	780	2	1.9	51
K109S	425811	1063317	7.9	4.4	11	1.8	700	1	4.3	51
K110S	425736	1063616	7.7	4.9	10	1.1	650	1	5.4	46

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Co, ppm	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	Hg, ppm	K, %	La, ppm	Li, ppm	Mg, %
K001S	9	68	34	2.3	14	0.02	1.9	31	33	1.2
K002S	9	68	20	2.5	14	0.02	1.9	33	38	1.7
R002S	9	69	19	2.4	13	0.02	1.9	32	38	1.6
K003S	7	36	12	1.5	13	<0.02	1.9	29	18	0.65
K004S	8	41	14	1.8	13	0.02	1.9	40	25	0.88
K005S	8	34	9	1.6	13	<0.02	2.3	35	24	0.82
K006S	9	41	18	2.2	14	<0.02	1.9	40	33	1.1
K007S1	7	31	8	1.6	14	<0.02	2.4	35	22	0.74
K007S2	6	31	9	1.4	13	0.02	2.2	38	18	0.63
K008S	5	24	7	1.2	12	<0.02	2.2	35	13	0.43
K009S	7	26	11	1.6	13	<0.02	1.9	35	18	0.68
K010S	8	42	12	1.8	13	<0.02	2.0	33	24	0.80
K011S1	8	54	14	1.9	10	<0.02	1.6	29	24	0.76
K011S2	8	55	13	1.7	12	<0.02	1.7	32	26	0.96
R011S2	8	39	12	1.6	12	0.04	1.7	33	26	0.91
K012S	10	55	21	2.5	17	<0.02	1.7	36	31	1.4
K013S	6	29	9	1.3	11	<0.02	2.1	25	16	0.58
R013S	6	27	9	1.2	11	<0.02	2.0	25	15	0.54
K014S	5	26	6	1.2	12	<0.02	2.1	29	14	0.45
K015S	8	49	13	2.0	15	<0.02	2.4	33	26	0.73
K016S	6	36	9	1.6	14	0.02	2.3	31	24	0.68
K017S	7	31	11	1.6	11	<0.02	1.8	26	22	0.78
R017S	6	30	10	1.6	10	<0.02	1.8	26	22	0.76
K018S	6	32	10	1.3	13	<0.02	2.6	31	17	0.49
R018S	6	30	9	1.2	12	<0.02	2.7	30	15	0.43
K019S	5	30	8	1.2	11	0.02	2.4	29	15	0.38
K020S	9	48	18	1.9	12	<0.02	1.9	32	27	1.0
K021S	6	35	9	1.7	12	<0.02	1.7	32	29	0.58
K022S	7	59	15	2.2	13	<0.02	1.9	34	43	0.78
K023S	8	48	14	2.0	14	<0.02	2.2	35	29	1.0
K024S	8	59	14	2.1	14	<0.02	1.9	35	40	0.79
K025S	5	26	7	1.1	12	<0.02	2.4	32	14	0.42
K026S	4	19	6	0.95	10	<0.02	2.2	31	12	0.27
R026S	4	21	7	0.99	9	<0.02	2.2	23	12	0.29
K027S	6	34	10	1.7	11	<0.02	1.8	34	26	0.72
K028S	10	57	24	2.1	12	<0.02	1.8	31	33	0.72
K029S	7	44	12	1.8	13	<0.02	2.0	35	28	0.83
R029S	7	45	12	1.9	13	<0.02	2.0	36	29	0.89
K030S	5	28	7	1.2	13	<0.02	2.5	38	22	0.45
K031S	6	33	10	1.6	10	<0.02	2.0	28	25	0.65
K032S	4	27	7	1.4	9	0.02	1.7	28	23	0.39
K033S	5	28	10	1.2	10	0.02	2.1	25	15	0.38
K034S	4	21	8	1.1	10	<0.02	2.2	25	12	0.31
K035S	4	22	8	0.97	11	<0.02	2.2	23	11	0.29
K036S	6	34	10	1.4	9	0.04	2.1	30	20	0.43

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Co, ppm	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	Hg, ppm	K, %	La, ppm	Li, ppm	Mg, %
K037S	5	26	6	1.1	13	<0.02	2.7	25	13	0.32
K038S	6	28	10	1.5	12	0.04	2.5	23	26	0.78
R038S	6	40	11	1.6	12	0.02	2.4	24	27	0.79
K039S	4	20	5	1.0	12	0.04	2.9	28	11	0.25
K040S	4	18	7	0.99	9	<0.02	2.4	20	11	0.34
K041S	10	78	18	2.5	15	0.04	2.1	32	53	1.5
R041S	10	75	20	2.6	16	0.04	2.0	33	53	1.5
K041S1	11	72	17	2.5	16	0.04	2.1	32	49	1.4
K041S2	11	83	19	2.7	16	0.06	2.0	34	58	1.6
K042S	5	27	5	1.2	12	<0.02	2.8	23	15	0.37
K043S	7	25	14	1.5	10	0.04	2.0	27	18	0.63
K044S	7	32	15	1.8	11	0.02	2.0	33	22	0.71
K045S	8	48	14	1.9	13	<0.02	2.0	37	27	0.78
K046S	10	41	17	2.4	11	0.02	1.8	30	25	0.38
K047S	8	37	12	2.0	12	<0.02	2.0	31	24	0.53
K048S	8	45	14	1.9	14	<0.02	1.8	34	28	0.75
R048S	8	51	16	1.9	13	<0.02	1.8	33	29	0.75
K048S1	7	39	13	1.7	11	<0.02	1.7	34	25	0.64
K048S2	9	53	24	2.1	15	<0.02	1.8	36	31	0.83
K049S	7	47	12	1.8	13	0.02	2.1	26	32	0.73
K050S	8	48	12	1.8	13	0.02	1.7	32	26	0.58
K051S	6	38	13	1.9	13	<0.02	1.9	34	24	0.53
K052S	9	55	15	2.1	14	0.02	2.1	39	26	0.71
K053S	6	30	10	1.4	13	0.02	2.2	28	18	0.39
K054S	5	34	9	1.5	11	<0.02	1.8	32	22	0.49
K055S1	6	36	10	1.6	13	<0.02	2.1	29	20	0.50
R055S1	6	36	9	1.7	13	<0.02	2.1	30	21	0.51
K055S2	6	38	10	1.8	14	0.02	1.9	35	24	0.57
K056S	6	37	9	1.7	12	0.02	2.0	29	26	0.66
K057S1	9	60	14	2.6	14	<0.02	2.1	38	35	0.70
K057S2	10	66	15	2.4	14	<0.02	2.3	28	38	0.74
K058S	8	57	12	2.1	14	<0.02	2.2	33	40	0.80
K059S	6	47	11	1.8	13	<0.02	2.2	29	30	0.78
K060S	6	26	10	1.6	13	0.04	2.2	30	23	0.67
K061S	8	43	12	1.9	12	0.02	2.1	25	28	0.65
K062S	5	24	7	1.1	10	<0.02	2.0	25	12	0.34
K063S	5	21	10	1.1	11	<0.02	2.2	23	13	0.34
K064S	5	24	6	1.2	11	0.02	2.1	32	13	0.38
K065S1	3	19	7	0.77	10	0.04	2.5	22	11	0.28
K065S2	4	20	6	0.84	10	<0.02	2.6	23	12	0.26
K066S	5	25	6	1.2	11	<0.02	2.2	25	16	0.49
K067S	4	25	7	1.0	10	0.06	2.3	27	13	0.31
K068S	5	32	10	1.3	11	<0.02	2.4	24	21	0.47
K069S	6	38	6	1.5	12	<0.02	2.3	26	24	0.54
K070S	6	29	7	1.3	12	0.02	2.4	23	19	0.45

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Co, ppm	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	Hg, ppm	K, %	La, ppm	Li, ppm	Mg, %
K071S	4	24	4	1.0	10	0.02	2.4	19	13	0.30
K072S	15	110	23	3.6	20	0.06	2.3	37	69	1.3
R072S	14	110	23	3.5	18	0.04	2.2	36	67	1.2
K073S	6	35	13	1.4	11	<0.02	2.2	23	21	0.53
K074S	4	21	7	0.93	10	<0.02	2.1	18	12	0.28
K075S	4	22	4	1.1	10	<0.02	2.3	29	12	0.27
K076S	6	36	12	1.6	11	<0.02	1.9	23	24	0.53
K077S	6	37	12	1.6	11	0.02	2.0	26	21	0.61
K079S	4	20	8	0.83	9	<0.02	2.3	20	10	0.21
K080S	6	40	10	1.7	10	<0.02	1.7	33	29	0.64
K081S	8	61	16	2.4	15	0.02	2.0	37	46	1.0
K082S	5	27	7	1.2	11	0.02	2.4	22	15	0.37
K083S	8	57	13	2.1	14	<0.02	2.0	35	38	0.90
K084S	6	39	9	1.4	12	0.02	2.2	27	25	0.53
K085S	7	51	18	1.7	11	0.02	1.8	29	28	0.60
K086S	8	39	14	1.9	13	<0.02	1.9	31	25	0.65
K087S	9	44	18	2.2	10	0.02	0.96	27	33	0.92
R087S	9	60	21	2.3	13	<0.02	1.8	31	39	0.97
K088S	11	74	22	2.6	14	0.02	1.9	30	48	1.1
K089S1	8	65	22	2.1	13	0.02	1.7	29	41	0.96
K089S2	9	63	22	2.1	14	0.04	1.8	35	38	1.0
R089S2	9	64	22	2.2	14	<0.02	1.8	32	40	1.1
K090S	10	43	15	2.4	13	0.02	1.9	33	43	1.0
K091S	9	70	15	2.5	14	0.02	1.7	29	51	1.3
K092S	8	56	21	2.0	12	<0.02	1.9	29	35	0.89
K093S	9	52	14	1.9	13	<0.02	1.9	31	29	0.91
K094S	7	42	14	1.6	11	<0.02	1.9	26	24	0.59
K095S	6	26	7	1.4	10	<0.02	1.9	21	15	0.41
K096S	8	48	15	1.8	12	0.04	1.8	32	30	0.93
K097S	9	61	19	2.1	13	0.04	1.8	32	35	0.98
K098S	7	37	10	1.5	11	0.02	1.9	25	22	0.54
K099S	8	48	17	1.7	12	0.02	1.7	28	30	0.83
R099S	8	53	15	1.8	12	<0.02	1.8	28	32	0.88
K100S	8	47	16	1.7	12	0.02	1.7	27	29	0.88
K101S	8	66	17	2.4	16	0.06	2.0	33	43	1.1
K102S	6	37	12	1.4	10	0.02	2.0	22	23	0.52
K103S	8	48	11	1.8	12	0.02	1.8	28	30	0.84
K104S	9	60	16	2.3	14	0.02	1.9	31	38	1.3
K105S	9	56	15	2.2	13	0.06	1.8	34	37	1.2
R105S	8	57	16	2.2	14	<0.02	1.8	35	36	1.2
K106S	8	42	12	1.7	12	0.02	1.8	32	24	0.74
K107S	7	37	9	1.5	11	<0.02	1.7	27	25	0.73
K108S	10	69	15	2.3	13	0.04	1.9	30	42	1.0
K109S	7	48	12	2.4	10	0.02	1.5	28	29	0.82
K110S	7	50	16	1.6	12	0.02	1.8	28	30	0.80

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm
K001S	220	4	0.75	<4	26	30	0.07	19	8	2.2
K002S	270	<2	0.6	<4	27	35	0.07	24	8	0.9
R002S	260	<2	0.6	<4	28	22	0.08	21	8	0.7
K003S	220	<2	1.2	<4	22	14	0.04	15	5	0.2
K004S	300	<2	1.1	<4	32	15	0.05	17	6	0.2
K005S	350	<2	1.5	<4	26	12	0.06	20	5	0.1
K006S	380	<2	0.92	<4	30	16	0.06	19	7	0.2
K007S1	340	<2	1.4	4	28	12	0.05	18	5	0.1
K007S2	370	<2	1.5	<4	31	9	0.05	18	5	0.1
K008S	180	<2	1.3	<4	25	9	0.03	16	4	0.1
K009S	290	<2	1.3	<4	27	14	0.04	18	5	0.2
K010S	280	<2	1.1	<4	26	17	0.04	18	6	0.1
K011S1	410	<2	0.4	<4	25	18	0.05	19	6	0.2
K011S2	240	<2	0.44	<4	26	18	0.04	19	6	<0.1
R011S2	230	<2	0.42	<4	26	18	0.04	16	6	0.1
K012S	280	<2	0.7	9	30	22	0.07	21	9	1.5
K013S	190	<2	1.2	<4	19	12	0.04	17	4	<0.1
R013S	180	<2	1.1	<4	19	11	0.03	15	4	0.4
K014S	220	<2	1.3	<4	21	11	0.04	16	4	0.1
K015S	270	<2	0.94	<4	26	18	0.05	22	7	0.4
K016S	190	<2	0.98	<4	24	15	0.04	18	5	0.1
K017S	290	<2	0.87	<4	21	12	0.06	15	5	0.3
R017S	290	<2	0.84	<4	20	12	0.06	16	5	0.3
K018S	180	<2	1.3	4	24	14	0.04	19	4	0.2
R018S	160	<2	1.3	<4	21	12	0.03	21	4	0.2
K019S	180	<2	1.3	<4	21	11	0.03	19	4	0.2
K020S	240	3	0.99	<4	26	24	0.06	19	6	0.9
K021S	150	<2	0.7	<4	24	12	0.05	13	5	0.2
K022S	170	<2	0.64	<4	26	21	0.06	18	7	3.6
K023S	230	<2	1.1	<4	26	23	0.06	20	6	1.8
K024S	180	<2	0.65	<4	28	21	0.06	15	7	0.7
K025S	160	<2	1.4	<4	22	11	0.03	21	4	0.2
K026S	140	<2	1.2	<4	21	7	0.03	17	3	0.1
R026S	150	<2	1.1	<4	17	7	0.03	17	3	0.2
K027S	170	<2	0.78	<4	25	12	0.06	14	5	0.2
K028S	180	10	0.68	<4	25	40	0.06	16	7	3.8
K029S	210	<2	0.79	<4	29	15	0.06	15	6	0.2
R029S	220	<2	0.79	<4	29	16	0.07	16	6	0.2
K030S	170	<2	1.3	6	28	10	0.03	20	4	0.8
K031S	180	<2	0.91	<4	21	12	0.06	15	5	0.2
K032S	140	<2	0.79	<4	21	8	0.05	13	4	0.2
K033S	160	<2	1.2	<4	19	9	0.03	19	4	0.3
K034S	170	<2	1.2	<4	18	9	0.03	17	3	0.1
K035S	130	<2	1.2	<4	16	9	0.03	15	3	0.4
K036S	220	<2	0.98	<4	23	12	0.05	20	4	0.3

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm
K037S	200	<2	1.3	<4	18	10	0.02	20	4	0.1
K038S	190	<2	1.0	<4	17	15	0.05	21	5	0.3
R038S	190	<2	0.96	<4	19	14	0.05	20	5	0.4
K039S	140	<2	1.4	<4	18	9	0.02	21	3	<0.1
K040S	190	<2	1.2	<4	13	7	0.03	18	3	0.2
K041S	290	<2	0.51	<4	26	24	0.08	20	9	0.8
R041S	310	<2	0.51	<4	28	25	0.07	20	9	0.8
K041S1	320	<2	0.55	<4	27	25	0.06	21	9	0.3
K041S2	290	<2	0.46	<4	28	26	0.08	21	10	1.1
K042S	160	<2	1.3	4	16	11	0.03	21	4	0.1
K043S	250	<2	0.91	<4	21	12	0.06	16	5	0.1
K044S	330	<2	0.81	<4	25	12	0.05	18	6	0.5
K045S	290	<2	1.0	<4	28	19	0.05	18	6	0.5
K046S	820	<2	0.71	<4	25	19	0.06	21	6	0.5
K047S	420	<2	0.81	<4	27	16	0.04	18	6	0.3
K048S	270	<2	0.7	<4	26	19	0.05	19	7	0.6
R048S	280	<2	0.68	<4	27	19	0.06	17	7	1.0
K048S1	220	<2	0.66	<4	28	16	0.05	16	5	0.5
K048S2	310	<2	0.71	<4	27	20	0.06	18	7	1.3
K049S	180	<2	0.89	<4	18	17	0.04	17	6	0.5
K050S	230	<2	0.55	<4	28	17	0.05	18	6	0.4
K051S	280	<2	0.78	<4	27	15	0.05	18	6	0.3
K052S	310	<2	0.98	<4	29	21	0.04	21	7	0.2
K053S	230	<2	0.98	<4	21	12	0.04	19	4	0.1
K054S	150	<2	0.92	<4	26	11	0.05	17	5	0.4
K055S1	230	<2	0.97	<4	23	13	0.04	16	5	0.2
R055S1	250	<2	0.92	<4	23	13	0.04	19	5	0.2
K055S2	190	<2	0.83	<4	28	14	0.05	18	6	0.2
K056S	170	<2	0.93	<4	21	14	0.05	17	5	0.1
K057S1	270	<2	0.85	<4	30	22	0.05	21	7	0.2
K057S2	240	<2	0.85	5	24	22	0.05	20	8	0.4
K058S	190	<2	0.71	<4	27	20	0.06	18	7	0.4
K059S	200	<2	0.88	<4	22	16	0.05	17	6	0.3
K060S	210	<2	1.1	<4	21	15	0.03	18	5	<0.1
K061S	260	<2	0.86	<4	18	18	0.05	19	6	0.4
K062S	160	<2	1.3	<4	18	9	0.03	17	3	0.1
K063S	170	<2	1.2	<4	17	10	0.03	20	3	0.1
K064S	170	<2	1.2	<4	20	10	0.03	16	4	0.1
K065S1	120	<2	1.2	<4	15	8	0.03	17	3	0.1
K065S2	120	<2	1.2	<4	17	7	0.02	41	3	0.2
K066S	190	<2	1.2	<4	18	11	0.04	17	4	0.2
K067S	160	<2	1.2	<4	21	9	0.03	19	3	0.2
K068S	160	<2	1.1	<4	16	12	0.03	19	4	0.3
K069S	200	<2	1.0	<4	20	13	0.04	21	5	0.3
K070S	240	<2	1.3	<4	17	12	0.03	18	4	<0.1

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm
K071S	150	<2	1.2	<4	14	9	0.03	17	3	0.2
K072S	420	<2	0.49	7	31	36	0.08	20	13	0.7
R072S	410	<2	0.49	10	30	34	0.09	20	13	1.0
K073S	180	<2	1.1	<4	17	14	0.04	33	4	0.6
K074S	150	<2	1.1	<4	13	9	0.03	16	3	0.2
K075S	170	<2	1.2	<4	19	9	0.03	18	3	0.1
K076S	180	<2	0.86	<4	19	17	0.05	14	5	1.0
K077S	200	<2	1.1	<4	20	15	0.05	15	5	1.0
K079S	130	<2	1.2	<4	15	6	0.03	18	2	0.1
K080S	140	<2	0.73	<4	25	14	0.07	16	5	0.3
K081S	220	<2	0.76	<4	29	23	0.08	19	8	1.5
K082S	160	<2	1.1	<4	17	12	0.03	19	4	0.6
K083S	200	<2	0.63	<4	28	19	0.08	18	7	0.3
K084S	150	<2	1.0	<4	19	15	0.04	30	5	0.2
K085S	230	<2	0.71	<4	23	23	0.06	16	5	1.0
K086S	280	2	0.89	<4	23	20	0.05	16	5	1.0
K087S	210	3	0.24	<4	22	30	0.06	13	6	2.5
R087S	210	4	0.74	<4	26	30	0.07	16	7	2.5
K088S	220	<2	0.71	<4	26	28	0.08	19	8	1.0
K089S1	190	6	0.76	5	24	34	0.07	13	7	3.2
K089S2	200	4	0.75	<4	27	30	0.05	16	7	2.8
R089S2	200	5	0.75	<4	26	33	0.06	17	8	3.0
K090S	230	<2	0.77	<4	26	24	0.06	18	7	1.8
K091S	160	<2	0.46	<4	27	22	0.07	12	9	0.7
K092S	180	5	0.71	6	22	28	0.06	19	7	2.3
K093S	240	<2	0.86	<4	25	21	0.05	18	6	1.0
K094S	200	2	0.86	<4	19	19	0.05	16	5	1.1
K095S	230	<2	1.0	<4	17	12	0.04	14	4	0.3
K096S	210	<2	0.83	<4	26	18	0.05	19	6	0.7
K097S	220	3	0.79	<4	27	26	0.06	18	7	2.2
K098S	200	<2	0.9	<4	19	17	0.04	17	5	0.6
K099S	200	3	0.8	<4	21	22	0.05	14	6	1.6
R099S	210	3	0.82	<4	22	23	0.05	15	6	1.5
K100S	210	3	0.81	<4	22	23	0.05	16	6	1.4
K101S	170	<2	0.79	<4	26	25	0.05	17	9	0.7
K102S	180	2	0.91	<4	16	16	0.05	16	4	1.0
K103S	200	<2	0.77	<4	21	19	0.05	15	6	0.7
K104S	210	<2	0.84	<4	25	22	0.06	16	8	1.1
K105S	220	<2	0.68	<4	28	22	0.07	18	8	1.1
R105S	220	<2	0.68	<4	28	21	0.07	17	7	0.8
K106S	230	<2	0.81	<4	24	17	0.04	16	6	0.4
K107S	190	<2	0.83	<4	22	15	0.05	14	5	0.5
K108S	190	<2	0.62	<4	26	23	0.07	17	8	0.4
K109S	240	<2	0.66	<4	22	17	0.07	16	6	0.8
K110S	180	3	0.77	<4	23	23	0.05	16	6	1.6

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Sr, ppm	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
K001S	200	9	0.21	170	16	2	89
K002S	150	10	0.23	130	17	2	87
R002S	150	9	0.26	130	17	2	84
K003S	250	8	0.19	59	13	1	35
K004S	220	13	0.22	67	18	2	50
K005S	260	10	0.20	54	17	2	43
K006S	220	12	0.25	69	19	2	63
K007S1	210	11	0.20	51	17	2	40
K007S2	240	12	0.20	45	18	2	35
K008S	210	16	0.14	39	11	1	25
K009S	260	11	0.18	54	15	2	39
K010S	210	9	0.22	72	15	2	52
K011S1	87	9	0.18	50	13	2	55
K011S2	120	9	0.19	53	14	1	54
R011S2	120	8	0.18	53	14	2	51
K012S	180	11	0.27	85	20	2	91
K013S	200	8	0.15	55	11	1	36
R013S	190	8	0.14	52	11	1	32
K014S	200	9	0.15	41	12	1	32
K015S	160	12	0.21	73	17	2	62
K016S	160	12	0.18	69	13	2	43
K017S	200	7	0.16	50	13	1	36
R017S	200	5	0.16	49	13	1	35
K018S	150	12	0.14	62	11	1	34
R018S	150	14	0.13	55	10	1	31
K019S	160	13	0.14	54	11	1	31
K020S	230	9	0.20	120	15	2	64
K021S	140	9	0.19	63	14	1	43
K022S	150	11	0.23	120	15	2	70
K023S	200	12	0.19	100	15	2	56
K024S	160	12	0.21	120	16	2	74
K025S	140	11	0.12	43	11	1	29
K026S	120	11	0.10	31	10	1	21
R026S	120	7	0.11	33	9	<1	21
K027S	140	9	0.18	58	14	1	41
K028S	300	9	0.17	230	15	2	96
K029S	150	11	0.19	67	15	2	46
R029S	150	9	0.20	71	15	2	50
K030S	190	15	0.13	47	17	2	34
K031S	150	8	0.17	56	12	1	39
K032S	120	7	0.14	51	11	1	34
K033S	170	8	0.13	43	10	1	28
K034S	170	8	0.11	34	9	<1	24
K035S	150	8	0.10	39	9	<1	24
K036S	140	11	0.13	61	11	1	42

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Sr, ppm	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
K037S	130	9	0.15	40	10	1	27
K038S	140	7	0.15	73	10	1	46
R038S	140	8	0.15	75	10	1	49
K039S	110	12	0.10	35	8	<1	23
K040S	140	6	0.10	29	10	1	21
K041S	150	9	0.27	140	16	2	95
R041S	150	9	0.26	150	17	2	96
K041S1	150	8	0.26	140	16	2	92
K041S2	160	9	0.27	150	18	2	99
K042S	130	8	0.13	46	9	1	27
K043S	160	7	0.16	48	13	1	39
K044S	160	10	0.18	51	18	2	46
K045S	210	13	0.21	86	16	2	54
K046S	120	8	0.18	57	18	2	68
K047S	140	10	0.18	52	17	2	47
K048S	180	10	0.22	88	17	2	61
R048S	180	10	0.22	91	17	2	61
K048S1	180	12	0.20	75	16	2	51
K048S2	190	10	0.23	100	18	2	69
K049S	130	7	0.19	95	13	2	53
K050S	140	11	0.21	82	17	2	58
K051S	150	10	0.19	60	17	2	54
K052S	150	13	0.23	76	17	2	58
K053S	120	10	0.16	49	13	1	39
K054S	160	11	0.17	51	15	2	44
K055S1	150	10	0.18	54	15	1	45
R055S1	150	10	0.18	55	15	2	45
K055S2	170	12	0.20	61	18	2	53
K056S	150	8	0.21	63	14	1	43
K057S1	130	12	0.24	120	16	2	72
K057S2	130	10	0.23	130	14	2	72
K058S	140	11	0.22	98	16	2	60
K059S	160	10	0.21	78	14	2	52
K060S	160	10	0.17	63	13	2	44
K061S	150	7	0.17	87	12	1	57
K062S	170	9	0.11	35	10	1	25
K063S	170	8	0.11	38	10	1	26
K064S	190	11	0.13	40	10	1	27
K065S1	120	8	0.10	33	8	<1	19
K065S2	110	10	0.09	34	8	1	30
K066S	210	8	0.13	44	10	1	28
K067S	140	9	0.12	37	10	1	25
K068S	150	8	0.14	58	11	1	34
K069S	160	9	0.16	63	12	1	38
K070S	180	7	0.13	47	10	<1	29

Table A1.--Listing of analytical data for agricultural soils collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Sr, ppm	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
K071S	130	6	0.10	41	9	1	24
K072S	160	11	0.37	230	18	2	130
R072S	160	11	0.37	220	18	2	120
K073S	170	8	0.14	76	11	1	55
K074S	130	5	0.09	44	8	<1	23
K075S	130	7	0.10	41	9	<1	26
K076S	180	5	0.14	94	11	1	47
K077S	190	6	0.14	80	13	1	44
K079S	120	7	0.09	31	8	<1	19
K080S	140	8	0.18	70	14	1	50
K081S	170	12	0.28	110	18	2	75
K082S	120	8	0.12	48	10	1	30
K083S	150	12	0.25	96	17	2	67
K084S	140	8	0.16	72	11	1	42
K085S	220	8	0.17	140	14	2	61
K086S	190	7	0.16	110	13	1	54
K087S	190	6	0.04	160	10	<1	79
R087S	250	8	0.21	180	15	2	82
K088S	170	10	0.26	160	16	2	93
K089S1	290	7	0.21	210	16	2	84
K089S2	240	9	0.21	190	16	2	85
R089S2	240	8	0.22	200	17	2	87
K090S	200	10	0.23	130	15	2	70
K091S	210	8	0.25	160	16	2	81
K092S	260	7	0.19	170	14	2	77
K093S	210	9	0.18	110	16	2	56
K094S	190	5	0.14	110	11	1	50
K095S	160	7	0.12	52	11	1	32
K096S	200	7	0.18	92	14	2	59
K097S	240	8	0.20	160	15	2	74
K098S	190	7	0.15	92	11	1	44
K099S	230	6	0.19	130	14	2	57
R099S	230	7	0.17	130	14	2	59
K100S	220	6	0.18	120	14	2	57
K101S	190	10	0.27	150	15	2	79
K102S	190	5	0.12	91	11	1	46
K103S	200	8	0.17	100	13	2	54
K104S	150	8	0.23	120	16	2	74
K105S	150	9	0.24	120	17	2	71
R105S	150	9	0.23	120	16	2	72
K106S	170	9	0.18	81	14	2	49
K107S	190	7	0.16	73	13	1	42
K108S	140	8	0.23	130	17	2	76
K109S	210	7	0.17	130	15	2	55
K110S	250	8	0.18	130	14	2	57

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area.

[Element concentrations are given on ash basis, except As and Se are given an dry-weight basis; "R" prefix denotes fields where samples from two sites were not composited, #1 and #2 suffix denotes uncomposited samples from two sites within a field, "X" suffix denotes analytical splits]

Sample ID	Latitude	Longitude	Ash, %	Al, %	As, ppm	Ba, ppm	Ca, %	Ce, ppm	Co, ppm	Cr, ppm
K001A	423507	1064018	9.7	0.02	<0.05	260	25	<8	4	8
K003A	423556	1064015	11	0.10	<0.05	490	22	<8	3	9
K004A	423611	1063841	10	0.06	<0.05	400	26	<8	3	13
K005A	423631	1063747	7.9	0.03	<0.05	320	22	<8	4	10
K006A	423653	1063846	11	0.01	<0.05	240	21	<8	3	13
R007A1	423709	1063931	9.6	0.02	<0.05	280	25	<8	3	7
R007A1X	423709	1063931	9.4	0.02	<0.05	290	24	<8	4	6
R007A2	423709	1063931	11	0.02	<0.05	200	26	<8	3	4
R007A2X	423709	1063931	11	0.02	<0.05	170	26	<8	2	4
K008A	423733	1063824	9.0	0.03	<0.05	320	22	<8	4	8
K009A	423738	1063753	9.4	0.01	<0.05	380	23	<8	4	11
K010A	422810	1063844	9.6	0.02	<0.05	330	19	<8	7	15
R011A1	423910	1063726	11	0.04	<0.05	320	23	<8	3	12
R011A1X	423910	1063726	11	0.04	<0.05	320	22	<8	3	14
R011A2	423910	1063726	11	0.02	<0.05	250	21	<8	3	10
R011A2X	423910	1063726	10	0.04	<0.05	340	21	<8	3	10
K013A	424300	1063458	8.4	0.03	<0.05	370	21	<8	3	8
K014A	424251	1063418	8.7	0.02	<0.05	440	23	<8	4	12
K015A	424458	1063534	9.4	0.03	<0.05	320	21	<8	3	8
K016A	424538	1063359	7.9	0.02	<0.05	500	25	<8	4	9
K017A	424611	1063256	8.4	0.01	<0.05	270	21	<8	3	7
K018A	424617	1063421	8.7	0.02	<0.05	320	18	<8	4	8
K019A	424617	1063454	7.8	0.02	<0.05	230	21	<8	4	16
K020A	424314	1063606	8.9	0.03	<0.05	200	16	<8	4	14
K021A	424423	1063605	7.4	0.02	<0.05	140	17	<8	3	8
K022A	424443	1063715	7.9	0.01	<0.05	350	20	8	6	10
K023A	424516	1063603	8.6	0.01	<0.05	210	16	<8	4	7
K024A	424459	1063713	9.4	0.02	<0.05	280	19	<8	5	9
K025A	424632	1063638	8.4	0.03	<0.05	160	14	<8	3	8
K026A	425001	1062802	8.9	0.04	<0.05	200	19	<8	4	6
K027A	425020	1062816	8.7	0.02	<0.05	190	21	<8	5	8
K028A	425039	1062504	8.4	<0.01	<0.05	170	24	<8	4	9
K029A	425026	1062829	8.4	0.01	<0.05	320	21	<8	3	8
K030A	425051	1062621	8.7	0.01	0.10	190	18	<8	3	10
K031A	425121	1062819	8.4	0.03	<0.05	210	20	<8	3	9
K032A	425121	1062838	8.9	0.06	<0.05	250	20	<8	3	11
K033A	425137	1062647	7.2	0.02	<0.05	300	15	<8	5	11
K034A	425118	1062556	8.4	0.02	<0.05	140	14	<8	4	11
K035A	425145	1062445	7.4	0.02	<0.05	180	16	<8	2	11
K036A	425142	1062316	9.0	0.07	<0.05	240	18	16	3	7
K037A	424721	1063305	9.9	0.06	<0.05	270	19	<8	3	4
K038A	424717	1063405	10	0.10	<0.05	150	17	<8	3	4
K039A	424706	1063451	9.8	0.04	<0.05	290	16	<8	3	5

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	Ash, %	Al, %	As, ppm	Ba, ppm	Ca, %	Ce, ppm	Co, ppm	Cr, ppm
K040A	424718	1063154	11	0.05	<0.05	490	16	<8	3	4
R041A1	424734	1063413	8.9	0.07	<0.05	210	15	<8	6	6
R041A1X	424734	1063413	8.9	0.07	<0.05	210	15	<8	7	5
R041A2	424734	1063413	9.0	0.03	<0.05	260	13	<8	5	6
R041A2X	424734	1063413	9.4	0.02	<0.05	250	13	<8	3	5
K042A	424743	1063427	9.9	0.04	<0.05	260	16	<8	4	5
K043A	424742	1063139	10	0.09	<0.05	250	16	<8	4	4
K044A	424816	1063226	10	0.04	<0.05	220	16	<8	3	6
K045A	424828	1063521	11	0.08	<0.05	190	18	<8	3	8
K046A	424830	1063315	8.7	0.05	<0.05	230	16	<8	4	7
K047A	424832	1063231	11	0.04	<0.05	350	17	<8	3	4
R048A1	424851	1063556	11	0.03	<0.05	160	17	<8	2	4
R048A1X	424851	1063556	11	0.03	<0.05	160	17	<8	<2	4
R048A2	424851	1063556	9.9	0.06	<0.05	130	14	<8	3	4
R048A2X	424851	1063556	10	0.06	<0.05	140	15	<8	3	6
K049A	424922	1063505	9.3	0.02	<0.05	230	20	<8	2	5
K050A	424908	1063738	11	0.07	<0.05	180	17	<8	3	5
K051A	424949	1063342	8.1	0.01	<0.05	260	21	<8	3	7
K052A	425023	1063616	9.5	0.02	<0.05	160	14	<8	2	11
R052A2X	425023	1063616	7.5	0.01	<0.05	320	23	<8	2	9
K053A	425010	106340	10	0.06	<0.05	320	18	<8	4	7
K054A	425052	1063445	9.6	0.01	<0.05	240	18	<8	4	8
K055A	425102	1063547	11	0.02	<0.05	170	17	<8	3	6
K056A	425117	1063103	9.4	0.08	<0.05	69	14	<8	3	6
R057A1	424931	106363	7.4	0.03	<0.05	240	17	<8	3	10
R057A1X	424931	106363	6.9	0.02	<0.05	250	18	<8	4	11
R057A2	424931	106363	7.2	0.01	<0.05	320	23	<8	3	8
K058A	425157	1062859	10	0.26	<0.05	170	18	<8	3	8
K059A	425152	1062754	6.9	0.02	<0.05	240	15	<8	3	8
K060A	425153	1062709	7.2	0.02	<0.05	280	16	<8	3	7
K061A	425158	1062335	9.3	0.04	<0.05	160	17	<8	4	6
K062A	425214	106252	6.9	0.01	<0.05	220	17	<8	3	10
K063A	425231	1062437	8.9	0.04	<0.05	310	17	<8	5	10
K066A	425246	106261	8.4	0.03	<0.05	120	12	<8	3	8
R065A1	425317	1062808	7.2	0.02	<0.05	330	16	<8	5	10
R065A1X	425317	1062808	7.6	0.02	<0.05	240	16	<8	5	8
R065A2	425317	1062808	8.5	0.02	<0.05	230	16	<8	2	9
R065A2X	425317	1062808	8.2	0.03	<0.05	190	16	<8	3	10
K067A	425309	1062543	7.3	0.03	<0.05	270	21	<8	5	8
K068A	425323	1062833	9.9	0.03	<0.05	150	14	<8	4	11
K069A	425343	1062749	9.0	0.03	<0.05	200	15	<8	3	5
K070A	425349	1062852	9.0	0.02	<0.05	150	14	<8	<2	6
K071A	425447	106282	7.6	0.04	<0.05	160	12	<8	3	9
K072A	425444	1062839	8.6	0.02	<0.05	160	16	<8	3	5

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	Ash, %	Al, %	As, ppm	Ba, ppm	Ca, %	Ce, ppm	Co, ppm	Cr, ppm
K073A	525540	1062835	10	0.03	<0.05	130	11	<8	3	4
K074A	425525	1062821	9.4	0.02	<0.05	300	15	<8	4	10
K075A	425601	1062645	9.4	0.04	<0.05	77	12	<8	2	11
K076A	425656	1062837	9.9	0.05	<0.05	140	15	<8	3	4
K077A	425658	1062725	11	0.06	<0.05	92	13	8	2	4
K079A	425326	1063208	7.7	0.02	<0.05	400	20	<8	3	13
K080A	425311	106315	7.9	0.03	<0.05	260	21	<8	<2	11
K081A	425318	1063042	7.4	0.08	<0.05	220	18	<8	3	16
K082A	425402	1062943	6.9	0.02	<0.05	380	20	<8	3	7
K083A	425352	1063154	9.8	0.02	<0.05	460	24	<8	3	22
K084A	425347	1063206	8.7	0.07	<0.05	260	18	<8	3	12
K085A	425432	106321	7.1	0.02	<0.05	430	20	<8	3	15
K086A	425430	1063102	7.9	0.02	<0.05	200	17	<8	2	9
K087A	425559	1063241	7.0	0.01	<0.05	220	18	<8	3	11
K088A	425602	1063044	6.9	0.02	<0.05	330	16	<8	2	14
R089A1	425628	1063305	8.0	0.02	<0.05	95	16	<8	5	11
R089A1X	425628	1063305	8.2	0.02	<0.05	95	16	<8	5	11
R089A2	425628	1063305	8.4	0.03	<0.05	250	19	<8	3	12
R089A2X	425628	1063305	8.4	0.03	<0.05	270	19	<8	5	16
K090A	425657	106302	9.0	0.02	<0.05	310	21	<8	4	11
K091A	425613	1063113	7.4	0.01	<0.05	220	20	<8	3	9
K092A	425657	1063325	8.4	0.01	<0.05	240	17	<8	2	10
K093A	425735	1062738	7.7	0.01	<0.05	290	19	<8	2	11
K094A	425746	1062845	9.1	0.01	<0.05	240	18	<8	3	10
K095A	425842	1062857	7.9	0.02	<0.05	340	21	<8	6	8
K096A	425909	1062928	8.4	0.03	<0.05	170	22	<8	3	7
K097A	425704	1063119	7.2	0.02	<0.05	200	15	<8	4	9
K098A	425720	1062944	8.0	0.02	<0.05	240	24	<8	<2	12
K099A	425748	1063218	7.0	0.02	<0.05	310	16	<8	3	13
K100A	425759	1063237	7.4	0.02	<0.05	160	16	<8	3	16
K101A	425813	1053059	7.1	0.03	<0.05	180	16	<8	5	11
K102A	425759	1063022	8.9	0.02	<0.05	290	21	<8	3	10
K103A	425909	1063242	8.5	0.04	<0.05	350	22	<8	3	12
K105A	425901	1063046	8.4	0.02	<0.05	160	16	<8	10	13
K106A	425951	1062946	7.5	0.02	<0.05	240	18	<8	3	10
K107A	425952	1063253	7.9	0.05	<0.05	310	17	<8	2	10
K108A	430036	1063413	8.6	0.01	<0.05	390	21	<8	6	9
K109A	425811	1063317	6.9	0.01	<0.05	190	18	<8	10	9
K110A	425736	1063616	8.4	0.02	<0.05	230	22	<8	3	8

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %
K001A	93	0.10	<8	19	6	<4	2.4	300	70	0.46
K003A	81	0.14	<8	21	8	5	2.6	420	22	0.44
K004A	78	0.12	<8	12	8	<4	2.8	440	19	0.60
K005A	99	0.11	<8	19	5	9	3.0	430	31	1.1
K006A	97	0.08	<8	22	6	5	2.5	400	35	0.30
R007A1	77	0.08	<8	18	8	5	2.8	400	26	0.43
R007A1X	77	0.09	<8	17	7	6	2.7	370	25	0.41
R007A2	67	0.07	<8	17	9	7	2.6	350	24	0.22
R007A2X	74	0.08	<8	8.2	7	7	2.8	370	26	0.23
K008A	89	0.10	<8	20	8	4	3.2	430	23	0.42
K009A	81	0.13	<8	10	5	4	3.5	560	43	0.67
K010A	88	0.75	<8	21	7	5	3.6	540	18	0.59
R011A1	91	0.12	<8	20	8	<4	3.2	360	21	0.51
R011A1X	97	0.13	<8	18	7	<4	3.2	360	21	0.49
R011A2	110	0.11	<8	22	7	<4	2.8	370	33	0.42
R011A2X	100	0.12	<8	23	6	<4	2.8	370	32	0.42
K013A	100	0.10	<8	22	10	7	3.4	390	29	0.44
K014A	79	0.11	<8	17	7	<4	3.6	520	20	0.51
K015A	97	0.11	<8	22	6	5	3.5	350	20	0.41
K016A	97	0.13	<8	15	8	6	3.9	510	58	0.68
K017A	98	0.11	<8	12	6	5	3.9	350	48	0.49
K018A	96	0.11	<8	22	7	10	4.2	360	35	0.52
K019A	83	0.08	<8	20	8	4	3.8	380	20	0.43
K020A	79	0.09	<8	26	6	16	3.7	340	56	0.52
K021A	82	0.09	<8	25	6	11	3.6	300	29	0.88
K022A	93	0.12	<8	21	8	14	3.6	360	26	1.3
K023A	89	0.09	<8	26	5	36	5.2	300	53	0.93
K024A	94	0.11	<8	24	8	12	3.5	370	45	0.51
K025A	120	0.09	<8	29	8	60	4.7	300	36	1.8
K026A	77	0.10	<8	22	8	14	4.5	370	28	0.36
K027A	84	0.11	<8	12	6	5	3.3	310	31	0.49
K028A	110	0.10	<8	17	7	5	2.7	290	93	0.47
K029A	97	0.11	<8	20	6	8	4.4	360	23	0.51
K030A	110	0.10	<8	11	7	23	3.0	380	52	0.89
K031A	110	0.12	<8	21	5	7	5.1	280	31	0.38
K032A	59	0.13	<8	19	6	6	4.6	370	16	1.20
K033A	98	0.12	<8	24	7	34	6.7	460	23	0.96
K034A	120	0.09	<8	28	8	14	4.2	360	22	1.1
K035A	110	0.12	<8	25	7	18	4.8	380	20	1.1
K036A	70	0.11	10	27	6	19	3.3	330	28	0.34
K037A	71	0.10	<8	24	5	6	3.8	280	15	0.35
K038A	66	0.12	<8	19	5	43	4.2	210	17	0.48
K039A	89	0.10	<8	22	6	19	5.8	300	21	0.36

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %
K040A	88	0.09	<8	29	7	14	3.2	310	42	0.34
R041A1	82	0.12	<8	29	6	29	4.4	340	32	0.48
R041A1X	80	0.12	<8	29	7	28	4.5	330	32	0.48
R041A2	75	0.10	<8	30	7	22	4.3	300	31	0.36
R041A2X	71	0.10	<8	30	5	22	4.3	290	31	0.36
K042A	88	0.11	<8	27	6	5	3.6	410	17	0.51
K043A	91	0.12	<8	27	8	21	4.5	290	30	0.26
K044A	93	0.11	<8	28	5	11	3.2	350	33	0.77
K045A	96	0.11	<8	24	7	13	3.4	230	42	0.43
K046A	81	0.13	<8	26	8	7	3.1	360	21	0.45
K047A	87	0.10	<8	27	8	5	2.7	300	15	0.30
R048A1	99	0.08	<8	29	<4	11	2.3	200	37	0.25
R048A1X	97	0.08	<8	27	6	10	2.2	200	38	0.25
R048A2	110	0.12	<8	30	6	24	2.7	270	22	1.2
R048A2X	110	0.12	<8	31	5	25	2.7	270	23	1.2
K049A	110	0.09	<8	24	<4	6	3.6	330	20	0.39
K050A	100	0.10	<8	26	6	27	3.2	290	34	1.0
K051A	96	0.10	<8	21	5	5	3.2	390	65	0.73
K052A	95	0.10	<8	18	4	21	3.5	280	25	1.7
R052A2X	120	0.13	<8	17	<4	5	3.9	350	15	1.1
K053A	87	0.13	<8	22	8	8	3.9	360	19	0.34
K054A	95	0.12	<8	26	6	12	3.3	320	20	1.2
K055A	110	0.10	<8	13	5	16	3.1	330	26	0.81
K056A	120	0.12	<8	25	5	30	5.5	210	40	1.1
R057A1	140	0.13	<8	24	6	27	4.5	360	26	2.3
R057A1X	140	0.14	<8	24	7	28	4.7	380	26	2.2
R057A2	120	0.13	<8	17	8	5	4.0	340	15	1.1
K058A	130	0.19	<8	16	6	24	4.2	270	30	0.40
K059A	100	0.11	<8	27	5	18	5.8	390	33	0.72
K060A	77	0.11	<8	27	8	18	5.2	380	52	1.1
K061A	100	0.11	<8	28	6	11	3.0	250	37	0.22
K062A	100	0.12	<8	8.1	5	14	6.5	430	32	0.93
K063A	110	0.14	<8	25	8	7	3.6	350	16	0.57
K066A	110	0.12	<8	29	6	45	6.3	250	58	0.44
R065A1	130	0.10	<8	26	5	51	5.9	350	14	0.67
R065A1X	140	0.09	<8	26	6	50	6.0	350	15	0.68
R065A2	100	0.10	<8	26	5	30	5.6	280	12	0.54
R065A2X	100	0.11	<8	17	4	32	5.6	280	12	0.54
K067A	76	0.13	<8	21	7	7	4.4	420	19	0.62
K068A	110	0.11	<8	17	5	31	3.9	270	36	1.20
K069A	110	0.08	<8	31	6	28	2.9	200	56	0.72
K070A	120	0.08	<8	32	5	30	3.3	220	60	0.33
K076A	110	0.10	<8	30	5	18	3.1	190	44	0.22
K071A	110	0.12	<8	29	5	30	5.6	240	51	0.32
K072A	160	0.11	<8	29	5	29	3.3	340	25	0.81

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %
K073A	96	0.10	<8	33	5	49	4.5	310	35	1.5
K074A	74	0.10	<8	29	6	13	3.5	330	24	0.49
K075A	100	0.10	<8	30	5	60	4.9	250	41	0.65
K077A	110	0.11	<8	31	<4	48	4.2	300	52	1.1
K079A	85	0.12	<8	23	11	<4	3.8	400	22	0.50
K080A	100	0.11	<8	21	<4	5	2.9	310	24	0.49
K081A	120	0.17	<8	23	8	13	3.3	330	36	2.2
K082A	110	0.12	<8	23	8	16	4.0	460	73	0.69
K083A	68	0.13	<8	17	7	6	3.0	410	14	0.65
K084A	95	0.14	<8	11	6	9	3.2	600	28	0.61
K085A	81	0.10	<8	19	6	17	4.8	380	50	0.71
K086A	110	0.11	<8	26	7	11	3.3	250	35	0.38
K087A	100	0.13	<8	24	5	25	5.1	330	72	0.97
K088A	110	0.11	<8	26	6	17	3.8	340	25	0.60
R089A1	130	0.11	<8	30	4	24	3.5	290	48	0.61
R089A1X	120	0.11	<8	30	4	24	3.5	300	48	0.60
R089A2	120	0.13	<8	23	4	27	3.3	280	33	1.2
R089A2X	120	0.15	<8	23	7	25	3.4	270	33	1.2
K090A	96	0.10	<8	23	8	12	3.4	310	33	0.42
K091A	110	0.10	<8	15	5	23	4.0	210	45	0.48
K092A	120	0.09	<8	25	5	35	4.1	210	32	0.37
K093A	99	0.12	<8	23	6	7	4.7	380	44	0.60
K094A	73	0.11	<8	24	5	<4	2.9	320	40	0.52
K095A	96	0.13	<8	21	8	6	3.7	370	21	0.47
K096A	110	0.12	<8	10	6	19	5.2	290	26	0.64
K097A	93	0.11	<8	26	6	16	4.4	310	34	1.5
K098A	93	0.13	<8	17	5	8	4.3	470	42	0.61
K099A	110	0.13	<8	26	7	27	4.8	330	47	0.78
K100A	130	0.12	<8	16	4	33	5.6	350	58	1.5
K101A	130	0.14	<8	21	6	19	4.2	350	31	3.5
K102A	68	0.10	<8	25	7	<4	3.1	360	37	0.52
K103A	130	0.12	<8	20	7	<4	3.9	430	21	0.68
K105A	98	0.13	<8	14	5	9	4.5	390	24	1.5
K106A	110	0.12	<8	22	7	8	4.4	360	23	0.55
K107A	100	0.12	<8	25	6	13	4.0	330	32	0.47
K108A	89	0.11	<8	13	6	4	3.8	440	22	0.58
K109A	100	0.10	<8	23	6	12	3.9	360	27	2.6
K110A	110	0.12	<8	20	6	10	3.8	300	38	0.48

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Ti, %	V, ppm	Zn, ppm
K001A	<8	15	4.3	22	<4	2.4	1400	<0.01	<4	330
K003A	17	9	3.7	19	<4	0.85	1500	<0.01	<4	220
K004A	11	5	4.3	32	<4	0.4	2200	<0.01	<4	180
K005A	<8	9	4.3	31	6	0.4	2000	<0.01	<4	310
K006A	<8	10	2.8	13	<4	0.45	1700	<0.01	<4	280
R007A1	<8	14	2.5	15	5	0.95	2000	<0.01	<4	270
R007A1X	15	13	2.3	13	<4	1.0	1900	<0.01	<4	250
R007A2	<8	10	1.7	<8	<4	0.5	2300	<0.01	<4	220
R007A2X	<8	10	1.9	9	7	0.55	2400	<0.01	<4	260
K008A	14	5	3.7	17	<4	0.4	1400	<0.01	<4	360
K009A	<8	9	4.9	32	6	0.25	2200	<0.01	<4	260
K010A	12	15	4.7	27	<4	0.3	1500	<0.01	<4	290
R011A1	<8	11	4.4	30	<4	1.4	2400	<0.01	<4	270
R011A1X	11	8	4.3	27	<4	1.4	2400	<0.01	<4	270
R011A2	<8	13	4.6	22	6	0.8	1900	<0.01	<4	360
R011A2X	<8	13	4.3	23	<4	0.9	1900	<0.01	<4	330
K013A	<8	12	3.5	19	<4	0.35	1900	<0.01	<4	330
K014A	10	11	3.9	26	<4	2.0	1700	<0.01	<4	200
K015A	<8	25	4.2	19	4	1.8	1600	<0.01	<4	330
K016A	12	11	3.4	23	<4	2.0	2700	<0.01	<4	240
K017A	<8	11	2.9	23	8	0.5	3000	<0.01	<4	300
K018A	13	17	3.6	18	<4	0.95	2400	<0.01	<4	310
K019A	<8	28	3.0	17	4	0.25	1500	<0.01	<4	330
K020A	<8	29	4.2	20	<4	2.0	1500	<0.01	<4	280
K021A	9	8	3.1	15	<4	0.25	1100	<0.01	<4	300
K022A	<8	17	3.5	20	<4	15	1500	<0.01	<4	360
K023A	<8	21	2.9	18	5	2.4	2000	<0.01	<4	300
K024A	23	23	3.6	25	<4	1.2	2100	<0.01	<4	390
K025A	<8	32	4.1	18	<4	1.6	1800	<0.01	<4	380
K026A	<8	7	3.1	11	4	0.45	1500	<0.01	<4	270
K027A	<8	16	4.5	14	<4	0.25	1100	<0.01	<4	390
K028A	<8	38	4.1	18	<4	1.6	1500	<0.01	<4	410
K029A	<8	9	3.2	17	<4	0.15	1800	<0.01	<4	340
K030A	<8	9	3.4	26	5	5.0	1800	<0.01	<4	330
K031A	<8	20	3.7	22	5	0.55	1800	<0.01	<4	380
K032A	<8	10	4.5	31	<4	0.25	1400	<0.01	<4	390
K033A	<8	22	2.9	22	<4	1.8	1900	<0.01	<4	310
K034A	13	17	3.3	21	<4	0.1	1200	<0.01	<4	380
K035A	8	19	3.0	23	<4	2.4	1700	<0.01	<4	370
K036A	17	17	3.2	14	<4	2.2	1500	<0.01	<4	230
K037A	9	13	3.7	<8	<4	0.1	1200	<0.01	<4	270
K038A	<8	14	2.9	<8	<4	0.45	1200	<0.01	<4	240
K039A	<8	28	2.9	<8	<4	0.8	1500	<0.01	<4	340

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Ti, %	V, ppm	Zn, ppm
K040A	9	14	2.9	<8	<4	0.45	1800	<0.01	<4	260
R041A1	18	14	3.7	9	<4	0.4	1200	<0.01	<4	340
R041A1X	<8	14	3.7	<8	<4	0.4	1200	<0.01	<4	330
R041A2	9	13	3.4	<8	<4	0.8	1300	<0.01	<4	340
R041A2X	14	13	3.4	<8	<4	0.85	1300	<0.01	<4	340
K042A	<8	17	4.1	<8	<4	0.8	1400	<0.01	<4	300
K043A	<8	19	3.2	<8	<4	0.3	2900	<0.01	<4	260
K044A	<8	12	4.0	<8	<4	1.8	1500	<0.01	<4	310
K045A	10	20	3.1	<8	<4	2.0	1700	<0.01	<4	260
K046A	<8	15	4.7	11	<4	0.15	1100	<0.01	<4	370
K047A	<8	10	3.0	<8	<4	0.25	1400	<0.01	<4	270
R048A1	<8	15	3.7	<8	5	0.85	1500	<0.01	<4	370
R048A1X	<8	13	3.7	<8	<4	1.0	1500	<0.01	<4	370
R048A2	<8	14	3.1	<8	<4	7.0	1400	<0.01	<4	350
R048A2X	<8	14	3.1	<8	<4	7.5	1300	<0.01	<4	350
K049A	<8	10	2.9	12	<4	0.3	1400	<0.01	<4	340
K050A	<8	20	3.3	<8	<4	0.95	1200	<0.01	<4	370
K051A	<8	10	3.4	15	5	0.4	1800	<0.01	<4	310
K052A	<8	15	3.9	30	4	0.35	1500	<0.01	<4	300
R052A2X	<8	9	2.8	28	6	0.15	1900	<0.01	<4	370
K053A	<8	12	2.9	12	<4	0.5	1200	<0.01	<4	260
K054A	<8	18	3.4	23	<4	2.8	1300	<0.01	<4	310
K055A	<8	17	3.7	10	<4	2.2	1100	<0.01	<4	360
K056A	<8	19	2.5	<8	<4	0.35	1200	<0.01	<4	330
R057A1	<8	15	3.4	26	<4	0.5	1600	<0.01	<4	500
R057A1X	10	16	3.5	29	<4	0.5	1600	<0.01	<4	520
R057A2	<8	9	2.9	25	5	0.1	1900	<0.01	<4	380
K058A	<8	13	3.8	<8	<4	0.2	1100	<0.01	5	360
K059A	<8	22	3.6	21	4	3.0	1600	<0.01	<4	360
K060A	11	17	4.0	23	<4	0.85	2200	<0.01	<4	240
K061A	<8	18	3.3	<8	<4	0.45	1300	<0.01	<4	330
K062A	<8	20	3.9	26	8	0.4	3100	<0.01	<4	310
K063A	<8	24	4.4	12	<4	0.2	1300	<0.01	<4	340
K066A	<8	22	4.2	13	<4	0.3	1900	<0.01	<4	360
R065A1	10	27	3.0	24	<4	0.8	1800	<0.01	<4	310
R065A1X	<8	27	3.2	24	5	0.75	1800	<0.01	<4	340
R065A2	<8	20	2.8	28	<4	1.2	1400	<0.01	<4	270
R065A2X	<8	19	2.8	28	4	1.4	1400	<0.01	<4	280
K067A	<8	19	2.9	26	5	0.25	1700	<0.01	<4	270
K068A	<8	22	3.7	18	<4	1.2	1100	<0.01	<4	360
K069A	<8	10	3.0	10	<4	1.2	1900	<0.01	<4	240
K070A	12	26	3.3	15	5	1.2	1600	<0.01	<4	320
K071A	<8	19	3.6	17	<4	1.8	2300	<0.01	<4	260
K072A	<8	9	4.4	14	<4	1.2	3200	<0.01	<4	480

Table A2.--Listing of analytical data for alfalfa collected from irrigated lands at the Kendrick Reclamation Project Area (continued).

Sample ID	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Ti, %	V, ppm	Zn, ppm
K073A	<8	19	3.5	<8	<4	0.4	1000	<0.01	<4	280
K074A	8	15	3.2	21	<4	0.35	1300	<0.01	<4	280
K075A	8	20	3.2	22	<4	1.8	1400	<0.01	<4	300
K076A	<8	17	3.1	<8	4	0.2	1400	<0.01	<4	340
K077A	<8	14	2.9	<8	4	1.0	1200	<0.01	<4	330
K079A	<8	15	3.8	33	<4	25	1700	<0.01	<4	370
K080A	<8	15	3.1	30	4	5.5	1500	<0.01	<4	390
K081A	<8	14	4.1	32	<4	5.5	1900	<0.01	<4	520
K082A	<8	15	3.2	22	<4	40	2700	<0.01	<4	270
K083A	10	7	4.2	52	<4	10	1900	0.01	<4	210
K084A	<8	16	4.6	27	5	15	1700	<0.01	<4	450
K085A	10	21	2.6	35	<4	10	3000	<0.01	<4	240
K086A	<8	22	2.8	19	<4	6.5	2100	<0.01	<4	430
K087A	10	31	2.5	28	<4	15	2900	<0.01	<4	380
K088A	11	16	3.1	35	<4	4.0	1700	<0.01	<4	430
R089A1	<8	15	3.3	29	<4	4.0	1200	<0.01	<4	480
R089A1X	<8	15	3.3	27	<4	4.5	1200	<0.01	<4	480
R089A2	<8	20	3.4	34	<4	3.0	1500	<0.01	<4	560
R089A2X	10	21	3.2	34	<4	3.5	1500	<0.01	<4	540
K090A	<8	20	2.7	27	<4	2.4	1700	<0.01	<4	320
K091A	<8	15	3.3	24	7	2.0	2600	<0.01	<4	410
K092A	<8	19	3.0	18	<4	2.4	1700	<0.01	<4	470
K093A	<8	24	3.3	29	<4	2.2	1900	<0.01	<4	320
K094A	16	14	3.4	26	<4	1.2	1300	<0.01	<4	260
K095A	<8	18	3.2	27	<4	0.5	1800	<0.01	<4	380
K096A	<8	21	2.6	28	6	0.8	2300	<0.01	<4	390
K097A	11	19	2.7	26	<4	1.6	1800	0.01	<4	420
K098A	<8	17	3.5	36	8	0.45	3000	<0.01	<4	330
K099A	11	29	2.6	29	<4	0.9	2600	<0.01	<4	430
K100A	<8	19	4.1	47	6	1.4	2100	<0.01	<4	540
K101A	<8	12	3.2	33	<4	0.5	2100	<0.01	<4	470
K102A	<8	13	3.0	27	<4	0.5	2400	<0.01	<4	280
K103A	12	7	3.2	32	<4	1.8	1600	0.01	<4	430
K105A	<8	16	3.9	37	<4	0.6	1100	<0.01	<4	340
K106A	<8	10	2.9	24	<4	0.45	2100	<0.01	<4	300
K107A	<8	16	2.6	22	<4	1.2	1900	<0.01	<4	320
K108A	<8	14	2.8	27	5	0.95	1600	<0.01	<4	290
K109A	<8	10	3.2	31	5	0.4	1600	<0.01	<4	410
K110A	<8	33	2.4	22	<4	2.4	2600	<0.01	<4	430

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area.

["R" prefix denotes analytical splits; The multi-letter suffix attached to each sample ID denotes the geologic unit mapped for the site--geologic units are identified in Table 8.]

Sample ID	Latitude	Longitude	pH	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm
K031Qal	430059	1063445	8.3	6.3	8.1	0.8	640	2	1.5	71
R031Qal	430055	1063445	8.5	6.3	6.5	1.5	660	2	1.5	71
K032Qal	425819	1063518	8.8	4.1	5.1	1.6	680	1	2.3	48
K051Qal	430143	1064431	8.9	3.5	3.7	2.3	390	1	1.4	42
K052Qal	430133	1064824	8.7	5.5	5.4	3.0	710	2	1.7	45
K081Qal	425317	1063203	7.8	5.5	6.7	1.7	640	2	1.4	64
K082Qal	425233	1063153	8.6	5.1	6.8	1.4	360	1	0.91	40
K131Qal	424736	1063133	7.9	4.4	4.1	0.9	640	1	3.0	37
K132Qal	424723	1063225	8.1	4.7	3.8	0.7	570	1	1.2	39
K151Qal	424928	1064357	8.1	5.3	5.4	1.7	590	2	0.93	65
K152Qal	425004	1064628	8.6	4.1	2.0	1.5	650	1	0.55	24
K161Qal	424320	1064333	---	5.4	4.5	3.6	47	2	5.7	61
K162Qal	424241	1064530	8.6	5.8	2.7	1.7	590	2	3.4	72
K171Qal	424600	1063729	7.9	5.6	7.3	2.6	240	2	1.8	56
K172Qal	424307	1063826	8.6	5.2	5.5	1.9	560	1	1.5	54
K221Qal	424101	1063609	8.4	5.7	4.7	1.9	730	2	2.4	59
K222Qal	423741	1063625	8.3	5.2	9.5	2.7	750	2	3.5	54
K231Qal	424056	1064455	8.4	5.7	2.1	1.6	650	1	1.5	56
K232Qal	424033	1064403	8.4	5.8	2.6	2.3	930	2	4.0	86
K011Qs	430042	1061609	8.2	4.0	2.9	0.5	640	<1	0.89	38
K012Qs	430117	1061909	8.4	3.9	2.9	0.6	630	1	0.76	40
K031Qs	430145	1063621	8.0	3.9	2.3	1.3	630	1	0.51	35
R031Qs	430145	1063621	8.0	3.8	2.5	0.7	620	<1	0.49	27
K032Qs	430111	1063425	8.1	3.7	4.1	0.5	600	<1	0.61	28
K051Qs	430202	1064453	7.6	4.0	2.0	1.7	630	1	0.50	37
K052Qs	430212	1064817	8.2	3.6	2.3	1.6	600	<1	0.56	32
K081Qs	425240	1063311	7.6	4.5	2.0	1.5	630	1	0.37	21
K082Qs	425237	1063155	8.2	5.2	6.1	2.2	650	1	0.74	39
R082Qs	425237	1063155	8.2	5.1	5.7	1.3	660	1	0.80	40
K101Qs	425424	1061609	8.2	4.1	1.0	1.6	670	<1	0.75	31
R101Qs	425424	1061609	8.1	4.4	2.4	0.7	650	1	0.90	56
K102Qs	425235	1061939	8.3	4.3	2.0	1.1	700	1	0.63	24
K231Twru	424101	1064909	8.1	6.2	2.0	0.8	570	2	1.2	110
K232Twru	423747	1064614	8.0	5.7	2.3	1.6	630	2	3.7	180
K161Twrl	424212	1064859	8.0	6.7	2.0	0.9	650	2	0.97	93
K162Twrl	424141	1064851	7.9	6.1	2.4	2.5	690	2	5.0	65
K221Twrl	423847	1064253	8.2	5.6	3.2	0.9	600	1	4.6	63
K222Twrl	423857	1064233	8.3	5.6	4.2	1.6	720	2	3.9	73
K231Twrl	424122	1064903	7.6	5.8	3.8	1.8	670	2	0.98	68
K232Twrl	424101	1064518	8.3	5.5	3.5	1.5	700	1	3.2	68
K151Twdr	424656	1064540	7.1	6.0	0.9	1.7	600	2	0.67	49
K152Twdr	424831	1064938	8.1	5.5	1.0	1.5	580	2	1.0	63
K161Twdr	424343	1064529	7.3	5.7	2.2	1.3	560	2	0.58	85
K162Twdr	424329	1064945	7.1	6.3	1.0	0.7	650	2	0.55	51
K171Twdr	424420	1064239	7.9	5.6	4.4	1.6	580	2	2.0	61

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	pH	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm
K172Twdr	424502	1064244	7.7	3.5	3.6	0.8	480	1	0.27	89
K221Twdr	424105	1064106	8.3	5.5	2.8	0.5	630	1	2.0	45
K222Twdr	424009	1064033	7.8	5.7	3.3	1.5	630	2	1.3	55
K231Twdr	424055	1064442	8.2	5.5	2.6	1.6	670	1	4.3	84
K232Twdr	424015	1064337	7.7	5.3	1.0	1.8	640	1	0.67	96
K151Tfu	424715	1064548	7.6	5.7	1.0	0.6	580	2	0.64	62
K152Tfu	425002	1064932	8.1	4.5	3.3	2.1	500	1	0.79	48
K161Tfu	424633	1064426	7.4	5.9	2.0	1.4	510	2	0.74	70
K162Tfu	424517	1064308	7.1	3.5	2.3	2.4	440	1	0.32	44
K171Tfu	424441	1064141	8.2	4.3	2.6	0.7	500	1	0.75	73
R171Tfu	424441	1064141	8.1	4.6	3.4	1.4	520	1	0.74	68
K172Tfu	424155	1064037	8.9	5.3	2.9	1.7	650	1	2.2	67
K221Tfu	424026	1063948	8.0	5.6	2.0	1.7	610	1	0.48	100
K151Kl	424728	1064538	7.7	5.5	2.8	<0.4	560	2	0.52	78
K152Kl	424836	1064704	8.0	5.0	2.0	0.6	580	2	0.55	43
K171Kl	424426	1064032	8.2	5.9	5.7	3.1	630	2	2.5	62
K172Kl	424201	1064014	8.7	5.5	5.7	0.9	700	2	3.8	69
K221Kl	423933	1063751	8.2	4.7	5.7	1.5	560	1	1.6	65
K222Kl	423919	1063937	7.9	4.6	7.1	0.7	520	1	0.76	50
K011KfH	430108	1062019	8.2	4.5	3.8	0.7	570	1	0.93	41
K012KfH	425845	1061820	8.7	5.8	5.5	2.5	570	2	1.2	48
K011Kml	425924	1062019	8.3	4.6	3.6	0.5	730	1	4.8	48
K012Kml	425830	1061851	8.9	3.7	2.0	2.4	570	1	1.5	35
K101Kml	425602	1061758	8.3	4.7	3.9	1.3	640	1	2.0	54
K102Kml	425525	1061620	8.2	4.5	3.0	1.6	620	1	1.5	44
K151Kml	424751	1064454	7.5	5.2	2.0	0.6	590	2	0.49	44
K152Kml	424850	1064640	8.3	5.1	8.5	0.6	540	2	1.3	56
K171Kml	424446	1064024	7.9	4.9	4.8	1.0	570	1	2.3	50
K172Kml	424210	1063037	8.4	6.3	6.5	1.1	640	2	1.9	74
R172Kml	424210	1063937	8.4	6.2	5.1	1.4	630	2	1.8	71
K221Kml	423926	1063746	8.1	5.0	4.1	0.7	590	1	2.6	60
K222Kml	423909	1063937	7.9	5.1	6.9	0.6	790	1	3.4	75
K011Kmv	425908	1062053	8.7	4.0	3.0	2.4	600	1	1.3	34
K012Kmv	425724	1061939	8.0	3.2	2.7	0.6	300	<1	0.42	32
K101Kmv	425546	1061803	8.2	4.2	3.8	0.7	580	1	1.8	48
K102Kmv	425421	1061717	8.4	4.5	2.8	1.8	670	1	1.6	41
K151Kmv	424803	1064453	---	5.0	2.0	1.7	500	1	3.2	44
K152Kmv	424855	1064626	8.3	4.5	3.2	0.9	570	1	0.76	42
R152Kmv	424855	1064626	8.1	4.9	4.1	0.5	570	1	0.95	62
K171Kmv	424424	1063934	8.6	5.2	5.6	1.1	630	2	4.5	64
K172Kmv	424222	1063855	8.1	3.8	3.5	0.7	440	1	4.3	50
K221Kmv	423906	1063741	8.6	2.4	3.8	0.9	130	<1	1.4	60
R221Kmv	423906	1063741	8.6	4.4	4.4	0.9	450	1	1.4	64
K222Kmv	423854	1063935	8.3	4.4	4.8	1.0	530	1	1.2	55
K223Kmv	423849	1064155	8.1	2.3	5.4	0.5	270	<1	0.33	34

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	pH	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm
K031Kc	425926	1063115	8.0	5.5	7.2	1.3	730	2	2.3	53
R031Kc	425926	1063115	7.8	4.9	5.9	1.9	610	2	2.0	48
K032Kc	430031	1063520	8.3	4.2	4.8	0.8	880	1	3.5	41
K051Kc	430036	1064821	8.6	4.3	5.4	2.1	640	1	3.5	46
K052Kc	430109	1064957	8.2	4.5	5.5	2.0	830	1	1.9	43
K061Kc	425454	1064717	7.8	6.1	11	1.1	740	2	5.2	55
R061Kc	425454	1064715	7.7	6.1	11	1.1	760	2	4.9	53
K062Kc	425251	1064452	8.4	5.1	6.8	2.1	650	2	5.5	56
K081Kc	425549	1063416	8.0	5.6	15	1.2	880	2	4.0	55
K082Kc	425253	1063639	7.9	7.1	9.7	2.5	290	2	1.2	57
K101Kc	425305	1062001	8.3	6.6	5.4	3.9	530	2	2.1	50
R101Kc	425305	1062001	8.4	7.1	6.1	3.0	140	2	2.1	61
K102Kc	425423	1062133	7.9	3.9	3.3	1.2	590	1	0.61	49
K131Kc	425145	1063333	7.4	4.7	2.3	0.5	600	1	0.42	53
K132Kc	424817	1063154	9.0	4.6	3.1	1.5	620	1	0.65	37
K151Kc	425150	1064505	8.1	4.4	4.2	1.4	570	1	0.85	52
K152Kc	424907	1064616	8.3	4.4	3.2	1.0	510	1	1.7	37
K171Kc	424623	1063714	8.7	4.8	6.1	2.3	670	2	1.6	57
K172Kc	424531	1063739	8.2	5.1	2.8	0.7	660	1	3.0	68
K221Ks	423733	1063605	8.5	4.8	6.0	2.1	720	1	2.9	37
R221Ks	423733	1063605	8.6	4.9	7.7	0.8	690	1	3.2	40
K222Ks	423832	1064105	8.3	5.1	3.2	1.3	640	1	1.2	60
K051Kf	425942	1065035	7.0	4.2	3.9	1.0	580	1	0.54	59
K052Kf	425841	1064926	8.3	3.9	2.7	1.7	750	1	0.66	53
K061Kf	425321	1064931	8.1	3.8	2.6	2.0	570	1	0.82	41
K062Kf	425300	1064821	8.2	5.0	5.6	0.9	620	2	4.3	58
K081Kf	425312	1063417	8.1	4.8	6.0	1.9	580	1	4.0	53
K082Kf	425332	1063632	7.8	6.7	11	4.0	390	2	2.3	71
R082Kf	425332	1063632	7.8	6.6	10	4.1	260	2	2.2	70
K131Kf	425119	1063353	7.2	3.7	2.0	0.8	560	1	0.43	50
K132Kf	425058	1063221	8.4	5.3	6.5	1.3	590	2	2.7	54
K151Kf	425025	1064446	7.2	4.1	0.9	1.1	590	1	0.28	24
K152Kf	425115	1064558	7.6	3.9	3.5	1.0	560	1	0.51	52
K171Kf	424520	1063741	8.3	5.1	4.2	1.9	600	1	1.9	53
K172Kf	424617	1063804	8.2	4.8	4.5	1.8	640	1	2.3	51
K051Kmt	425749	1065038	7.5	7.8	7.9	2.2	400	2	0.55	89
K052Kmt	425825	1065017	8.2	6.0	14	2.6	480	2	1.2	56
R052Kmt	425825	1065017	8.1	5.9	12	2.8	450	2	1.2	55
K061Kmt	425652	1065041	7.8	5.6	11	0.9	570	2	1.8	67
K062Kmt	425503	1065046	8.2	5.0	6.9	3.3	170	2	1.6	58
K131Kmt	425111	1063416	7.9	4.5	4.6	0.6	590	1	0.53	33
R131Kmt	425111	1063416	8.0	4.5	6.6	0.5	590	2	0.46	30
K132Kmt	424949	1063208	7.2	5.8	8.5	1.0	550	1	0.58	48
K151Kmt	425027	1064401	7.6	4.4	3.7	2.1	570	1	0.44	47
K152Kmt	425052	1064505	7.9	4.9	4.2	1.9	610	2	0.89	64

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Co, ppm	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm
K031Qal	11	69	17	2.6	15	2.1	39	38	0.95	350
R031Qal	12	61	19	2.7	16	2.1	40	39	1.0	360
K032Qal	7.0	39	14	1.6	10	1.5	29	23	0.69	270
K051Qal	6.0	32	9	1.3	8	1.6	24	19	0.49	230
K052Qal	9.0	64	16	2.3	13	1.6	27	40	1.0	190
K081Qal	8.0	58	10	2.1	14	2.1	35	37	0.89	180
K082Qal	6.0	45	13	1.6	12	2.0	23	27	0.64	160
K131Qal	6.0	26	7	1.2	9	2.1	23	15	0.51	230
K132Qal	6.0	27	8	1.3	11	1.9	24	14	0.44	200
K151Qal	9.0	48	12	2.0	14	1.6	36	25	0.69	260
K152Qal	3.0	13	4	0.68	8	2.1	15	7	0.19	120
K161Qal	8.0	37	13	1.9	13	2.1	35	34	1.2	310
K162Qal	7.0	33	10	1.7	13	2.4	42	24	0.89	340
K171Qal	8.0	52	12	2.0	13	1.8	32	31	0.77	250
K172Qal	8.0	45	11	2.0	12	2.1	30	24	0.95	340
K221Qal	8.0	48	15	2.0	14	2.0	35	29	0.91	300
K222Qal	11	55	19	2.3	12	1.7	32	34	1.1	330
K231Qal	6.0	28	8	1.4	13	2.2	35	13	0.48	240
K232Qal	7.0	30	12	1.6	13	1.9	49	20	0.66	410
K011Qs	3.0	15	4	0.78	8	1.8	23	8	0.19	140
K012Qs	3.0	17	3	0.83	8	1.9	22	9	0.20	140
K031Qs	4.0	18	3	0.75	8	1.9	21	11	0.17	130
R031Qs	3.0	15	3	0.64	7	1.9	15	9	0.15	120
K032Qs	3.0	16	4	0.74	7	1.6	16	10	0.17	130
K051Qs	4.0	16	4	0.71	8	2.1	22	9	0.16	140
K052Qs	4.0	16	4	0.79	8	1.9	18	9	0.18	150
K081Qs	4.0	17	3	0.76	9	2.5	13	9	0.17	120
K082Qs	5.0	37	13	1.4	11	2.1	21	22	0.48	160
R082Qs	6.0	39	9	1.5	12	2.1	23	23	0.52	200
K101Qs	4.0	15	5	0.74	9	2.3	19	7	0.19	130
R101Qs	4.0	19	2	0.98	9	2.2	33	10	0.25	180
K102Qs	4.0	11	4	0.73	10	2.4	14	7	0.18	130
K231Twru	7.0	25	10	2.0	16	2.6	63	18	0.61	260
K232Twru	9.0	25	11	1.8	13	1.8	110	33	0.82	190
K161Twrl	7.0	36	10	1.9	15	2.6	55	24	0.36	110
K162Twrl	9.0	36	18	2.2	16	2.1	39	28	1.1	420
K221Twrl	6.0	25	9	1.4	12	1.9	40	14	0.58	600
K222Twrl	9.0	48	14	2.0	14	1.7	43	26	1.0	320
K231Twrl	9.0	46	12	2.1	14	2.2	39	21	0.71	400
K232Twrl	7.0	36	9	1.6	14	2.2	42	19	0.74	270
K151Twdr	5.0	25	6	1.2	14	3.1	29	10	0.26	210
K152Twdr	4.0	36	9	1.3	13	2.4	39	10	0.26	160
K161Twdr	4.0	31	7	1.2	13	2.4	50	11	0.27	170
K162Twdr	5.0	22	8	1.2	15	2.9	30	13	0.22	160
K171Twdr	9.0	48	13	2.0	14	1.9	36	38	0.95	350

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Co, ppm	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm
K172Twdr	5	20	5	1.0	8	1.9	51	10	0.18	250
K221Twdr	6	24	7	1.3	12	2.0	29	12	0.38	180
K222Twdr	5	50	12	2.1	13	1.7	32	21	0.51	160
K231Twdr	5	19	7	1.1	13	2.5	51	12	0.42	160
K232Twdr	5	19	7	1.2	12	3.1	55	10	0.30	190
K151Tfu	4	20	3	1.0	13	2.6	37	8	0.21	170
K152Tfu	7	34	8	1.3	12	1.8	29	16	0.35	130
K161Tfu	4	28	5	1.2	14	2.4	42	10	0.29	180
K162Tfu	5	29	9	1.2	9	1.5	24	13	0.28	160
K171Tfu	5	30	9	1.2	10	1.4	43	14	0.28	160
R171Tfu	6	32	7	1.2	10	1.7	39	15	0.30	170
K172Tfu	6	26	9	1.4	11	1.9	42	15	0.48	210
K221Tfu	3	7	5	0.68	13	3.0	63	7	0.14	62
K151Kl	6	34	8	1.4	13	2.5	43	16	0.31	180
K152Kl	4	24	6	1.1	11	2.3	25	11	0.23	130
K171Kl	11	55	23	3.5	15	1.8	35	28	1.2	690
K172Kl	9	47	10	1.9	13	2.0	39	26	0.95	290
K221Kl	8	39	13	1.8	10	1.8	36	17	0.78	360
K222Kl	6	36	7	1.7	10	1.5	29	15	0.58	240
K011KfH	5	33	8	1.4	10	1.6	25	15	0.44	210
K012KfH	9	47	15	2.0	13	1.7	29	24	0.90	340
K011Kml	6	30	4	1.6	10	1.5	29	16	0.80	470
K012Kml	5	20	7	0.91	8	1.9	21	13	0.53	170
K101Kml	5	30	6	1.3	10	2.0	32	15	0.50	220
K102Kml	6	26	6	1.2	10	2.2	26	15	0.40	170
K151Kml	5	27	7	1.1	13	2.3	25	11	0.24	170
K152Kml	7	37	9	1.9	11	2.1	32	17	0.58	380
K171Kml	6	24	7	1.4	11	2.1	30	17	0.60	220
K172Kml	10	54	13	2.2	15	1.9	43	27	0.83	270
R172Kml	9	55	14	2.2	14	1.9	41	27	0.82	260
K221Kml	9	45	17	2.3	12	1.7	34	19	1.2	470
K222Kml	7	37	6	1.9	11	1.8	42	16	0.62	600
K011Kmv	5	23	5	0.99	9	1.9	21	13	0.40	130
K012Kmv	3	24	4	0.74	6	1.0	18	16	0.23	82
K101Kmv	5	17	5	1.1	8	1.9	28	14	0.40	180
K102Kmv	5	28	6	1.2	10	2.1	25	13	0.39	180
K151Kmv	6	28	6	1.1	12	1.9	27	13	0.40	330
K152Kmv	5	23	6	1.2	10	2.4	25	11	0.29	240
R152Kmv	6	29	7	1.4	10	2.3	35	12	0.35	300
K171Kmv	9	40	15	2.0	13	1.6	38	25	1.1	290
K172Kmv	6	42	5	1.5	9	1.6	28	15	0.76	330
K221Kmv	7	27	10	1.5	7	0.5	32	15	0.65	300
R221Kmv	8	41	14	1.7	9	1.5	35	19	0.67	360
K222Kmv	7	44	10	1.6	11	1.7	32	17	0.66	230
K223Kmv	3	21	2	0.75	5	0.7	18	11	0.22	79

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Co, ppm	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm
K031Kc	9	63	13	2.4	12	1.9	30	47	1.3	130
R031Kc	8	57	12	2.3	12	1.8	28	40	1.1	130
K032Kc	7	34	8	2.2	9	1.9	25	24	0.68	220
K051Kc	7	42	10	1.6	10	1.4	28	24	0.86	230
K052Kc	7	36	10	1.6	10	2.1	25	20	0.58	290
K061Kc	9	76	22	2.0	14	2.1	33	31	0.72	230
R061Kc	9	72	22	1.9	13	2.2	32	29	0.68	210
K062Kc	9	56	16	1.8	12	1.8	34	29	0.86	220
K081Kc	10	65	21	2.4	14	1.7	34	35	0.83	410
K082Kc	11	100	21	3.2	18	1.9	34	63	1.4	250
K101Kc	9	59	17	2.3	15	1.8	31	37	0.97	220
R101Kc	10	71	16	2.6	17	2.1	33	43	1.1	250
K102Kc	4	22	6	1.1	7	1.6	28	11	0.27	170
K131Kc	2	12	2	0.63	10	2.6	29	7	0.13	120
K132Kc	5	23	8	1.0	9	2.2	22	14	0.34	170
K151Kc	5	31	6	1.4	10	1.8	29	27	0.44	120
K152Kc	5	31	5	1.3	9	1.9	23	12	0.49	280
K171Kc	7	38	9	1.9	11	1.4	33	26	0.50	270
K172Kc	6	26	6	1.4	12	2.4	42	13	0.33	180
K221Ks	7	37	9	1.5	11	1.8	24	20	0.59	300
R221Ks	7	39	13	1.6	12	1.8	25	21	0.64	320
K222Ks	7	37	8	1.7	12	2.0	37	16	0.54	290
K051Kf	4	17	4	1.3	9	1.5	33	17	0.26	150
K052Kf	4	19	6	1.1	9	1.4	32	17	0.28	87
K061Kf	5	23	4	0.91	9	1.8	25	18	0.26	110
K062Kf	9	50	14	1.9	12	1.6	35	26	0.96	270
K081Kf	7	39	12	1.8	11	1.4	32	29	0.70	230
K082Kf	8	53	13	2.4	15	1.9	39	36	0.97	180
R082Kf	8	52	12	2.3	15	1.9	38	35	0.94	170
K131Kf	3	16	5	0.78	9	1.4	30	13	0.16	150
K132Kf	6	43	11	2.0	12	1.6	32	30	0.91	150
K151Kf	3	9	4	0.48	9	2.7	14	5	0.09	120
K152Kf	5	28	7	1.3	10	1.4	30	17	0.30	190
K171Kf	6	36	7	1.7	12	2.0	31	28	0.62	140
K172Kf	6	34	7	1.7	12	1.9	31	30	0.55	140
K051Kmt	18	84	31	4.0	20	1.7	50	83	0.68	920
K052Kmt	9	53	26	2.7	15	2.0	32	26	0.70	340
R052Kmt	9	55	28	2.8	16	2.0	32	26	0.72	370
K061Kmt	10	53	16	2.4	15	1.7	37	25	0.78	380
K062Kmt	7	39	12	1.9	12	1.7	33	24	0.60	350
K131Kmt	4	24	12	1.2	10	1.9	19	13	0.26	180
R131Kmt	4	23	9	1.2	10	2.0	18	12	0.26	150
K132Kmt	4	29	13	1.7	13	1.9	28	14	0.40	150
K151Kmt	4	23	6	1.3	10	1.7	27	14	0.23	220
K152Kmt	7	33	7	1.8	12	2.0	37	21	0.36	290

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm
K031Qal	<2	0.59	6	31	25	0.07	21	9	0.3	130
R031Qal	<2	0.62	<4	32	26	0.06	22	9	0.4	140
K032Qal	<2	1.0	<4	22	15	0.06	16	5	0.7	170
K051Qal	<2	0.94	<4	18	12	0.04	13	4	0.2	140
K052Qal	<2	1.1	6	21	22	0.07	18	8	0.7	140
K081Qal	<2	0.85	<4	27	18	0.08	18	7	0.3	150
K082Qal	<2	1.1	<4	19	15	0.05	19	5	0.5	120
K131Qal	<2	0.96	<4	18	10	0.05	18	4	0.1	160
K132Qal	<2	1.0	<4	16	11	0.03	20	4	0.3	130
K151Qal	<2	1.0	<4	29	16	0.05	21	6	0.5	160
K152Qal	<2	1.4	<4	10	6	0.02	19	<2	0.3	110
K161Qal	<2	0.94	6	26	15	0.06	15	7	0.3	720
K162Qal	<2	1.6	<4	31	12	0.06	21	6	0.8	210
K171Qal	<2	0.72	<4	25	18	0.06	19	7	0.7	160
K172Qal	<2	1.3	<4	25	15	0.06	19	6	0.2	170
K221Qal	<2	1.1	<4	26	17	0.06	19	6	0.6	180
K222Qal	2	0.97	<4	24	25	0.08	22	7	1.9	210
K231Qal	<2	1.8	6	24	9	0.05	19	4	0.1	230
K232Qal	<2	1.4	8	37	10	0.06	19	5	0.1	280
K011Qs	<2	1.1	<4	15	6	0.03	13	2	0.1	140
K012Qs	<2	1.1	<4	15	6	0.03	17	2	<0.1	150
K031Qs	<2	1.2	<4	14	6	0.02	13	2	0.1	160
R031Qs	<2	1.1	<4	12	6	0.02	14	2	<0.1	150
K032Qs	<2	1.1	<4	11	6	0.02	13	<2	0.3	150
K051Qs	<2	1.2	<4	13	6	0.03	17	2	<0.1	160
K052Qs	<2	1.0	<4	14	6	0.02	14	2	0.1	130
K081Qs	<2	1.3	<4	9	7	0.02	18	2	0.1	110
K082Qs	<2	1.1	4	18	13	0.03	18	4	0.5	110
R082Qs	<2	1.0	<4	17	14	0.03	20	5	0.5	120
K101Qs	<2	1.3	<4	13	6	0.02	15	2	0.1	160
R101Qs	<2	1.2	<4	21	7	0.03	17	3	<0.1	170
K102Qs	<2	1.4	<4	9	5	0.02	16	2	<0.1	160
K231Twru	<2	2.1	<4	44	10	0.03	22	6	<0.1	200
K232Twru	<2	1.6	<4	71	9	0.03	22	6	0.1	250
K161Twrl	<2	1.3	8	38	15	0.02	29	6	0.1	110
K162Twrl	<2	1.1	<4	30	14	0.07	18	8	0.2	280
K221Twrl	<2	1.5	12	26	10	0.03	18	5	0.1	200
K222Twrl	<2	1.2	<4	31	18	0.05	20	6	0.3	270
K231Twrl	<2	1.3	6	29	15	0.05	20	6	0.1	220
K232Twrl	<2	1.5	<4	26	13	0.04	17	5	0.1	310
K151Twdr	<2	2.0	<4	18	9	0.03	24	4	0.1	130
K152Twdr	<2	1.8	<4	24	9	0.02	27	4	0.2	89
K161Twdr	<2	1.7	4	32	8	0.02	24	4	0.1	110
K162Twdr	<2	1.8	5	21	9	0.02	30	4	0.1	120
K171Twdr	<2	0.95	<4	28	19	0.04	23	6	0.4	190

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm
K172Twdr	<2	0.77	<4	36	7	0.03	17	3	0.2	72
K221Twdr	<2	1.6	5	21	9	0.03	17	4	0.1	240
K222Twdr	<2	0.56	7	25	13	0.03	20	7	0.3	160
K231Twdr	<2	2.0	<4	33	7	0.03	20	3	<0.1	270
K232Twdr	<2	1.3	<4	39	8	0.03	29	4	<0.1	140
K151Tfu	<2	2.0	<4	24	7	0.02	27	3	0.1	120
K152Tfu	<2	0.85	<4	22	13	0.02	18	4	1.0	99
K161Tfu	<2	1.8	4	29	9	0.02	26	5	0.2	110
K162Tfu	<2	0.42	<4	19	9	0.03	16	4	0.2	70
K171Tfu	<2	0.85	4	31	8	0.02	18	4	0.3	160
R171Tfu	<2	0.83	<4	28	11	0.02	19	4	0.1	160
K172Tfu	<2	1.4	5	30	11	0.04	18	4	0.1	240
K221Tfu	<2	1.5	<4	40	3	0.02	29	3	0.5	110
K151Kl	<2	1.2	<4	30	11	0.02	24	5	0.1	110
K152Kl	<2	1.4	<4	19	9	0.02	24	3	0.2	91
K171Kl	<2	0.43	6	28	20	0.06	29	8	1.4	140
K172Kl	<2	1.1	<4	30	18	0.05	20	6	0.1	240
K221Kl	<2	0.65	<4	28	15	0.05	20	6	0.4	140
K222Kl	<2	0.51	<4	23	10	0.04	16	5	0.4	110
K011KfH	<2	0.92	<4	18	10	0.04	15	4	0.2	150
K012KfH	<2	1.3	6	24	18	0.06	19	7	0.3	160
K011Kml	<2	0.85	<4	21	9	0.05	12	5	0.1	200
K012Kml	<2	1.1	<4	16	8	0.04	13	3	0.1	220
K101Kml	<2	1.1	<4	21	12	0.04	16	4	0.1	170
K102Kml	<2	1.1	<4	18	10	0.03	16	4	0.1	150
K151Kml	<2	1.4	<4	18	9	0.02	24	3	0.2	110
K152Kml	<2	0.80	<4	24	13	0.05	22	5	0.3	100
K171Kml	<2	1.1	<4	22	13	0.04	20	5	0.5	160
K172Kml	<2	0.80	7	32	20	0.06	23	8	0.4	180
R172Kml	<2	0.79	<4	30	19	0.05	22	8	0.4	180
K221Kml	<2	0.61	<4	28	16	0.07	22	6	0.3	130
K222Kml	<2	0.77	4	31	11	0.06	15	6	0.2	200
K011Kmv	<2	1.1	<4	14	8	0.03	14	3	0.1	170
K012Kmv	<2	0.33	<4	14	8	0.02	13	3	0.1	76
K101Kmv	<2	0.98	<4	21	10	0.04	17	4	0.1	150
K102Kmv	<2	1.2	<4	17	21	0.03	17	4	0.1	170
K151Kmv	<2	0.89	<4	19	11	0.03	19	5	0.2	99
K152Kmv	<2	1.1	<4	18	8	0.03	20	3	0.1	99
R152Kmv	<2	1.1	<4	25	10	0.04	21	4	0.1	110
K171Kmv	<2	0.97	<4	28	19	0.05	21	6	0.5	220
K172Kmv	<2	0.62	<4	22	13	0.04	14	5	0.1	120
K221Kmv	<2	0.03	<4	26	12	0.04	14	4	0.1	47
R221Kmv	<2	0.57	6	28	13	0.04	18	6	0.2	86
K222Kmv	<2	0.70	<4	25	14	0.04	18	5	0.3	110
K223Kmv	<2	0.16	<4	14	6	0.02	11	3	<0.1	46

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm
K031Kc	<2	0.54	<4	25	21	0.07	16	8	0.6	190
R031Kc	<2	0.56	<4	23	19	0.06	15	7	0.3	190
K032Kc	<2	0.72	<4	18	14	0.05	14	5	0.3	170
K051Kc	<2	0.68	<4	22	16	0.05	17	5	0.8	170
K052Kc	<2	0.85	<4	20	14	0.05	16	4	2.1	160
K061Kc	3	0.68	5	25	32	0.07	21	8	1.8	240
R061Kc	2	0.75	<4	25	31	0.07	19	7	1.8	240
K062Kc	<2	0.96	<4	25	23	0.05	18	6	1.4	240
K081Kc	4	0.66	6	26	29	0.08	19	8	1.8	200
K082Kc	<2	0.83	8	29	30	0.09	18	12	0.9	160
K101Kc	2	1.2	7	23	22	0.05	20	8	2.1	260
R101Kc	<2	1.1	6	26	25	0.06	18	9	3.5	260
K102Kc	<2	1.1	<4	20	7	0.03	14	3	0.3	140
K131Kc	<2	1.5	<4	19	5	0.02	21	<2	<0.1	120
K132Kc	<2	1.3	<4	18	9	0.02	19	3	1.2	120
K151Kc	<2	0.83	<4	24	10	0.07	12	5	0.5	140
K152Kc	<2	0.98	<4	16	10	0.04	20	4	0.2	98
K171Kc	<2	0.73	<4	25	15	0.06	16	5	0.6	190
K172Kc	<2	1.5	<4	28	11	0.03	21	4	0.2	210
K221Ks	<2	1.1	<4	17	14	0.05	17	5	0.3	190
R221Ks	<2	1.0	<4	19	14	0.05	17	5	0.4	200
K222Ks	<2	1.2	<4	25	11	0.04	17	5	0.1	220
K051Kf	<2	0.71	<4	26	7	0.05	12	4	0.1	160
K052Kf	<2	0.96	4	21	5	0.04	11	3	0.1	220
K061Kf	<2	0.77	<4	18	8	0.03	12	4	0.1	100
K062Kf	<2	0.88	<4	26	20	0.05	19	6	0.4	190
K081Kf	<2	0.69	5	25	15	0.06	13	5	0.5	190
K082Kf	<2	0.62	9	32	18	0.07	20	8	0.4	240
R082Kf	<2	0.60	8	31	18	0.07	20	8	0.5	240
K131Kf	<2	1.0	<4	20	5	0.03	12	2	0.2	130
K132Kf	<2	0.76	<4	24	14	0.07	16	6	0.4	180
K151Kf	<2	1.4	<4	8	4	0.01	19	<2	<0.1	90
K152Kf	<2	0.74	<4	23	9	0.05	14	4	0.3	130
K171Kf	<2	0.91	<4	24	12	0.07	14	5	0.1	170
K172Kf	<2	0.78	<4	23	11	0.05	13	5	0.2	150
K051Kmt	<2	0.29	13	42	34	0.09	29	14	0.3	130
K052Kmt	6	0.64	6	26	21	0.07	22	8	1.2	130
R052Kmt	7	0.65	6	25	21	0.07	21	8	1.3	130
K061Kmt	2	0.60	<4	29	24	0.06	20	7	0.6	150
K062Kmt	<2	0.98	<4	26	16	0.06	16	5	1.0	190
K131Kmt	<2	1.1	<4	13	7	0.03	20	3	0.3	130
R131Kmt	<2	1.0	<4	13	7	0.03	21	3	0.3	120
K132Kmt	4	0.89	8	19	10	0.04	23	5	0.6	110
K151Kmt	<2	0.89	4	21	6	0.04	15	3	0.2	120
K152Kmt	<2	0.79	<4	29	12	0.04	17	5	0.3	130

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
K031Qal	12	0.29	100	20	2	80
R031Qal	11	0.28	110	21	2	79
K032Qal	8	0.20	64	16	2	44
K051Qal	7	0.16	45	13	1	33
K052Qal	7	0.23	120	16	2	74
K081Qal	11	0.24	94	18	2	61
K082Qal	8	0.18	72	12	1	51
K131Qal	6	0.14	37	12	1	33
K132Qal	9	0.14	40	12	1	30
K151Qal	13	0.22	62	18	2	51
K152Qal	5	0.07	16	6	<1	12
K161Qal	14	0.22	53	16	2	49
K162Qal	18	0.22	47	16	2	39
K171Qal	11	0.24	89	18	2	67
K172Qal	11	0.21	74	15	2	54
K221Qal	11	0.22	82	15	2	57
K222Qal	10	0.21	120	17	2	79
K231Qal	13	0.19	40	13	1	29
K232Qal	20	0.23	47	20	2	42
K011Qs	5	0.07	22	7	<1	18
K012Qs	7	0.09	24	9	<1	18
K031Qs	6	0.08	28	7	<1	18
R031Qs	<4	0.07	23	6	<1	16
K032Qs	<4	0.08	22	7	<1	15
K051Qs	4	0.08	22	7	<1	17
K052Qs	4	0.07	23	6	<1	17
K081Qs	5	0.07	28	6	<1	17
K082Qs	7	0.14	58	11	1	43
R082Qs	8	0.15	62	12	1	44
K101Qs	5	0.09	25	6	<1	16
R101Qs	8	0.13	33	9	1	22
K102Qs	<4	0.08	23	6	<1	15
K231Twru	33	0.20	54	14	1	25
K232Twru	57	0.21	50	14	2	26
K161Twrl	35	0.19	40	16	2	33
K162Twrl	13	0.24	57	28	3	58
K221Twrl	16	0.18	39	15	1	29
K222Twrl	18	0.22	64	18	2	43
K231Twrl	14	0.26	63	17	2	43
K232Twrl	13	0.21	51	13	1	31
K151Twdr	14	0.12	25	9	1	23
K152Twdr	23	0.13	25	10	<1	13
K161Twdr	27	0.13	28	10	1	18
K162Twdr	17	0.12	24	9	<1	20
K171Twdr	16	0.22	77	17	2	50

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
K172Twdr	20	0.11	34	10	<1	24
K221Twdr	13	0.15	36	11	1	24
K222Twdr	13	0.24	100	12	2	43
K231Twdr	26	0.15	34	9	<1	16
K232Twdr	31	0.13	27	12	1	19
K151Tfu	19	0.12	19	9	<1	14
K152Tfu	12	0.15	46	12	1	29
K161Tfu	25	0.15	32	11	1	13
K162Tfu	8	0.17	43	11	1	32
K171Tfu	19	0.18	42	12	1	26
R171Tfu	15	0.20	46	12	1	30
K172Tfu	16	D.16	46	13	1	29
K221Tfu	32	0.10	19	8	<1	7
K151Kl	20	0.18	42	13	1	32
K152Kl	12	0.12	29	11	1	20
K171Kl	1D	0.25	69	18	2	83
K172Kl	14	0.22	64	17	2	43
K221Kl	10	0.21	50	15	2	55
K222Kl	7	0.19	46	12	1	45
K011KfH	6	0.15	42	11	1	35
K012KfH	9	0.22	66	16	2	69
K011Kml	6	0.19	51	12	1	34
K012Kml	6	0.12	31	9	1	24
K101Kml	10	0.15	50	11	1	32
K102Kml	7	0.14	40	10	1	35
K151Kml	11	0.12	30	10	<1	24
K152Kml	11	0.19	48	14	1	54
K171Kml	10	0.17	46	13	1	33
K172Kml	16	0.27	79	20	2	61
R172Kml	14	0.26	78	19	2	61
K221Kml	10	0.24	51	16	2	67
K222Kml	12	0.24	58	16	2	46
K011Kmv	4	0.11	33	8	<1	23
K012Kmv	5	0.14	38	7	<1	29
K101Kmv	11	0.13	43	11	1	29
K102Kmv	8	0.12	41	9	1	27
K151Kmv	10	0.15	38	12	1	30
K152Kmv	8	0.13	30	10	1	30
R152Kmv	12	0.16	36	12	1	37
K171Kmv	12	0.20	64	16	2	44
K172Kmv	7	0.15	42	11	1	34
K221Kmv	8	0.05	33	10	<1	48
R221Kmv	9	0.20	44	15	2	52
K222Kmv	10	0.17	49	13	2	38
K223Kmv	5	0.12	29	6	<1	21

Table A3.--Listing of analytical data for native soils collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
K031Kc	9	0.24	130	16	2	74
R031Kc	7	0.21	120	15	2	66
K032Kc	7	0.14	78	11	1	42
K051Kc	7	0.17	80	14	2	51
K052Kc	6	0.14	66	13	1	45
K061Kc	8	0.22	200	18	2	96
R061Kc	9	0.21	190	16	2	91
K062Kc	12	0.20	120	17	2	54
K081Kc	9	0.23	170	17	2	88
K082Kc	9	0.35	210	18	2	110
K101Kc	10	0.23	94	16	2	65
R101Kc	11	0.27	110	16	2	74
K102Kc	9	0.10	30	9	<1	24
K131Kc	14	0.07	21	8	<1	12
K132Kc	9	0.13	33	11	1	24
K151Kc	8	0.18	52	14	1	36
K152Kc	7	0.14	36	11	1	30
K171Kc	9	0.19	64	17	2	49
K172Kc	21	0.14	51	11	1	24
K221Ks	6	0.15	71	11	1	42
R221Ks	8	0.16	75	12	1	44
K222Ks	9	0.20	58	13	1	38
K051Kf	8	0.14	41	14	2	35
K052Kf	7	0.12	33	11	1	23
K061Kf	6	0.12	37	9	1	22
K062Kf	11	0.20	63	17	2	43
K081Kf	9	0.18	68	15	2	44
K082Kf	16	0.26	81	21	2	65
R082Kf	15	0.25	79	21	2	62
K131Kf	7	0.10	26	9	1	18
K132Kf	10	0.23	72	16	2	52
K151Kf	5	0.05	11	5	<1	8
K152Kf	8	0.15	42	14	2	34
K171Kf	10	0.19	62	14	2	41
K172Kf	9	0.19	62	13	1	40
K051Kmt	15	0.49	130	32	4	84
K052Kmt	13	0.22	89	19	2	110
R052Kmt	14	0.22	93	19	2	100
K061Kmt	13	0.22	76	20	2	82
K062Kmt	12	0.21	55	19	2	60
K131Kmt	6	0.12	34	11	2	33
R131Kmt	6	0.11	32	9	1	30
K132Kmt	12	0.13	47	14	2	51
K151Kmt	8	0.12	35	12	1	29
K152Kmt	11	0.16	49	17	2	42

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area.

[Element concentrations are given on ash basis, except As and Se are given on dry-weight basis; "R" prefix denotes analytical splits; The multi-letter suffix attached to each sample ID denotes the geologic unit mapped for the site--geologic units are identified in Table 8]

Sample ID	Latitude	Longitude	Ash, %	Al, %	As, ppm	Ba, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm
S031Qal	430055	1063445	4.2	0.18	<0.05	230	14	6	9	4
S032Qal	425819	1063518	4.9	0.13	<0.05	290	14	4	12	3
S081Qal	425317	1063203	5.2	0.07	<0.05	210	10	<4	<8	<2
S082Qal	425233	1063153	5.0	0.46	<0.05	300	11	4	13	4
S131Qal	424736	1063133	4.7	0.28	<0.05	600	13	4	<8	3
S132Qal	424723	1063225	4.5	0.12	<0.05	250	14	6	<8	2
S151Qal	424928	1064357	4.7	1.0	0.10	490	13	<4	13	5
S152Qal	425004	1064628	4.9	0.54	<0.05	210	12	<4	<8	3
S161Qal	424320	1064333	4.1	0.72	<0.05	380	12	<4	12	4
S162Qal	424241	1064530	4.9	0.33	<0.05	320	13	<4	<8	3
S171Qal	424600	1063729	4.4	0.21	<0.05	180	14	4	<8	2
S172Qal	424207	1063826	4.4	0.27	<0.05	260	12	<4	<8	3
S221Qal	424101	1063609	4.4	0.19	<0.05	250	13	8	<8	3
S222Qal	423741	1063625	3.9	0.23	<0.05	410	11	7	<8	3
R222Qal	423741	1063625	3.4	0.23	0.06	410	12	7	<8	3
S231Qal	424056	1064455	4.7	0.33	0.06	270	14	<4	<8	4
S232Qal	424033	1064403	4.7	0.35	<0.05	500	14	<4	<8	2
S031Qs	430145	1063621	4.5	0.10	<0.05	300	15	<4	<8	3
S032Qs	430111	1063425	4.9	0.16	<0.05	660	14	<10	<20	<5
S081Qs	425240	1063311	5.2	0.27	<0.05	450	12	6	9	4
S082Qs	425237	1063155	3.6	0.21	<0.05	350	9.20	<4	<8	3
S231Twru	424101	1064909	4.0	0.19	<0.05	350	19	<4	<8	<2
R231Twru	424101	1064909	3.9	0.21	<0.05	280	20	5	<8	3
S232Twru	423747	1064614	4.4	0.46	<0.05	360	9.70	<4	<8	3
S161Twrl	424212	1064859	4.9	0.75	<0.05	540	14	<4	16	4
S162Twrl	424141	1064851	4.7	0.50	<0.05	370	14	<4	13	3
S221Twrl	423847	1064253	4.2	0.55	<0.05	400	12	<4	20	5
S222Twrl	423857	1064233	5.6	0.86	<0.05	560	12	<4	23	5
R222Twrl	433857	1064233	5.2	0.77	<0.05	510	12	<4	14	5
R231Twrl	424122	1064903	3.5	0.15	<0.05	520	16	9	<8	3
S231Twrl	424122	1064903	3.5	0.16	<0.05	520	16	9	<8	2
S232Twrl	424101	1064518	4.7	0.78	<0.05	530	13	<4	<8	3

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	Ash, %	Al, %	As, ppm	Ba, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm
S151Twdr	424656	1064540	4.9	0.15	<0.05	370	15	6	<8	3
S152Twdr	424831	1064938	4.9	0.26	<0.05	250	15	<4	<8	4
S161Twdr	424343	1064529	5.0	0.38	<0.05	370	11	6	9	3
R161Twdr	424343	1064529	5.0	0.36	<0.05	330	12	5	<8	<2
S162Twdr	424329	1064945	4.0	0.14	<0.05	370	13	5	<8	3
S171Twdr	424420	1064239	4.0	0.67	<0.05	400	12	6	9	5
S172Twdr	424502	1064244	3.9	0.21	<0.05	370	13	11	<8	4
R172Twdr	424502	1064244	3.9	0.22	<0.05	440	14	11	<8	3
S221Twdr	424105	1064106	4.2	0.61	<0.05	450	14	4	14	6
S222Twdr	424009	1064033	6.4	0.93	<0.05	470	9.40	<4	<8	5
S231Twdr	424055	1064442	5.2	0.35	<0.05	420	13	5	<8	3
S232Twdr	424015	1064347	4.7	0.38	<0.05	470	13	5	<8	3
R232Twdr	424015	1064347	4.6	0.39	<0.05	420	13	4	<8	3
S151Tfu	424715	1064548	5.1	0.19	<0.05	350	13	12	13	4
S152Tfu	425002	1064932	4.7	0.86	<0.05	370	13	6	17	7
S161Tfu	424633	1064426	3.9	0.50	<0.05	320	13	6	12	5
S162Tfu	424517	1064308	4.6	0.61	<0.05	380	12	6	9	5
S171Tfu	424441	1064141	4.7	0.32	0.05	500	16	<5	<10	4
S172Tfu	424155	1064037	4.2	0.29	<0.05	340	14	5	10	5
S221Tfu	424026	1063948	4.9	0.40	<0.05	260	14	<4	<8	3
S151Kl	424728	1064538	4.7	0.15	<0.05	300	13	8	<8	3
S152Kl	424836	1064704	5.0	0.12	<0.05	250	12	9	<8	3
S171Kl	424426	1064032	3.7	0.28	<0.05	300	12	5	<8	2
S172Kl	424201	1064014	4.2	0.25	<0.05	390	13	6	<8	4
S221Kl	423933	1063751	4.0	0.28	<0.05	250	12	5	<8	3
S222Kl	423919	1063937	4.6	0.44	<0.05	220	15	5	8	5
R222Kl	423919	1063937	4.7	0.46	<0.05	220	15	5	<8	5
S011Kfh	430108	1062019	4.2	0.27	<0.05	430	12	<4	9	4
S151Kml	424751	1064454	5.4	0.12	<0.05	300	14	10	<8	2
S152Kml	424850	1064640	4.7	0.51	<0.05	270	12	<4	15	4
S171Kml	424446	1064024	5.0	0.27	<0.05	510	12	7	<10	4
S172Kml	424210	1063937	3.9	0.45	<0.05	400	12	5	13	5
S221Kml	423926	1063746	4.9	0.25	<0.05	320	13	<4	<8	3
S222Kml	423909	1063937	4.2	0.28	<0.05	330	15	<4	<8	3
S102Kmv	425421	1061717	4.2	0.46	<0.05	300	12	11	13	4
S151Kmv	424803	1064453	4.9	0.13	<0.05	260	12	<4	<8	3
S152Kmv	424855	1064626	4.9	0.15	<0.05	310	13	4	<8	3
S171Kmv	424424	1063934	4.2	0.51	<0.05	340	14	<4	<8	4
S172Kmv	424222	1063855	4.2	0.41	<0.05	310	13	<4	<8	4
S221Kmv	423906	1063741	3.7	0.45	<0.05	340	11	<4	17	3
S222Kmv	423854	1063935	4.9	0.31	<0.05	330	12	<4	<8	3
S223Kmv	423849	1064155	5.0	0.54	0.05	560	12	<4	<8	4

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Latitude	Longitude	Ash, %	Al, %	As, ppm	Ba, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm
S031Kc	435926	1063115	4.4	0.27	<0.05	410	12	<4	<8	3
S032Kc	430031	1063520	3.7	0.18	<0.05	270	13	5	<8	3
S051Kc	430036	1064821	4.2	0.48	<0.05	550	10	5	<8	3
S052Kc	430109	1064947	4.2	0.26	<0.05	390	12	20	<8	3
S061Kc	425454	1064715	4.4	0.23	<0.05	330	15	8	19	3
S062Kc	425251	1064452	4.4	0.22	<0.05	280	12	5	<8	2
S081Kc	425549	1063416	4.2	0.31	<0.05	240	15	7	<8	4
S082Kc	425253	1063639	4.7	0.55	<0.05	270	14	<4	<8	2
R082Kc	425253	1063639	3.9	0.35	<0.05	290	14	<4	<8	3
S131Kc	425145	1063333	4.7	0.10	<0.05	260	9.50	<4	<8	<2
S132Kc	424817	1063154	5.0	0.18	<0.05	390	14	9	<8	3
S151Kc	425150	1064505	4.9	0.19	<0.05	250	14	<4	<8	2
S152Kc	424907	1064616	4.4	0.16	<0.05	260	11	<4	<8	3
S171Kc	424623	1063714	4.4	0.27	<0.05	330	15	8	<8	4
S172Kc	424531	1063739	3.9	0.31	<0.05	270	14	7	8	3
S221Ks	423733	1063605	4.7	0.61	0.06	280	13	<4	17	4
S222Ks	423832	1064105	4.4	0.77	<0.05	460	12	7	16	5
S051Kf	425942	1065035	5.2	0.05	<0.05	300	14	5	<8	3
S052Kf	425844	1064926	5.2	0.10	<0.05	370	13	<4	<8	3
S061Kf	425321	1064931	5.0	0.15	<0.05	340	16	<4	<8	3
S062Kf	425300	1064821	4.1	0.17	<0.05	300	13	<4	<8	3
S081Kf	425312	1063417	4.9	0.60	<0.05	460	12	<4	10	5
R081Kf	425312	1063417	4.7	0.52	<0.05	400	11	<4	<8	4
S082Kf	425332	1063632	5.0	0.51	<0.05	360	13	<4	11	4
S131Kf	425119	1063353	3.9	0.42	<0.05	380	11	6	<8	4
S132Kf	425058	1063221	4.1	0.21	<0.05	370	14	<4	<8	4
S152Kf	435115	1064558	4.9	0.24	<0.05	240	15	8	<8	4
S171Kf	424520	1063741	4.2	0.34	<0.05	250	13	<4	9	3
S172Kf	424617	1063804	3.9	0.19	<0.05	340	14	<4	<8	3
S051Kmt	425749	1065038	4.2	0.20	<0.05	200	15	10	<8	3
S052Kmt	425825	1065017	4.9	0.07	<0.05	270	16	27	<8	3
S061Kmt	425652	1065041	4.0	0.16	<0.05	260	13	15	<8	3
S062Kmt	425503	1065046	4.9	0.15	<0.05	310	14	7	<8	3
S131Kmt	425111	1063416	4.4	0.20	<0.05	360	14	10	<8	3
S132Kmt	424949	1063208	4.4	0.14	<0.05	290	14	22	<8	3
S151Kmt	425027	1064401	4.7	0.23	<0.05	280	13	<4	<8	2
S152Kmt	425052	1064505	5.1	0.34	<0.05	240	15	<4	<8	3

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Cr, ppm	Cu, ppm	Fe, %	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %
S031Qal	9	260	0.16	26	6	13	4.8	1500	17	0.56
S032Qal	13	250	0.13	23	7	19	3.0	1600	6	0.95
S081Qal	9	170	0.11	26	6	29	5.3	910	6	1
S082Qal	16	170	0.25	24	8	18	4.7	1000	6	1.30
S131Qal	10	180	0.23	24	5	11	3.8	1700	12	0.85
S132Qal	7	180	0.17	24	6	11	4.6	2400	8	0.81
S151Qal	16	140	0.47	22	14	16	3.2	1100	10	1.20
S152Qal	14	190	0.33	23	8	86	4.2	1100	5	1.40
S161Qal	16	160	0.28	25	10	24	3.4	830	11	0.79
S162Qal	8	130	0.20	25	7	21	2.8	1300	9	0.55
S171Qal	9	270	0.16	22	6	23	4.6	1000	8	1.20
S172Qal	11	150	0.24	27	7	9	3.7	1300	9	1.60
S221Qal	8	180	0.16	27	5	11	3.9	1200	15	0.54
S222Qal	11	190	0.22	27	6	17	3.2	1100	25	1
R222Qal	10	180	0.21	26	7	14	3.2	1100	25	1
S231Qal	11	250	0.27	24	9	14	3.3	920	14	0.63
S232Qal	8	120	0.21	25	11	12	2.4	930	12	0.58
S031Qs	10	170	0.19	25	5	7	3.7	820	15	0.47
S032Qs	9	110	0.16	24	<10	<10	3.2	1800	<10	0.54
S081Qs	10	89	0.27	24	9	11	3.5	1100	5	0.48
S082Qs	7	200	0.13	30	6	24	3.3	860	6	0.66
S231Twru	10	180	0.17	18	8	10	4.4	1000	8	0.48
R231Twru	8	220	0.18	20	9	11	4.8	1100	9	0.53
S232Twru	9	150	0.26	31	10	14	2.2	620	8	0.44
S161Twrl	14	170	0.37	25	12	15	2.7	750	7	0.53
S162Twrl	8	230	0.28	25	14	16	2.7	930	11	0.58
S221Twrl	11	150	0.30	28	14	14	2.7	750	17	0.58
S222Twrl	16	140	0.42	24	15	17	2.8	970	10	0.64
R222Twrl	12	170	0.42	25	15	16	2.8	990	11	0.63
R231Twrl	10	330	0.14	25	6	<4	3.2	1800	7	0.47
S231Twrl	8	340	0.14	25	7	<4	3.2	1800	7	0.47
S232Twrl	12	150	0.41	23	12	17	3.7	850	12	0.65

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Cr, ppm	Cu, ppm	Fe, %	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %
S151Twdr	8	140	0.11	23	6	<4	3.1	1500	9	0.50
S152Twdr	9	270	0.20	25	9	6	3.5	1500	11	0.50
S161Twdr	10	160	0.22	27	9	7	3.0	990	11	0.47
R161Twdr	6	190	0.23	27	5	6	3.1	1000	9	0.48
S162Twdr	8	210	0.11	25	7	6	3.1	1300	12	0.44
S171Twdr	12	200	0.40	25	11	29	3.5	570	9	0.53
S172Twdr	11	190	0.19	25	6	11	4.0	1600	9	0.62
R172Twdr	12	170	0.18	25	7	11	4.2	1700	9	0.64
S221Twdr	13	150	0.35	24	12	16	3.3	970	19	0.66
S222Twdr	12	130	0.42	25	13	9	2.6	700	8	0.67
S231Twdr	9	130	0.23	25	13	16	2.9	1200	13	0.66
S232Twdr	10	150	0.24	26	9	12	2.9	830	9	0.55
R232Twdr	10	160	0.23	26	8	13	2.9	820	8	0.55
S151Tfu	8	190	0.15	27	8	12	3.4	1400	8	0.54
S152Tfu	16	170	0.41	24	16	23	3.8	600	13	0.61
S161Tfu	12	230	0.31	25	11	8	3.3	1300	10	0.48
S162Tfu	14	160	0.31	24	11	24	3.1	1200	8	0.66
S171Tfu	8	240	0.21	18	10	10	4.6	1400	17	0.75
S172Tfu	11	200	0.21	24	10	17	4.4	990	16	0.74
S221Tfu	7	170	0.16	26	9	4	2.5	730	15	0.65
S151Kl	6	190	0.14	26	7	7	3.8	1500	9	0.60
S152Kl	7	180	0.13	29	6	10	3.6	1200	8	0.49
S171Kl	8	220	0.18	26	5	12	4.6	1100	21	0.70
S172Kl	9	200	0.20	27	7	18	3.9	970	21	0.73
S221Kl	12	210	0.20	27	10	6	5.2	1000	12	0.81
S222Kl	10	150	0.24	23	10	10	3.2	1200	16	0.51
R222Kl	10	140	0.25	23	9	9	3.2	1200	15	0.51
S011Kfh	10	160	0.20	26	6	6	3.2	950	7	0.51
S151Kml	8	180	0.11	26	5	9	3.4	1500	9	0.36
S152Kml	15	160	0.37	26	9	13	4.8	1200	11	0.53
S171Kml	9	200	0.20	25	10	11	3.7	1500	12	0.65
S172Kml	12	200	0.27	25	12	10	3.8	980	13	0.83
S221Kml	9	240	0.20	26	8	5	4.0	630	17	0.71
S222Kml	9	170	0.22	24	8	12	3.4	870	8	0.69
S102Kmv	11	180	0.28	24	8	18	3.4	1300	11	0.89
S151Kmv	9	220	0.13	26	5	10	5.1	1100	10	0.63
S152Kmv	8	150	0.13	23	6	12	4.9	1300	9	0.52
S171Kmv	12	170	0.29	24	11	17	4.0	940	15	0.59
S172Kmv	11	170	0.27	24	9	9	4.1	670	12	0.56
S221Kmv	14	250	0.25	27	8	9	3.8	830	10	1.20
S222Kmv	10	170	0.22	26	7	9	4.5	720	11	0.68
S223Kmv	12	150	0.29	24	9	14	2.7	670	13	0.81

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Cr, ppm	Cu, ppm	Fe, %	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %
S031Kc	9	160	0.19	25	5	31	5.1	750	7	0.57
S032Kc	8	180	0.18	25	8	46	5.4	1500	13	0.66
S051Kc	11	120	0.28	24	8	23	4.4	920	16	0.58
S052Kc	9	160	0.18	26	7	33	3.6	1200	15	0.62
S061Kc	9	270	0.16	25	10	14	3.0	480	19	0.43
S062Kc	9	180	0.18	26	5	32	4.4	820	20	0.63
S081Kc	9	250	0.20	25	7	23	2.8	950	6	0.51
S082Kc	9	240	0.23	24	9	59	3.3	730	7	0.53
R082Kc	9	250	0.23	25	7	63	3.5	780	7	0.55
S131Kc	6	130	0.16	30	5	19	2.4	320	4	0.36
S132Kc	10	150	0.16	22	7	11	3.6	1300	16	0.76
S151Kc	9	230	0.17	27	7	23	3.5	850	10	0.77
S152Kc	8	170	0.14	27	6	14	5.7	1400	8	0.50
S171Kc	11	210	0.21	23	8	25	3.5	1200	20	0.88
S172Kc	10	200	0.22	23	8	62	4.7	1200	21	0.67
S221Ks	15	150	0.41	26	9	53	3.8	940	15	0.61
S222Ks	14	140	0.43	22	15	13	3.4	1700	14	1.60
S051Kf	7	230	0.12	25	7	9	3.6	1100	13	0.41
S052Kf	9	170	0.11	25	6	24	3.4	660	11	0.45
S061Kf	8	180	0.12	20	7	12	4.9	660	11	0.43
S062Kf	8	230	0.15	26	6	38	4.7	1000	13	0.48
S081Kf	13	140	0.32	26	9	29	3.8	750	15	0.55
R081Kf	10	140	0.29	25	10	28	3.7	720	14	0.52
S082Kf	10	200	0.28	25	10	17	3.0	550	14	0.67
S131Kf	7	170	0.19	28	8	10	2.3	530	11	0.47
S132Kf	10	180	0.17	25	8	15	3.2	860	11	0.68
S152Kf	6	250	0.21	24	4	20	3.4	1500	17	0.70
S171Kf	11	180	0.23	25	6	30	4.2	1000	15	0.56
S172Kf	8	160	0.15	24	5	53	4.2	800	11	0.52
S051Kmt	16	250	0.16	24	6	10	3.9	1100	9	0.57
S052Kmt	5	210	0.09	23	6	17	3.5	4900	25	0.40
S061Kmt	5	250	0.14	26	<4	14	4.9	1000	32	0.45
S062Kmt	8	210	0.13	25	5	53	3.8	1200	11	0.60
S131Kmt	9	160	0.15	25	6	15	3.6	1000	8	0.60
S132Kmt	9	200	0.11	24	6	5	3.3	860	27	0.52
S151Kmt	9	160	0.17	26	7	7	3.4	1000	6	0.49
S152Kmt	8	150	0.26	24	8	16	3.8	890	8	0.53

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Th, ppm	Ti, %	V, ppm
S031Qal	15	10	6.3	22	<4	0.30	1100	9	<0.01	<4
S032Qal	<8	14	5.4	31	<4	0.20	920	<8	<0.01	<4
S081Qal	<8	14	5.7	21	<4	0.15	880	<8	<0.01	<4
S082Qal	16	10	4.3	33	<4	0.06	790	10	0.02	10
S131Qal	<8	45	5.1	24	<4	0.25	1100	<8	0.01	<4
S132Qal	<8	10	4.6	16	<4	0.20	1400	<8	<0.01	<4
S151Qal	8	11	3.9	25	4	0.10	1100	<8	0.03	14
S152Qal	9	49	4.8	22	5	1.10	1600	<8	0.02	8
S161Qal	13	14	4.0	30	4	0.15	1300	<8	0.02	5
S162Qal	<8	5	4.2	14	<4	0.15	990	<8	0.02	<4
S171Qal	8	11	5.8	22	<4	0.25	1100	<8	<0.01	<4
S172Qal	10	6	4.9	16	<4	0.15	650	<8	0.01	5
S221Qal	<8	11	5.3	20	<4	0.40	1100	<8	<0.01	<4
S222Qal	<8	15	4.6	22	<4	1.20	1200	<8	0.01	5
R222Qal	<8	15	4.8	22	<4	1.20	1100	<8	0.01	5
S231Qal	11	8	5.1	23	<4	0.20	1100	<8	0.01	6
S232Qal	9	4	3.2	21	<4	0.10	920	<8	0.02	5
S031Qs	<8	9	5.5	15	<4	0.30	730	<8	<0.01	<4
S032Qs	<20	30	5.1	<20	<10	0.20	650	<20	0.03L	<10
S081Qs	<8	11	3.0	15	<4	0.15	850	<8	<0.01	8
S082Qs	<8	17	3.9	14	<4	0.45	970	<8	0.03	<4
S231Twru	<8	25	4.6	28	<4	0.15	1300	<8	0.01	<4
R231Twru	<8	36	4.9	20	4	0.10	1400	<8	0.01	<4
S232Twru	<8	7	2.1	29	<4	0.10	660	<8	0.02	4
S161Twrl	10	12	2.8	31	4	0.55	1200	<8	0.03	9
S162Twrl	<8	11	2.9	24	4	0.25	1100	<8	0.02	5
S221Twrl	11	6	3.2	20	4	0.30	1200	<8	0.03	8
S222Twrl	16	12	2.7	25	4	0.35	1100	<8	0.04	12
R222Twrl	13	12	2.8	22	<4	0.45	1100	<8	0.04	12
R231Twrl	13	19	4.6	27	<4	0.15	890	<8	<0.01	<4
S231Twrl	<8	18	4.6	23	<4	0.25	880	<8	<0.01	<4
S232Twrl	<8	10	3.5	23	4	0.20	1400	<8	0.03	8

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Th, ppm	Ti, %	V, ppm
S151Twdr	8	27	5.4	20	<4	0.25	750	<8	0.05	<4
S152Twdr	10	24	4.0	17	<4	0.10	640	<8	0.01	<4
S161Twdr	<8	11	3.0	25	<4	0.35	890	<8	0.02	5
R161Twdr	<8	7	3.1	15	<4	0.35	890	<8	0.02	<4
S162Twdr	<8	30	4.0	16	<4	0.15	750	<8	0.01	<4
S171Twdr	8	21	4.2	18	6	2	1700	<8	0.03	14
S172Twdr	9	23	5.2	15	<4	1.20	990	<8	0.01	<4
R172Twdr	18	25	5.4	23	<4	1.20	1000	14	<0.01	4
S221Twdr	<8	12	3.8	29	4	0.55	1200	<8	0.03	8
S222Twdr	<8	11	2.2	23	<4	0.60	990	<8	0.04	11
S231Twdr	9	14	3.9	24	<4	0.40	1100	<8	0.02	5
S232Twdr	8	13	4.1	24	<4	0.35	1100	<8	0.02	5
R232Twdr	<8	12	4.1	20	<4	0.35	1100	<8	0.03	<4
S151Tfu	15	23	5.2	13	<4	0.60	860	<8	0.01	<4
S152Tfu	12	16	3.7	23	4	2.20	1100	<8	0.03	15
S161Tfu	11	13	3.7	33	<4	0.10	810	<8	0.03	7
S162Tfu	<8	13	4.5	27	<4	0.35	860	<8	0.02	8
S171Tfu	<10	16	4.6	10	<5	0.50	1100	<10	<0.01	<5
S172Tfu	<8	14	5.2	23	4	0.80	1200	<8	0.01	<4
S221Tfu	<8	6	3.3	15	<4	0.55	720	<8	0.01	<4
S151Kl	<8	21	4.5	16	<4	1	1100	<8	<0.01	<4
S152Kl	<8	21	5.1	19	<4	2.20	1300	<8	<0.01	<4
S171Kl	<8	11	4.7	20	<4	0.65	1100	<8	<0.01	<4
S172Kl	14	14	5.0	13	<4	1.20	1300	<8	0.01	5
S221Kl	9	12	5.7	25	5	0.20	1400	<8	<0.01	4
S222Kl	10	35	4.1	20	<4	0.70	770	<8	0.02	5
R222Kl	<8	34	4.0	16	<4	0.80	760	<8	0.02	5
S011Kfh	11	8	4.5	21	<4	0.30	1100	<8	0.01	5
S151Kml	<8	22	5.7	15	<4	0.55	830	<8	<0.01	<4
S152Kml	15	8	5.6	23	<4	0.45	840	<8	0.02	7
S171Kml	<10	22	4.5	20	<6	0.60	1100	<10	0.02	<6
S172Kml	<8	13	6.0	21	<4	0.40	960	<8	0.02	6
S221Kml	<8	7	3.2	23	5	0.59	1800	<8	0.01	<4
S222Kml	<8	9	3.8	20	4	0.65	1500	<8	0.01	<4
S102Kmv	<8	14	4.7	27	4	0.20	1100	<8	0.01	7
S151Kmv	<8	14	5.1	25	<4	0.80	1400	<8	<0.01	<4
S152Kmv	<8	12	5.2	18	<4	0.65	1500	<8	<0.01	<4
S171Kmv	9	8	4.3	16	<4	0.15	1100	<8	0.02	8
S172Kmv	<8	8	3.5	14	<4	0.25	750	<8	0.02	6
S221Kmv	17	5	4.5	29	5	0.40	1500	<8	0.02	6
S222Kmv	<8	10	3.9	25	<4	0.25	1400	<8	0.01	5
S223Kmv	<8	9	3.6	19	<4	0.30	1100	<8	0.02	7

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Nd, ppm	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Th, ppm	Ti, %	V, ppm
S031Kc	<8	8	4.6	20	<4	0.25	760	<8	0.01	5
S032Kc	<8	17	4.9	15	<4	0.50	1200	<8	<0.01	<4
S051Kc	9	10	3.4	21	<4	1	840	<8	0.02	11
S052Kc	8	13	4.5	15	4	7.50	1400	<8	0.01	4
S061Kc	<8	28	3.7	19	4	0.35	950	<8	<0.01	8
S062Kc	<8	17	4.9	18	<4	5.50	1400	<8	<0.01	6
S081Kc	9	10	4.8	10	<4	0.36	1000	<8	0.01	12
S082Kc	<8	15	4.0	14	5	0.10	1600	<8	0.02	8
R082Kc	<8	20	4.3	14	5	0.10	1600	<8	0.02	10
S131Kc	<8	10	3.3	15	<4	0.10	890	<8	<0.01	<4
S132Kc	<8	11	4.9	27	<4	9.50	1000	<8	<0.01	<4
S151Kc	<8	9	5.2	23	<4	1	1100	<8	0.01	<4
S152Kc	<8	14	5.6	13	<4	1.20	910	<8	<0.01	<4
S171Kc	<8	23	4.7	26	<4	6.50	1300	<8	<0.01	4
S172Kc	<8	20	4.8	25	<4	1.20	890	<8	0.01	6
S221Ks	16	13	4.0	24	5	0.55	1300	<8	0.02	15
S222Ks	13	7	4.0	22	<4	0.45	1100	<8	0.04	11
S051Kf	<8	31	6.0	11	<4	0.30	760	<8	<0.01	<4
S052Kf	<8	9	5.5	14	<4	0.25	810	<8	<0.01	<4
S061Kf	9	13	5.5	16	<4	0.20	1200	<8	<0.01	<4
S062Kf	<8	19	6.2	9	<4	0.45	1100	<8	0.01	<4
S081Kf	<8	18	3.9	21	<4	0.35	1100	<8	0.03	9
R081Kf	<8	10	3.7	16	<4	0.35	1100	<8	0.02	9
S082Kf	13	6	3.4	20	<4	1.60	1100	8	0.03	9
S131Kf	9	29	3.0	18	<4	0.40	770	<8	0.05	6
S132Kf	17	10	4.2	23	<4	0.20	1000	<8	0.02	<4
S152Kf	<8	29	5.2	13	<4	0.60	1100	<8	<0.01	<4
S171Kf	11	10	5.3	21	4	0.55	1200	<8	0.01	6
S172Kf	<8	13	5.4	21	<4	0.35	1300	<8	<0.01	<4
S051Kmt	<8	19	5.1	13	<4	0.10	810	<8	0.01	<4
S052Kmt	<8	60	5.0	11	<4	0.50	590	<8	<0.01	<4
S061Kmt	<8	31	6.0	15	<4	0.35	900	<8	<0.01	<4
S062Kmt	<8	12	6.3	16	<4	0.90	1200	<8	<0.01	<4
S131Kmt	<8	12	4.5	20	<4	0.30	1100	<8	0.01	<4
S132Kmt	<8	15	4.7	23	<4	1	830	<8	0.01	<4
S151Kmt	<8	11	5.5	22	<4	0.20	770	<8	0.01	<4
S152Kmt	10	13	5.3	15	<4	0.30	960	<8	0.01	5

Table A4.--Listing of analytical data for sagebrush collected from geologic units at the Kendrick Reclamation Project Area (continued).

Sample ID	Y, ppm	Zn, ppm
S031Qal	<4	1100
S032Qal	<4	1300
S081Qal	<4	590
S082Qal	<4	630
S131Qal	<4	560
S132Qal	<4	360
S151Qal	6	400
S152Qal	<4	450
S161Qal	<4	470
S162Qal	<4	370
S171Qal	<4	860
S172Qal	<4	360
S221Qal	<4	590
S222Qal	<4	460
R222Qal	<4	480
S231Qal	<4	690
S232Qal	<4	300
S031Qs	<4	800
S032Qs	<10	910
S081Qs	<4	290
S082Qs	<4	730
S231Twru	<4	380
R231Twru	<4	410
S232Twru	<4	210
S161Twrl	5	370
S162Twrl	5	660
S221Twrl	6	290
S222Twrl	8	280
R222Twrl	7	290
R231Twrl	<4	420
S231Twrl	<4	410
S232Twrl	4	250

Sample ID	Y, ppm	Zn, ppm
S151Twdr	<4	680
S152Twdr	<4	720
S161Twdr	<4	440
R161Twdr	<4	460
S162Twdr	<4	480
S171Twdr	4	770
S172Twdr	<4	620
R172Twdr	<4	620
S221Twdr	5	370
S222Twdr	4	340
S231Twdr	<4	390
S232Twdr	<4	410
R232Twdr	<4	420
S151Tfu	<4	740
S152Tfu	7	660
S161Tfu	<4	690
S162Tfu	<4	490
S171Tfu	<5	870
S172Tfu	<4	610
S221Tfu	<4	370
S151Kl	<4	540
S152Kl	<4	640
S171Kl	<4	640
S172Kl	<4	570
S221Kl	<4	620
S222Kl	<4	1000
R222Kl	<4	960
S011Kfh	<4	470
S151Kml	<4	670
S152Kml	<4	580
S171Kml	<6	660
S172Kml	<4	730
S221Kml	<4	580
S222Kml	<4	580
S102Kmv	<4	390
S151Kmv	<4	650
S152Kmv	<4	540
S171Kmv	<4	320
S172Kmv	<4	470
S221Kmv	<4	620
S222Kmv	<4	460
S223Kmv	<4	370

Sample ID	Y, ppm	Zn, ppm
S031Kc	<4	540
S032Kc	<4	610
S051Kc	<4	270
S052Kc	<4	520
S061Kc	<4	810
S062Kc	<4	450
S081Kc	<4	1000
S082Kc	<4	540
R082Kc	<4	580
S131Kc	<4	440
S132Kc	<4	580
S151Kc	<4	830
S152Kc	<4	570
S171Kc	<4	610
S172Kc	<4	550
S221Ks	4	390
S222Ks	5	390
S051Kf	<4	900
S052Kf	<4	850
S061Kf	<4	640
S062Kf	<4	680
S081Kf	<4	460
R081Kf	<4	420
S082Kf	4	480
S131Kf	<4	550
S132Kf	<4	820
S152Kf	<4	1400
S171Kf	<4	540
S172Kf	<4	630
S051Kmt	<4	830
S052Kmt	<4	970
S061Kmt	<4	780
S062Kmt	<4	850
S131Kmt	<4	520
S132Kmt	<4	710
S151Kmt	<4	680
S152Kmt	<4	700

Table A5.--Listing of analytical data for grab samples of rock outcrop collected at the Kendrick Reclamation Project Area.

Sample ID	Latitude	Longitude	Description	Ag, ppm	Al, %	As, ppm	Ba, ppm	Be, ppm
BENT1	424908	1063107	Bentonite from mine pit	<2	6.9	3.9	440	2
GAPRX	424807	1063106	Sandstone	<2	0.98	2.0	420	<1
GAPRX2	424807	1063106	Sandstone	<2	3.7	3.8	500	1
K021FB	424423	1063605	Sandstone, with clay	<2	8.3	<0.2	440	1
K021FG	424423	1063605	Sandstone	<2	6.6	4.7	530	3
K021FP	424423	1063605	Sandstone, abundant Mn stain	<2	3.4	4.0	970	4
K021RX	424423	1063605	Sandstone	<2	1.5	1.0	370	<1
K043RXKF	424742	1063139	Sandstone	<2	3.3	2.0	710	2
K171TFU1	424441	1064141	Sandstone	3	1.9	2.7	380	2
K171TFU2	424441	1064141	Sandstone	<2	1.8	<0.2	430	<1
K172KFR1	424155	1064037	Sandstone	<2	5.7	7.2	71	2
K221KLR1	423326	1063746	Sandstone	<2	2.8	2.0	310	<1
K221KMLR	423926	1063746	Sandstone	<2	3.4	2.0	350	<1
K221KMVR	423909	1063937	Sandstone	<2	3.0	2.0	330	<1
K222KLR1	423909	1063937	Siltstone	<2	5.4	9.0	100	2
K222KMVR	423909	1063937	Sandstone	<2	3.1	2.2	350	<1
222KMVR2	423909	1063937	Sandstone	<2	3.1	11	350	1

Sample ID	Ca, %	Cd, ppm	Ce, ppm	Li, ppm	Mg, %	Mn, ppm	Co, ppm	Cr, ppm	Cu, ppm	Fe, %
BENT1	0.54	<2	84	24	0.77	200	3	11	4	2.2
GAPRX	1.4	<2	38	23	0.09	170	3	8	3	0.55
GAPRX2	0.06	<2	30	28	0.31	60	5	34	17	1.6
K021FB	0.64	<2	71	17	0.92	200	5	2	4	2.1
K021FG	0.48	<2	74	29	0.55	120	6	38	13	1.8
K021FP	6.1	3	58	20	1.0	23000	5	2	1	25
K021RX	3.3	<2	27	30	0.09	510	2	6	3	0.43
K043RXKF	0.73	<2	320	19	0.09	3300	5	17	<1	0.72
K171TFU1	0.30	<2	75	9	0.17	3100	22	16	3	24
K171TFU2	0.02	<2	94	2	0.06	28	1	210	3	0.10
K172KFR1	3.2	<2	52	37	1.2	330	9	57	14	2.4
K221KLR1	17	<2	44	9	0.72	2400	4	18	5	1.1
K221KMLR	13	<2	36	12	0.87	270	3	21	6	1.3
K221KMVR	11	<2	47	11	0.48	640	4	19	5	1.2
K222KLR1	0.81	<2	60	12	0.39	120	8	41	7	2.1
K222KMVR	9.4	<2	47	10	0.39	1800	4	32	6	1.5
222KMVR2	0.13	<2	39	9	0.20	74	3	60	2	2.0

Table A5.--Listing of analytical data for grab samples of rock outcrop collected at the Kendrick Reclamation Project Area (continued).

Sample ID	Ga, ppm	K, %	La, ppm	Mo, ppm	Na, %	Nb, ppm	Nd, ppm	Ni, ppm	P, %
BENT1	20	0.61	43	<2	1.2	17	37	7	0.02
GAPRX	<4	0.50	21	<2	0.22	<4	15	3	0.06
GAPRX2	9	0.97	17	<2	0.16	7	14	9	0.04
K021FB	21	0.50	36	<2	1.7	18	29	9	0.04
K021FG	17	1.3	42	<2	1.2	13	33	15	0.04
K021FP	33	0.25	38	3	0.92	8	28	2	1.1
K021RX	<4	0.67	16	<2	0.44	<4	12	2	0.03
K043RXKF	8	0.93	200	<2	1.0	20	110	17	0.03
K171TFU1	7	0.84	41	<2	0.07	<4	32	33	0.12
K171TFU2	<4	0.77	56	<2	0.07	<4	33	<2	0.01
K172KFR1	14	1.9	30	<2	0.44	6	24	20	0.11
K221KLR1	8	1.1	27	<2	0.49	<4	21	5	0.06
K221KMLR	7	1.3	22	<2	0.52	<4	17	5	0.05
K221KMVR	6	1.3	28	<2	0.43	<4	20	5	0.03
K222KLR1	13	1.9	34	<2	0.66	7	26	7	0.06
K222KMVR	8	1.3	30	<2	0.52	<4	22	9	0.02
222KMVR2	7	1.3	22	<2	0.52	5	15	6	0.02

Sample ID	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Th, ppm	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
BENT1	33	5	0.20	360	26	0.10	15	24	2	84
GAPRX	5	<2	0.10	110	<4	0.03	9	8	<1	12
GAPRX2	12	5	0.90	51	7	0.15	50	14	2	55
K021FB	38	4	0.20	190	31	0.13	11	17	2	72
K021FG	21	7	0.50	270	16	0.20	57	28	3	83
K021FP	16	2	0.60	670	22	0.04	8	72	7	20
K021RX	7	<2	0.10	200	<4	0.03	9	5	<1	7
K043RXKF	8	3	0.30	240	31	0.55	30	28	2	23
K171TFU1	8	<2	1.2	48	8	0.09	25	21	2	45
K171TFU2	12	<2	0.10	11	34	0.03	16	11	<1	3
K172KFR1	15	8	0.40	220	8	0.25	87	16	2	71
K221KLR1	7	2	0.10	140	7	0.13	20	9	1	22
K221KMLR	9	3	0.10	130	5	0.11	24	8	1	25
K221KMVR	8	3	0.10	120	6	0.12	21	10	1	23
K222KLR1	16	6	0.30	120	7	0.23	55	14	2	99
K222KMVR	10	4	0.10	130	<4	0.09	28	26	2	24
222KMVR2	11	5	0.30	74	7	0.20	38	5	<1	24

Table A6.--Listing of analytical data for grab samples of soils collected at the Kendrick Reclamation Project Area.

Sample ID	Latitude	Longitude	Al, %	As, ppm	B, ppm	Ba, ppm	Be, ppm	Ca, %	Ce, ppm	Co, ppm
358114S	425309	1064002	6.0	8.9	1.7	820	2	3.9	56	10
GAPRXS	424807	1063106	6.8	7.2	1.5	110	2	4.1	59	8
K021RXS	424423	1063605	6.1	6.8	2.0	590	2	1.9	63	8
K021RXS2	424423	1063605	6.0	6.9	1.1	540	2	1.5	63	7
K021TS1	424423	1063605	7.4	1.0	0.8	31	1	1.8	79	3
K021TS2	424423	1063605	6.8	4.7	1.2	78	1	0.7	68	3
K043RXS	424742	1063139	6.0	5.1	2.4	650	2	1.5	67	8
K044RXS	424816	1063226	5.7	6.7	3.1	530	2	2.0	65	8

Sample ID	Cr, ppm	Cu, ppm	Fe, %	Ga, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm
358114S	75	18	2.9	15	1.9	35	47	1.5	410	<2
GAPRXS	76	21	2.4	17	2.1	35	50	0.98	180	<2
K021RXS	61	15	2.2	15	2.0	37	41	0.92	220	<2
K021RXS2	58	14	2.0	14	2.1	35	39	0.92	130	<2
K021TS1	8	6	2.0	18	0.5	47	33	1.7	200	3
K021TS2	6	5	1.9	16	0.3	40	35	2.0	120	3
K043RXS	46	15	2.2	15	1.9	40	27	0.52	400	<2
K044RXS	40	15	2.1	13	1.9	37	26	0.87	330	<2

Sample Id	Na, %	Nb, ppm	Nd, pp,	Ni, ppm	P, %	Pb, ppm	Sc, ppm	Se, ppm	Sr, ppm	Th, ppm
358114S	0.45	<4	29	27	0.07	20	9	1.0	150	10
GAPRXS	0.32	12	30	28	0.09	16	10	0.80	150	12
K021RXS	0.53	5	30	21	0.08	19	8	0.40	160	13
K021RXS2	0.45	<4	28	19	0.06	19	8	0.30	130	11
K021TS1	4.50	16	32	4	0.07	27	4	0.30	310	29
K021TS2	4.10	16	26	3	0.05	26	3	0.30	150	26
K043RXS	0.81	5	31	21	0.05	22	7	0.60	180	13
K044RXS	0.74	<4	30	16	0.05	20	7	0.50	170	11

Sample ID	Ti, %	V, ppm	Y, ppm	Yb, ppm	Zn, ppm
358114S	0.28	140	19	2	89
GAPRXS	0.30	130	20	2	85
K021RXS	0.25	91	19	2	68
K021RXS2	0.25	89	19	2	62
K021TS1	0.19	24	17	2	49
K021TS2	0.17	18	13	2	49
K043RXS	0.21	68	21	2	69
K044RXS	0.22	60	21	3	55

Table A7. Listing of ananlytical data for salt accumulations collected from the shore of Rasmus Lee Lake.

[Samples collected by David Naftz, Water Resources Division, Cheyenne, Wyoming]

Sample Id	Latitude	Longitude	Al, %	As, ppm	B, ppm	Ba, ppm	Ca, %	Ce, ppm	Co, ppm	Cr, ppm
KENS1	424000	1063500	0.13	<0.2	1.9	5	0.27	<4	<1	2
KENS2	430000	1063200	1.4	2	3.1	7	0.86	18	2	14

Sample ID	Cu, ppm	Fe, %	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Na, %	Nd, ppm	Ni, ppm
KENS1	2	0.05	0.07	<2	2	0.30	6	25	<4	<2
KENS2	4	0.54	0.57	9	13	1.5	82	16	9	5

Sample ID	P, %	Pb, ppm	Se, ppm	Sr, ppm	Ti, %	V, ppm	Y, ppm	Zn, ppm
KENS1	0.01	<4	70	36	0.01	2	<2	<2
KENS2	0.02	5	1.0	140	0.07	25	6	11